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Edited by

Recep EFE
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CONTENTS

Habitats of the Mediterranean Region in Turkey	26	
<i>Ibrahim Atalay, Recep Efe, Abdullah Soykan, Isa Cürebal</i>		
Land Capability Classes in the Mediterranean Region in Turkey	27	
<i>Ibrahim Atalay, Recep Efe, Abdullah Soykan, Isa Cürebal</i>		
Karstification and Karstic Landforms in the Kemaliye Region, E. Anatolia	28	
<i>Ibrahim Atalay, Sabri Karadoğan</i>		
GIS - Based Snow Avalanche Hazard Mapping: A Case Study in Bayburt - Aşağı Dere Catchment.....	29	
<i>Abdurrahim Aydın, Remzi Eker</i>		
Toponymic Approach in Scientific Research of Landscapes Associated with the Plants	30	
<i>Aigul Yeginbayeva, K. Saparov, Emin Atasoy</i>		
Causes and Impacts of Land Degradation and Desertification: Case Study of the Republic of Kazakhstan	31	
<i>Aigul Tokbergenova, Gulnara Nyussupova, Shnar Kairova, Lyazzat Kiyassova</i>		
Possibilities of Wind Power Development as an Alternative Energy Source in Kazakhstan.....	32	
<i>A.S. Beisenova, Aigulya Askerbekova</i>		
Modeling of the Life Quality Indicators in Almaty Region Using GIS Technologies	33	
<i>Akylbek Bekkuliev, Bazaraly Kozhahmetov</i>		
A Spatial Analysis of Crimes against Property in Siirt City	34	
<i>Adnan Alkan</i>		
Comparison of Braun Blanquet Method with Twinspan Two Way Species Indicator Analysis and Cluster Method Using Vegetation Data: Case of Sultan Sazlığı (Kayseri - Turkey) Salt Marsh.....	35	
<i>Ahmet Aksoy, Mehmet Güvenç Negiz, Kürşad Özkan</i>		
The Topic, Origin and Purpose of Anthropogenic Geomorphology	36	
<i>T. Ahmet Ertek</i>		
Analysis of Toponymy of Villages in Maku.....	37	
<i>Amanollah Farajzadegan, İhsan Bulut</i>		
Ecosystem Services - A Function of Natural Capital	38	
<i>Assen Assenov, Alexandre Chikalanov, Mariyana Lyubenova, Sofia Kostadinova</i>		
Conflicts in the World Risk Threat in Central Asia	39	
<i>Alim Mylkaidarov, Laura Kenespaeva, Roza Kelinbaeva</i>		39
Regional Distribution of the Main Economic Activities in the Field of Information and Communication Technologies in Bulgaria	40	
<i>Tereza Stefanova</i>		
Causes of Migration in the Countries of Central Asia	41	
<i>K.D. Duysebaeva, A.S. Akasheva, A.M. Ryskeldieva</i>		

Modelling Land Use/Cover Change in Lake Mogan and Surroundings Using CA-Markov Chain Analysis.....	42
<i>Atiye Zeynep Okay Durmuşođlu, Anıl Akın Tanrıöver</i>	
Possibilities of Implementing the Principles of the Green Economy in Kazakhstan	43
<i>Maulken Askarova, Akhmetkal Medeu, Alikhan Medeu</i>	
Assesment of Social Media Influence on Tourism Development in the Republic of Kazakhstan.....	44
<i>Zhannat N. Aliyeva, Zaure K. Kaliaskarova, Yeldar Nuruly</i>	
Land Pollution of Karasay Landfill Solid Waste of Almaty City	45
<i>Zaure K. Kaliaskarova, Zhannat N. Aliyeva, Assel S. Ikanova</i>	
Türkiye'deki Cođrafya Dergilerinde Yayınlanan Jeomorfoloji Konulu Çalıřmaların Deđerlendirilmesi.....	46
<i>Seçkin Fidan, İsmail Ođuzcan Öztürk, Furkan Çorapçı, Hasan Özdemir</i>	
Monitoring of High-Rise Buildings within the Disaster Management System.....	47
<i>Engin Gülal, Güldane Oku, A. Anıl Dindar</i>	
Lojistik Cođrafyası.....	48
<i>Vedat řahin</i>	
Turizm Kent Etkileřimi: Marmaris Örneđi.....	49
<i>Osman Yılmaz, Eyüp Kan</i>	
Economic, Legal and Technical Dimension of Lands that has Lost Forest Characteristics in Accordance with Article 2/B of Forest Law No 6831 in Turkey	50
<i>Zeynel Abidin Polat, Mehmet Alkan</i>	
Solid Waste Management in the Federal University of the Bahia/Brasil.....	51
<i>Servulo José Magalhães Barros, Jucelia Campista da Silva Pereira, Claudia Moreira Garcia</i>	
Didactic Museum of the Soil - A Space for Teaching Soils	52
<i>Claudia Moreira Garcia, Ricardo Murilo Zanetti</i>	
Around the Revitalisation of Post-Industrial Urban Spaces - Case Study of Metropolitan Association of Upper Silesia.....	53
<i>Marta Chmielewska, Sławomir Sitek, Elżbieta Zuzańska-Żyřko</i>	
The Development Wellness Tourism in the Pavlodar Region.....	54
<i>Altynbek Zhakupov, Ordenbek Mazbayev, Emin Atasoy</i>	
Climatic Assessment of Sustainable Water Management in the Melen River Basin (NW Turkey)	55
<i>Hüseyin Turođlu</i>	
Urban Expansion and Integration of Suburban: The Case of Sousse, Tunisia	56
<i>Imen Zâag</i>	
Determination of Stress Zone of Marmara Region for Earthquake Forecasting.....	57
<i>Engin Gülal, Fahri Karabulut, İbrahim Tiryakiođlu</i>	

Batı Anadolu'da Kula Yöresinde Erken Pleistosen'de İklim ve Volkanizmanın Kontrolü Altında Gediz Nehri Taraçalarının Oluşumu.....	58
<i>Tuncer Demir & Serdar Aytaç</i>	
Determining the Reflection of Tectonics on Morphology in Manav Stream Basin (NW of Bingöl) Using Morphometric Indices.....	59
<i>Vedat Avcı</i>	
Present Status of Coastal Decline on Kızılırmak River Delta	60
<i>Murat Ataol & M. Murat Köle</i>	
The Distribution of Landslides in the Valley of Murat River between Bingöl and Palu (Elazığ) according to Geomorphological Factors.....	61
<i>Vedat Avcı & Murat Sunkar</i>	
Determination of Potential Landslide Areas of the Geyraz Subbasin, Tokat, Northern Turkey	62
<i>Türkan Bayer Altın & Ergin Gökkaya</i>	
Geographic and Demographic Distribution of Foreigners' Real Estate Acquisition in Turkey.....	63
<i>Zeynel Abidin Polat & Mehmet Alkan</i>	
Geographical Research of Village Names in İdil District (Şırnak)	64
<i>Abdulkadir Güzel & Mehmet Özcanlı</i>	
Land Size of Bağlar (Diyarbakır) Central District according to Elevation Gradients and its Effect on Economic Activities.....	65
<i>Mehmet Özcanlı</i>	
Destination Development: Overcoming Social and Environmental Limitations of Tourism in Bulgaria	66
<i>Mariya Stankova, Stoyan Kirov, Milena Filipova</i>	
Terrace Staircases of the River Euphrates in Southeast Turkey, Northern Syria and Western Iraq: Evidence for Regional Surface Uplift.....	67
<i>Tuncer Demir & Serdar Aytaç</i>	
Mountain Regions, Population and their Ecological Problems: Case Study of Mestia Municipality.....	68
<i>Tamar Khardziani, Mariam Elizbarashvili, Roman Maisuradze, Kakhaber Bilashvili, Tengiz Gordezini, Mariam Gagoshashvili, Marika Basiladze, Tea Mukbaniani, Tamar Khuntelia, Mariam Sichinava, Natia Qvrvishvili, Nana Matchavariani</i>	
The Surface Heat Island Effect of Urbanization: Spatial - Temporal Analysis.....	69
<i>Alihsan Şekertekin, Şenol Hakan Kutoğlu, Aycan Murat Marangoz, Şinasi Kaya</i>	
Ski Jumping Towers and Runways Landslide in Erzurum, 7 July 2014	70
<i>T. Ahmet Ertek, Emre Elbaşı, İhsan Bulut</i>	
Effect of Urban Settlement on Natural Environment: The Case of Antalya.....	71
<i>Merve Yılmaz, Arife Eymen Karabulut</i>	
A Preliminary Survey of Dipsiz Cave in Terms of Formation, Habitat and Gathering, Hassa, Hatay.....	72
<i>Ahmet Atasoy</i>	

Evaluation of Morphometric Parameters of Flood Analysis: Case Study of Arakonak Stream Basin (Solhan-Bingöl).....	73
<i>Ahmet Toprak, Halil Günek</i>	
Tourism and Technology: From Tourism 1.0 to Tourism 2.0	74
<i>Ersin Demir, Gözde Emekli</i>	
Assessment of Cultural Heritage and Belief Assets for Tourism: Case of Giresun Town	75
<i>Ibrahim Sezer</i>	
A New Geotourism Area: Emirhan Cliffs (Turkey).....	76
<i>Gülpinar Akbulut, Nazire Özgen Erdem, Emrah Ayaz</i>	
Orchard and Vineyard Biotopes to be Protected around the Kemaliye (Erzincan)	77
<i>Yeliz Sarı Nayim, Ezgi Taçoral</i>	
Determining the Impact of the Black Sea Coastal Road on Beech Forest Ecosystems: Case of Bartın-Kurucaşile Transport Corridor.....	78
<i>Yeliz Sarı Nayim, B. Niyami Nayim</i>	
Evaluation of Solar Energy Applications Results by Orköy Case Study: Forest Villeges in Shout-West Anatolia Region.....	79
<i>Ufuk Coşgun, K. Hale Güler</i>	
Muş İlinde Yerleşim Alanları İçin Doğal Bir Tehlike Kaynağı Olarak Heyelanlar	80
<i>Iskender Dölek</i>	
GIS Tools and Physiographic and Climatic Characterization Watershed Dam Sidi Chahed (NE Meknes, Morocco).....	81
<i>Abdelhadi El Ouali, Abdellah Elhmaidi, Ali Essahlaoui</i>	
The Influence of Hill Land Use of Slovakia on Water Erosion of Agricultural Soil.....	82
<i>Viera Petlušová, Peter Petluš</i>	
Evaluation of Association between Morphologic Traits and Geographic Characters in Relict Endemic <i>Dorystoechas hastata</i>	83
<i>Ceren Selim, Songül Sever Mutlu</i>	
Stakeholders' Knowledge and Adaptation to Landuse Changes in Abuja Fct, Nigeria.....	84
<i>S.A. Mashi and H.A. Shuaibu</i>	
Stakeholder Involvement in River Restoration Movement: A Case Study in Boyong-Code River in Yogyakarta, Indonesia	85
<i>Surani Hasanati & Suratman</i>	
Ecological Quantum Analysis: Calculating Energy Parameters of Plant Communities	86
<i>Kürşad Özkan</i>	
Proposal of a Model for Tracking the Amount and the Yield of Agricultural Product using GIS.....	87
<i>Mustafa Fahri Karabulut, Batuhan Kılıç, Yalçın Yılmaz, Fatih Gülgen</i>	
Interdisciplinary Approach in Rural Tourism and Importance of Geography	88
<i>Füsün Baykal</i>	

The Development Potential of Rural Tourism in the Surrounding and in the North of Izmir: Opportunities and Threats.....	89
<i>Emre Ataberk</i>	
The City of Migration, Not Camp - The Geographical Position and Migration Policies of Turkey	90
<i>Işın Erdoğan, Gülsün Taşbunar</i>	
Pollen Analysis of Honeys from Hatay, Türkiye	91
<i>Volkan Altay, Pınar Karahan, Faruk Karahan, Münir Öztürk</i>	
A Successful Application on Zoogeography: Protection of the Existence of Northern Bald Ibis (<i>Geronticus eremita</i>).....	92
<i>Arife Karadağ, Güven Şahin</i>	
A Comparative Study on the Biosphere Reserves of Türkiye and Kyrgyzstan	93
<i>Münir Öztürk, Nazgul Imanderdieva, Volkan Altay, Elmira Tabyldieva</i>	
A Critical Approach to Epistemological Production of Human Geography: The Case of Turkey	94
<i>Nurettin Özgen</i>	
Recreation Areas in Konya City Centre: Hobby Gardens.....	95
<i>Tahsin Tapur</i>	
Circassians and their Influence on Anatolian Culture	96
<i>Nurettin Özgen</i>	
Relationship between Rainy Days with Marine Tourism Activities in Senggigi Beach and Sekotong Beach, West Lombok.....	97
<i>Dita Wahyu Primastuti, Ella Marlana</i>	
The Votes' Territories in Tunisia: The Case of First and Second Presidential Election Rounds of 2014	98
<i>Ali Bennasr, Monem Nasr, Yengui Taher</i> 98	
The Impacts of Land Degradation on the Socio - Economic Status of People in Khartoum State, Sudan	99
<i>Emad Ahmed Mahgoub, Ali Abdelaziz, Mahmoud Sulieman</i>	
Basic Climate Forcing Factors from the Thermodynamic Point of View	100
<i>Eteri P. Kvachantiradze</i>	
Türkiye'de Son Yasal Düzenlemeler Işığında Sürdürülebilir Dağlık Alan Yönetiminin Değerlendirilmesi.....	101
<i>Hasan Sayılan</i>	
Ortadoğu'da Son Yıllardaki Gelişmelerin Türk Dış Ticaretine ve Turizmine Etkileri.....	102
<i>Hasan Sayılan</i>	
The Analysis of Consumption Poverty in Wad Banda Locality, North Kordofan State.....	103
<i>Emad Ahmed Mahgoub</i>	
Konaklama Tesisi Yöneticilerinin Alternatif Turizm Dair Görüşleri: Doğu Antalya (Side) Turistik Gelişim Projesi Bölgesi Örneği	104
<i>Cemali Sarı, Medine Aligil</i>	

Airports and Hubs: A Multidimensional Approach for their Understanding in the Context of Globalization. AS-Madrid Barajas as Geography Case Study	105
<i>Roberto Diez Pisonero</i>	
Comparison of Basin Morphometry Derived from Aster and SRTM DEMS – A Study on Çağlayan and Kabisre River Basins (Northern Turkey).....	106
<i>Melike Sultan Karabulut, Hasan Özdemir</i>	
An Overview of the Vegetation Types from Irano-Turanian Phytogeographical Region of Turkey	107
<i>Münir Öztürk, Ahmet Aksoy, Volkan Altay</i>	
Investigation of TEC Variation Induced by Geomagnetic Activity.....	108
<i>Samed İnyurt, Çetin Mekik, Ömer Yıldırım</i>	
The Place and Importance of Turkish Cooperation and Coordination Agency (TIKA) and Yunus Emre Institute in Turkey's Use of Soft Power	109
<i>Erdal Akpınar</i>	
Russians - Asians in the Westernmost Point, or Europeans in the Easternmost Point?.....	110
<i>Mehmet Arslan</i>	
Syrian Civil War and its Global Impact Evaluation in terms of Political Geography.....	111
<i>Muazzez Harunoğulları</i>	
Tokaçlı ve Sarılar Mahallelerine Yönelik Bir Kültür Coğrafyası Araştırması: Arap - Ortodoks Hristiyanlar.....	112
<i>Hamza Akengin, Yücel Dinç</i>	
Geography and Environmental Ethics.....	113
<i>Cansel Güven, Abdullah Türker</i>	
The Use of 3D Simulation Method in Physical Geography Teaching in Secondary Education.....	114
<i>Halil Mesut Baylak</i>	
Determination of the Prospective Geography Teachers' Cognitive Structures Regarding the Principles of the Science of Geography	115
<i>Ercan Türkmen, Selçuk Hayli, Ömer Faruk İncili</i>	
The Determination of Sustainability of Rural Development Projects Supported by Orköy: Case Study: Beekeeping Investments in Forest Villages in the Western Mediterranean Region	116
<i>Ufuk Coşgun</i>	
A Case Study on Planning and Designing Coastal Sand Dune Areas in Bartın.....	117
<i>Yeliz Sarı Nayim, Erdi Karaman</i>	
Evaluation of the Ecosystems that Contribute to the Connectedness of Landscape: Mugada-Kızılkum (Bartın) Case.....	118
<i>B. Niyami Nayim, Yeliz Sarı Nayim</i>	
Integration of Socio-Economic Dimension to Prioritization of Combatting Erosion Applications: Case Study of Antalya	119
<i>Ufuk Coşgun</i>	

Diversification of the Tourism Product as an Opportunity to Sustainable Development of Areas Dominated By 3S Mass-Tourism: The Case of Dominican Republic.....	120
<i>Renata Rettinger, Michal Apollo</i>	
The Population of Himalayan Regions - By the Numbers	121
<i>Michal Apollo</i>	
A Study of Weekly Cloud Cover Over the Black Sea	122
<i>Mehmet Tahir Kavak, Sabri Karadoğan</i>	
Problems and Prospects of Sustainable Development of Largest Cities of the Republic of Kazakhstan: Case of Astana.....	123
<i>Gulnara Nyussupova, Isolde Brade, Damira Tazhiyeva, Gaukhar Aubakirova</i>	
Network Analysis; Accessibility to Hospitals with Remote Sensing and Geographic Information Systems Techniques: A Case Study of Konyaaltı, Antalya.....	124
<i>Serdar Selim, Mesut Çoşlu, Dilek Koç San, Namık Kemal Sönmez</i>	
Rainfall Anomalies in Turkey's Göller District.....	125
<i>Yüksel Güçlü</i>	
The Effects of North Atlantic and Arctic Oscillations on Winter Precipitation in Selected Weather Stations in Turkey	126
<i>Okan Bozyurt, Mehmet Ali Özdemir</i>	
Saraykoy and Çivril (Denizli) Cases in the Effects of Topographical Variations on Climate.....	127
<i>Fatma Kafalı Yılmaz, Sema Özen</i>	
Izmir and Ozalp (Van) Cases in the Reflection of Maritim and Continentality to Phenological Periods of Agricultural Plants	128
<i>Fatma Kafalı Yılmaz, M. Ali Özdemir, Hülya Kaymak</i>	
An Investigation on Biodiversity, Seasonal Distribution and the Relationship of the Substrate of <i>Myxomycetes (Myxomycota)</i> in the North Amanos Mountains (Hatay - Turkey).....	129
<i>Hayri Baba</i>	
Vascular Plant Diversity in Gönen Dam Watershed in the Western Anatolia.....	130
<i>Hatice Yılmaz, Osman Yalçın Yılmaz, Feyza Akyüz</i>	
Analysing of 125-Year Coastal Region of Zonguldak City Using Object-Based Classification Methods	131
<i>Aycan Murat Marangoz, Aliihsan Şekertekin, Murat Oruç, K. Sedar Görmüş</i>	
Problematique of Basin Management Approaches and Ideal Basin Management: Hydrographical Planning	132
<i>Atilla Karataş</i>	
Potential Climatic Resources of Georgia	133
<i>Mariam Elizbarashvili, Elizbar Elizbarashvili, Ekaterina Khutsishvili, Nana Chelidze</i>	
Innovative Vegetation Geography Education in Kula European and UNESCO Global Geopark	134
<i>Seda Akkurt, Erdal Gümüş</i>	

Counterurbanization in Postindustrial Area: Case Study of the Silesia Metropolitan Region.....	135
<i>Elżbieta Zuzanska - Źyśko, Pytel Sławomir, Koman Wojciech</i>	
Benefits of Bio-Effectors in Agriculture (Why to Use Bacteria Containing Fertilizers?).....	136
<i>Brigitta Tóth, László Lévai, Peteh Mehdi Nkebiwe, Nino Weber, Günter Neumann</i>	
An Analysis on the Distribution of Maquis Formation: Case Study in Karabük - Safranbolu Basin.....	137
<i>Mücahit Coşkun, Sevda Coşkun</i>	
3D Modelling of 16 th Region Mosque of DSI Ilisu Project by Terrestrial Photogrammetric Method and its Integration to Google Earth.....	138
<i>Mihraç Özen, Aycan Murat Marangoz</i>	
Orientation of UAV Images Using Worldview-2 Satellite Image and Generation of High Resolution Orthophoto & Digital Surface Model for Use in GIS.....	139
<i>Batuhan Güllüdere, Nusret Demir</i>	
Developing Open Source Web Applications with Geographic Information Systems.....	140
<i>Levent Sabah</i>	
Evaluation of Climatic Parameters of Black Sea Coastline in the Background of Climate Change.....	141
<i>Lamzira Lagidze, Lia Matchavariani, Nodar Tsivtsivadze, Nino Paichadze</i>	
The Use of Open Source Coded Geographic Information Systems on Analysis Studies of Relationship between Seismicity and Industry: Case of Edirne - Turkey.....	142
<i>Cihan Yalçın, Levent Sabah</i>	
Yukarı Kura Havzasının Geç Senozoik Dönemdeki Jeomorfolojik Evrimine İlişkin İlk Bulgular.....	143
<i>Serdar Aytaç, Tuncer Demir</i>	
Examination of the Level of Map Literacy of High School Students in Terms of Various Variables.....	144
<i>Fatih Kartal, Hakan Koç</i>	
An Investigation on Map Literacy Levels of Prospective Class Teachers.....	145
<i>Taner Çifçi, Hakan Koç</i>	
Evaluating Opinions of Geography Teachers towards Fatih Project.....	146
<i>Emine Teyfur</i>	
The Suitability of Upwellingward and Blooming Algae to Biofuel Development in Southern Makassar Strait Indonesia.....	147
<i>Muhamad Iqbal Januadi Putra, Aji Wicaksono, Wahyu Widi Astuti, Rahmawati</i>	
Micro Change Geomorphic Landforms Caused By Urban Development in the Metropolis Shiraz, Iran (1966-2016).....	148
<i>Meysam Jamali, Ebrahim Moghimi, Zeynolabedin Jafarpour, Parviz Kardovan</i>	

Methodology of Determination of Landscape Hydrological Resources: Case of Georgia	149
<i>D.A. Nikolaishvili, V.Z. Trapaidze, D.T. Svanadze, M.B. Tsitsagi</i>	
Comparative Assessment of Precipitable Water Vapor Derived from GNSS Observations Based on Surface Meteorological Data and GPT2w Empirical Model Meteorological Data.....	150
<i>Mahmut Oğuz Selbesoğlu, İbrahim Koç</i>	
Change in the Function of a Municipality on the Example of Caye Caulker (Belize).....	151
<i>Anna Winiarczyk-Raźniak</i>	
Population Situation in Muslim Countries in the Context of Selected Demographic Parameters	152
<i>Zbigniew Długosz, Anna Winiarczyk-Raźniak</i>	
Local Government Cooperation of the Municipality of Ohrid, Struga and Pogradec for Ohrid Lake Protection.....	153
<i>Agni Aliu, Suzana Aliu, Xhevat Bejta, Agron Rustemi</i>	
Determination of Control Parameters of Land and Economic Development of the Region of Struga.....	154
<i>Suzana Aliu, Agni Aliu, Agron Halimi, Flakrim Aliu, Anila Zuta</i>	
Strategies for Sustainable Landscape Management in the Filyos River Delta (Turkey).....	155
<i>Bülent Cengiz, Canan Cengiz</i>	
Relationships between Land Use and Land Classification in the Tahtalı Dam Basin (İzmir, Turkey)	156
<i>Ali Ekber Gülersoy, Nevzat Gümüş, Mehmet Ali Çelik, Ali İlhan</i>	
Protecting Perceptions, Attitudes, and Behaviors of Local People in Rural Settlements in the Tahtalı Dam Basin (İzmir, Turkey)	157
<i>Nevzat Gümüş, Ali Ekber Gülersoy, Ali İlhan, Mehmet Ali Çelik</i>	
Determination of the Quaternary Drainage in the Southeast of the Diyarbakır Basin (in the Vicinity of Raman Mountain) According to Geomorphological Data.....	158
<i>Murat Sunkar, Muzaffer Siler</i>	
The Emergent Spatial Effects of Shopping Malls: Case of Eskişehir Tepebaşı District.....	159
<i>Işın Erdoğan</i>	
Ecology Impacts of “Makmalzoloto” (Kyrgyzstan) Gold Mining Area.....	160
<i>Nazgul Imanberdieva, Nazima Chukunkyzy, Zeki Severoğlu, Münir Öztürk, Volkan Altay</i>	
Mevsimlik Gezici Tarıma Bir Örnek: Bostancı Köyü (Yusufeli-Artvin).....	161
<i>Leman Albayrak, Çağlar Kıvanç Kaymaz</i>	
Fethiye’deki Bazı Koyların Rekreasyon Potansiyellerinin Belirlenmesi.....	162
<i>Zeynep R. Bozhüyük Ardahanlıoğlu, Nihat Karakuş</i>	
Tourism Potential of Çakıt Valley’s Natural Historical and Cultural Heritage	163
<i>Tülây Öcal, Şule Kocabağ</i>	

Structural Organization of Geosystems of Ili River Delta and their Development Forecast.....	164
<i>Gulzira Orazymbetova, Ayman Shaken</i>	
Developing a Web-Based Tree Information System: A Case Study of Kılavuzlu Park – Kahramanmaraş.....	165
<i>Hakan Oğuz, Şule Kısakürek</i>	
Using GIS for Forest Road Network Design: A Case Study	166
<i>Erhan Çalışkan</i>	
Estimation of Suspended Sediment Transport in the Kebir Drainage Basin, Algeria.....	167
<i>Kamel Khanchoul, Amina Amamra</i>	
Sand Dunes Encroachment on Economic Land Resources of Sinai Peninsula, Egypt, Using Integrated Remote Sensing-GIS Techniques	168
<i>Abd-Alla Gad</i>	
Spatial Analysis of Maquis and Garique Communities in Cyprus and Comparison with Calabrian pine Communities in terms of Ecological Characteristics.....	169
<i>Serkan İlseven</i>	
The Effect of Wintertime Temperature Inversion on Air Pollution in Karabük City	170
<i>Mücahit Coşkun</i>	
Analysis of Marriage Statistics by Geographic Regions in Turkey (2001-2014)	171
<i>Okan Türkan, Barış Taş</i>	
Analysis of Divorce Statistics by Geographic Regions in Turkey (2001-2014).....	172
<i>Barış Taş, Okan Türkan</i>	
The Effects of the Fire Outbreak in Burdur in 1886 (1303 Hegira) on the Business and Commercial Sector of the City.....	173
<i>Bayram Çetin & Şerife Güzel</i>	
Create A Park/Difference with World Gardens.....	174
<i>Nurhan Koçan, Ahmet Ergün</i>	
Effecting of Drama Method Implementation in Geography Education on Students's Attitudes towards the Geography Lesson	175
<i>Kamile Gülüm</i>	
A Study on the Characteristics to be Possessed by A Geographer.....	176
<i>Vedat Şahin</i>	
Opinions of University Students on Environmental Issues: Case of Isparta	177
<i>Osman Yılmaz, Ömer Samsunlu, Ramazan Peker</i>	
Aeolian Influenced Soil Sites in Consideration of Atmospheric Circulation Types in the Wetterstein Mountains	178
<i>Sven Grashey-Jansen</i>	
Deformation Mapping of an Active Landslide Using Airborne Laser Scanning Data.....	179
<i>Remzi Eker, Abdurrahim Aydın</i>	

Geomorphological Process, Cosmogeodezycal, Relief, Morphosculptures	180
<i>Tsetsilia Donadze, Tinatin Nanobashvili, Giorgi Dvalashvili, Tengiz Gordeziani, Teona Tigishvili, George Gaprindashvili</i>	
Case Study of Integration of GIS and Noise Measurements: Bakırköy District (Istanbul).....	182
<i>Nüket Sivri, Dursun Zafer Şeker, H. Kurtuluş Özcan, Nurdan Ün, Nevin Balca, Deniz Gökçe Poyraz, Didem Doğal, Neslihan Kara, Damla Özkurt</i>	
Coastal Decline of Yeşilirmak River Delta during 2000 – 2015	183
<i>M. Murat Köle, Murat Ataol</i>	
The Effect of Geomorphological Features on Karstification: Case Study of Anamur (Mersin/Turkey) Surroundings.....	184
<i>Muzaffer Siler, M.Taner Şengün</i>	
The Central Anatolia Volcanoes and Quantitative Analysis of their Morphometric Properties	185
<i>Bekir Necati Altın</i>	
The Effect of Local Ground Properties on the Earthquake Risk in Burdur	186
<i>Mehmet Değerliyurt</i>	
Changes in the Demographics of Turkey and Demographic Opportunities.....	187
<i>Çiğdem Ünal</i>	
International Geography Olympiad (IGEO) Content & Comparing the Geography Curricula in Turkey to Other Countries That Participated in the Contest.....	188
<i>Çağdaş Yüksel, Mesut Süzer</i>	
An Important Geography in the Transboundary Waters: Central Asia	189
<i>Hasan Sayılan</i>	
Eskişehir - Bozan Çevresi Degrade Sahaların Endemik Bitki Taksonları ve Bazı Yetiştirme Ortamı Özellikleri.....	190
<i>Neslihan Balpınar, Münevver Arslan</i>	
GIS for Forest Road Network Design: A Case Study	191
<i>Erhan Çalışkan</i>	
Geomorphological Factors in Location Selection of the Settlements in Dinar, Afyon.....	192
<i>Mehmet Ali Özdemir, Fatma Kafalı Yılmaz, Erdem Gür, Okan Bozyurt</i>	
Investigating Spatio-Temporal Changes of Kilimli District of Zonguldak City and Thermal Power Plants' Region Using Remote Sensing Techniques.....	193
<i>Mustafa Ustaoglu, Aycan Murat Marangoz, Murat Oruç, Aliihsan Şekertekin</i>	
Quantifying Spatial Aggregation Patterns of Urbanization as an Indicator of Landscape Change	194
<i>Hakan Alphan</i>	
Impacts of Road Development and Quarrying Activities on Landscape Structure.....	195
<i>Hakan Alphan</i>	

Methods and Routes of Illegal Crossing Followed by Refugees on Kilis - Syria Border	196
<i>Ömer Faruk İncili, İlhan Oğuz Akdemir, Ercan Türkmen</i>	
The Positives of Study the Reservoir' Sedimentation Prism Formation by Situ Field Experiments	197
<i>Lia Matchavariani, Giorgi Metreveli, Nodar Tsivtsivadze, Zaal Gulashvili, Davit Svanadze</i>	
Paroxysms of Heat under Hot Mediterranean Climate: Methodological Aspects and Impacts on Humans through Examples from Tunisia	198
<i>Habib Ben Boubaker</i>	
Prediction of Inter-Annual and Inter-Seasonal Temperature Changes in Setif High Plains Region (Algeria)	199
<i>Mohamed Fenni, Tarek Bouregaa</i>	
Analyzing Traffic Accidents in Elazığ City using Geographical Information Systems	200
<i>Ayşe Çağlıyan, Dünder Dağlı, Gülsen Ayhan</i>	
Land Surface Temperature in Urban Area: A Case Study in Elazığ, Turkey	201
<i>Halil Günek, Veysel Kuşcu</i>	
Residents of Dragor	202
<i>Filiz Mehmetoğlu</i>	
Ottoman Empire's Approach to Natural Disasters: A Case Study in Edirne	203
<i>Özlem Şahin, Murat Poyraz</i>	
Open Source Web Applications with Geographic Information Systems.....	204
<i>Can Ayday, Nefise Yaman, Kübra Keser, Levent Sabah</i>	
Termal Uydu Görüntülerinin Jeostatistiksel Modellenmesi ile Karadeniz'deki Kömüre Dayalı Sedimentalojik Su Kirliliğinin İncelenmesi	205
<i>Hakan Akçın, Alihsan Şekertekin</i>	
Importance of Afforestation for the Rural Landscape: Case Study of Malatya.....	206
<i>Duygu Doğan, Atilla Atik, Füzüzan Aslan, Bülent Yılmaz</i>	
Climatic Variation and Homogeneity Analysis in Number of Tropical and Summer Days at the Adana Sub-Region	207
<i>Türkan Bayer Altın, Belma Barak</i>	
Boylu Ardiç'in (<i>Juniperus excelsa</i> Bieb.) Yapay Gençleştirilmesi.....	208
<i>Erdal Örtel, Ali Kavgacı, Mehmet Çalikoğlu, Hazin Cemal Gültekin, Mehmet Türkkkan, Abdurrahman Çobanoğlu</i>	
Plant Species Richness and Diversity of Forests in Antalya (Turkey).....	209
<i>Ali Kavgacı, Neslihan Balpınar, Münevver Arslan, Özge Ergüler</i>	
Assessing the Quality of Life in the Republic of Kazakhstan: Geographical Approach.....	210
<i>Gulnara Nyussupova, Aisulu Kalimurzina, Dinara Nyussupova</i>	
Yörüklerin Ormanla Olan İlişkileri (Mersin – Sebil Örneği)	211
<i>Akif Akkuş, Ali Meydan</i>	

Coğrafya, Mekan, Yer Kavramları Bağlamında Ortadoğu ve Türkiye'nin Jeopolitik Konumuna Dilbilimsel Bir Bakış.....	212
<i>Fundağül Apak</i>	
Raising Awareness and Capacity Building among Stakeholders in Context of Heritage Conservation and Sustainable Development: A Case of Taxila Pakistan.....	213
<i>Ashfaq Ahmad Khan</i>	
Tropical Highland Forests Degradation – Issues and Challenges in Integrated River Basin Management	214
<i>Rozimah Rasdi, Khairulmaini Osman Salleh</i>	
Explore Tourism - Based on Selected Areas	215
<i>Marek Zoladek, Monika Kordowska</i>	
A Simplified and Expedient Integrated Approach of Environmental Hazards and Risk Identification and Assessment	216
<i>Maryam Marani Barzani, Khairulmaini Bin Osman Salleh</i>	
Modern Degradation of Glaciers of Zhungar (Shetyu) Alatau, Kazakhstan.....	217
<i>Evgeniy Vilesov, Dana Shokparova</i>	
The Relationships between Beta Plant Diversity and Climatic Variables: A Case Study in Kuyucak Mountain District.....	218
<i>Mehmet Güvenç Negiz, Kürşad Özkan</i>	
Bird Diversity and Conservation Status in Isparta Province.....	219
<i>Yasemin Öztürk</i>	
Assessment of Wetlands and Water Plants within the Scope of Ecosystem Services	220
<i>Elif Bozdoğan, Zerrin Söğüt</i>	
Modeling of Urban Sprawl Using Remote Sensing Data and Multinomial Logistic Regression Analysis: A Case Study of Malatya, Turkey	221
<i>Serhat Cengiz, Sevgi Görmüş, Şebnem Koltan Yılmaz, Bülent Yılmaz</i>	
Review on Biogeography of <i>Nitraria</i> L.	222
<i>Kamshat Temirbayeva, Dana Shokparova, Zheken Mamutov, Tursynkul Bazarbayeva</i>	
Automated Land Surface Temperature Retrieval from Landsat 8 Satellite Imagery: A Case Study of Kahramanmaraş – Turkey	223
<i>Hakan Oğuz</i>	
The Architectural Patterns of Traditional Cultural Geography in the Adriatic Abruzzo (Central Italy)	224
<i>Kemal Reha Kavas</i>	
Land Capability Classification of Eskişehir according to Atalay's Method	225
<i>Mücahit Coşkun, Ayşenur Uzun Turan</i>	
Ability Assessment of the Riverside	226
<i>Davit Kereselidze, Lia Matchavariani, Vazha Trapaidze, Giorgi Bregvadze</i>	
Binary Snow Mapping in Kursunlu Forest Sub-district by using Support Vector Machines.....	227
<i>Semih Kuter, Nazan Kuter</i>	

Traditional Country Houses of Antalya in Connection with Rural House Ecology.....	228
<i>İhsan Bulut, Cemali Sarı, Berna Özoğul, Selin Özenç, Mustafa Baysal, Gökhan Gökdemir</i>	
Geographical Changes in Tekirdağ and the Surrounding Region between 1900 and 2015.....	229
<i>Emre Özşahin, Halid Pektezel, Ilker Eroğlu</i>	
Geographic Criteria that should be Employed in the Site Selection and Planning for Mass Housing Areas with the Use of GIS.....	230
<i>M. Taner Şengün, Muzaffer Siler, Fahrettin Engin</i>	
Temporal and Spatial Analysis of the Interaction between Urban Sprawl and Land Transformation in Different Urban Scales in Turkey	231
<i>Serhat Cengiz, Dicle Oğuz, Sevgi Görmüş</i>	
Landscaping and Characteristics of Natural Environment of Kırkgözeler Water Supply (Elazığ)	232
<i>M. Taner Şengün, Kadir Atıcı, Muzaffer Siler</i>	
The Approach of Local People to the Phenomenon of Protection: The Case Study of Fethiye-Gocek Special Environmental Protection Area	233
<i>Zeynep R. Bozhüyük Ardahanlıoğlu, Nihat Karakuş, Serdar Selim</i>	
Determining the Canopy Cover Percentage Using the Airborne Lidar and Digital Aerial Photos.....	234
<i>İbrahim Özdemir</i>	
Analyzing the Impacts of Tourism-Based Development on Mediterranean Coastal Landscape.....	235
<i>Yüksel Ünlükaplan, Hakan Alphan</i>	
Polonya'da Bir Doğa Harikası: Mazurlar Göller Yöresi.....	236
<i>Emin Atasoy</i>	
Planning and Application of Geotourism Infrastructure in Kula European and UNESCO Global Geopark.....	237
<i>Erdal Gümüş</i>	
Climatic-Recreational Study of Guria Region, Georgia	238
<i>Nino Paichadze, Lamzira Lagidze</i>	
Salinity- Temperature of the Suez Canal Affected By the New Construction 2015.....	239
<i>M.A. Elshobaki, A. Valiani, V. Caleffi, Bruno Rubino</i>	
Using Methods of Adaptive-Landscape System in Land Management.....	240
<i>Dana Shokparova, Zheken Mamutov, Sanim Bissenbaevya</i>	
Analysis of in Service Training Needs of Geography Teachers: Case Study of Eskişehir.....	241
<i>Eyüp Artvinli, Niyazi Kaya</i>	
Educational Value of Teaching Geography	242
<i>Atirkul Akashova, Klara Makash, Kulzada Duysebaeva</i>	
Developing Map Skills through Geography Textbooks: Case Study of Turkey.....	243
<i>Eyüp Artvinli</i>	

Geography Teachers' Perspective on Educational Leadership	244
<i>Emine Teyfur</i>	
Orman Yangınlarını Etkileyen Faktörlerin Coğrafi Bilgi Sistemleri Yardımıyla Belirlenmesi.....	245
<i>Nuri Bozali, Fatih Sivrikaya</i>	
Traffic Accidents and Geographical Distribution in Hatay	246
<i>Sevda Çetinkaya</i>	
Reviewing the Average Temperature and Rainfall Data in Terms of Climate Change in the Last 60 Years: A Case Study in the Mediterranean Cost of Turkey	247
<i>Ömer Türksever, Erol Sözen, Turhan Çetin</i>	
Merkezi ve Yerel Yönetim Uygulamalarının Kayapınar'ın Yaşanabilirliğine Etkisi	248
<i>Ayşe Çağlıyan, M. Emin Aydın</i>	
Impact of Environmental Education on the Environmental Attitude of at Undergraduate Students	249
<i>Esma Kına, Büşra Taktak, Sema Güler, Elif Bozdoğan</i>	
The Views of Teachers and Students on YGS and LYS Courses and Geography Lessons in the Secondary Schools.....	250
<i>Erol Sözen, Turhan Çetin</i>	
The Using of Documentary Films in the Environmental Education	251
<i>İlhan Turan, Ayça Kartal</i>	
The Place of Economy Course in Geography Departments in Turkey and Economic Literacy of Preservice Geography Teachers.....	252
<i>Yılmaz Geçit</i>	
Open Source Geographic Information Science: A New Paradigma	253
<i>Hande Demirel</i>	
Geostatistics for Environmental Assessment: Where?, When? and How to Apply?	254
<i>Hande Demirel, Dursun Z. Seker</i>	
GIS Education and Research in Turkey	255
<i>Dursun Zafer Şeker</i>	
Environmental Quality Analysis of The Urban Ecology of Kuala Lumpur City, Malaysia.....	256
<i>Khairulmaini O.S., Fauza A.G., Siti Qhairunnisa R., Rozimah M.R. & Maryam M.B.</i>	
Time – Space Analysis of Hydro-Meteorological Parameters of Three Major River Basins in Malaysia.....	258
<i>Khairulmaini O.S., Fauza A.G., Maryam M.B., Rozimah, M.R., Siti Qhairunnisa R.</i>	
Landscape Visual Connections of Slovakia.....	259
<i>Peter Petluš, Viera Petlušová, Imrich Jakab</i>	
The Study of the Modern Geodynamical Processes of Caucasian Region.....	260
<i>Tsetsilia Donadze, Tinatin Nanobashvili, Giorgi Dvalashvili, Tengiz Gordeziani, Teona Tigishvili, George Gaprindashvili</i>	

The Impacts of Stream Valleys on Vegetation in Cyprus: Case Study of Karkot Stream and Kamara Stream	261
<i>Serkan İlseven, Zeki Koday</i>	
Estimating Economic Values of Wood Production and Carbon Storage: A Case Study from Turkey	262
<i>Fatih Sivrikaya, Mehmet Pak, Nuri Bozali</i>	
Capability of Cellular Automata-Markov Model in Land Use/Cover Change: A Case Study of Turkey.....	263
<i>Fatih Sivrikaya, Nuri Bozali, Hüseyin Bozkurt</i>	
Approach to Preservation - Utilization to İğneada Longos Forests: Biosphere Reserves	264
<i>Murat Özyavuz, Bülent Cengiz</i>	
Coğrafi Boyutlar Perspektifinde Yeni Yönetim Düzeyleri: Yerelden Küresel Çok Katmanlı Yönetişim.....	265
<i>Bekir Parlak</i>	
Türkiye Tarım Topraklarının Sürdürülebilir Kullanımında Dikkat Edilmesi Gereken Bir Konu: Gübreleme	266
<i>Nuran Taşlıgil, Güven Şahin</i>	
Social and Spatial Effects of Urban Transformation Projects: A Case Study in Esenler, Istanbul	267
<i>Taner Kılıç, Mehmet Angın</i>	
General Characteristics of Rural Residential Architecture in Turkey	268
<i>Veysel Kuşçu</i>	
Social Injustice in the Protected Areas: A Case from Rize Province.....	269
<i>Faruk Alaeddinoglu¹, Mehmet Şeremet², Serap Aksoy³</i>	
Assessing the Suitability of Three Binary Change Detection Algorithms in a Coal Mine Area	270
<i>Nazan Kuter, Semih Kuter</i>	
Functional Transformation of Settlements in Presheva Valley	271
<i>Arsim Ejupi</i>	
Differentiation of Demographic Development of Major Cities of Central Europe.....	272
<i>Ślawomir Dorocki, Piotr Raźniak, Bartosz Jenner</i>	
Spatial Differences in the Financial State of Corporations in Central Europe in Time of Economic Recession	273
<i>Piotr Raźniak</i>	
An Evaluation of the Development of Historical Geography and the Case of Caria.....	274
<i>Neslihan Dal</i>	
Modern Ecological Condition of Balkhash Lake.....	275
<i>Bazarkul Akmoldaeva, Oketay Saghyrbay, Salavat Duysenbaev</i>	
Kazakhstan in the New Economic Zone of the Silk Road	276
<i>Sheripzhan Nadyrov</i>	

The Role of Vernacular Architecture in Cultural Landscapes: Case Study from Elmalı, Antalya - Turkey	277
<i>Hacer Mutlu Danacı, Meryem Atik</i>	
Determining Canopy Cover Percentage Using Airborne Lidar and Digital Aerial Photos	278
<i>İbrahim Özdemir</i>	
How Should the Teaching - Learning Environment of an Effective Geography Lesson Be?	279
<i>Mehmet Fatih Kaya, Recep Aksu</i>	
Determination of Causes for Students' Failure on Map Information: A Case Study	280
<i>Mehmet Fatih Kaya, Recep Aksu</i>	
Geography Teachers' Views Regarding their Ethical Responsibilities	281
<i>Recep Aksu, Mehmet Fatih Kaya</i>	
Impact of the Comenius Project to Our School and Our Students	282
<i>Gülçin Ayhan Ertek</i>	
The Effects of the Transformation of Turkey's Agriculture Sector Introduced with the Process of Globalization on The Development Process	283
<i>Hasan Sayılan</i>	
Geographical Characteristics of Rural Settlements in Plain Dorutay and Immediate Surroundings	284
<i>Murat Yılmaz</i>	
Development of Civil Initiative in Protected Areas: Green Road Project.....	285
<i>Faruk Alaeddinoglu, Mehmet Şeremet, Hümeysra Çelik</i>	
Natural Disasters that Devastate Nations in the Narrations of Sacred Books	286
<i>Selahattin Çelik</i>	
Calculating of Landscape Diversity Using Alfa Diversity Indices	287
<i>Özdemir Şentürk, Kürşad Özkan</i>	
Modeling the Potential Geographical Distribution of Anatolian Black Pine (<i>Pinus nigra</i> Arnold. subsp. <i>pallasiana</i> Lamb. Holmboe) in the Inner Parts of Central Black Sea Region.....	288
<i>Serkan Gülsoy, Özdemir Şentürk</i>	
The Indicator Species of Alpha Species Diversity in the Kuyucak Mountain District.....	289
<i>Serkan Özdemir, M. Güvenç Negiz, U. Utku Turhan, Ali Şenol, Münevver Arslan</i>	
Estimating Aboveground Biomass Using Remote Sensing Data and Geostatistics: A Case Study of the Southwestern Turkey	290
<i>Nuri Bozali, Fatih Sivrikaya, Esra Dinç</i>	
Limni Gölü Tabiat Parkının (Gümüşhane) Rekreasyon Potansiyeli	291
<i>Salih Birinci, Mehmet Zaman, İhsan Bulut</i>	
A Research on the Concept of Urban Transformation: A Case Study of Yükseltepe (Keçioren / Ankara).....	292
<i>Nurettin Özgen, Nur Kalaycı</i>	

Creating Campus Information Systems of Marmara University (MÜKBIS) Using Geographic Information Systems (GIS): A Case Study of Göztepe Campus.....	293
<i>Ali Çeker, Zafer Kılıç, Rauf Belge, Emre Duman</i>	
Uzaktan Algılama (UA) ve Coğrafi Bilgi Sistemleri (CBS) Kullanılarak Sakarya İlinde Kentsel Gelişim Sürecinin Alan Kullanımı Üzerine Etkilerinin İncelenmesi	294
<i>Sümevra Kurt, Emre Duman</i>	
Stand Delineation in Riparian Zone Forests Using Rapideye Satellite Data.....	295
<i>İbrahim Özdemir</i>	
The Relationship between Some Wild Mammals and Structural Diversity Parameters	296
<i>Ahmet Mert, Berna Yalçınkaya</i>	
Approaches for the Determination of Integrated Disaster Risks.....	297
<i>Bekir Taştan, Arif Çağdaş Aydınoğlu</i>	
Use of Analytic Hierarchy Process for Analysis of Landslide Hazard and Vulnerability: The Case of Rize - Fındıklı	298
<i>Yalçın Şahin, Arif Çağdaş Aydınoğlu, Bekir Taştan</i>	
Spatial Distribution Characteristic of Karstic Depressions on Plateau of Bolkar Mountains (Central Taurus).....	299
<i>Mustafa Utlu, Mesut Şimşek, Muhammed Zeynel Öztürk</i>	
Water Resources, Human Impact and Climate Change: A Case Study in Bakırçay River Basin.....	300
<i>Semra Sütgibi</i>	
Interpreting Geodesign by Means of Ecophysiography	301
<i>Mehmet Değerliyurt, Saye N. Çabuk, Takıcan Metin, Alper Çabuk</i>	
Clustering Analysis of Spatial Distribution of Karstic Depressions on Anamas Mountain (Taurus Mountains, Turkey)	302
<i>Muhammed Zeynel Öztürk, Abdullah Akbaş</i>	
Landuse Capability Classification for Tekirdag (Thrace) Based on Atalay's Method	303
<i>Emre Özşahin, Halid Pektezel, İlker Eroğlu</i>	
Introducing the Risk Analysis of Çanakakale Industry with the Thematic Maps According to Earthquake Data.....	304
<i>Cihan Yalçın, Levent Sabah</i>	
The Ecology and Economic Value of Chestnut (<i>Castanea sativa</i> Miller) Communities in Aksu Village (Aydın - Nazilli).....	305
<i>Süleyman Sönmez, Gökhan Aktaş, Abdullah Soykan</i>	
Comparison of Essential Oil Composition of Ripe Berry Samples of Two Different Juniper Taxa in the Lakes District (Turkey).....	307
<i>Uysal Utku Turhan, Alican Çivçığa, Aslan Merdin, Serkan Gülsoy</i>	
The Indicatory Plant Species of Wild Animals in the Gidengelmez Mountains District.....	308
<i>Halil Süel, Doğan Akdemir, Akın Kırac, Yasin Ünal</i>	

Perception of University Students about Environmental Rights & Responsibilities: The Case of Atatürk University, Turkey	309
<i>Neslihan Kulözü</i>	
Morphometrical and Geomorphological Features of Kılıçözü Stream Basin, Kırşehir.....	310
<i>Eren Elibol, Murat Poyraz</i>	
Expert System and GIS Cartographic Generalization	311
<i>Ferim Gashi, Pal Nikolli, Ismail Kabashi, Bashkim Idrizi</i>	
The Euro-Mediterranean Partnership: Trade and Political Balance in a Changing Geographical Space.....	312
<i>Rosalina Grumo</i>	
Results of Land Cover Changes in Kapıdağ Peninsula between the Years of 1978 and 2015.....	313
<i>Abdullah Soykan, Murat Fıçııcı</i>	
Social Municipalities: Case of Balıkesir Karesi Municipality.....	314
<i>Murat Yaman</i>	
Formation Characteristics and Tourism Potential of Sırtlanini Cave (Karacasu - Aydın)	315
<i>Murat Bozbey, Lütfi Nazik</i>	
Flood Risk Analysis in Kemalpaşa (Nif) Creek Basin.....	316
<i>İsa Cürebal, Ayşegül Tekeş</i>	
Kundasang-Ranau Landslides; an Educational Geosite, Sabah, Malaysia.....	317
<i>Norbert Simon, Kamilia Sharir, Rodeano Roslee, Goh Thian Lai, Azimah Hussin, Lee Khai Ern</i>	
The Biggest Agglomeration in the South of Poland in the Light of the Changes in Urban Population Density.....	318
<i>Iwona Jażdżewska</i>	
Some Morphometric Features of Nerodime River Basin (Kosova).....	319
<i>Valbon Bytyqi, Shpejtim Bulliqi</i>	
Kazakhstan and the Possible Use of Alternative Energy Sources.....	320
<i>G.E. Berdygulova, D.I. Dzhangeldina, A.N. Beikitova</i>	
Preparation of the Charter of Hemerobia, the City the Campina Grande Do Sul (Paraná/Brasil) – Environmental Planning Support.....	321
<i>Luiz Antonio Moura, Claudia Moreira Garcia</i>	
Monitoring of the Ecological Status of the Sulejów Reservoir in the Frame of Project Monsul.....	322
<i>Ewa Imbierowicz, Mirosław Imbierowicz, Marcin Jaskulski, Aleksander Szmidt, Ireneusz Zbiciński, Aleksandra Ziemińska-Stolarska</i>	
Agricultural Land Cover Changes in Łódź Metropolitan Area (Poland) Over the Period 1990-2012	323
<i>Marta Nalej</i>	
Terrain Morphometric Analysis for Support Tourism Development in Tusheti Protected Area	324
<i>Nana Kvirkvelia, Mariam Tsitsagi</i>	

Assessment of Environmental Risks at Development of Oil Fields of Kazakhstan Sector of Caspian Sea	325
<i>Vladimir Uvarov, E.A. Skolskaya</i>	
Peyzaj Mimarlığı Eğitiminde Çevre ile İlgili Farkındalık, Bilinç ve Duyarlılık Seviyelerinin Belirlenmesi	326
<i>Duygu Doğan, Bülent Yılmaz, Atilla Atik, Fürüzan Aslan</i>	
Bottled Water Production in Turkey: A Case Study of Bahçe (Osmaniye).....	327
<i>Ersin Kaya Sandal, Ramazan Çiftçi</i>	
Relief Transformation of the Open Coal Mine Bełchatów Area on the Basis of DEM (Digital Elevation Model) Analysis.....	328
<i>Marcin Jaskulski, Tomasz Nowak</i>	
Tourism Development along the Silk Road: Case of the South-Kazakhstan Oblast.....	329
<i>Ulzhalgas Tokbergenova, Nazym Abildaeva</i>	
Landscape-Ecological Zoning of the Agricultural Areas of South Kazakhstan Oblast.....	330
<i>Gulnara Nyussupova, Aigul Tokbergenova, Kanat Zulpykharov</i>	
The Cities of Kazakhstan: Modern State, Development Problems and Prospects	331
<i>Indira B. Sarsenova, Assel S. Ikanova</i>	
Türk Ülkeleri Coğrafyasında Ortak Ders Kitabı Oluşturulması	332
<i>Olzhalgas Yesnazarova, Amangeldi Temirbekov</i>	
Education in the Field of Geographic Information Science and Technology in Departments of Geography in Poland	333
<i>Iwona Jażdżewska</i>	
Information as Organized Variety of Geographical Systems and Models	334
<i>Alina Paranina, Roman Paranin</i>	
The Relationship between Topography and Vegetation: A Case Study in Filyos Valley between Karabuk and Yenice.....	335
<i>Mücahit Coşkun</i>	
Tourism Potential of Gölyazı, Bursa.....	336
<i>Taner Kılıç, Yasemin Altıngöz</i>	
Grain Yield as an Indicator of the Drought in Kazakhstan	337
<i>Vitaliy Salnikov, Paizhan kozhahmetov, Aigul Abugalieva, Galina Turulina, Svetlana Polyakova, Tamara Tazhibayeva and Aizhan Skakova</i>	
Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study District Shaqlawa – Iraq.....	338
<i>Çağatay Tanrıverdi, Mehmet Solak, Engin Gönen, Hewa Abdurrahman, Chiya Sami Sulaiman Bag, Renas Faris Abdullah, Karwan Obaid Hamad</i>	
Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study of Sulaymaniyah – Iraq.....	339
<i>Hakan Oğuz, Shakhwan Hama Shareef, Daban Kadhim Omar Dabbagh</i>	

Spatial Analysis of the Impact of Urban Expansion on Land Surface Temperature Using Geographical Information Systems and Remote Sensing Techniques: A Case Study of Sulaymaniyah – Iraq.....	340
<i>Hakan Oğuz, Farhad Othman Omar</i>	
Organization of Touristic Activities and Security of Recipients at Mudflow Processes.....	341
<i>B. Izenbayev, O. Mazbayev, A. Saiken, B. Tasbolat, E. Atasoy</i>	
The Impacts of the Forest Fires on the Amplitude of Stream Inundation: The Case of Köprü Creek (Antalya - Turkey).....	342
<i>Şakir Fural</i>	
Land Use Changes and Problems on the Zone of Coastal Cliffs in Antalya.....	343
<i>Şakir Fural</i>	
Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study of Erbil - Iraq.....	344
<i>Hakan Oğuz, Twana Abdulrahman Hamad, Farhad Othman Omar</i>	
Türkiye Nehir Midyelerinin Zoocoğrafyası.....	345
<i>Ümit Kebapçı</i>	
Göller Bölgesi'nde Gastropod Çeşitliliği ve Koruma Problemleri.....	346
<i>Mehmet Zeki Yıldırım, Ümit Kebapçı</i>	
Ilica Şelalesi (Kastamonu-Pınarbaşı): Coğrafi bir Bakış.....	347
<i>Asım Çoban</i>	
The Largest Center of Non-Ferrous Metallurgy in Kazakhstan – The Issues of Sustainable Development of Zhezkazgan Monotown.....	348
<i>Aliya S. Beysenova, Kulash D. Kaymuldinova, Emin Atasoy, Raikhan T. Iskakova, Duman T. Aliaskarov, Nazerke Y. Shopshekbayeva</i>	
Methodical Peculiarities of Remote Sensing Data Processing of SPNT Land (On the Example of Ili Alatau Park Reserve).....	349
<i>Vladimir Uvarov, Yerkin Kakimzhanov, Zhandos Mukaliev</i>	
Assessment of Uncontrolled Landfills Impact on Ecosystems in Georgia.....	350
<i>Nugzar Buachidze, Khatuna Chikviladze, George Kordzakhia</i>	
Demographic Study of Urbanization in Iran.....	351
<i>Ali Ghasemi-Ardahaee & Reza Manafiazar</i>	
The Importance of Anthracite and Usage in terms of Energy Resources in Turkey.....	352
<i>Erol Kapluhan & Murat Poyraz</i>	
Karstification on Conglomerates: Case Study in the Göller Highlands and Surroundings (Kozan - Adana).....	353
<i>İsmail Ege</i>	
Some Travertine Areas in Turkey: As Touristic Attractions.....	354
<i>Mehmet Deniz, Selahattin Polat</i>	

Habitats of the Mediterranean Region in Turkey

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Abstract

The aim of this study is to determine the properties of habitats of Mediterranean coastal belt in southern Turkey. Turkey's Mediterranean Region has a very mountainous topography and different lithologic properties. Almost each watershed basin forms a habitat in terms of distinct parent materials, topography, soil formation, vegetation, and fauna. For instance, the Köprülü watershed basin, located east of Antalya, contains a deep canyon valley that developed mainly on the conglomerate and the reddish Mediterranean soil that formed along the deep fractures and weak zones of the conglomerate. The humid Mediterranean maquis vegetation composed of *Nerium oleander*, *Arbutus unedo*, *A. andrachne*, and *Mrytus communis* are found along the small corridors on the conglomerate. On the other hand, *Cupresus sempervirens* is only thrives on the conglomerate parent material in this basin.

The Cennet (Paradise) and Cehennem (Hell) karstic canyon valleys in the upper watershed area of the Kadıncık basin, which is in the west of Adana, are the habitats where there is only the Mediterranean vegetation but they are home to humid and mild Black Sea Region vegetation.

The altitudinal vegetation belts in each habitat support the biologic richness and plant diversity.

Key Words: Habitats, Mediterranean Region, Turkey.

Land Capability Classes in the Mediterranean Region in Turkey

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Abstract

The aim of this study is to determine the land capability classes according to the ecological properties in the Mediterranean Region in Turkey. The Mediterranean Region's land use system depends on climate, topography, parent material, and soil properties. The lowlands extending along the coastal belts are the main spreading areas of Class I, on which all vegetables and fruits can be harvested due to the all year long vegetation period. Class II and Class III are only found on the slightly inclined surface along the coastal belts which are the growing areas of mainly cereals and some fruits. Class IV occurs mostly on the karstic areas and Neogene clay deposits. This class is wide spreading on the depression. These depressions are the main cereal production areas at an elevation of over 1000 meters. Dejection fans and colluvial deposits belonging to Class V are the main growing areas of olive and fig, which are drought-resistant. The plateau surfaces on the natural timberline are the main pastures. The rugged karstic areas belonging to Class VII are productive forests because cracks containing soils contribute to developments and efficient natural regeneration of the forests. Nevertheless, the bare rocky karstic lands are found in Class VIII. Exposed serpentine rocks found on the steep slopes are surfaces belonging to class VII and VIII.

Maquis vegetation that is stabilized on the karstic lands can be utilized as grazing areas for goats. These areas are not suitable for the economic growth of red pine (*Pinus brutia*) forests. The flat lands above 1500 m are not made use of as agricultural lands due to climatic limitations.

Key Words: Land Capability, Mediterranean Region, Turkey.

Karstification and Karstic Landforms in the Kemaliye Region, E. Anatolia

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Abstract

The karstic land occurring Upper watershed area of Euphrates are deeply dissected by the Euphrates River its tributaries. The big canyon valley that opened in the Mesozoic limestone is among the leading canyons of Anatolia. Firstly established the tributary of Euphrates has started to cut Mesozoic limestone, after the Neotectonic period, the uplifting of the area with epirogenic movements has led to the deepening of the canyon. So the canyon valley more than 500 m deep has been formed. The tributaries connecting the canyon also has eroded deeply own valleys. The karren landforms are seen on the steep slopes of canyon and small dolines on the flat lands of the two sides of canyon.

The rejuvenation with the tectonic movements is the responsible for the formation of the deep canyons and capture process in the karstic lands.

Key Words: Karstification, Landform, Kemaliye, Anatolia, Turkey.

GIS - Based Snow Avalanche Hazard Mapping: A Case Study in Bayburt - Aşağı Dere Catchment

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Abstract

Snow avalanches are one of the most common mountain hazards that cause deaths, injuries, and economical damages as well as environmental effects. In avoiding adverse effects of avalanche hazards, the simplest strategy is to do not allow people and constructions in endangered areas. For this aim, avalanche events have been documented in details for years and avalanche hazard maps have been generated in many countries such as Switzerland, France, and Norway etc. However, in Turkey, even snow avalanches are big problems in mountainous regions, there is no proper and detailed records of avalanche events and hazard mapping studies are not sufficiently available. Albeit there is no proper record of avalanche events, somehow, hazardous areas in terms of avalanches should be determined for definition of avalanche hazard situation and for the usage in land use planning. That's why, in present study, snow avalanche hazard map was generated in Aşağı Dere catchment in Bayburt City in Turkey. This catchment was selected as study area because many settlements in this area suffered and adversely affected from avalanches. For example, known most killing avalanche event formed in 18th January 1993 causing death of 59 people and injury of 22 people. Also, 42 houses became useless due to this event. Following steps realised in snow avalanche hazard mapping; I) determining potential snow avalanche release zones II) calculation of avalanche extents by using 2D snow avalanche simulation and III) generating hazard maps with combining previous two steps. Additionally, four villages suffered snow avalanches in the area was evaluated in terms of avalanche hazard. It is observed that generated hazard map is quite compatible with locations of known avalanche events. In total, 3502 release zones, that cover 1992.2 ha (10.3%) of study area were determined. Extents of avalanche hazard cover 7269.1 ha in the study area. This means that 37.5% of total area is located under the avalanche hazard.

Key Words: Hazard Map, Potential Release Zone, Snow Avalanche, 2D Simulation

Toponymic Approach in Scientific Research of Landscapes Associated with the Plants

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Abstract

This study shows toponymic research method on specific examples of geographical names of various areas of the spread of plants to study the patterns of landscape development of Kazakhstan in different historical periods. Toponyms associated with plant world can inform about the past or the present dissemination of certain types of plants that helps to recreate the pattern of historic landscapes.

Global climate change and human-caused activities have generated a number of global environmental catastrophes. One of the most important global problems of the humanity in the XXI. century is the problem of nature and natural resources protection, the study of changes in the landscapes as a whole, and in particular the clarification of distribution areas of selected species of flora in different historical periods are important. Present-day scientific investigations use various techniques; among them a great interest is shown to the toponymic approach.

The toponymic approach of scientific research of landscapes in geographic aspects has been poorly explored yet. The principles of landscape development are identified through certain examples of geographical names of the area associated with plant names. As a result, based on the analysis of toponymy, the prevalence of place names related to local phytonyms gives specific geoecological information about the wealth and diversity of the plant cover of the area in ancient times and the existence of some of today's relic plants. Thus, geographical directions and the toponymic approach in scientific research of landscapes aims to design the content of rehabilitation and reconstruction work for the protection of the landscape.

Key Words: geoecology, landscape, paleolandscapes, phytonyms, reconstruction, the natural environment, toponyms, transformation.

Causes and Impacts of Land Degradation and Desertification: Case Study of the Republic of Kazakhstan

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Abstract

The problem of desertification is a serious threat to the well-being of humanity. In addition to the environmental violations, desertification causes a variety of negative social and economic consequences. Soil degradation is always accompanied by the systematic use by the human. However, over the last decades this process has accelerated; just at a time when population growth and forecast of further growth necessitate sharply increase the food production. It is estimated that annually about 50-70 thousand sq. km of fertile land becomes unusable. The main reason for this disastrous phenomenon is the desertification.

In Kazakhstan, since the 1960s years to the present day the territory exposed to desertification has increased by 10-12 percent. Earlier mostly arid and sub-arid areas - generally semi-desert and desert zones and areas of intensive economic use – had been exposed to desertification. Nowadays the border of desertification has moved to the north towards the main grain sowing area of Kazakhstan, which occupy forest-steppe and steppe zones.

The main natural factor contributing to desertification processes in Kazakhstan is its landlocked situation determining the continental and arid climate, the scarcity and uneven distribution of water resources, in its turn causing widespread of sands and saline soils. Conditions for developing of land degradation processes are caused by violation of the seasonal peculiarities of soil formation and by drought impacts. Also the poor formation of land cover and its dynamics is one of the prerequisites of desertification. Natural features of Kazakhstan cause a weak environment resistance to anthropogenic influences (it is estimated that about 75% of the country are exposed to high risk of ecological destabilization). Mostly the degradation are exposed the pastures adjacent to the rural settlements, milking machines, wells and distant-pasturing territories.

As a result of the research authors identified the most vulnerable to desertification agricultural land and proposed measures for the prevention of desertification. Some of the key measures are the forest plantation and using of pasture ecosystems through their conservation and sustainable use for restoring the functional integrity of steppe ecosystems

Key Words: desertification, land degradation, pasture, drought, ecosystems.

Possibilities of Wind Power Development as an Alternative Energy Source in Kazakhstan

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Abstract

Development of alternative energy sources has become a necessity as fossil energy resources are declining. Wind energy is an important contributor of modern power systems as a renewable energy source. At the same time, energy demand is rapidly increasing, putting the world on the verge of a global energy crisis. Moreover, the extensive use of conventional energy sources is polluting the environment and causing global warming. On the other hand, wind and other renewable energy sources are viable and clean alternatives to fossil fuels. Low operating cost and extensive availability make wind one of the most advantageous and effective renewable energy sources. Problem of wind power development as one of the most perspective and available sources of alternative energetic in Kazakhstan is considered in the article. World energetic data analysis is presented.

Key Words: Climate Change Kazakhstan, Wind Power, Energy, Wind farm

Modeling of the Life Quality Indicators in Almaty Region Using GIS Technologies

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Abstract

In modern conditions Kazakhstan is focusing on the factors that ensure the growth of socio-economic indicators, the most important of which is the quality of life. Studying issues of enhancing quality of life of the population increasingly focuses on the problems of a particular region. Availability of tools allowing to adequately assess, compare and analyze the dynamics of the quality of life in the region, is the main condition for the formation of effective regional social and economic policy.

In order to estimate such an important theoretical and methodological problem modern method of research - analytical tool geographic information systems - was used. The main content of the study is to simulate and effective tools for assessing the quality of life of the Almaty region population.

During the work, the main indicators of the level and quality of life of the population were analyzed, such as the living minimum wage, money incomes and expenditures of population, salaries. The paper revealed patterns of change in these indicators, and reasons affecting these factors. A generalization of the existing experience in applying geographic information system technologies in the socio-economic researches was conducted, geoinformation analysis tools were considered in the spatial study of the quality of life. The implementation of this task allowed in automatic mode to create series of sectoral and integrated maps of the population quality of life on the territory of Almaty region. Cartographic material is presented in time series, which allows to identify main tendencies of development the quality of life and to carry out short-term forecasting.

Key Words: life quality indicators, geographic information system, thematic mapping, spatial analysis.

A Spatial Analysis of Crimes against Property in Siirt City

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Abstract

Criminal phenomenon is an important social problem arising with human existence. The criminal phenomenon which varies from society to society and in the course of time has become an important problem modern day's population in conjunction with urbanization, industrialization and over population. More in particular, The Cities attract notice as places which crime and criminals took hold intensively. Many disciplines study on criminal and these disciplines tackle it with their own distinctive perspective. Geography is an important discipline which tackles the criminal phenomenon as well. It's quite apparent that the criminal phenomenon must be tackled with geographical perspective because of the fact that there are common interests in the way that being a spatial extent of the crime and a strong correlation between criminal and place and having a determinative impact on criminal behaviors of socio-economic structure between criminal and Geography. In this context, the crimes against property which is which is one of among criminal has tackled with a Geographical perspective specific to Siirt city. Siirt city which is quite a lot underdeveloped in terms of socio-economically and has a high incidence unemployed young population and urban sprawl which based on inner-city land use has faced with an important social problem based on the aforesaid hitches. Undoubtedly one of the most important troubles is the criminal behaviors which are relevant with public safety and public peace. In the president study, distribution of crimes against property in Siirt city and its decisive factors and decisive factor that impact on criminal behaviors have studied. The main purposes of the study are analyzing the crimes against property crimes in Siirt city with a Geographic perspective and contributing to social peace and take preventive measures through analyzing criminals and spatial extend of the crime.

Key Words: Crime Geography, Property Crime, Siirt, Distribution of Crime.

Comparison of Braun Blanquet Method with Twinspan Two Way Species Indicator Analysis and Cluster Method Using Vegetation Data: Case of Sultan Sazlığı (Kayseri - Turkey) Salt Marsh

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Abstract

The purpose of the study is to compare the alliance groups determined by Braun Blanquet method with the groups of TWINSPAN and Cluster methods. Cluster analysis can confirm many of the alliance based on Braun Blanquet method. However, TWINSPAN confirms all alliances upto 100 %. TWINSPAN, a objective method at the same time distinguishes the groups like Cluster method hierarchically.

It can define the groups as negative and positive indicators due to its difference from the Cluster method. The result of TWINSPAN by using absence-presence data matrix however does not confirm the results of Braun Blanquet fully. In this situation, the data type must be taken care of according to the scale of study area because of the differences between the results of parametric data and the results of presence-absence data. It seems the best way to apply TWINSPAN method is based on parametric data for the small scale examples like Kayseri Sultan sazlığı.

Key Words: Braun Blanquet method, Cluster analysis, Twinspan analysis, vegetation classification.

The Topic, Origin and Purpose of Anthropogenic Geomorphology

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Abstract

Geography is the science that investigates the natural environment relation between each other and interaction between man and nature. Today, the human impact on nature is equal to the importance of other geomorphological factors. Despite the energy emitted by the human society; such as tectonic movements, volcanic activities, earthquakes, to compare it with Earth's internal agents are almost negligible. Human factor, not only rivers, glaciers, winds, sea waves and sea currents can not be measured due to the impact of external agents, but also sometimes showing more efficiency leaves them behind. Folding population growth requires greater demand and to meet the energy demand by providing the results on a large scale reprocessing of earth materials. As even slightly faster growth rate, process that will continue in the future. The topic, origin and purpose of anthropogenic geomorphology; which is extremely diverse group of people that has been created by the operation, described as constantly evolving and expanding new landforms. A wide sense, landforms created in an artificial manner, for example; medium and small-scale climate and biota and natural processes in the natural environment that is very different effects on biological components that make up a little change is made.

Duration; according to the Pleistocene, as 10.000-18.000 years have occurred in the Holocene transgression Flandrian which has a very short coastline and roughly took the view that today. Compared to the Holocene, which is represented by Pleistocene Glacial and Interglacial period that has lasted much longer as 2.5 million years ago, it begins with a transgression. This event brings Quaternary and Pliocene boundary of the square. Approximately from 1750's The Industrial Revolution to the present in the ages of the human history, as a result of his discoveries and inventions that are based on the development of civilization is now due to the increase of the global changing and shaping ability of nature in the world, developing circuit from that date Human Age, we see the benefits of the transfer in addressing separately in Quaternary as a third sub-periods Anthropocene,

Also in our view; we take the last 2.5-3 million years of Quaternary cycle of geological era, is divided into three sub-circuit among themselves. This new sub-periods used in: Pleistocene, Holocene and the Anthropocene. Here only the last 200-300 years in the Anthropocene has made the earth on the issue of forming the human, we will try to introduce the system and the overall classification.

Key Words: Antropogenic geomorphology, man-made landforms, Anthropocene=Human Age, The Industrial Revolution, Quaternary.

Analysis of Toponymy of Villages in Maku

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Abstract

Places names have an important role in researches. It has a positive effect on the value of sociological, culture, historic, geographical, military, commercial, lakes and research history. In the world and Turkish culture, the places names generally have some details about the situation and value of it. Maku and its 118 villages were investigated in this research and the important results were obtained in the geographical field. There was a relation between geographical elements and place names. Moreover, there is a significant result between the Silk Road and its name. Furthermore the geographical elements such as rivers, rocks, plants castles, trench and crossroads names. They are the source of names that it arises from the culture of residents of these areas. In this study the relation between the Maku places names and the Iran and Turkey culture was investigated.

Key Words: Places names, Maku and village, Silk Road, geographical elements.

Ecosystem Services - A Function of Natural Capital

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Abstract

The process of integration between ecology and economy that began in the 70s of last century is connected with the emergence of the concept of natural capital (NC). The World Bank (2012) reports that there is no substantial movement towards evaluation of NC and the problem is still seen at a conceptual level. The emergence of the terms NC, ecosystem/landscape goods and services as part of the apparatus of the concept of sustainable development requires precise and exact defining of the scope of these terms. The main objective of this paper is to systemize the scientific link between the terms NC and ecosystem/landscape goods and services in the context of the theory of sustainable development. This report examines ES as a function of NC and makes clear distinction between them. The authors emphasize the great importance of assessing the economic value of NC and ES. Let us denote the set of NCs at all locations with NC and the set of possible added values which can be achieved by managing elements with AV , which is a subset of the set of real numbers. We define the ecosystem services function as $ES:NC \rightarrow NC \times AV$, where NC is the domain of the function and the result is the Cartesian product between the set of natural capitals and the set of added values obtained by applying ecosystem services. Over the set NC we also define the function $Val: NC \rightarrow NCV$, where NCV is the set of evaluations of natural capital per hectare.

Key Words: Biodiversity, Ecosystem Services, Natural capital, Sustainable Development.

Conflicts in the World Risk Threat in Central Asia

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Abstract

In the modern world live in an unstable state. Economic and political situation in the world, the economic crisis and political conflict is deteriorating day by day. In this case, constant sources of tension in the countries and regions of the world has become a big problem.

World ethnic, political, economic and socio-cultural factors, such as globalization, demographic factors are sources of complex conflicts of the world.

The Middle East is currently the region represents a threat to Central Asia. Middle East, not only to Central Asia represents a serious threat but also for the whole world, such as country Syria, Afghanistan, Israel and Palestine who are in the fire of war. Also, the country and region where conflicts are long and difficult to determine their origin and completion.

Before this conflict parties were only inside the countries, nowadays on the same side of the conflict in the country, on the other hand of extremist religious groups, criminal groups terrorist organizations. Thus, international conflicts that may become a growing trend in the state. Today, conflicts of rapidly rising on the international level, because of globalization and the fast delivery of information without any obstacle.

Central Asia and the Middle East are close neighbors effects of this neighborhood every day afraid, especially concerned with the growth of groups in Afghanistan.

Located between the nuclear superpowers as the Russian Federation and the People's Republic of China, the United States and Western European countries are considering Central Asia as a resource-rich land, the sanction of Western countries towards Russia is in strained relations between the countries.

The United States and Japan have recently made a tour of Central Asia with a visit to Moscow and Beijing, taking into account the concern in southern Afghanistan, connecting the East and the West want to use their own geopolitical goals in the region.

In the early twentieth century English politician Halford Mackinder argued, who governs the Central Asia - that will rule Eurasia, who rules Eurasia - that will rule the world, the current situation in Central Asia can be difficult geopolitical tensions.

Key Words: conflict, geopolitics, globalization, extremists

Regional Distribution of the Main Economic Activities in the Field of Information and Communication Technologies in Bulgaria

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Abstract

Technological development in different Information and Communication Technology (ICT) fields has defined this sector as an important factor in resolving of the challenges faced by the public. This explains the lasting and high interest toward ICT professions on the labour market during the recent years. The Information and Communication Technologies technological area includes the following economic activities: Computer and Communications, Electronic and Optical Products; Telecommunications Services; Information Technology Services; Information Services and Scientific Research and Experimental Development. The goal of the strategy is to study the regional distribution of the main economic ICT activities in Bulgaria and to present summarised data about the more important economic parameters. Data about the activity Creation and Distribution of Information and Creative Products; Telecommunications are shown - Employees hired under labour relationships (for the 2010-2015 period) for the entire country and by region and administrative area. The distribution by region of the jobs taken and available in the sector is represented, together with information about distribution of employees by degree of education. Data about the average monthly remuneration of employees under labour relationships (for the 2010-2015 period) are shown for the country and by region and administrative area. The article presents data about the Production of Computer Equipment, Electronics and Optical Products sector - employed specialists; average monthly salary; leading production processes in the sector and number of operating companies; number of higher education facilities and vocational secondary schools providing for this sector. The study of the main economic parameters of the ICT technological sector in Bulgaria has established the regional distribution of the main economic activities within this sector and the provision of personnel by region and by administrative area. This study may serve the teaching institutions in their curricula building and planning activities for each individual economic activity and for the regions in Bulgaria.

Key Words: ICT area; regional distribution; regional economics.

Causes of Migration in the Countries of Central Asia

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Abstract

The article is devoted to the regional aspects of migration processes in Central Asia. The reasons of occurrence of external labor migration, identified by its socio-economic consequences for the countries are involved in migration processes. Push factors of migration is an extremely difficult economic situation in the republics of Central Asia, the growing gap in living standards of the other CIS countries, especially from Russia, the lack of clear prospects for economic recovery.

The paper considers a sharp increase in labor migration from the countries of the Central Asian region. Among the main reasons for this can be called the growing differentiation in incomes between the economic development of Russia and the countries of Central Asia, where the economy was in stagnation. Also, the rapid growth of the labor force in the past (except for Kazakhstan) exerted considerable pressure on domestic labor markets and stimulated labor emigration.

It should be noted that the migration process was usually from countries with low income, low wages and high unemployment in the country with a higher standard of living. That is, the migration process becomes common place for many people in Central Asian countries face the problem of poverty. Rather low standard of living and the need to find means of livelihood of their families are usually forced the migrants illegal and exploitative working conditions.

Therefore, in the world there is no country, not involved in the process of labor migration. Is the main form of international economic relations?

Thus, in recent years, the scale of labor migration has increased significantly; the main factors contributing to this - demographic and economic situation in the world. Russia and Kazakhstan formed as one of the largest centers of attraction of labor not only in the region but in the world.

Key Words: foreign labor migration, the stagnation, differentiation in incomes, GDP, labor migrants, international migration, and Central Asia.

Modelling Land Use/Cover Change in Lake Mogan and Surroundings Using CA-Markov Chain Analysis

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Abstract

High population density in urban areas accompanied by the economic activities brought about more land to be developed for public infrastructure, housing, industrial and commercial purposes. Particularly, rapid urbanization and industrialization have resulted in the loss of a significant amount of habitats and ecologically sensitive areas. This is especially more evident in the central Anatolian basins of Turkey. Lake Mogan is one of the cases with high ecological and cultural significance but has been under intense pressure of urbanization and industrialization due to its close location on the periphery of capital Ankara.

There are different models and approaches to detect and to project land use changes. In this study, we used a combination of satellite remote sensing, Geographic Information System (GIS) and Cellular Automata Markov Chain modelling to analyze and predict land use/cover changes in Lake Mogan and surrounding areas in central Anatolian. Three remotely sensed images recorded in 1975 and 1999 (air photos) and 2009 (Quickbird image) were used to derive land use/cover information to calculate transition probability matrix. Spatial variables including distance from main roads, urban structure, water and a digital elevation model (DEM) and land use/cover suitability maps were derived in a GIS environment to determine possible developments in 2029. Various combinations of image pairs were used to drive transition probability matrix. 2029 land use/cover change map was based on the change between 1975 and 2009. The land use/cover change matrix between actual 2009 and predicted 2029 maps were created and change detection analysis was also performed. The results indicated that most of the agricultural areas will be converted into settlements over the next 30 years. Past changes and experiences will be a model for future developments. According to model on land use changes in Lake Mogan and surrounding areas, there is an immediate need to take long-term measures for sustainable land development based on the on the regional scales, preferably on the basin level.

Key Words: Land use change, Ca-Markov Chain Analysis, Lake Mogan.

Possibilities of Implementing the Principles of the Green Economy in Kazakhstan

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Abstract

Green economy is the economy, aimed at preserving a well-being of society through the effective use of natural resources and ensuring return of end-use products in the production cycle. First of all, the "green" economy focused on economic use of the resources that are currently subject to depletion (natural resources - oil, gas) and the rational use of inexhaustible resources. The "Green economy" is one of the important tools for ensuring sustainable development of the country. Development of the "green economy" will allow Kazakhstan to avoid the ecological crisis, which has affected many post-industrial countries.

The purpose of this work is to determine the readiness of the country to a path of the "green growth" reform, based on the principles of the sustainable development. In order to determine the country's place in the world, the methods of multivariate statistical analysis applied to establish criteria in relation to global indicators. As a result, on the basis of this criteria the share of investment for certain developed and developing countries was calculated, which should be directed to the economy transformation. According to our calculations, the countries with a high share of mining sector require a radical restructuring of the economy.

One of the most important criteria for the country's readiness for change is a degree of the civil society development and good governance as a key for successful implementation of the reforms. In this regard, description of the major criteria should be based on the following indicators: the human development index and index of corruption. The worse of these indicators for the country means the high cost of reforms and lower probability of their successful implementation.

Thus, developed countries and countries with high human development index, and low levels of corruption have a better chance for a successful implementation of the reforms on the path of the "Green growth". Kazakhstan, Russia and other countries with low economic, social and political indicators of readiness to the "Green Economy" transition have a long way to socio-economic and political transformation towards efficient economy, civil society and development of the state.

Key Words: Kazakhstan, the green economy, energy efficiency investments.

Assesment of Social Media Influence on Tourism Development in the Republic of Kazakhstan

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Abstract

Currently, social media is becoming increasingly popular. This is due to the rapid increase in the number of Internet users worldwide. Nowadays, it is difficult to imagine a modern man, who anyhow would not be associated with social media. The massive use of social media is also observed in the field of tourism. However, unfortunately, the social media in tourism in the Republic of Kazakhstan insufficiently investigated. Therefore, the chosen theme is very relevant. The concept of development of tourism industry of Kazakhstan until 2020, notes the importance of the impact of social media in order to achieve a rapid effect in the construction of image strategy. In this regard, the article assesses of social media influence on tourism development of tourism in Kazakhstan. Also, the article discusses social media as one of the main channels for promoting a product/service, advertising, organizing events and search of clients.

On the basis of the theoretical and practical tools to assess of social media influence on tourism development in the Republic of Kazakhstan and to consider social media as the main source of financial income, and search for new customers or target audience for the tourism and marketing companies of the domestic market.

Methods of research: method of analysis, statistical method, method of deconstruction, method of classification, empirical method and others. Analysis of statistical data, scientific and practical research results of social media in the modern tourism industry;

A sufficient number of foreign scientists reviewed research in the field of social media;

Made a new classification of social media;

A detailed analysis of the tourist company LLP «Dostik Travel» and marketing company LLP «Genesis» in social media;

Conducted a survey with the participation of international experts in the field of tourism and marketing, as well as tourists to assess of social media influence on tourism development of the tourism market in Kazakhstan;

Made a forecast and identifies new tendencies for tourism enterprises in 2016.

Key Words: social media, social networks, tourism industry, social media marketing (SMM).

Land Pollution of Karasay Landfill Solid Waste of Almaty City

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Abstract

This study focuses on the assessment of land pollution Karasay landfill of Almaty. At that time all of the wastes of Almaty to exported this landfill. It has accumulated more than 10 million tons of waste. Debris removal companies on the approved scheme, the collection and disposal of municipal waste to container sites daily removal of SW without prior separation of the components in the landfill of SW, which is located in Karasay district of Almaty region 34 km from the city of Almaty, 2 km north of the road with the message of Almaty - Bishkek, 1.2 km to the west from Aytey. Currently Karasay landfill, which receives waste Almaty, filled to capacity. The landfill of SW is located on a plot of LLP «KAZ Waste Conversion», a total area of 64.3776 hectares, including those for waste disposal - 57.7276 hectares. Landfills have caused irreparable damage to the environment – pollute the soil, groundwater, air. It can be stated on the example of our research, which revealed exceedances MPC in many contaminants on the current landfill of Almaty.

The purpose of research is to analyze the status of land pollution of Karasay solid waste landfill of Almaty.

Methods of research: in the article uses the following methods of laboratory studies of samples of soil, water and air to the landfill site, mapping, system analysis.

Results:

- Analysis of results of soil pollution solid waste landfill with heavy metals;
- Analysis of water pollution;
- Analysis of air pollution;
- Analysis of the current state Karasay landfill of SW.

Key Words: heavy metals, landfill, land resources, pollution, solid waste

Türkiye'deki Coğrafya Dergilerinde Yayımlanan Jeomorfoloji Konulu Çalışmaların Değerlendirilmesi

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Özet

Türkiye'de bilinen ilk akademik coğrafya dergisi 1938 yılında İstanbul Üniversitesi bünyesinde çıkartılan Coğrafi Araştırmalar dergisidir. Günümüze gelinceye kadar geçen sürede toplamda 13 coğrafya dergisi değişik dönemlerde yayımlanmış, bir kısmı yayın hayatına son verirken bazıları da günümüzde de yayınlarına devam etmektedir. Coğrafya dergilerinde özellikle fiziki ve beşeri coğrafya konularında çok çeşitli yayınlar yapılmıştır. Bu çalışmanın ana amacı, belirlenen 13 dergide toplamda 2995 makaleden jeomorfoloji ile ilgili makalelerin belirlenmesi, bu makalelerin konu bakımından jeomorfolojinin ana ve alt gruplarının ortaya konması, çalışma lokasyonları, illeri ve bölgelerinin çıkartılması ve böylece jeomorfoloji konularında çalışacak olan araştırmacılara eksik veya az çalışılmış bölgelerinin bir envanterinin ortaya konmasıdır. Bu amaç doğrultusunda toplamda 2995 makalede 669 jeomorfoloji konulu makale belirlenmiş, bunların yazar adı, tarihi, makale adı, dergi adı, sayı, sayfa, yayınlayan kurum, ana konu, spesifik konu, coğrafi bölge, bölüm ve il bilgileri ayrı ayrı kategorize edilmiş ve veritabanları oluşturulmuştur. Coğrafi Bilgi Sistemleri'ne (CBS) aktarılan bu bilgiler ile sorgulama ve analiz yapılarak çeşitli haritalar, grafikler ve tablolar üretilmiştir. Sonuç olarak, jeomorfoloji konulu makalelerin toplam makale sayısına göre oranı %22,3'tür. Fiziki coğrafya altında bulunan jeomorfolojinin tek başına hemen hemen dörtte birlik oranla makale sayısına sahip olması bu konunun önemini ortaya çıkartmaktadır. Coğrafi bölgeler bazında ülkemizde en fazla jeomorfoloji konulu yayın 125 yayın ile (toplam jeomorfoloji makalesinin %19'u) Marmara Bölgesi'ne, en az yayın 9 yayın ile (%1) Güneydoğu Anadolu Bölgesi'ne aittir. İl bazında ise en fazla yayın 33 yayın ile (%5) Antalya ve 30 yayın ile (%4) İstanbul'a aittir. Jeomorfoloji konulu hiç yayın yapılmamış veya çalışılan alan itibariyle sınırları içerisinde mevcut olmayan iller ise Kilis, Kırıkkale, Iğdır, Siirt, Şırnak ve Osmaniye olmak üzere 6 tanedir. Jeomorfoloji konulu yayınlar ana konu başlıklarına göre sınıflandırıldığında 29 ana konu ortaya çıkmıştır. Bu konular içinden en fazla yayın 130 ile uygulamalı jeomorfolojiye aittir. Spesifik konularına göre ise 53 yayın ile aşınım-birikim konusu öne çıkmaktadır.

Anahtar Kelimeler: Jeomorfoloji, Coğrafi Bilgi Sistemleri, Coğrafya Dergisi, Makale.

Monitoring of High-Rise Buildings within the Disaster Management System

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Abstract

Disaster management aims to prevent events that result in disaster or to reduce their losses. Monitoring of high-rise buildings, identification of unusual movements and taking the necessary precautions are very crucial for determination of the disaster risk so possible prevention could be taken to reduce big loss.

Operational safety and availability of an engineering structure are depend on admissions during the building's construction, the observation during the construction and during the operation, and the implementation of emergency plans in case of identification of erratic behavior. The purpose of structural monitoring is determining in advance of possible accidents and taking necessary precaution.

In this study, Different measurement techniques were investigated for determining the the behavior of high-structure using Global Positioning System (GPS). For that shaking table tests were performed. Shaking table was moved at different frequency and amplitude aiming to determine these movement with a GPS measuring system. The obtained data were evaluated by analysis of time series and the frequency and amplitude values are calculated.

Key Words: Monitoring, high-rise buildings, disaster management, GPS.

Lojistik Coğrafyası

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Özet

Dünyada bilimsel uzmanlaşmalar arttıkça, bilimsel literatüre yeni kavramlar ve terimler girmeye başlamıştır. Bu bir ihtiyacın sonucu olduğu gibi, bilimsel gelişmelerin de sonucudur. Nitekim lojistik teriminin özellikle son dönemde kullanımı yaygınlaşmaya başlamış, bu alanda bir çok eser verilmeye başlamıştır. Çünkü günümüzde gelinen noktada gittikçe artan şekilde lojistik alanı ekonomi dünyasının bir bileşeni olmuş ve bu sahada uzmanlaşmayı kaçınılmaz kılmıştır. Bunun gibi “lojistik coğrafyası” da son dönemde kullanılmaya başlanmış ve bu alanda eserler verilmeye başlanmıştır. Lojistik coğrafyası sahasındaki bazı temel eserler verilmesiyle birlikte, lojistik ve coğrafyanın kesişim sahaları ortaya konmaya başlanmış, bu bağlamda lojistik coğrafyasının kapsamı ve alanını belirlemeye yönelik çalışmalar yapılmaya başlanmıştır. Bu çalışmanın amacı, lojistik coğrafyasının kapsamı ve gerekliliği üzerine değerlendirmelerde bulunmaktır.

Anahtar Kelimeler: lojistik, coğrafya, lojistik coğrafyası, eğitim

Turizm Kent Etkileşimi: Marmaris Örneği

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Özet

Marmaris, Türkiye'nin önemli tatil kentlerinden biridir. Marmaris'in iklim, doğal güzellikleri ve alternatif turizm faaliyetleri ile kentte turizmin gelişmesini teşvik eden en önemli unsurlarıdır. Bu nedenle 1960'lı yıllardan itibaren turizm teşviklerinin artmasıyla kentte turizm gelişme sürecine girmiştir. 1960'lı yıllardan önce kentte süngercilik, hayvancılık ve tarım faaliyetleri ile geçimini sağlayan halk turizmim farkındalıklarından faydalanmaya başladıkları tarihten itibaren kentte yeni gelişmeler kayıt altına alınmıştır.

Marmaris'te turizm sektörü 1985 ile 2000 yılları arasında en parlak dönemlerini yaşamıştır ancak kentte bilinçsiz ve hızlı yapılanmaların sonucunda Marmaris günümüzde beton yığını haline gelmiş ve daha sonraki yıllarda önemini yitirmeye başlamıştır.

Çalışmanın amacı, turizm kent etkileşimin ortaya çıkarmak, turizm öncesindeki Marmaris'in durumu ile turizm sonrası Marmaris'in fiziksel ve yapısal alanlarında meydana gelen değişimleri belirlemek ve bu değişimler doğrultusunda kent turizminin olumlu ya da olumsuz etkilerini ölçüp belirlemektir.

Ülkemiz ekonomisi için önemli olan turizm sektörünün, Marmaris'te tekrar eski canlılığını kazanması için altyapı yatırımlarından hizmet sektörüne kadar ciddi önlemler alınıp, ivedilikle uygulamaya geçilmesi gerekmektedir.

Anahtar Kelimeler: Marmaris, Turizm, Kent Turizmi, Kıyı Turizmi, Kentsel Gelişme

Economic, Legal and Technical Dimension of Lands that has Lost Forest Characteristics in Accordance with Article 2/B of Forest Law No 6831 in Turkey

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Abstract

To follow the rapid changes on land use is of great importance in terms of creating sustainable-planned land use patterns. One of the factors that affect the change of the land cover and land use is land ownership. Urban pattern has begun to impose pressure on agricultural lands and forests. One part of the legislation ordering these activities in Turkey is the Second Item of the Forest Law which regulates exclusion from forest jurisdiction, the parcels of land that have lost their qualities as forests. Since the beginning the article 2-B practice, the law has been amended several times and in each case its applicability and its scope have been extended in order to take more lands out of forest boundary. And therefore, the application has still been posing a serious threats to sustainable forest management. In this study, the legal infrastructure and sale of forest areas that were excluded from the scope of 2/B areas due to shanty settlement is examined in terms of economic, legal and technical.

Key Words: 2/B Applications, 6831 Numbered Forest Law, Forest Cadastral Survey, Right Ownership

Solid Waste Management in the Federal University of the Bahia/Brasil

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Abstract

According to the Ministry of Environment (2015), Management of Solid Residues (GRS) is still a set of practiced actions, straight or indirectly, in the stages of collection, transport, treatment, and, final destination inside the environmental standards adapted of the solid residues. In the Federal University of the Bahia – UFBA exists, besides the teaching activities, hospital activities, of laboratory, restoring that produce a considerable quantity of residues. In many unities of the UFBA the collection and the destination of the residues are not being done in appropriate way. So, this article had as I aim to show how there was carried out the management of the solid residues produced in the UFBA, of way to minimize the environmental impacts, to maintain the health of the persons, carrying out works of Environmental Education, minimizing the waste. This model does not follow the rules of a Program of Management of Solid Residues, but yes immediate measures for control of the same thing, being based on the model implemented by UNICAMP (University of the Campinas), as soon as that of the UFBA presents similar physical structure. For so much there was introduced the selective collection and the recycling (production of compound), in the daily life of each unity. One hopes that the UFBA could minimize the aggression to the environment, contribute with the improvement of the esthetic scenery, with a better and healthier life, contribute with the environmental education and pioneers and constant growth maintain his history of actions with excellence.

Key Words: Solid waste, environmental education, environmental management.

Didactic Museum of the Soil - A Space for Teaching Soils

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Abstract

Soil is one of the most important natural resources for society, as important as water and air, since it is him who retires human consumption. For this reason it is important that not only the students are aware of this fact, but also society as a whole. Thinking about these aspects, I tried to do a project that considered all segments: students, teachers and society. Thinking about it was structured the Didactic Museum of Soil State Center for Professional Education Newton Freire Maia (Pinhais / Paraná / Brazil). Museum built relying on the soils classes, along with the students of 2nd year Technical Course in Agriculture. From specific soil content, through field and laboratory classes, he was thought to be working with soil monoliths, to prepare the Museum. It sought through this recognize the main soils of Paraná (southern Brazil). Was used to prepare the museum, the methodology for the establishment of monoliths proposed by Pedron and Dalmon (2009), next to this methodology, we tried to establish local soil profiles collections corresponding to the main soil types, these collections were made by students and teachers responsible for the project. Once collected, these profiles were worked in the location chosen for mounting Museum, trying to establish the morphology of them. Done that happened to the preparation of the profiles by applying glue (PVA - Polyvinyl Acetate) who left the firm structure of the profile. After a tissue web was placed on the surface of prepared soil, which upon removal gave the monolith. In addition to these procedures were collecting rocks, visits museums, which complemented the project. As a result the Museum was presented at the Jobs Fair of the institution and today serves as a teaching area on the soil of education.

Key Words: Education, soil monoliths, museum.

Around the Revitalisation of Post-Industrial Urban Spaces - Case Study of Metropolitan Association of Upper Silesia

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Abstract

Revitalisation is a complex, long-lasting and interdisciplinary process, aimed at social and economic recovery of the degraded part of the town, which includes comprehensive changes in spatial, functional, urban, infrastructural, social and environmental structure of the urban space. A special type of degraded spaces, particularly inconvenient to revitalise, are brownfields, characterized by the loss of hitherto function and the exclusion from use. The redevelopment of them is often associated with regeneration (restoring value through renovation or modernization) of historical buildings or technological monuments, it frequently requires expensive liquidation of industrial installations and purification of the environment from pollution (land reclamation), but mainly it is related to the introduction of new functions and communities into these areas.

The Metropolitan Association of Upper Silesia is a region in transformation. It is located in the area which used to be the biggest industrial region in Poland, formed as a result of intensive development of heavy industries started in Europe in the 18th century by industrial revolution, known from its hard coal mines, iron and steel works, factories as well as from pollution. At the beginning of 1990s, along with the transformation of political system of Poland, it occurred that traditional industries developed in Upper Silesia are not adjusted to the market economy of the rest of the Europe so its restructuring proved necessary. As a result many industrial plants had to be closed down, and in urban space appeared brownfields.

After the 25 years of economic restructuring of the region a lot have changed. In the urban space of towns united in the Metropolitan Association of Upper Silesia there are much fewer industrial facilities and brownfields, a lot of which were successfully revitalised. The paper shows main directions of redevelopment of brownfields in this area in general, as well as characterises most outstanding revitalisation projects implemented there.

Key Words: Revitalization, Metropolitan Association of Upper Silesia, post-industrial region.

The Development Wellness Tourism in the Pavlodar Region

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Abstract

In the present article, the resource capacity of the Pavlodar region has been examined, and the factors promoting and limiting development of medical and improving tourism have been analyzed. Recommendations for the development of medical tourism and improving the tourism industry in general in the Pavlodar region have been made. This is actually a prerequisite for the development of tourism using recreational and geographic assessment. The study has been conducted by the evaluation method in the same area that is compatible with the use of the territory of the local tourism and recreational tourism and recreational potential for the assessment of Kazakh research methods. The Pavlodar region is located on the bank of the Irtysh, the largest river of Kazakhstan. Sights of the region include natural, archaeological historical and architectural monuments, and religious constructions.

Existence of natural, cultural and historical resources and convenient geographical position of the Pavlodar region offer potential opportunities for development of medical and improving tourism. It is possible to highlight the medical and improving resources of the region: Natural-resources; salty lakes, therapeutic muds, mineral waters, and climatic resources. Unique resources; treatment by kumys.

The recreation-geographic assessment is a prerequisite for the development of tourism. The comparative evaluation of natural resources points to the appropriateness and efficiency of the functioning of natural resources of a definite region and is the basis of the research method used by Kazakhstan researchers for assessment of the harmonic touristic-recreation potential of a local territory.

Thus, at the present stage, the development of medical and improving tourism in the region can focus on the use of the already existing network of health centers at their active business cooperation with tourist firms in the creation and implementation of programs of medical and improving rounds, and on involvement in improving the tourism of untapped natural resources with which it is rich in the Pavlodar region.

Keywords: Resources, tourism, medical and improving tourism, wellness-tourism.

Climatic Assessment of Sustainable Water Management in the Melen River Basin (NW Turkey)

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Abstract

The Melen Project is a large investment by the Istanbul Municipality to meet the water requirements of Istanbul until the year 2071. This project will transform the Melen river basin into Istanbul's most important water source. The question is whether the Melen River can actually meet the needs for water for Istanbul until the year 2071? The streamflow characteristics of the Melen River are the fundamental factor that will determine the sustainability of the water supply and the success of the project.

As streamflow is sensitive to changes in precipitation and temperature, changes in climate have the potential to change the long term outlook for the project. In this study climate data for the last 51 years and streamflow data of the last 18 years were correlated to create a streamflow forecast model for years to come. Regression analysis was performed on daily temperature and precipitation data observed at the Düzce Meteorological Station between the years 1963-2014. Furthermore, potential evapotranspiration changes were derived from the same data. Streamflow data observed on the downstream section of the Melen River between 1997 and 2014 was used to predict future trends of streamflow.

Climate analysis results show the increase in mean seasonal and annual temperatures, a reduction in precipitation, increase in evapotranspiration and a decrease in the streamflow potential of the Melen river. The trends of climate change and its variability will cause a reduction in water potential and streamflow. As a result, the Melen River will be far from meeting the water needs of the Istanbul in the long run indicating a significant risk to the Melen project.

Key Words: Climate Change, Potential Evapotranspiration, Streamflow, Melen River Basin.

Urban Expansion and Integration of Suburban: The Case of Sousse, Tunisia

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Abstract

Like the large Tunisian coastal cities, Sousse experienced rapid urban sprawl passing the area of the urbanized area of 504.8 ha in 1950 to about 3174 ha in 2010. The spatial extension is the result of a strong urban growth mainly generated by the influx of migrants from the interior regions and the redistribution of the population within the urban space. The migration flows have contributed to the emergence of a socio-spatial division of the suburban area, where predominates poor neighborhoods south of the city; subject to several environmental inequalities (floodplain, sebkhas, industry, etc.), the middle-class west neighborhoods and affluent neighborhoods to the north.

Some of these vast suburban neighborhoods that have formed; are part of a voluntarist urbanization conducted by the public actor with the aim to meet the demand from the middle social categories in search of housing (eg Erriadh neighborhood), others are more subdivisions for wealthy populations (eg: Khezama) and the last informal nuclei are torn between city and that the public partner and actor renovated and rehabilitated through land and urban agencies; in the case of the city El Matar.

However, this policy development and implementation of infrastructure, even if it has integrated neighborhoods south of the city in the dynamics of the metropolis, could not however dampen tensions that have appeared here and there (social tension, population redistribution, competition between different uses of urban land).

The objective of the post is to mount the importance of urban growth and diversity of suburban forms and to present planning policies implemented to integrate peri-urban areas and their boundaries.

Key Words: informal settlements, periphery, urban sprawl, urban sprawl.

Determination of Stress Zone of Marmara Region for Earthquake Forecasting

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Abstract

Global Positioning Systems by means of satellites successfully have been used in different applications for last 30 years. These application areas encounter in a wide spectrum, from precision agriculture applications to vehicle navigation, from weather forecast to observation of crustal movement. Global Positioning Systems, in parallel with development of data transmission technology, have collected data consistently on a geostationary location and these data are transferred by different transmission techniques to center especially in recent years. Data collected in Global Positioning System stations that are established fixedly by different agency and institute in Marmara Region were processed with GAMIT software that was created by Massachusetts Institute of Technology (MIT). In this study, after processing obtained study area velocity vectors demonstrate. Stress zones and values were calculated depending on velocity vectors at 30 different location for Marmara Region.

Key Words: Stress Zone, Marmara Region, Earthquake Forecast, Disaster

Batı Anadolu'da Kula Yöresinde Erken Pleistosen'de İklim ve Volkanizmanın Kontrolü Altında Gediz Nehri Taraçalarının Oluşumu

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Özet

Bu çalışma, Batı Anadolu'nun Kula Yöresinde, Erken Pleistosen'de Gediz Nehri ve kollarının drenaj sisteminin evrimi konusunda en güncel gözlemlerimizin yorumuna dayanmaktadır. Kula yöresinde Erken Pleistosen'de meydana gelmiş volkanik lav akıntıları altında Paleo-Gediz tarafından oluşturulmuş 11 adet taraça tespit edilmiştir. Bu taraçalar oluşumlarını müteakip önce Paleo Gediz'in kolları tarafından taşınan alüvyal sedimanlarla ve sonrasında ise bazaltik lav akıntıları ile örtülerek günümüze kadar korunmuşlardır. Önceki bulgularımız bu taraçaların tamamının 1.6 – 1.2 milyon yılları arasındaki dönemde oluştuğuna işaret etmekte idi (Denizel İzotop Evreleri (MIS) 58–37). Sahada mevcut bazaltik kayaların detaylı radyometrik yaş belirlemeleri sonuçları ise söz konusu taraçaların sadece 6 tanesinin (T.7-T.11) volkanizma öncesi dönemde, 6 tanesinin ise (T.6-T.1) volkanizmanın başladığı dönemden itibaren oluştuğunu ortaya koymuştur.

Taraçaları örten bazaltların yayınlanmış jeokronolojik yaş tayinleri söz konusu taraçalardan T7-T.11 arasında olanların günümüzden 1.3 milyon yıldan önceki bir dönemde sedimantasyon-erozyon salınımlarının birbirlerini takip etmeleri sonucu oluştuğuna işaret etmektedir. Doğu Akdeniz havzasından sağlanan $\delta^{18}O$ verileri, günümüzden 1.2 milyon yıldan önceki dönemde iklimde 41 bin yıllık periyodik salınımlar olduğu, bu salınımların sebebinin ise yer eksenini ile yörünge düzlemi arasındaki açının periyodik değişimlerinin bir sonucuna işaret etmektedir (Obliquity Driven Climate Cycles). İklimdeki salınımlar akarsularda sedimantasyon/debi oranlarında periyodik birtakım değişimleri oluşturduğu ve bu değişimlerin sonucu olarak devresel özellikte Gediz taraçaları meydana gelmiştir. Ancak bölgede Erken Pleistosen döneminde volkanizmanın başlaması ile iklim değişimleri ile flüvyal sistem arasındaki dinamik ilişki kesintiye uğramıştır. Volkanizma ile birlikte Paleo Gediz en az dört defa lav setleri ile bloke olmuştur ve bu setlerin gerisinde Gediz Vadisi boyunca birtakım lav setti gölleri oluşmuştur. Göl seviyelerindeki değişimler vadi boyunca yerel taban seviye değişimlerine sebep olmuştur. Bu durum ise devam etmekte olan bölgesel tektonik yükselme ile nehrin yatağını derine kazma oranı arasındaki dengenin kesintiye uğramasına sebep olmuştur. Oluşan bu yeni duruma flüvyal sistemin yeniden uyumu, Gediz'in yatağını hızla derine kazma evreleri ve yatak geometrisinde birtakım yeni düzenlemeler yapma şeklinde olmuştur.

Anahtar Kelimeler: Flüvyal Taraçalar, Kuvaterner, Gediz Nehri, Erken Pleistosen.

Determining the Reflection of Tectonics on Morphology in Manav Stream Basin (NW of Bingöl) Using Morphometric Indices

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Abstract

In this study it was aimed to investigate how tectonics reflects on morphology in Manav Stream Basin, which is located in the northwest of Bingöl, using morphometric indices. Being one of the important tributaries of Peri River, Manav Stream is connected to Özlüce Dam. This basin remains in the southeast of Erzincan and in the south of North Anatolian Fault Zone (NAFZ). The basin's being cut by faults parallel to NAF suggests that it remains in this zone. There are thermal water sources in areas cut by faults across the basin. Sharp hillsides of the valley form fault scarps. Depending on tectonic movements, offset to the right direction has been seen in Manav Stream's side tributaries. Large landslides have occurred on the sides formed by fault scarps with high slope. Some indices have been used in order to determine the effect of active tectonic and reveal its reflection on morphology across the basin. For this purpose, slope, hypsometric curve-integral, drainage basin asymmetry, transverse topographic symmetry factor, and basin shape factor index have been evaluated. This analysis has been done using Digital Elevation Model. Geographic Information System software has been used for data generation and analysis. According to the results of analysis, slope values go up to 68, which is very high. While hypsometric curve of the basin shows a convex view, hypsometric integral has turned out to be high. Drainage basin asymmetry has been found to be 60. The basin's being cut by faults in NW-SE direction has caused it to have an asymmetric structure. In this asymmetry, the portion in the north covers larger area than that in the south. Accordingly, while the total length of the rivers feeding the basin to the north is 812 km, the total length of the ones feeding to the south has found to be 509 km. The drainage density is 3 in the north, whereas the one in the south is 2,82. The shape index of the basin, which is narrow and long, has found to be 1,30. These results show that Manav Stream Basin is shaped by tectonic movements and that tectonics is still active in the basin.

Key Words: Bingöl, Manav Stream Basin, Tectonics, Morphometric Indices

Present Status of Coastal Decline on Kızılırmak River Delta

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Abstract

Constructions of dams over Kızılırmak River decrease significantly the amount of the sediment reaching to the Kızılırmak Delta. The main reason of this decrease is retention of sediments carried by water. After construction of Altınkaya and Debent Dams which are nearest to the delta, new sediment input reaches to standstill. The most affected area is four kilometers of coastline where is the east of the river mouth. In this area from 1987 to 2004 over 500 meters marine regression was observed. There are main drainage channels of the State Hydraulic Works (DSİ) on the east of delta. Coastal decline is a major threat for the channels. Therefore 18 spur dike were build by DSİ. However, the decline of the eastern coast is still continuing. Since 2004, more than 300 meters regression was observed. This area remains a narrow strip of 100 meters dune. If not in this set, wave erosion by sea water will enter the marsh area that is west of Liman Lake. After then, Delta will begin in the eastern part of the erosion process much faster and destructive than before. As a result of this case, coastal border will start to withdraw about 1600 meters further south and extinction of Liman Lake will start in a very short time. In this study, the rate of erosion in the eastern part of the delta was determined using aerial photographs and satellite images from different eras.

Key Words: Kızılırmak Delta, Kızılırmak River, coastline, coastal declining

The Distribution of Landslides in the Valley of Murat River between Bingöl and Palu (Elazığ) according to Geomorphological Factors

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Abstract

In this study the distribution of landslides in the valley of Murat River, between Bingöl and Elazığ, has been investigated according to the geomorphological factors. Between Bingöl and Elazığ, the valley of Murat River corresponds to a gorge valley. In the area where the gorge formed, Murat River has been incised about 500-600 m into its bed. Thus, a long and deep gorge that has an average length of 40-45 km has formed. The section of Murat River between Bingöl And Palu remains on East Anatolian Fault Zone (EAFZ). In the area where tectonics is very active, Murat River has been incised into its bed in a short period of time. On the sides of valley in this section of river, the slope goes up to 90° under the influence of lithology. Due to geological and geomorphological features of the area where the valley has formed, large landslides have developed. These landslides affect the transport in some parts of the Elazığ-Tatvan railroad following the valley. Apart from this effect, the settlements in the valley, agricultural lands, and roads are also affected by landslides. In this part of valley, some analyses have been performed in order to determine the effects of landslides according to geomorphological factors. Slope, aspect, curvatures, distance factors to the rivers and landslide areas have been determined by using zonal statistical method. The landslide density of subclasses of factors has been determined by using overlaying method. According to the results of analysis, % 37.2 of landslides are in the range of 5-150, % 29.6 of them are in the range of 15-250 and % 21.4 of them are between 25-450. Due to the valley's being on EAFZ and movements of fault, sides facing the south cover large areas. 50.1% of landslides have been seen on the southern sides of the valley, whereas % 26.4 of them has been occurred on the northern sides. % 32.2 of the landslides in Murat Valley has been occurred on concave sides, and % 37.4 of them on convex sides. In addition, % 20.6 of the landslides has been seen in a distance of 0-100 m to the river, % 27.5 of them between 100-250 m, and finally % 32.6 of them between 250-500 m.

Key Words: Bingöl, Palu, Landslide, Murat River, Geomorphological Factor.

Determination of Potential Landslide Areas of the Geyraz Subbasin, Tokat, Northern Turkey

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Abstract

There exist a number of landslides in subbasins of the Yeşilırmak River Basin between Almus Dam and Tokat province in Turkey. Geyraz subbasin extends behind the Tokat Province and is one of the subbasins of the Yeşilırmak River which is one of the biggest rivers reaching the Black Sea, northern Turkey. These landslides have threatened settlements and agricultural areas located in the subbasin. The aim of identification of landslide triggering factors is to highlight the regional distribution of potentially unstable slopes and to guide decision makers for regional planning purposes. In this study, in order to investigate morphometric characterization of the subbasin, morphometric parameters were used. These parameters are Stream Power Index (SPI), Compound Topographic Index (CTI), Dissection index, drainage density and hypsometric integral. In addition, lithology, slope, elevation, number of first and second orders of the subbasin was considered. The former landslides were detected from aerial photos and topographic maps scaled 1:25,000. The total catchment area of the basin is about 250 km². More than half of the total basin is covered by schist and flysch with clay which is one of the main causes of the landslides. High dissection, steep slopes and youth-age of geomorphic evolution are others factors dictating the landslides. Taking into account of these factors, south-western part is low susceptible to landslides, whereas northern, southern and western parts of the subbasin are under the highest-risk landslide areas.

Key Words: Landslide, Morphometric parameter, Severe erosion, Rejuvenation, Tokat

Geographic and Demographic Distribution of Foreigners' Real Estate Acquisition in Turkey

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Abstract

Although the existence of real estate acquisition of foreigners has been accepted as a rule, the usage of this rule has shown variability towards changing and evolving world order over time and national interests. Real estate acquisition of foreigners in Turkey is a subject that always closely followed the public and began to attract attention after legal regulations made in 2003 that in accordance with the E.U. adaptation process. Real estate acquisition of foreigners in our country has also been applied in different forms throughout history and these applications has has varied according to that period. In order for these changes to be seen more clearly, the process until today is evaluated by treating the process of foreigners' real estate acquisition in our country, in chronological order.

This study, considering the legal statues of the real estate acquisition of the foreigners in Turkey as a starting point and evaluating the official statistics of TUIK and the General Directorate of Land Registry and Cadastre, aims to bring a geographical perspective to the subject. In this context, types and geographical distribution of the real estates purchased in Turkey by the foreigners and the origin and demographic distribution of countries of the purchasers are examined.

Key Words: Property right, Foreigners' real estate acquisition, Geographic and demographic distribution

Geographical Research of Village Names in İdil District (Şırnak)

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Abstract

Societies and communities, while settling down to the place they live and take shape according to it, give different names to the place inspired by the physical and humane conditions. The name, roots and structural characteristics of any object are the subjects of study of linguistics. However, when it comes to the place names, linguistic scientists need information of spatial sciences, which they cannot have. Main sciences of this area are geography, ethnology, sociology, and history. Because, place names are the indicator of the union of societies and geographical area. Names of settlements are affected by natural, social and cultural environment. The socio-cultural structure of societies also gives important clues about the history and geographical characteristics of the place they are in and used.

In this study, the names of the villages in Şırnak's İdil district, which is located in the Tigris Region of Southeastern Anatolia Region, are examined geographically. 68 villages in the district are examined and in this examination, the old and current names of the villages are indicated. The names are in two categories, physical and humane, in general. In this general categorization, 59% of the names of villages in İdil district are named after humane conditions while 41% of them are named after physical conditions. This general categorization is divided and analyzed in subcategories of villages by the names according to the elevation, the land, climate, hydrographic, floral characteristics, animal species, personal characteristics and ownership, religion and faith, the community, tools or a surrounding structure, the mythology, and the aftermath of an event.

As a result of this study, it was observed that the names of villages in İdil district are of Syriac and Kurdish origin and all village names have been converted into Turkish starting from the 1940s. Although many years have passed, it was observed that people there still uses the old names of the settlements. Because, many of the names given later are random and irrelevant to both the old name and the characteristics of the settlement. This is why the categorization is based on the old names, and quite significant results are obtained. It was revealed that the old names of the settlements were given according to the physical and humane factors of the place.

Key Words: Village Names, Place Names, İdil District, Şırnak

Land Size of Bağlar (Diyarbakır) Central District according to Elevation Gradients and its Effect on Economic Activities

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Abstract

The humane and economic effect of elevation gradients, which regulate people's field of action and lifestyles on the globe, is important as ever before. Land size according to the elevation gradients creates a substructure, and that substructure determines the economic activity. When the economic activity is handled with a spatial dimension, the effect of elevation difference steps in when it comes to revealing the dependency of all kinds of rural economic activities in Bağlar central district administrative division to geographical conditions. Bağlar one of the four central district in the city center of Diyarbakır. Municipal boundaries are determined as Diyarbakır-Sanlıurfa highway in the north, railroad line in the east, Cinar in the south, and the province border between Cinar and Siverek (Sanliurfa) in the west. In 2008, Bağlar gained a district status thus being proclaimed a central district municipality. In this study, land size of Bağlar central district according to elevation difference is shown in gradients of 200 meters. The ratio of these elevation gradients district wide is specified, and rural economic activities in all elevation gradients are examined, the variance of these economic activities are classified as from low elevation to high elevation and the relation between the elevation difference, and economic activity is mentioned by revealing the variances. Elevation gradient map based on satellite pictures is transferred to the numerical environment with ArcGIS 9.2 software. The size of each elevation gradient is confirmed with ArcGIS software by intersecting according to the land use. After the existing land usage is determined according to the elevation gradients, the place and importance of the variance of each land use designation based on the elevation will be included. Land use classification is not determined in detail; overall land use is to be ascertained. Besides, sub-groups of use encountered in every elevation gradient will be emphasized by indicating the name of the Village, street, flatland, and meadow.

Key Words: Bağlar District, Land Use, Elevation Gradient, Economic Activity, Diyarbakır

Destination Development: Overcoming Social and Environmental Limitations of Tourism in Bulgaria

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Abstract

The creation of the most competitive knowledge-based dynamic economy in the world is a strategic objective of the European Union providing more and well-faired jobs and greater social cohesion. This process requires presence of conditions for preservation and maintenance of natural and cultural heritage, obtaining balance of economic activity and natural way of life, innovation in terms of technology and exchange of good practices. International tourism in turn, is the largest source of export revenue, while the most important factor in the balance of payments and in the meantime a substantial part of national economies in the world. It stimulates investment in infrastructure creates a friendly intercultural relations and generally contributes to improving the living conditions of the local population and the environment. This context determines the relevance of the chosen topic for Bulgaria as tourism destination as the paper aims to establish specific opportunities which could solve the seasonality problem and contribute to overcome the negative social or environmental impacts of contemporary tourism trough the implementation of responsible travel concept.

Connected to that, the paper explores responsible tourism and as the object here is eco-village Omaia, an excellent destination for responsible tourism in Bulgaria. To achieve the objectives of the study literary analysis, method of informal interviews, observation, SWOT analysis and case study methods are used, which are based on Bulgarian and foreign sources, Internet resources and own research data.

Key Words: limitations, responsible tourism, opportunities

Terrace Staircases of the River Euphrates in Southeast Turkey, Northern Syria and Western Iraq: Evidence for Regional Surface Uplift

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Abstract

We present the first overall synthesis of the terrace deposits of the River Euphrates in SE Turkey, northern Syria, and western Iraq, combining new observations with summaries of data sets from different reaches that had previously been independently studied on a piecemeal basis. The largest number of terraces observed in any reach of the Euphrates is 11, in western Iraq, where this river leaves the uplands of the Arabian Platform. In many other localities not more than 5 or 6 terraces have previously been identified, although we infer that some of these are resolvable into multiple terraces. These terraces are typically formed of gravel, principally consisting of Neotethyan ophiolite and metamorphic lithologies transported from Anatolia. Although older gravels are also evident, most of the Euphrates terrace deposits appear, given the chronologies that have been established for different parts of the study region, to date from the late Early Pleistocene onwards, the cold stages most often represented being interpreted as marine Oxygen Isotope Stages 22, 16, 12, 8, 6 and/or 4, and 2. The formation of this terrace staircase reflects regional uplift of the Arabian Platform. Estimated amounts of uplift since the Middle Pliocene decrease southeastward from almost 300m in SE Turkey to 150m in western Iraq. Uplift rates increased in the late Early Pleistocene, the uplift estimated since then decreasing from 110m in SE Turkey to a minimum of 50m in the Syria–Iraq border region, then increasing further downstream across western Iraq to 70 m. Numerical modelling of this uplift indicates a relatively thin mobile lower-crustal layer, consistent with the low surface heat flow in the Arabian Platform.

Key Words: Euphrates, Fluvial terraces, Pleistocene, Anatolia, climate, tectonics, Syria, Irak

Mountain Regions, Population and their Ecological Problems: Case Study of Mestia Municipality

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Abstract

Mountain ecosystems play crucial role in global or regional development, since mountain regions are the key source of drinking water, biodiversity and power engineering. Mountain ecosystems are important for long-term development, overcoming poverty and for transition to the green economy.

Georgia is a classic example of such countries, where mountain regions occupy significant part of territory. The clear illustration of this fact is that more than 70% of Georgian territory is covered exactly by mountain landscape that preconditions the contribution and importance of mountain regions from the viewpoint of sustainable development of the country.

One of the most important aspects of sustainable development is direct consideration (taking into account) of population needs when drawing the development plan.

The goal of our research is the study/displaying of population's attitude in one of the mountain regions of Georgia – Mestia municipality, towards ecological problems in the context of regional development.

Mestia municipality is one of the largest municipalities of Georgia, population of which is relatively small taking into account its area. Rapid development of region and expansion of corresponding infrastructure takes place here from touristic viewpoint.

Questionnaire survey was conducted among Mestia municipality population. SPSS package was used for statistical analysis of results of polling.

The most important ecological problems of Mestia municipality population were identified as a result of the research. Corresponding maps with the use of geoinformation system were compiled in order to study peculiarities of spatial distribution of problems.

Obtained results are very important for elaboration of strategy of sustainable development of region, and are also quite interesting on a global scale as spectacular example of mutual relationship of environment and mountain regions' population.

Key Words: Ecological problems, Mountain Regions, Population attitude

The Surface Heat Island Effect of Urbanization: Spatial - Temporal Analysis

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Abstract

The temperature of Earth's surface has been rising since the last century. Thus, it is of great importance to study on climate change for the scientists. By the help of remote sensing technologies, scientists widely use satellite images in order to investigate and visualize the effects of global warming. Urban Heat Island (UHI) is one of the most important expressions for studying climate change. As the urban areas grow in a city, UHI effect becomes bigger. In other words, the temperature of the urban areas would become higher than its surroundings. The aim of this study is to retrieve Surface Heat Islands (SHIs) on the basis of Land Surface Temperature (LST) and to evaluate the changes in SHIs in two different years. The city center of Zonguldak was chosen as study area and Landsat 5 satellite data were used as materials. LST maps generated using Landsat data were utilized in order to obtain SHIs. Landsat 5 satellite data were acquired on 11.09.1987 and 29.09.2011, respectively. Besides, Land Use Land Cover (LULC) maps of the study area were generated using high resolution satellite images and these classified images were analyzed on the basis of urban heat island. The obtained results revealed that from 1987 to 2011 the size of the SUHIs expanded considerably. As in our case study, urbanization causes the global warming and to overcome this challenge, city planners and decision makers should consider using appropriate materials (not absorbing sun radiation) while constructing buildings, roads etc.

Key Words: Surface heat, heat island, urbanization, spatial and temporal analysis.

Ski Jumping Towers and Runways Landslide in Erzurum, 7 July 2014

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Abstract

In general, landslides, in slope, the rock, soil or debris down the slope, under the influence of gravity is moving in the direction of the slope. Each year, many people lose their lives due to landslides and excess material damage is seen. Among the causes of landslides, such as excessive rains, earthquakes, volcanic activity and anthropogenic influences or a combination of these effects can be shown. According to USGS, landslides are due only come close to \$ 2 billion in property damage occur each year in the United States.

The study area is located in Erzurum Plain is on Kiremitlik hill. The ski jumping ramps and runways were built on Kiremitlik hill with \$ 67 million budget in 2011 for the 25th Winter Universiade. Two landslides were occurred on slope of jumping ramps and runways in 7 July 2014 and 15 July 2015. In the first landslide ski jumping complex and facilities where the towers are completely unusable. The natural and anthropogenic cause of this landslide has tried to present by this study. It was utilized in previous studies, reports and satellite images in this study. There's an ongoing lawsuit case relating to the region and therefore are factors that restrict the field of research to be closed to visitors.

Kiremitliktepe is an anticline structure is limited to the north and south with the faults. In addition, this anticline is fragmented with active faults. Pliocene geological formation which was named Gelinkaya Formation (tuffs and basalt blocks) overlying Quaternary alluvium constitutes Kiremitlik Hill. Erzurum Ski Jumping Towers and Runways Landslide occurred in slipping into suitable geological structure and erroneous engineering applications result. Prior to the construction of the area by examining satellite images have also proved to be an old landslide area. Where the loose material and buildings built on the northeast slope in motion the taking no precautions have triggered this landslide. Loads should be removed and left in its natural state on this slope. Otherwise, it is inevitable new landslides again and again.

Key Words: Landslide, anthropogenic slope slip, ski jumping ramps, winter sports, Erzurum.

Effect of Urban Settlement on Natural Environment: The Case of Antalya

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Abstract

Expansion of urban settlement area that is an observable case by population demand that growing by urban dynamics effects with reflection of physical spatial. Reflections of spatial the cases usually take place as sprawl and concentrate. Sustainability principle, reducing land consumption that depend on structuring demand and efficient using urban development areas are promoted by planning policies that preventive sprawling and promotive concentrating. One of the main subject of planning disciplinary is necessity of the under controlling of urban expansion and expansion without destroy the natural areas.

Expansions of urban settlement area are created by both planning policies and segmental plan decisions in time. The settlement area is not only a trace of static structure area but also a dynamic structure area affecting to natural environment by. Generally, urban settlement area is a structure in time series that arrives boundary of urban settlement at the present time and including all urban functions in urban development process. This urban expansion has a big role in changing spatial and natural environment.

Aim of this study is to determine changing and affecting on natural environment of Antalya city center in time serial. In this study, it will be answered to question that is To what extent affect natural environment to urban expansion of Antalya?

Tourism sector that one of dominant sectors in coastal cities. These cities are consideren as urban settlement area on physical environment. This settlement area is taken place on unsuitable areas (arable soil land, unsuitable regions in terms geological- geophysics and conservation natural areas) in Antalya like some coastal cities, also. The expansion is a problem in terms of sustainable urban expansion. Developing tourism sector and keeping growth with the other sectors of it is increased to population of Antalya and affected to urban settlement area.

The aim of this study is to explaining characteristics of urban settlement area of Antalya and finding out expansion effects on natural areas by using satellite images and Geography Information Systems and ERDAS softwares. Expansion pattern of and effects on natural area of settlement area will be analyzed with satellite images and land use plans in time series. In further studies, this study will provide contribute to studies in terms of how that can be used more efficient about controlling urban expansion of land use changing with urban settlement and losing natural areas

Key Words: Expansion of urban settlement area, Land use, Remote Sensing, Antalya.

A Priliminary Survey of Dipsiz Cave in Terms of Formation, Habitat and Gathering, Hassa, Hatay

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Abstract

Dipsiz Cave is located in the Demrek Street in the District of Hassa (Hatay) and formed on the hillsides with 40-45 degrees of folded and faulted Amanos Mountains. It is a large tunnel cave due to its limestone and limestone tuff under the dolomite on the surface. The cave has stalactites and it continues to shape with expanding due to the collapses of limestone tuff in the ceiling. Rainwater dropping from the ceiling accumulates in the gutters of the cave base and forms puddles. There is atmospheric circulation in the cave because the cave with different divisions opens to outside in two directions. The cave has been the habitat of bats for years because the ecological characteristics of the cave are suitable for bats to live, shelter and reproduce. Therefore, thick organic and inorganic sediment layer is formed as a result of the fertilizers of bats these sediments with high level nitrogen are collected and used for producing organic fertilizer.

The formation of cave was investigated in terms of ecological characteristics and bat guano due to its different ecological characteristics. In the first part of the study, formation, development and karstic formations (stalactite) were investigated. Then, the components of the organic fertilizer were studied through examining the ecological characteristics of the bats. In the last part, the bat guano was evaluated in economic aspects.

In the conclusion part of the study, some problems resulting from the interventions to natural structure were determined and some suggestions to these problems were offered.

Key Words: Cave, Karstic, Bat, Organic Fertilizer, Habitat.

Evaluation of Morphometric Parameters of Flood Analysis: Case Study of Arakonak Stream Basin (Solhan-Bingöl)

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Abstract

Natural disaster is defined as dangerous and generally far-reaching incident which occur in a great extent or completely beyond control of human and can cause loss of life and property. The first characteristic of disaster is that it happens beyond control of human, so it is natural; the second it causes loss of life and property, the third it happens at short notice, lastly if it starts, it cannot be hindered by human. Resulting substantial damages in both residential and rural areas and varying in terms of severity and frequency, torrent and flood causes loss of life and property on a large scale recently, notably in our country and in the world.

Changes in meteorological conditions in the long transform overflows into disasters. Across Turkey, basic reasons of this are geographical position, uneven orography and no vegetation.

Economically, it caused 100 million dollars loss between 1974 and 2009 and it still continues. Progressive settlement inside river badlock, changing structure and usage of terrain, incorrect and intensive usage of land, deforestation of forests and pastures bring about bigger and more frequent flood disasters.

In this study, “An Example of Flood and Overflow Analysis; Arakonak Stream Basin (Solhan-Bingöl)”, AHP (Analytical Hierarchy System) using introductory hosts of Basin flood sensitivity analysis was carried out field and analysis techniques used in floods and overflow are dwelt on such as geomorphic mapping, topographic position and wetness index, drainage density, bifurcation ratio, stream power index, streaming frequency, slope and morphometric-basin relations indekx; these analysis techniques are evaluated and interpreted in terms of Arakonak Stream Basin. Furthermore, Geographical Information Systems was used. Finally, flood and flood analysis, belongs to Arakonak Stream Basin, is determined.

Key Words: Flood, Overflow Analysis, GIS, Arakonak Stream, Bingöl.

Tourism and Technology: From Tourism 1.0 to Tourism 2.0

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Abstract

In the following years of Industry Revolution social, cultural, economic and technological innovations, occurring on a global scale, led to breakpoint in the historical development of tourism. As a result of these developments, occurred on a global scale, it was quickly passed from premodern tourism activities, forming of a very small part of the societies' events, to all inclusive package tour which actualised around sea-sand-sun on a mass scale and classical-traditional tourism industry was founded in this way.

Because of expansion of the activity area in classical tourism industry, involving from world's different regions, the focus of the tourims geography has brought with tourism activities which has been mainly related to coast. However in recent years, gradually decrease of shore mass tourism's percentage in tourism activities has opened the door to alternative types of tourism by ensuring of the diversification and partially individualisation of tourism.

Today, beginning with sea-sand-sun and continuing with alternative types in classic tourism industry can't respond to desire, expectations and needs of postmodern human. Therefore, internet-based communication tools are used before, during and after the tourism activities in an active, intense and creative way by tourists and local communities, activity fields of tourism stakeholders which has a key role in classical tourism industry are minimizing or disabling. By this way, it has prepared the ground for the transition to the new trends in tourism.

Firstly, historical developmental stage of tourism will discuss in this paper. Secondly, internet, founded in 1989 and almost in every aspect of our lives such as politics, economy, education, health, sports, casual relationships, travel habits, has twenty-six year history which is so short but effective. It's effects on tourism geography will be tried to reveal. Finally, classic tourism industry and new trends, emerging in geography tourism, will be compared and the paper will be terminated.

Key Words: New trends in tourism geography, internet-based communication tools, tourism 1.0, tourism 2.0

Assessment of Cultural Heritage and Belief Assets for Tourism: Case of Giresun Town

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Abstract

Cultures and beliefs of societies living in different regions from past to present reveal sui generis characteristics and this fact prepare ground for various situations in terms of culture and belief in Turkey. Many heritage containing concrete or abstract various culture and belief elements which are valuable in historical, cultural and aesthetical terms and produced by different cultures and beliefs attract attention of many local and international tourists and hosts visits performed in this context. This situation contributes development of both culture tourism and belief tourism in our country.

Giresun central town has traces of many different civilizations and keeps many legacies of Islamic and Christian beliefs and cultures. Among them are mainly historical mosques, historical tombs, historical fountains, historical inns, historical hamams, historical bridges as well as historical churches and monasteries. Moreover there are cultural attractions like local plays and folkloric activities, wedding ceremonies and entertainments, cloths, handcraft and food reflecting life and culture of the region. With all these belief and cultural legacy richness and diversity Giresun central town has a useful location in terms of culture and belief tourism. When essential activities are performed with this regard and touristic infrastructure is created we believe that Giresun central town will have a better position with regards to culture and belief tourism.

Key Words: Culture, Belief, Tourism and Giresun

A New Geotourism Area: Emirhan Cliffs (Turkey)

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Abstract

The subject of this study is a new geotourism area of Emirhan cliffs, which is located in Sivas city boundaries of the Middle Anatolia Region. It is altitude 1780 metres above sea level and 13 km from Sivas. Emirhan cliffs is a natural geosites, which was overturned of sandstones in the horizontal position in Eocene - Miocene periods due to tectonic and occurred giant layer vertical structures with 90°, covering an area of approximately 25 km². This geosites area has natural scenery with temporarily waterfalls, differ forms, wild goat and red legged partridge and endemic species on gypsum rocks. At the same time, it has cultural values such as church, protect towers. Emirhan cliffs are new tourism areas to be visiting of hundreds of people to see natural and cultural values every year. More than 600 people have visited Emirhan cliffs since 2013. This geosite is a part of Upper Kızılırmak Culture and Natural Way and an ever-increasing important. In this study is addressed on importance related to geotourism of this geosites.

Key Words: Geopark, Geotourism, Emirhan cliffs and Sivas.

Orchard and Vineyard Biotopes to be Protected around the Kemaliye (Erzincan)

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Abstract

When urban landscape is viewed from an ecological perspective, urban spaces each having a different character and representing a biotope or ecosystem can be seen. Defining these elements (ecosystem or biotope) which form landscape that is in a continuous change in an up-to-date and extensive manner is significant in terms of the development, management and sustainability of urban ecological infrastructure.

Kemaliye town landscape, a town of Erzincan province and chosen as the research area, starts at 850 meters from the riverside and rises up to 1000-1100 m slopes. The town is established on a transit point of Karasu, the most important distributary of Euphrates River on a very sloping land where the slope ranges between 15°-30° and formed of limestones. The most outstanding biotopes in Kemaliye and its environs is steppes, forest and shrub ecosystems, cliff ecosystems and river and stream ecosystems. And in the urban areas, it is settlements, agricultural lands, vineyards and orchards that stand out. However, these cultural biotopes which started to lose its previous importance today, are under the pressure of housing today.

Within the scope of the study, garden and orchard biotopes within the Kemaliye town construction plan borders are examined. The results collected from the studies in the sample areas representing the biotopes using representational mapping method are linked with other areas with the same character. The results indicate that vineyards and orchards are centred around brown soil around Kemaliye town centre which is not rough. It is found that vineyards and orchards, which are found to be an important part of local ecosystem and economy, are used as urban agricultural lands or orchards by the locals. In addition to growing vegetables, there is also a significant orchard reserve. There are orchards where people grow natural and cultural edible woody plants such as white and black mulberry, apple, gean, sour cherry, apricot, plum, pear, fig, walnut, dog rose, blackberry, silverberry, hawthorn, rowan berry, lime, dogwood etc. Vineyards on the graded gardens specific to Kemaliye topography stand out as a different landscape mosaic. Traditional orchard and vineyard biotopes reflecting the traces of urban biodiversity and cultural history should certainly be conserved and protected for future generations.

Key Words: Urban ecosystems, orchard and vineyard biotopes, Kemaliye, Erzincan.

Determining the Impact of the Black Sea Coastal Road on Beech Forest Ecosystems: Case of Bartın-Kurucaşile Transport Corridor

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Abstract

Road ecology is a recent area of study in the field of landscape ecology. In particular, it is seen that studies focus on the disintegration of natural ecosystems. Road networks are among the main factors in the disintegration of forest ecosystems. This process breaks large forest landscapes into small pieces and turns in-forest ecosystems into borders habitats.

In this process, it is not only the area where the road is built on experiences a physical change but also ecological and biological effects occur on the natural ecosystem surrounding the road network. These destructions cause to significant changes on the almost natural landscape spaces around the road.

This study is carried out on Bartın-Kurucaşile road on the Zonguldak-Sinop public road, which is the Western Black Sea area of the Black Sea Coastal Road Project. The purpose of the study is to find out the actual spatial distribution of the beech forest ecosystems within the ecological impact zone of the road. To do that, data on disintegrated beech forest ecosystem numbers and total size of beech forest ecosystems are collected; and important milestones that increase the connectedness between the ecosystems are determined and suggestions are developed to protect them. In forming ecological impact zone around road landscape between Bartın-Kurucaşile road and evaluating it, 'Buffer' analysis an Arc toolbox tool in AchGIS medium is used as the research method. In addition, a review of the relevant literature and geodesy studies based on ecosystem are carried out.

The results of the study indicate that in addition to the touristic and socioeconomic prosperity that the new road works aiming to connect Amasra and Kurucaşile to Bartın center through tunnel, viaduct and bridge connections in a shorter period of time bring to the area, these works also have negative effects on road landscape. It is revealed with satellite data that these effects cause disintegration on beech forest ecosystems on high mountainous areas in particular.

While planning transportation networks, in addition to aiming safe and efficient human movement, it is necessary to attach the required importance to natural ecological processes and biodiversity. In spatial planning phases of the roads, the ecological impact zone should certainly be taken into account as well as the solutions that prioritize the sustainability of the natural or almost natural species and ecosystems under impact.

Key Words: Road ecology, ecological impact zone, Bartın-Kurucaşile transportation corridor.

Evaluation of Solar Energy Applications Results by Orköy Case Study: Forest Villages in Shout-West Anatolia Region

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Abstract

This study investigates the results of the practice aimed at reducing the consumption of firewood to obtain hot water by means of the widely used Solar Energy Systems (SES) introduced by the General Directorate of Forest-Village Relations (ORKÖY) in 2005. Data concerning the impact of the SES on forest villages was obtained by means of a face-to-face survey conducted in the forest villages of Antalya, Burdur and Isparta provinces located in the Western Mediterranean Region. The frequency distributions and percentage of statements were assessed with the Chi-square and simple correlation analysis methods.

The General Directorate of Forest-Village Relations, ORKÖY, inform that the consumption of firewood has decreased by 60-70% in forest villages as a result of the utilisation of the Solar Energy System (SES). However the results of the study have shown that forest villages of the Western Mediterranean Region have saved a percentage of 20-30% firewood as a result of the SES.

The average consumption of firewood per household in forest villages of the Western Mediterranean Region is 11,74 stere. If the saving of firewood is found to be 30%, then the average amount of firewood saved per household is 3,2 stere. The saving of firewood by means of the utilisation of solar energy systems is estimated to be approximately 336,042 TRY according to the market prices for the households annually.

The percentage of forest villagers who state that use of the SES has a very little, little and medium level contribution to the family budget is 87.4%. It is thought that the way in which the villagers obtain the firewood has had an effect on this outcome. It was found that 73.3% informed that the cost of firewood consumed has none, very little or little impact on the household budget. However, this practice has led to a significant saving on the use of LPG by the forest villagers. The use of the SES has resulted in a 180 TL and 61.44% saving of LPG used by forest villages in the Western Mediterranean Region. It is observed that the SES practices of ORKÖY have mostly been utilised by the financially middle to lower classes living in the forest villages. 95.6% of the financially middle and lower classes of the villages have benefitted from the support provided.

The SES is considered the most widespread social project of ORKÖY after the roof covering project implemented.

The project has led to an increase in the quality of life and development in social structure for forest villagers. In this sense, the project can be considered as a significant social forestry project. The percentage of enterprise managers benefiting from the ORKÖY support who are satisfied and very satisfied with the practices are 90.0%.

Key Words: solar water heating system, forest villages, fuel wood,

Muş İlinde Yerleşim Alanları İçin Doğal Bir Tehlike Kaynağı Olarak Heyelanlar

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Özet

Heyelanlar, jeolojik, jeomorfolojik ve iklimsel etkenler ve süreçler ile insanların çeşitli etkinliklerine bağlı olarak ta gelişebilmektedir. Ülkemizde son 50 yıl içerisinde meydana gelen, en çok hasar verici etkiye sahip afet türleri içerisinde deprem, sel ve taşkınlarla birlikte heyelanlar da önemli bir yere sahiptir. Özellikle ülkemizde farklı büyüklüklerdeki yerleşim birimlerini etkileyen doğal tehlike kaynakları incelendiğinde de deprem, sel ve taşkınlarla birlikte heyelanlar en çok zarar veren doğa olaylarıdır.

Muş ovasının özellikle kuzeyinde kalan (Varto ve Korkut) gibi alanlar da farklı yaşta ki bazı jeolojik formasyonlar üzerinde yerleşim alanları içinde tehlike kaynağı oluşturabile cek/oluşturan heyelanlar vardır. Bu heyelanların bir bölümünün Kuzey Anadolu Fay Zonu (KAF) ve onun kolları üzerinde yoğunlaşmaları, bu alanlarda iklim koşulları dışında depremlerinde heyelanları tetikleyerek yerleşim alanları için önemli bir tehlike kaynağı oluşturması söz konusudur. Muş il sınırları içerisinde birçok yerleşme geniş alanları etkileyen eski heyelan kütleleri içerisinde yer almaktadır. Bu eski ve geniş alanları etkilemiş kütle hareketleri içerisinde yeni orta ölçekli farklı tipte kütle hareketlerinin gelişmiş olması bu yerleşim alanları için tehlike boyutunu artıran bir durumdur. Bilek, Ağartı, Çataklı, Buzlugöze, Hüseyinoğlu, Karaköy, Kızılağaç, Savaşçılar, Karaköy gibi yerleşim alanları eski heyelan alanları içerisinde konumlanmış yeni gelişen kütle hareketleri tarafından tehdit edilen yerleşmelerdir.

Muş ili için doğal tehlike kaynağı olarak heyelanların haritalanması, heyelanlara ait envanter haritalarının oluşturulması, güncellenmesi ve heyelanların takip edilmesi ilde kütle hareketlerinden kaynaklanabilecek muhtemel zararların azaltılmasında etkili olabilecek bazı ön çalışmalardır.

Anahtar Kelimeler: Doğal Tehlike, Coğrafi Bilgi Sistemleri, Heyelan

GIS Tools and Physiographic and Climatic Characterization Watershed Dam Sidi Chahed (NE Meknes, Morocco)

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Abstract

The Dam Sidi Chahed is located downstream of the Mikkes and Lmaleh rivers. It's located about 30 km at the NE of Meknes city and about 30 km at the NW of Fez city on the main road between Fez and Sidi Kacem. It was commissioned in 1997 and has a capacity of 170 million m³. It crosses three different structural units with the Middle Atlas to the south, the basin know the center and south-north Rif wrinkles. The use of ArcGIS and Global Mapper has been used to characterize the edge of the dam and its retention Sidi Chahed from ASTER images making several thematic maps which are: the map contours, the DTM, the map slopes and their exposure, thematic map of sub-basins, the thematic map of the river system and its classification, the superposition of the structural and drainage networks, thematic map of rainfall and late distribution maps of physico-chemical parameters. From thematic maps produced for the watershed studied, several geometric calculations were performed to characterize the watersheds under long view, width, equivalent rectangle, area, perimeter and compactness index. These parameters indicate that sub tanks are elongated favoring low flow rates, a greater flow of water and a total amount of time of considerable precipitation harvested. Rainfall results, which were obtained from the isohyets maps are divided into 7 classes with lower values since the Middle Atlas at the south (850 mm) to the Sidi Chahed dam at the north (450 mm).

Key Words: Dam Sidi Chahed, Oued Mikkes, Geology, ASTER images, DEM, Watershed, Drainage, GIS.

The Influence of Hill Land Use of Slovakia on Water Erosion of Agricultural Soil

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Abstract

Water erosion of soil is a natural process. This process changes the quality of the soil. The greatest importance by soil degradation in Slovakia has water erosion. It is reflected especially on the arable land. The erosion processes accelerate intensive use of agricultural land. This effect is greatly in hill lands. The hill lands in Slovakia have suitable climatic and soil conditions for agricultural use. Their morphometric difference (especially slopes) with the character of agricultural land use accelerates the erosion process of soil. The aim is to identify the signs of erosion of agricultural land in selected locations of hill land of Slovakia. By identifying erosion processes we based on historical and current use of the land. We observe erosion processes on the basis of aerial photographs from the years 1949 and 2014. Evaluation of land use we realized on the basis of identifying the elements of land use (arable land, permanent grassland, vineyards and fruit orchards). Character and degree of erosion processes we give to be linked with the presence of various types of vegetation elements and morphological-morphometrical landform types. From vegetation elements we identify contiguous forests, non-forest woody vegetation, line elements and other combinations of vegetation elements. Model area is intensively used landscape of Pohronská pahorkatina hill in southern Slovakia. At present, is the country with large complex fields less heterogeneous than in the past. We found significant symptoms of water erosion in both time horizons. In the past it was eliminated form of land use. Areas of soil erosion are higher in the current period. This reflects the use of agricultural land. The large blocks of fields are also on the slopes with a higher degree slope with significant surface runoff. For the elimination of erosion would be appropriate to modify the structure of agricultural land and change the soil fund.

Key Words: agricultural land, water erosion of soil, landscape use.

Evaluation of Association between Morphologic Traits and Geographic Characters in Relict Endemic *Dorystoechas hastata*

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Abstract

Dorystoechas hastata Boiss. and Heldr. Ex Benth. is a monotypic plant relict endemic to Antalya province of Turkey and protected as Vulnerable status in IUCN Red List Categories. It is a medicinal aromatic plant species with its dense volatile and aromatic oil content and being consumed as herbal tea by local inhabitants. The objective of the present study was to measure and determine variation in morphology of *D. hastata* among locations where species naturally located. In this context we selected 4 different locations (Söğütçuması, Hisarçandır, Sivridağ and Üçoluk) in Kemer/Antalya. Measurements which represent various morphological traits (altitude, aspect, plant length, plant width, plant diameter, leaf length and width, pedicle length, spike length and width, flower spike length, calyx length and width, corolla length and width) were carried out from 3 individuals in each location. Statistical analyses of the findings were performed and correlation coefficients among morphological traits of *D. hastata* were calculated. There were no significant differences among locations for morphological traits. According to the results, altitude was positively correlated with calyx length ($r=0,65$), but the aspect is negatively correlated with spike length ($r=-0,59$), calyx width ($r=-0,59$), calyx length ($r=-0,60$) and corolla length ($r=-0,65$). Also there were relatively high correlation between leaf length and leaf width ($r=0,95$), pedicle length ($r=0,60$), spike width ($r=0,84$), flower spike length ($r=0,83$), calyx width ($r=0,72$). It was seemed that some of the geographical characters affect various morphological traits of *D. hastata*.

Key Words: medicinal aromatic plant, morphological traits, *Dorystoechas hastata*, Antalya

Stakeholders' Knowledge and Adaptation to Landuse Changes in Abuja Fct, Nigeria

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Abstract

Understanding the stakeholders' knowledge of land-use and land-cover (LULC) change and strategies they employ in adapting to the changes is very important in developing and implementing appropriate sustainable LULC management policies. This study explores the perception of twelve key stakeholders (public service workers, farmers, petty traders, school teachers, traditional medicine sellers, livestock herders, wood collectors, wood sellers, private sector workers, estate managers, artisans and mechanic/repair workers) and their strategies of adapting to LULC changes in four Area Councils (Karu, Nyanya, Karshi and Orozo) of Abuja Municipal Area Council of Federal Capital Territory of Nigeria. Between 1987 and 2014, cropland and bare surfaces both declined while those of vegetation cover, road networks, built-up and Parks/Green all expanded. The stakeholders were able to recognize the kind of LULC changes occurring in the areas but largely failed to sufficiently identify their major causes beside settlements development and population expansion. The major consequences of LULC change as perceived by the stakeholders are those that relate directly on survival of an individual (such as food and housing supply). Consequently, their major adaptation strategies are those involving alterations in means of livelihood (such as completely changing occupation and residential area, and use of additional income generating sources). Thus, though the stakeholders have a fairly good understanding of the LULC change in the study area, they have very little understanding of its major causes and consequently low adaptive capacity due to lack of awareness financial resources and information on best practices.

Key Words: Landuse; Land cover; Change; Stakeholders; Perception; Adaptation; Urban; Population; Growth

Stakeholder Involvement in River Restoration Movement: A Case Study in Boyong-Code River in Yogyakarta, Indonesia

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Abstract

Boyong-Code river management engaged with Government, community and other related stakeholder since over 15 years. But there was no optimum result from the river management. In 2015, regards to Water World Day celebration, there was declaration toward Yogyakarta River Restoration Movement by vision healthy, productive and sustainable river. The declaration done by triple helix stakeholders that were Government, community and university. This lead to logical framework that if optimum and proportional stakeholder involvement will catalyst River Restoration process. Thus, the research was conducted to identify and to analyse stakeholder involvement and stakeholder mapping toward Boyong-Code River Restoration Movement.

This research was a descriptive-qualitative research in order to comprehend social situation more deeply. The definition of key informants was conducted in purposive and snowball sampling manners. Data collection technique was conducted by interviews, documentation, and observation. The data analysis method was descriptive-qualitative method.

Result shows that stakeholder involvement depends on the interest toward river restoration and depends on the power in river restoration process. Multi stakeholder identified as a subject (has an interest with low power), as a contest setter (has a high power with low interest), as a players (has a high interest and power), and as a crowd (has a low interest and power).

Key Words: Takeholder involvement, Stakeholder mapping, Yogyakarta River Restoration Movement, Boyong-Code River.

Ecological Quantum Analysis: Calculating Energy Parameters of Plant Communities

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Abstract

The present study was conducted to calculate energy parameters at the complex level and the potential energy footprints of specific processes (i.e. phylogeny, environmental mediation and emergent effects) at metacommunity level

The fundamental quantity used in the present study is based on Max Planck's energy based entropy modified by László Orlóci. A plant meta community data composed of 9 complexes taken between 1200 and 2000 meter from Gedikli district located in the transmission zone of the Mediterranean region was subject to quantum analysis.

According the results obtained from quantum analysis, the complex found in 1800 meter includes the highest potential energy footprint (nH) and instability % (E%) values. Calculations at meta community level showed that potential energy footprint of phylogeny overwhelms the effect of altitude in the nH terms. However this is turned in favor of altitudinal gradient when the H footprints are compared.

Key Words: Energy, entropy, phylogenetic tree, environmental factors, resonator

Proposal of a Model for Tracking the Amount and the Yield of Agricultural Product using GIS

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Abstract

The estimation of the amount of product that arises as a result of agricultural activities plays an important role in nationwide agricultural planning and in planning which affects the economy of country like targets of export and import that are performed in regards to the amount of product. Tracking of the amount of product must be performed effectively in planning process. In spite of that tracking of the amount of product by doing with classic methods generates a costly process and causes a loss of time. By means of models which will be improved with softwares of GIS, the amount of product can be tracked on the basis of parcel and approaches for yield increase can be planned. Through analysis opportunities of GIS, by evaluating all factors (rainfall, temperature, slope, aspect, soil structure etc.), predictions which will contribute to yield increase of product can be made, agricultural activities can be conducted effectively, waste of country resources can be prevented and targets of planning can be reached in the most correct way. The model which be suggested in this study bases on data collection relating to factors which influence to yield and evaluation all together. Factors taken into consideration with decision support systems by weighting will be evaluated in GIS and so this will be contributed to determination of product and yield increase on the basis of parcel.

Key Words: GIS, Agricultural product, Decision Support Systems, Yield

Interdisciplinary Approach in Rural Tourism and Importance of Geography

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Abstract

Interdisciplinary approach examines concept, issue or theme with multidimensional and holistic view. In this context, hypothesis, principles and methods, belonging to complementary disciplines, are utilized. Thus, data, combined systematically, provides sophisticated contribution in investigations. Interdisciplinary passes are already inevitable at the present time. In fact scientific cooperation, partnership and group studies, at a level of plan, programme and project, become a current issue as both necessity and conclusion.

By the reason of multi-directional relations and based on human beings, tourism must be investigated with interdisciplinary approaches. When numerous scientific disciplines such as geography, sociology, psychology, history, archeology, anthropology, ethnography, architecture, economics, management, marketing, planning, policy, law, statistics are taken as a reference and basis, services, demand, various relations, effects and destination where tourism improves are understandable.

The aim of this study is to reveal the position and importance of geography in interdisciplinary approach of rural tourism. Rural tourism is a type of tourism that combines natural environment and rural settlements. Birthplace and effects of rural tourism take place at rural geographical environment therefore; this type of tourism's examination preeminently belongs to in the field of geography. Importance of geography in rural tourism will be given with establishing cause-effect relation, research subject and limits of various disciplines will be shown and privilege of geography will be shined out. Analytical and comparative method will be used in the processing of the subject.

Key Words: Rural tourism, interdisciplinary approach, geography

The Development Potential of Rural Tourism in the Surrounding and in the North of Izmir: Opportunities and Threats

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Abstract

Aegean Region ranks among the highest growth potential of rural tourism in Turkey. Izmir, in position of metropolis in Aegean Region, has a large supply potential. East-southeast district in Izmir, shoreless part of the Aegean Sea, also rural attraction of north, west and south coasts is quite rich. Nowadays, this attraction comes to the phase of evaluation through rural tourism and leader examples began to emerge. However, growth rate is both very slow and has a number of threats.

The research area of this paper involves the North districts of Izmir (the districts of Menemen, Foça, Aliğa, Dikili, Bergama and Kınık) in addition to central district of the neighbour province, Manisa. Additionally identification of threats, the aim of this paper exhibits rural tourism attractiveness of research area and evaluation opportunities of these.

Firstly, rural attractiveness of research area and existing state of tourism will be analyzed in this paper. Secondly implementation of rural tourism's examples, generated on existing structures, will be given. Finally, opportunities, developing rural tourism, and threats will be pointed out.

Research is a field study which is based geography and tourism. Therefore, research methods base on identifying supply characteristics on-site and visiting the examples of rural tourism. In this paper, data, belonging to field, will be analyzed in compliance with rural tourism facts, diagnosis will be made and will be unified with proposals. Also, comparisons in various categories will be made.

Key Words: Izmir, rural tourism, opportunities, threats

The City of Migration, Not Camp - The Geographical Position and Migration Policies of Turkey

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Abstract

Migration is a geographical change of place, which is made by people through moving from one place to another in order to settle there for the purpose of living a part of the rest of their life. In addition, the relatively long-distance movement of all major animal groups, including birds, mammals, fish, reptiles, amphibians, insects and crustaceans in different parts of the world is called animal migration.

Anatolia, a land-bridge between Asia and Europe, the unique terrain has signification place in the history of civilizations. In terms of the geographical position, it has a vital strategic importance. In the twenty-first century, it is apparent that Turkey is a part of refugee because of the events experienced in the recent history of the country such as the two world wars and the political and social turmoil's in various countries or states. There are currently many international efforts and studies for the purpose of a (re)-defining and finding solutions to the migration issue. However, all the countries or states and the related organizations in a worldwide scale found themselves confronted by many unexpected problems in controlling present and future waves of migration. The social-economics, psychological and sociological effects of migration are carried into the next centuries in the new location, or settlement.

In this regard, the present study aims to emphasize the fact that it is necessary to from a state and government policy for the purpose of building cities of migration in order to save the established order of the people living in Turkey and provide better life standards and conditions to immigrants by keeping in mind that seeking the support of the international organizations is a must to deal with the issue.

Key Words: Migration, human conditions, city, established order

Pollen Analysis of Honeys from Hatay, Turkiye

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Abstract

The natural honey produced under suitable floral and climatic conditions is a very valuable and healthy nutrient. The pollen analysis study is one of the most important methods to determine relationship between honey production and plant biodiversity. In addition, local flora around the honey hives is closely related with the quality and floral origin of the honey. This study presents pollen analyses of natural honey produced in Hatay province. This data is expected to contribute towards the melissopalynological studies and enlighten the importance of the plant biodiversity of the State. Honey samples were collected from 15 different localities in 2013 around Hatay and its environs. The pollen analysis was carried out using microscopical analysis. In all 100 taxa belonging to 40 different families were determined. Apiaceae, Asteraceae, Brassicaceae, Fabaceae, Lamiaceae, Poaceae, Rosaceae ve Trifolium were the most represented taxa. In honey samples, dominant pollen types were from Fabaceae and *Petroselinum crispum* while Apiaceae, Asteraceae, Brassicaceae, Fabaceae, Rosaceae, Lamiaceae, *Lathyrus sp.*, *Erica manipuliflora*, *Arbutus andrachne*, *Olea europaea* and *Citrus aurantium* were recorded as secondary taxa. Among the 15 honey samples, only two samples collected from Üçgüllük and Kale villages were unifloral, because of having only one dominant and trace pollen, others were determined as multifloral honeys. The highest number of pollens was observed in the samples from Üçgüllük Village (96113 pollen grain). These results are expected to contribute towards a high-quality honey production in the area.

Key Words: Melissopalynology, Honey, Pollen analysis, Hatay.

A Successful Application on Zoogeography: Protection of the Existance of Northern Bald Ibis (*Geronticus eremita*)

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Abstract

Birecik has an essential importance in terms of zoogeography. One of the most popular symbols of this feature is the bird **Northern Bald Ibis** (*Geronticus eremita*) which is a local symbol of Şanlıurfa and a general symbol of Türkiye. There have been significant increases on the population of the Northern Bald Ibis birds nowadays by means of successful attempts in Türkiye despite the risk of extinction which is caused by restriction of their biotopes, hunting and most of all agricultural pesticides. It is a must that researchers from geography, zoology, envirenmental engineering and agriculture fields should cooperate and form a study in order to protect the existance of the Northern Bald Ibis in forthcoming years with certainty and improve their level of welfare. The scope of our investment is inspection of Northern Bald Ibis existance in terms of zoogeography, evaluation of today's state and suggestions about what could be done in the future.

Key Words: Northern bald ibis, *Geronticus eremita*, Birecik, Türkiye, Zoogeography.

A Comparative Study on the Biosphere Reserves of Türkiye and Kyrgyzstan

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Abstract

As of 2013, there are 621 biosphere reserves in 117 countries in the world network of biosphere reserves. Kyrgyzstan Sary-Chelek was declared by UNESCO as a Biosphere Reserve area in 1978, whereas Camili-Türkiye was declared in 2005. An attempt has been made here to compare the scope of sustainability, plant diversity of these biosphere reserves. A total of 990 plant taxa belonging to 432 genera and 110 families have been reported from the Camili Biosphere Reserve. Out of these 953 belong to the Spermatophyta and 37 to the Pteridophyta. Spermatophytes include 7 Gymnosperms and 946 Angiosperm taxa. The richest families in the study area are Asteraceae (114 taxa-11.5%), Poaceae (69 taxa-7%) and Fabaceae (59 taxa-6%). Veronica (15 taxa), Campanula (15 taxa) and Geranium (13 taxa) are the richest genera. The number of endemics is 23, and endemism percentage lies around 2.30 percent.

As far the Sary-Chelek Biosphere Reserve a total 675 taxa belonging to 316 genera and 64 families have been recorded. Out of these 673 are Spermatophytes and 2 are Pteridophytes. Spermatophytes include 8 Gymnosperms and 665 Angiosperm taxa. The richest families in the study area are Poaceae (73 taxa-10.81%), Asteraceae (63 taxa-9.33%) and Lamiaceae (58 taxa-8.59%). The richest genera are Astragalus (19 taxa), Carex (13 taxa) and Poa, Allium and Polygonum (11 each taxa). The number of endemic taxa is 30 taxa showing a rate of 4.44 percent. In this study phytogeographical origin of the plant taxa, life forms and position according to the IUCN threat category of endemic taxa have been evaluated. In addition the threats to these biosphere reserves and protection measures to be adopted are discussed in detail in the light of relevant literature.

Key Words: Biosphere reserve, Camili, Sary-Chelek, Plant diversity

A Critical Approach to Epistemological Production of Human Geography: The Case of Turkey

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Abstract

The aim of this study is to discuss academic production, content and applications of human geography in Turkey with a critical approach. Human geography locally and globally examines, analyzes relationship among human being, place and space, and, in this context, finds solutions relating to the subject. Therefore, human geography, via place, space and its patterns; carries out scientific analyses on such conceptual scales and patterned interactions as identity, ethnicity, faith, value, belongingness of social structures or different states, nations, cities, economies and classes and, ultimately, make inferences. This approach epistemologically makes extensive room for human geography. In developed, western countries, prevalence of scientific researches on the discipline of human geography supports this view. A great number of periodical, academic publishing (academic journal) and books also confirm this approach. As to Turkey, especially, in the field of human geography, the number of researches on such themes is scarcely any. From the beginning of 20th century, especially from proclamation of the republic (1923) to present, which refers to nearly a hundred-year period, it has been determined that the discipline of human geography, within the context of relational structure and interactional form of human being, place and space trio, had stood aloof from social subjects and, thereby, such subjects had been left out of the scope.

This situation is completely the result of political production that predetermined the scope and content of the education system. This approach limits the working conditions of the academicians who work in the field of human geography. Nevertheless, it is known that this situation cannot eliminate their responsibilities. As a matter of fact, in the field of human geography, various databases indexing international scientific journals support this view and also reveal scientific, publication quality of the applications in Turkey. This circumstance shows that the discipline of human geography does not take necessary responsibility in relation to investigation and discussion of scientific realities, social themes and informing the society.

Key Words: Human geography, Epistemology, Education Policies, Critical Approach, Turkey,

Recreation Areas in Konya City Centre: Hobby Gardens

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Abstract

Recreation is a series of activities that people attend with the aim of playing games, going on cultural trips, dealing with some hobbies, having fun and doing sports. There are a number of fields where people can attend these activities. One of these fields is the hobby gardens which have been built at the rural areas of the cities in many parts of the world and especially in European countries and they have also become more and more popular in Turkey in recent times. Hobby gardens are formed via dividing up the large land areas by private and public enterprises and then they are rented to people for a period of time. At this point, the important thing is land's being cultivated by people. The size of the parcels is between 80 and 300 square meters. At a corner of the parcel, a cottage is built to put some necessary equipment in it.

One of the aims of the hobby gardens is to create opportunities for spending time in nature freely, moving away from the city's busy life and people's resting with their families. Municipalities develop the infrastructure systems of the area and people deal with seeding, planting, fertilization, hoeing and pruning with the aim of growing fruits, vegetables and foliage plants in these rental areas.

The issue of our search is the hobby gardens which have been built in different points of the city by Meram, Karatay and Konya Metropolitan Municipalities. These gardens are important examples of recreation areas and demanded substantially in recent times by people. In this issue, technical information was taken from the management of park and gardens of municipalities. Then, common resting areas, gardens and bowers were examined; their photographs were taken and interviewed with garden owners. Hobby gardens, which were built by Konya municipalities and which have become important recreation areas, were examined with geographic method using information obtained from hobby gardens, its literature and evaluations of interviews.

Key Words: Hobby Garden, Recreation, Konya, Karatay, Meram.

Circassians and their Influence on Anatolian Culture

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Abstract

Turkey is the last representative country of historical and cultural heritage of the ancient Anatolian peninsula. Throughout history, it allowed immigrants from all quarters and led to immigrations towards various places of the world. In this peninsula, where three continents (Asia, Europe and Africa) intersect, many empires (Roman, Byzantine, Seljuk, Ottoman, etc.) and states have reigned; different beliefs and ethnic structures have taken shelter and an extant and rich cultural texture has been formed. Thanks to historical and geographical location of Turkey, such cultural wealths (especially, belief, ethnicity and folkloric characteristics) provided a basis for a heterogeneous social structure, redolent with a marbling design or a mosaic form. One of subjects of this cultural wealth is also Circassian.

The Adygheas, Kabardians, Circassians (those inhabit in Russia or in Diaspra) are named as Circassian (Adyghea). Regardless of where they live, Circassians are known as people whose origin, culture and language are close to each other. Along with this discussion and claims, if used in a broad sense, the term Circassian includes all northern Caucasus peoples having been expelled from their homelands. Nevertheless, in the strict sense; it refers to Adyghea or Adyghea people.

The aim of this study is to determine the dispersion of the Circassians in Turkey and their contribution to Anatolian culture, who were among the ancient peoples of the North Caucasus and were predisposed to expulsion heading for various countries of the world as a consequence of the massacres and forced migration carried out by the Russians, especially in 1864. In this regard, the dispersion of the Circassians in Anatolia and their demographic development were examined and thanks to literature survey and field researches in the Circassian Association and villages (Dağyaka/Teşrek- Yenimahalle and Çerkeshöyük/ Gökçehöyük- Gölbaşı) in Ankara various data have been provided and evaluated.

Key Words: Anatolia, Circassians, Adyghea, Culture, Multiculturality, Turkey

Relationship between Rainy Days with Marine Tourism Activities in Senggigi Beach and Sekotong Beach, West Lombok

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Abstract

West Lombok district is the most visited district by the domestic and foreign tourist. The famous beach attractions are Senggigi beach and Sekorong beach. Due to exploit the region of water as a mayor tourist attraction, the climate has become one of the factors that influence the development of marine tourism in the beach destination. Climate parameters taken in this study are the number of rainy days and times of rain. The study used a statistical method of time series analysis, regression, and descriptive analysis to explain the relationship between rainy day with marine tourism activities. The number of rainy days negatively affects the number of tourist who visits the beach, the number of tourists will decrease when the frequency of rainy days is high. Although the timing of rains do not affect marine tourism activities in both coastal locations, the timing of activity over marine tourism water focused on physical factors such as high waves and tide times. Marine tourism activities can be developed at the site of research are surfing in Senggigi beach and boating in Sekotong beach.

Key Words: Beach, Marine Tourism Activities, Rainy Day



The Votes' Territories in Tunisia: The Case of First and Second Presidential Election Rounds of 2014

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Abstract

The electoral map outcoming from both presidential election rounds revolved around the economic and social similarities between a littoral and northern Tunisia with a modern vote and a central and southern Tunisia with a more conservative tendency. Thereby, the two presidential election rounds allowed for the first time to analyse the votes' territory. According to the static data relative to the elections and interactive mapping tool by using Hyper Atlas Tunisia we can deduce various votes' characteristics such as abstentions, useful and unuseful votes and the electoral strongholds.

Key Words: Votes, territories, Tunisia, presidential election, 2014

The Impacts of Land Degradation on the Socio - Economic Status of People in Khartoum State, Sudan

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Abstract

This study aimed to evaluate the socio economic impacts of land degradation in Special Program for Food Security (SPFS) in wad Omer village in west Omdurman area. Primary data was collected through personal interviews with individuals using a structured questionnaire and analyzed by descriptive statistics method. The main occupation of people in the study area was animal rising. After SPFS introduction some of those people began practicing crop production activities, growing sorghum, okra, water melon, cucumber and abusabaeen. All respondents complained from decline of their sorghum production due to diseases and birds, which destroyed their crops. Okra was also found to be exposed to diseases, leave shrinkage and scorch despite higher production that sufficient for farmer's home consumption. The average return of all crops was high, indicating that most of the respondents had profited from SPFS in generating income. Hence SPFS succeeded in achieving one of five the objectives, of increasing the income of the people in the study area. It created an opportunity of income source from agriculture.

Key Words: Land degradation, socio-economic status, Khartoum, Sudan



Basic Climate Forcing Factors from the Thermodynamic Point of View

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Abstract

For ease classification of terrains in terms of climate it is proposed to introduce climate forcing factors: a) integral thermodynamic index of the temperature and the air humidity – air heat; b) the level of moisture load in soil. Restoration and forecast of the level of moisture load in soil according to the average annual values of temperature, air humidity and soil porosity is suggested.

Key Words: Climate forcing elements, air heat, moisture load in soil.

Türkiye’de Son Yasal Düzenlemeler Işığında Sürdürülebilir Dağlık Alan Yönetiminin Değerlendirilmesi

Hasan Sayılan

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Özet

Önemli bir bölümü dağlık alanlarla kaplı Türkiye’de, sürdürülebilir dağlık alan yönetimi son yıllarda gündeme gelen bir konudur. Özellikle Avrupa Konseyi’nin bu konuda devam eden çalışmaları ile birlikte, Türkiye de “dağlar ve dağlık alan yönetimi” konusunda bazı deneyimler elde edilmektedir. Bu alanlara yönelik yerel düzeyde, bütüncül ve yönetim eksenli politikaların geliştirilmesi gerektiği vurgusu yapılmaktadır. Dağlık alanların sürdürülebilir gelişiminde en önemli etkenlerden biri şüphesiz yerel yönetimlerdir. Türkiye’de 2000 sonrası başlayan yerel yönetimler reformunun önemli parçalarından biri de 2012 yılında yasalaşan ve 2014 yılında yapılan yerel seçimlerle birlikte fiilen uygulanmaya başlayan 6360 sayılı Kanun olmuştur. Düzenleme ile büyükşehir belediyelerinde, il özel idareleri kaldırılarak bunların yerine Yatırım İzleme ve Koordinasyon Başkanlığı (YİKB) getirilmiş, köyler ve beldeler mahalleye dönüştürülmüştür. Bu değişimden, dağlık alanlarında içerisinde olduğu, Türkiye’nin büyük bir bölümü etkilenmektedir. Bu anlamda çalışmanın temel amacı, sürdürülebilir dağlık alan yönetiminin temel bir dinamiği olarak değişen büyükşehir belediyesi yapısının temel özelliklerini ortaya koyarak, değişimin dağlık alanların sürdürülebilir gelişimine ilişkin ortaya çıkardığı süreci coğrafi bakış açısıyla eleştirel olarak inceleyerek değerlendirmektir.

Anahtar Kelimeler: Türkiye, Dağlık Alan, Sürdürülebilir Yönetim, Mevzuat, Belediyeler.

Ortadoğu'da Son Yıllardaki Gelişmelerin Türk Dış Ticaretine ve Turizmine Etkileri

Hasan Sayılan

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Özet

Tunus'ta başlayarak Kuzey Afrika ve Ortadoğu ülkelerine yayılan ve Arap Baharı adını alan halk ayaklanmaları, Tunus, Mısır ve Libya'da hükümetin devrilmesine, Suriye'de iç savaşa, Libya'da iç savaşla birlikte dış müdahaleye, Cezayir, Fas, Suudi Arabistan ve Ürdün gibi ülkelerde küçük çapta da olsa reformların yapılmasına neden olmuştur. Bölgede yaşanan bu olaylarda ülkelerin iç dinamikleri kadar, uluslararası kuruluşların bölgedeki çıkarları ve tutumları da belirleyici olmuştur. Orta Doğu ve Kuzey Afrika, birçok ülkenin ekonomik ve siyasi çıkarlarının bulunduğu stratejik bir bölgedir. Bu coğrafya, Türkiye'nin de tarihi ve sosyal bağlarının güçlü olduğu, halkları arasında akrabalık bağları bulunan, siyasi ve ekonomik ilişkilerin üst düzeyde olduğu ülkelerden oluşmaktadır. Bu nedenle bölgede yaşanan gelişmeler, Türkiye'yi de öncelikli olarak ilgilendirmektedir.

Bu çalışmada, Siyasi coğrafya perspektifinde Arap Baharının nedenleri, yayılma süreci, İran, Rusya, Avrupa Ülkeleri ve Amerika Birleşik Devletleri'nin bölgeyle ilgili politikaları ve bölgede yaşanan gelişmelerin Türkiye'nin bölge ülkeleriyle olan ekonomik ilişkilerine etkileri incelenmiştir. Analiz sonucunda, bölgede yaşanan gelişmelerin, Türkiye'nin Mısır, Libya, Suriye ve Tunus'la olan ekonomik ilişkilerini önemli ölçüde olumsuz yönde etkilediği tespit edilmiştir.

Anahtar Kelimeler: Ortadoğu, Türkiye, Ticaret, Turizm.



The Analysis of Consumption Poverty in Wad Banda Locality, North Kordofan State

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Abstract

This study aimed to analysis consumption poverty in Wad Banda Locality, North Kordofan State. Both primary and secondary data were used. Primary data were collected through field survey conducted on Sep. 2009 using questionnaire. The study used Foster, Greer, and Thorbecke index (FGT index) as main technique for measuring consumption poverty. The study showed that consumption poverty was less prevalent comparing with income poverty in study area. The study recommended that to focus on capacity building programs to help poor in gaining essential capabilities and skills which empower them to become effective economic agents.

Key Words: Analysis Consumption Poverty, Wad Banda, North Kordofan State.

Konaklama Tesisi Yöneticilerinin Alternatif Turizme Dair Görüşleri: Doğu Antalya (Side) Turistik Gelişim Projesi Bölgesi Örneği

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Özet

Doğu Antalya (Side) Turistik Gelişim Projesi Bölgesi (DATGPB); konaklama tesis türü ve sayısı ile gelen turist sayısı, turizm gelirleri açısından sadece Antalya'nın değil Türkiye'nin de önemli turizm merkezleri arasında yer almaktadır.

Bölgede; deniz kum güneş üçlüsü dışındaki potansiyel turizm kaynaklarının tespiti ve kullanımına yönelik çalışmaların yetersiz kalması, turistik aktivitelerin yılın tamamına yaygınlaştırılamaması, sürdürülebilir turizm açısından sektörünün geleceğini tehdit eden sorunları beraberinde getirmektedir. Uzun yıllardır devam bu durum; yılın belli bir bölümünde tesislerin boş kalmasına neden olmaktadır. Dolayısıyla konaklama tesisi yöneticilerinin bölgenin potansiyel turizm kaynaklarına dair görüşlerinin tespiti son derece önemlidir.

Bu araştırmada 27 konaklama tesisi yöneticisi ile yüzyüze görüşülerek bunların 22 adet yarı yapılandırılmış görüşme sorusu ile alternatif turizme dair görüşlerinin belirlenmesi amaçlanmıştır.

Araştırmadan elde edilen verilerin analizinde DATGPB'nde alternatif turizmin işlerlik kazanabileceği sonucuna ulaşılmıştır.

Anahtar Kelimeler: Konaklama tesisi yöneticileri, Alternatif turizm, Side, Antalya.

Airports and Hubs: A Multidimensional Approach for their Understanding in the Context of Globalization. AS-Madrid Barajas as Geography Case Study

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Abstract

Nowadays, it could be said there is no global city if it does not have a large airport with a geographically diverse and intense connectivity and, therefore not a large airport without a global city since both elements interact, provide feedback and are mutually supporting.. That is, there is a necessary and changing symbiosis that leads us to rethink the concept and functions traditionally assimilated to both concepts.

In this poster, this city-airport symbiosis is analyzed from three different approaches for the case study of Adolfo Suarez-Madrid Barajas airport hub: 1) from an operational perspective; this airport gives connectivity to Madrid in terms of links and frequencies, allowing extension of its connections beyond its immediate hinterland, essential characteristic in defining a global city; 2) from an economic perspective; Barajas is able to generate local employment, promote indirect jobs and attract economic activities in the information and communication technologies and other high-tech industries; 3) from a symbolic perspective; morphological changes associated with avant-garde architecture and new non-aeronautical activities are used to build a modern, attractive and overall image of Madrid associated with the so called “cognitive cultural capitalism”.

This infrastructure is an example of the need to single out and show those distinguishing elements of Madrid in a context of urban competitiveness. Therefore, it must be stated that airport and city are in constant symbiosis, in a context of struggle between cities to attract the more visitors, ideas, capital, and all types of possible flows.

Key Words: Transport, cultural geography, airports and hubs, Madrid

Comparison of Basin Morphometry Derived from Aster and SRTM DEMS – A Study on Çağlayan and Kabisre River Basins (Northern Turkey)

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Abstract

Geomorphometry is a measurement and a mathematical analysis of surface topography. The morphometric analyses of catchment basins provide to get information about characteristics features of basins and quantitative data of drainage system. The determination process of catchment basin's boundary can be done by using modern methods like Digital Elevation Models (DEMs). In this study, comparatively morphometric analysis of Çağlayan and Kabisre river basin were done using different DEM sources like Advanced Spaceborn Thermal Emission and Reflection Radiometer Global Digital Elevation Model (ASTER GDEM) (30 m) and Shuttle Radar Topography Mapping Mission (SRTM) (30 m) and the results were compared with 10 m resolution DEM produced from 1:25000 scaled topographical maps. For this study, all technical operations were done by using GIS. Basic morphometric descriptors of the basins were examined and compared such as area, perimeter, elevation (min., max., and mean) values, stream order, stream length, bifurcation ratio, length ratio, drainage density, ruggedness number and elongation ratio of two river basins in the northern Turkey namely Çağlayan and Kabisre River basins. The results show that both free data set (ASTER GDEM and SRTM) give almost same results with only some minimum differences in the two basins. Some parameters such as area, perimeter, min., mean and maximum elevation values, length ratio and elongation ratio values give best fit with the results of Topo-DEM. In contrast, stream order, total stream length, drainage density and ruggedness number values give minimum fit according to the resolution of Topo-DEM. This study shows that ASTER GDEM and SRTM data can be used for basin morphometry studies because of their similar results with Topo-DEM results in the matter of so many morphometric parameters.

Key Words: Çağlayan river basin, Kabisre river basin, morphometric analysis, ASTER GDEM, SRTM.

An Overview of the Vegetation Types from Irano-Turanian Phytogeographical Region of Turkey

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Abstract

The Irano-Turanian phytogeographical region includes the central, east and southeast Anatolian geographical divisions of Turkey with a total area of approximately 38 900 000 ha. The area embodies the richest plant diversity in Turkey and is dominated by a typical steppe vegetation. Vegetation in the phytogeographical region is very important genetic, biological and ecological diversity. In this context, based on studies made so far is intended to be revised syntaxonomy of different vegetation types in these areas. Data obtained as a result; In Central Anatolia usually forest (*Pinus nigra* ssp. *pallasiana*, *Abies cilicica*, *Cedrus libani* and *Quercus*), shrub, steppe (plain steppe, low mountain steppe, high mountain steppe and alpine regions) and halophytic; In Eastern Anatolia forest (*Pinus sylvestris*, *Betula pendula* and *Quercus*), shrub, steppe (plain steppe, mountain steppe and alpine regions), grassland and hydrophytic; In Southeastern Anatolia forest, steppe, halophytic, ruderal, drystream, meadow and water-marsh vegetations are available. Steppe vegetation are included phytosociological aspects of the different orders and alliance *Astragalo-Brometea* class. Although rare, it is seen of the steppe plant associations of the *Daphno-Festucetea* class. Forest vegetation clearly seen of the dominance of different orders and alliances in *Quercetea pubescentis* class. *Quercetea ilicis* and *Querco-Fagetea* classes are less common classes in forest vegetation. Although the change in halophytic vegetation regional basis, has been evaluated *Salicornietea* class in the Central Anatolia, and *Saginetea maritima* class in Southeastern Anatolia. In addition, salty steppe vegetation types have also been evaluated in *Astragalo-Brometea* class. In addition to these type of vegetation; pasture and stream vegetation types have been evaluated in *Molinio-Arrhenatheretea* class; ruderal vegetation has been evaluated in *Stellarietea media* class, and rock vegetation has been evaluated in *Asplenietea trichomanis* class.

Key Words: Irano-Turanian, Vegetation, Turkiye

Investigation of TEC Variation Induced by Geomagnetic Activity

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Abstract

Global Navigation Satellite Systems (GNSS) have been used in numerous fields especially related to satellite-based radio navigation system for a long time. Ionosphere, one of the upper atmosphere layers ranging from 60 km to 1500 km, is a dispersive medium, and includes a number of free electrons and ions. Not only is the ionization subject to the sun and its activity but also to seasonal, diurnal variations and geographical location. Total Electron Content (TEC), also referred as Slant Total Electron Content (STEC), is a parameter that changes in relation to ionospheric conditions, and has a highly variable structure. Furthermore, Vertical TEC (VTEC) can be referred to as TEC value in the direction of zenith. TEC is measured in units of TECU and $1\text{TECU} = [10]^{16} \text{ electrons/m}^2$.

Magnetic storms are scaled according to Disturbance Storm Time (Dst) index which gives information about severe ionospheric weather conditions. It is expected that these magnetic storms show their ionospheric effects in TEC variation. This study examines an intense magnetic storm which started at 11 UTC on 27 August 2014 (-50 nT) and continued until 10 UTC on 28 August 2014. The determination of TEC variations caused by geomagnetic activity are examined with the GPS-TEC values computed by the Bernese 5.0 software and International Reference Ionosphere (IRI-2012) TEC values. In order to determine whether there is an anomaly induced by geomagnetic storm or not, normal distribution method has been implemented for GPS-TEC and IRI-2012 TEC results for August month. As a result of analyses, the GPS-TEC gives response to TEC variation as negative anomaly, caused by geomagnetic activity; IRI-2012 TEC values, on the other hand, have not changed during the disturbed days. Since IRI-2012 model does not provide precise TEC values, it is not advised to use for monitoring the effects of geomagnetic activity on ionosphere.

Key Words: Ionosphere, Total Electron Content, GNSS, TEC

The Place and Importance of Turkish Cooperation and Coordination Agency (TIKA) and Yunus Emre Institute in Turkey's Use of Soft Power

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Abstract

The case of power is one of the main issues which the geopolitics science deals with. In short, power is the multiplication of the sum of mixed and potential factors with strategic mindset, strategic planning and political will. The fixed elements remarked in the formula consist of hardly changeable geography, history, population and culture. The potential factors consist of relatively rapid changing economic capacity, technological capacity and military capacity. The vision, strategic plan and political will of a country that it develops based on these factors determine its power. The effects, importance and priority of these factors increase or decrease according to time and condition. The researchers have divided power into various categories, the principals of which are hard power, soft power and smart power. Of these powers, soft power is a peaceful attraction power that enables countries to come to a common point. Even if the history of international affairs experiences various soft power events, this term originally was used and theorised J. Nye in 1990. Turkey which has recently tried to be an important actor in the regional and global struggle, on one hand, develops hard power factors; on the other hand it pays attention to use of soft power. In this frame, the governments carry out various activities through public institutions, civil society institutions, communication tools ect. Doubtlessly, among these institutions, Turkish Cooperation and Coordination Agency (TIKA) and Yunus Emre Institute have a profound significance. Both are functionally the means of effective soft Powers. In this study, we investigated the place and importance of TIKA and Yunus Emre Institute in Turkey's use of soft power.

Key Words: Turkey, Soft Power, Turkish Cooperation and Coordination Agency (TIKA), Yunus Emre Institute.

Russians - Asians in the Westernmost Point, or Europeans in the Easternmost Point?

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Abstract

Most of Russian landscape is in Asia, while majority of the Russian population lives in Europe. Because of this, there is an ongoing debate about whether Russia is European, Asian or Eurasian both political geographically and ethno culturally. The double headed eagle symbol of Russia represents that it is the center of Orthodoxy and faces both Asia and Europe. According to this, Russia is neither Eastern nor Western, but above both. But, this way of thinking led this country which is surrounded by 13 different oceans and seas, and 16 different countries, and has the greatest landmass, to a historical loneliness with no real allies. All of the ideologies that guided the Russian history, the Eurasian Union Project that Russia tries to form, the geopolitic moves Russia makes, its concept of foreign policy, the problems it has with Turkey, Ukraine and Georgia, its close relations with Syria, China, Iran and Armenia are influenced by this political principle. This principle is based on the ideal and belief of 'Moscow is the Third Rome'. This ideal which emerged in 16th century aims to thrust the capital Moscow into a political and religious power center in the region. According to this approach, Russia is the successor state of the Roman and Byzantian Empires, which collapsed because they diverged from Christian values. They believe that the first two Romes were destroyed because of this divergence and there will be no 'Fourth Rome'. Building on this principle, Russian leaders believe that they have a mission given by God. Because of this belief, any conflict in the World is evaluated according to Moscow's perspective, without taking into account the dynamics of the local culture, politics and economics. In Russia, the leaders do not change the system, but have to adapt to and serve the system; otherwise they are pushed out of the system. Because of their government ideology, Russians view the foreign affairs from the perspective of a conspiracy theorist and perceive these events as designed against them. Russian society is closed and there are circles of 'us and them', 'with us' and 'against us'. This circle of 'us', which are called Russkiy Mir (Russian World) and Russko Yazichniye (Russian Speakers) can include not only Russian geography, but also other regions, even Angola. The ingredients of Moscow's foreign policy, values and norms do not periodically change according to the international conjuncture. Russians are different, neither Eastern, nor Western.

Key Words: The Third Rome, Russian World, Eurasia, Moscow

Syrian Civil War and its Global Impact Evaluation in terms of Political Geography

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Abstract

On December 17, 2010 year began mass revolt by a young Tunisian self-immolation is spread in a short time in the Arab world had similar problems, showing a domino effect. The events in countries such as Egypt and Libya, after Tunisia, have an impact in the Middle East and has been ongoing in recent years led to a civil war in Syria. Civil war in Syria, thousands of human lives lost, millions of people have been displaced. Many armed organizations who benefit from the political vacuum created by the effect of the civil war has entered a power struggle in Syria, large and can not be completed. Sitting on the agenda with the war of terrorist organizations many countries such as the US, EU states, Russia, Iran have stepped in Syria.

In accordance with ideology of powerful countries to realize the aspirations of the Middle East have begun to produce new policies. Ethnic and sectarian differences are fed pretext war environment. Great powers of Asia, Russia, Iran have exhibited all efforts from hand to remodel the new borders that will be drawn in line with their interests. The Western Powers represents the other wing of this fight.

In this study, the civil war in Syria and the interests of emerging regional powers and global power centers struggle with the effects of the war and new political formations are discussed. Mass movements in the Middle East region and the impact of the war emerges a new phenomenon of political geography.

Key Words: Syria, Middle East, Civil War.

Tokaçlı ve Sarılar Mahallelerine Yönelik Bir Kültür Coğrafyası Araştırması: Arap - Ortodoks Hristiyanlar

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Özet

Tarih boyunca çok farklı medeniyetlere ev sahipliği yapmış olan Hatay, adeta bir kültür mozaığı gibidir. Üç semavi dinin bir arada barış ve hoşgörü içerisinde varlığını sürdürdüğü Hatay'da, farklı toplumlar yüzlerce yıldır kendilerine has kültürel değerlerini ve dini inanışlarını özgür bir şekilde yaşamışlar ve yaşadıkları mekâna kültürel niteliklerini yansıtmışlardır. Bu toplumlardan birisi de günlük yaşamları, etnik ve dini yapılarıyla Hatay'ın sosyo-kültürel yapısında önemli bir yere sahip olan Arap-Ortodoks Hristiyanlardır.

Bu çalışmada Türkiye'de ve Hatay ili genelinde yaşamlarını sürdüren Arap-Ortodoks Hristiyanlar ele alınmıştır. Ancak araştırmanın odak noktasını Hatay ili Altınözü ilçesi Sarılar ve Tokaçlı Mahallelerinde yaşayan Arap-Ortodoks Hristiyanlar oluşturmaktadır. Örneklemin Sarılar ve Tokaçlı Mahalleleri olarak belirlenmesinin temel nedeni Türkiye'de bu iki yerleşim birimi dışında, nüfuslarının tamamı veya tamamına yakını Arap-Ortodoks Hristiyanlardan oluşan başka bir yerleşmenin olmamasıdır.

Bu çalışmada Tokaçlı ve Sarılar mahallelerinin etnik ve dini yapılarının toplumsal yaşama, kültürel değerlere ve mekânsal kalıplara olan etkileri kültür coğrafyası bakımından incelenmiştir. Bu araştırmanın verileri, konu ve çalışma alanı ile ilgili literatürden, arazi gözlemlerinden elde edilen verilerden ve arazi çalışması sürecinde yapılan mülakatlardan elde edilen bilgilerden oluşturmaktadır. Literatür çalışmasından elde edilen veriler doküman analizine tabi tutulmuş ve bunlar gözlemlerden elde edilen verilerle ilişkilendirilmiştir. Mülakatlardan elde edilen veriler betimsel analizlerle değerlendirilmiş, dini ve etnik yapının mekâna yansımaları bu şekilde irdelenmeye çalışılmıştır. Ayrıca araştırma sahasını oluşturan yerleşmeler yakın çevresindeki yerleşmeler ile karşılaştırılarak farklı kültürel unsurların mekâna yansımaları ve bu yansımaların coğrafi görünümü nasıl etkilediği analiz edilmiştir.

Anahtar Kelimeler: Kültür, Kültür Coğrafyası, Dini İnanış, Arap Ortodokslar, Hatay, Tokaçlı, Sarılar.

Geography and Environmental Ethics

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Abstract

Roots of environmental ethics studies, defined as the systematical examination of moral relations between humans and their natural environment dates back to the ancient Greece anthropocentric approaches. Examining studies related with environmental ethics which continues its journey in the history with living being-oriented and environment-oriented approaches, it is obviously seen that the study area of environmental ethics intercepts with the geography science which takes natural environment-human interactions into center. It can be seen that the geography science which examines the relations between the earth and human in a cause effect context shares the same scientific and philosophical ground with the environmental ethics. Both disciplines which are in search of passing a more livable world to the future generations and lower the natural environment degradations as much as possible obviously common in terms of actors and approaches. Natural environment and human being makes up the common actors of both disciplines. Taking a look at the world literature, it can be seen that contributions of geographers to the environmental ethics research is considerable. However in our country, academical studies related with environmental ethics performed by geographers are limited. Possibly the most important reason for this situation is the lack of environmental courses in geography departments, even absence in some faculties. Thus, this study aims to reveal common points in the working fields of the geography science and the environmental ethics examining from various viewpoints. Sub-aims of the study are; “drawing attention on the common working area of geography and environment ethics, presenting the analogy between continuous evolution of environmental ethics and geographical approaches, interpreting environmental ethics which works on the area of investigation of geography from a geographer’s point of view, informing and encouraging geographers who wish to study on environmental ethics, developing a distinctive point of view to the common future of geography and environmental ethics, creating awareness with the related academical board of universities which provide geography education”.

Key Words: Geography, Environment, Environmental ethics, Environmental Ethics Approaches

The Use of 3D Simulation Method in Physical Geography Teaching in Secondary Education

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Abstract

The main objective of the Physical Geography is to give a meaning to the natural environment. It is only possible with the implementation of the observation method to make the students perfectly understood the Physical geography topics, in laboratory environments allowing the participation of all senses in teaching activity. In physical geography teaching, observation method is only applicable with the trips as its laboratory is natural environment. There is a need for new methods in teaching of physical geography topics to motivate the students, increase their interest to the topics, bring them different perspectives, make the complex issues easier to understand for them, let them have quick and permanent learning and to make the abstract concepts concrete for them. There have been carried out studies and different theories to this effect.

We have developed a new strategy using the latest technology against the problem of difficulties in observation trip method in secondary schools. The basis of our strategy is to create a learning environment with Physical Geograpy Teaching with 3D Simulation model. With this model, the students will be able to experience the fieldwork and the teacher will be able to use the observation method in Key Words: Physical Geography education, Geographical laboratory, 3D Simulation, excursion-observation method.

Key Words: Physical Geography Teaching, Geographical Laboratory, 3D Simulation, Observation Trip Method

Determination of the Prospective Geography Teachers' Cognitive Structures Regarding the Principles of the Science of Geography

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Abstract

This study strives to determine prospective geography teachers' cognitive structures regarding the principles of Geography (Regionalism, holistic approach, spatiality, distribution, causality (cause – effect) and comparison) and to reveal their misconceptions about these concepts. The study was conducted on a total of 64 students studying in fourth and fifth grades at the Department of Geography Teaching in Ziya Gokalp Faculty of Education, Dicle University. The case study, one of the qualitative approaches, was utilized as a research method. Data were collected by means of a word association test technique and analyzed. The key concepts first emerged in the study were found to be spatiality, causality (cause and effect) and comparison. Another important finding was that students did not associate the key concept '*holistic approach*' with Geography. Considering the given responds, it is understood that students have learnt this concept more in educational science courses.

Key Words: Principles of Geography, Word Association Test, Cognitive Structure

The Determination of Sustainability of Rural Development Projects Supported by Ork y: Case Study: Beekeeping Investments in Forest Villages in the Western Mediterranean Region

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Abstract

Investments in Professional Beekeeping is a type of assistance provided in the 1970's, 1980's, 1990's and 2010's in the Western Mediterranean provinces of Antalya, Burdur and Isparta. The realisation of planned investments for Forest and Village Affairs (ORK Y) district development projects remained at a low level. The most important factor concerning this was limited resources. The realisation of Professional Beekeeping investments in Antalya was 11.62%, 8.44% in Burdur and 17.38% in Isparta in the scope of the District Rural Development Plans.

The most important point for these investments is the issue of sustainability. A Project monitoring and evaluation mechanism for investments has not been fully established by ORK Y. With the exception of monitoring the repayment of investments, there is no serious mechanism for monitoring and evaluation. Therefore, the results, impact and, most importantly, the sustainability of the investments are not sufficiently able to be evaluated. The sustainability of investments for beekeeping are also discussed in this study.

This study takes a sample of enterprises from forest villages of the provinces Antalya, Burdur and Isparta with the aim of identifying the problems and providing recommendations for solutions concerning with sustainability of beekeeping supports by investigation the sustainable implementation of beekeeping and problems of sustainability for enterprises in forest villages of the Western Mediterranean region, which are conducting beekeeping and which both taken and not taken beekeeping loans provided by ORK Y. The enterprises which have received ORK Y assistance and are continuing beekeeping and those which have received assistance but are no longer beekeeping have been selected.

Key Words: sustainability, rural developmen projects, forest villages, beekeeping, ORK Y

A Case Study on Planning and Designing Coastal Sand Dune Areas in Bartın

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Abstract

In addition to their natural characteristics, coasts are valuable areas in terms of their recreational values. Coastal sand dune ecosystems which host various valuable plant and animal communities, on the other hand, are important complimentary pieces of coasts. Therefore, these areas should be planned and designed in a manner to balance protection-use for future generations.

Bartın province coastal sand dunes, which are among the outstanding natural areas in Western Black Sea, face an intense tourism and recreational demand from inner settlements such as Ankara, Kastamonu and Karabük during the summer months. Today, human pressure that increases in an uncontrolled and unplanned manner in Bartın sand dune landscape and the field-specific design insufficiencies cause to significant damages in sand dune areas and sensitive sand dune vegetation.

In this context, first of all, the existing problems in Bartın province sand dune areas are determined in this study. The data, which was collected through field observations and inventory studies were then transferred to numerical plan on ArcGIS. Planning suggestions for the reorganization, improvement and protection of the sand dunes for the users were developed and landscape designs were made using 3D presentation techniques.

The results indicated that the among the leading problems in sand dune areas were uncontrolled entrance and exits, visual and ecological pollution created by existing infrastructure and sub-structure elements, the transfer of sand into inner parts through wind erosion, unprotected sensitive sand dune vegetation, lifeguards, showers, changing cabinets and wc units without aesthetic and functional design and qualitative and quantitative insufficiency of the information and warning signs.

Within the scope of sand dune improvement plans, landscape design details for protective barriers in the sand dune vegetation in the research areas, pedestrian access, information and warning signs and other sand dune equipment were produced. With such studies, local people, visitors and most important of all, the local authorities will understand the ecological and touristic importance of coastal sand dunes and will have an awareness that these areas should be protected in a planned way for future.

Key Words: Coastal sand dunes, sand dune improvement plans, sand dune area design, Bartın.

Evaluation of the Ecosystems that Contribute to the Connectedness of Landscape: Mugada-Kızılkum (Bartın) Case

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Abstract

Today, rapid urbanization ruins natural areas and causes to the extinction of the species living in these natural areas. Studies concerning the connectedness of landscape also covers the studies that discuss under which circumstances and how fragmented habitats that disorder the integrity of ecosystems can be combined.

The aim of this study is to examine the connectedness and fragmentation of landscape; to identify that fragmented habitats in Mugada and Kızılkum settlements of Bartın province; and to make planning suggestions for ecosystems that will contribute to uniting and thus, to the connectedness of landscape. The method followed for this purpose consists of stages. These stages are GIS based multicriteria analyses that are often used in land use planning, evaluation of results belonging to those analyses and making spatial planning decisions for incorporation of ecosystems.

End of this study, spatial planning recommendations about connectedness of landscape were put forward with help of ecosystems identified such as green corridors and wood communities that will contribute to incorporation of fragmented and spoiled habitats.

Key Words: Landscape connectedness, habitat fragmentation, ecosystem, space planning and GIS.

Integration of Socio-Economic Dimension to Prioritization of Combatting Erosion Applications: Case Study of Antalya

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Abstract

Land degradation in arid, semi-arid and dry submit areas occurring as a result of the various factors like climate change and human activities is described as desertification. Ever than, soil degradation is known as the decrease of soil quality in connection with the physically, chemically and biologically deterioration generally resulted from the human improper land uses. The main factors causing the erosions are rain, surface flow, wind, vegetation, soil, inclination, slope length, human activities and etc.

Intensive efforts and resources are required for studies on erosion and desertification preventions. Due to that the limited resources must rationally be used to prevent erosion and desertification. For rational use of resources, the regions where are sensitive to erosion and are priorities of investments should be defined and planned.

The goal of this work is to prioritize the regions in Antalya by taking into consideration the factors causing the erosion and desertification. Materials of the work include the technical factors like soil depth, inclination spectrum, land use types, forest stand productivity and some socio-economic factors like proportions of forest village populations, coverage of agricultural fields, quantities of ovine and cattle, coverage of pastures, intensity of grazing, socio-economic development values, educational level, employment state and forest crimes. The data set obtained from those technical and socio-economic materials was assessed by multivariate analyses techniques (Principal component analyses, cluster analyses and factor analyses)

In conclusion, according the priorities in erosion prevention works, the towns in Antalya were sequenced. And the approach on proper erosion prevention investment was assessed by evaluating how the resources can rationally be used and which regions are of priorities.

Key Words: Erosion and desertification, multivariate analyses techniques, rational use of resources, priorities of investments.

Diversification of the Tourism Product as an Opportunity to Sustainable Development of Areas Dominated By 3S Mass-Tourism: The Case of Dominican Republic

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Abstract

Nature-based tourism, such as 3S (Sun, sand and sea) and adventure tourism has long been considered a means of achieving economic and social development especially in Global South countries. Authorities, through numerous activities (e.g. tax reliefs) encourage the foreign capital to invest in tourism-related service sector. However, profit seeking investors usually develop 3S tourism - mostly all-inclusive objects located close to coast. Recent decades have brought a huge development of broadly defined tourism destination accessibility (the transport system and in situ services) and thus increasing tourists' number has been noted at all summer-sun worldwide destination areas. Overdevelopment and crowded areas brings a serious threat to environmental degradation and may lead to outflow of tourists, even when both mentioned above groups (3S and adventure tourism) have no strictly nature-focused motivations (pleasure and thrill-seeking, respectively). Without any doubt the Dominican Republic (DR), like most of the Caribbean countries have not cultivated a tourism industry based on much beyond 3S. To keep sustainable development, DR have to diversify its tourism product. To do that the close cooperation at all levels of decision-making process (e.g. government, local authorities, tour operators) have to be fulfilled, and new forms of tourism have to be introduced and already existing forms have to be promoted more, e.g. Adventure tourism, Cultural tourism and Ecotourism (ACE). Based upon conducted analysis of tourist packages offered by the world's biggest tour operators in DR, this research highlights the challenges and problems encountered by ACE tourism entrepreneurs, identifying a number of issues which militate against the success of ACE tourism development (e.g. high development costs but low returns). Moreover, to keep long-term development growth, but above all sustainable development all kinds of tourism should be reasonably developed.

Key Words: tour operators, tourist packages, sustainable development, Caribbean region

The Population of Himalayan Regions - By the Numbers

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Abstract

In the last fifty years (1961-2011), the Himalaya population has grown by 250%, from 19.9 to 52.8 million. If the population keeps growing at the same rate (3.3% annually) as during the last fifty years (1961-2011), the number of people will exceed 260 million in 2061 (a 13-fold increase). Without a doubt this would be a great disaster. Fortunately, recent decades show the growth rate slowing down. In Nepal, for example, the average annual growth rate between 1999-2001 was 2.25%, and between 2001-2011, it was 1.35% only. Nevertheless, in the last 50 years (1961-2011), the population of the Himalayan landscape increased by more than 32 million people. Such a change will not go unnoticed by the environment and society. This growth can be a big challenge for Himalayan regions, especially when one considers the quality of life of the inhabitants of the region. Even focusing on the national level, over half of the population from India or Nepal are living below the poverty line (2 USD a day), and almost one quarter fall below the extreme poverty line (1.25 USD a day).

Key Words: Himalaya, population density, population growth, regional division

A Study of Weekly Cloud Cover Over the Black Sea

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Abstract

Present work investigated long term weekly cloud cover of the Black Sea using AVHRR satellite data from March 1993 to December 2014. It was found that in general, the possibility of compositing a 100% cloud free image of the whole Black Sea for a single day is quite low. This work also suggested that the 20th to the 41st weeks of the year are optimal weeks for a sunshine holiday in resorts such as Istanbul, Samsun, Sinop and Zonguldak in Turkey.

Key Words: Black Sea, AVHRR, Remote Sensing, Holiday

Problems and Prospects of Sustainable Development of Largest Cities of the Republic of Kazakhstan: Case of Astana

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Abstract

Sustainable development of the modern city is an urgent task, which provides the high quality of the urban and natural environment. The purpose of this article is to study the problems and prospects of transition of major cities of Kazakhstan to sustainable development. Major cities of Kazakhstan being as the political, cultural and economic bridge between Europe and Asia, are performing a linking function in sustainable development of the whole country. With the growth of large cities, intensifying the contradictions of their development: on the one hand, the rising costs of operating the municipal economy, environmental protection, to tighten the conditions of living and public services, on the other hand, with an increase in size of the city is closely related to improving its economic efficiency. The article focuses on the capital of Kazakhstan – Astana city. Astana is a young capital, which is developing dynamically transformed into a Smart City. The population of the capital of Kazakhstan from 1998 to 2014 increased from 326.9 thousand to 852.9 thousand people. In structure of population prevails the working age population (71.6%), there are high birth rate (29‰) and low mortality (4.3‰) of the population in the country. Research methods used in writing this article are: a comparative geographical, statistical, cartographic and GIS. Results of the study revealed the competitive advantages of development of the capital and the prospects for its further sustainable development. In accordance with the Strategic Plan of Sustainable Development of Astana city until 2030, Astana should develop as the capital, administrative and cultural center, as well as the center of innovation, the city of future - Smart City. In this connection it is necessary to stimulate the development of traditional industries and services outside of the city, improve the quality of life of population, and improve environmental living conditions.

Key Words: capital city, quality of life, sustainable development.

Network Analysis; Accessibility to Hospitals with Remote Sensing and Geographic Information Systems Techniques: A Case Study of Konyaaltı, Antalya

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Abstract

The emergency situations in traffic represent development of society and threatening major events to individual's life. The fastest way to provide access to the accident scene is the most important factor in resurrecting people. This fast transport is directly related to ensuring early information, distance to health facilities, traffic density, selecting the fastest route in addition to infrastructure and superstructure works on the roads and selecting the nearest health facilities. In this context, ensured transport coordination between emergency units and emergency situations in traffic is the vital important for people life.

In this study, it is targeted to be detected service areas of related hospitals and determination of shortest road for an ambulance while intervention the accident problems with using geographical information systems and remote sensing technologies. This study consists of three main stages including data collection, analysis and evaluation. In the first stage, aerial photographs and satellite imagery of the area, road networks, city master plan and the location of the hospitals in the region was obtained from the relevant public institutions and organizations. The obtained data were transmitted to a computer and digitized using GIS software. In the second stage, it was aimed to be determined the most suitable route as soon as possible with Dijkstra Algorithm that it is target to find the shortest route from point A to point B. Besides, service areas of the hospital in study region were analyzed with network analysis. In the last stage, the hospitals accessibility in the study area was determined in accordance to the obtained data's and in this context proposals were developed.

In conclusion, the availability of region hospitals as soon as possible were analyzed in healthy sector that is the most important component of daily life, using the most appropriate route. Then, the part of non-accessible within the required time of study area was mapped and solution recommendations were developed. The obtained results show that the analysis and used algorithm gives better results in application. Also, these results were used by emergency planners, urban and regional planners, local authorities and healthcare agencies in the region.

Key Words: Network analysis, Accessibility, Service area, GIS, Konyaaltı-Antalya

Rainfall Anomalies in Turkey's Gller District

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Abstract

The purpose of this study is to examine the annual, seasonal and monthly status of rainfall anomalies in Turkey's Gller District. The Gller (Lakes) District is located in the Antalya Section of Mediterranean Region in Turkey. This study was carried out by using single screening model of general screening models. The study is limited with monthly average rainfall data of meteorological stations of Korkuteli, Tefenni, Burdur, Dinar, Uluborlu, Isparta, Yalvaç, Eđirdir, Beyşehir and Seydişehir.

According to this, rainfall anomalies in Turkey's Mediterranean costs showed seasonal and monthly significant changes during that examined period. Rainfall anomalies showed an upward trend in all stations during the year.

Rainfall anomalies showed an upward trend in all stations during the seasons of winter, spring and autumn, a downward trend in Senrikent, Uluborlu and Beyşehir but upward trend for the others during the season of summer.

Key Words: Rainfall, anomaly, period of 1970-2011, The Gller (Lakes) District, Turkey.

The Effects of North Atlantic and Arctic Oscillations on Winter Precipitation in Selected Weather Stations in Turkey

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Abstract

According to researches, while Mediterranean Basin indicates, generally, drier conditions, Europe indicates wetter conditions in winter seasons in positive phase of North Atlantik Oscillation and Arctic Oscillation. On the other hand, while mediterranean Basin indicates wetter conditions, Europe indicates drier conditions in winter seasons in negative phase of North Atlantik Oscillation and Arctic Oscillation.

The effects of North Atlantic and Arctic Oscillations on precipitation in Turkey have been seen in this study. According to monthly analyses, the effects of NAO and AO on precipitation values are quiet clear in relation to the annual analyses. In addition to this, Arctic Oscillation is more effective on precipitation values. The effects of NAO and AO on precipitation values in December and January are not significant or non significant in terms of statistical methods. However, the effects of NAO and AO on precipitation values in February and March are much more significant in relation to that of December and January.

When the effects of North Atlantic and Arctic Oscillations over Turkey are compared, while North Atlantic Oscillation is more effective in the west regions of Turkey, this effect weakens more and more towards the east of Turkey. On the other hand, it is determined that the effects of Arctic Oscillation are stronger in the North, central and east parts of the country.

Key Words: North Atlantic Oscillation, Arctic Oscillation, Precipitation values, index values, significant trend.

Saraykoy and Çivril (Denizli) Cases in the Effects of Topographical Variations on Climate

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Abstract

Saraykoy and Çivril plains are within the boundaries of Denizli province. Because of the the changes in physical geographical conditions, these plains which are in Aegean Region, are located within different boundries of areas or areas. While Sarayköy is in Büyük Menderes area of Aegean part, Çivril is in Afyonkarahisar area of Central west Anatolia part. Altitude of Sarayköy plain which is in the east edge of Büyükmenderes rift zone, is approximately 160 m. Altitude of Çivril plain is approximately 840 m. This study is made in order to emphasize the effects of topographical conditions on climate these two plains which are near with each other in the boundaries of Denizli province. Seasonal durations of these two plains have been compared with each other with determining vegetation periods and climate types by using daily temperature data from State meteorological Office.

According to the changes of temperature within the years and reduced temperature to the sea level conditions, Saraykoy is mediterranean type. On the other hand Çivril is continental-transition type. When it is evaluated in term of precipitation regime, Saraykoy is the mediterranean type but Çivril is the transition type between Mediterranean and Central Anatolia. Topographical differences reverberate to natural seasonal durations. Because of the fact that Mediterranean climate is common in Saraykoy, the winter is shorter as 40 days and also the summer is longer as 40 days than the winters and summers of Çivril.

Key Words: Saraykoy, Çivril, Topography, Climate differences.

Izmir and Ozalp (Van) Cases in the Reflection of Maritim and Continentality to Phenological Periods of Agricultural Plants

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Abstract

Izmir which is selected as a search area, is located in the west edge of aegean region in the west of Turkey and Ozalp (Van) is located in the northeast of the center of Van province in Eastern Anatolia near Iran.

Two area which are located in the same latitude (38 north) have been compared in order to introduce the reflection of maritim and continentality to phenological periods of agricultural plants. Because of the effects maritim and continentality, natural season durations changes and the relation of this change with phenological periods have been analysed. Daily maximum, daily average and daily minimum temperature data which are between 1975-2014, have been analysed for calculating natural season duration. Phenological periods of some agricultural products which grow in both areas, have been determined by using phenological atlas of State meteorological Office. When correspondance of natural season durations to phenological periods are analysed, important evidences are obtained. The winter season starts later as 2 months and it finishes earlier as 2 months in relation to that of Ozalp (Van). When it is compared for winter range barleycorn in the effects of this condition over phenological periods, cultivation is made between the dates of 16.XI-1.XII in Izmir and the cultivation is made between the dates of 2.X-17.X in Ozalp. Harvest in like manner has a differences as 1,5 months between Izmir and Ozalp (30.V-14.VI in Izmir, 14.VII-29.VII in Ozalp). These comparisons have been made for agricultural plants such as apple, pear, cherry, plum, white beet, potato and whet. Similar results are obtained.

Key Words: Izmir, Ozalp, natural season duration, phenological periods.

An Investigation on Biodiversity, Seasonal Distribution and the Relationship of the Substrate of *Myxomycetes* (*Myxomycota*) in the North Amanos Mountains (Hatay - Turkey)

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Abstract

Myxomycetes; investigated in kingdom Protista Mycetozo (fungi-animals) which are usually present and sometimes abundantly in terrestrial forest ecosystems, also known as true slime molds or plasmodial slime molds are among the group of fungus-like (Protist) organisms. In this study we collected the substrates at 10 different stations from the northern Amanos Mountains between the years 2013-2015. Bark, leaf, decayed and undecayed all kinds of plant materials, manure and animal remains samples are collected and applied the moist chamber culture in laboratory to develop sporophore of Myxomycetes. Natural mature fructifications of Myxomycetes were gently collected from substrates. As a result of field and laboratory studies 46 species (124 samples) belonging to 10 families and 19 genera were identified. 45 species collected natural environment, 79 samples obtained from moist chamber technique and 20 species obtained from moist chamber technique and the natural environment. The most common four families which has the most species are Stemonitidiaceae (10), Cribariaceae (9), Arcyriaceae (8), Trichiaceae (6) are contain 33 species and this number is constitutes 71,7% of the total number of obtained species. When analyzed according to the substrate, the majority of samples obtained from Pinus sp. (76) and Quercus sp. (32) but the least example distributes on Eucalyptus sp (11) Salix sp. (2) and Morus sp. (3). Within obtained 124 sample we identified 92 lignicolous myxomycetes, 29 corticolous myxomycetes, 3 fimicolous myxomycetes. When looking at the seasonal distribution 48 samples obtained fall, 41 winter, 30 spring and 5 were obtained in the summer. In addition to these information Myxomycetes are known as bioindicator and in the research area Myxomycetes relationship with anthropogenic and pollution factors is discussed in detail. Also, considering the importance of species diversity of Myxomycetes in research area highlighted the contribution of existing biodiversity.

Key Words: Myxomycetes, Biodiversity, Seasonal distribution, North Amanos Mountains- Hatay-Turkey

Vascular Plant Diversity in Gönen Dam Watershed in the Western Anatolia

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Abstract

This study was carried out in the Gönen dam watershed which is located in the northeastern part of Kazdağı Mountains in Western Anatolia. It covers an area of 133,700 ha and ranges from 90 to 1400 m a.s.l. The watershed area was systematically divided into 3 km x 3 km grids. Then, a 20 m x 20 m quadrat was randomly assigned in each grid, excluding agricultural and residential areas. There were 138 plots in the study area. Within each plot, all of the trees with a diameter at breast height (dbh) ≥ 8 cm were measured. All vascular plant species in each plot were identified, and the abundance of each species at the shrub and herb layers was rated using the Braun Blanquet method. The vegetation was sampled in 2011-2012 and 2013. The vegetation types in the study area are forest formation, scrub formation and plantation formation. Forests in the area are composed of pure or mixed coniferous trees, pure or mixed deciduous broadleaved trees, mixed coniferous- broadleaved forests. A total of 482 vascular plant taxa, including 372 herbaceous, 83 shrub and 27 tree species were identified from the whole area. The richness of vascular plant species (α diversity) and the species turnover (β diversity) will be calculated for each different vegetation types. To compare species richness of vegetation types, the species accumulation curves, Shannon, Simpson index will be used and species richness of each plot will be given on the map.

Key Words: Plant diversity, Gönen dam watershed, western Anatolia.

Analysing of 125-Year Coastal Region of Zonguldak City Using Object-Based Classification Methods

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Abstract

Coastal regions draw attention due to their locations and wealth of natural resources. Thus, they are always exposed to overusing. In Turkey, these regions are faced with some problems such as unplanned settlements, getting new areas by land reclamation, water pollution caused by waste water, the deterioration of coastal structures because of sand transportation. In recent years, coastal stretch of Black Sea region was filled and roads were constructed in order to find a solution for traffic jam. In this context, determination of changes in coastal regions and monitoring these changes are crucial for the management of coastal areas and sustainable development. Various methods are utilized in monitoring the changes in coastal areas and remote sensing technology is one of the most important methods.

In this study, a map generated by the French in about 1890s with the scale of 1/10000 was vectorized to evaluate the first condition of coastal region of Zonguldak city. By vectorization of this map, some urban constructions, harbor details and determination of coastal region was detected. Furthermore, it is aimed to reveal the changes in coastal stretch using object-based image analysis, and for this purpose one high resolution satellite image acquired on 2015 from Worldview-2 satellite was utilized. This image was processed using eCognition software, and coastal stretch and water body were determined by object based image analysis. Vectorized map generated in 1890s and manually vectorized results were compared. Accuracy analyses of the object-based classification results were presented and interpreted. As a result of the analyses, it is revealed that object-based classification techniques can be applied to extract the coastal stretch semi-automatically and the classification results are similar to vectorization results. As a consequence, monitoring the temporal changes in coastal regions via object based-image analyses using high resolution satellite image is an effective method and the obtained results can be integrated to GIS easily.

Key Words: Worldview-2, Zonguldak, Coastal Region, Temporal Changes, Object-Based Image Analysis, Cognition

Problematic of Basin Management Approaches and Ideal Basin Management: Hydrographical Planning

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Abstract

Basin management approaches that aim to ensure planned use of water resources have undergone continuous changes in the last half century however the desired quality has not yet been achieved. This study assessed current water management approaches on the basis of the most common approaches such as engineering based basin management, integrated basin management, sustainable basin management and holistic basin management. Each of these methods was examined in the framework of SWOT analysis and positive and negative outputs of each method were presented based on real project outputs. In this way, the outline of hydrographical planning perspective was identified as the ideal basin management approach. As a result, it was suggested that planning should be based on this approach in water management works so that no element of the ecosystem is deprived of water and that changes that can occur in any natural or human parameter do not cause unaccounted losses.

Key Words: Basin, basin management, hydrographical planning.

Potential Climatic Resources of Georgia

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Abstract

Potential of Climatic resources of Georgia characterized by large variety of climates is considered in the article. Original method elaborated in the A.I. Voeikov Main Geophysical Observatory (Saint Petersburg) was selected for assessment of potential climatic resources of Georgia. Method makes possible to quantitatively assess integrated index of climatic resources and their separate components through conventional units. All climate indices are preliminary standardized and transformed to conventional units taking into account weight coefficients and then are summarized. Three groups of climatic resources: agro-climatic, energy and resort resources, which are important for Georgia, are considered. Samegrelo-Zemo Svaneti and Kakheti are rich in climatic resources (especially thermal and balneological, and agro-climatic and balneo-climatic), where integrated index of climatic resources is equal to 84 and 80 conventional units, respectively. Potential climatic resources of Racha-Lechkhumi and Kvemo Svaneti (hydropower and resort resources) are equal to 75 conventional units, resources of Imereti (agro-climatic, energy resources), Kvemo and Shida Kartli (solar power, wind power and resort resources), Mtskheta Mtianeti (agro-climatic, resort resources) and Abkhazia (resort climatic, agro-climatic, solar power and hydropower resources) vary within the range of 47-58 conventional units, while potential of climatic resources of Guria (agro-climatic and hydropower resources), Adjara and Samtskhe Javakheti (resort and energy resources) is limited only by 36-41 conventional units.

Key Words: Climatic resources, potential, Georgia

Innovative Vegetation Geography Education in Kula European and UNESCO Global Geopark

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Abstract

Kula Geopark area covers 300 km² within Manisa Province. Exceptional volcanic structures of the Kula Geopark area are well-known since antiquities which was named as KATAKEKAUMENE – fire-born by Strabo. Due to its outstanding monuments, the Kula Geopark was designated as European and UNESCO Global Geopark in 2013.

After its recognition, the geopark area became a destination for outdoor activities and nature education. Kula Geopark offers necessary educational infrastructure including a Geopark Museum and geotralls, which enables safe access to the site and comfortable visitor experience. A great demand has arisen on educational programs offered by the Geopark not only in terms of geodiversity but also biodiversity.

In Kula volcanic region, extensive basaltic lava flow plains were formed in three main eruptive phases dated to 15ka, 300ka and 1my respectively. The actual vegetation composition on these originally sterile lands is a natural laboratory to witness and model the emergence, establishment and evolution of vegetation and ecosystems on Earth.

The Kula Geopark represents the last 200 million years geological history of the Anatolian Mainland from Palaeozoic to Holocene. Thus, characteristic vegetation composition on each major geological unit reflects the interaction between geodiversity and the biodiversity.

This research aims to introduce a new perspective to vegetation geography education in Kula Geopark via innovative use of herbarium specimens. We are going to make a herbarium where plants will be exhibited with an unusual approach accompanied by guided field education. A special exhibition hall will be dedicated for the planned herbarium in the visitor center of the Kula Geopark. This approach will merge scientific information on plants with art and aesthetics. Familiarizing visitors and local people will contribute to conservation and tourism promotion of the Kula Geopark.

Key Words: Biodiversity, geodiversity, Kula Geopark, vegetation geography.

Counterurbanization in Postindustrial Area: Case Study of the Silesia Metropolitan Region

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Abstract

The socio-economic transformation in Poland contributed to some significant changes in the concentration of population in cities. The major urban agglomerations have entered the next stage of development. It takes different spatial forms.

The aim of the paper is to present the problem of suburbanization in the urban multi-center conurbation which is trying to develop into a metropolitan region. It is located in southern Poland and has been formed in the industrial period. This area has been undergoing some socio-economic changes which have an influence on counterurbanization. There are forms of urban sprawl, on the one hand and suburbanization within each of the cities of core, on the other. The suburbanization of the studied area has not taken the form of concentric, unlike in other agglomerations in Poland. This is due to the complex settlement system in the form of the urban multi-center conurbation. This core includes about 14 cities and the several other towns. The population migrates from the cities to the suburban zone. There is an uncontrolled urban sprawl to rural areas. The residential function displaces the old function of agricultural and fallow lands. Simultaneously, large reserves of urban area in the central part of conurbation and outside core are under the process of inner suburbanization in Silesia Metropolitan Region.

Key Words: Counterurbanization, metropolitan region, Silesia, Poland

Benefits of Bio-Effectors in Agriculture (Why to Use Bacteria Containing Fertilizers?)

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Abstract

The reduction of fertilizer's portion has become essential in the crop production by now. One of the reasons for that is during other industrial activities such as by-products are produced in high quality in which the necessary nutrients for plants can be found in a big amount. However, nutrient use efficiency of these recycling fertilizers is frequently based by limited rooting and nutrient immobilization. One approach to overcome limitation of nutrient availability in recycling fertilizers could be the use of so-called bio-effectors (Bes) based on various fungal and bacterial isolates, natural extraction products of seaweed. The basic idea is the selection of BEs exerting their beneficial effects on plant growth specification under the conditions characteristic for application of the respective waste-recycling products, thereby increasing plant efficiency for nutrient acquisition or the nutrient availability of the fertilizers.

In this study, 13 bacterial and fungal isolations, 1 seaweed extract (NEMATEC, Bioatlantis, Tralee, Ireland) were tested as BEs. During this investigation the main plant physiological parameters (relative chlorophyll content, height of plants, root growth, dry and fresh weight) of maize (cv Colisee and Maxxis) were examined. According these measured parameters, the most effective BEs were selected for more investigations. Sewage sludge and sewage sludge compost as recycling products from poppy shell-based alkaloid production (ALKALOIDA Chemicals Co. Ltd.) were use with the combination of BEs.

The experiment was conducted in pots (2 kg soil) under controlled growth chamber conditions with phosphate (P) as major limiting nutrient.

All organic fertiliser amendments had a positive effect on plant growth but did not reach the values of a full mineral P fertilisation.

The results suggest that a proper selection of organic fertilisers with compatible BEs is a pre-requisite for successful strategies to improve utilisation efficiency of organic recycling fertilisers.

Key Words: bio-effector, compost, crop production, phosphorous, sewage sludge

An Analysis on the Distribution of Maquis Formation: Case Study in Karabük - Safranbolu Basin

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Abstract

Karabük-Safranbolu basin is located in the Western Black Sea Region in the northwest of Turkey. The basin lies within 100 km from the coastline and is an important area, as it hosts Euro-Siberian and Mediterranean plants species. The focus of the study is maquis formation. Occupying a large place on the earth, Maquis communities are commonly distributed over the regions where the Mediterranean climate prevails. These regions are the Mediterranean Region, California, Chile, the Cape and Australia. Distribution of the Mediterranean plant species in the Euro-Siberian phytogeographic region, and vice versa, is related to climate changes and plant migration in the past. Karabük-Safranbolu basin sets a model for such distribution.

The study aims to determine the maquis formation within the Karabük-Safranbolu basin and examine the vertical-lateral distribution patterns. The methodology is based on a regional approach. ArcGIS 10.3 was used for preparing cartographic materials. Within the scope of the study, certain maps of the region such as topographical, physical, slope, aspect, soil, geological, geomorphological and forest management maps were examined as the materials of the study as well as using some meteorological data. The elements of maquis in the region were detected through field surveys and their distribution patterns were addressed.

Key Words: Maquis, formation, Safranbolu, Turkey.

3D Modelling of 16th Region Mosque of DSI Ilisu Project by Terrestrial Photogrammetric Method and its Integration to Google Earth

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Abstract

3D modelling represents more visual and attribute information than 2D modelling for any place. Thus, 3D models have great importance of GIS applications. In today's world, Geomatics Engineers uses spatial data effectively and thanks to the advance in technology digital maps and 3D models are used widely. 2D maps can be converted to 3D models using GIS platforms and these applications have been utilized in web based GIS applications in recent years. Determining, documenting and preserving the current situation of some constructions is very crucial for the restoration works in future and the economy of the country. Terrestrial photogrammetric method and 3D modelling techniques are some of the important methods in order to document the constructions.

In this study, The Ilisu Dam Project's area assumed by the General Directorate of State Hydraulic Works (DSI in Turkish acronym) has been chosen as the study area. In this region, 16th Directory Office and current built-up area of DSI Ilisu Project were evaluated. 16th region mosque of DSI Ilisu Project is one of the social facilities in the region and it has lots of details on itself. Thus, terrestrial photos of the mosque were taken and visualized 3D modelling applications were utilized. After modelling, the model was associated with Google Earth. In the duration of the study, various software (Netcad, Google Sketckup, Google Earth and Photoscape) were utilized. As a result of the study, terrestrial photogrammetry is an effective method to retrieve 3D models of the objects.

Key Words: 3D Modelling, Web Based GIS, Photogrammetry, DSI Ilisu Project 16. Region Mosque, Google Earth.

Orientation of UAV Images Using Worldview-2 Satellite Image and Generation of High Resolution Orthophoto & Digital Surface Model for Use in GIS

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Abstract

High resolution orthophotos and digital elevation models are the one of most important datasets for geographical information systems. The images acquired by UAVs are mostly used for this purpose. For generation of orthoimage and digital surface models interior and exterior orientation parameters have to be known. In case of lacking the interior orientation parameters, they can be calculated with camera calibration approach. For missing information regarding the exterior orientation parameters, ground control points(GCP)are used for the calculation. The measurement of GCPs are expensive and time consuming with field works. So, existing geodata such as oriented high resolution satellite images can be used to derive the GCPs. In this work, worldview-2 image is used to orient the UAV images automatically with cross-correlation method, then common points are created, and used as GCPs to calculate the exterior orientation parameters. Finally the high resolution digital surface model and orthoimage is generated with UAV images which have the calculated interior and exterior orientation parameters.

Key Words: UAV images, orientation, Worldview-2, satellite images.

Developing Open Source Web Applications with Geographic Information Systems

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Abstract

The use of applications based on spatial data are increasing nowadays. People are not willing to get lost in the verbal data in their business and daily life. The importance of spatial data is arising at this point. The nearest, shortest and fastest analyses are required to obtain spatial data. Therefore, for example, people are able to choose some business organizations located nearby for food and accommodation or they can use the power of spatial data as deciding the most suitable location when they invest.

By means of open source web interfaces designed using geographic information systems, it is possible to make analyses on maps such as buffer zone, heat map. Thematic maps created for specific purposes gives us opportunity to interpret verbal data on map-based graphical environments which is more meaningful.

The purpose of this study is expanding the use and development of software for open source and geographical information systems. In this context, the required database design for the conversion of the verbal data to spatial data to be presented on the web environment, and the design of the map server providing the presentation of the spatial data over web will be achieved. Thus, required data infrastructure for web interfaces which will be developed with open source code will be created. In this study, subjects such as creation of a web interface with spatial data and making analyses through this interface will be handled.

Key Words: Open-Source Software, Geographic Information Systems, Spatial Analysis.

Evaluation of Climatic Parameters of Black Sea Coastline in the Background of Climate Change

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Abstract

In the present conditions of global climate change, the problem of vulnerability and adaptation has become a world scale problem, which, on an equal basis of poverty and the fight against terrorism, is recognized as a major challenge of the XXI century. The problem of climate change is associated with change of several climatic parameters, from which as a basics are air temperature and the amount of precipitations. In the work, were analyzed the observation data, obtained from Batumi and Poti meteorological stations, located on the Black Sea coastline and assessed the representativeness of temperature and precipitation characteristics. It was found the change of temperature and precipitation's amounts between 20 year climatic periods of observation. Based on their analysis, with use of statistical methods, the climate change related processes and trends along with the extreme weather develops quantitative and also spatio-temporal characteristics were evaluated. It was assessed the vulnerability of the Adjara region Black Sea coastline relative with change of climatic elements from the viewpoint of Tourism, Healthcare and Agriculture development, being that, in comparison with other ecosystems of Georgia, the Black Sea coastline of Adjara is evaluated as the region of Georgia, characterized with the highest grade of ecological vulnerability.

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Key Words: Climate change, Precipitation, Temperature, Vulnerability.

The Use of Open Source Coded Geographic Information Systems on Analysis Studies of Relationship between Seismicity and Industry: Case of Edirne - Turkey

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Abstract

Earthquake has always been and will continue to be in the process of human life on earth. Therefore, the studies must be intended to prevent or minimize the damage of this natural disaster as a priority. Negative socio-economic consequences is likely to have by the devastating earthquake. It must be accurate and in sufficient quantity spatial data for estimating these problems effectively. Seismic hazard analysis can be performed related to the research field thanks to the prepared data set. The map-based studies are needed for the analysis can be made of. To be done earthquake risk analysis, the seismicity of the region must be associated with human and the building stock that will be affected by the earthquake. For this reason, within earthquake data of the region and operating industrial enterprises in Edirne have been evaluated with thematic maps which created by using Geographic Information Systems (GIS) and open source software. In this study earthquake zones placed on the numerical map of Edirne within the earthquake epicentral points which have occurred belonging to the earthquake in borders of the province and its vicinity and then structural locations of operating in these areas have been entered into the system with mobile applications so as a result of them, thematic maps were created. Thus, the seismicity of the region can be evaluated with the locations of industrial enterprises in the province of Edirne.

Key Words: Open source software, Seismicity, Risk Analyse, Edirne.

Yukarı Kura Havzasının Geç Senozoik Dönemdeki Jeomorfolojik Evrimine İlişkin İlk Bulgular

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Özet

Yukarı Kura Havzası, Doğu Anadolu Bölgesi'nin Erzurum Kars Bölümü'nün kuzey kısmını kapsamaktadır. Genellikle Neojen ve Kuvaterner yaşlı volkanitlerle kaplı olan sahanın jeolomorfolojik geçmişinin aydınlatılmasına ilişkin çalışma oldukça azdır. Genel olarak volkanik lav platoları karakterindeki inceleme alanında en yaşlı birimleri Göle doğusunda paleozoik yaşlı şistler, en genç birimleri ise Göle, Ardahan ovalarının tabanında yeralan Kuvaterner yaşlı alüvyonlar oluşturur.

Tektonik açıdan oldukça aktif bir bölgede yer alan Yukarı Kura Havzası ve çevresinde çok sayıda fay hattı tespit edilmiştir. Bu fayların bir kısmı bölgede önceden aktif olan sıkışma tektoniği ve bir kısmı ise bunu takip eden dönemde oluşan gerilme tektoniğine bağlı olarak gelişmişlerdir. Bölgede transform faylar boyunca meydana gelen hareketler, çok sayıda çek-ayır (pull-apart) havzasının oluşmasına neden olmuş, yakın dönemde meydana gelen bölgesel tektonik hareketlere bağlı olarak ta bütünü ile bölge yükselirken tektonik kökenli havzalarda ise çökmeler gerçekleşmiştir. Böylece çöken havzalar, Kura nehri ve kollarının taşıdığı sedimanlar için adeta depolama alanı özelliği gösterirken, havzalar dışında kalan ve genellikle bazaltlar ile kaplı olan yüksek alanlar ise Kura nehri ve kolları tarafından yarılarak bazalt platoları halini almışlardır. Kura, günümüzde bu platolar içerisine gömülme sonucunda oldukça derin kanyon ve boğazlar oluşturmuştur. Bu çalışma Geç Senozoik'te Yukarı Kura Havzası'nda başta tektonizma olmak üzere global iklim değişimleri ve volkanizmanın kontrolü altında flüvyal sistem ve bölgenin paleo-coğrafyasında meydana gelen değişimlerin araştırılmasına dayanmaktadır. Bu sunum kapsamında ise yukarı Kura havzasında iki yıldan beri sürdürdüğümüz araştırmaların ön bulgularının paylaşımı yapılacaktır.

İlk bulgularımız, Yukarı Kura havzasında flüvyal sistemin evriminde en belirleyici rolün Eosen'de başlayan, Neojen ve Kuvaterner süresince de devam eden bölgesel tektonizma ve buna bağlı olarak gelişen volkanizma denetiminde olduğunu ortaya koymuştur. Çalışma sahasında bazaltik lav akıntıları altında dört farklı seviyede Kura nehrine ait taraçaların tespiti ise söz konusu havzanın evriminde aynı zamanda küresel iklim değişimlerinin de rolü olduğunu gerçeğini ortaya koymuştur.

Anahtar Kelimeler: Kura Nehri, Akarsu taraçaları, Senozoik, Kuzeydoğu Anadolu

Examination of the Level of Map Literacy of High School Students in Terms of Various Variables

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Abstract

Student-centered education to students' through hevents has become the main purpose to provide a multifaced look. Individual thoughts, actions, graphics and symbols give them the opportunity to interpret them eaning of their horizons in terms of ensuring the development of research, it has an important place. This perspective in research, individuals that they have in geography education, mapreading and writing student perceptions of the value of several variables and to be able to observe how that affects (age, gender, school and learning situations) Depending on the variables, it is performed in order to determine what changes show. When we look studies that have been made in the literature, in spite of the researches in terms of map literacy, so far, there isn't aresearch in terms of variables of the level of the student's map literacy in high scool. So, by this study, it is believed that the absence of the literature will be disappeared and formed data base.

The students who will be selected in the high schools by the the random method in the center of Sivas form the sample of the study in 2015-2016 academic year. According to the variables (age, gender, schoolandlearningsituations) in this research, the previously prepared map literacy scale will be used. (Koç and Beşir: 2013). This scale will be applied to the descriptive survey method and data analysis will be come true and the comments will be written.

Key Words: Map, Map Skills, Map literacy, High school students

An Investigation on Map Literacy Levels of Prospective Class Teachers

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Abstract

This study aims to investigate the level of map literacy among prospective class teachers with respect to several variables. The study is of significance as it will reveal to what extent elementary teachers acquire using literacy, and the frequency and effectiveness of their map use. The study was carried out with 302 second grade prospective elementary teachers attending Cumhuriyet University, Ahi Evran University and Gaziosmanpaşa University in 2015-2016 academic year. The study was designed according to descriptive survey model and data was collected using “a Valid and Reliable Map Literacy Scale” developed by Koç and Demir (2014). Data have been analyzed using SPSS 18 data analysis software. However, the results and findings will be added later as the results are still being interpreted.

Key Words: Map skills, Map literacy, Prospective class teachers.

Evaluating Opinions of Geography Teachers towards Fatih Project

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Abstract

Fatih project started in November 2010, to ensure equality of opportunity in education and has been created in order to improve technology in schools. Interactive LCD Panels in school board and was intended to ensure Internet networking infrastructure. Also in the pilot schools for use in lessons, tablets distributed to the students, technology to be performed intensive training design. The aim of this study was to evaluate the implementation of school geography teacher for the views of the Fatih project started yet. For this purpose in Turkey has been consulted total 150 geography teachers. Qualitative and quantitative research methods were used in this study together. Semi-structured interviews were conducted with a form of qualitative research. The data obtained by coding the data analysis was carried out qualitative research methods. Teachers attitudes towards computers with existing qualifications have been studied evaluation in accordance with the opinions. Quantitative data were analyzed with SPSS 21 for Windows program. Results and evaluation will be discussed.

Key Words: Geography Teaching, Fatih Project, the Views of Teachers, Geography Teacher

The Suitability of Upwellingward and Blooming Algae to Biofuel Development in Southern Makassar Strait Indonesia

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Abstract

Indonesia is a maritime country which has huge marine potential. This implicates to the magnitude of upwellingward potentials in Indonesia. Upwelling is an event of rising seawater mass from base layer to the surface because of the physical processes that takes nutrients from the bottom waters. Subsurface water mass that moves vertical, generally richer in nutrients than surface layer, especially phosphates and silicates, which affects toward productivity of phytoplankton (algae)¹. Upwelling events can lead to blooming algae which is a term for algae that grow quickly and very much per milliliter of waters. The phenomenon of blooming algae could become a source of renewable biofuel energy because of the great oil potentials that contained in each algae. Makassar Strait is one of the potential locations of upwelling occurrence². Illahude (1970) explains that during southeast wind season (August), upwelling occurs routinely in south Makassar strait section³. Therefore, to support the development of algal biofuels in Indonesia, geography has roles to analyze the suitability of upwelling region and blooming algae phenomenon in the development of biofuel, especially in the southern waters of Makassar strait. The data which used are satellite imagery of AVNIR-2 that was used to find the distribution of algae and Terra MODIS data that were able to identify the characteristics of factors that causing upwelling through temperatures and chlorophyll data. The descriptive spatial analysis approach is used to determine the suitability of upwelling regions that have the potential to become blooming algae that suitable for biofuel development. Results are expected in the form of a map of the distribution area of upwelling and blooming algae which are then overlaid to obtain the suitability of the location of biofuel as a source of renewable energy.

Key Words: Biofuels, Blooming Algae, Conformity Region, Upwelling, Makassar Strait.

Micro Change Geomorphic Landforms Caused By Urban Development in the Metropolis Shiraz, Iran (1966-2016)

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Abstract

The present research seeks to investigate land transformations in the geomorphological landforms of Shiraz, Iran, over the period 1966-2016, predicting the pattern of these transformations up until 2022. In doing so, to figure out the type and degree of the transformations taken place in the zone under study, Landsat images MSS, TM, ETM+ were scrutinized for the years 1972, 1982, 1992, 2002, and 2015, and aerial photographs at a scale of 1:20000 were used, while demographic changes in the city were investigated for the years mentioned above. To process and interpret satellite images and to prepare maps, Envi4.8 and ArcGis10.3 were used. First, land use/cover change detection for the metropolitan Shiraz and its surrounding areas were extracted, and following the categorization of images, the comparative method of change detection technique was used to identify agricultural lands and barren lands converted to urban use. Results revealed that over the past 50 years under investigation, the area of the city had increased by approximately 12 times and its population by 5.5 times. These transformations were mainly due to human activities, such as expansive residential zones and lands constructed in deformed geomorphological landforms. Such deformations could be exemplified by northern sites (sloppy mountainous skirts), north-western and western sites (poorly consolidated formations), high rate of underground water stability, and floodplains.

Key Words: GIS&RS, metropolis Shiraz, Urban Geo morphology, Urban Development.

Methodology of Determination of Landscape Hydrological Resources: Case of Georgia

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Abstract

The method of determination of water resources quantity according to landscapes is considered in the work on the example of Georgia. The study is based on multi-factorial analysis, for which GIS-technologies are used. The concept of landscape spatial-temporal analysis and synthesis, on the one hand and water balance determination, on the other hand, which takes into account the ratio between water income, consumption and accumulation for any territory, are used as methodological basis of study.

The study was mainly based on annual cadastral hydrological data of Georgia. Series of observations include 40-50-year and in some cases 70-year period. Large set of data of hydrological stations gives us an opportunity to establish and assess with quite high accuracy the water resources of Georgian landscapes.

Study was carried out in several stages: matching of hydrological stations/watchtowers with landscapes (1); determination of aqueous runoffs from each genera of landscapes (2); recalculation of results obtained according to kinds of landscapes in regard to administrative units (3); revealing the peculiarities of territorial distribution of Georgian water resources.

Different and similar landscapes (at the level of their genera) according to total water reserves, as well as the landscapes with maximum water reserves were established as a result of study. It was identified that landscapes situated under more or less uniform physical-geographical conditions are similar by their total stock of water resources and as a rule don't vary in wide range. Even landscapes (landscapes genera) coming within the limits of one type or subtype of landscapes differ from each other in stock of water resources. Naturally, this difference is especially obvious in regard to total volume of annual runoffs, while in case of the same index calculated per unit of area this difference is less manifested. Thus, the landscape area is acting as basic determining factor of difference.

Key Words: Multi-factorial analysis, water resources, Georgia

Comparative Assessment of Precipitable Water Vapor Derived from GNSS Observations Based on Surface Meteorological Data and GPT2w Empirical Model Meteorological Data

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Abstract

Over the years, the demand of high resolution meteorological data and its appropriate analysis are gradually increasing. In recent years, besides radiosonde and water vapour radiometers, Global Navigation Satellite Systems (GNSS) have become an important supporting tool for obtaining reliable and accurate information for weather forecasts. By using GNSS observations, amount of water vapour which is the most abundant greenhouse gas in the atmosphere can be derived with high temporal and spatial resolution than the other traditional techniques. The study investigates the accuracy of precipitable water vapour (PWV) estimation by GNSS observations based on Global Pressure and Temperature empirical (GPT2w) model. PWV values obtained from GNSS observations based on surface meteorological data were accepted as true values for validation. PWV values were estimated in summer and winter for seven days at fifteen minute intervals on three reference stations. In order to investigate the regional effect, three reference stations were selected between -12° and 70° latitudes. Results demonstrate that PWV/PPP estimation based on meteorological data calculated by GPT2w in RMSE of 1.3 mm to 2.1 mm.

Key Words: GNSS meteorology, Precipitable water vapour, Troposphere delay, Surface meteorological data.

Change in the Function of a Municipality on the Example of Caye Caulker (Belize)

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Abstract

The social and economic function of a municipality may change many times in its history. The business activity of local residents changes in response to changes in demand for local goods and services. The island of Caye Caulker in Belize is one example of a functional transformation. The island's main town is called Santa Elena. The purpose of the paper is to describe one of a number of possible directions of functional transformation – in this case a shift from fishing to tourism. The island was a fishing area in the early 20th century. It later became a recreational area for the residents of Belize City. In recent years, it has served as a national tourist attraction in the country of Belize.

Field research was performed in Caye Caulker in 2006. Buildings situated along the main avenue on the island were counted and placed in categories. The latest satellite imagery was also used to assess the built environment on the island. Spatial analysis focused on the function of selected buildings in the central part of the main town. Attempts were also made to gauge future change directions. Research has shown that a new function is emerging and accelerating in terms of new investment in the central part of the island as well as across its peripheral areas. Tourism is becoming a key part of the economy of Belize, as measured by the rapid increase in the number of visitors. One visible outcome of this change is the rapid increase in the number of hotels and restaurants on the island. This prompts the following key question: Is this new pattern of change really advantageous for the island?

Key Words: Belize, Caye Caulker, change in the function, tourism

Population Situation in Muslim Countries in the Context of Selected Demographic Parameters

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Abstract

Islam, born in the Middle East in the 7th century, stands currently as the second largest monotheistic religion in the world after Christianity. The purpose of the paper is to analyze statistical data in order to differentiate the studied region in terms of selected demographic parameters. A total of 46 countries were studied, where the share of the Muslim population of various denominations was at least 50% in 2012. The following indicators were studied: (1) rate of natural increase, mean birth rate, mean death rate, mean infant death rate, mean rate of migration.

The paper also analyzes mean life expectancy. The share of the 65+ population was calculated for the current period and estimates were also generated for a future period. Similar calculations were also performed using the population aging index. The final analysis focuses on the current state of the studied population and future forecasts for the studied countries. The analysis in the paper relies on mean values for three 5-year periods: 1985-90, 2005-10, 2025-30 (forecast). Statistical data were used to differentiate the studied region with respect to selected indicators. In summary, the population of each studied country will depend directly on the birth rate, international migration, and increasing mean life expectancy.

Key Words: Muslim countries, demographic parameters, natural increase, life expectancy.

Local Government Cooperation of the Municipality of Ohrid, Struga and Pogradec for Ohrid Lake Protection

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Abstract

Disregarding National and International juridical provisions by municipalities, does huge damage to Lake Ohrid. Even though recently Lake Ohrid is under protection of UNESCO, local government of municipality of Struga, Ohrid and Pogradec, permanently do damage with their irresponsible actions like : Solid constructions by the lakeshore, that interrupt the connection of life chain, by which natural breeding of organisms goes through different difficulties, burning of reeds nearby the lakeshore, populating the Lake with predatory fish that haven't existed before.

It is the right time for the necessary collaboration in between of these municipalities, to eliminate these mercilessly damaging actions, of a property with certain values such as Lake Ohrid.

The cooperation should be expanded through different joint projects, so this Balkan pearl would be used properly, by developing tourism and not ruining an eco system.

Key Words: Lake Ohrid, Life chain, Reeds, Cooperation, tourism.

Determination of Control Parameters of Land and Economic Development of the Region of Struga

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Abstract

Problem statement: Defining the control parameters of land, before that it be used to plant a culture is an important for the economic development of that region. Aproch: This paper treats the economical development for the quality of the land. Object of this study is determination of control parameters in land of Struga Region like Humus, pH -value, CaCO₃, K₂O, P₂O₅, total Azot. Results: The results that were achieved in this study showed the significant difference in the quality of land. Indication for this are the small value of K₂O which results goes from 4.81 mg/100g land to 15.22mg/100g land. Conclusion/Recommendations: For sowing potato culture or sun flower is necessary to preliminarily treated with organic fertilizers.

Key Words: Determination, organic fertilizers, economic development.

Strategies for Sustainable Landscape Management in the Filyos River Delta (Turkey)

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Abstract

The Filyos River is the longest river basin in Western Black Sea Region with a total length of 228 km and an area of 13.300 km². The main study material, Filyos River Delta, is an important marshy ecosystem area containing different habitats like small lakes, sand dunes, reed beds etc. in the north of Çaycuma County in Zonguldak. Although Filyos River Delta has important natural, cultural and historical properties, it faces serious environmental problems (flood risk, unorganized industrialization, unconscious agricultural activities, decreasing flora and fauna, commercial drainage of sand and pebble from river bed etc.) due to the present uses of area. Furthermore, “Filyos Valley Project” is anticipated to be one of the most important public investment projects prepared to ensure regional development since the beginning of 1990. In this notice, environmental strains on Filyos River Delta and near coastal areas are determined. Landscape management strategies are developed for sustainability of Filyos River Delta.

Key Words: Filyos River Delta, landscape management, delta.

Relationships between Land Use and Land Classification in the Tahtalı Dam Basin (İzmir, Turkey)

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Abstract

Aim of this study is to evaluate land use and land classes in the Protection Basin of Tahtalı Dam which supply 30 % of water demand of İzmir city, in terms of sustainable use of natural sources.

In the study, Landsat satellite images were benefitted in order to determine current land use, and, the remote sensing method was used in processing these images.

Land capability classification reflects natural environment potential of an area. According to this, having agriculturally importance, class I, II, III, and IV lands; and class V, VI, VII, and VIII lands, which are not suitable for agriculture, cover an area of 32% and 68%, respectively.

The most important land use forms in the basin are areas of forest-maquis-garrigue (54%), farming (37%), settlement-other areas (8%) and of grass-pasture (% 1).

There is an unconformity between capability classes of lands and their use in the basin. While the area that is covered by classes I-IV lands which should be used as agricultural (farming) field is 32%, the area that is currently covered by agricultural fields is 37%. Again, settlement areas are largely on fertile agricultural lands and on the inclined areas which should be the forest; and agricultural activities are being carried out on area where the slope exceeded 10%.

Non-use lands according to their capability classes causes to ensue some negative results. As a matter of fact, severe erosion which is seen at 60% of the basin becomes effective in lands with slope and which are devoid of natural vegetation. Beside this, 74% of the study area is composed of lands which are with slope, of which productivity is low, and which require reclamation.

In the basin where number of unlicensed dwelling is over 5000, dam and settlement units are on fertile lands. Wastes of settlements in the basin, intensive pesticide-chemical fertilizer use on agricultural areas, and existence of large industrial installations lead water of dam to be polluted and to land degradation. As a matter of fact, in the basin, there is an increase in parameters of Chemical Oxygen Demand and Biological Oxygen Demand, which arises from domestic and industrial wastes. Beside this, on measurements which were performed in water of dam, it was observed that level of pollution is higher than values which are desired in second class waters.

In order for the said degradation and pollution to be able to prevent, lands should be used as suitable for their natural environment potentials, and sustainable methods should be adopted, with the public participation, in agriculture sector in particular.

Key Words: Land capability classes, Land use, Protection Basin of Tahtalı Dam, GIS-Remote Sensing.

Protecting Perceptions, Attitudes, and Behaviors of Local People in Rural Settlements in the Tahtalı Dam Basin (İzmir, Turkey)

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Abstract

Aim of the study is to evaluate protecting perceptions, attitudes, and behaviors of local people in rural settlements of the Protection Basin of Tahtalı Dam.

In the study, scanning (survey) method was used. For this purpose, a survey of 62 (the first 14 ones and 48 ones are related to agricultural structure&enterprises, and protecting perceptions, attitudes, and behaviors, respectively) questions was developed to be conducted to rural settlement units in the Protection Basin of Tahtalı Dam. Settlement units constituting the sample to which the survey would be conducted were determined, by considering absolute (there is no settlement), short-, middle-, and long-distance protection areas in terms of proximity to the dam. From rural settlements within the sample, Şaşal is situated in short-distance protection area; Küner, Sancaklı and Değirmendere are in middle-distance protection area; and Akçaköy, Belenbaşı, Doğançılar, Karacağağaç, Kırıklar and Yeniköy are in long-distance protection area. The survey was conducted to 569 household heads (participants) constantly residing in these settlements. The survey data were analyzed via SPSS 23.0.

According to data obtained (from 1 I strongly disagree to 5 I strongly agree), those who reside in rural settlements are not pleased with the protecting application. As a matter of fact, the mean of the proposition that “there is no need protection in Tahtalı Basin” is 3,2, and the mean of the proposition that “protection in Tahtalı Basin should not include our village” is 3.9. On the other hand, the mean of the proposition that “protection in Tahtalı Basin made us conscious” is 2.2, while the mean of the proposition that protection in Tahtalı Basin ended stockbreeding’ is 3.6. In other respects, for purification constituting the essence of the protection, the mean of the proposition that “purification should be in all of villages in the protection basin” is 4.4, and has the highest value in the survey.

In conclusion, according to the survey which was conducted, participants do not object to the essence of protection. However, they have criticisms about hitches which emerge due to implementation of the protection, and about the fact that they were not guided on overcoming this. Within this scope, rural settlement inhabitants of Tahtalı Dam’s Basin need to be kept informed and to be supported about alternative sustainable economic activities (organic farming, ecological tourism etc.), in that they can earn their keep by obeying protection rules.

Key Words: Protection Basin of Tahtalı Dam, Local people, Perception of protecting, Attitudes and Behaviours of Protection.

Determination of the Quaternary Drainage in the Southeast of the Diyarbakır Basin (in the Vicinity of Raman Mountain) According to Geomorphological Data

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Abstract

Diyarbakır Basin is located at the east of the Southeastern Anatolian Region and is surrounded by the Southeastern Taurus Mountains in the east and north, Mardin Mountains in the south, and Karacadağ volcanic mass in the west. The project area covers the southeast region of Diyarbakır Basin and in particular, Raman Mountain and its vicinity. This region constitutes the most tectonically active area of the Diyarbakır Basin. One of the main factors that have played a role in the shifting of the river beds in the project area is the fault line passing through the southern slopes of Raman Mountain. The uplifting of the area at the north of the fault has brought about such shifting of the river beds. The most important of them is Batman River which had been a tributary flowing into the Tigris River through Maymune Gorge up until the early Pleistocene, then it abandoned this extensive gorge and connected to the same river at the west of its former estuary. As a result of this shift in the river bed as well as some regional-scale tectonic movements, the Tigris River has formed embedded meanders between Raman and Gercüş Anticlines. It has settled down in the fault line after passing through Hasankeyf. In general, former drainage basins are determined drawing upon geomorphological, hydrogeological, stratigraphical, and sedimentological research. Only taking geomorphological data into consideration this study aims to determine the Quaternary drainage basin to the southeast of Diyarbakır Basin.

Key Words: Diyarbakır Basin, Raman Mountain, Maymune Gorge, Batman River

The Emergent Spatial Effects of Shopping Malls: Case of Eskişehir Tepebaşı District

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Abstract

The most notable feature of the social environment of shopping malls is the capability of bringing together the people living in the different regions of a city regardless of differences in age, gender, income, personal interests and more(White and Sutton,2001). Within this context, it is necessary emphasize the fact that the physical environment and space design play a significant role in creating a festive atmosphere which enables consumers to stay longer and shop in the malls. Although shopping malls seem to be an economic power and an indispensable part of the modernization, it is a fact that the sheer number of malls and the trend in which cities increasingly appear identical affected the historical and natural fabric of the city in a bad way.

In addition, shopping malls create narrow and dense streets, ill-designed totally unaesthetic buildings as well as narrow and dense transportation network. The rapidly growing populations in cities need much more consumption owing to the continued migration to metropolises and the rapid increase of it. In parallel with the requirements, shopping malls increase rapidly and apparently intensify in some regions of the city.

In this study, in Eskişehir Tepebaşı district, which is our target area of our survey, we aim to present the sheer number of shopping malls and the spatial problems caused by it.

Key Words: Shopping mall, space, urban planning, human factor.

Ecology Impacts of “Makmalzoloto”(Kyrgyzstan) Gold Mining Area

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Abstract

Toguz Toro Valley is a rich area in mineral deposits like construction materials, polymetallic ore, gold and mercury. Gold mining in the area is of particular importance. Makmal gold mine is processed since 1986 and constitutes one of the largest sites in Kyrgyzstan's gold mining industry. This investigation was undertaken to evaluate the details on pollution of the area and ecological status of Makmal Valley and neighboring villages of Makmal and Chetbulak Toguztoro in “Makmalzoloto” Gold Mining Area-Kyrgyzstan. The area is under pressure from the activities of gold extraction. Even today environmental pollution as well as high levels of radiation are observed. The extraction activity has seriously damaged and produced a negative impact on pastures, livestock as well as biodiversity in this region. The dosimetric studies have revealed that in the village Chetbulak radiation levels lie around 38-40 mcR/h. Since the first extraction the tailings pond is uncovered lying under the open blue sky with no protection or warning signs. The cattle heads are grazing openly all year round and children play freely around the tailings pond. According to the 2005 data, the total mine waste water quantity is around 197.985 m³/year. The emission ratio of hydrogen cyanide from the tailing pond area is around 10.3 percent. The results of heavy metal analysis in plants around the tailing pond area show that, Strontium is 10 times above the normal level whereas in the Chetbulak village it is 3 but lithium here is 7 times above the level. In the Makmal Village manganese has been recorded as 3 times more than normal level. Other elements show normal levels. An analysis of heavy metals in the soil has revealed that in Makmal Village alone manganese is 1.5 times, lithium 7 times above the normal values and Beryllium is a little over normal value.

Key Words: Gold ore, Plants, Heavy metals, Ecology, Kyrgyzstan.

Mevsimlik Gezici Tarıma Bir Örnek: Bostancı Köyü (Yusufeli-Artvin)

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Atatürk Üniversitesi, Edebiyat Fakültesi, Coğrafya Bölümü, Erzurum, TÜRKİYE

Özet

Yusufeli ilçe merkezinin kuzeyinde, Altıparmak (Barhal) Çayı'nın doğusunda, ilçe merkezine 26 km uzaklıkta ve deniz seviyesinden ortalama 1000 m ile 1600 m yükselti basamağında vadi içerisinde kurulmuş bir köy yerleşmesidir. Köyde 200 hane olup, 270 erkek ve 264 kadın olmak üzere 534 kişi yaşamaktadır. Bostancı köyü çok göç vermiş olup, 200 hanenin üç katı kadarı da Konya, Ankara, İstanbul ve Bursa gibi illerine göç etmiştir. Köy halkı geçimini tarım ve hayvancılık faaliyetleri yaparak sürdürmektedir. İklim şartlarını tarıma elverişli olmasına rağmen yeryüzü şekillerinin olumsuz etkilerinden dolayı tarım arazilerinin sınırlı olması, tarım işçilerinin il dışına göçüne ve yeni arayışlara itmektedir. Tarımsal üretim için Yusufeli'nden Arpaçay'a göç eden Bostancı köyü halkı bu faaliyete örnek olan bir köydür. Bu nedenle köy halkının büyük çoğunluğu (her yıl ortalama on hane) yaklaşık 25 yıldır Erzurum, Kars ve Ağrı gibi illerde kiraladıkları tarlalarda sebze yetiştirdiklerinden köye Bostancı adı verilmiştir. Yapılan görüşmeler neticesinde edinilen bilgilere göre yaklaşık 50 kişi Kars'ın Arpaçay ilçesinde arazi kiralayarak mayıs ayından kasım ayına kadar bostancılık yapmaktadır. Bu çalışmada, mevsimlik gezici tarım ile uğraşan insanların sürdürdükleri tarımsal faaliyetlerin türü, bu faaliyeti gerçekleştirme nedenleri ve tarım arazisinin bulunduğu yerin seçiminde rol oynayan faktörlerin neler olduğu arazi çalışmaları ve yapılan mülakatlar ile araştırılmıştır. Bu bağlamda köy halkı ile yapılan görüşmeler sonucunda, Bostancı köyü halkının mevsimlik göç etmesi, tarımsal mevsimlik işgücü ihtiyacından ziyade "geçim tipi" bir oluşumdan kaynaklandığı görülmektedir. 6 ay süreyle yetiştirilen ürünler Kars halkına satılmakta ayrıca şehir dışına gönderilmektedir. Tarım arazilerin verimli olduğu ve değişik sebze türleri yetiştirmenin mümkün olduğu Arpaçay'da sürdürülen bu faaliyetten bol verim alındığı belirtilmiştir.

Anahtar Kelimeler: Tarım, Gezici Tarım, Bostancı Köyü, Yusufeli-Artvin."

Fethiye’deki Bazı Koyların Rekreasyon Potansiyellerinin Belirlenmesi

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Özet

İnsanların eğlence ve dinlence aktiviteleri olarak tanımlanan rekreasyon kavramı sağlıklı yaşamın da vazgeçilmez bir ögesidir. Özellikle yoğun stresli yaşantıdan uzaklaşmak isteyen herkes kendisini daha rahat hissedebileceđi aktivitelere yönelmektedir. Muđla iline bađlı bir ilçe olan Fethiye, dođal kaynak deđerleri yönünden oldukça zengin bir potansiyele sahiptir. Ayrıca Fethiye’nin denize olan kıyısı birbirinden güzel birçok koyun da oluşmasına sebep olmuştur. Yerli ve yabancı turistlerin yaz sezonunda yoğun olarak ziyaret ettikleri Fethiye’de, özellikle koylar başta denize girmek ve piknik yapmak için insanların oldukça fazla tercih ettikleri alanların başında gelmektedirler. Bu alanlarda koruma – kullanma dengesinin kurulabilmesi için rekreasyon planlamasının yapılması gerekmektedir. Rekreasyon planlamasını yapabilmek için de, ilk olarak ilgili alanın rekreasyon potansiyelinin belirlenmesi gerekmektedir. Bu bağlamda da, ülkemiz koşullarına uygun olarak geliştirilen Gülez yöntemi ile belirli faktörlere puan verilerek yapılan deđerlendirme sonucunda herhangi bir kullanımın rekreasyon potansiyeli bulunabilmektedir. Bu çalışmada özellikle yaz sezonunda yoğun bir kullanıma sahip olan Küçük Samanlık-Büyük Samanlık ve Kuleli koylarının rekreasyon potansiyellerinin Gülez yöntemi ile belirlenmesi amaçlanmaktadır.

Anahtar Kelimeler: Rekreasyon, potansiyel, koy, Fethiye.

Tourism Potential of Çakıt Valley's Natural Historical and Cultural Heritage

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Abstract

Countries with natural, historical and cultural wealth become big tourism centers. As the fastest growing activity, tourism is an activity that examines the relationship between space and people and an accumulation of geography and culture. While geographical diversity reverberates on culture, this diversity leaves an impression on nature and on people. Because of its geopolitical place and because of the many civilizations that were founded in these lands for thousands of years, Turkey has a rich historical and cultural heritage.

This study is about the Çakıt Valley's natural historical and cultural heritage. This valley is located in the city of Adana which is situated in the Mediterranean Region of Anatolia. This heritage are: Railroad and Vardara Bridge, built by the Germans during the Ottoman times, in the Belemelik Neighborhood near the Çakıt River; Yerköprü and Kapıkaya Canyons, natural wonders inside the Karaisalı District; historical railway route that the Turks fought against the French during the Turkish War of Independence. With its old plane trees, Belemelik Neighborhood is a place that has tremendous tourism potential.

To identify the richness of Çakıt valley's heritage, interviews were conducted with the local population during the field work and photographs were taken. In this study, a field trip was taken to the area. The purpose of the study is to use the natural and historical richness of the regions in region's development and ensure the continuity of this richness in tourism. In addition, it is to uncover Çakıt Valley's natural, historical and cultural heritage and ensure its survival. Also, the study aims to unearth the tourism attraction of Pozantı and Karaisalı districts. Finally, the study aims to promote Çakıt Valley's natural, historical and cultural heritage in Turkey, to make sure they are protected under the law and to bequeath it to future generations.

Key Words: Natural and Cultural Heritage, Çakıt Valley, Tourism Potential of Çakıt

Structural Organization of Geosystems of Ili River Delta and their Development Forecast

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Abstract

Regulations of complex physical and geographic differentiation of Ili River delta, which is the area of flow dispersion zone of Ili-Balkhash mega geosystem, have been successfully studied by several researchers. Often the dynamic feature of different delta geosystems has not been taken into account. Recent landscape researches on geosystems of this region have been conducted in 1985-1999, when active drying process and anthropogenic desertification process have increased.

At present period, period of global climate warming, delta geosystems have not only transformed, but evolved not in modifications but in genetically determined complexes which have a new set of natural components. The researchers of the past years have not taken into account the parameters of surface flow and behavior of delta geosystems under conditions of constant flooding in spring, summer and autumn. Patterns of spatial and temporal relations of natural complexes are studied in more comprehensive way in geosystem approach using hydrological and geographical methods of studying natural environment, which allow determining the role of surface flow in evolution and geosystemic dynamics processes.

Differentiation of natural systems of Ili river delta is conditioned by character and dynamics of vertical and horizontal currents of substance.

The development of environmental protection measures and rational use of natural resources in Ili river delta depends on complete knowledge of landscape patterns and assessment of negative effects of human impact.

In exploring physical and geographical differentiation of paragenetic complexes paradinamic complexes of Ili river delta, which have no clear watershed surfaces, in terms of global climate warming, as well as in exploring and addressing issues of rational natural management on the territory of Ili river delta.

In determining physical and geographical patterns of dynamics of geosystems of Ili river delta and structural organization based on geosystemic landscape-hydrological approach, diversified economic tasks of environmental management have been resolved.

The study revealed geosystem physical-geographic processes, functioning in conditions of global climate warming and roles of vertical and horizontal substance currents in functioning of geosystems have been identified.

Levels of impact of anthropogenic factors on structure and transformation of geosystems and landscape-environmental regional forecast has been done.

Key Words: river delta, geosystem, anthropogenic desertification, global climate warming, geosystems evolution and dynamics, physical-geographic processes.

Developing a Web-Based Tree Information System: A Case Study of Kılavuzlu Park – Kahramanmaraş

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Abstract

The main objective of this study is to develop a web-based tree information system for trees in Kılavuzlu Park, Kahramanmaraş. The first step of this study was conducting an inventory for trees in the park. With this study, location and individual attributes of each tree were gathered by doing ground measurements and field observations and these data gathered were imported into ESRI ArcGIS. At the final step, all data were shared with public by developing a web-based GIS application using ArcGIS Online.

Trees and forests are renewable resources and provide ecologic and esthetic benefits to communities and local governments. The total number of current tree species, individual properties, location, health and maintenance status of each tree can only be gathered by tree inventory studies. Thus, all kind of data related to urban trees should be brought into GIS by digitizing.

In this study, the location of each tree was obtained from Google Earth and then imported into ArcGIS software. Furthermore, an attribute table was created for each tree in ArcGIS and an ID number was assigned to each tree in the study area. Scientific name, common Turkish name, height, dbh, and canopy diameter of each tree were measured and all these records have been entered to the database. Finally, a web-based geographic information system for trees were developed by putting these data on the web using ArcGIS Online.

Kılavuzlu Park will be the first and only park in Turkey that has a web-based information system for trees. Users will be able to have all the information for each tree in the park. The major output of this project will be that Kahramanmaraş Metropolitan Municipality will have a web-based information system to manage campus trees effectively.

Key Words: Tree Information System, Web Base, Kahramanmaraş, Turkey

Using GIS for Forest Road Network Design: A Case Study

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Abstract

Forest roads are the most important infrastructure for forestry activities. Forest roads connect the forest lands to existing public roads. They provide forest access for such activities as managing timber, improving fish and wildlife habitat, fighting fires, and recreation. For this purpose it needs one of the most important tools needed poses forest road networks.

Geographic Information System (GIS) provides that all of info such as topographic map, forest management plan and data of field can be configured separately in a layer. In addition to this, the collateral maps prepare according to new data from analysis of Geographic Information System. These use to analyze relationship between field-road route.

The aim of this study was to design the forest road network using Geographical Information Systems (GIS) in Cehennemdere Forest District of Forestry on Mersin Regional Directorate of Forestry in Turkey. Geographic Information Systems was used graphical and attribute database in planning studies. As a result of studies was determining planned forest road network, road density, the ratio range and opening up rate. In addition, was formed digital terrain models, slope, aspect and thematic maps. All these procedures were analyzed by computer software ArcGIS.

The results showed that this method can be more helpful and road network can be designed quickly with less cost than traditional method.

Key Words: Forest Road Network, GIS, Road Density, Turkey

Estimation of Suspended Sediment Transport in the Kebir Drainage Basin, Algeria

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Abstract

Sediment load and sediment concentration are highly important variables that may play a key role in environment quality assessment and help to evaluate the extent of potential adverse impacts. This paper introduces a methodology to predict sediment loads in the Kebir drainage basin (681 km²). The methodology is developed by a conventional sediment rating curve and a multiple regression model. The former method is investigated with the mean discharge classes derived from the recorded instantaneous suspended sediment concentrations and water discharges for the Kebir basin, prior to the Mexa reservoir construction. The latter is based on rock type erodibility, mean annual runoff and basin area variables, and which is applied for the ungauged Mexa reservoir basin located upstream of the Kebir gauging station (651 km²). The mean annual suspended sediment yield of both Kebir drainage basin and Mexa reservoir basin conducted during the 24 years (1975/1976-1998/1999) and the 9 years (1999/2000 -2007/2008) are respectively 895 T km² year⁻¹ and 572 T km² year⁻¹. Despite the decline in sediment load during the reservoir period due mainly to disturbance in climatic regime, the basin is suffering severe soil loss, and currently 0.42% y⁻¹ in loss of storage in the reservoir due to sedimentation has been evaluated. The high amount of sediment produced from the study drainage basin is a function of climatic and several physical factors including the high proportion of argillaceous materials and the amount of bare soil exposed.

Key Words: drainage basin, sediment load, sediment rating curve, multiple regression.

Sand Dunes Encroachment on Economic Land Resources of Sinai Peninsula, Egypt, Using Integrated Remote Sensing-GIS Techniques

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Abstract

Sinai Peninsula, as a vital strategic region, is prioritized in the recent government sustainable development program. Availability of potable water is essential for any effort of cultivation or implementation of new societies. Arc-GIS system was used for building the thematic layers model, including contour lines, wells locations, roads, urban areas, agriculture and main wadies. Analyzing the SPOT images (acquired in year 2011) and Landsat ETM+ (acquired in 2000) made it possible to define four dune movement rate categories. The lowest movement rate (2.54 to 3.72 m/year) characterizes the coastal areas, dominated by cultivations and vegetated land use pattern. The moderate movement category (4.0-5.5 m/year) dominates the south and southeast of Lake El Bardaweel. The moderately high category (5.5-7.0 m/year) characterizes the south of Kantara Shark and south El Sheikh Zwied city. The highest movement rate category (7.0-9.0 m/year) influences the south of cultivated El Salam Canal command area. It was found that the road network influenced by the high dune movement risk represents 37.78 % of Sinai roads network, located south of El Kantara Shark and East of Wadi El Arish. Most of urban areas (82.62 %) are located under a low risk of sand dunes movement. The cultivated lands located under the high risk of sand dunes represent 33.37 % of cultivated lands. It could be concluded that the sand dunes movement rate is controlled by the climate, vegetation cover and topography. The northern district of North Sinai is the most affected by sand dunes activities.

Key Words: Remote Sensing, GIS, Sand dunes, Sinai, Egypt

Spatial Analysis of Maquis and Garique Communities in Cyprus and Comparison with Calabrian pine Communities in terms of Ecological Characteristics

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Abstract

The island of Cyprus is located in the Mediterranean world of flora. The characteristic of the Mediterranean climate is that the winters are warm and rainy, while summer is hot and dry. Eastern Mediterranean Basin is a basin where the only vegetation with sclerophyll character develops because of the characteristics of a Mediterranean climate. Plant species of maqui and garique communities find the growth opportunity due to their strong characteristics of adaptation to this climate. It was observed that the maqui types are developed as primary vegetation and have shown a spatial distribution, while the maqui types which have located in the fields of destructed pine and cypress are secondary.

The dominant species in Cyprus forests are calabrian pine. Though, calabrian pine (*Pinus brutia*) forests show an unquestionable dominance over other forest items, they cannot show this dominance over maqui and qarique. Maquis are able to shoot again after forest fires due to their deep root structure not affected by fire. Therefore, after fires or heavy damages they spread to the land and even thicken in a way that the seeds spilled from the thinning calabrian pines are not allowed to germinate. Without human intervention, it solidifies its dominance by covering the land and leaves no chances of life in the forest. Distribution areas of Maqui, has been shaped by the effects of climate factors more than the bedrock and soil characteristics.

On Troodos mountains' 700 meters and higher slopes overlooking the Mediterranean Sea, precipitation, cloudiness and relative humidity is high. In these areas, cypres, calabrian pine, cedar, black pine, elm, elder and golden oak trees which are in need of moderate temperature conditions shows spread. On the high slopes up to 1000 meters from the Mediterranean Sea, where the temperature is relatively low and humidity and cloudiness is low, vegetation forms which request more light and are drought-resistant and even xerophytic are seen. Especially in areas close to sea level; terraces, on the lower slopes and coastal plains, lower than 1000 m; trees or shrubs that request light such as kermes oak, lentisc trees, wild olive, carob, terebinth are grown.

Key Words: Maquie, Garique, Calabrian Pine, Cyprus, Vegetation

The Effect of Wintertime Temperature Inversion on Air Pollution in Karabük City

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Abstract

According to the vertical temperature gradient, air temperature decreases when moving away from the earth or it increases when getting near the surface of the earth. This change of temperature is called lapse rate. However, sometimes deviations from the normal conditions occur in the atmosphere, resulting in a reverse situation. Such weather events are called temperature inversions.

Karabük city of Turkey, examined within the scope of this study, is situated in the Western Black Sea Region in the northwest of Turkey. The city is the seat of the iron and steel industry. It is built on a depression area in which intense wintertime temperature inversion is observed. In the areas with temperature inversion, the only problem is not the extremely low temperature, but also a layer of still air that does not allow for any convective air movement. This results in air pollution in the cities.

This study aims to determine the air pollution level in Karabük during the days with and without temperature inversions. The parameters that need to be taken into account in assessing the air pollution are sulphur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO) and Ozone (O₃). The methodology is based on a regional approach. ArcGIS 10.3 was used for preparing cartographic materials. The study data was provided by automatic weather stations and the Karabük weather station of Turkish State Meteorological Service. The study found that wintertime temperature inversions cause an increase in the air pollution in Karabük.

Key Words: Temperature inversions, air pollution, Karabük city, climatology, Turkey.

Analysis of Marriage Statistics by Geographic Regions in Turkey (2001-2014)

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Abstract

Marriage is described as an institution created by the legal merger of a man and a woman. The importance of marriage in our country and all over the World is on the relationship between the family and fertility in the context of population. In Turkey as well as in most societies birth, for which it is deemed legitimated under marriage socially, is closely linked to marriage. Marriage event can end with the death of husband or wife and divorce. The marriage event can repeat with remarriage by widowed or divorced spouses. In this respect it is also important the marriage match. The number of marriage events and marriage matches aren't independent from social and economic conditions of the geographical environment. The varying number of marriage and remarriage by geographic regions shows that there is a relationship between marriage and the geographical structure. For this purpose to show how the marriage events change by geographic regions in a certain time in Turkey (2001-2014) and to reveal the geographical factors that may cause this change is the aim of this study. By making use of marriage statistics determined by the Turkish Statistical Institute within the scope of province, statistical marriage analysis was conducted according to geographical regions where the city centers. In 2001-2014 period, there were 8.363.772 marriages and 1.486.632 divorces in total. In the mentioned period 7.050.834 marriages occurred as the first marriage and 1.215.973 marriages occurred as at least the second marriage.

When considering the distribution of marriages according to the amount of population by geographic regions, it is clear that the number of marriages is in line with the population of populous geographic regions. When considering the distribution of marriages into years it is observed that marriages are affected by economic problems and crisis in our country. Indeed, the economic crisis in 2001 and 2008 has negatively affected overall total number of marriages in all geographic regions in Turkey. In the actual number of second marriages between the years 2001-2014 in Turkey hasn't had a big change. Although the economic crisis in 2001 and 2008 have reduced in the number of second marriages, its effect hasn't been as big as in the number of first marriages. This study, in which the changes of marriage on a regional scale, is expected to contribute to the individuals and organizations that make studies about socio-cultural events, primarily about population.

Key Words: Marriage, Second marriage, Regional variation, Geography

Analysis of Divorce Statistics by Geographic Regions in Turkey (2001-2014)

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Abstract

Divorce is regarded as the expiration of family unity and integrity. Also divorce is resulted in economic and social factors, the geographical faetures of habitable environment has also affect on this event. Changes in the time scale of marriage in divorce event by geographic regions show that there is a relationship the geographical structure and the divorce. For this purpose to show how the divorce cases change by geographic regions in a certain time in Turkey (2001-2014) and to reveal the geographical factors that may cause this change is the aim of this study. By making use of divorce statistics determined by the Turkish Statistical Institute within the scope of province, statistical divorce analysis was conducted according to geographical regions where the city centers. In the period 2001-2014, there were 8.363.772 marriages and 1.486.632 divorces in total. The distribution of divorce by regions was shaped in accordance with the geographical factors. First of all in populous provinces and territories, the number of divorces show a parallel increase to population. Also the duration of marriage varies according to regions . with a general perspective in the geographical regions the Blacksea, Marmara, Aegean and Mediteranean the number of divorces are more as a result of 20 years and above marriages. However inland areas, especially in Eastern and Southeastern Anatolia regions, divorce cases are more as a result of 1 year marriage. This state can be explained by geographical factors in addition to social factors. Especially financial difficulties as a result of the unfavourable natural environment can lead to divorce of newly married couples. Causes of divorce cases in the povince of Eskisehir and Agrı have different geographical characteristics. The geographical potential of a region and province also affects the family unity and integrity. This study, in which the changesof divorce on a regional scale, is expected to contribute to organizations and institutions that produce social policy.

Key Words: Marriage, Divorce, Regional variation, Turkey, Geography

The Effects of the Fire Outbreak in Burdur in 1886 (1303 Hegira) on the Business and Commercial Sector of the City

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Abstract

The present historical-geographic study investigates the fire which affected the downtown bazaar and its surroundings in Burdur province during 1885-1886 (1303 Hegira), the urban planning in the aftermath of the fire and the role of this planning process in today's urban morphology.

Research data is mostly made up of the primary sources of that time (archive documents, yearbooks, maps) and supplemented by up-to-date urban plans and fieldwork.

Based on the Ottoman Archive documents, the general structure of the 19th Century Burdur province and bazaar was established using the Retrospective method. Similarly, the characteristics of the sites less known in the past were identified through the places made known by the Retrogressive method based on both the documents and the historical sites in the city. Supported with field studies, the research revealed, using a comparison method, the similar and different textural and functional characteristics of the historical and current sites. All aspects of the textural and functional changes that took place in the site were presented with the comparison method and these were visualized using Arc Map 10.3 package program.

The fire in the bazaar broke out in the house of Hafız Şükrü in 1885-1886 and spread out quickly. Apart from the 18 houses, 11 tons of wheat in the granaries of some houses was also destroyed in the fire. Subsequently, another fire broke out in the center of Burdur within the same year. The people of Burdur suffered severe damage and went through hard times because of these two fires.

Following the fire disaster, a zoning plan (1/250 scale) was prepared in an effort to rearrange the bazaar, particularly the business and commercial sector of the city. Having been completed in May, 1186 (13), this local-scale plan mainly reflects the urban morphology and functional land use of that time and it also provided a model for the area corresponding to the districts of Pazar, Üçdibek, Sakarya and Çeşmedamı.

It is significant to determine the historical-geographical aspects of the city as it provides the foundation for the current texture of the city center. For that reason, the present study not only provides data about the textural and functional structure of the Burdur downtown bazaar belonging to Ottoman period but it will also determine its relationship to the current texture and functions.

Key Words: Burdur Province, Bazaar Fire, Burdur Sub-province (Liwa), Business and Commercial Sector.

Create A Park/Difference with World Gardens

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Abstract

Urban people under the pressure of busy urban city life and they have require of the physical and psychological relaxation and to engage in recreational activities and open spaces for the development of the socio-cultural aspects. Open places form the composition of the urban landscape of the city as a strong element of aesthetic and architectural forms. Parks and gardens in the various countries of the world have become a symbol of culture and nature and they have formed the foundation of urban open space system. Hanging Gardens of Babylon, the Renaissance 'humanist' gardens, floral arrangements in the United Kingdom, public promenades in Europe, Antiquity and Islamic gardens religious developed in the light of philosophy and mythology, the gardens made for God and kings have become universal symbol of life and hope both in the period their generated and the today. Open places and art of gardens have quality measure of the level civilization in the first era. This measure has maintained its importance today and has become an indispensable concept in modern times. This study has been carried out in order to bring to life park arts important in terms of universal with concept project design. Park landscape design project was carried out on theme of the world gardens on an example of the area in Bartın City in this study. The surveys, stains, preliminary, final design, detail projects and sections have been completed in the study. It is expected that this study can be example for other park projects design. Thus recognition and continuity of the universal culture will be ensured.

Key Words: World gardens, park design, landscape design, Bartın.

Effecting of Drama Method Implementation in Geography Education on Students's Attitudes towards the Geography Lesson

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Abstract

The aim of this study is to determine the effect of using drama method in geography education on the students's attitudes towards the geography education. The study group of the research that selected from 5th grade students from Mavigün Primary School located in İstanbul province and center district in the academic year 2014-2015. In order to measure attitudes of students towards the lesson the researcher prepared attitude test as a data collection tool. In the same time, it has the children been written diary. The obtained quantitative data used dependent and independent groups were analyzed t-test within SPSS 17.0 software. Qualitative data were analyzed by content analysis. Statistical results obtained as a result of the research determined that there was a meaningful difference between experimental group students who were subject to education supported by the drama and control group students who were subject to classical education education. When diaries constituting the qualitative part of the research were examined, it was seen that the student had got better times, became happy and excited while they were drama. It was also revealed that the students loved the drama course and the teacher of the drama course more than they used to do owing to the drama.

Key Words: Drama Method, Geography Teaching, Attitude towards the Lesson.

A Study on the Characteristics to be Possessed by A Geographer

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Abstract

Today, the importance given to geography education is on the rise across the world. However, one needs quality education to be a geographer equipped with modern and advanced qualifications. In this sense, the curricula implemented in the geography departments of universities in Turkey and developed countries are constantly revised, and current geographical issues are included in them. Hence, the aim is to provide the society with new geographers who will achieve competency in their field with innovative skills rather than memorized knowledge.

As it is true for all kinds of professions, there are some prerequisites for geographers. The characteristics that should be possessed by geographers may vary from different aspects and based on different areas of expertise. Accordingly, the views of students studying geography at universities in relation to “The Characteristics to Be Possessed by a Geographer” are of great importance. In this sense, this study was conducted with students attending the geography departments of four different universities. The data were evaluated, and certain results were reached.

Key Words: Geography, Education, University, Student.

Opinions of University Students on Environmental Issues: Case of Isparta

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Abstract

Environmental education is a lifelong education should be given in formal and non-formal education. First, required to start in the family environmental education should be addressed lifetime from pre-school to higher education . It should be noted that underlying causes of environmental problems faced today is awareness and this can be fixed by an environmental education from pre-school to higher lifetime duration. In this study, it was aimed to determine the solutions of 70 students who were studying Suleyman Demirel University, Isparta Health Services Vocational School. The study is important for determination of the university students' perception about Gökçay and Ayazmana frosty fields in Isparta city center and identification of the problems associated with these excursion and thoughts regarding who can solve these problems and create awareness about the contribution to the solution of these problems by themselves.

Research data was obtained by an interview form consisting of six open-ended questions obtained by adapted to the Ayazmana and Gökçay developed by Yılmaz, Badur and Uysal (2014). The obtained data were analyzed with descriptive analysis and content analysis of the qualitative analysis. Research results show that most of the students to the concept of environmental problems is 'Damage to social life'. Ayazmana and Gökçay promenade areas evokes students in the most 'natural beauty' and students focus on "garbage" about problem in recreational areas and they believe that "municipal" can solve these problems primarily. And they think their responsibilities towards the Ayazmana and Gökçay is mostly "social initiative".

Key Words: Environmental education, Environmental problems, Ayazmana promenade, Gökçay promenade, University students.

Aeolian Influenced Soil Sites in Consideration of Atmospheric Circulation Types in the Wetterstein Mountains

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Abstract

The Zugspitzplatt as part of the Wetterstein Mountains in southern Germany is a representative for a preserved tertiary paleosurface in the western part of the Northern Calcareous Alps. It is built from very pure Triassic limestone (Wettersteinkalk). The mean contents of the sum of CaCO₃ and MgCO₃ range between 95% and 98%. That means the mean amounts of insoluble residuals are about 2% only. Thus, the pedogenesis is accompanied by high pH values. Eutric regosols are the most common soils in the altitudinal range between 2100 and about 2400 m a.s.l. By contrast an atypical and mica influenced occurrence of brown deposits and the development of cambisols with low pH values can also be observed there. These soil conditions entail special patterns of the alpine flora. In summer 2013 a soil mapping in the altitude class between 2100 and 2350 m a.s.l. was realized on the basis of 81 analyzed soil sites. These pedological investigations resulted in new conclusions about the genesis of the spatial pattern concerning the supply area of aeolian input of mica.

Key Words: mica deposits, azonal soil sites, azonal vegetation formations, Northern Calcareous Alps.

Deformation Mapping of an Active Landslide Using Airborne Laser Scanning Data

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Abstract

Landslide monitoring works consist of complex technological methods. However measuring time-varying surface deformation in active landslides has become challenging due to their wide range of displacement rates and their heterogeneous displacement gradients reflecting block-like to fluid rheology. Over the years, various methods and technologies have been proposed to monitor landslides. As most preferable advanced technologies, terrestrial laser scanning (TLS) and airborne laser scanning (ALS) technologies have been used to measure surface changes. Existing distance measurement methods are classified in three main approaches: difference of Digital Elevation Models (DEMs), direct cloud-to-cloud comparison with closest point technique, and cloud-to-mesh distance or cloud-to-model distance. In the present study, an active landslide, named Gschliefgraben, evaluated using two time series of ALS data obtained in 2012 and 2015 based on cloud-to-cloud comparison technique. Gschliefgraben is a big landslide system located in located in Upper Austria (municipality Gmunden), at the east-banks of lake Traunsee, has been reactivated recently causing threatens over the buildings and local infrastructures such as roads, electricity etc. Because of large of size of data, comparison was made over the most active slope located upper part of landslide, but near the mass center. Finally, deformations over the slope mapped in 3D as well as in X, Y, Z directions.

Key Words: Airborne Laser Scanning, Cloud-to-cloud comparison, Landslide monitoring, Point cloud

Geomorphological Process, Cosmogeodezycal, Relief, Morphosculptures

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Abstract

The Caucasian region is one of the most tectonic active regions in the Alpine-Himalayan mountainous region. The recent survey has shown that the formation of the relief of Caucasian relief is determined by exogenous forces, as well as by endogenous dynamical forces. Among the endogenous forces one of the most important movements is the Northward horizontal movement of the Arabian tectonic plate.

The relief of Georgia reflects the temporal and spatial cause and consequence relations between the entire geomorphological processes (structural, sculptural). Each relief form is moving in time and space. This approach of geomorphological analysis can be stated as a new type of methodology. It gives us the chance to divide the development of the relief history or geomorphological phase (neotectonic phase) into several geographical cycles, relate them to the tectonic movements and determine the time of the regular repetition of the million year cycle processes.

The recent measurements in Georgia (and in Caucasus) have made it possible to discuss the modern geodynamical regularities and mechanism. By generalization of these measurements the cartographical-geodynamical model is created. These data has shown the influence of the horizontal and vertical movements, a pulsation character of the straight and reversible mechanisms of the pressing-expanding processes on the formation of the modern Caucasian relief.

Cosmogeodezycal measurements revealed that the morphostructural deformation caused by the slow tectonic movements increasing tensity can cause the natural hazards (Earthquakes, volcanoes, Tsunami and etc) and ends with the movement of different rank, type and age morphostructural unities.

According to Paleomagnetic and paleoplastic reconstructions tectonic plates push together or pull apart. Cosmogeodesical data determines the speed of the plates movement. For example, The European and North American plates move away from each other by 5 cm/s. Australian continent moves northward by 3 cm/s. The comparatively high speed of plates stretch zones has determined., for example, in Alpine-Carpathian sector of the Alpine-Caucasian mountainous system this movement has north and North-Eastern direction and the distance is from 1 to 4 centimeters per year. In Crime-Caucasus it has North-Eastern direction and the speed reaches 2-3 cm/s in a year. The rotational speed of Anatolian mountainous systems towards West and South-West is 5-7 cm/s. The islands of Dardanelles and Crete-



Peloponnese move towards each other with different speeds at different points. The maximum speed they have at the Aegean Sea.

The morfo structures of different rank, type and age, morphosculptures and the correlative deposits are the result of the permanent interaction of the international global (cosmic, rotational and exogenous) forces. The cosmogeodesic measurements are shown that against a background the Earth surface pressing and expansion exist geodynamical variations with 10-20-30-40- as-years duration, but morphostructural analysis of the relief- horizontal, vertical plicated and explosive-block transferences with interval of million years. The vertical (positive, negative) motions reproduce from the horizontal. Hence, by the second can be made the judgment about the nature of the first.

Key Words: Geomorphological Process, Cosmogeodezycal, Relief, Morphosculptures, Georgia

Case Study of Integration of GIS and Noise Measurements: Bakırköy District (Istanbul)

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Abstract

Noise caused by industry and infrastructure is a major source of dissatisfaction with the environment in residential areas. Noise is an environmental pollution, which affects sense of hearing negatively; breaks physiological balance, reduce labor force and threatens the environmental health. The quality of the results of noise effect studies depends on the quality of the data and models used. The integration of Geographical Information Systems (GIS) and noise models makes it possible to increase the quality of noise effect studies by automating the modelling process, by dealing with uncertainties and by applying standardized methods to study and quantify noise effects. In this study, which the creation of the noise map in Bakırköy district is aimed. The measurements has been made in 18 different points at noon time and place in two days, weekday and weekend. The evaluation of the measurement results has been made via ArcMap 10.2. The maps, which are produced, are weekday, weekend and the average of the both. The maps have been colored the way human eye can distinguish according to the level of noise.

According to the result of the measurements, the mean level of noise has been determined as on weekdays 71.44 dB, at weekends 70.13 dB. The noisiest area is the Airport Street. As a result, it is observed that the noise pollution is one of the major problems for Bakırköy district. The most noisy areas are marked in red on the map. Here, the level of noise is between 75-78 dB for weekday map. On weekend map the red color shows the level between 75-79 dB. The lowest noisy areas colored in yellow on the maps. On weekdays the level of noise in these areas is between 63-66 dB, at weekends is between 59-63 dB. As a result of this study, according to the datas collected, taking noise under control, educating people about city planning, turning red points into yellow on the map can be recommended.

Key Words: Noise Map, Bakırköy district, noise measurement, GIS

Coastal Decline of Yeşilirmak River Delta during 2000 – 2015

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Abstract

Before the dams which were build on the river, most sediment load was carrying to Black Sea with Yeşilirmak River. Nowadays, amount of the sediment are much less than the past. Till 1999, coastal decline of Yeşilirmak River Delta has been reported by General Directorate of Mineral Research and Exploration (MTA). Hasan Uğurlu and Suat Uğurlu Dams are located close to the Yeşilirmak River Delta and they have been started to operate in 1981 and 1982 respectively. The amount of sediment reaching to the delta of the Yeşilirmak River has decreased significantly after the constructions of these dams. In this study, coastal decline is calculated and erosion rate is determined between 2000 – 2015 years. Landsat 7 images of the year 2000 and WorldView-2 (Google Earth) images of the year 2011 and 2015 are used. The most intense part of the coastal decline is three and half kilometers long coastline that located in just west of the mouth of Yeşilirmak River. Since 2000, three hundred and thirty meters of the coast decline have been identified. Narrow dune area that is fifty meters, in width is located at coastline. In case of disappearance of the field with wave erosion, delta will be faced with major problems. In the first phase, about one hundred and thirty five hectares of wetlands (marshes and lagoons) will be covered by sea water. In parallel, the shoreline will retreat back more than one thousand two hundred meters.

Key Words: Yeşilirmak, delta, declined delta, coastal decline.

The Effect of Geomorphological Features on Karstification: Case Study of Anamur (Mersin/Turkey) Surroundings

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Abstract

Geomorphological factors have a significant effect on size, shape and type of the karst formations and on their distribution. At the same time, they are causing change such as temperature, precipitation, soil, and vegetation factors. From this point on karst of geomorphology is concerned both direct and indirect effects.

In this study, which is effective on the karstification around Anamur geomorphological factors; elevation and slope conditions, the degree of karst water table, with the change in the base level of morphological and karstification effects are evaluated. Geomorphological conditions can vary within short distances, all of a sudden field of Anamur, karstification according to different environment conditions that developed its own specific cases have been identified. According to this research field; karst structures in general is divided into two sections. These are Taşeli Plateau surface and extremely fragmented rugged coastal belt from the Mediterranean coast up to the plateau. These two different units have quite different Geomorphologic features from each other in terms of karst conditions. In Taşeli Plateau forming the northern part of the research area there are such as elevation, slope and base-level changes, splitting degree conditions sections that are different from each other. In the Plato's northern and southern sections is developed the deep karst forms; and in the central part is developed the shallow karst forms. Almost all the plateau surface and underground karst shapes are formed were formed by the karst base level. The most striking feature about the geomorphology of Coastal zone division named, this is because the extremely fragmented. Therefore, particular, slope conditions and degree cleavage impact on the karstification are marked. Karstic forms are developed according to the general base level. We determined by made field observation, in terms of karstification formed and shapes between said in geomorphological units and also almost in itself there are different parts each other.

Key Words: Geomorphology, Karstification, Anamur, Taşeli Plateau

The Central Anatolia Volcanoes and Quantitative Analysis of their Morphometric Properties

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Abstract

In this study, morphometric quantitative data of the volcanic area, which is intensified on a zone trending SW-NE starting from the Konya-Karaman in the south, Tuzgölü to the south and east and Nevşehir-Kayseri to the north, Aksaray to the west, and Niğde Province to the east, were analyzed in the GIS (Geomorphic Information System) database.

Volcanic landforms which have been formed since Paleotectonic period and until the recent have completely affected geomorphological view of the region. It is possible to see the hundreds of the old and the new volcanic landforms that have different structural characteristics together.

The volcanic units that were identified by remote sensing techniques and field work were assessed and classified according to geological and geomorphological features in digital media. In the study, various correlations were applied to the morphometric quantitative values of the volcanic structures of the Pliocene-Quaternary that made up the majority of the sample, thus, difference and similarities were determined.

During the numeric data entry, data available in the literature were considered and the geomorphological relationships between common and different characteristics of the volcanic activities were also investigated. Depending on the results obtained, the volcano-tectonic development of the region and its paleogeographical environment models were created.

The values taken from 378 points which were typically selected indicate that the regional volcanism had a random distribution at the beginning and has had a significant generic distribution towards the recent. The units belonging to different age groups have common and similar characteristics. It is also observed that their materials, distributions and landforms on topography have similar characteristic features.

Key Words: Central Anatolia, GIS Volcanism, Volcanites, Volcanic structures

The Effect of Local Ground Properties on the Earthquake Risk in Burdur

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Abstract

The Fethiye – Burdur Fault Zone lies in the east of Burdur city center, which is situated in the east of a depression area mainly formed by tectonics and Lake Burdur is located at its center. Experiences in the history suggest that the city is threatened by earthquakes. As a result of the earthquake disasters occurred many times in the past, houses were destroyed; there was loss of life and properties. Some of the inhabitants in the city migrated to other places thereof. However, 59 people were killed and 1162 homes were destroyed in the most recent earthquake occurred on May 12, 1971, at a magnitude of 6.2. In this regard, local people are extremely sensitive to earthquakes due to the city's location.

This study strives to identify areas high sensitive to the earthquake with reference to the local soil properties in Burdur, and to identify risk classes for the general population of the city according to a scale to be developed by utilizing GIS-based multi-criteria decision analysis.

Key Words: Burdur, Earthquake Risk, Multi-Criteria Decision Analysis, Geographical Information Systems

Changes in the Demographics of Turkey and Demographic Opportunities

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Abstract

Demographic projections for the future do not only give information about the fulfillment of the needs of the present population. These projections are really important since they also allow a right and appropriate planning in all sectors. Turkey has been undergoing a process of demographic change as all other developed countries have. According to experts, every developing country can reach such a process, defined as *demographic change opportunity*, only once throughout its history. Therefore, this opportunity process should be utilized with right decisions in the most effective way and the policies and plans for the future should be made taking this fact into consideration.

In this study, using the demographic projections of the years 2020-2030-2040-2050; high range age groups of the population belonging to these years in Turkey were projected and rates of young population and dependent population were shown. According to the data obtained, while the child population aged 0-14 is steadily decreasing, the old aged population of 65 and over is steadily increasing. In addition, a rise is observed in the ratio of adult population, especially of the population aged 25-44 and it is forecast that this population will reach its highest rate in 2020. Although a fall in this population is evidenced in the succeeding years, it is clear that young and dynamic population is an important *demographic opportunity* for any country.

Key Words: Turkey Population, Demographic Change, Opportunity

International Geography Olympiad (IGEO) Content & Comparing the Geography Curricula in Turkey to Other Countries That Participated in the Contest

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Abstract

International Geographical Union (IGU) has been organizing International Geography Olympiad (IGEO) in a different country annually since 1996. Each country organizes their own olympiad and choose their top 4 students in geography, who are aged between 16 and 19. There are three steps in iGeo: written test, multimedia test, and fieldwork. Turkish Geographical Society organizes Turkish National Elections. On behalf of Turkish Geographical Society, we have organized national elections for iGeo2015 in Russia. There were science exam (TR), multimedia exam (EN), fieldwork (ENG) and a poster presentation (ENG) in the election. Some parts of the exam were in English and some were in Turkish.

Secondary School Geography courses in Turkey is set by Geography Subject Teaching Program that was issued in 2010 by the Ministry of Education. In some schools, International Baccalaureate (IB) Program shapes the curricula. Some schools prepare students for Advanced Placement (AP) Human Geography exams which is designed for students who wish to study abroad in the university.

The purpose of these curricula is to establish a geographical thinking system, to develop geographical perspective, observation, cartographical representation, and developing geographical analysis skills. However, we need to consider how it is taught, than what is taught. We also need to discuss whether students learn these things permanently or not. Effects of global geography approach on Turkey, in the framework of International Geography Olympiad, is another field of concern.

Key Words: Geography education, Geography teaching, Geography Education in the World, Geography Olympiad, Geography Curriculum.

An Important Geography in the Transboundary Waters: Central Asia

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Abstract

After the Soviet Union fell apart, one of the disagreements that became evident is the usage and sharing problem of the transboundary waters. To resolve the disagreement with reasonable and peaceful efforts, when the projected need for water resources and energy in the near future is taken into consideration, is very important with regard to stability in relationships of the region countries.

In this study, the usage of transboundary waters, specific to Amu Darya and Syr Darya rivers, in the Central Asia are examined and the possible effects of the disagreements and controversies for the equal use of the available water resources between the spring countries (Kyrgyzstan and Tajikistan) which are located on a higher geography and the countries (Kazakhstan, Uzbekistan and Turkmenistan) which have a coast to these resources on the stability of the region are revealed.

The actions to be taken to settle the 'chronic' disagreements over Amu Darya and Syr Darya are dealt within the context of nation states and regional dynamics from the perspectives of political geography.

Key Words: Turkish Republics, Transboundary Waters, Water Use, Amu Darya, Syr Darya

Eskişehir - Bozan Çevresi Degrade Sahaların Endemik Bitki Taksonları ve Bazı Yetiştirme Ortamı Özellikleri

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Özet

Ekosistemlerde plansız ve kontrolsüz arazi kullanımı, özellikle yarı kurak ve kurak iklim şartlarında geri dönüşü olmayan bitki örtüsü ve toprak kaybına neden olmaktadır. Bozulan ekosistemler dikkat çeken çevre problemleri arasında yer almakta olup toprak, su ve bitki arasındaki denge artan bir hızla bozulmaktadır. Ancak doğal bitki örtüsünün iyi analiz edilmesi sonucu kısa ve uzun vadede etkin önlemler alınabilir. Degrade sahalardaki bitki, özellikle endemik bitki çeşitliliğinin araştırılması hem önleyici ve koruyucu tedbirlerin alınmasına dikkat çekecek hem de biyoçeşitlilik envanterinin zenginleşmesine katkıda bulunacaktır.

Bu çalışma, 2011-2012 yılları arasında Eskişehir OBM (Orman Bölge Müdürlüğü) çalışma sahalardan Bozan ve çevresindeki bitki örtüsünü ve çeşitliliğini belirlemek amacıyla alanda vejetasyonun optimum gelişme döneminde yapılan arazi çalışmaları sonucunda gerçekleştirilmiştir. Araştırma alanından yaklaşık olarak 400 bitki örneği toplanmış ve bu örneklerin değerlendirilmesi sonucunda 14 familyaya ait 30 cins ile 43 tür ve türaltı endemik takson tespit edilmiştir. Araştırma alanında yayılış gösteren endemik taksonların tehlike sınıfları, IUCN tehlike kategorilerine göre hazırlanmış olan 'Türkiye Bitkileri Kırmızı Kitabı' verileri doğrultusunda sunulmuş ve yorumlanmıştır. En fazla endemik taksona ise Fabaceae (10 takson) ve Lamiaceae (6 takson) familyalarının sahip olduğu belirlenmiştir. Endemik türlerin fitocoğrafik bölgelere göre dağılımlarına bakıldığında ise İran-Turan elementlerinin çoğunlukta olduğu görülmüştür.

Tespit edilen endemik taksonların yetiştirme ortamına ait toprak örneklerinde dispersiyon oranı, tekstür, pH, toplam kireç, toplam azot, organik madde ile alınabilir fosfor ve potasyum tayini gibi özellikleri incelenmiştir. Fizyografik özelliklerden ise eğim, baki, yükselti ve yamaç konumu ile ilgili veriler değerlendirilmiştir.

Anahtar Kelimeler: Eskişehir, Bozan, Degrade Saha, Endemik Bitki

GIS for Forest Road Network Design: A Case Study

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Abstract

Forest roads are the most important substructures for exploitation of forests that is renewable natural resource. It is necessity to base the road network to enable reach the goals for planning of forestry operations through sustainability concept.

In this study, by using NetCAD planning forest road network planning was make zero line, curve, longitudinal profiles, cross sections, such as the amount of excavation and filling all the planning criteria are determined.

Netcad numerical software made its way forest we have done with classical methods and technical processes are automatically offers more detailed and more quickly practitioners do on computers.

Key Words: Forest road network, cut-fill, Netcad, Turkey

Geomorphological Factors in Location Selection of the Settlements in Dinar, Afyon

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Abstract

Dinar county which is the subject of research, depends on Afyonkarahisar province. While Dinar is located in the southwest of Afyonkarahisar province, it is located in the North of Denizli province. After Efes Dinar was one of the big settlements in antique age and accommodated population as over 300.000. However, with the changes of geography'roles, its population started to decrease more and more and the population ws aproximately 50.000.

The center of Dinar province which was founded or builded on a fertile plain, was usually exposed to earthquake disasters throughout history. 94 people dead and also the people which were more than 200, injured in an earthquake whose Richter scala is 5,9 in an active fault zone which is NW-SE strike on 1th October 1995. 4340 buildings were damaged heavily, 3712 buildings were damaged moderately and 6104 buildings were damaged slightly in the earthquake.

After earthquake, geographical environment and factors have important roles particularly in the center of Dinar county and region in term of the selection settlement's location, foundation and development, risk and advantages.

In this study the relations among basic parameters of geomorphology such as slope, expose, elevation and settlements on Numerical Elevation Model of Dinar county have been analysed by using Geographical Information Systems. The location of 66 settlements in the center of Dinar county have been analysed by using ExtractValuestoPoints function in ArcGIS (10.2) in term of slope, expose, elevation, geological and geomorphological charactrers. These characters are divided into attribute classes in themselves. In Dinar county a serious and clear relation among physical geographical conditions, the foundation and development of settlements, the development potential and natural disaster risk is seen. The aim of this study is to indicate or introduce the effects of slope, expose, and elevation, geological and geomorphological characters over settlement areas.

Key Words: Dinar, geomorphology, Settlement area selection, Geographical Information Systems (GIS).

Investigating Spatio-Temporal Changes of Kilimli District of Zonguldak City and Thermal Power Plants' Region Using Remote Sensing Techniques

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Abstract

Several problems have been occurred if urban development and land use changes do not happen planned and balanced. Cities in Turkey have been changing rapidly and dynamically and so important changes are observed about land use types. These rapid changes can cause ecological problems unless they are planned and sustainable. Therefore, disordered structures and industrialization, environmental pollution and destruction of fertile agricultural lands can come into existence. In order to take critical decisions after important temporal change in land use, current, rapid and low-cost data are needed. Thus, Satellite images are one of the most appropriate data for change detection applications.

In this study, spatio-temporal changes of Kilimli district of Zonguldak city and thermal power plants' region have been investigated for sustainable development and accurate planning, and the effects of these changes have been studied. The changes in urban development and land use were determined using raster and vector based change analysis methods. In the study, aerial photos acquired on different dates, orthophoto and its vectorized data, and various satellite images (Landsat TM, Ikonos, Quickbird, Geoeye-1 and Worldview-2) were utilized to extract urban details. In addition to urban change, Structuring in the thermal power plants' region was obtained.

Determined urban details and structuring were vectorized and then compared with current data to reveal the detailed results. As a result of the study, urban development and its direction in the test area and the temporal changes in industrialization were designated. Moreover, this study is a key to future planning for the urban development of Zonguldak city.

Key Words: Spatio-Temporal Changes, Kilimli, Zonguldak, Thermal Power Plants, Remote Sensing

Quantifying Spatial Aggregation Patterns of Urbanization as an Indicator of Landscape Change

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Abstract

Residential building development is among the most important drivers that drastically transforms landscapes from (semi)natural- to built-environments. This phenomenon leads to irreversible changes in biophysical properties of an area of interest. Destruction of natural vegetation, alteration of topography and sealing of the land surface are some of the common consequences of this type of development. Replacement of any cover type by an urban patch can easily be quantified by employing a variety of change detection techniques. These techniques provide information on the amount and the type of land modifications and transformations. However they provide limited information on composition and spatial configuration of land cover types. Spatial pattern metrics help to better understand change trends. More importantly, they help to understand causes for change phenomena. In this respect, analysis of spatial configuration of built-up environment has a critical importance. Spatial aggregation is an important concept that can be used in urban studies. It is a generic term that can explain qualitative aspects of urban patterns and urbanization processes. The aim of this paper is to analyze spatial aggregation of built-up areas in a developed area in the Mediterranean coastal zone of Turkey. For this purpose, (1) Interspersion and Juxtaposition Index, (2) Percentage of Like-adjacencies and (3) Euclidean Nearest Neighbour indices were calculated using categorical land cover maps. Qualitative aspects of urbanization were documented and causes of the changes were discussed in the light of research outcomes.

Key Words: spatial aggregation patterns, urbanization, indicator of landscape change.

Impacts of Road Development and Quarrying Activities on Landscape Structure

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Increasing magnitude and diversity of human activities create serious environmental consequences. Although, urbanization, tourism and industrial development are the most evident human uses in coastal areas, many other activities such as infrastructure projects (e.g., road improvement) and quarrying activities have also grown remarkably in the last few decades. Taşucu town (Turkey) may be considered as the westernmost extent of discontinuous built-up areas in the Southeast Mediterranean coastal zone of Turkey. Western coast of the town has recently been declared as tourism development center (TDC). This designation is likely to attract building development in undeveloped coastal areas, where bio-physical and functional integrity of landscapes are already endangered due to large-scale quarrying activities and road improvement projects. The aim of this study is to analyze landscape changes in the west of Taşucu town (Turkey) due to quarrying activities and road improvement projects. For this purpose, high resolution satellite images were classified and changes in landscape structure were analyzed using several pattern indices. Impacts of this development were documented and possible resource planning and management solutions were discussed.

Key Words: Landscape structure, quarries, road development, coastal zone.

Methods and Routes of Illegal Crossing Followed by Refugees on Kilis - Syria Border

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Abstract

In consequence of inner conflicts that took place in Syria in 2011, millions of people found themselves in a challenging journey of migration. As a result of the actual mass migration, people were caught off guard against it and opted for shorter routes for the safety of their lives. Turkey was one of the countries that were affected by this wave of migration to the utmost extent. In addition, this dramatic journey of migration is experienced on a highly distinct basis vis-à-vis others. Some of the migrants resort to such illegal means since they do not have official documents. Naturally, the factor that contributes to illegal crossing arises from natural and human characteristics of the border between Turkey and Syria.

Kilis, the region of study, is located in the southwest region of Gaziantep plateau stretching between the debris basin of Hatay-Maraş and the Euphrates (the river of Fırat). The border of Kilis to Syria is 111 km long and is in a plain condition with no major topographic roughness. With its position, Kilis has become one of the main gateways for refugees fleeing from Syria. Those field researches conducted show that about 60% of this migration wave is performed by illegal means. There are two significant factors leading to this structure. The first one is natural factors where the shortage of elevation difference and low slope values create a feasible structure for migration. As the second factor, the human structure may be said to have developed some areas available for crossing.

Such acts of illegal crossing gave rise to an economic rent in the subject region. Another aspect of the issue is the infiltration of members of many marginal groups to Turkey as caused by these acts of migration performed without any control mechanism. The actions taken and the practices performed and to be formed for the resolution of the issue are sorted, but these practices should be rendered functional immediately.

The study is based on field researches and data collection from source in consequence of long standing observations. The findings obtained are analyzed in terms of natural and human characteristics and relevance networks are enhanced by various maps resulting in a more improved comprehensibility. With the progressive methodology employed, a number of predictions are incorporated into the study in relation to future cases.

Key Words: Migration, Border, Refugee, Kilis.

The Positives of Study the Reservoir' Sedimentation Prism Formation by Situ Field Experiments

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Abstract

In the reservoir the sediments are accumulated in the form of silting prism (SP). This process is terminated after the formation of (SP) on the body of equilibrium channel (EC), by which the river is able to transport full range of sediment to downstream. There is no certified method of SP and EC parameters forecasting up to nowadays; the risks caused by high floods is ignored. With the purpose of SP formation process studying and EC forecasting, field experiments on the small mountain rivers of Georgia have been carried out. The three streams were blocked by dams of a meter height. Instrumental observations over the SP have been conducted by the program corresponding to their hydro regimes. On the River, where the reservoir volume was less than the sediment annual runoff, approximately for a year SP reached its limited size and EC was formed. On the other rivers, processes have been evolved with different intensity. Full-scale situ field study has shown that EC is formed much higher than channel' initial position and due to this, while the flood, it creates significant threat of catastrophic inundation. After the EC formation, the reservoir completely loses its function and SP' surface is represented by inclined to dam parabolic plane, area of which surpasses of the reservoir mirror at 30%. The number of flood risk increases proportionally to the SP growth and of the river bed height. This is explained by the fact that probability of catastrophic flooding is increased simultaneously with the sediment plume volume increment in the river bed. In the approximation form the EC has a parabola shape that is extended from the dam up to the point of the river bed cross section, above of which it retains the natural transport mode of solid flow during the reservoir operation.

Acknowledgements. This study is funded by Shota Rustaveli National Science Foundation within the scope of grant Modern Methods of the Joint Problem Realization for Shore Protection and Hydropower (#AR/220/9-120/14).

Key Words: Situ experiments, sedimentation, reservoirs.

Paroxysms of Heat under Hot Mediterranean Climate: Methodological Aspects and Impacts on Humans through Examples from Tunisia

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Abstract

According to the latest reports of the IPCC, the Mediterranean is pointed as one of the most vulnerable areas to global warming. This warming is attested by the observed temperature statistical trends, especially based on average values, often used as indicators of warming.

However, the perception of heat under warm Mediterranean climate should be distinguished from what is admitted in temperate and cold climates. The notion of heat, strong heat or heat paroxysm must follow criteria that is appropriate for the thermal Mediterranean context. A typical Mediterranean definition of heat should provide a better understood of the past and future evolution of the Mediterranean climate, with reference to the values of the daily observed extreme temperatures, as well as potential impacts on humans.

In this paper, we develop a methodological reflection on the perception of heat paroxysms adapted to warm Mediterranean climate. Then, we analyze the evolution of the frequency and intensity of these paroxysms in Tunisia. Finally, we study the potential impacts of these excess of heat on human beings, their health and their activities.

This study is based on a database of daily temperature extremes, maximum and minimum, observed in several reference stations in Tunisia (period 1950-2014).

Key Words: Climate warming, Tunisia, climatic risk, thermal paroxysm.

Prediction of Inter-Annual and Inter-Seasonal Temperature Changes in Setif High Plains Region (Algeria)

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Abstract

Understanding and predicting the inter-annual and inter-seasonal variations in climate has become the major challenge facing African-specialist climate scientists in recent years. This study investigates likely changes in annual and seasonal temperature over Setif high plains region (North East of Algeria) between three time slices: 2025, 2050 and 2075. The projections are based on the SRES A2 and B2 scenarios. MAGICC-SCENGEN 5.3v.2 was used as a tool for downscaling the four selected general circulation models (GCMs) output data. Under A2 scenario, the average model prediction of warming is 0.97°C, 1.75°C and 2.88 °C in 2025, 2050 and 2075, respectively. Under B2 scenario, the four models estimate an increase in global temperature, but less than the first scenario. The results for change in seasonal temperature indicate a general warming under A2 and B2 scenarios till the year 2075. The highest warming is projected by MIROC MED in summer with values varying from 1.42 to 4.53 °C across the three future periods. While, the smallest warming is projected by BCCRBCM2 model, in spring with values varying from 0.52°C to 1.45°C under A2 scenario and 0.51°C to 1.27°C under B2 scenario.

Key Words: Algeria, climate change, MIROC MED, temperature.

Analyzing Traffic Accidents in Elazığ City using Geographical Information Systems

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Abstract

As an important problem in recent years, traffic accidents cause much more loss of life and property than natural disasters with regard to many researches. Supervening psychological traumas and social problems influence individuals and their relatives deeply. In the long term, these troubles induce significant deprivations in terms of society and national economy. Determining, interrogating and spatial connecting accident grid points reveal mentioned troubles easily and these processes guide decision makers.

Reaching of traffic problem to a considerable degree in Elazığ City, frequent occurrence of traffic accidents and particularly hitting pedestrians lead us to do this study. By setting GIS database using information from Elazığ Provincial Security Directorate, relations between traffic accidents' existence time, weather conditions and topography are taken into consideration in the study and in-depth analysis of accidents is carried out. According to the results obtained, it is concluded that the number of traffic accidents in Elazığ City are much more than country-wide average and accidents increase in certain places, especially in junction points. While car crashes take place particularly in Zübeyde Hanım Street, Çaydaçıra and Hazardağlı Junctions, pedestrian accidents are seen around shopping malls. With reference to 2014-2015 data, approximately 2000 accident reports that have taken place through main road courses in Elazığ City are entered into Geographical Information Systems (ArcGis 10.3.1) and tables, graphics and maps have been produced. By determining problematic areas in accordance with this outcome, planning suggestions are submitted.

Key Words: Elazığ, Traffic Accident, Planning, Spatial Analysis.

Land Surface Temperature in Urban Area: A Case Study in Elazığ, Turkey

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Abstract

Determining surface temperatures is of capital importance in terms of urban climate studies. The temperature of urban atmosphere's lowermost layer is basic for energy alteration and buildings' energy audit which have influence on the comfort of city residents. Thermal tapes derived from satellite imaging are important sources in the way of determining surface temperatures. Due to the fact that thermal tapes can give information about the effect of urbanization on city climate and the dispersal of surface temperature in confined spaces, they are widely used to designate Urban Heat Islands' density and deployment.

For our study area in Eastern Anatolia, satellite images in two different series are used. First, the images of Landsat 5-7 Satellite in different summer periods in 1990, 2000, 2005, 2010 and 2015 are used to clarify the relation between urban development and temperature variation. Second series are images of Landsat 8 Satellite in 2013-2015. This data is used to determine the annual temperature variation and to evaluate the effect of urban heat islands. The images are evaluated with the aid of ArcGis10.1 program. Data derived from meteorological stations, which are in and around the city, is utilized for various evaluations. Furthermore both time-wise and areal distribution of city population is assessed.

Close relationship between surface temperature variation in atmosphere and the physical features of surface is clearly seen in terms of both time-wise and annual alteration. These differences are given both visually and graphically. Moreover, evaluations on the prepared micro temperature map of the city area enrich the study.

Key Words: Land surface, temperature, urban area, Elazığ.

Residents of Dragor

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Abstract

This study focuses on type of fish living in the Dragor River, which runs through Bitola (Manastir), the second biggest city of Macedonia. The study presents information about classification, endemic types, morphological characteristics, habitats, and fishing.

Slavic resources (mostly Macedonian, and also Serbian and Russian) have been searched, and translated into Turkish.

The aim of the study is contributing to the fields of Geography, Historical Geography, Urban Culture, Aquaculture, Hydrbiology, and Food Engineering by providing information on the fish of Bitola, which was once an Ottoman town.

Key Words: Fishes of Bitola (Manastir), Dragor River, Rivers of Bitola (Manastir), Macedonia.

Ottoman Empire's Approach to Natural Disasters: A Case Study in Edirne

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Abstract

Earthquake, occurred at 15 August 1912 in Edirne county, according to Ottoman archives documents affected Müfrete, Dedeğaç, Şarköy, Tekfurdağı, Keşan and Dimetoka townships and then fire disaster happened so that dimension of damages increased.

Ottoman Empire propelled not only nizamiye soldier but also police to the county in order to get providing public order again. Timber was dispatched to the county to take shelter of earthquake victim. A committee was organised by prince Abdülmecid that was the honorary president of this committee and then was worked to remove distress of region people. The committee made decision about the county as doctor, engineer and pharmacist at first.

Researched with this study that decision taken by Ottoman Empire after the disaster, crises management, communication with the county and possibility of transportation.

Key Words: Earthquake, Ottoman Empire, Disaster Management, Edirne County

Open Source Web Applications with Geographic Information Systems

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Abstract

The use of applications based on spatial data is increasing nowadays. People are not willing to get lost in the verbal data in their business and daily life. The importance of spatial data is arising at this point. The nearest, shortest and fastest analyses are required to obtain spatial data. Therefore, for example, people are able to choose some business organizations located nearby for food and accommodation or they can use the power of spatial data as deciding the most suitable location when they invest.

By means of open source web interfaces designed using geographic information systems; it is possible to make analyses on maps such as buffer zone, heat map. Thematic maps created for specific purposes give us opportunity to interpret verbal data on map-based graphical environments which is more meaningful.

The purpose of this study is expanding the use and development of software for open source and geographical information systems. In this context, the required database design for the conversion of the verbal data to spatial data to be presented on the web environment, and the design of the map server providing the presentation of the spatial data over web will be achieved. Thus, required data infrastructure for web interfaces which will be developed with open source code will be created. In this study, subjects such as creation of a web interface with spatial data and making analyses through this interface will be handled.

Key Words: Open-Source Software, Geographic Information Systems, Spatial Analysis.

Termal Uydu Görüntülerinin Jeostatistiksel Modellenmesi ile Karadeniz'deki Kömüre Dayalı Sedimentalojik Su Kirliliğinin İncelenmesi

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Özet

Çeşitli doğal etkilerin yanı sıra insan kaynaklı endüstriyel uygulamalar sonucu, karasal kaynaklardan denizsel ortama atılan katı atıklar; suda fiziksel, biyojeokimyasal ve döngüler içerisinde canlıların yaşamını etkilemektedir. Karadeniz; oşinografik özelliği ile katı atıkların kıyıya yakın bölgelerde birikimine ve çökeline neden olmakta ya da deniz suyuna difüzyonla karışmasını sağlamaktadır. Bu oluşum, Karadeniz'de derinliğin iki yüz metreyi geçmediği kıyı bölgelerindeki yaşamsal alanları, endüstriyel atıklarla tehdit etmektedir. Suda askıda maddelerin dışında çökelim gösteren katı atıklar, sahil şeridinde canlılar için gerekli deniz çayırlarının üzerini kaplamakta, canlıların gelişimini ve çeşitliliğini engellemektedir.

Zonguldak'taki taşkömürü üretimleri, ilin merkezindeki Armutçuk, Kozlu, Üzülmaz ve Karadon üretim bölgelerinde 70 km'lik sahil bandına paralel olarak gerçekleştirilmektedir. Maden ocaklarından çıkan, ocak içi toz ve molozları içine alan sıvı atıklar, kömür işleme ve yıkama tesislerinden çıkan atıklarla birlikte bölge içindeki dereler vasıtasıyla denize atılmakta ve kıyılarda depolanmaktadır. Bununla birlikte günümüzde bu bölge Türkiye'nin enerji üssü konumuna getirilmiş olup ülkenin en büyük kapasiteli termik santralleri kurulmaya ve işletmeye açılmaya devam edilmektedir. Kıyılardaki bu termik santrallerden, kömüre dayalı katı ve sıvı atıklar doğrudan, enerji üretimi sonucu ortaya çıkan kül şeklindeki atıklar ise bir kısmı doğrudan bir kısmı da kül barajından suyoluyla dolaylı olarak Karadeniz'e karışmaktadır. Ayrıca, havzada özel sektörün kömür işletme tesislerinin ocak atıkları ile kömür işleme ve yıkama tesislerinden çıkan atıklar Karadeniz'e bırakılmaktadır.

Çalışmada, kirliliğe neden olan kömüre dayalı atıkların, 1987'den günümüze bölgedeki santrallerin artışına paralel, çevresel etkilerinin Landsat termal uydu görüntülerinin jeostatistiksel modelleri kullanılarak belirlenmesi amaçlanmıştır. Bu amaçla, Landsat 5 ve 8 uydularına ait termal bandlar baz alınarak çeşitli band kombinasyonları yardımıyla kara ve su yüzeyindeki atıkların yayılımının öncül tespiti yapılmıştır. İkinci aşamada, termal görüntülerin piksel parlaklık değerleri kullanılarak jeostatistiksel kestirimlerle semivaryans değerleri hesaplanmış, deneysel variogram modelleri oluşturulmuş ve bu modellerden yorumlanarak çevresel kirliliğin konuma bağlı değişim belirlenmiştir.

Anahtar Kelimeler: Zonguldak, Kömüre dayalı katı atık, Landsat, Jeostatistik, Semivaryans

Importance of Afforestation for the Rural Landscape: Case Study of Malatya

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Abstract

Increased world population, unplanned development of cities parallel to socio-economic change, unconscious use of natural resources and climate change resulted in rapid destruction of natural resources. Forest lands are one of the most exposed sources to damage like spatial expansion of cities, turning forest lands into agricultural lands to increase agricultural activities, and fires.

Afforestation plays a great role in the recovery of lost forest lands. Afforestation lands are very important for soil protection, wildlife and hydrology from the perspective of nature, and for production and recreational activities from the perspective of culture. Importance of afforestation is even more in regions like Malatya where the climate conditions have a restrictive effect on the existence of natural forests. Afforestation in these kinds of lands is a both unique and irreplaceable method for the development of quantitative and qualitative existence of current forests. Rapid change of relief factors in short distances in the geography of the province increases the risk of erosion as well as the pressure and the danger on the arable lands that are scarce within the province. Thus, the role and service of forests in the protection of natural resources like soil and water makes them one of the most valuable natural elements of all the ecosystems especially for the balance and sustainability of the ecosystems. In addition to that, forests areas are less than the Turkish Standard on "Regulation for the Municipalities that are excluded by Law Number 3030 pertaining to Making Amendments to the Type Construction Regulation" dated 02.02.1999; which is another reason that highlights the importance of forest areas in Malatya.

This study aims to detect the spatial and qualitative level of afforestation in Malatya province after the actions taken, as well as the potential afforestation areas; and to tackle the problems encountered during afforestation activities, provide solutions to those and finally to identify the contribution and importance of afforestation to the rural landscape.

Key Words: Rural Landscape, Malatya, Afforestation, Existence of Forests

Climatic Variation and Homogeneity Analysis in Number of Tropical and Summer Days at the Adana Sub-Region

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Abstract

The study area comprises Adana sub-region which includes fertile lands and agricultural towns of the Mediterranean Region and also corresponds to eastern part of this region. In the study the variation and trends in tropical and summer days at this part between the years 1961-2014 at 14 stations were examined. Homogeneity of temperature series and trends in annual and seasonal temperature series were tested with the methods of Kruskal-Wallis homogeneity test, linear least squares regression, Mann-Kendall and Spearman rank correlation coefficient tests, respectively. Major findings of the study can be summarized as follows: (1) annual numbers of summer and tropical days are above long-term average and indicate an evident increasing trend from 1988. Especially the uninterrupted positive anomaly values that could be observed in all stations from 1992 are remarkable. (2) However, decreasing trend of tropical day was detected in Adana during summer and Ceyhan during autumn. (3) The significant increasing trend is observed statistically in Dörtyol, İskenderun, Göksun, Anamur, Yumurtalık, Antakya and Mersin for annual summer days. (4) For annual numbers of tropical days are detected statistically significance at increasing trend in Karataş, Göksun, Kahramanmaraş, Anamur, Yumurtalık, Dörtyol, Antakya, Iskenderun, Elbistan and Mersin. In addition, both numbers of summer and tropical days are observed the increasing trend in Kahramanmaraş during spring and Mersin during autumn. (5) As a result of these conditions, eastern Mediterranean Part has thermal conditions getting hotter and increasing daytime temperatures during warm period of the year. In case of continuation of these conditions, human health and agricultural sector will have been adversely affected.

Key Words: Climatic change, Extreme temperature, Seasonal variation, Mann-Kendall test, Eastern Mediterranean.

Boylu Ardıç'ın (*Juniperus excelsa* Bieb.) Yapay Gençleştirilmesi

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Özet

Bu çalışma, Boylu ardıç (*Juniperus excelsa* Bieb.)'ın yapay gençleştirme yöntemlerini ortaya koymak üzere gerçekleştirilmiştir. Araştırmada, iki toprak işleme yöntemi (makinel ve el ile toprak işleme), dört fidan tipi (1+0 ve 2+0 çıplak köklü, 1+0 ve 1+1 topraklı fidanlar) ile ocakta çizgi tohum ekim yöntemi işlem olarak ele alınmıştır. Tohumlara katlama uygulanmıştır. Tohum ekim işlemi kış sonu ve sonbaharda olmak üzere iki farklı zamanda uygulanmıştır. İki farklı yörede (Yalvaç-Hisarardı ve Elmalı-Ovacık mevkileri) kurulmuş deneme alanlarında çalışma yürütülmüştür. Çalışmada Eğirdir Orman Fidanlığında Eğirdir-Çamdağ orijinli tohumlar kullanılarak üretilmiş fidanlar ve ekim yöntemi içinde yine aynı orijinden katlama işlemi uygulanmış olan tohumlar kullanılmıştır.

Araştırma sonuçlarına göre, yöre fidan gelişimi açısından etkili olmuştur. Toprak işleme yöntemi kısmen etkili bulunmuştur. Fidan tipi, hem yaşama yüzdesi hem de fidan gelişmesi açısından etkili bulunmuştur. Genel olarak 1+1 ve 1+0 topraklı fidan tipleri en başarılı fidan tipi, 2+0 çıplak köklü fidanlar en başarısız fidan tipi olmuştur. 1+0 çıplak köklü fidanların da ağaçlandırmada kullanılabileceği anlaşılmıştır. Katlama işlemi uygulanmış Boylu ardıç tohumları ile ekim işlemi başarısız olmuştur.

Anahtar Kelimeler: Boylu ardıç, yapay gençleştirme, topraklı fidan, çıplak köklü fidan.

Plant Species Richness and Diversity of Forests in Antalya (Turkey)

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Abstract

Antalya city covers an area of 2,078,485 hectares and 1, 157,249 hectares (%55.7) of this cover is formed by forests. The city has a very large horizontal distribution. This causes regional geographical differentiations. Similarly, the high mountains reaching about 3000 m altitudes and formed by deep valleys cause the appearance of different site conditions. The combination of these geographical and ecological differentiation result in the constitution of different vegetation types and especially forest communities. For example, Taurus fir (*Abies cilicica*) naturally appearing at the eastern part of the city is not placed at the western part of the city. The forest vegetation shows clear differentiation by depending on the altitudinal differences. The lower belt zones are formed by sclerophyll forests and along the altitudinal gradient, the forests dominated by Turkish red pine (*Pinus brutia*), Taurus cedar (*Cedrus libani*), black pine (*Pinus nigra*), Taurus fir (*Abies cilicica*), and juniper species (*Juniperus* spp.) appears. These differentiations of the forest vegetation result in a high plant species richness and diversity. This study was carried out in this context and the plant species richness (number of species) and diversity (Shonon index) were analyzed by using the data of phytosociological studies realized at the different parts of Antalya city and having large altitudinal gradients.

Key Words: Antalya, biodiversity, phytosociology, species diversity, species richness, vegetation.

Assessing the Quality of Life in the Republic of Kazakhstan: Geographical Approach

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Abstract

One of the basic attributes of the quality of life concept can be considered its interdisciplinary character. Thereby in the past decades quality of life studies have arisen in a wide range of scientific disciplines. But still there is no clear definition of the concept of quality of life and its assessment. From the geographical point of view, specification of the status of geographical research and its tasks within the framework of quality of life examination is of great importance. Geographical variation of quality of life characterized by its complexity and reveals the spatial differences of the population at the macro, meso and micro levels. In this paper along with assessment of quality of life in Republic of Kazakhstan and it is a region an attempt is made to find out the role the geography plays in the field of quality of life research.

Assessment of quality of life in Republic of Kazakhstan and in its regions, including the cities of Almaty and Astana for 12 years (2001-2012).

Compilation and index calculation were carried by the method of linear scaling. It is based on the definition of reference points (maximum and minimum values of indicators). Authors used an eight objective indicators from official statistics published by the Committee on Statistics of Republic of Kazakhstan.

As a result of calculations and analysis were identified regions with 3 levels of quality of life: quality of life is above average (1 region), the average level of quality of life (7 regions and 2 cities), quality of life is below average (6 regions).

Key Words: Geographical approach to determine quality of life, quality of life, quality of life indicators, Republic of Kazakhstan.

Yörüklerin Ormanla Olan İlişkileri (Mersin – Sebil Örneği)

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Özet

Binlerce yıllık yaşamlarında yılın büyük kısmını ormana yakın bir bölgede ya da orman içinde geçiren Yörüklerin ormanla ilişkileri, özellikle Haçlı Seferleri, Fetret devri, iç isyanlar gibi dönemlerle başlayan ve bir türlü önüne geçilemeyen orman tahribinin Fatih Sultan Mehmet'in "Ormanlarımdan bir yaş dal kesenin, başını keserim..." fermanıyla bozulmaya başlamış ve Cumhuriyet döneminde de orman kanunlarının çok katı olmasından dolayı bir türlü düzelememiştir. Ormanda, börtü-böceğin, kurdun, kuşun, yılanın, çıyanın hakkı vardır ama Yörüklerin ormana girmeleri, ormandan yararlanmaları ve sürülerini sokmaları yasaktır yaklaşımı Cumhuriyet döneminde Yörüklerin ormanla ilişkilerinin temelini oluşturmuştur.

Yörüklerin devletle ilk ve belki de tek karşılaşmaları orman memurları (golcu) iledir ancak bu ilişkiler her zaman sıkıntılı olmuştur. Orman memurları yıllarca Yörüklerin korkulu rüyasıyken, son zamanlarda bu ilişkiler düzelmeye başlamıştır.

Yörüklerin ormanla olan ilişkilerini ve bu süreçte, doğal şartlar ve orman yasa ve yönetmelikleri ve bu yasa ve yönetmeliklerin uygulayıcılarıyla olan mücadelelerini Mersin ili, Çamlıyayla İlçesi, Sebil Kasabası örneğinde tanımlama ve yorumlamayı amaçlayan bu çalışmada nitel araştırmada yöntemlerinden olan ve bir olayın içyüzüne bakabilmek veya birtakım teoriler, açıklamalar geliştirmek amacına dayanan genel durum çalışması yöntemi kullanılmıştır. Katılımcı gözlem ve görüşme yoluyla elde edilen veriler betimsel analiz yaklaşımı ile ortaya konulmuştur.

Araştırmada Yörüklerin orman ve orman ürünlerinden faydalanmaları, faydalanma biçimleri, ormana ve ağaçlara verdikleri önem ve anlam, orman memurları ile olan ilişkiler ve bu ilişkilerdeki değişimler ayrıntılı olarak incelenmiştir.

Sonuç olarak Yörükler yılın büyük bir kısmını ormaniçi ya da orman yakınında geçirdiklerinden dolayı ormanlardan farklı şekillerde faydalanmaktadırlar. Ancak bu durum orman yasalarının katılığı ve uygulayıcıların daha da katı olması nedeniyle çoğunlukla sıkıntılı olmaktadır. Sonuçta da her iki taraf hukuksuzluğa yönelmekte, bir taraf yasalara dayalı olarak çıkar sağlarken bir taraf da yasal olmayan işlere yönelmektedir.

Yörük yaşamının korunması ve geliştirilmesine yönelik geliştirilecek projelerde koruma kullanma dengesinin sağlanması, ormanların taşıma kapasitesinin göz önünde bulundurulması, ormanların dilini en iyi bilen insanlar olan Yörüklerin ormanların geleceğinde söz sahibi olmalarının sağlanması gerekmektedir.

Anahtar Kelimeler: Yörükler, Yörük kültürü, orman kanunları, sebil.

Coğrafya, Mekan, Yer Kavramları Bağlamında Ortadoğu ve Türkiye'nin Jeopolitik Konumuna Dilbilimsel Bir Bakış

Fundagül Apak

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Özet

Günümüze kadar yapılagelen “Ortadoğu” kavramına yönelik çalışmaları incelediğimizde, konuyla ilgili açıklama ve(ya) tanımlamaların genellikle ideolojik, politik ve(ya) coğrafi yaklaşımlarla belirlendiğini, ancak “Ortadoğu” sözcüğüyle algısal kılınan kavramın “iyelendiği” (sahiplendiği) çekirdek anlama ulaşılamadığı görülmüştür. Bunun en önemli nedenlerinden biri de bu konudaki bakış açılarının “dilbilimsel” yaklaşımlardan uzak olmasıdır.

Bu durum “Türkiye” sözcüğü için de geçerlidir. Yüzlerce yıl Batı'nın “Orientalist” söylemleriyle biçimlenen Türkiye adının “kaba, barbar, zalim, korkunç...” Müslüman-Türk toplumunun evi olarak kabul edilip tarihe kazındığını ve bu konuda üretilen bu bilinçli yanılsamanın gerçek olarak benimsetildiğini göz önüne aldığımızda, Türkiye'nin Batı'daki güçlü devletler için hâlâ, tüyleri yolunarak masada yenilip yutulması gereken bir “hindi” (Turkey) olduğu apaçıktır. Bir nesneye verilen ad, o nesnenin kimliğidir. Kişilerle alay etmek için kullanılan takma adlar, ne kadar onur kırıcı ve can yakıcıysa bir ülkeye verilen adla alay etmek de o denli onur kırıcıdır. Bir kişi annesinin adıyla alay edenlere nasıl tepki gösterirse Türkiye'yi, yani vatanını “Turkey” (hindi) olarak alaya alan zihniyetle de savaşım içinde olmalıdır. Bu bağlamda “Ortadoğu” ile kimileri için Ortadoğu'nun bir parçası gibi görülen “Türkiye” adlarının dilbilimsel açıdan taşıdığı “çekirdek” anlamı ortaya koymak; en bilimsel yaklaşım olarak, bu konudaki tartışmalara nokta koyup bizi, yıllardır aranan sonuca ulaştırmada en etkili yöntem olacaktır. Bu sonucu elde edebilmek için her iki kavram da dilbilimdeki fonolojik, morfolojik, semantik, semiyotik ve de etimolojik yaklaşımlarla irdelenirken “coğrafya, mekan, yer” kavramları arasındaki ince çizgiler ve bugüne kadar dillendirilmemiş anlamlar dikkate alınmalı, jeopolitiğin geçmişi ile bugünü arasında, dünya ölçeğinde yaşanan toplumsal dönüşümler de göz ardı edilmemelidir.

Dolayısıyla, gerek Ortadoğu gerekse Türkiye sözcüklerine dilbilimsel yöntemler ışığında yaklaşp “coğrafya, mekan, yer” kavramlarının felsefi açılarıyla jeopolitik konum arasındaki ilişkiyi hem art hem de eş süremlî yaklaşımlarla betimlemek ve böylece, ele alınan kavramların “çekirdek” anlamına ulaşmak; bu çalışmadaki amaçtır.

Anahtar Kelimeler: Dilbilim, Jeopolitik, Ortadoğu, Türkiye.

Raising Awareness and Capacity Building among Stakeholders in Context of Heritage Conservation and Sustainable Development: A Case of Taxila Pakistan

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Abstract

World Heritage sites possess important potential in development of new strategies for sustainable development. The contribution of heritage sites in Social, Economic and Natural regimes of development can be maximized by effective policy making. Taxila is one of the six World Heritage Sites of Pakistan that have unique historical and religious significance. However, the Site is facing several problems resulting from various management issues along with destruction of remains due to climate effects and vegetation growth. Recently, UNESCO has initiated a project named “Protection of World Heritage Sites of Pakistan through Capacity Building and Awareness Raising” to address the issue. The aim of study is to find out the potential of site for sustainable development strategies involving stakeholders. There is a was conducted in March 2015 at Taxila World Heritage Site and observations were made to query about current situation and potential sectors of development in the site area. A questionnaire survey was conducted collect quantitative data from local people in relation to their awareness and involvement in the development related activities. Moreover, in-depth qualitative interviews were also conducted with other stakeholders to encompass the development related strategies. It has been found that there is strong potential for sustainable tourism in the area. However lack of knowledge and awareness about the importance of site was found as a barrier to fully utilize the potential. Results of research findings are considered bases for development of effective management policies and strategies for the conservation and protection of Taxila World Heritage Site.

Key Words: Heritage Conservation, Sustainable Development, Capacity Building, Development Strategies.

Tropical Highland Forests Degradation – Issues and Challenges in Integrated River Basin Management

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Abstract

Highland Forest Ecosystems govern the delicate balance that exists between environmental components of Upper Basin Systems. Changing behavioral trends of energy and matter inputs into the Forest System would disrupt the equilibrium conditions of many process-response regimes in the Upper Basins. Amongst the environmental issues identified include mass movement and mass transport processes, periodic high velocity floods, degrading water quality and quantity and diminishing biodiversity. These environmental issues also contribute to the sustainability of environmental resources availability of the Upper Basins. This paper discusses the causal factors of Tropical Highland Forests degradation in the Cameron Highlands of West Malaysia. The Cameron Highlands is located within the Central Massif Highlands of Central West Malaysia and have undergone rapid transformation of landuse as a result of environmental resources development. A Trend Change Analysis using media capture and other secondary data sources were used to show the relationships between environmental resources development and environmental degradation. The paper also elaborate on the effects of Tropical Forest Degradation on the process-response regimes of the Upper Basin Systems that dominates the Cameron Highlands especially on the Upper Basin Valley Slopes and River Channels. Finally, the paper would describe a Highland Forest Degradation Model that includes three major components which are, (1) Causal Factors of Degradation, (2) Effects of Degradation on Process-Response Regimes and (3) Impacts on Environmental Resources Availability and Sustainability.

Key Words: Highland forests, forest equilibrium, forest degradation, causal factors, forest degradation effects, forest degradation impacts"

Explore Tourism - Based on Selected Areas

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Abstract

In the present time various forms of tourism are developing rapidly. In addition to traditional types of leisure activities increasingly popular are various forms of active tourism. This group may include, among others, mountaineering, cycling, canoeing and explore tourism which is currently one of the fastest growing types of tourism. One of the areas where it can be observed the development of explore tourism is Himalayan Miyar Valley. This valley located in the Indian part of the Himalayas is an area where still geographers and climbers can find white spots. Unconquered and unnamed peaks and areas not located on any map are an attractive area for people interested in this type of tourism. Among those visiting the Valley Miyar we can find scientists, climbers, trekkers, cartographers, geographers, biologist and other specialists. Their stay in the area often end up with new discoveries and the improvement of existing maps. As a result, today it is one of the best places for people interested in this type of tourism where the main objective is the slogan "explore and discover". Currently explore tourism is also popular in the mountainous areas of South America, Asia as well as in the Antarctic and in other isolated and poorly known areas of earth. Field studies were carried out in the years 2006-2014. To their processing used GIS tools and SWOT analysis.

Key Words: Environment, Himalaya, Mountains, Tourism.

A Simplified and Expedient Integrated Approach of Environmental Hazards and Risk Identification and Assessment

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Abstract

Iran is a country that is frequented by many environmental hazard threats. Many of these threats had culminates into many types of environmental disasters with tremendous loss of lives, destruction of national assets, disruption to human livelihood activities and the anguish placed on the general population for a more pragmatic approach in hazard management. These hazards include that as a result of processes associated with desertification, tectonic, cycles of aridity and surface processes associated wind and water erosion. The integrated approach uses the Arc GIS platform to create individual map layers that depicts the spatial distribution of a parameter that describes the intensity of a hazards threat. In this study the intensity of the hazard threat is classified into 5 classes based on the linked scale. The classes and weighted values are, 5-very high,4-high,3-moderate,2-low and 1-veery low. For purposes of expediency the study region selected which is the Zayandeh Rood Basin was divided into 1 km grids. The parameters describing the hazard threats were measured and their areal extent or density were determined for each grid cell. Individual map layer of a particular hazard type shows the spatial distribution of that particular hazard threat. In this case exercise each layer of the hazard threat were integrated using the Arc GIS integration facilities and a composite map was derived. This composite hazard map shows the spatial distribution of the intensity of the hazard threat in a grid cell as well as for the basin as unit whole. More important the spatial pattern shows a number of overarching characteristics that could benefit hazard alleviation efforts in the future. These include, 1) distribution of hazard intensities,2)clustering of hazard intensities,3)direction of hazard intensities, and 4)density of hazard intensities. This approach in hazard management assessment would contribute significantly in any efforts associated to develop early warning systems incorporating hard and soft measures in a high and very high intensity hazard threat areas.

Key Words: Environmental Hazards, Risk Identification, Assessment, Malaysia.

Modern Degradation of Glaciers of Zhungar (Shetysu) Alatau, Kazakhstan

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Abstract

Modern global warming significantly affected to the state of the glaciers in the mountains located in of the south-east of Kazakhstan, including the Dzungarian (Shetysu) Alatau ridge. In the alleged topic discusses the spatial-temporal changes in glacial ridge in all river basins in Kazakhstan. The basis for an objective judgment about the direction of the evolution of the glaciers was to compare their morphometric characteristics, obtained by cataloguing in 1956, 1990, 2000 and 2010. For the first two terms were used data took from aerial photographs, and for 2000 and 2010 from Landsat satellite imagery with a resolution of 15 m, processed using GIS technology (software packages MapInfo, ArcGIS) and digital mapping. To assess the state of glaciation in 2015 used for the calculation of compound interest formula, taking into account the rate of reduction of area and volume of the ice. The studies produced the following results. For 59 years (1956-2015) is fully melted or disintegrated hundreds of glaciers, and the total number decreased by 462 in 1412 to 950 (33%). The area of glaciers has decreased by 374 km², with 841 to 467 km² (44.5%) of 6.34 km²/year or 0.75%/year. The average rate of retreat of glaciers was 7.5-8 m/year. Receding glaciers led to a reduction of the vertical range of glaciation of 90 m, with 545 to 455 m. The height of the firn line increased by 70 m, with 3550 to 3620 m. The size of the ice ratio decreased from 1.13 to 0.80, and the coefficient of AAR is from 0.53 to 0.43. Reduced glacier area has led to a reduction in the amount of 15.5 km³, from 33.3 to 17.8 km³ (46.4% at 0.79%/year). The average value of the mass balance of glaciers, calculated from the difference between the volume of ice, divided by the average area of glaciers had a significant negative and amounted to - 36 g/cm². Total permanent loss of mass from the whole area of glaciers in 59 years was more than 21 meters in the water layer. According to the forecast based on extrapolation of trends identified reduction of glacier area and volume of ice the glaciers Dzungarian Alatau may disappear by 2100.

Key Words: modern degradation, glaciers, zhungar, alatau.

The Relationships between Beta Plant Diversity and Climatic Variables: A Case Study in Kuyucak Mountain District

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Abstract

There are 3 components of biodiversity as alpha diversity (diversity within area), beta diversity (diversity between areas) and gamma diversity (total diversity). Alpha diversity indices have been frequently used to examine the relationships between biodiversity and environmental factors. However, the number of the studies concerning the relationships between beta diversity and environmental factors are very few despite the fact that beta diversity gives more information about ecosystem stability against internal and external threatening factors.

The present study was carried out to examine beta plant diversity and climatic factors in Kuyucak Mountain District of the Mediterranean region.

In the study, bioclimatic data was obtained from wordclim.org for the district. Next bioclimatic variables having the cell size of 752x752 meters were stored in the GPS. Four sample plots were taken in each selected cell by controlling from GBS. Coverage values of plant species were recorded in the sample plots. After field survey, beta plant diversities of the cells were calculated by using Whittaker beta index (β_w). Next, regression analysis was applied to show the relationships between beta diversity and bioclim variables. As a result, beta diversity showed positive linear relationships with BIO1 (Annual Mean Temperature), BIO2 (Mean Diurnal Range (Mean of monthly (max temp - min temp))) and BIO9 (Mean Temperature of Driest Quarter) while it has negatively linear relationships with BIO4 (Temperature Seasonality), BIO17 (Precipitation of Driest Quarter) and BIO18 (Precipitation of Warmest Quarter).

Key Words: Biodiversity components, Mediterranean region, Environmental factors

Bird Diversity and Conservation Status in Isparta Province

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Abstract

With its wetland areas, forests, high mountains and other habitat varieties, Isparta Province hosts many bird species. Furthermore, it provides birds with the opportunity of relaxation, breeding and accommodation in both the migration season and the rest of the period in a year thanks to its geographical position and wetland areas. For this reason, the migration route of Northwest-South, which a part of the research area of this study is located in, has a great importance.

As a result of the field surveys performed as four seasonally (Winter-Spring-Summer-Autumn), total 60.120 individuals and 266 bird species have been determined. In this research carried out in the period between 2013 and 2014, 85 species, which were identified in the fields surveys of winter season, have been categorized as 63 natives, 18 winter visitors, 3 summer visitors and 1 transit-winter visitor and while 83 of them are in the category of LC (Least Concern), 2 have been located in the category of NT (Near Threatened). In the field surveys of spring season, 88 species consisting of 59 natives, 25 summer visitors and 4 transits, have been categorized as 84 LC, 3 NT and 1 EN (Endangered) while total 115 species comprising 69 natives, 41 summer visitors, 4 transits and 1 transit-winter visitor have been categorized as 114 LC and 1 EN in the summer season. Including 68 natives, 6 winter visitors, 9 summer visitors, 2 transits, 2 transit-winter visitors and 1 native-summer visitors, total 88 species have been determined in the field surveys of the autumn season. Among them, 87 have been located in the category of LC and 1 has been identified as NT.

Kovada Lake National Park, Kızıldağ National Park, Gölcük Nature Park, Yazılı Kanyon Nature Park, Başpınar Nature Park, Sığla Forest Nature Reserve Area in Kargı Village and Kasnak Meşesi Nature Reserve Area are located within the borders of Isparta. The destruction of natural habitats, agricultural practices and human activities occurring in those areas and other habitats, have affected the richness of bird species. The removal of these problems arising from the anthropological causes will be resolved with the relevant conservation.

Key Words: Isparta, Bird Diversity, Conservation Status, Ornitofauna, Biological Diversity.

Assessment of Wetlands and Water Plants within the Scope of Ecosystem Services

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Abstract

Wetlands are vital as they incorporate both terrestrial and aquatic ecosystems, and for some other characteristics. River deltas, lagoons, lakes, reeds and marshes are covered with this definition. Wetlands are threatened with various activities like settlement, road building, agricultural activities and industrialization. Such activities splits, pollutes or entirely destroys the natural structure. In fact, wetlands have numerous direct or indirect benefits. Direct benefits may be outlined as food supply, clean water supply, wood-fiber and fuel supply. Indirect benefits include regulating the climate and flow regime, preventing diseases and cleaning the water. Besides, it also has different aesthetical, spiritual, training and recreational benefits. Wetland plants play an important role in the occurrence of these benefits of wetlands. Wetland plants contribute to achieving the sustainability of wetlands in many aspects. These contributions may be listed as increasing the water quality, contributing to the increased bio-diversity by creating living spaces for fishes and other living organisms and by providing a food supply, increasing the dissolved oxygen amount, ensuring the protection of land by preventing soil loss, and adding value socio-economically. Within the ecosystem services, the importance of wetlands and wetland plants should be considered. In many projects conducted for this purpose, the benefits provided by wetlands presented and a list of measures to build the protection-utilization balance was created. In this study, the importance of this topic will be addressed with examples from Turkey by using different studies conducted around the world and in our country.

Key Words: Wetlands, Wetland plants, Protection-utilization, Ecosystem services, Environmental contribution

Modeling of Urban Sprawl Using Remote Sensing Data and Multinomial Logistic Regression Analysis: A Case Study of Malatya, Turkey

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Abstract

Industrial revolution, with the advent of modern economical type of mass production rather than the old style based on tillage and manpower to cultivate soil, resulted in a rapid urban population growth first in developed countries very soon and then in less developed or developing countries in the early 1950s after nearly 100 years. This also led to a rapid urban sprawl. Today, especially in the third and developing countries, compared to the rest of the world, the population grows faster; moreover, the increasing population clusters in urban areas and this type of cluster brings about unplanned and uncontrolled spread of urban areas in these countries. This sprawl brings along a set of ecological problems in these countries such as misuse of lands, loss of natural places, and water pollution by proximodistal changes of natural and cultural landscapes and a set of social problems such as the nonhomogeneous distribution of municipal services to the city-dwellers, squatter and transportation problems, and the rising tide of crimes. It is needed to predetermine the sprawl areas and develop social ecological policies for such areas in order to solve ecological and social or social ecological problems brought about by the sprawl.

This study aims at presenting a method which intends to model the areas to be affected by the urban sprawl in Malatya so as to develop social ecological policies.

In the study, 12 land use and land cover categories were specified for each year through object-based classification of LANDSAT satellite imaging belonging to the years of 1984, 2000 and 2014. Also, keeping the category of settlements out of these categories, 6 variables such as slope, population density and distance to road, distance to education centres, distance to water and distance to central business places were correlated via logistic regression method and the trend of urban sprawl was estimated for the both periods. The trend of urban sprawl in Malatya was estimated for the period of 1984-2014 with the mean rates of the results. The coefficients obtained were integrated into CBS and the area where Malatya will spread in 2044 was modelled.

Key Words: Urban Sprawl, Logistic regression, Remote sensing, CBS, Malatya, Turkey

Review on Biogeography of *Nitraria* L.

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Abstract

Nitraria is a halophyte shrub plant which grows in arid, semi-arid and saline deserts and in salt marshes. The genus belongs to Nitrariaceae family and includes total 10 (12) species in the world, with its unusual disjunct world distribution. These shrubs are used in the protective afforestation for enhancing sand deposits and banks, and reducing soil salinity and the concentration of organic substances. The genus *Nitraria* L. is an old, Tertiary Period's relict plant which initially was described in Komarov's investigations and given main hypothesis about its origin and distribution centers in Chinese and Mongolian floristic geography. The probability that *Nitraria* L. is a very old genus, having its origins in Central Asia, is found as a theme of discussion of many researchers. The wide disjunction between *N. billardieri* in Australia and the closely related *N. schoberi* in Eastern Europe and Asia has been difficult to explain. Recent molecular phylogenetic studies and methods have given new findings on systematics of the genus and new hypotheses on distribution pattern and time of origin. In this article we discuss all hypotheses about origin and distribution of *Nitraria* L.

Key Words: *Nitraria* L., place of origin, historical biogeography

Automated Land Surface Temperature Retrieval from Landsat 8 Satellite Imagery: A Case Study of Kahramanmaras – Turkey

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Abstract

Land Surface Temperature (LST) is a key climate variable, related to surface energy balance. The new instrument which called Thermal Infrared Sensor (TIRS) carried on board of the new generation of Landsat 8 captures the temperature of the Earth's surface in two bands, band 10 and band 11 with spatial resolution of 100m. The main objective of this study was to develop a tool which makes the LST retrieval process quite simple and automated.

In this study, Radiative Transfer Equation (RTE) method has been employed in ArcGIS Model Builder to retrieve LST from Landsat 8 satellite imagery. The user just inputs required bands (Band4, Band5, and Band10) and a couple of parameters then the tool output the final LST imagery automatically.

The tool first makes the conversions to top of atmosphere (TOA) radiance and reflectance. Then NDVI is calculated based on NIR and RED bands reflectances. Land surface emissivity is calculated based on NDVI Thresholds Method (NDVI-THM) which was developed by Sobrino et al. (2008). Finally the tool calculates land surface temperatures in degrees Celsius.

Key Words: ArcGIS, Model Builder, GIS, LST, NDVI, Emissivity

The Architectural Patterns of Traditional Cultural Geography in the Adriatic Abruzzo (Central Italy)

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Abstract

The province of Abruzzo, which is situated in the Adriatic coast of Central Italy, illustrates the characteristic geographic features of the Mediterranean coastal regions. In this geography, the coastal strips are narrow, mountains lying parallel to the coastline produce a corrugated terrain with very scarce arable land. Due to the difficult living conditions of this geography animal-breeding and wool trade have become the principal economic activities. In order to find fresh pasture for the sheep, the inhabitants of this geography have devised a flexible and semi-nomadic life pattern with winter and summer habitats. In these special places of seasonal dwelling, characteristic architectural dimension of cultural geography has been constructed. This dimension of culture and geography is constituted by traditional architectural patterns through which local problems of dwelling have been solved. For instance fortified villages in the high plateaus of summer settlement and more flexible layouts in the lower altitudes of the winter settlements exhibit the local architectural culture. The objective of this study is to analyze the architectural dimension of cultural geography in the Adriatic Abruzzo by identifying the traditional architectural patterns. In so doing the continuities between geography, culture, settlement and architecture are uncovered.

Key Words: Geography, culture, architecture, Abruzzo

Land Capability Classification of Eskişehir according to Atalay's Method

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Abstract

Considering the natural conditions of the countries and social economic characteristics, land classifications are an element providing the usage for a sustainable land use. Developed countries aim to get high efficiency from their lands by doing a classification of land capability for themselves. In Turkey the classification of land been preferred, in this field. The USA classification system is occurred to be mostly about agriculture ground and is dealt with eroding matter of the grounds according to the destruction of them in agraria and establishment zone. Due to this, Atalay (2015) have made suggestion on a new classification of land capability considering geographical conditions in Turkey.

In this study, comparing the land capability with the classification carrying out in Turkey, the classification which Atalay suggested, has been aimed working methodology is based on regional approach in the methodology, partly. Systematical perspective has been referred. In preparing the cartographical material, ArcGIS 10.3 has been used. The map of this study as a material topography, physical map, slope, and aspect, the usage of the land, ground, geology, land capability, geomorphology, temperature, and precipitation has been examined, meteorological data has been appreciated. According to the findings attained, Eskişehir's map of land capability has been done through the criterias of the suggestions of Atalay. As a result, it has been understood that there is a difference between the land capability that applied in Eskişehir and Atalay's criterias.

The variety in our country's natural environment conditions and socio economic activities has even caused land capability to show difference. Considering our country's ecological conditions, it has been suggested that land capability to reidentified.

Key Words: Land capability, classification of land, capability, geography, Eskişehir.

Ability Assessment of the Riverside

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Abstract

Among the natural processes the floods are such phenomenon, which inflict immense damage to the population of any country. Nowadays there is no methodology for risks' forecasting of river bed degradation with feasible accuracy in order to timely carry out appropriate measures for getting rid of expected damage. The mechanism of riverside decomposition by water streams is considered as the random process, which is depended both on water stream velocity, and sustainability of the riverside. The characteristic vulnerability of the riverside is taken as an indicator of this process in regard to such influence. Well-known model load-strength of the theory of reliability was used for establishment of vulnerability. Vulnerability degree was depended both on load intensity and duration, and on the available interrelation between component elements of the object. The critical limit of vulnerability preconditions the range of trouble-free performance of the object. That's why its assessment and analysis were conducted by means of basic factor determining critical limit of vulnerability. In our case, water stream bottom velocity may be considered as a determining factor on the part of load. Its approximate determination for any section of the stream is possible taking into account morphometric characteristics, hydrological and hydraulic parameter values, the adjustment of which will be made according to direct measurement. The integral characteristic of priming adhesion, which determines the permissible water velocity, is the determining factor of riverside. This is the maximum velocity of a water stream, which doesn't cause the washout of soil. The short rectangular stretch of the river bed, which can be regarded as a prismatic section with uniform soils is considered in the work. Under this assumption, as a first approximation we will establish formalization of vulnerability of the riverside at defined level. Obtained results should be considered as a rough approximation.

Key Words: Freshets, Georgia, riverside, vulnerability.

Binary Snow Mapping in Kursunlu Forest Sub-district by using Support Vector Machines

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Abstract

Snow is an important land cover whose distribution over space and time plays a significant role in various environmental processes. Hence, snow cover mapping with high accuracy is necessary to have a real understanding for present and future climate, water cycle, and ecological changes. This study aims to investigate the design and use of *support vector machines* (SVM) algorithm for binary classification of snow cover (i.e., snow/no-snow) in Kurşunlu forest sub-district region, Çankırı. As all nonparametric classifiers, SVM algorithm depends on several *model tuning* parameters. The first one is C , which controls the tradeoff between margin maximization and error minimization. The other class of parameters is used for non-linear mapping into feature space, and they are known as *kernel parameters*. The mostly employed kernel types in SVM are *linear*, *polynomial*, *radial basis function*, and *sigmoid*. The performance of binary SVM classifier is evaluated on a set of *moderate resolution imaging spectroradiometer* (MODIS) images. Each image in the data set is classified by using different settings of SVM model building parameters (i.e., C parameter and kernel types). Classified images are compared with the associated reference data which are generated from the associated Landsat 7 ETM+ scenes by *mean-shift* image segmentation algorithm. A basic grid search methodology is applied to find the optimal values for SVM model building parameters in the study area by utilizing *Area under the Curve* (AUC) statistics, which is a commonly used measure of model performance in machine learning and binary classification problems. The results are represented via confusion matrices and Kappa statistics as well as ROC curves.

Key Words: Support Vector Machines, Binary Image Classification, Snow Mapping, Remote Sensing.

Traditional Country Houses of Antalya in Connection with Rural House Ecology

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Abstract

Houses are the most important tangible culture heritages. In this sense, the country houses are the most vital examples of human and environment interactions. The environment friendly buildings, which have a special importance in traditional architecture, seem disappear in the areas where rural characteristics of the settlement show decrease. While the harmonization of the country houses to nature, history and economic conditions are clearly seen at the first sight, it is also clear that the urban architectures are too far to those concepts. This case also annihilates the housing comfort and functionality.

However, the vital elements of culture, namely, the country houses are represented with very limited samples with their over-aged householders. The housing tradition of these country houses should be sustained as the source of inspiration for the modern houses with respect to their simplicity for life, functionality, hygiene and security. Contrary to the monotony of the urban houses, the country houses are the work of diverse utilities and notions, thus, some precautions should be taken in order to protect those artifact of cultural heritage.

The present study attempted to examine the traditional country houses of Antalya its some villages in terms of their cultural, ecological, sociological aspects as well as their functionality, structural designs and their reasonable integration into the modern structures. The present study were corroborated with observations and enriched with visuals.

Key Words: Culture, country house, housing ecology, Antalya, Anatolian architecture

Geographical Changes in Tekirdağ and the Surrounding Region between 1900 and 2015

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Abstract

Examining the geographical changes that have occurred throughout history will help understanding the past better as well as making an efficient use of today's resources and doing a more effective planning of the future. This study aims to explain the geographical changes that occurred in Tekirdag and the surrounding region between 1900 and 2015. The main research questions are: "What changes occurred in the geographical environment (physical and human geography) within a period of over one century (115 years)?" and "How did these changes affect the geography?". The research methods of geographical science were used in this study, which is important in making a contribution to understanding the history and anthropogenic geography of both Thrace and Tekirdag during the Republic period. In this sense, various old and new-dated thematic maps prepared by different institutions and organizations and satellite images were used. The land use maps of the area for the period between 1900 and 2015 were prepared by using all of these materials, historical research records, and up-to-date data. Besides, field visits were organized to the different parts of the study area on different dates in order to explore the current situation and detect the geographical traces of the past. During these visits, photos were taken, and personal interviews were held. At the end of the study, it was found that considerable spatial changes occurred in the area during a period of 115 years. The biggest changes were found to have occurred in the cultivated areas, settlements, vineyards, orchards, and forest lands. These changes occurred mostly as a result of the use of the land contrary to its ordinary use. It was also revealed that important vineyards around Tekirdag were destroyed due to the growth of the city, resulting in value loss in the viticulture and other related sectors as compared to the past. Similarly, it was detected that some parts of the fertile cultivated lands, and forests were occupied by pits. Mining activities sustained as open-pit mining were found to be the main reason lying behind the visual pollution and many other problems in the geographical environment. It was concluded that the changes occurring in the last century in the geographical environment of Tekirdag and the surrounding region were far from being sustainable.

Key Words: Change of land use, Geographical environment, Tekirdag province, Thrace.

Geographic Criteria that should be Employed in the Site Selection and Planning for Mass Housing Areas with the Use of GIS

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Abstract

Turkey that is occurred frequently natural phenomena such as earthquakes, floods, landslides that in urban planning in needs to be done taking into account many parameters especially in recent years, industrialization, and immigration and so on. Cause rapidly in crowded cities with public housing projects to meet the housing needs of the population is implemented. But without adequate planning, the opening of the new residential areas at random, reveals the problems with it. In this sense, to avoid possible problems of determining the layout of the cities of new fields or the importance of the selection of the appropriate place is rapidly growing.

This study focused on geographical criteria to be considered when planning new housing areas in. Physical geography features in these criteria (geological, geomorphological, climate, hydrography, soil and vegetation characteristics) with human and economic characteristics (population, property, security, historical and archaeological features, infrastructure, social and cultural fields, sources of pollution, major urban structures etc.) were evaluated. The result of these criteria to ignore a portion of the sample was evaluated on the negative effects of the housing area that has some built.

Key Words: Location selection, planning, mass housing, GIS.

Temporal and Spatial Analysis of the Interaction between Urban Sprawl and Land Transformation in Different Urban Scales in Turkey

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Abstract

Urban sprawl is not merely a geographical expansion but also brings about a set of social and spatial changes such as the loss of human nature in urban life, the distortion of natural agricultural and archaeological landscapes and the transformation of natural landscapes into cultural landscapes. It is an obvious and crystal-clear fact that such changes are hard to control in developing countries.

In this study, the interaction between urban sprawl and land transformation in Turkey as a developing country is monitored in three cities each belonging to different geographical regions and being of high quality of agriculture at various scales. In the cities of Ankara, Malatya and Bartın as study areas, the images of Landsat 5-TM and Landsat 8 OLI satellites were used in order to analyse the spatial changes by urban sprawl. The satellite images were categorised by utilizing object-based classification method through remote sensing and geographic information systems. The classification outcomes in three different periods of time (1984-2014) were categorised under the names of gain areas, lost areas and permanent areas. The land transformation values were obtained for each province using mathematical formulations among these categories. It was stated that the correlation between urban scale and the speed of land transformation is negative correlating these values and statistical data from cities, and that the mostly affected land use type by urban sprawl was agricultural sites. The methodology of this study can be adopted as an effective approach in planning decisions at the spatial and urban planning scales since it explains simply and in a quick manner the clear presentation of the interaction between the urban sprawl and the spatial transformation or land cover change.

Key Words: Urban Sprawl, land transformation, Analysis of Spatial Change, Ankara, Malatya, Bartın, Turkey

Landscaping and Characteristics of Natural Environment of Kırkgözeler Water Supply (Elazığ)

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Abstract

Today, use of water resources has become a subject highly sensitive and on to be considered. In this sense, the implemented projects for evaluation of of available water resources potential are required to be sustainable, to be in order to protect the water source and made them according to the plan.

Kırkgözeler which drain the waters of Elazığ plain is one of the major freshwater resources of Elazığ creek and it is located in the city of contiguous areas. This water is located south of the plain and only 3 km from the city center and it is occurs a lot where the groundwater is rising to the surface, as the name suggests. Since the past, Kırkgözeler spring used by the people living in this area, today it has become an area that should be protected. Elazığ creek is exposed to heavy pollution from the area of the water outflow. Today, this pollution is among the most important problems of the city of Elazığ. This problem has grown steadily for decades and finally the stream rehabilitation project has been prepared and has been tendered as a result of collaboration Elazığ Municipality, DSI and ILBANK in 2015. According to this project, the creek will be an open channel and freshwater will be flow provided. However, this project must be considered together with landscaping of Kırkgözeler. For remains clean waters of spring and protect the source environment, however it may be provided by making the landscaping of these areas. In the near future, this area likely to remain in the middle of the city and Elazığ creek rehabilitation project within the green belt expropriation and resettlement closure is required. Then, the question this field should be evaluated accordance with social and cultural recreational activities, for people living in the city they can breathe. Places are quite suitable to be made of the sports activity areas, recreational facilities, hiking trails, Kırkgözeler and around the reclamation channel. In recreational applications which will provide increased interest here creating a small scale zoo. Especially with those planning to accelerate the development of sub-districts located around the creek and with the opening of the service, tourism and side businesses it will also impact positively in terms of material gain local people.

Keywords: Elazığ, Kırkgözeler, Natural Landscaping , Recreation

The Approach of Local People to the Phenomenon of Protection: The Case Study of Fethiye-Gocek Special Environmental Protection Area

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Abstract

Fethiye is a district of the city of Muđla, and has many natural sources stemming from its different geographical characteristics and its coastal area. 816,02 km² of the borders of the 3055 km² area of the district was proclaimed as Special Environmental Protection Area in 1988 because of its natural sources. Special Environmental Protection Areas show integrity in historical, natural, cultural terms, and have ecological importance both in global scale and in national scale. These areas are proclaimed for the purpose of transferring today's characteristics to the future and future generations, and using the natural sources by protecting them as well. In this study, the purpose is evaluating the viewpoints of the people living in Fethiye-Göcek Special Environmental Protection Area on the notion of Special Environmental Protection Areas, and determining the positive-negative sides of their viewpoints. For this purpose, a questionnaire was applied to the local people living in the area, and the results were evaluated by using the SPSS Software Program; and the awareness levels of the people living in Special Environmental Protection Area about the notion of Special Environmental Protection Areas have been determined, and recommendations have been made for the purpose of improvements.

Key Words: Special Environmental Protection, Fethiye, Conservation.

Determining the Canopy Cover Percentage Using the Airborne Lidar and Digital Aerial Photos

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Abstract

Canopy Cover Percentage (CCP) is an important stand attribute, particularly in determination of silvicultural treatments to be practiced in the forests assigned for soil and water conservation functions and management of wildlife habitats. Preparation of canopy cover percentage map for large geographical regions using proper technologies is very important for forest management works. This study aims to estimate CCP using both LiDAR (Light Detection And Ranking) point clouds and automatic classification of digital aerial photos. A forest landscapes having different stands was selected as study site. The study was conducted at thirty plots. Reference canopy cover values were semi-automatically calculated using image segmentation and visual interpretation based on the digital aerial photo. The variables derived from LiDAR point clouds including percentiles, the points below of different altitude thresholds, kurtosis, and skewness were used as explanatory variables. LiDAR-derived canopy cover percentage was modelled using these explanatory variables and a simple regression analysis. Besides, canopy cover percentage was automatically obtained from digital aerial photo using image classification. The stability of LiDAR-based estimations was validated using one-leave-out cross validation test. The best model with highest r^2 value of 0.89 was obtained using the points below four meters as explanatory variables. The relation between the reference CCP and the CCP derived from the classification of aerial photo was weaker than LiDAR models ($r^2=0.60$). The study suggests that CCP can be accurately estimated using high-density airborne LiDAR data.

Key Words: Airborne laser scanning, image segmentation, forest, canopy cover.

Analyzing the Impacts of Tourism-Based Development on Mediterranean Coastal Landscape

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Abstract

Mediterranean coast of Turkey has faced unprecedented anthropogenic pressure due to tourism-based development. In this process, secondary residential settlements have also increased. These settlements cause significant changes in land use and land cover in the coastal landscape. Proper understanding of the impacts of this development is the basis for effective resource use and planning.

The objective of this study is to determine impacts of secondary residential settlements, on the coastal landscape of the Mediterranean coast of Turkey by employing multivariate statistical analyses. High resolution satellite images (e.g., Ikonos, Quickbird, etc.) and several ordination and classification methods of multivariate statistical analysis were applied. In this respect, several variables such as land cover types (LU/LC) (farmland, scrub, forest areas, bare areas) and land morphology were taken into account. On the empirical stage of the analysis, comparative efficiency of different statistical packages was also evaluated. Impacts of tourism induced settlements on landscape were discussed and the proposals regarding to resource planning and management were developed.

Key Words: coastal development, coastal landscape, Mediterranean, multivariate statistical analysis

Polonya’da Bir Doęa Harikası: Mazurlar Gller Yresi

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zet

Doęu Avrupa’nın eski sosyalist lkeleri arasında en fazla yabancı turist eken ve en yksek turizm gelirlerine sahip lkelerin bařında kuřkusuz Polonya gelir. Deniz turizmi, kış turizmi, inan turizmi, saęlık turizmi ile kltr turizmin geliřmiř olduęu Polonya’da gller ve gl turizmi ayrı bir neme sahiptir. Mazurlar Gller Yresi Trkiye’de ok az bilinen bir turizm ekicilięi olup, bu yre ile ilgili lkemizde coęrafyacılar tarafından kaleme alınan bir bilimsel alıřma yoktur. Bu nedenle bu alıřmanın ncelikli amacı bu gller yresini Trk okuyucularına tanıtılmak ve bu konudaki bilgi bořluęunu bir nebze gidermektir. alıřmada Mazurlar Gller Yresinin coęrafi konumu, jeomorfolojik, klimatik, hidrografik ve beřeri zellikleri irdelenmiř, ayrıca bu yredeki bařlıca byk gllerin, nemli kentlerin ve bařlıca turizm ekiciliklerin zellikleri ortaya konulmuřtur. lkemizde Polonya ile ilgili bilimsel arařtırmaların sayısı yetersizlięi gz nne alınırsa bu arařtırmayla Polonya’nın tanıtımına kkte olsa bir bilimsel katkı saęlanacaęı umut edilmektedir.

Anahtar Kelimeler: Polonya, Turizm, Mazurlar Gller Yresi, Polonya Glleri

Planning and Application of Geotourism Infrastructure in Kula European and UNESCO Global Geopark

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Abstract

The Kula Geopark is situated in the Aegean Region of Turkey in Western Anatolia, within Manisa Province. The Geopark covers an area of 300 km². Kula Geopark has a unique geodiversity where the oldest (Paleozoic) and youngest (Quaternary) rock formations of Anatolia are found together. The well-protected Kula volcanoes reveals characteristic landscapes and structures including volcanic cones, craters, maars, extensive lava flow plains, karstic caves, volcanic canyons, fairy chimneys and impressive fossilized footprints of prehistoric human which reflects 15 thousand years old interaction of man and active volcanoes in human history. Kula Geopark hosts outstanding cultural monuments including well-preserved 18th Century Ottoman architecture as far as the sacred tomb of the Yunus Emre (1240-1321), who was a famous Turkish poet and Islamic Sufi mystic.

In 2011, PhD Erdal GÜMÜř started a new attempt for the valorisation protection and promotion of the splendid Earth and cultural heritage of Kula area through the establishment of the Kula Geopark. As a result, in 2013 Kula Geopark was recognized as the first and the only European and UNESCO Global Geopark of Turkey.

Although Kula Geopark was awarded with rich geodiversity and cultural heritage, majority of the key geosites suffered from lack of necessary geotourism and geo-education infrastructure. In order to provide safe and comfortable visitor access to the Kula Geopark the 250 thousand Euro equivalent budget Explore the Kula Geopark has been developed by the Kula Geopark team in 2013 and finalized in 2015, co-funded by the Zafer Development Agency, Kula Municipality and the Manisa Metropolitan Municipality.

The main achievements of the project includes construction of: 8 wooden shelters, 5 scenic point, 12 information panel, 21 direction sign panel, 2 stone-wall toilet couples, 12 km long bicycle routes, 1 Geopark Visitor Centre.

Key Words: Kula Geopark, Geotourism, Geosite, European and UNESCO Global Geoparks.

Climatic-Recreational Study of Guria Region, Georgia

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Abstract

One of the global ecological issues for humankind is climate change that causes degradation of the environment that has an influence on total ecosystem. The study applies distinctive region in terms of climatic-recreational value in Georgia – Guria, the height of which varies from 25 to 2004 meters from sea level. The outcome of the study includes: complex physical-geographical conditions and the influence of the black sea in the region causes unpredictable processes; the surface temperature of the Black Sea was reduced to 0,30C (in last 50 years); there was a 5-10% increase of precipitation on the coastline of the Black Sea; the temperature change on the resort Bakhmaro is notable (for the last 25 years) and varies from 4-6 to 5-80 C range of change. According to the convention of Economy and Sustainable Development of Georgia, priority sectors are tourism and agriculture. Therefore the regularities of climatic parameters were defined in time and space of the region and preventive mechanisms should be developed that will lead to lessening the influence of these processes.

Key Words: Black Sea, Climate, Georgia Tourism.



Salinity- Temperature of the Suez Canal Affected By the New Construction 2015

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Abstract

In this paper, we introduce the hydrodynamics of the Suez Canal in 1-D and 2-D to study the behavior of the water dynamics after the new Suez Canal in 2015. The Suez Canal is one of the most important water ways for the international trade. The environmental impact of the Suez Canal on the Mediterranean Sea is too high which drives by the water logon from the red sea with different salinity. Indeed, the salinity-temperature profile after the new Suez Canal construction became a crucial parameter in the environmental hazard of the new project. And left us with more doubt about the environmental impact of this project on the surrounding environment. we provide a multi-disciplines integration to well understand the salinity-temperature profile by using mathematical modeling tools, remote sensing data, and in-situ data for more realistic simulation.

Key Words: mathematical modeling, computational hydrodynamics, environmental hazards.

Using Methods of Adaptive-Landscape System in Land Management

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Abstract

The paper studies agricultural organizations of ecological and landscape system of agriculture, where complex works directed to rational and effective use of agricultural lands. Kazakhstan has systematically engaged in studying the problems of adaptive landscape system of agriculture (ALSA) in order to introduce in the agricultural sector. Resolving problems relating to the protection and proper use of the territory of agricultural land for conservation and restoration of agricultural landscapes associated with combining in itself all the functions and methods of landscape ecology, spatial analysis, zoning. Therefore, to solve a number of scientific-methodical and practical problems in the organization of the territory were the methodological basis of the study of landscape diversity, environmental products, assessed the state of the modern landscape, etc. was created map of agrolandscapes in 1: 100.000 scale. For this purpose, we selected mapping method using modern GIS technology programs and other support functions allowing to make spatial analysis with the construction of three-dimensional model of the study area. From this we can conclude that the research methods in landscape ecological land management combine research methods in ecology and in land management. For a proper understanding of selected research methods proposed structure of adaptive-landscape system of agriculture. Using scientific methods of research in landscape ecological land management will allow the correct and more efficient use of the territory of agricultural land and benefit from its use of economic, environmental and social impact.

Key Words: adaptive-landscape system of agriculture, GIS, spatial analyst, land management.

Analysis of in Service Training Needs of Geography Teachers: Case Study of Eskişehir

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Abstract

The purpose of this study is to determine the necessity of pre-service training of geography teachers in Turkey. After geography curriculum has been changed in Turkey in 2005, pre-service training of geography teachers has become one of the most important phase in front of geography curricula. In this study, the situation of pre-service education of geography teachers in Turkey has been analyzed from the teachers' perspectives. Thus it has been applied a survey for geography teachers and the results has been analyzed by SPSS.

In this paper it is presented how teachers are trained to teach geography and what are the main necessities in pre-service education of geography teachers. It is suggested that it must be developed a new approach within the curricula by the departments of geography education to educate students' teachers according to new standards of the ministry and geography curriculum.

Key Words: Geography teaching, Geography Curricula, In-Service Education, Turkish geography.

Educational Value of Teaching Geography

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Abstract

The main task of school is to develop personality of students, their abilities, physical, mental and moral-volitional qualities. The school forces the student to work independently. Student takes the most important education in school. He develops not only knowledge skills, also mental, will, understands the complexity of study, teaches philanthropy and humanism, helps friends. Indeed, the teacher brings up students by teaching the subject.

There is possibility of formation views by the content of each discipline, which is taught at school. For example, students get acquainted with nature, its manifestations of different powers and mysterious by learning the geography. Different directions of education are formed by learning the geography. They are moral; labor; physical; patriotic; aesthetic; environmental; economic, etc.

In the process of the labor: students' desire to participate in socially useful work is formed in the process of labor. This is an important condition of education of diligence.

The economic education is given students by teaching socio-economic geography. Economic education is aimed at organizing economic geography knowledge, skills and abilities, to connect them with each other.

Physical education is directed on strengthening of health of students, developing their physical abilities, increasing functional capacity of the organism.

Aesthetic education is focused on nature, art, the life, the ability to accept and feel the beautiful views, the development of students' artistic creation in the world.

The environmental education. The main objectives of ecological education and upbringing of students at lessons of geography:

1. Familiarizing students with sensitivity (to see, to recognize the beauty of nature from the first days at school), that is, education of ecological culture.
2. The formation students' view on life, their sense of environmental protection, their harmonious communication with environment.

Key Words: educational geography, economic and physical education, aesthetic education, environmental education.

Developing Map Skills through Geography Textbooks: Case Study of Turkey

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Abstract

Developing map skills in high school students can help them as they explore and understand their own neighbourhood and school. On the other hand, one of the best ways to learn the definition of a map is to make your own maps. Map skills is one of the most important geographical skills of geography curricula of Turkey.

In this study, Turkish geography textbooks for high schools are analysed in the context of map skills whether they have student centred activities in order to develop map skills (not map knowledge). The ability to make, understand, and use maps is essential for anyone trying to think about the world around them. Most of the time Turkish students' failure to make and use maps in a meaningful way contributes to the lack of geographic awareness across the country. On the other hand Turkish geography curriculum for high schools is skill-based curriculum and it contains eight geographic skills including map skills. In this research, there geography textbooks for 9. Grade level were analysed and found that the maps failed to promote student learning in order to make maps and use maps. These problems with the textbook maps are examined and suggestions developed for using maps in student developing map skills.

Key Words: map, map skills, geography textbooks, geography education, Turkey



Geography Teachers' Perspective on Educational Leadership

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Abstract

New Perspectives in Educational Leadership examines educational administration and leadership within the complex social, political, and community contexts that inform and influence the work of today's educational leaders. Raising awareness of focus and contribution of geography education for society, asking geographic questions, acquiring geographic information, organizing analyzing geographic information and answering geographic questions skills. Students will draw upon critical thinking skills such as inferring, analyzing, hypothesizing, and predicting in geography teaching. These skills are also leadership indicators. The aim of this study is to evaluate perspective towards leadership of the geography teacher. The scale for leadership and quantitative research methods were used in this study. The scale was applied to a total of 300 geography teachers. Data analysis was performed with SPSS for windows program. The obtained results will be discussed.

Key Words: Teaching geography, Geography Teacher, Educational Leadership.

Orman Yangınlarını Etkileyen Faktörlerin Coğrafi Bilgi Sistemleri Yardımıyla Belirlenmesi

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Özet

Son yıllarda küresel ısınma, iklim değişikliği ve kuraklık olguları ile birlikte artan hava sıcaklıkları havanın nemini ve buna bağlı olarak da yanıcı maddenin nemini azaltarak orman yangınlarını son derece ciddi boyutlara ulaştırmaktadır. Her yıl ülkemizde ve dünyada binlerce hektar orman alanı yanmaktadır. Bu yanan alanlar ekolojik, ekonomik ve sosyokültürel açıdan tahribatlara ve hatta insan ölümlerine neden olmaktadır. İçinde barındırdığı bitki kompozisyonlarının neticesi olarak, Akdeniz tipi ekosistemler orman yangınlarına son derece hassastırlar. Akdeniz iklim kuşağı içinde yer alan ülkemizde özellikle Hatay'dan başlayıp Akdeniz ve Ege sahil bölgelerinden İstanbul'a kadar uzanan kıyı bandı yangın açısından en riskli bölgeyi oluşturmaktadır. Bu nedenle yangın yönetim planlarının hazırlanması ve uygulanması, yangın tehlike riskinin haritalanması, çıkan yangınların izlenmesi, yangına hassas olan alanların belirlenmesi ve önlemler alınması önemli konuların başında gelmektedir.

Bu çalışmada, orman yangınlarını etkileyen faktörlerin (eğim, bakı, ağaç türü, tarım ve yerleşim birimlerine olan uzaklık ve yola uzaklık parametreleri) çıkan yangınlar üzerindeki etkisi araştırılacaktır. Kahramanmaraş Orman Bölge Müdürlüğü çalışma alanı seçilerek çalışma alanında çıkan yangınların konumsal durumları Yangın sicil fişlerinden yararlanılarak tespit edilmiştir. Yanan alanların konumları bölme numarası, meşcere tipi verileri, yükselti, eğim, bakı ve diğer yardımcı veriler ile kontrolü Coğrafi Bilgi Sistemleri (CBS) ortamında gerçekleştirilmiştir. ArcGIS 10 yazılımı ile yangınların konumsal dağılımının yangını etkileyen faktörlere göre değişimi incelenmiştir.

Anahtar Kelimeler: CBS, Kahramanmaraş Orman Bölge Müdürlüğü, Yangın Riski.

Traffic Accidents and Geographical Distribution in Hatay

Sevda etinkaya

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Abstract

One of the biggest problems Turkey faces today is the traffic accidents. Large magnitude of life and property losses caused by accidents reveals the importance of the issue. According to the TUIK data 75% of the traffic accidents in Turkey occur in the residential areas. The escalating numbers in these accidents can be resulted from fast population growth, increased number of privately owned vehicle, and also the mismatch between the quality improvement of roads and increased number of cars on the streets. Antakya ve Defne, creating the central district in the Hatay Municipality, are fast developing districts in terms of settlement and area. This study presents the mapping and the examination of the traffic accidents occurred in this two districts based on different variables. After a through literature review, raw data was obtained from the official reports kept by the Traffic Division in Hatay. The data was categorized and demonstrated in the form of graphs. By mapping the accidents on the Master Development Plan obtained from the Hatay Municipality, the sites and the causes of the accidents are tried to be determined. Solution suggestions were made by identifying the black spots where the accidents happen.

Key Words: Hatay, traffic accidents, geographical distribution, black spots.

Reviewing the Average Temperature and Rainfall Data in Terms of Climate Change in the Last 60 Years: A Case Study in the Mediterranean Coast of Turkey

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Abstract

Discussions on climate changes have been increasing over the last 50 years. This study analyzes the climate changes of four cities on the Mediterranean coast of Turkey, which are Antalya, Mersin, Adana and Hatay. This study employs the descriptive survey model. This method studies and interprets the status of a certain phenomenon. For the purposes of the present study, the data have been obtained from the General Directorate of Meteorology and then subjected to interpretative analysis. In Turkey, the data obtained via meteorological observation have been recorded regularly since 1960. So, the data of the last 55 years have been studied and interpreted. The main focus has been on the temperature and rainfall figures for each city. This process has been conducted in two nearly 30-year periods. The temperature and rainfall averages of the first term of and those of the second term have been compared. The necessary statistics and graphs required for this study have been prepared, and the Mediterranean coast cities have been found out to have become warmer and drier in the last 60 years in terms of climate changes.

Key Words: Temperature, precipitation, climate change, drought, Mediterranean coast

Merkezi ve Yerel Yönetim Uygulamalarının Kayapınar'ın Yaşanabilirliğine Etkisi

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Özet

Yaşamaya elverişli, yaşamaya değer, yaşamının mümkün olan ya da modern standartlarda yaşamak için insanların ihtiyaçlarına cevap verebilme olarak tanımlanan yaşanabilirlik kavramı, 20. yüzyılın ikinci yarısından sonra coğrafya, kent sosyolojisi, kent planlaması gibi bilimlerin araştırma konusu olmuştur. Söz konusu bilimlerin araştırmalarının temel çıkış nedeni yerleşimlere özellikle kentlere yapılan kamu veya halk müdahalelerinin orada yaşayanların ihtiyaçlarına daha uygun bir şekilde cevap vermesine uygun hale getirilmesidir.

Günümüzde dünya nüfusunun kentlerde yaşayan kısmı kırdan yaşayan kısmından fazla olduğu, kentli nüfus sayısı ve oranı her geçen yıl artmaya devam ettiğinden dolayı 21.yy'ın egemen uygarlıkları kentli uygarlığı (kent uygarlığı) olarak tanımlanabilir. Kent uygarlığı, iletişim teknolojilerini etkin bir şekilde kullanarak genelde kültürleri özelde yaşam biçimlerini benzeştirerek yaşanabilirliği veya yaşam kalitesini etkilemektedir.

2000'li yılların başında çok hızlı ancak planlı bir şekilde gelişen Diyarbakır'ın Kayapınar merkez ilçesi, yeni merkezi iş sahası, eğlence ve dinlenme mekânlarıyla yaşanabilirliği yükselten çoğu oyun parklara, havuzlara sahip olan geniş bahçeli site yerleşme dokusuna sahip olması gibi özellikleriyle dikkat çeken yaşanabilirlik derecesi yüksek bir yerleşmedir. İmar planı ve ilgili merkezi yönetim tarafından yönetilen ilgili kamu kuruluşlarının plan ve politikaları Kaya pınar'ın yukarıda belirtilen özellikleri kazanmasında etkili olmuştur. Bu nedenle yerel ve merkezi yönetimin araştırma alanının yaşanabilirliğe olan etkisinin ortaya çıkarılma gerekliliği bu çalışmayı yapmamızın temel nedenidir.

Araştırmaya nicel araştırma yöntemlerinden olan anket yöntemi uygulanarak başlanılmıştır. Ancak araştırmayı derinleştirmek için nitel araştırma yönteminden de yararlanmıştır. Araştırma sonucunda Kayapınar'ın yaşamaya elverişli morfolojiye sahip olduğunu kabul edenlerin oranı %75 olarak tespit edilirken, belediye hizmetlerinden memnuniyet oranı % 55 olmuştur. Diyarbakır'ın diğer merkez ilçelerindeki sosyal ve ekonomik olayların Kayapınar'ın yaşanabilirliğine zarar vermektedir diyenlerin oranı %65 dir.

Anahtar Kelimeler: Kayapınar, Yaşanabilirlik, Kent, Merkezi Yönetim, Yerel Yönetim.

Impact of Environmental Education on the Environmental Attitude of at Undergraduate Students

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Abstract

Many methods were developed to minimize the environmental problems arising from the people's use of the environment at their will and by thinking that the natural resources are unlimited. However, it is highlighted that environmental education is important along with individual knowledge level and individual responsibilities. Besides other institutions, universities should also take an important role in environmental education by adding required or elective courses to their curriculum. Through these courses, it is intended to improve the environmental attitude of students. This study aims to determine the impact of courses on environment during or before undergraduate education on students by using the example of Hatay Mustafa Kemal University. Within this scope, a standard survey, which was prepared using 5-point Likert scale, was conducted on 400 students selected randomly among the senior class students in 10 departments with and without environment courses in 2015. Data obtained was statistically evaluated; the relation between attending to environment courses and environmental attitude parameters was compared. As a result, it was determined that 32% of the students took environment courses before graduate education, 55% during graduate education and 17.5% took environmental trainings outside the curriculum. In the study, it was presented that more parameters were statistically different in cases which attended to classes on environment during graduate education. According to this, the environmental attitude of the student improves with graduate education. However, when all parameters are considered, the improvement in environmental attitude is not sufficient. Within this scope, it is considered that the contribution of other organizations and media institutions besides the universities will be effective in improving the environmental attitude.

Key Words: Environmental attitude, environmental education, Bachelor's degree, Mustafa Kemal University.

The Views of Teachers and Students on YGS and LYS Courses and Geography Lessons in the Secondary Schools

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Abstract

Since the beginning of the transformative process last year, important changes have been made in the national education system yet again. A new law titled as “Law Regarding Making Changes in The Basic Law of National Education and in Some Statutory Decrees,” mandating the transformation of cram schools into private schools education law, was published in the official gazette on March 14, 2014. When the law was issued on 14 March 2014, the number of cram schools was 3,530, but almost 700 cram schools have had to shut down in the transformation process. Along with some private teaching courses, 2,536 cram schools have so far applied to participate in this transformation program. Some of the educational enterprises that applied for the transformation program have now withdrawn from the program. 2,191 cram schools are still in the program. Only 283 cram schools did not apply to participate in the transformation program. Of the 1,463 institutions which opened as transformation schools, 1,221 institutions are basic high schools, 12 are pre-schools, 15 are elementary schools, 210 are secondary schools, and 5 are Anatolian high schools. The cram schools have either become basic high schools or other types of transformation schools by participating in the program or have committed to close. As a result, hundreds of institutions have either been closed or changed. In the meantime, the issue of preparation for the university entrance examination has remained on the agenda as an important question, which in this case has become the responsibility of the secondary education institutions. The hourly fees to be paid to the teachers who teach in LGS and LYS courses have also been raised. But the curriculum of these institutions’ being different from that of the cram school programs raises some questions. In this study is aimed to make an assessment of the current situation on the basis of the data from teacher and student interviews regarding the aforementioned educational process of transformation. The data collection was carried out by using the content analysis method. The participants were randomly selected from teachers and students at schools in Düzce. The interviews indicate that the courses had a late start, and thus there are deep concerns about the due completion of the units and course attendance is steadily dropping week by week as well.

Key Words: YGS Course, LYS Course, Teacher, Student.

The Using of Documentary Films in the Environmental Education

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Abstract

In spite of the favourable educational value of nature documentary films, the effects of such films to environmental education are almost unknown. In this study, we explained the role of nature documentary films to the environmental sensitivity of students when the films are simply introduced to the class. We believe that using advocacy documentary films in an educational setting not only demonstrates the social relevance of science but also provides an opportunity to impart critical thinking skills to students.

In this context, the research has been done with aim to learn effects of nature documentary films on classroom teacher candidates in the environmental education. This research continued three weeks. In this time, the teacher candidates watched some documentary films at home and faculty. The fourth weeks are asked to students 5 open ended questions. This research was realized with 120 students, Recep Tayyip Erdogan University, Education faculty, at the classroom teaching department in 2014-2015 Academic Year. The research analysed with qualitative research.

The finding of this study showed that the nature documentary films have an important place in the environmental education. The teacher candidates think that the environmental values are necessary to protect natural living life in a sustainable future. For this reason, these films have provided with the teacher candidates the necessary information regarding the nature life.

Key Words: Documentary films, environmental education, teacher candidates, nature life.

The Place of Economy Course in Geography Departments in Turkey and Economic Literacy of Preservice Geography Teachers

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Abstract

In a living arrangement where it is tried to meet unlimited human needs with limited resources, economic literacy is fairly important. Economic literacy, which can also be described as the ability to interpret and manage economic developments and implications of these developments, is one of the most needed literacy fields. Therefore, it is very important that all individuals, especially teachers and prospective teachers are well-equipped and guiding in this regard. In short, geography studies the interaction between man and the nature, and teachers of this science must be more responsive and effective in this area. Our study has two main purposes. First, it aims at determining whether or not economy course is offered in departments of geography education. As the second purpose, we aim at analyzing economic literacy levels of prospective geography teachers against certain variables as they are going to be educators of the future. In the study, two different research methods were used: document analysis under qualitative research models and descriptive survey as a quantitative research model. Study group consists of 159 students from geography teaching department in two universities (Karadeniz Technical University and Marmara University). Study data were collected with two different tools. One of them was the list of undergraduate courses on the participant universities' web pages. As the other data collection tool, a scale consisting of 34 items under 4 dimensions developed to measure economic literacy levels of prospective teachers was used (Gerek and Kurt, 2011). The quantitative data were analyzed by t-test and ANOVA using SPSS 16 package program. Data analysis showed that the undergraduate programs in question include courses such as economic geography, general economic geography and Turkish economic geography. However, there is not a course as economy. Still, it was seen that average economic literacy of the prospective teachers is relatively high (3.5). According to the analysis of the data under the sub-dimensions, the participants obtained an average point of 3.1 from knowledge of economy, 3.7 from economic rationalism, 3.9 from social economic implications, and 3.8 in individual economic planning. From the perspective of gender, significant difference was found among males under the sub-dimension of knowledge of economy. As for the economic rationalism sub-dimension, there was difference between graduates of regular high schools and Anatolian high schools and other types of high schools (health high school, social sciences high school, etc.). The difference was positive for the latter group. Under sub-dimensions of social economic implications and individual economic planning, difference was found in favour of the 3rd graders compared to the 4th graders. Apart from that, there was difference between the 4th and 5th graders in relation with economic rationalism. The difference was found in favour of the 5th graders.

Key Words: Prospective geography teachers, economic literacy, economy course.

Open Source Geographic Information Science: A New Paradigma

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Abstract

New developments information technology lead to easier access of data, models and software, where these are accessible for lower costs to public, even for development. Such initiatives pave the way of freedom in today's digital age. With this respect, the open-source operating systems, software, products, processes and results, which have been developed for twenty years, attracts a considerable attention of researchers. This new era, having a strong influence on many sectors, have its impacts in Geographic Information Science sector, where the high costs for data acquisition and software has the major driving force behind it. Open source spatial software is widely used and discussed in international scientific platforms, where such discussions are missing in Turkey. Within this study, available open source software are examined and compared based on the discussion in the literature. Possible application areas, usage, advantages and disadvantages are going to be explored.

Key Words: Open Source, GIS, A New Paradigma.

Geostatistics for Environmental Assessment: Where?, When? and How to Apply?

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Abstract

In order to analyze spatially referenced data, a specific branch of statistics, namely geostatistics, provides mature set of tools, where such tools are applied in various inter-disciplinary projects without gaining insight of such techniques. With respect to environmental assessment, a common application is mapping environmental exposures such as air pollution based data from a set of monitoring stations, impacts of sea level rise on coastal zones and risk assessment within integrated watershed management. Due to nature of spatial data involved into such analyses being point, line and area, different techniques could be applied, where results varies sharply. Within this study, the concepts of spatial dependence, variograms, and kriging will be covered in applications of environmental exposure mapping, where lessons learned from previous projects are going to be discussed. The best available geostatistical techniques for selected issues will be proposed.

Key Words: Geoistatistics, environmental assessment, tools, projects.

GIS Education and Research in Turkey

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Abstract

This study basically describes the current status of GIS education and research in Turkey. GIS based education and researches were examined and some statistical results and some of the GIS related activities were discussed. Beside the history, the growth and development of GIS education in Turkey will be presented. Especially at the universities which supply GIS education apart from the Geography department will be analyzed. In this study obstacle in front of the GIS education will also be addressed.

Unlike Turkey, GIS became an integral part of geography departments in most universities in the USA, Canada and some European countries. Some of them offers degrees in GIS at the undergraduate, masters and doctoral level. At the same time that the use of GIS at institutions of higher education was becoming widespread. In Turkey, mostly Geomatics department of the universities has been leading GIS education in both graduate and undergraduate level. In this study, courses given in different programs in the undergraduate and graduate level are discussed. The distribution and rate of the GIS based courses are also considered in the graduate programs which accepted students from different disciplines. The chronology of MSc and PhD thesis which contain GIS related term such as GIS, Information Systems, Spatial Analysis and Land Information System in title are examined and discipline based distribution will be discussed. According to the Thesis data base of Council of Higher Education, number of PhD thesis is 69 and MSc thesis is 305 which contain GIS as term in their title. Distribution of these thesis according to universities and disciplines are also discussed in the study.

Also, nation based GIS conferences and meetings will shortly be discussed and future events will be addressed. According to Web of Science data base, number of GIS based studies which address to Turkey is 1037 comparing to whole countries of 57512 which is around 2% and it might be considered as an important rate. For the research section of the study, innovations centers, GIS research centers and GIS laboratories of some universities and institutions will be shortly discussed. At the last part of the study, GIS related projects will be described. These projects will be grouped according to supporters such as TUBITAK and European Union. According to database of TUBITAK, only 30 project which contain GIS term at the title were carried out up to now. Time schedule and budget of these project will be statistically analyzed.

Key Words: GIS education, GIS research, GIS projects, national GIS conferences.

Environmental Quality Analysis of The Urban Ecology of Kuala Lumpur City, Malaysia

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Abstract

This paper discusses the state of Urban Ecology for the Federal Territory of Kuala Lumpur City, Malaysia. Urban Ecology is an emerging field of study that examines the structure and content of urban ecosystems in a City or Urban area. The state of Urban Ecosystems describes the Environmental Health or Environmental Quality of a City or an Urban Area. The structure of an urban ecosystem can be defined as the combined representation of the diverse landuse types that defines a City or an Urban Area. General Landuse mapping studies classify and map what are the landuse types that dominate a unit area of land. This is considered a static approach and centres on what is where in space. However in the present study a functional approach is adopted where landuse types are associated with their role on determining the state or quality of the immediate environment. In the present study the state of the immediate environment are examined at two levels of complexity – a lower level where the environment is divided into the 4 main subsystems of Air, Water, Land and Ecology, and a higher level which examines the environment as a Unit System comprising of the 4 main subsystems. The Landuse Categories are reclassified so as to exhibit a Functional character. 6 Major Functional categories were identified. The categories are (1) Mixed Tree Vegetation, (2) Mixed Shrub Vegetation, (3) Agriculture Vegetation, (4) Water Bodies, (5) Exposed Bare Areas and (6) Built – Up Areas. Each Landuse Category is examined in terms of its influence on the Quality of each Subsystems of the Environmental Complex. The Study Area chosen was the Federal Territory of Kuala Lumpur. A total of 280, 1 km X 1 km cells were identified for the Federal Territory of Kuala Lumpur. The acreage for each Landuse categories of each cell was measured using an instrument called planimeter or area measurer on 2008 landuse maps of the FTKL. The landuse category and acreage were then validated using Google Images and cross checked in the field. Landuse acreage was measured in km². Each landuse category was critically evaluated in terms of its influence on environmental quality. A scale index of 0 to 10 was determined to describe the state of environmental quality and its relationship to the landuse category. 0 describe the non-present of the landuse category in the cell, 1 to 2 very low, 3 to 4 low, 5 to 6 moderate, 7 to 8 high and 9 to 10 very high. However, based on past studies it is well understood that landuse categories that describe some form of vegetation dominance and also water bodies the environmental quality is positive whereas for built-up areas and open bare areas the state of the environment quality is negative. A factor score was determined for each landuse category. The factor score is highest if the landuse category influences



environmental quality many folds. The factor score times the scale index of a landuse category will yield the weighted environmental quality index of the landuse category. The cumulative weighted environmental quality index for each cell is a summation of all the weighted environmental quality index of all the landuse categories of that cell. A weighted environmental quality index map was then derived. The final product of the study is an Environmental Quality Index Map of Urban Ecology for Kuala Lumpur City, Malaysia.

Key Words: Functional urban ecology, landuse categories, grid-cells, environmental quality index, environmental quality index map.

Time – Space Analysis of Hydro-Meteorological Parameters of Three Major River Basins in Malaysia

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Abstract

This paper is a discussion on the climate change effects on hydro-meteorological behavioral patterns of three major river basins in Malaysia. These river basins are the Klang River Basin (KRB) which is highly developed basin, The Perak River Basin (PRB) which is an intermediate level of development basin and the Kelantan River Basin (KeRB) which is low development basin. It discusses the results of temporal and spatial analyses using time-series and trend surface techniques on the hydro-meteorological parameters of the three basins. The major objectives of the study is to investigate trend changes of hydro-meteorological parameters of temperature, rainfall and stream flow and examine changes in the spatial patterns of the distribution of the parameters and how this conforms to regional and global climate change models. Temperature and rainfall records were derived from Department of Meteorology Malaysia stations located within the Kelantan River Basin. Temperature and rainfall records were analysed for the period 1951 to 2007. Temperature and rainfall records were also derived from stations operated by the Department of Drainage and Irrigation Malaysia to further enforced the temperature and rainfall records of the Department of Meteorology. The latter temperature and rainfall records were for the period 1935 to 2007. In addition to temperature and rainfall data, stream flow records were also available from the Department of Drainage and Irrigation stations. The time series and trend surface analysis performed was based on monthly data for the period mentioned. Hydro-meteorological regions and its temporal and spatial trends and patterns were distinguished from the study. The mapping units used were at the mukim and district level of spatial resolution. Identification of these hydro-meteorological regions thus describes the potential risk regions to climate change induced stresses within and between the three basins studied.

Key Words; River basin, temperature, rainfall, trend analysis, spatial analysis.

Landscape Visual Connections of Slovakia

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Abstract

Potential of landscape visual exposure represents potential of each relief surface point to appear visually dominant in comparison with the other points of terrain surface. Potential of visual landscape exposure is determining factor of landscape planning and assessment activities to visual-aesthetic impact on landscape and landscape visual quality. The usually used GIS software does not offer complex solutions in the evaluation of landscape visual quality process. The main attribute of this process is landscape potential of visual exposure. The paper is focused on the software tool that is being used for the needs of potential visual landscape exposure determination supported by geographical information systems. Geographical information systems application is the important part of ecological and landscape planning. It is the part of the education process in the field of landscape planning. The model testing has been realized for the whole Slovak republic.

Key Words: landscape, potential of visual exposure, Slovakia, visual exposure.

The Study of the Modern Geodynamical Processes of Caucasian Region

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Abstract

The morpho-structures of different rank, type and age, morpho-sculptures and the correlative deposits are the result of the permanent interaction of the international global (cosmic, rotational and exogenous) forces. The cosmogeodesic measurements are shown that against a background the Earth surface pressing and expansion exist geodynamical variations with 10-20-30-40- as-years duration, but morpho-structural analysis of the relief - horizontal, vertical plicated and explosive-block transferences with interval of million years. The vertical (positive, negative) motions reproduce from the horizontal. Hence, by the second can be made the judgment about the nature of the first.

In our opinion, the focusing of the directions all of this forces with direction of the pressing forces and expansion forces of Earth surface in geomorphological form reveals in the transgression and regression processes of the Black Sea and the Caspian Sea basins (excavation of the sea and river terraces, the relief leveling, the correlative deposits forming). The momentary geodynamical variations can influence on the exodynamical processes behavior. From above mentioned it follows that the geomorphological analysis of the relief, which is isolated from the geodynamical processes cannot be methodologically true.

Key Words: Georgia, Geomorphology, Tectonics, Geodynamic.

The Impacts of Stream Valleys on Vegetation in Cyprus: Case Study of Karkot Stream and Kamara Stream

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Abstract

Streams in Cyprus embody different climates from their surroundings due to their slopes on different directions, height differences between the streambed and slopes, air stream within a valley, temperature differences caused by sunshine durations depending on sunrise and sunset locations. Distinction in the geomorphological pattern of valleys and associated climate allowed the formation of various plant communities. While the microclimates formed within valleys assure the survival of some different plant species apart from the general vegetation cover, they also cause different physiological development of some plants. Generally, valleys in Cyprus have positive impacts on vegetation. Primarily due to their characteristics to form lower areas, they have mainly a positive impact through their holding humid weather and allow humid winds towards the interior.

Valleys also have a major role in the protection of former natural vegetation of Cyprus. Nowadays, with the impact of global warming, the island with higher temperatures as well as aridification, encounters with the changes in climate and natural vegetation and even some plant species disappear. The valleys of Cyprus may become a place to survive and live for such plants while they may cause significant development and growth in size of some plants. Cedars (*Cedrus libani brevifolia*) in Cedar valley, Troodos, hazelnuts (*Corryllus avellana*) in Bitsilya valley, gray elms (*Ulmus canescens*) and oriental planes (*Platanus orientalis*) in Karkot stream and Kamara stream have survived due to the microclimatic conditions of valleys. Therefore, the valleys located both in Troodos and north foothills of the Kyrenia Mountains shed light to the times with more humidity and are the evidence for the future significance of the impacts of valleys on diversification through their vegetation geography.

Key Words: Cyprus, vegetation, stream valley, Karkot Stream, Kamara Stream

Estimating Economic Values of Wood Production and Carbon Storage: A Case Study from Turkey

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Abstract

Forest ecosystems supply multiple goods and services such as wood production maintain biodiversity, soil conservation, and carbon storage and oxygen production. Traditionally, forest manager tend to have a high interest maximum wood production and aims to increase timber production. In order to develop and implement strategies with respect to with respect to ecosystem based multiple use forest planning approach, it is important to evaluate different forest ecosystem goods and services. Management objectives might emphasize economic interests to wood production. Very few investigations have been carried out to evaluate and compared to economic values of wood production and carbon storage.

In this study, case study area was evaluated as both economic values of wood production and carbon storage with respect to ecosystem based multiple use forest planning approach. The ability to accurately and precisely measure the carbon sequestration in forest ecosystem is increasingly gaining global importance. Forest inventory data are the most practical and best approaches for estimating carbon storage. First of all, the carbon storage of forest ecosystem in the case study area, southeast part of Turkey, have been estimated using the biomass expansion factor method based on field measurements of forests plots with forest inventory data. Economic values of total carbon storage were calculated. Second, planning unit was evaluated as wood production with respect to economic value. For this purposes, growing stock of forest planning unit was calculated and estimated income of growing stock, all expenses. Economic values of both carbon storage and wood production were compared.

Key Words: carbon storage, ecosystem based multiple use forest planning, forest value, wood production.

Capability of Cellular Automata-Markov Model in Land Use/Cover Change: A Case Study of Turkey

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Abstract

Land use/cover change (LUCC) is significant topic affecting forest ecosystem such as soil, biodiversity and climate. Therefore, LUCC, prediction of future land use as well as their cause and effect relation have received great attention from scientists and decision makers. LUCC models comprise a wide variety of methodological approaches such as static, dynamic, spatial and non-spatial. Markov chain and cellular automata (CA) model are a convenient tool for modeling land use change and spatially predict transition possibilities of land use categories a certain period of time.

Geographical Information Systems (GIS) and Remote Sensing (RS) are fundamental technologies for applications in forest ecosystem. LUCC based on multi-temporal and multi-spectral remotely sensed data have great capability for understanding ecosystem dynamics such as detect and monitor LUCC. A combination of RS and GIS has been utilized effectively both for the Markov chain and cellular automata (CA) model.

The aim of this study was to investigate the capability of Markov chain and CA model to better understanding the dynamics of forest ecosystem using GIS and RS for case study area in Mediterranean region of Turkey. Landsat Enhanced Thematic Mapper (ETM+) images from 1992, 2002 and 2012 with 30 m resolution were used to produce historical land use maps. Image processing and classification were carried out using ERDAS Imagine program. We used supervised maximum likelihood classification method for the classification of all the images. Markov cellular automata methods (CA-Markov) in IDRISI program were used for characterizing trends. With Markov chain analysis, transition matrix was calculated based on 1991 and 2002 land use map and then predicted 2012 land use map using transition matrices. Predicted land use map and real land use map for 2012 were compared using accuracy value.

Key Words: Cellular automata-markov chain, Landsat, Land use/cover change

Approach to Preservation - Utilization to İğneada Longos Forests: Biosphere Reserves

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Abstract

Biosphere reserves are part of an international program implemented by the United Nations Educational, Scientific and Cultural Organization since 1970 for conservation of biological diversity and sustainable land management using a participatory approach. The main objective of the program is sustainable resource management approach enabled participants

The conservation of biological diversity, training, monitoring, information and sharing of experiences on a global scale are key elements of this program. Biosphere Reserves, held in the area of biological resources are today one of the major problems facing the world and diversity in order to answer the question of how sustainable use can be achieved by peaceful means. A functional biosphere reserve, natural and social scientists, conservation and development groups, management authorities, involves local communities and require the cooperation of the parties in this mosaic. Biosphere reserves approach, discussed in 1974, UNESCO's Man and the Biosphere Programme Biosphere Reserves Working Network was formed in 1976. There are 651 biosphere reserves in 120 countries all over the world in 2015. Turkey's first and only biosphere reserve in Artvin-Camilleri joined the network in 2005.

İğneada, have in the different ecosystems that on a national scale as well as international scale is a rare and important is our diverse natural received. İğneada Longos Forest and its vicinity has five different ecosystems. These ecosystems, coastal-dune ecosystem, reeds and marshes, wetland ecosystem, longos forest ecosystems and other deciduous forest trees. Each of these has a different ecosystem biodiversity and natural value, but they are completely interdependent ecosystem. Located in the area independently, but the same character has three longos forest.

They are about the size of 3000 ha. In our country, this combination provides the best İğneada longos forest, taking the national park was declared protected in 2007.

This scope of work, natural resources and biodiversity, the most important protection tool biosphere reserves will be held as part of the consideration the importance of planning and İğneada Longos forests.

Key Words: İğneada, Nature Protection, Biosphere Reserves, Preservation-Utilization

Coğrafi Boyutlar Perspektifinde Yeni Yönetim Düzeyleri: Yerelden Küresele Çok Katmanlı Yönetişim

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Özet

Bildiri, coğrafi boyutlar perspektifinde yeni yönetim düzeylerinin oluşumunu çok katmanlı yönetim yaklaşımı ile ele almaktadır. Bu bağlamda yerelden küresel boyuta kadar yeni yönetim anlayışının temel argümanı olan yönetişimin, coğrafi büyüklük ve ölçeklere göre hangi yönetim düzeylerinden oluştuğu esas mesele olarak incelenmektedir.

Çalışmanın ana çatış, en büyük coğrafi ölçek olan küresel ölçekte yeni yönetim anlayışının biçimlenişini ifade eden küresel yönetişim kavramının açıklanması üzerine kurulmuştur. Bunun için önce küresel yönetişimin kuramsal ve kavramsal çatısı oluşturulmakta, sonra kavramın özellikleri, boyutları, etkilediği sahalara, ilgili ve bağlantılı kavramlar üzerinde durulmaktadır.

Coğrafya ve yönetişim şeklinde iki ana eksene oturan bildiride, küresel yönetişim, sistematik, betimsel, analitik ve kıyaslamalı olarak ele alınmaktadır. Söz konusu kavram yirminci yüzyılın son çeyreğinde ve yirmibirinci yüzyılın ilk yıllarında oldukça öne çıkan, üzerinde sıkça durulan ve küresel olarak yeniden kurgulanan ilişki ve etkileşimleri açıklayan bir anahtar kavram konumunda değerlendirilmektedir.

Bu düşünceden yola çıkan bildiride ilk olarak konunun planı sunulmakta, ardından, coğrafi ölçekler de dikkate alınarak küresel yönetişimi açmaya ve kavramaya yönelik, şu temel kavramlar irdelenmektedir: Yönetişim, Yerel Yönetişim, Ulusal Yönetişim, Bölgesel Yönetişim, Küresel Yönetişim, Yeni Dünya Düzeni, Küreselleşme, Küresel Hükümet, Küresel Kamu Politikası, Dünya Yönetişimi, Küresel Zayıflıklar, Küresel Matriks, Küresel Triloji, Yeni Kamu İşletmeciliği, Kamu Yönetişim. Burada ifade edilen temel kavramsal betimlemelerden sonra çalışmada elde edilen analizlerin ışığında bir senteze varılmakta, konu son tahlilde tartışılarak somut bir sonuca ulaşılmaktadır. Nihayetinde küresel yönetişime dair kavrayış ve tavır belirlemeye yönelik öneriler getirilmektedir.

Anahtar Kelimeler: Coğrafi Boyutlar, Yeni Yönetim Düzeyleri, Çok Katmanlı Yönetişim, Yerel Yönetişim, Ulusal Yönetişim, Küresel Yönetişim, Küreselleşme.

Türkiye Tarım Topraklarının Sürdürülebilir Kullanımında Dikkat Edilmesi Gereken Bir Konu: Gübreleme

Nuran Taşlıgil, Güven Şahin

İstanbul Üniversitesi Sosyal Bilimler Enstitüsü

Özet

Hangi tarım uygulaması söz konusu olursa olsun gübreleme zirai hayatın olmazsa olmazı haline gelmiş bir konudur. Günümüzde makineleşmeden sonra tarımsal girdiler içerisinde ikinci sırayı alan gübreleme, bitkisel üretim artışında en önemli kalemi teşkil etmektedir. Fakat Türkiye’de kimyasal gübrelerin kullanılmaya başlandığı günden beri ne yazık ki bu anlamda istenen verim artışı bir türlü yakalanamamıştır. Nitekim hatalı gübre kullanımı sonucu zirai hayatta beklenen yarardan ziyade zararlar ortaya çıkmıştır. Söz konusu zararlar ise maddi olduğu kadar ekolojik ve sosyolojik açıdan da tahripkar olmuştur. Bu çalışmada tarımsal toprak kaynaklarımızın durumu ve gübreleme ile yaşanan sorunlar ele alınarak ziraat coğrafyası odağında çözüm önerileri ileri sürülmüştür.

Anahtar Kelimeler: Sürdürülebilir Kalkınma, Gübreleme, Tarım, Toprak

Social and Spatial Effects of Urban Transformation Projects: A Case Study in Esenler, Istanbul

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Abstract

Istanbul has intensely allowed immigrants since 1950s. Therefore, unlicensed constructions and new shantytowns have emerged during the period. The 1999 Gölcük earthquake which was killed above 17,000 people, revealed a need of contemporary urban planning understanding. In 2012, The Law No. 6306 on the Transformation of Areas under Disaster Risk accelerated the urban transformation. In Istanbul's Esenler District, five neighborhoods have urban transformation projects, and this law showed as a basic foundation in four of them. In this study, it was examined urban transformations which are applying in Çifte Havuzlar, Havaalanı and Turgut Reis neighborhoods in Esenler. Social and spatial changes caused or will be cause by urban transformations in the neighborhoods was interpreted with a geographic perspective by doing field studies and collecting data from the neighborhoods.

Key Words: Urban Transformation, Esenler District, Çifte Havuzlar Neighborhood, Havaalanı Neighborhood, Turgut Reis Neighborhood.

General Characteristics of Rural Residential Architecture in Turkey

Veysel Kuşçu

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Abstract

The aim of this study constitutes the architectural features of rural houses in Turkey. Rural housing is one of the important research areas of the settlement geography. As the rural settlement vary from region to region in terms of both the building materials and the shapes and plans, they are in the centre of interest in geography.

Turkey is located in a position where three continents are in the closest location to each other. Different architectural houses are found due to the natural and human environmental conditions.

The rural settlement varies from region to region depending on the physical factors such as climate, geomorphology, geology, vegetation, hydrography and on the human factors such as the financial situation of the person who builds the house; sustainable economic activity and culture.

The development of transport systems and technology and the increase of income levels influence the rural settlement architecture significantly. The number of houses that are away from reflecting the characteristics of their environment and are completely similar to the urban housing is increasing day by day.

Key Words: Rural architecture, Rural Settlement, Turkey

Social Injustice in the Protected Areas: A Case from Rize Province

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Abstract

Protected areas have been mostly bordered in order to keep the vulnerable areas from the worse effect of the people's over-use as well as the potential negative effect of the sub-urban life. In fact, the local people who are closely interacted with the environment build a life on the socio-ecological manner, being the real owner of the natural areas ('time to time leading to the conservation movements'). Yet, with the negative effect of marketing strategies driven by Capitalist system in the way that the national authority is sharpening its investment policy, they might lost some of their cultural heritages as well as having to blurring their protective sprit on the environment in the meantime. Nevertheless, it is not necessarily true that this happens in the easy process. This is principally because while the physical environment limits the life of people, it also provides opportunity to protect nature from the worsen effect of human activities. In this sense, the protected areas in Rize and the local groups living within the places might be the representative cases for this situation.

Given that this study focuses two points. The first vital one is the resistance of local groups against the change and the social justice-oriented problems facing the locals which are driven by the policy of local/national authority. The second one is the alternative tourism type -Ecotourism which is naturally benefited from the local culture and the beauty of the nature. In order these issues to be enlightened, the preliminary findings of fieldwork held in the Kackar Mountains National Park over the 2015 summer session are presented. Those of which, it has been seen that the local people and their culture have been affected by the political conflicts in the region in the past. There is also the fact that the locals have been possibly been affected by the politic challenges and changes particularly after the end of Cold War which was dominated by the collapse of USSR in the region. It might therefore be expected to see the effect political changes on the locals with the cases of immigration, injustice and cultural erosion.

Key Words: Ecotourism, Protected Areas, Social Justice, Rize.

Assessing the Suitability of Three Binary Change Detection Algorithms in a Coal Mine Area

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Abstract

One of the ultimate aims of remote sensing (RS) is to produce timely and accurate land-cover/land-use change (LCLUC) maps in order to reveal and monitor the changes on the earth's surface due to the interactions between human and environment. Such interactions are often encountered due to deforestation, agricultural applications, urbanization, and mining operations. There are two basic approaches for change detection. The first one is post-classification comparison approach, which is also known as delta classification, and it is based on the complete classification of individual imageries and direct comparison of the classification results. The second approach includes the transformation of original multi-date images into single- or multi-band images, and requires application of certain thresholds to produce the final change detection product. This kind of LCLUC mapping is named as enhancement or pre-classification approach. Unlike post-classification comparison methods, LCLUC maps obtained via pre-classification techniques only give binary information as in change/no-change format, yet they are easier in point of implementation since they do not require intensive labeling of classification results. The aim of this study is to investigate the performance and suitability of three pre-classification LCLUC detection methods, namely, i) image differencing, ii) image regression and iii) tasseled-cap transformation, in a coal mine area. For this purpose, two Landsat 7 ETM+ images taken on 2004 and 2013 covering the Tunçbilek coal mine area in Kütahya, Turkey. After the image pre-processing stage, change images are generated by applying the above mentioned three methods. For optimal threshold selection and accuracy assessment overall accuracy via confusion matrices and the kappa statistics are used. The results obtained by each method for Landsat 7 bands 1-5 and 7 are represented.

Key Words: Change Detection, Remote Sensing, Image Differencing, Image Regression, Tasseled-Cap Transformation

Functional Transformation of Settlements in Presheva Valley

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Abstract

The aim of this paper is to analyze the process of functional transformation of settlements in Presheva Valley, which, in this case, is made under the influence of urban settlements of Presheva, Bujanoci and Medvegja. Functional spatial impacts in the vicinity of urban centers and wider is seen by social, economic, functional and demographic transformation of settlements around them. In these urban centers are concentrated economic and noneconomic functions, so their functional capacity appears as a factor which influences and promote development of settlements around them. Indicators which determine the level and trends of functional transformation of the settlements in the Presheva Valley are the changes of the structure of the active population according to their activities. This changes enables us to classify certain functional types and thus to determine the factors under which are made this transformations. For the purposes of our research, we have compare data's on the structure of the active population by activities for the period 1971 and 2002. From analyses made through statistical and mapping methods, we have found very slow transformation of settlements in the region.

Key Words: Presheva Valley, Settlements, Population, Transformation, Functions.

Differentiation of Demographic Development of Major Cities of Central Europe

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Abstract

Central Europe is a region which in last two centuries has undergone political and economic changes. They were mostly visible after World Wars and during the transition period in the 90s of the twentieth century. Simultaneously, the process of globalization began which was accelerated by the European integration. One of the changes taking place in Europe is the urbanization process associated with changing economy and demography. The increase in large urban centres had its origin in the development of industry and services. Today, large cities are responsible for technological and scientific progress. Processes of urbanization are measured by the increase in urban population run variously for individual countries and their regions. The research analyzes the diversification of the growth of main cities based on population selection of Austria, Czech Republic, Slovakia and Hungary. By means of statistical data the authors defined trends of population and made typology of cities. The research attempts to answer what factors influenced the dynamics of change of city size in the long term analysis. The study was based on the data illustrating the change of the population of residents in selected cities in Central Europe. Based on statistical methods the trend of changes in the size of cities was defined. Then, a typology of cities due to the dynamics of their size was defined. The authors investigated the relationship between the size and the location of a city and the changes of its size. In the analysed period a rapid rise in the majority of capital cities was observed, for example Warsaw and Prague. A large differentiation in the dynamics of change in the number of city dwellers occurred in case of the centres with industrial features such as Lodz and the centres which changed their function as a result of political changes, eg. Vienna.

Key Words: Central Europe, city, demography

Spatial Differences in the Financial State of Corporations in Central Europe in Time of Economic Recession

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Abstract

The purpose of the paper is to describe the economic potential of countries in Central Europe, as manifested by the financial performance of the largest companies with corporate headquarters in the region. The paper analyzes the impact of economic crisis on changes in financial performance for corporations headquartered in each studied country. It may be assumed that a large number of corporations present in a given country will generate large amounts of revenue and profit, which is why the paper focuses on average revenue and profit. These measures are also independent of the number of corporations headquartered in each studied country. The data were obtained from reports produced by Deloitte Central Europe in their Top 500 company's line of reports for the period 2008 – 2012. Financial data were then grouped by country of corporate headquarters. Interestingly, Central Europe happens to be a part of the world with corporations largely unaffected by the global economic crisis of 2008.

One positive development is an increase in revenue at most of the largest corporations, but strong regional differences can be observed in the study area. While some countries have experienced solid growth (Latvia, Slovakia, Ukraine, Czech Republic), corporations in some countries have been strongly affected by economic crisis (Estonia, Bulgaria). Research has shown that profits at the largest corporations in Central Europe suffered much more than revenues due to the global economic crisis of 2008. Profits increased in six countries, while declines were noted in eight. Macedonia and Slovenia experienced the largest declines.

The largest economy in the region, as measured by GDP, does not necessarily yield the best financial performance of individual corporations. Despite a large number of corporate headquarters and the largest in the region revenues and profits, Poland's economy does not help individual companies attain top mean performance values. Companies located in smaller economies such as Ukraine, Czech Republic tend to generate higher mean revenues and profits.

Key Words: Central Europe, corporation, economic crisis, headquarters.

An Evaluation of the Development of Historical Geography and the Case of Caria

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Abstract

Taking into consideration the development of societies from past to present throughout the history, two important points offer a remarkable characteristics, which have been mainly proceeded from the inseparable integrity between historical and geographical conditions. Being one of the primary elements in determining the life-style of communities, geographic requirements have left a great influence on the political, social, economic and cultural circumstances of current states. Geographical position has played a major role in the formation and development of civilizations and dominated the territorial sovereignty of powers. Attaching great importance to the studies relating to the historical geography will be effective in solving many problems arising from the geopolitical and geostrategic causes. As seen from these circumstances, history and geography constitute an inseparable whole and emerge as two important processes, which interact with harmony and discord since the inception of the world. Having a clear analysis on the effectiveness of geographical conditions on historical circumstances have become essential in providing continuity for the integrity between history and geography within the scope of the relations between the natural environment and human activities. In this study, the relations between history and geography have been evaluated with regard to methodological perspective by focusing on the historical geography of Caria as one of the Aegean civilizations.

Key Words: Historical Geography, Geography, Western Anatolia, Caria.

Modern Ecological Condition of Balkhash Lake

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Abstract

Kazakhstan applies to category of countries with big deficit of water resources. At the present time water is the object of intensively contaminated and present a real ecological threat. Ecological situation, which has been created in Ile-Balkhash basin is characterizing as a critical with progressing vulnerability of the ecosystem and unstable level of Balkhash Lake, caused by the problems of the water allocation, degradation of the ecosystem and others. Pollution and mineralization of water are rising, bioproductivity is decreasing, water-marsh grounds are degraded, desertification is rising.

Ile-Balkhash basin is one of the biggest lake ecosystem in the world and a unique nature complex. It situated on the border of some geographic zones.

Balkhash Lake by the square is third lake after Caspian sea and drying Aral sea. It is a undrained intracontinental pond of the Earth. It is situated in arid zone of the Central Asia and south-east of Kazakhstan.

Regulation of a drain of the Ile river and of the numerous watercourses of the Zhetysu region, which are supplying by Balkhash lake and using of water for irrigation and industrial water supply greatly changes not only hydrological characteristic of this rivers, but ecological condition of the unique nature of the Ile-Balkhash basin.

In the article the natural-cultural system of the Balkhash Lake basin has been considered. The results of system analysis of the influence of cultural action on ecological situation of the region and recommendations for improving the ecological situation of Lake Balkhash has been leded. Complex solution of the problem is in the development of the measures, which implementation allow to prevent negative effects of the development of cultural action for rational water management, reconstruction of the irrigation system, using of the groundwater and other actions, which implementation allow to prevent negative effects of the development of cultural action.

Key Words: Ecosystem, water management, degradation, protection, rational using.

Kazakhstan in the New Economic Zone of the Silk Road

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Abstract

At the present time it requires special study spatio-temporal nature in Central Asia, Russia and Europe to assess the role of the new economic zone of the Silk Road (NEZSD) in the global economy. Chinese scientists are of the opinion that China is more important than the Great Silk way in past eras. The new economic zone of the Silk Road Project presents for authors is not likely to space and tools of spatial development and management, a kind of natural continuation of China's reform. All this testifies to a sharp increase in the role and status of China in Eurasia aimed at full global leadership in the global economy.

Currently, quantitative and qualitative parameters of the Chinese economy has reached such proportions that its further development beyond the borders of China. The new economic zone of the Silk Road playing is definitely a positive role for the international community, but mainly will serve China's interests if not in the twenty-first, the XXII century. At the same time Kazakhstan is a key country in the Silk Road zone.

Of course, NEZSD project is unique because virtually integrates much of the Eastern Hemisphere on the principles of the formation of a new financial and economic system and has a precedent in recent global economic history. Another thing is how countries - participants but China and Russia are ready to implement this project. It is about the opportunity to defend its own interests in the competition due to the advantages of spatial, technological, scientific and educational development in the emerging system of economic relations of it.

In these circumstances, Kazakhstan needs a new paradigm of the socio - economic development of adequate solutions difficult task of forming the economic belt of the Silk Road. On the basis of such a paradigm should be developed:

- the strategy of socio-economic development with the appropriate mechanism for the transition to a new technological order;
- scheme of spatial development of Kazakhstan with the accentuation of attention on reconfiguration of territories of cities and regions as the basis for the functioning of urban planning of the national economy;
- system population settlement and the formation of urban centers - incubators of innovative technologies and financial centers of the world, sub-regional and regional levels.

Key Words: Economic zone, Silk Road, Eurasia, paradigm.

The Role of Vernacular Architecture in Cultural Landscapes: Case Study from Elmalı, Antalya - Turkey

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Abstract

Human has been constantly shaping the landscape in accordance with their needs during the history. In this respect, landscape and architecture have been highly related; people built architecture for their survival and comfort and architectural elements have been an important part of the landscape in return. Vernacular architecture based on local building traditions and materials in particular are distinct characteristics in remote local cultural landscapes as the reflection of human – nature interaction.

The aim of this study was to analyse the role of vernacular architecture in cultural landscapes in the case of Elmalı Province of Antalya, Turkey. Located on a mountain site of the region, numbers of vernacular elements identified in Elmalı were granaries, water mills, grape molasses, vineyard houses and beehives that involves very much with the environmental, cultural and historical background and practices in the province and coincide with the unique local knowledge. Relationship between vernacular elements and local landscape characteristics was statistically tested. While modifications on vernacular elements such as granaries which are still used today; there were no changes on vineyard houses which are not used any longer. Water mills were overwhelmed by the advantages of electric generators. But, beehives still act as a landmarks in local vernacular landscapes in Elmalı and wider in the region.

Vernacular architecture are not only the elements of the landscape that they set in, but also evidences of cultural and local diversity and distinct products of traditional methods and identity of local people and the land. We hope that outcomes of the study would bring and integrated point of view in cultural geography combining architecture and landscape in the Turkish Mediterranean.

Key Words: Vernacular architecture, cultural landscape, Elmalı, Antalya

Determining Canopy Cover Percentage Using Airborne Lidar and Digital Aerial Photos

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Abstract

Canopy Cover Percentage (CCP) is an important stand attribute, particularly in determination of silvicultural treatments to be practiced in the forests assigned for soil and water conservation functions and management of wildlife habitats. Preparation of canopy cover percentage map for large geographical regions using proper technologies is very important for forest management works. This study aims to estimate CCP using both LiDAR (Light Detection and Ranging) point clouds and automatic classification of digital aerial photos. A forest landscapes having different stands was selected as study site. The study was conducted at thirty plots. Reference canopy cover values were semi-automatically calculated using image segmentation and visual interpretation based on the digital aerial photo. The variables derived from LiDAR point clouds including percentiles, the points below of different altitude thresholds, kurtosis, and skewness were used as explanatory variables. LiDAR-derived canopy cover percentage was modelled using these explanatory variables and a simple regression analysis. Besides, canopy cover percentage was automatically obtained from digital aerial photo using image classification. The stability of LiDAR-based estimations was validated using one-leave-out cross validation test. The best model with highest r^2 value of 0.89 was obtained using the points below four meters as explanatory variables. The relation between the reference CCP and the CCP derived from the classification of aerial photo was weaker than LiDAR models ($r^2=0.60$). The study suggests that CCP can be accurately estimated using high-density airborne LiDAR data.

Key Words: Airborne laser scanning, image segmentation, forest, canopy cover.

How Should the Teaching - Learning Environment of an Effective Geography Lesson Be?

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Abstract

The realization of the objectives of Geography teaching depends on the design of appropriate learning environments. Teachers play an active and prominent role in the design of learning environments. Accordingly, the information regarding which characteristics a learning environment should have in order to be qualified as 'an ideal' may be revealed by only taking opinions of individuals specialized in that field. Within this context, this research study aims to develop and present recommendations for an effective geography lesson, with reference to geography academics' and geography teachers' views on the characteristics effective Geography learning environments should have. In accordance with this purpose, the participants were asked to write and explanatory text in terms of the question "What are the characteristics of an effective Geography lesson?" In this study, phenomenology design was used as a qualitative research method. The working group is composed of a total of 45 Geography teachers working in schools in Gaziantep, Siirt and Diyarbakir provinces and 15 geography academics in the state and private universities in Ankara and Istanbul. The collected data were analyzed in accordance with the content analysis. Recommendations were developed with reference to the findings.

Key Words: Teaching, learning, environment, effective geography.

Determination of Causes for Students' Failure on Map Information: A Case Study

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Abstract

The fact that education achieves its objectives depends on the success of the students, teachers, parents and school administrators, significant inputs in the educational process. Some factors such as motivation, organization, goal setting, self-control, self-efficacy, family circle, personal psychological problems and negative circle of friends have an impact on academic success or failure. The concept of failure, however, is generally regarded as the state of 'students succeeding under their level of development and abilities' and 'their failure to make up this kind of situation'.

This study aims to reveal causes for students' failure on map information in a Geography course. Case study was utilized as a qualitative research method, and the working group, in compliance with purposeful sampling, was constituted by seven students who studied in different high schools in Siirt and have failed map information and their Geography teachers. Interviews lasted for about between 30 and 50 minutes. Data collected were analyzed in accordance with the content analysis.

Key Words: Determination, students' failure, map information.

Geography Teachers' Views Regarding their Ethical Responsibilities

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Abstract

The words 'ethics', 'ethical procedures' and 'professional ethics' constantly occupy more space in our daily lives every passing day. These ethical rules provide with a positive contribution to people's action to be accepted by society on the one hand, and they both allow professions to survive and make it possible to continue favor the society show those professions, on the other hand. Today, the ethical problems encountered in some professions increase day by day or these increasing problems are recognized recently. Teachers should demonstrate ethical conduct of their profession. In this regard, in this research aiming to determine Geography teachers' regarding ethical responsibilities, phenomenology design was used as a qualitative research method. The working group was constituted by 18 Geography teachers working in different high schools in Gaziantep. Data were gathered utilizing a semi-structured interview form including questions 'What is ethics?', 'What are the ethical responsibilities of geography teachers?' and 'Which ethical conducts do you exhibit in order to be a role model for your students?' Data collected in interviews for about 40 minutes were transcribed, confirmed by the interviewees and analyzed in accordance with the descriptive analysis.

Key Words: Geography, teacher, ethics, responsibility.

Impact of the Comenius Project to Our School and Our Students

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Abstract

Three different Comenius Project were studied with various EU countries under my coordination in our high school between 2005 and 2013. These Comenius Projects common language is English and each country participated in teams of students and teachers these exchange projects. Our Comenius project's names are: (1) Society Growing Old? (2) Fun Future-Let's Love Learning (3) The European Cultural Word in Children's Folk and Fairy Tales. The aim of the EU-Comenius project, "School Education" in cooperation with other European countries and to improve the quality of education by providing cultural dialogue is to promote language learning. In addition to this, in particular, in different cultures living, education, arts, sports and language diversity in unity by revealing a common European idea was to demonstrate. These project poster presentations are presented in IGU 2015¹ (in Russia).

Key Words: Education in the European Union, The European Union Education and Youth Programmes, The EU-Comenius Projects, Kadıköy-İntaş High School

The Effects of the Transformation of Turkey's Agriculture Sector Introduced with the Process of Globalization on The Development Process

Hasan Sayılan

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Abstract

In addition to being a key sector in producing necessary nutrients for maintaining community life, the agriculture sector has a strategic position due to its contribution to the economies of the countries. Some protective policies applied till the Second World War in the world economy caused crises and countries were affected negatively from that situation. Accordingly, the GATT (General Agreement on Tariffs and Trade) were signed to abrogate the protective policies which were applied by countries and caused crises. The agriculture sector which has not been included into the agreement was incorporated after the Uruguay tour and the Agriculture deal was signed.

The objective of the study is to examine the effects of the policies introduced with the process of globalization on the agriculture sector from a geographical perspective and to reveal the effects of the transformation in the Turkish agriculture introduced with globalization on the development process. Depending on the outcomes of the study, the researcher suggests that all the global and technologic developments improved the agricultural production and growing crops in Turkey. The foreign exchange earnings earned by commodity export in the period of slow industrial improvement set up a substructure for industry and there has been an ongoing improvement thenceforth. The needed employment for industry was met by the agriculture sector. Additionally, the agriculture sector demanded the manufactured product and these sectors which supported each other helped the economical development. However, the change in globalizing foreign trade made Turkey an agricultural product and input importer. For that reason, Turkey must follow policies which increase its competitiveness against other marketplaces and contribute to its transformation into an exporter rather than an importer country.

Key Words: Turkey, Agriculture, Agriculture Agreement, Foreign Trade, Sustainable Development

Geographical Characteristics of Rural Settlements in Plain Dorutay and Immediate Surroundings

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Abstract

Plain Dorutay takes place managerial area of Özalp district of Van. Research area (except for Bakışık village of Saray district and Güzeldere Hamlet which takes place in the managerial part of this village) is in the part of North side of Özalp district. Iran Islam Republic in the east side of this area, Çaldıran and Muradiye districts in the north side, İpekyolu district in the west side, Saray district and a region of Özalp which isn't used for the research take place in the south side. Research area comprises upper basin of Karasu river which flows into Lake Van. Continental climate is seen in the high altitude areas. There are 23 rural settlements in research area. 21 of them are village and two of them are hamlet. Population of these settlements are 28.596 (2014).

In this study, it is aimed to examine according to various geographical characteristics such as location, elevation steps, tissue of settlement, name of the places, economic activities and surface size of rural settlements in Plain Dorutay and which takes place its neighbourhood.

Key Words: Rural settlements, dorutay plain, geographical characteristics.

Development of Civil Initiative in Protected Areas: Green Road Project

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Abstract

In the Black Sea region, the Green Road Project was initially planned to provide the development of ecotourism in the region, yet it seems that the project causes to destroying natural environment as well as emerging the local initiative groups who are leading to the conservative spirit of the local culture. The people from different age group was represented within this community, namely the Firtina initiative (a leading protagonist of the green movement). The people are local and feel themselves belonging to the area, being deep-rooted into the local culture and traditions. This initiative, tend to organize protest meetings which they believe in the way that they created a nation-wide awareness which leads to stopping the project in temporary case. Indeed, there is a fact that an organization of such a civil gathering embodies the protection culture which has been entered into the new term thanks to this kind of civil initiative. Additionally, the number of protected areas in Turkey is still lag behind many developed countries, it is therefore the fact that such a civic initiative in Rize might help to sustainable use of sensitive natural areas in the rest of the country.

In this context, in Rize and its wider region, it is also important to understand the socio-economic and cultural background of people involving in this initiative. This study particularly presents the preliminary findings of the field-work undertaken in the region on the summer term of 2015, which includes the experience of the local initiatives on the HES and the Green Road projects. The major evidence found in this study is that the major resistance against destruction on the natural environment was made by the people getting together in Rize and its neighbor provinces. Additionally, these organizations have either international or national effects being shaped by the voices of locals living in the region. In addition to these, the study will provide further answers of such questions as who the people involving in this initiative are, what their opinions on ecotourism are, and what their activities are.

Key Words: Protected areas, Civil Initiative, The Green Road Project, Rize

Natural Disasters that Devastate Nations in the Narrations of Sacred Books

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Abstract

Contemporary tendencies of science stretches the mechanical determinist perspective of 19th century and it might observed more serious initiatives for correlation of science with metaphysics compared to previous eras. Usually Geography in synch with methodology of natural sciences, when human factor taken as focal point, make move to more flexible zone. Therefore geographical places in sacred texts symbolic meanings as well as being as real locations.

Modus vivendi which are proposed in the parables from sacred books show similarities with geographies given. Natural Disasters have symbolic meanings which given as punishment to the neglection of human societies whose were called for better, righteous and more beautiful. Evaluation of these symbols in synch with geographical terms and locations enables seminal commentaries for point of values transference.

In present work, sociological and geographical features of Noah, Ad, Lot, Thamud, Midian, Eyke and Sabaen nations briefly described according to sacred books and also based on the information from sacred books we tried to explain natural disasters like tuffon, earthquake, flood and hurricane happened on nations mentioned. Maps of these nations' habitat and places of devastations are given as well as drawn attention to the comments based on data of scientific researches which were made in these areas.

Key Words: Disaster, parables, value transfer, sacred books.

Calculating of Landscape Diversity Using Alfa Diversity Indices

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Abstract

The fundamental information layers of ecosystem based management plans are obtained from calculating, modeling and mapping of biodiversity. Climate, topography and soil properties play important roles on the variations of biodiversity. On the other hand there are significant relationships between landscape diversity and biodiversity. That is why it is important to prepare not only climatic, topographic and soil maps but also their diversity maps as explanatory variables for modeling and mapping of biodiversity. This study was carried out to show how to calculate and map of landscape diversity in the Kuyucak Mountain District found in the transmission zone of the Mediterranean region. In the present study, topographical diversity values of altitude, slope degree and radiation index for each cell (752,09 x 752,09 meters) of Kuyucak Mountain District were calculated by using Shannon Wiener, Simpson diversity, Renyi H2 and Rao indices. Next the diversity maps of topographic variables were formed by means of Geographic Information Systems. Thus, the maps illustrated diversities of topographical variables were prepared in order to obtain more accurate model based distribution map of biodiversity.

Key Words: Diversity components, Beta diversity, Gamma diversity.

Modeling the Potential Geographical Distribution of Anatolian Black Pine (*Pinus nigra* Arnold. subsp. *pallasiana* Lamb. Holmboe) in the Inner Parts of Central Black Sea Region

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Abstract

Anatolian black pine (*P. nigra* Arnold.), an economically important conifer taxa is a widely distributed tree species in Turkey. In the present study, the relationships between the potential geographical distribution of Anatolian black pine and some primary environmental factors were investigated by using Generalized Additive Models (GAMs) in the inner parts of central black sea region of Turkey. For this purpose, the current presence/absence data of the species as response variable in native stands were recorded during the field studies in summer 2014 at 453 sampling plots (about 100m X 100m) in Aydıncı (Amasya) district. Black pine was recorded as presence in a total of 111 plots. On the other hand, the environmental variables to each sampling plots were obtained from the digital elevation model (DEM). The results of GAMs showed that elevation, climate and bedrock formations were the most influential factors on the potential distribution of the species in the district, respectively. An evaluation of all results collectively indicates that elevation appears to be most important factor for the potential distribution of the species in the region. In fact, this conclusion is considered to be result of climatic factors depending on the elevation. Also, it has been concluded that bedrock formations account for the other important environmental factors that might influence the distribution of the species in addition to elevation and climatic factors.

Key Words: Anatolian black pine, Black sea region, potential distribution, elevation, climatic factors.

The Indicator Species of Alpha Species Diversity in the Kuyucak Mountain District

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Abstract

Species diversity plays an important role for sustainability of the ecosystems. It is measured at alpha, beta and gamma scales. This study was carried out to define the positive indicator plants of alpha diversity of woody plants. We used the data obtained from the Kuyucak Mountain District.

Simpson diversity ($1-\lambda$), Shannon-Wiener, Brillouin, Menhinick, Margalef, Fisher α , reciprocal of Berger Parker ($1/d$) and Chao-1 indices were used to measure alpha diversity at each sample plot.

The Wilcoxon rank-sum test statistic was used to examine the relationships between the indices of species diversity and binary data of the species. After defining the positive indicator plants of woody plant diversity by considering all indices, the Wilcoxon rank-sum test was reapplied by omitting those species to ensure their indicator values. As a result of the analysis, it was found that *Fontanesia philliraeoides* LABILL., *Phillyrea latifolia* L. and *Pistacia terebinthus* L. are most likely to be the positive indicator plants for woody plant diversity

Key Words: Biodiversity, Indicator species, Mediterranean Region, Forest ecosystems.

Estimating Aboveground Biomass Using Remote Sensing Data and Geostatistics: A Case Study of the Southwestern Turkey

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Abstract

Spatially explicit of forest biomass and its changes in forest carbon stocks are thus essential for quantifying the amount of carbon sequestration in forests. Therefore, forest biomass should be estimate accurately to evaluate the role of forests in the global carbon cycle. Remote sensing is an appropriate method for predicting forest biomass and has been the most commonly used approach to estimate aboveground biomass due to the relative ease and low cost of acquiring remotely sensed data over wide and often nearly inaccessible forest areas.

Geostatistics comprise a set of techniques for estimating uncertainty and relies upon the interpretation of reflectance as a function of spatial position. There are several geostatistical methods that use ancillary data to increase the accuracy of predictions of the variable. Several methods for estimating forest biomass by remote sensing have been developed in the world, but geostatistics for estimating forest biomass have not been evaluated in Turkey yet.

In this study, we present a geostatistics for overcoming the major problem of forest biomass estimates and evaluating the relationship between band values from Landsat TM satellite image and ground inventory data in the southwestern Turkey. The analysis for the research study was based on remotely sensed data and ground measurements obtained from forest inventories. Sample plots were obtained from forest inventory distributed to productive forest area by 300x300 m grids in 2013. In each sample plots, details of all trees with a diameter greater than 7.9 cm at breast height were taken. Aboveground biomass was calculated using allometric equations depend on diameter at breast height obtained from field survey. Landsat TM data for 2013 were used to produce fifteen vegetation indices. Moreover, spatially explicit forest biomass map was produced kriging and co-kriging methods and their results were compared.

Key Words: Aboveground biomass, Allometric equation, Geostatistics, Landsat

Limni Gölü Tabiat Parkının (Gümüşhane) Rekreasyon Potansiyeli

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Özet

Bitki örtüsü ve hayvan varlığı ile ön plana çıkan halkın dinlenebileceği veya eğlenebileceği doğal alanlar tabiat parkı olarak ifade edilmektedir. Bu şartlara sahip sahalar gerek ülkemiz gerekse de dünyada çeşitli şekillerde koruma altına alınarak turizme açılmaktadır. Bu şekilde Türkiye’de değişik statülerde koruma altına alınarak turizme açılan sahalar içerisinde tabiat parkları önemli bir yer tutmaktadır. Bu çalışmada Orman ve Su İleri Bakanlığı Doğa Koruma ve Milli Parklar Genel Müdürlüğü tarafından 2011 yılında tabiat parkı ilan edilen Limni Gölü’nün Gülez’in (1990) geliştirdiği yöntemle göre rekreasyon potansiyeli değerlendirilmiştir. Yönteme göre park alanının sahip olduğu peyzaj değeri, iklim değeri, ulaşılabilirlik ve rekreatif kolaylıkları toplamından sahayı etkileyen olumsuz etkenler çıkarılarak tabiat parkının rekreasyon potansiyeli hesaplanmıştır. Gümüşhane İlinin Torul ilçesinde Zigana Köyü sınırları içinde kalan tabiat parkı, Gümüşhane şehir merkezine yaklaşık 40 km, Trabzon şehrine ise 65 km uzaklıktadır. Gölün yanı sıra doğal bitki örtüsü, yaban hayatı, kır meskenleri ve yayla yerleşmeleri gibi alternatif çekiciliklere sahip park alanında son yıllarda gelen ziyaretçilerin günlük ihtiyaçlarını karşılayabilecekleri ve konaklayabilecekleri tesislerin varlığı tabiat parkının rekreasyon potansiyelini artırmaktadır. Ayrıca tabiat parkının yakınındaki Zigana Kış Sporları Turizm Merkezinin yaz aylarında çim kayağı yapma imkânı sunmasının yanı sıra kamp ve karavan turizmi ile foto-safari gibi birçok sportif etkinliğe imkan tanınması tabiat parkı ve çevresinin rekreasyon potansiyeline katkı sağlamaktadır.

Anahtar Kelimeler: Limni Gölü, Tabiat Parkı, Rekreasyon, Gümüşhane, Torul"

A Research on the Concept of Urban Transformation: A Case Study of Yükseltepe (Keçioren / Ankara)

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Abstract

Urban transformation is the renewal of environment in terms of economic, sociocultural and political patterns (as a matter of class). The renewal of urban depends on the maintenance of politics towards capital from transformation of different life spaces. Therefore, the practises of urban transformation are, in fact, the consumption of the concepts of identity sense of belonging and the perceptions towards them; that is, a tool for gain that political structure offers to capital. The shanty houses, nearly on every corner of urban areas in Turkey, and their renewal through urban transformation projects should be questioned because of the reasons and the developments they may cause. In this sense, as in the whole world, in Turkey, the big cities, especially the ones with the most migration, reflect this substantially. In this study, based on the article 6306, approved by GNAT in 2012, the Transformation of Disaster Areas, the urban transformation policies are being analysed through the sample of Yükseltepe. According to this article, Yükseltepe (Keçioren / Ankara) is being transformed under the scope of urban transformation practice in place. On the evaluations from the field researches, interviews with the residents and the data from town municipality, it has been realized that the urban transformation practises have various effects, cause social, cultural and also economical victimisation, and they have been analysed in a critical way and evaluations have been made about it.

Key Words: Urban Transformation, Capital, Neoliberal Policies, Ankara.

Creating Campus Information Systems of Marmara University (MÜKBİS) Using Geographic Information Systems (GIS): A Case Study of Göztepe Campus

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Abstract

In the educational institutions and universities, which on the top of all educational institutions, in order to process the organizations fluently and make an efficient educational term are usually depends on the information that archived by classification of the information as well as accessible and reliable information. The universities are not a static structure; they are like living organism, because there is a continuous development change in the context of spatial data and non-spatial data in each semester and every year. It refers the spatial data about new buildings, transportation networks, green space and non-spatial data about academic and administrative staff and students in the each unit. In this context, there are many systems have been developed in order to classify data and for effective usage of information according to different purposes. Geographic Information Systems (GIS) is the most common technology in those systems.

GIS has a crucial role in terms of creating the spatial information of a particular area. Göztepe Campus of Marmara University has been selected as the study area. The primary objective of this study is the creation of Campus Information System of Marmara University; Göztepe Campus (MÜKBİS) based on Geographical Information Systems (GIS). The study field will be examined with the geographical perspective and during the digitization process all obtained data will be transferred to GIS. In that case, information of all the elements falling in the study area will be digitized and an inventory study will be carried end of the study. In accordance with data which is obtained before, queries will be made in order to produce spatial characteristics of the study area. Moreover, with the creation of information system of the campus, the infrastructure and personnel information of the study area will be accessed more efficiently and safely.

Key Words: Campus Information System, GIS, Marmara University, TURKEY

Uzaktan Algılama (UA) ve Coğrafi Bilgi Sistemleri (CBS) Kullanılarak Sakarya İlinde Kentsel Gelişim Sürecinin Alan Kullanımı Üzerine Etkilerinin İncelenmesi

Sümevra Kurt, Emre Duman

Özet

Son yıllarda nüfusun hızla artması, şehirlerin çevresine doğru plansız ve kontrolsüz bir şekilde büyümesine ve altyapı sorunları ile karşı karşıya kalmasına neden olmaktadır. Kentsel alanlardaki büyümeler de arazi kullanımlarında önemli değişimlere ve doğal ekosistemlerde olumsuz etkilenmelere sebep olmaktadır. Bu nedenle şehirlerin gelişimi sırasında ve sonrasında yapılan çalışmalar, çevresel etkilerin azaltılmasında, şehirlerin gelecekteki durumlarının tahmin edilmesinde ve sürdürülebilir şekilde planlanmasında büyük önem taşımaktadır. Bu çalışmada, Sakarya İli'nde kentsel gelişim ile alan kullanımı arasındaki etkileşimlerin Coğrafi Bilgi Sistemleri ve Uzaktan Algılama teknolojilerinden yararlanarak belirlenmesi amaçlanmıştır. Şehirselleşimin belirlenmesinde, alan kullanım yapısına ait bilgiler 2000 ve 2014 yıllarına ait 15 m mekânsal çözünürlüklü Landsat uydu görüntülerinin sınıflandırılmasıyla elde edilmiştir. Sakarya İli'nde yerleşim alanlarının tarım alanlarını işgal ederek genişlemesi, tarım alanlarının da orman alanlarını istila etmesi son 10-15 yılda yaşanmış en önemli arazi örtüsü değişimlerindedir. Nüfus artışı ve turizm etkinliklerine bağlı olarak da yerleşme alanları alansal olarak büyürken, orman ve çalılık alanlar ise alansal olarak küçülmüştür. Yerleşmelerin kıyı alanlarını istila etmesiyle ise kıyının doğal niteliğinin bozulmasına neden olmaktadır. Çalışma sonucunda Sakarya İli'nde şehir gelişiminin mevcut alan kullanım yapısının üzerinde önemli bir baskı oluşturduğu sonucuna varılmıştır. Sakarya'da şehirselleşmenin bu olumsuz değişiminin bir plan kapsamında ele alınıp değerlendirilmesi ve daha sürdürülebilir bir arazi kullanım modelinin geliştirilmesi gerekmektedir.

Anahtar Kelimeler: Alan Kullanımı, Coğrafi Bilgi Sistemleri (CBS), Kentsel Gelişim, Sakarya, Uzaktan Algılama (UA)

Stand Delineation in Riparian Zone Forests Using Rapideye Satellite Data

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Abstract

The Mediterranean riparian zone forests are important for biodiversity conservation due to their special ecological conditions. The combination of water and other landscape elements provides diverse habitats for many wild animals and other organisms. Consistently monitoring the structural dynamics of these riparian corridors by proper technologies is critical for an effective biodiversity management. Detailed forest stand maps that are a base for monitoring activities can be prepared by interpretation of aerial photos and ground observations. However, this method is costly and time consuming. High resolution satellite images are envisaged to be used for this purpose. Considering its cost and coverage, it seems suitable that the potential of RapidEye should be primarily tested for this issue. This study aims at classifying the stand types using a RapidEye image with 5 m spatial resolution in a riparian forest. The accuracy of satellite-derived stand map was assessed based on the reference stand map obtained from aerial photos. The result of accuracy assessment showed that the RapidEye data cannot be used for detailed stand delineation. However, when some stand types were combined, the classification accuracy increased 65%. In conclusion, although it is not possible to obtain a detailed forest stand map, RapidEye data may be used for monitoring riparian zone forests by definite time intervals in this region.

Key Words: Satellite imagery, Forestry, Monitoring, Stand map.

The Relationship between Some Wild Mammals and Structural Diversity Parameters

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Abstract

The term of species ecology has become quite important due to decreasing number of living organism on the Earth. Investigation of the relationship between environmental factors and endangered populations, determination of the habitat properties and conservation of their habitats are highly significant with regard to prevent the disappear of wildlife species. The forests are the most crucial ecosystems that they provide to wildlife species in terms of nutrition and harboring properties. Theoretically, the higher structural heterogeneity of plants in a field, the more different the number of living organisms there. In the studies about wildlife, it has emphasized that plant density is important in terms of wild animals, but it has been ignored due to the fact that it is hard to measure this parameters. It is expected that this problem is eliminated by means of some easily measurable structural diversity parameters, which are used to predict structure of forest. So in this study, it was examined relationship between distribution of wild animals and variables which are height from the ground of the leafy branches, dead cover layer thickness and density, height and density of herb and shrub layer, stone, soil, rock covering landform. It is applied to regression and classification tree technique in order to determine relationship between easily measurable structural diversity parameters and detected traces and signs of wild animals as a result of the completed inventory in 70 samples plots in Burdur-Ağlasun district.

Key Words: Structural diversity, wildlife, wild mammals, regression and classification tree.

Approaches for the Determination of Integrated Disaster Risks

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Abstract

Various disasters are seen in almost every day in different parts of the World. As a result of these disasters life and property damage emerges. Caused by climate change and human activities, hazards can trigger each other or disaster hazards can be seen incidental with any other type of hazard. This situation changes characteristics of hazards and causes exposure of the same element of risk to multiple types of hazards. In such a case multi hazard and multi vulnerability situations emerge. Different methods are used in an integrated hazard and multiple risk assessment process for reasons such as different hazard characteristics and emergence of multiple vulnerability conditions against multiple hazards. In this context multi hazard weights are normalized and integrated with methods such as hazard magnitude and expert opinion. By multiplying these integrated values with the value of the vulnerability gives the integrated risk value. In the second method; single risk value obtained by multiplying single hazard and vulnerability value. After that risk scores can be integrated into a single value by normalizing according to the expert opinion. Differences between these methods have been revealed to provide rapid support decision against the dangers of complex disasters. There is still uncertainty in the determination of multi hazard and vulnerability. In this study, in terms of reducing of these uncertainties and to help multiple risk assessment process approaches that can be applied integrated risk assessment is set forth.

Key Words: Disaster management, Integrated Hazard, Vulnerability, Integrated Disaster Risk Assessment.

Use of Analytic Hierarchy Process for Analysis of Landslide Hazard and Vulnerability: The Case of Rize - Fındıklı

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Abstract

Landslides are among the hazards that cause most loss of life and property in Turkey. As a result of landslides transportation disruptions taking place, buildings and infrastructure elements are being damaged and demolished. To reduce losses resulting from landslide disaster and to increase the ability to cope with this disaster it is necessary to determine landslide hazard and vulnerability conditions emerging as a result of landslide hazard. In this study; landslide hazard and vulnerability analysis was conducted using Geographic Information System (GIS) and Analytic Hierarchy Process for Rize-Fındıklı district where one of the highest rainfall areas of our country. Landslide susceptibility analysis was made using analytic hierarchy process and parameters such as geology, land use, elevation slope, aspect, and distance from rivers, drainage density and distance from roads. Following the investigations it was determined that rainfall triggers the occurrence of landslides and rainfall extreme value analysis was made with Gumbel method. Considering recurrence interval of landslide and triggering analysis the probabilities of hazards have been revealed. Buildings are selected as risk elements. Building characteristics (building usage status, age factor, height, etc) were assigned considering the real values of buildings. Weights given to subclasses of buildings and vulnerability of buildings have been determined using analytic hierarchy process. Taking into consideration the vulnerability map created (the correct values from 0 to 1) and economic losses of buildings that may arise in the landslide were determined.

Key Words: Landslide Hazard, Landslide Vulnerability, Analytic Hierarchy Process, Geographic Information Systems.

Spatial Distribution Characteristic of Karstic Depressions on Plateau of Bolkar Mountains (Central Taurus)

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Abstract

In this study, spatial distribution characteristic of dolines and uvalas developed on plateau composed of Jurassic-Cretase neritic limestone and carbonates where found at west of Bolkar Mountains were analyzed. 30129 karstic depressions were detected in 2558 km² area through examining of 1/25000 scaled 34 topographic maps. Dolines and uvalas comprise 85.6% and 14.4% of depressions, respectively. All depressions cover 154 km² areas, in other words 1.17% of the investigation area. Maximum density reach up to 99 depressions/km² based on 1x1 km grids. 1-5, 5-30, 30 \geq depressions/km² comprise 30%, 52%, 7% of the investigation area, respectively. Depressions disperse between 1315 m and 2525 m elevations, while 89% of them are located between 1650 and 2350 meters. Correlation between depression density and elevation was found positive ($r = 0.96$) up to 1900 meters, and a negative correlation ($r = -0.91$) was found after 1900 meter. A positive correlation ($r = 0.86$) was also detected between rate of elevation range and number of depression located at same elevation range. However, while rate of elevation range is more than rate of depressions up to 1850 meters and after this altitude level reverse situation is seen.

Formation of depression becomes sparse when slope value increases because dolines and uvalas develop on low sloping areas at karstic plateau. For this reason, karstic plateaus covered by dolines and uvalas at The Taurus Mountains are restricted by steep slopes. Negative correlations are found between density and slope value ($r = -0.28$) and dissection index ($r = -0.29$). However, this correlation is not seen on plains covered by alluvium since alluvial cover inhibits superficial dissolution.

Key Words: Karstic depression, correlations, spatial distribution, Bolkar Mountains, Central Taurus.

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Water Resources, Human Impact and Climate Change: A Case Study in Bakırçay River Basin

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Abstract

Humans directly change the Dynamics of the water cycle through dams constructed for water storage and through water withdrawals for industrial, agricultural or domestic purposes. Climate change is expected to additionally affect water supply and demand. In this study, we try to explain human interventions and climate change effects on the water resources of Bakırçay River Basin. Bakırçay River Basin is one of the most important sub-basins of North Aegean Basins. This basin, also is important due to one of the most effected region of Turkey by climate change, besides one of the imported settlement area from past to today. So, the main aim of this study is to reveal long-term changes and trends in time series of temperature, precipitation and stream-flow of Bakırçay River Basin. According for this purpose, temperature and precipitation series of Bergama and stream-flow series of Yağcılı and Eğrigöl creeks is evaluated. Nonparametric Mann-Kendall statistical test results showed an increasing trend of temperature. The long-term trend of annual precipitation and stream-flow of Yağcılı and Eğrigöl creeks demonstrated a decreasing trend.

Key Words: Bakırçay, temperature, precipitation, stream-flow variations, human impacts.

Interpreting Geodesign by Means of Ecophysiography

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Abstract

Ecophysiography, used the same meaning as physical geography, is a field of geography which aims to identify and analyze the Earth's physical features, such as landforms, climate, vegetation, soil and hydrography. However, ecophysiography, in this context, is a conceptual framework in which people practice their knowledge about the physical geography and carry out spatial analyses regarding the relationship between living beings and their environment using a specific methodology and outcomes and results can be established through spatial planning and environmental protection. Ecophysiography substantially overlaps geodesign which means planning geography by taking the geographical characteristics into account

In the 21st century, the Earth is under a serious threat due to the economic growth, development and human development, all of which not carried out in compliance with of living systems. The future of the planet we all live in is based on the fact that ecophysiography approach is placed at the focal point of spatial planning to support human development. In this regard, geodesigning approach, widespread recently, aims to accomplish a similar purpose in fact.

In this proceeding, first will be covered the theoretical background related to physiography, ecophysiography and geodesigning, and geodesign approach will be evaluated and discussed within the context of ecophysiography. This approach is of paramount importance to find solutions for problems such as hunger, drought, global climate changes, lack of management of clean water resources and ecosystem services, terror, national security issues, wars, disasters and environmental problems our civilization has in the 21st century today.

Key Words: Geodesign, Ecophysiography, Physiography, Geographic Information Systems.

Clustering Analysis of Spatial Distribution of Karstic Depressions on Anamas Mountain (Taurus Mountains, Turkey)

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Abstract

Dissolution doline and uvala which are characteristic landform of karstic areas are dominant landforms on high plateau in Taurus Mountains and it is estimated that number of these landforms reach to the hundreds of thousands. In this study, elevation (DE), area (DA), long axis (DL), short axis (DS), elongation ratio (Re), orientation angle (α) and circularity index (Ci) values belonging to 10652 depressions are analyzed by using a hierarchical clustering analysis method namely Ward method and karstic regions of Anamas Mountain plateau (Cretase limestone) are detected.

According to results, cluster 1, 2, 3 and 4, 5, 6 explains distribution of dolines and uvalas, respectively. Cluster 1 is the largest cluster. It concentrates at center of the area and NW-SE, NNE-SSW directions are evident. Cluster 2 is found at center of the area intertwined with cluster 1. This cluster oriented NNW-SSE direction and has most distinctive orientation among the first three clusters. Cluster 3 is found at edges and at the lowest part of the area especially at NE, E and SE. Also, this cluster is most elliptical cluster because of values of long and short axis, elongation ratio, circularity index are higher than other two clusters. WNW-ESE and NE-SW orientations are dominated.

Quantitative differences are more pronounced among uvala clusters because of uvalas have large sizes. Cluster 4, 5 and 6 concentrate at center of investigated area where doline density is very high. While Cluster 6 and 5 have most high and low values, respectively, cluster 4 shows a transition character between these two clusters. While the dominant orientation is NW-SE direction in cluster 4 and 6, N-S orientation is appeared as second direction. In Cluster 5, dominant direction is NW-SE and there is not a second orientation

Key Words: Karstic depression, clustering analysis, spatial distribution, Anamas Mountain.

Acknowledgements

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Landuse Capability Classification for Tekirdag (Thrace) Based on Atalay's Method

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Abstract

The lands on the earth are classified based on their capability to be used and assessed. The main purpose of such classification based on land capability is to ensure the planned and most appropriate use and management of lands. Various studies have been conducted on this issue in Turkey since the 1960s. However, they failed to make a distinction that is appropriate to the conditions in Turkey and reflects these conditions properly, which resulted in landuses inappropriate to their capabilities and certain environmental problems. Geography is among the disciplines that offer suggestions within the scope of the landuse capability classification. Prof. Dr. h. c. İbrahim Atalay, one of the prominent figures of this discipline in Turkey, developed a new classification for the landuse capability. His classification is based on the field observations across almost all regions of Turkey between 1970 and 2014 as well as the physical and chemical analyses of the samples of different soils and parent materials and meteorological observations. This classification which can be called Atalay's (2015) method was designed based on a systemic and comprehensive approach in which all natural and socio-economic characteristics are assessed altogether. This study aims to perform the landuse capability classification and mapping of Tekirdag province using Atalay's method. This study was considered as an important step towards testing a brand new method within the borders of a province. Within the scope of the study, topographical maps at various scales, thematic maps at various scales, satellite images, and socio-economic statistics were used. It was concluded that, according to Atalay's method, Tekirdag is located in a geographical area which is affluent in terms of the land capability classes. One of the main reasons for this is that the city is convenient for a wide range of agricultural activities and rich in natural environment components. In this sense, class III lands were found to occupy the largest area (43%) across the city. The area occupied by this land class constitutes almost half of the city and covers all dry and irrigated farm lands, the highlands where various cereal species are cultivated, and low-pitched mountain slopes.

Key Words: Atalay's method, Landuse capability classification, Tekirdag, Thrace.

Introducing the Risk Analysis of Çanakkale Industry with the Thematic Maps According to Earthquake Data

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Abstract

In a country such as Turkey where destructive earthquakes are frequent, industrial structuring is of great importance in terms of earthquake risk assessment. The earthquake risk of a region is evaluated as the socio-economic results that may occur during an earthquake and aftermath. According to the data of earthquake risk analysis work to be done possibly with the use of the different maps. For these evaluations, there is a need to visual and thematic maps that can be queried that the earthquake data that have occurred previously with reflecting the positional industry restructure as together. For this reason, Çanakkale industrial enterprises in the region with Earthquake data, seismic risk of industrial facilities was visually trying to put forward with evaluated the thematic maps which created using Geographic Information Systems (GIS) and open source software. In this study, focuses on the distribution of the earthquake epicentral points belonging to the earthquake within the borders of the province and the earthquakes that have occurred in the vicinity

Key Words: Earthquake Risk, GIS, Thematic Maps, Çanakkale.

The Ecology and Economic Value of Chestnut (*Castanea sativa* Miller) Communities in Aksu Village (Aydın – Nazilli)

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Abstract

The natural area of expansion of chestnut (*Castanea sativa*), which is a forest tree, is located between 35°N- 45°N latitudes of Europe and Anatolia. Anatolia is stated to be the native soil for chestnut. The chestnut which presents a fragmented expansion area from the Caspian Sea to the Atlantic Ocean is commonly found in Caucasia, in the northern parts of Turkey, in Apenin Peninsula and in the northwest of Spain. Chestnuts can also be found in Mediterranean islands and in North African shores. Chestnut economy and culture are important in Turkey and Italy. Chestnut communities are denser in Western Black Sea and Southern Marmara regions of Turkey. These communities reach the Aegean region in the forms of holms. Chestnuts lose their significance in the Mediterranean region and they are very sparse in central and eastern parts. Chestnuts have found the optimum climate conditions to flourish in Anatolia. Its optimum in terms of average annual temperature is 13°C, 5°C for the coldest month and about 22°C for the hottest month. The most extreme temperatures it can stand are -13°C and 37°C respectively for the lowest and highest temperatures. The optimum average annual precipitation for chestnuts is about 1000 mm. Aksu, the area of settlement which the article is centered on, is a village in the Nazilli district of Aydın Province. It is located in the higher parts of southward slopes of Aydın Mountains. The altitude of the villages is 740 m. In geo-morphologic terms, the village is located in a catchment basin and is surrounded by high peaks. Northwest-southeast elongated Oyuk Mountain (1479 m), a high mass, lays in the south. Chestnut trees have generally settled in the north and northwest slopes of this mountain. Chestnut trees start at 800 m and reach up to 1300 m. Existence of chestnuts in this region is ecologically interesting since chestnuts are generally found in the Western Black Sea and Marmara regions and are regarded as euxinic elements. At the same time, east-west directional mountains of Aegean region (Simav, Bozdağlar, Aydın dağları and Menteşe Mountains) and especially their higher northward slopes are dense with chestnuts. Temperature and precipitation have generated suitable conditions for chestnuts to grow starting at 700 m. Available data show that chestnuts (*Castanea sativa*) are more common in Aegean region than it is thought. Today, the area for chestnut forests is stated as 111 044 ha. Aegean provinces are more advanced in terms of the number of chestnut trees compared to the provinces located in Black Sea and Marmara regions. Aydın Province is the first province in this regard. It is stated that there are 2 330 000 chestnut trees in Turkey and Aydın province take the lead in Turkey with 615 288 chestnut trees. Bursa province which is famous with its chestnuts has only 44 600 chestnut trees. Aydın takes the lead in production as well. According to 2010 data, 18605 tons of chestnuts were

produced in Aydın 2010 followed by Kastamonu with 9225 tons and by İzmir with 8659 tons. Bursa ranks in the middle with a mere 1455 ton. Chestnut production is undertaken in 11 districts of Aydın including the central district. Among the districts, Nazilli takes the lead with 7784 ton. Aksu, which is mountain village of Nazilli with a population of 1200, is surrounded by fragmented forests composed of chestnut communities at lower level (800- 1300 m) black pines (*Pinus nigra*) at higher levels. Since chestnuts have economic value they are protected and are even reproduced with new planting. There is a 4500-decare chestnut community owned by the village legal entity. The number of chestnut trees is 17 000. An annual average of about 600 ton chestnuts is produced. Chestnut production is so important in the village economy that there is even a candied chestnut manufacturing shop in the village.

Chestnut cancer disease recently observed in chestnut trees has become an important problem in the village. Village people are taking the necessary steps before the official authorities to fight this phytopathological problem which has impeded their economic activities.

Key Words: Chestnut, Ecology, Economy, Aydın – Nazilli.

Comparison of Essential Oil Composition of Ripe Berry Samples of Two Different Juniper Taxa in the Lakes District (Turkey)

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Abstract

Juniperus species, one of the important conifer genera are commonly distributed tree or shrub species in Turkey. In this study, yield characteristics and essential oil composition of two Juniper taxa, namely Juniperus foetidissima Willd. and Juniperus oxycedrus L. were analyzed in same sampling plots in the Lakes District of Turkey. For this purpose, the essential oils of air-dried ripe berries were obtained by hydrodistillation in a modified Clevengertype apparatus. Yields of essential oils were $0,59\% \pm 0,08$ (v/w) and $2,43\% \pm 0,71$ (v/w) for J. oxycedrus and J. foetidissima respectively. The compounds of the essential oil for each species were determined by direct headspace sampling using solid-phase micro extraction coupled with gas chromatography/mass spectrometry (SPME–GC/MS). A total of 35 components were identified from J. oxycedrus and β -myrcene (59,16 % $\pm 11,39$), α -pinene (31,96 % $\pm 11,07$), limonene (4,48 % $\pm 1,07$) were the major components, respectively. On the other hand, 36 different components were identified from J. foetidissima and α -pinene (35,57 % $\pm 16,70$), sabinene (25,36 % $\pm 9,33$), limonene (23,06 % $\pm 14,57$) and β -myrcene (6,92 % $\pm 0,57$) were the major components, respectively.

Key Words: Juniper, Lakes district, berry, limonene, essential oil.

The Indicatory Plant Species of Wild Animals in the Gidengelmez Mountains District

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Abstract

The present study was carried out to define indicator plant species of wild animals in the Gidengelmez mountains district. The data taken from 95 sample plots was used. Since the all data we used is binary, inter-specific correlation analysis (ICA) was applied to examine the interrelationships between wild animals and plant taxa. As a result of the study, It was found that the most important indicatory plants of wild animals are *Salvia tomentosa*, *Micromeria myrtifolia*, *Vicia cracca* subsp. *stenophylla*, *Arum dioscoridis* var. *spectabile*, *Rosa canina*, *Juniperus oxycedrus* and *Berberis crataegina*.

Vicia cracca subsp. *stenophylla* was the common indicator species for European hare (*Lepus europaeus*) and Badger (*Meles meles*), whereas *Salvia tomentosa* and *Micromeria myrtifolia* were significantly associated with Beech marten (*Martes foina*) and Red fox (*Vulpes vulpes*) the most important indicator plant for Wild boar (*Sus scrofa*) was *Berberis crataegina*. With regard to Wild goat (*Capra aegagrus*) and Brown bear (*Ursus arctos*), it could not be defined any plant having strong indicatory value.

In the present study, it was also examined between occurrence and richness of wild animals and plant species richness by using Spearman correlation and Pearson correlation analysis respectively. Among wild animals, only European hare (*Lepus europaeus*) was significantly related to plant species richness at the level of 0.05. The relationship between wild animal richness and species richness was found insignificant.

Key Words: Forest ecosystems, Wild animals, Indicator of habitat suitability, Mediterranean region.

Perception of University Students about Environmental Rights & Responsibilities: The Case of Atatürk University, Turkey

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Abstract

This study aims to determine perception of university students about environmental rights and responsibilities in the case of Atatürk University, Turkey. In addition, the differences between the young people according to their perception when taking gender into account are determined. Environmental right is one of the most effective legal tools for improving and protecting the environment. In this context, environmental rights have been a subject to regulation as a third generation of human rights since 1970. Parallel to developments at international level, the Constitution of Turkey (1982) included a statement, as a part of article 56, that as well as nation-states, every individual have environmental rights and responsibilities. It is of critical importance that being aware of environmental rights and responsibilities since in order to save the environment and exercise our right to reside in a livable and sustainable environment, every member of society should take responsibility. Moreover, due to both their present and future impacts on the planet as human beings and their proportion in the world population; awareness about environmental right and responsibilities among young people is more crucial.

To reach its objectives, the research designed as a case-study in which both qualitative and quantitative data collection technique were used. The field study was conducted at the campus of Atatürk University, Erzurum from September to October 2015. During the data collection process, open-ended questions were asked to garner information about the respondents, while Likert type (1-7) questions were used to obtain quantitative data on the respondents' perception about their environmental rights and responsibilities.

Key Words: environment, right & responsibility, university students, Erzurum.

Morphometrical and Geomorphological Features of Kılıçözü Stream Basin, Kırşehir

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Abstract

In this study, the numeric data of the Kılıçözü Stream Basin's, Which is located within the province of Kırşehir and NW-SE direction extending, elevation - area - volume statistics, elevation levels, hypsographic curve values, profile series, drainage type, length and longitudinal profiles, bifurcation ratio, drainage density and frequency and asymmetry factors considered thalweg reconstructions was formed by using ArcGIS Desktop program with the help of numeric integration method. In these applications 1:25.000 scale topographic maps were based. In addition to this, all the analysis, calculations and evaluations were conducted in computers, too.

The aim of the study is to search of the geomorphological evolution and development which is occurred in the river basin via analysis and calculation. The other aim of the study is to expose the characteristics of displacement – development by making table, graphic and maps with the gathered data of analysis and calculation.

The total area of the basin bounded by the water section line is approximately 800 square kilometers. Paleozoic, Mesozoic units on the unconformity, has Tertiary and Quaternary vegetation formations. Geomorphological factors playing a role in the developments in the field of research and efficiency were examined. In the conclusion of the study, it is shown that the effects of the different denudational process and tectonic activity have a big role in the formation of geomorphological characteristics of Kılıçözü Stream Basin.

Key Words: drainage density, bifurcation rate, asymmetry factor.



Expert System and GIS Cartographic Generalization

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Abstract

For automation of the process of generalizing the maps, is needed the integration of cartographic experience with generalization actions within Geographic Information Systems (GIS). This paper gives a brief discussion on Expert System (SE) and its applications in GIS with an emphasis on automation and generalization of maps. The discussion ends with the fact that, although the solution of the problems of automated generalization can bring many benefits of such a combination of technologies, there is an effort to combine SE, GIS and mapping experience for a thorough assessment of systems and effectiveness of generalization them.

Key Words: GIS, Knowledge mapping generalization tools, expert systems, road network, mapping, database

The Euro-Mediterranean Partnership: Trade and Political Balance in a Changing Geographical Space

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Abstract

The European strategy regarding the internal and international governance expressed in an incomplete way, not corresponding to the expectations. The various measures introduced by the Community institutions in recent years towards the Mediterranean area are evaluated in the light of the contradictions that have characterized the Euro Mediterranean politics on the level of coordination between local economic needs and political action. The economic and financial crisis and the global political instability call for a whole challenge and at a maximum stress on the many issues to be addressed in the Euro Mediterranean area: migration, terrorism, security, crisis of the nations, identity, border closures. The changes in this area put the need to assess what has been achieved in terms of policies to rethink about a model that takes in consideration the best elements of the initiatives that, from the 90s to present, have been realized in the Mediterranean region (Barcelona Conference, Euro-Mediterranean Partnership (EMP), the European Neighbourhood Policy (ENP) and the Union for the Mediterranean (UPM). However today, talking about the common area of peace and stability, the strengthening of political dialogue and security, economic and financial partnership and social and cultural cohesion means to overcome physical and ideological barriers for the presence of factors that undermine the certainties, destabilize society and make the route complex and uncertain. Economic exchanges between the North Shore of the Mediterranean and the South Shore, for example, have shown dialogue and common interests. However today, in this transitional phase, one wonders what remains of mediation, agreements, policies. The contribution, having an observatory like Italy, will focus on these aspects and on specific examples arising from the changes occurred in the Mediterranean area.

Key Words: Development, Europe, Geopolitics, Mediterranean, Partnership.

Results of Land Cover Changes in Kapıdağ Peninsula between the Years of 1978 and 2015

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This study aimed to present the changes in land cover in Kapıdağ Peninsula between the years of 1978 and 2015. Kapıdağ Peninsula is located in the northwestern part of our country and in the south of Marmara Sea and is situated in the administrative borders of Erdek district of Balıkesir province. Soil groups maps of 1/100000 scale, geology map, topography maps of 1/25000 scale were used to calculate the land cover change and to present its impact in the study field between the years of 1978 and 2015 and USGS Earth Explorer L7 ETM+ satellite images were utilized with ArcGIS 10.2, one of GIS software, to calculate the changes in the flora.

Study results show a 32% areal decrease throughout the peninsula in terms of forests, shrubbery, heather and open areas for the period between 1978- 2015 while agricultural areas and settlements have shown an increase in the same ratio. This has allowed the medium level erosion (< 25 ton/ha/year), caused by the role of land cover on erosion from 1978 to the present day, to decrease by 5.8% but at the same time resulted in the increase of strong, severe and extreme erosion risk classes. Results show that changes in the land cover have accelerated erosion during the 37-year process.

Key Words: Erosion, Land Cover Change, geographic Information System, Kapıdağ Peninsula.

Social Municipalities: Case of Balıkesir Karesi Municipality

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Abstract

Municipalities are organizations that are responsible from providing opportunities to lead better lives and that support social and cultural endeavors in addition to providing technical infrastructures services. However, the word municipality is generally associated with infrastructures services and technical tasks although social services are also crucial for the development and management of the city. Knowledge of social and demographical data highly contributes to local administrations. In Turkey there is a serious problem in this area regarding the lack of social and demographical data that can be collected to facilitate municipal services such as the kind of jobs in the neighborhood, tax brackets, incomes, the number of people in households, ownership of homes and rentals. This type of data collection can be made operational and sustainable with the help of GIS. Reaching the whole population in a city through surveys and interviews held in their homes to provide better services is a research undertaken in order to identify the social structure, pinpoint the details of services that will be provided, to shape the future of the city and to determine the people who are really in need. As a result of this data collection, disabled density maps can be created which will help to build special parks in the areas with high density of disabled people, disabled transportation lines can be established and many activities can be planned for the disabled. Based on spousal status, people whose spouses are deceased can be identified and via cross examinations children with no mothers or fathers or any parents can be determined. Queries using key words such as unemployed, no social security or renting home will help identify the individuals in need of social welfare. By using health parameters, health conditions of individuals residing in the area can be mapped to compare with different services; income level and health condition can be compared to make analyses. Queries using key words such as children studying out of town and type of fuel used in home heating have already been used in analyses and mapping. Level of satisfaction has been mapped in the research area. A sample study undertaken in Vicdaniye neighborhood of Karesi District of Balıkesir included these analyses. The more varied the data collected from the area, the more varied the analyses will be. This is a sample study and will be more meaningful if it can be implemented in the whole district or the province. Queries and analyses were done by using ArcGIS software, a GIS software. These types of studies are crucial in order for local administrations to address social phenomena and to provide the public with a variety of services

Key Words: Social Fabric Analysis, Municipality, GIS, Municipality and People.

Formation Characteristics and Tourism Potential of Sirtlanini Cave (Karacasu-Aydın)

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Abstract

Caves, which are typical figures in karstic areas, have shapes and structures that characterize the geological, geomorphologic, hydrological, climactic and anthropological features of the area in which they are located. Due to her geological structure, our country has rocks that are extremely appropriate for karstification. Relatively, it is believed that there are more than 40.000 caves in our country. From past to present, caves have been used for various purposes. Today, caves are important attractions especially for eco-tourism activities. This study aimed to examine the formation and development characteristics and assess the eco-tourism potential of Sirtlanini Cave situated in the south of Aşağı Camarası village of Karacasu District in Aydın Province. The area in which the cave developed during its formation is located in Western Anatolian Stress Region in tectonic terms and is included in Western Taurus Mountains karst region geomorphic terms. Geomorphic rejuvenation was found to be effective in the formation of the cave. The cave which was included in Pliocene relief system and which continued its development in Pleistocene had an elliptical shape in the zone of saturation with east-west direction. Later, as a result of rejuvenation experienced in the area the cave became suspended when the creek in front of the cave sank in its bed and was transformed into a spring. This was the first part that was formed. The cave continued its development along with the continuation of rejuvenation and second and third karsts were formed. Today, the cave is a fossil cave. The total length of the cave is 348 meters. The horizontally elongated cave with a narrow entrance hosts chemical sediments such as stalactites, stalagmites, pillars, flowstones, totem pole stalagmites and macaroni stalactites. Based on the area in which it is located and the structures it hosts inside the cave, Sirtlanini Cave has suitable characteristics for tourism purposes. The cave is situated in the same area where Aphrodisia antique city is located. In this context, the cave has an important potential to provide variety in tourism

Key Words: Cave, Eco-tourism, Aydın - Karacasu, Sirtlanini Cave.

Flood Risk Analysis in Kemalpaşa (Nif) Creek Basin

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Abstract

Kemalpaşa (Nif) Brook is one of the auxiliary branches that join Gediz River, which flows into the Aegean Sea located in the west of Turkey, from the south. Kemalpaşa (Nif) Brook is born from İzmir-Bornova Çiçekli Village, travels towards from Kemalpaşa basin and joins Gediz River in Manisa. The basin includes the neighborhoods in Manisa provincial center and İzmir Kemalpaşa central district center. Kemalpaşa (Nif) Brook is noteworthy as one of the river basins where natural disasters, characterized by hydrographic based deluges and floods, are effective. These disasters cause financial damages. In this context, this study aimed to identify the areas in Kemalpaşa Brook Basin where flood risk is influential. Geographic Information System (GIS) technology and software were used to realize the specified aim. First of all, parameters that affect flood in the investigation area were identified and they were digitized and transformed into layers. Geology (lithology), slope, land use and precipitation data that were transformed into numerical layers were overlaid with the help of weighted overlay method to undertake flood risk analysis. In this manner, flood risk, the areas affected from flood, impact level of the flood and flood risks for settlements and agricultural fields were determined. Results show that Kemalpaşa creek basin carries high flood risk in bottom lands where low inclined land is commonly found. Planning land use in the basin by taking flood risk analysis into consideration will minimize financial and intangible damages that may be experienced as a result of possible deluges and floods in the future.

Key Words: Flood, Risk Analysis, Weighted Overlay Method, Geographic Information System, Kemalpaşa (Nif) Creek

Kundasang-Ranau Landslides; an Educational Geosite, Sabah, Malaysia

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Abstract

In this study, an initiative has been taken to use the landslide inventory data developed for the Kundasang-Ranau area as an educational tool to inform the public on the impact of landslide not just on their daily activities and life, but also on the environment. The Kundasang-Ranau area was selected because of its geomorphological and geological significance on landsliding in that area. Several landslide elements were selected to be included in the documentation for the public, these are historical event and location, types of landslide, speed of different landslides, types of material, causative factors, sign of landsliding, examples of area affected and subsequently, how the recent earthquake event (5th June 2015) has accelerate landslide occurrences in the area. To achieve the study aim, a landslide inventory map for the whole area was created from three assessment years (1984, 1990, and 2012) using aerial photograph. In addition, a fieldwork was also conducted in 2013 and 2015 to identify recent landslides and also to record damage structures due to landsliding. These landslides were classified into different categories (e.g. slide, flow, creep, etc) and also the nature of the occurrences (natural or in artificial slope) were determined. The slope material types such as rock slope or soil slope were determined mostly in the field. Causative factors were analyzed and explained in general, particularly the indicated factors (natural & human intervention) that lead to landslide occurrences.

Key Words: Landslide, landslide inventory, education, geosite

The Biggest Agglomeration in the South of Poland in the Light of the Changes in Urban Population Density

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Abstract

The author will present the changes in population density of urban population in the twentieth and twenty-first century in the area of approx. 20 thousand km² in southern Poland, which includes approx. 100 cities with a population of almost 4.5 million in 2011 and the urbanisation index was over 70%. After 1945, this area was part of Poland, while its western part was part of Germany before the war. Currently, it is the most urbanised part of Poland and covers Cracow agglomeration and the Upper Silesian conurbation. The study used data from the National Census in Poland, which took place in 1931, 1950, 1960, 1970, 1988, 2002, and 2011. An analysis was performed using one of the statistical methods for estimating discrete distributions, the so-called kernel function method. ArcGIS 10.3 software was used to create vector layers in the form of points with the network of cities with assigned number of inhabitants in census year. Not only the number of residents, but also the number of cities changed in Poland during the 20th century. New towns were created or combined with others, some were also stripped of their charters, so each census had to consider this fact so the number of cities remained real.

The analysis is presented against the background of political, economic and social transformations that took place in Poland after World War II, such as the changes in the administrative boundaries, socialist industrialisation, political and economic transformation of 1989, the gradual collapse of industry, migration and suburbanisation. The conclusions served as a basis for a scientific discussion of the state and future of the merging of these agglomerations in the light of the discussed factor. "

Key Words: Changes in urban population density, GIS, kernel function, Poland,

Some Morphometric Features of Nerodime River Basin (Kosova)

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Abstract

In this article will be presented some morphometric features of Nerodime River Basin. Nerodima River is a tributary of Sitnica River which flows through Kosova Basin, in eastern part of Kosova. Geomorphic parameters of river basin such as: average altitude, slope, relief energy, flow length, aspect, etc., are some morphometric features that are as a result of internal geologic processes (uplifting tectonic, faults) and external geologic processes (weathering, river and slope processes). Geomorphic parameters are analyzed based on geologic and tectonic setting, and morphological evolution of river basin. In this article are presented in graphical and quantitative way the geomorphic parameters of Nerodime River Basin, based on topographic maps and other quantitative values.

Key Words: Nerodime River Basin (Kosova), geomorphometry, average altitude, slope processes, relief energy.

Kazakhstan and the Possible Use of Alternative Energy Sources

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Abstract

This article provides an overview of renewable energy in Kazakhstan. The preconditions of movement in this direction. There are the main directions of use of renewable energy sources. Presents the category of companies of this sector in Kazakhstan. The article also examines public policies in the field of renewable energy and related international agreements and initiatives of the Republic of Kazakhstan. Reveals the conceptual provisions of the current legislation and proposes ways to improve the development of renewable energy sources in the Republic of Kazakhstan. In the Republic of Kazakhstan due to power shortages, especially in the southern regions, of particular importance is beginning to take a more widespread use of alternative energy sources. According to experts, Kazakhstan has considerable potential for renewable energy, while wind and hydropower are considered the most promising for investment. According to wind resource The Republic of Kazakhstan is in third place in the CIS after Russia and Tajikistan. Thus, this article analyzes the issues of efficient use of energy resources (FER) and the development of renewable energy sources, which are considered as extremely urgent component of enhancing energy security and competitiveness of national economies. Today, the cost of renewable energy remains high, but the sequential development and reducing the cost of alternative energy will take its place in the global energy mix. Sustainable development, according to the most widespread definition given by the UN Commission on the Environment - is a model of progress, at which the satisfaction of the vital needs of the present generation without depriving future generations of such a possibility. These settings are achieved with solutions that were worked out human culture and put into practice. But it is necessary to recognize the upcoming transition to sustainable development in the most radical in the history of the degree of transformation, global in scale, temporal characteristics of revolutionary change, to which humanity is forced to decide quite consciously.

Key Words: Renewable energy, electricity shortages, hydropower, wind power

Preparation of the Charter of Hemerobia, the City the Campina Grande Do Sul (Paraná/Brasil) – Environmental Planning Support

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Abstract

This study aimed to build the Charter of Hemerobia the municipality of Campina Grande do Sul as environmental planning support. Campina Grande do Sul small city, is inserted with its large territory in protected areas, which limits its urban growth. Since urban concentration is restricted to only one area (south) and expansion along the BR 116. For making this letter used the municipality's land use map, satellite images (INPE-National Institute for Space Research), which were worked in ArcGIS 10.2, scale 1: 250,000. To create the Hemerobia chart we used the concept of Landscape Units and hemeoróbica classification model proposed by Favero et al (2004). In addition to satellite images information, an attempt was made through field research, photographing the places we identify with classified Landscape Units through the land use map, These units have been renamed within the concept of Hemerobia proposed by Favero et al (2004) then designated areas A, C, D and E. To relate the letter with the issue of environmental planning, it was found that the municipality will face urbanization problems due to high population density in the south of the city, and along the BR 116. In this way, these areas should have a follow-up within the urban and environmental planning. The protected areas are also at risk, since areas were identified mineral exploration (granite). The area flooded by the dam Capivari-Cachoeira, is also another area to be monitored to avoid large urban development, since this a wealth of space that should be preserved. The Letter of Hemerobia shows up as a technical resource to the environmental planning

Key Words: Hemerobia, environmental planning, landscape units, hemeorobica classification

Monitoring of the Ecological Status of the Sulejów Reservoir in the Frame of Project Monsul

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Abstract

Sulejowski Lake is an artificial water reservoir in central Poland, created in 1973 by damming the Pilica river. For decades, the reservoir is struggling with high eutrophication, which causes the condition of its waters is unsatisfactory. In the frame of the project Monsul: “Analysis of factors affecting the ecological status of the Sulejow Reservoir based on continuous monitoring and an integrated 3D model of the artificial lake”, in 2015, monitoring program was implementing, consisting of 3 independent types of measures.

(B-system) - A system to monitor ecological parameters in real time. Consists of two probes (EXO, YSI), which are mounted on an anchored buoy. Buoys are placed in two key areas Sulejow Reservoir. The data from these devices are transmitted in real time to servers and presented on the project website.

(M-System) - Mobile measuring system consists of a probe and GPS - used to determine the position in time of the measurement. The system is mounted on a moving boat at a speed of about 6 km/h. The measurement data are recorded and analyzed at the end of the trip. This system measured the following parameters: water temperature, pH, oxygen concentration, conductivity, chlorophyll "a", concentration of blue-green algae and the content of ammonium ions. Using a mobile measuring system it is possible to collect about 650-700 records concerning water parameters. The measurements were carried out every two weeks, from April to October 2015.

(L-System) off-line measuring system - water samples taken from selected points on the lake were analyzed in the laboratory. Following factors were analysed: chemical oxygen demand (COD), biological oxygen demand (BOD), total organic carbon (TOC), nitrates (N-NO₃-), and phosphate (PO₄).

All collected data have been introduced into the GIS spatial database, and then visualized on a map terrain of the Sulejów Reservoir using ArcGIS 10.2"

Key Words: GIS, Sulejow Reservoir, water monitoring

Agricultural Land Cover Changes in Łódź Metropolitan Area (Poland) Over the Period 1990-2012

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Abstract

The agricultural land covers more than half of area of the metropolitan areas in Poland and it is therefore particularly prone to the influence of processes associated with their development. The aim of the study was to analyse changes of agricultural land cover in Łódź Metropolitan Area (Poland) over the period 1990-2012 and to capture their dynamics, types and directions. The study was based on data from four successive versions of Corine Land Cover database and with the use of Geographical Information System (GIS) tools. Changes in agricultural land cover were analysed for the data divided into three periods: 1990-2000, 2000-2006 and 2006-2012, with the distinction between the core and outer zone of study area. The percentage share, in the total study area, of all types of agricultural land cover and their changes were traced and the spatial distribution of changes was determined. The results of the study show that in metropolitan areas agricultural land covers are undergoing: transformations, that do not result in the loss of agricultural lands, and changes involving the decrease in the surface due to their change into anthropogenic forms of land cover. The greatest transitions occurred between 2000 and 2006, when 5.2% of the surface were lost and 10.1% of agricultural areas were transformed, and were observed in the outer zones of metropolitan area.

Key Words: Agricultural land, GIS, Land cover changes, Łódź Metropolitan Area, Poland.

Terrain Morphometric Analysis for Support Tourism Development in Tusheti Protected Area

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Abstract

Tusheti protected area is one of the richest by biodiversity in Georgia. The purpose of this paper is to perform an interpretative analysis of the morphometric parameters of terrain in Tusheti protected areas for highlighting touristic potential of this mountainous region. To achieve our goal we used the digital elevation model (DEM). Then, we derived the primary (hypsometry, slope gradient and orientation) and the secondary (fragmentation depth) morphological indicators. The area covered by each class has also been derived, therefore establishing the weight of every one of them by types of indicators. Data obtained from the morphometric analysis reflects the areas with touristic attractiveness and the areas suitable for placing the touristic infrastructure within the study area. According to the results extremal and adventure tourism would be very popular here due to difficult terrain and high passes.

Key Words: Adventure tourism, digital elevation model (DEM), Exstremal tourism, protected area, terrain analysis.

Assessment of Environmental Risks at Development of Oil Fields of Kazakhstan Sector of Caspian Sea

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Abstract

Drilling of exploration, appraisal and development wells result in an intense impact on the environment in the area being developed offshore. Currently, very few publications devoted to the impact assessment on the environment during offshore drilling operations in the Kazakh Sector of the Caspian Sea, although exploration and appraisal drilling on several offshore oil and gas structures have been carried out for a few years.

To determine the effects of drilling operations on the environment in this paper has been accepted as a basis for semi-quantitative (score) method of impact assessment in accordance to Guidelines, approved by the Ministry of Environment of the Republic of Kazakhstan.

Impact analysis and integrated assessment for each individual area of drilling have shown that negative impact from the drilling of wells do not reach the high level none of the considered ecosystem components (subsoil and groundwater, marine water, sediments, air, marine biological resources). The low scores impact are dominated.

Considering the adoption of the technology of drilling operations in the North Caspian (mandatory waste removal, drill cuttings and other waste for recycling and disposal onshore), as well as the impact assessment of drilling wells, we can talk about the absence of a high environmental risk from drilling routine operations of each well in the Caspian Sea.

Environmental Risk Assessment at a potential emergency situations has shown that a high environmental risk can be at 3-d level of oil spill. At the 1-st and 2-d level of oil spill for the individual ecosystems of the natural environment low and medium level of environmental risk are dominated.

Thus, the extent of emergency in the potential accidents on offshore drilling platforms (or artificial islands of drilling) in the Kazakh Sector of the Caspian Sea and the analysis of environmental risks require to make serious conclusions. The public authorities of the Republic of Kazakhstan should take strict and prompt actions to prevent and eliminate oil spills.

Key Words: Environmental Risk Assessment, Ecosystem, Drilling Operations.

Peyzaj Mimarlığı Eğitiminde Çevre ile İlgili Farkındalık, Bilinç ve Duyarlılık Seviyelerinin Belirlenmesi

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Özet

Dünyada hızlı nüfus artışı, verilen yanlış alan kullanım plan kararları, çarpık kentleşme, iklimde meydana gelen değişimler, doğal kaynakların bilinçsizce kullanımı ve kirlilik gibi faktörler doğal kaynaklar üzerinde baskı kurmakta ve bu kaynakların hızla tükenmelerine neden olmaktadır. Bu durum içinde bulunduğumuz yüzyılda önemli çevre problemleri yaratmaktadır. Bu durumu tersine çevirmenin en etkili yolu insanın çevresine karşı tutumu ve farkındalığının çevre eğitimi ile artırılmasıdır. Bu amaçla çevre eğitiminin okul öncesi programlarından başlayarak yükseköğretime kadar çeşitli eğitim düzeylerinde bireylere verilmesi gerekmektedir. Bu kapsamda eğitimin son basamağı olan yükseköğretim öğrencilerinin çevre bilincine yönelik duyarlılıklarını bilmek, toplumun gelecekteki çevreye yönelik bakış açısını göstermek açısından katkı sağlayacaktır.

Bu çalışmada İnönü Üniversitesi Güzel Sanatlar ve Tasarım Fakültesi Peyzaj Mimarlığı Bölümü, lisans programlarında öğrenim gören 1., 2., 3. ve 4. sınıf öğrencilerinin çevre ile ilgili konularda farkındalık, bilinç ve duyarlılık seviyelerinin belirlenmesini amaçlamaktadır. Bu amaçla öğrenciler üzerinde anket uygulaması yapılmış ve çevre bilinç düzeyleri ölçülmüştür.

Anahtar Kelimeler: Çevre Eğitimi, Peyzaj Mimarlığı, Çevre Duyarlılığı, Çevre Farkındalığı

Bottled Water Production in Turkey: A Case Study of Bahe (Osmaniye)

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Abstract

Water is the indispensable material being existence base unit for the life. Water consisted of hydrogen oxygen is tone class, scentless and venomous. The humanity is in need of the water to survive. But physics or chemical substance of the water may be changed by other materials or human factors. This situation may lead to dangerous, especially, drinking water must be the some standards. In these days, drinkable water spring is decreased cause of increased population, urbanization, economic and social activity. Also, cause of increased social and economic activity, people are in need of the water by them.

These improvements cause of sector of packing water. And this sector improves day by day. In this dissertation, improvements of the production of packing water will be inspected to be locally in the garden scale and to be generally in the Turkey. In the dissertation, the important water springs, production and consumption of packing water had been researched and expressed of Bahe district the important and potential in production of packing water. In ArcGIS10.2 programme, the companies in sector of drinking water and distribution of potential natural spring waters with where intuition of packing water in Bahe district had been expressed.

Key Words: Bottled Water, Natural Spring Water, Drinking Water, The Bahe District

Relief Transformation of the Open Coal Mine Bełchatów Area on the Basis of DEM (Digital Elevation Model) Analysis

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Abstract

Development of GIS methods in geomorphology as well as the construction of Digital Elevation Models and their analyses have opened up new possibilities of our planet relief research. It also allowed the development of test methods based on digital geographic data and the earth surface models. The authors undertook a study of changes in relief which have arisen as a result of building of the Brown Coal Mine and an electric power plant Bełchatów. The choice of research area wasn't accidental – the area related to the activity of Brown Coal Mine and an electric power plant “Bełchatów” is a place in which changes of geographical environment (particularly, in lithosphere) have taken place on an unprecedented scale in Poland. To visualize these transformations, the historical DEM has been developed on the basis of archival materials containing data from the period of pre-investment. Topographic maps issued in 1944 by German Supreme Command of the Land Forces (Oberkommando des Heeres/Generalstab) were used as the source materials. In order to visualize the landform of the contemporary relief layer colored method with shadowing was applied. The second stage of the project involved the construction of the same terrain model basing on current DTM data (Digital Terrain Model) included in TBD and shared by CODGiK (Geodesic and Cartographic Documentation Center). Subsequently, both models were compared by means of tools available in ArcGis software of ESRI company. A comparative analysis of the models enabled to observe the changes resulting from anthropogenic transformations strictly related to the building of the mining and energy complex - Brown Coal Mine “Bełchatów” along with other industrial objects facilitating its operation as well as the neighboring power plant based on brown coal.

Key Words: Anthropogenic relief transformation, GIS, DEM, Brown Coal Mine Bełchatów

Tourism Development along the Silk Road: Case of the South-Kazakhstan Oblast

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Abstract

The Silk Road is a unique historical monument of human civilization. The transformation of the Kazakh section of the Silk Road in the attractive tourist and recreational complex is the issue of tourism development in Kazakhstan.

Tourism and its territorial systems of such taxon as the South Kazakhstan is a complex research object in terms of methodological basis and methodical support. So there are need the comprehensive approach that includes study of the following interrelated factors: natural and geographical; social and cultural; socio-economic; demographic; geo-environmental; geopolitical.

On the branches of the Kazakh section of the Silk Road the most perspective projects is the development of objects of tourist infrastructure, for example ""Ancient Otrar"" and ""Ancient Turkestan"" in the South Kazakhstan region.

For the development of tourism in this segment of the Silk Road it is necessary to improve the effectiveness of regional tourism policy, the role of local governance structures in solving problems of the complex social and economic development of the tourism industry.

In conclusion we can identify the factors a significant effect on formation of the tourist centers along the Silk Road. They are the strengthening integration trends in the development and formation of territorial recreation systems and tourist and recreational facilities; orientation to the final goal of social economic development of the tourism, consistent overcoming social and territorial disparities between territorial recreational systems of the region; greening development and rational distribution of productive forces, focused on alternative types of activities of tourism and recreational directions as opposed to traditional.

The research defines perspective areas of tourism and transport infrastructure for the tourism development.

The study analyzed the tourist guides, tourist attractions and the programs of tourist activities in South-Kazakhstan oblast. Also authors used the data of the Committee on Statistics, information on the development of tourism around the world, regions and countries, as well as materials on the problems of tourism development.

Key Words: The Silk Road, tourism, tourism and recreation system, tourism policy, tourism infrastructure.

Landscape-Ecological Zoning of the Agricultural Areas of South Kazakhstan Oblast

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Abstract

A complex analysis of natural, man-made and environmental components was used within the areas of the South Kazakhstan Oblast and highlighted the major environmental problems in rural areas.

Methods of landscape-ecological zoning used at work. Evaluation of landscape ecological state of the South Kazakhstan Oblast within the administrative areas based on the basis of the earlier series of thematic and specialized maps, binding of which were the "Physical Map" and "Map of anthropogenically disturbed landscapes". In addition, research was conducted and published numerous stock of official statistics.

The result of the study was a landscape-ecological zoning of the South Kazakhstan Oblast reflects the spatial structure of natural complexes, the degree of conversion and anthropogenic disturbance, the level of environmental stress areas.

The article describes the development trends of landscape structure of concrete territory, agriculture land of South Kazakhstan Oblast, studied the interaction of all components of the landscape, inherent in this region and their changes under the influence of anthropogenic impacts. The forecast of the development of modern negative processes and present a proposal for a recommendation Environment agriculture land of South Kazakhstan Oblast, taking into account characteristics of the natural resource potential of the region.

The results can be used by local executive bodies for industrial and agricultural development of the territory of South Kazakhstan Oblast.

Key Words: Landscape, environment, zoning, rural areas

The Cities of Kazakhstan: Modern State, Development Problems and Prospects

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Abstract

Article focuses population of urbanized areas of Kazakhstan play a leading role in the socio-economic development of the country and, in many respects, they determine the trends and development of the kazakh society. Therefore, the study of the problems of socio-economic development of the urban population of Kazakhstan gives an indication of the degree of development of society as a whole to determine its concerns and outline prospects for further development. From the first days of its occurrence the cities of Kazakhstan performed city-forming function. Analysis of their economic and demographic development shows that a significant part of the city, located in major metropolitan areas and which acts as the "second" and "third" cities, largely loses its "small cities" quality. This primarily refers to small cities of Almaty and Astana agglomerations: many of them act as organizational and economic centers of adjacent agricultural areas. As for the second part of the small towns which outnumbers the others, only small numbers of population live there. This is due to the gradual reduction of extraction and processing of minerals, complex climatic conditions, and low levels of social sphere. The most important role in the socio-economic development of society belongs to the public. In this regard, the article discusses the modern state and development of urban areas and other settlements, especially the socio-economic aspects should be considered in close connection with the general public and various demographic processes.

Key Words: urban population, cities of Kazakhstan, agglomeration, Kazakhstan, socio-demographic situation

Türk Ülkeleri Coğrafyasında Ortak Ders Kitabı Oluşturulması

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Özet

Eser, iki bölümden oluşmaktadır. Birinci bölümde geleneksel coğrafya anlayışıyla Türk dünyasının doğası ve beşeri coğrafyası ele alınmakta, Türk dünyasının günümüz dünya siyasal haritasındaki yeri gösterilmektedir. Bu coğrafyanın doğası ve doğal kaynakları, yazarlarının bilgi ve birikimi sayesinde açık ve anlaşılır bir şekilde dile getirilmektedir. Yazarlar Türk dünyasının çeşitli bölgelerinde yaşayan insanların yaşam tarzları ve ekonomik koşullarını ilgi çekici ve ayrıntılı olarak açıklamaktadır. Kitapta dünyaca meşhur Türk kökenli bilim insanları ve araştırmacıları hakkında da yer verilmiştir. Ayrıca Türk dünyasının kültürel mirası ve sanatını korumayı, geliştirmeyi ve gelecek kuşaklara aktarmayı hedefleyen TÜRKSOY Uluslararası Türk Kültürü Teşkilatı ile Türk devletleri arasındaki işbirliği geliştirmede önemli bir yeri olan TİKA gibi kuruluşlar ile ilgili bilgiler de yer almaktadır.

Kitabın ikinci bölümü günümüz Azerbaycan, Kazakistan, Kırgızistan, Kuzey Kıbrıs Türk Cumhuriyeti, Türkiye, Türkmenistan ve Özbekistan'ın iktisadi coğrafyasına odaklanmaktadır. Ülkeler Kazak alfabesindeki sıraya göre ele alınmaktadır. Kitap okurları bu ülkelerdeki sön istatistiksel verilerle de tanıştırmaktadır.

Kazakistan Cumhuriyeti Eğitim ve Bilim Bakanlığı tarafından 20 Ocak 2012 tarihinde kabul edilen 12 numaralı kararla söz konusu ders kitabı coğrafyayı derinlemesine okutmakta olan ortaokulların eğitim sürecine dâhil edilmiştir.

Anahtar Kelimeler: Türk Ülkeleri, Ortak Coğrafya Kitabı

Education in the Field of Geographic Information Science and Technology in Departments of Geography in Poland

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Abstract

For more than 20 years, there have been attempts at introducing Geographic Information Systems (GIS) into higher education in Poland. Initially, these were isolated subjects - mainly in the fields of geography, surveying, military, marine, natural and, later, spatial and humanities. The author will only present only the educational experience with GIS at Departments of Geography at several Polish universities.

Since the beginning of the twentieth century, the educational offer in GIS basics has been increasingly interesting to students, so the next stage of education included specialisations that offered more teaching hours in this field. At the time, the creators called their specialisations various names, such as geoinformation, geoinformatics, geomatics. Students received their titles from the faculty they graduated, such as geography with specialisation in geographic information systems at the Jagiellonian University, geoinformatics and remote sensing at the Warsaw University or geoinformation at Adam Mickiewicz University in Poznań. The development of GIS in higher education could be seen in most state universities. A group of enthusiasts from geography departments in various universities: Adam Mickiewicz University in Poznań, Jagiellonian University in Cracow, Gdańsk University, University of Łódź, Warsaw University, Nicolaus Copernicus University in Toruń, Maria Skłodowska-Curie University in Lublin met several times in 2009 to lobby for the creation of a new department. Some time later, the first curriculums were published. In 2012, the first intakes were launched and students were able to attend subjects directly related to GIS at level 1 in Bologna System.

The experiences and discussions that took place during the development of GIS education, as well as the latest achievements in Polish departments of geography will be presented.

Key Words: geoinformation, Departments of Geograph, higher education, Poland

Information as Organized Variety of Geographical Systems and Models

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Abstract

The new definition of information based on reflection of an order of space time, which is offered: 1. is result of the analysis of natural, natural and anthropogenous and artificial systems and models; 2. it will be coordinated with definition of information as any heterogeneity in distribution of substance and energy (according to V.M. Glushkov); 3. it is applicable to any part of a geographical envelope of Earth and geography.

Reflection of navigation in ancient toponymics and territorial structure for the first time was investigated by the scientist from St. Petersburg (Russia), the candidate of geographical sciences Victor Ivanovich Pararin. Regularities of the organization of territorial systems on the basis of orientation in space time are presented in its works on historical geography (1990, 1998). Priority of astronomical reference points before the landscape big stability and reliability explains them.

The complex researches of stone labyrinths and other objects of natural and cultural heritage conducted by authors allow to define algorithm of modeling of natural, natural and anthropogenous and sign systems, to track evolution of information model of the world and to estimate its current state.

Research conclusions: 1. the geographical space organized under laws of the nature (astronomical, geographical, physical, chemical, biological, including ecological), the person models by means of the knowledge and signs created in the course of navigation – development of space time; 2. organization of space is reflected in geographical, geocultural and information space according to the principles «a constructive role of a nadsistema» and «the stream will organize space»; 3. stability of natural and anthropogenous systems and adequacy of models depends on degree of their pro-accuracy – communication with a geographical and space environment."

Key Words: information, system, model, space

The Relationship between Topography and Vegetation: A Case Study in Filyos Valley between Karabük and Yenice

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Abstract

Topography constitutes one of the conditions that affect the distribution and growth of plant communities. The topographical factors include slope, aspect, elevation and the direction in which mountain ranges run, which all affect the vegetation of the region. The effect of topography results in dense vegetation in certain areas. The study area is located in the Western Black Sea Region in the northwest of Turkey. The area is covered with plant species from the Euro-Siberian and Mediterranean phytogeographic regions.

The study aims to determine the Euro-Siberian and Mediterranean plants species that are distributed in the Filyos valley (between Karabük and Yenice) and relate them to the topography of the region. The methodology is based on a regional approach. In some parts of the study, systematic review methodology was conducted. ArcGIS 10.3 was used for preparing cartographic materials. Within the scope of the study, certain maps of the region such as topographical, physical, slope, aspect, soil, geological, geomorphological and forest management maps were examined and used as the materials of the study. The study found that vegetation changes depending on the topographical variables.

Key Words: Topography, vegetation, Filyos valley, Karabük, Turkey.

Tourism Potential of Gölyazı, Bursa

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Abstract

Gölyazı, a village located at the coast of Uluabat Lake in The South Marmara region, owns in the Halilbey and Nailbey isles in its lake.

It has natural, historic and cultural importance for tourism but unfortunately people cannot take advantage of it very well. There are reeds, a wet prairie and willows at the delta where Mustafakemalpaşa stream meets the lake. This ends up with a place suitable for bird species to breed.

The pygmy cormorant, dalmatian pelican, whiskered tern and ferruginous pochard all exist in the lake. This is a vital breeding place for the pygmy cormorant. The white water-lily grows in the eastern coast of the Gölyazı peninsula, which is the widest in Turkey. The industrial waste around Ulubat Lake is dangerous for the ecosystem of the lake, therefore: the lake area has been protected by the Ramsar Agreement since 1998.

As well as its natural beauty, Gölyazı has its own historic and cultural wealth. Some of the most important historical artifacts are the Church of Hagious Georgios, the Simitchi Castle, the city fortresses, the ancient theater, stadion, the outer castle, necropolis, the Apollon Temple, the Hammam, the Old Mosque, the Ottoman Primary school, the Crying Oak in the village, which is said to be 700 years old due to the juice leaking from its trunk.

This study aims at evaluating and developing the potential of the village regarding its natural, cultural, historical and tourism awareness.

Key Words: Gölyazı, Uluabat Gölü, Ağlayan Çınar, Apollon Tapınağı.

Grain Yield as an Indicator of the Drought in Kazakhstan

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Absrtact

Drought is one of the major natural disasters in Kazakhstan and it has a great impact on agricultural sector. At the same time, agriculture is greatly dependent on water resources. As for the irrigated agriculture, glaciers in the mountains are the major storage of water resources and they are extremely sensitive to climate. Either natural drought or climate change-induced variation in glaciers may pose a great threat to agriculture of Kazakhstan. This paper focuses on their optimal parameterization of atmospheric drought, identification of coherence between one of the best and representative agro climatic index for the territory of North Kazakhstan - Selyaninov hydrothermal coefficient (SHTC) and crop yield fluctuation in Kazakhstan. For the assess of favorability or dryness extent in the vegetation period (including total drought) was use of a relative indicator of weather part in the formation of wheat yield in some years concerning the relative long-term conditions.

A number of actors that can be dived into two components in any given year influences productivity: the level of farming and weather conditions. Accordingly, long-term time series of yield can be dived into two components: fixed and random. The actual yield of the crop regarded as the sum of the fixed and random variable.

Based on the average regional spring wheat from the 1970 to 2010's. Parameters were calculated proportion weather yield formation (dP, in %) in 8 main grain areas. Next years were identify with severe droughts and average for the period under review. The analysis have shown that droughts are quite common on the territory of Republic. Calculated proportion indicators of weather in shaping the harvest in 8 main grain regions of Kazakhstan. Revealed the frequency of strong and medium drought, bringing considerable damage to agriculture in these areas. Changes of dP were identified for climate analysis. Mean value on ... (специфическая терминология, надо посмотреть по статьям)

It was revealed that the major agricultural regions of Kazakhstan are distinguished by extreme instability grain yields. The coefficient of variation of productivity of spring wheat, characterizing the variability of this value over time and space, in areas of North Kazakhstan for the period 1970 2010 gg. ranged from 25 to 42%. In order to assess the changes in drought cycles in the last 45 year, we calculated repetitive years with significant (intensive and average) droughts.

Correlation analysis of crop yield of grain produce in the North and South Kazakhstan with agro climatic indexes showed direct linear functional correlation.

Key Words: Grain yields, drought, Kazakhstan.

Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study District Shaqlawa – Iraq

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Absrtact

In this study thermal comfort zones for outdoor recreation planning in district Shaqlawa was found out. Spatial distribution of Physiologically Equivalent Temperature (PET) is a measure of thermal comfort, was calculated for the district Shaqlawa using meteorological data collected from 3 different weather stations located in the study area.

Data collected from weather station are air temperature, relative humidity, radiation and wind speed. These values are required to calculate PET. Data obtained from three meteorological stations at 7:00, 14:00 and 19:00 between years 2002 and 2015. These data is used to calculate monthly PET values with RayMan 1.2 software.

PET was spatially interpolated using IDW (Inverse Distance Weighted) tool in ArcGIS 10.2 to convert the point-data consisting of PET-values for individual meteorological station into a continuous surface so that maps of spatial distribution of PET values could be created.

The most comfortable months and areas for outdoor recreation activities were determined by analyzing these maps. The results reveal fundamental information which is of particular relevance to recreation authorities.

Key Words: Bioclimatic Conditions, Meteorological Data, PET, Physiological Equivalent Temperature

Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study of Sulaymaniyah – Iraq

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Absrtact

This study finds out thermal comfort zones for outdoor recreation planning in Sulaymaniyah. Therefore, spatial distribution of Physiologically Equivalent Temperature (PET), which is a measure of thermal comfort, was obtained for the City of Sulaymaniyah using meteorological data collected from 7 different weather stations located in the study area. Air temperature, relative humidity, and wind speed are required for the calculation of PET. Data obtained from 7 meteorological stations, at 15:00 over the period from 1992 to 2015 were used to calculate monthly PET values with RayMan 1.2 software. PET was spatially interpolated using IDW tool in ArcGIS 10.2 to convert the point-data consisting of PET-values for individual meteorological station into a continuous surface so that maps of spatial distribution of PET values could be created. The most comfortable months and areas for outdoor recreation activities were determined by analyzing these maps. The results reveal fundamental information which is of particular relevance to recreation authorities.

Key Words: Outdoor Reaction, Planning, Sulaymaniyah, Iraq



Spatial Analysis of the Impact of Urban Expansion on Land Surface Temperature Using Geographical Information Systems and Remote Sensing Techniques: A Case Study of Sulaymaniyah – Iraq

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Absrtact

Sulaymaniyah City has experienced a rapid urban growth over the past decades due to accelerated economic development. Urban expansion has recently become popular since it has attracted much attention in academic and scientific sectors. Land surface temperature is quite important for thermal studies due to becoming the key component in the surface energy balance. The main objective of this research is to assess the urban expansion of Sulaymaniyah City and its impact on Land Surface Temperature (LST) using satellite imagery. This study will also analyze the spatial distribution of LST based on different land use/land cover types.

Key Words: Spatial Analysis, GIS, Remote Sensing, Surface Temperature, Sulaymaniyah, Iraq



Organization of Touristic Activities and Security of Recipients at Mudflow Processes

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Abstract

This article discusses the organization of tourist activity and the safety of recipients at mudflow processes the Republic of Kazakhstan. And to propose recommendations to the need of geographical analysis and assessment of natural resource potential of territorial recreational systems of the Republic of Kazakhstan. Compiled feature for assessing the significance of the recipient and identify the degree of influence of the negative impacts of floods on the sustainable development of the territory.

Key Words: debris processes, recipients, recreation, territorial recreational system, tourism, tourist activity.

The Impacts of the Forest Fires on the Amplitude of Stream Inundation: The Case of Köprü Creek (Antalya - Turkey)

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Abstract

One of the important factors that prevent the risk of stream inundations is the rich flora of the watersheds. The richness of the flora slows down the flow of the rain falling in the watershed, increasing the amount of water absorbed by the soil and preventing the rain water from reaching the main branch of the stream in a short period of time.

However, the deforestation caused by large fires in the stream watersheds increases the inundations in the watersheds. The forest fire of 2008 in the Köprü Çayı watershed resulted in serious deforestation in the southern part of the watershed and even though the amount of the rain in the region remained the same since, there has been a great increase in the amplitude of inundation.

The data used in the study is collected via CBS software, air photographs and field study realized in the area. The surface and location of the forest area damaged in the fire was designated from the air photographs with the help of CBS software. The same method was also used to determine the number of stream branches affected by the fire and their length.

The data collected indicates there are numerous short side branches close to the main branch of the stream affected by the fire. This caused more inundations than before the fire due to the downpours occurring in the stream watershed. This study aims to decrease the inundations in the watershed and to provide future solutions.

Key Words: Forest fire, inundation, watershed, deforestation.

Land Use Changes and Problems on the Zone of Coastal Cliffs in Antalya

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Abstract

Antalya Cliffs stretch out as a 13 km. long strip between Konyaalti and Lara beaches, south of the Antalya city center. Cliffs, which are formed with steep slopes having an average height of 30 m. above the sea level, are important geographical textures forming the natural landscape of the city.

Cliffs, which form the natural landscape of the city, are being invaded by residential and recreational fields in recent years. This condition gives harm to the natural landscape of the city and destruction dangers arise with ground collapses of humane structures like cafés and restaurants established on cliffs inconveniently.

The aim of this study is to explain the applied geomorphology problems (ground collapse, slope failure etc.) that may be experienced by residential and recreational fields established on cliffs and the damages given by these structures to the natural landscape of the city.

The data related to the study are obtained through field study made on-site, photos taken from the sea and the examination of current literature explaining the structure of cliffs.

As a result of the obtained data and conducted field studies, it is seen that many humane structures like cafés and restaurants are constructed on cliffs. It is determined that the cracks on cliff sides, where majority of these humane structures are present, can be seen with naked eye. It is decided as a result of this study that material and non-material damages of possible landslides and collapses shall be inevitable unless required measures are taken against these structures and permissions are not given to the establishment of new ones.

Key Words: Land Use, Coastal Cliffs, Antalya.

Determining Thermal Comfort Zones for Outdoor Recreation Planning: A Case Study of Erbil - Iraq

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Abstract

This study finds out thermal comfort zones for outdoor recreation planning in Erbil. Therefore, spatial distribution of Physiologically Equivalent Temperature (PET), which is a measure of thermal comfort, was obtained for the City of Erbil using meteorological data collected from 6 different weather stations located in the study area. Air temperature, relative humidity, and wind speed are required for the calculation of PET. Data obtained from 6 meteorological stations, 15:00 over the period from 1992 to 2015 were used to calculate monthly PET values with RayMan 1.2 software. PET was spatially interpolated using IDW tool in ArcGIS 10.2 to convert the point-data consisting of PET-values for individual meteorological station into a continuous surface so that maps of spatial distribution of PET values could be created. The most comfortable months and areas for outdoor recreation activities were determined by analyzing these maps. The results reveal fundamental information which is of particular relevance to recreation authorities.

Key Words: Termal Comfort Zone, Outdoor Reaction Planning, Erbil, Iraq

Türkiye Nehir Midyelerinin Zoocoğrafyası

Ümit Kebapçı

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Özet

Toplamda 5 cinsle ait 13 türden oluşan Türkiye nehir midyeleri içinde 1 tür ve bir alttür Anadolu'ya endemiktir. Bu cinsler içinde yer alan Pliyosen dönemde Pannon havzasında yaygın olarak fosillerine rastlanılan *Potomida* cinsine ait bir türe ait iki alttür Akdeniz korotipine aittir. Bu cins Doğu Akdeniz ve Batı Akdeniz arasında ayırık bir yayılış göstermektedir. Diğer zoocoğrafik açıdan ilginç bir cins olan *Leguminaria* Güney Asya korotipine ait olup relik bir grubu temsil etmektedir. Bu cinsle ait iki tür sadece Asi-Fırat havzasında bulunmaktadır. Fırat-Dicle havzasına ait *Pseudodontopsis* cinsi Türkiye sınırlarının dışında yayılış göstermektedir. Avrupa elemanı *Unio* cinsine ait 5 türden *Unio pictorum* daha çok Trakya ve Batı Anadolu yayılışlı iken, *Unio crassus* geniş yayılışlıdır. Fırat-Dicle havzasına özgü 2 *Unio* türü diğerlerinden genetik olarak ayrılmıştır, bu gruptan olan *Unio eucirrus* türünün yayılışı tam olarak bilinmemektedir. Anadontin 4 tür bölgesel yayılış göstermeleri bakımından ilginçtirler. Orta Anadolu Platosu Türkiye nehir midyeleri için geniş bir bariyer teşkil etmekte olup, bu nedenle geniş yayılışlı türlerin dağılımları kesintili görünüm arz etmektedir.

Anahtar Kelimeler: Nehir midyesi, zoocoğrafya, Türkiye.

Göller Bölgesi'nde Gastropod Çeşitliliği ve Koruma Problemleri

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Özet

195 tür ve alttür ile Türkiye kara ve tatlısu salyangozları için bir çeşitlilik merkezi olan Göller Bölgesi özellikle Hydrobiidae familyasından salyangozlar açısından yüksek endemizm göstermektedir. Su kaynaklarının kuruması, habitat tahribi ve kirlilik bakımından bu bölgede yaşamış olan 7 endemik tatlısu türüne artık rastlanmamaktadır. Alanın yarısından henüz fazlası kapsamlı saha araştırmaları ve taksonomik incelemeye tabi tatulamadığından, gizli yokoluşların olduğu tahmin edilmektedir. Sahanın tamamı için, kireç kayalıklarının olduğu bölgelerde mermer madenleri son yıllarda başlıca problem haline gelmiştir. Bu ve benzeri çevre sorunlarının popülasyon düzeyinde etkilerini anlayabilmek için detaylı çalışmalar yapılması gerekmektedir.

Anahtar Kelimeler: Gastropod, çeşitlilik, göller yöresi, koruma problemleri

Ilıca Şelalesi (Kastamonu-Pınarbaşı): Coğrafi bir Bakış

Asım Çoban

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Özet

Türkiye'nin jeomorfolojik kaynaklı doğal zenginliklerden birisi de şelaleleridir. Günümüzde turizmin hedef alanları giderek değişmekte, deniz-kum-güneş üçlüsü yanında doğa ve kültürel değerlere yönelik ilgi her geçen gün daha da artmaktadır. Bu durumda turizm sektöründen beklenen faydanın sağlanabilmesi için ülkemizin sahip olduğu doğal ve kültürel değerlerin güncellenmesi, gerekli tanıtımın yapılabilmesi büyük önem taşımaktadır. Sahip olduğu doğal zenginlikleri henüz yeteri kadar değerlendirme imkânı bulamamış olan ülkemizin doğa harikası güzelliklerinin literatüre kazandırılması da ayrı bir sorumluluk oluşturmaktadır.

Ilıca şelalesi Kastamonu İlinin Pınarbaşı ilçesine bağlı Ilıca köyünde bulunmaktadır. Pınarbaşı ilçesine uzaklığı 11 km olup, Kastamonu İl merkezine uzaklığı ise 91 km dir. Horma kanyonunun dik yamaçlarından doğan Ilıca şelalesi sularını 10 m yükseklikten tabanda oluşturduğu geniş bir doğal göle boşaltmakta olup, etrafı ise gür nemli orman formasyonu ile kaplı bulunmaktadır. Küre dağları milli parkının hemen yanı başında bulunan Ilıca şelalesinin bulunduğu saha doğal oluşuklar bakımından oldukça zengin olup, doğa turizmi açısından her birisi ayrı bir değer olan Valla kanyonu, Çatak kanyonu, Horma kanyonu ve Ilgarini mağarası gibi doğa harikaları da burada yer almaktadır. Ayrıca sahada Küre dağları milli parkının yer alması da sahaya ayrı bir önem kazandırmakta, çok farklı turizm aktiviteleri için uygun bir saha konumuna taşımaktadır. Ilıca şelalesi daha çok yakın çevreden gelen ziyaretçileri ağırlamakta, konaklama amacıyla da ahşap malzemeden yapılmış 14 adet bungalow tipi barınaklarda 56 adet yatakla hizmet veren bir tesise sahip bulunmaktadır. Bu doğa harikası şelaleyle birlikte yakın çevresinde yer alan Valla kanyonu, Çatak kanyonu, Horma kanyonu ve Ilgarini mağarasının tanıtılmasıyla birlikte sahanın ekoturizmin çok önemli hedeflerinden biri konumuna geleceği, yeterli alt yapı çalışmalarını takiben de çok ciddi yoğunlukta ziyaretçi çekeceğini düşünmekteyiz.

Anahtar Kelimeler: Şelale, Ilıca, Turizm, Kastamonu, Pınarbaşı

The Largest Center of Non-Ferrous Metallurgy in Kazakhstan – The Issues of Sustainable Development of Zhezkazgan Monotown

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Abstract

Zhezkazgan is a city located in the central part of the Republic of Kazakhstan. Zhezkazgan has the most powerful industrial potential. It is the center of nonferrous metallurgy, education and culture. In order to increase the competitiveness of the Republic of Kazakhstan, it is important to study areas which have existing industrial structure and determine post-industrial development direction. Eventually, they, in turn, will be a basis for the general industrial development of the country.

Peculiarity of monotowns when compared to other cities with multifunctional economy is that monotowns mostly depend on business environment, changes in state purposes, state of economy industries, a foreign market conditions, instable demand for products etc. As a rule, the monotowns have close relations with the largest city-forming enterprises which have great impact on all important aspects of city life. This article deals with the models of restoration and support of human resources in monotowns during crisis on the basis of experience of foreign countries (Australia, the USA, the Czech Republic, and Germany). If the concentration of natural resources and the spatial advantage of geographical location are considered as sustainable development priorities, then dependence of the economy of Zhezkazgan on the largest enterprises and the dissatisfaction with the environment quality are characterized as the limiting factors in the city development.

Key Words: City - forming enterprise, restructuring, diversification of the economy, measures of the state support, development models.

Methodical Peculiarities of Remote Sensing Data Processing of SPNT Land (On the Example of Ili Alatau Park Reserve)

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Abstract

Monitoring of land of SPNTs (specially protected natural territories) is an indispensable and important task in the growing human impacts and environmental pollution and the need to develop systems of specially protected natural territories on the lands of a large city and competent management increases.

SPNT or Alatau reserve park monitoring is using natural resources and minimizing the impact of anthropogenic factors on the environment. This requires the monitoring of the composition of SPNTs land using effective aerospace methods. Improving the techniques of automatic decoding the satellite imagery and developing technology of aerospace monitoring SPNTs of Ili Alatau reserved Park are relevant research questions.

In the paper the method of estimating the overall accuracy of automatic decoding of satellite imagery and its increase by an average of 10.5% was improved, substantiated and implemented. The dependence of the overall accuracy of the classification on the number of parts, which are divided into the original picture was determined. Dependence shows that classification accuracy increases according to the separation of the image, but if it is disaggregated more than 4 parts. Further division does not significantly improve the accuracy.

In the article the solutions of the urgent problems of classification of agricultural land of SPNTs or Ili Alatau, improvement of methods of automatic decoding of satellite images by means of maximum likelihood method, which allows to increase the overall accuracy of the classification by an average of 10.5% are presented.

A comparative analysis of methods of supervised classification and cluster analysis of satellite imagery is made on the basis of various algorithms for automatic decoding: the minimum distance, the parallelepiped, the maximum likelihood. It was established that in order to achieve the most accurate classification it is necessary to choose the maximum likelihood algorithm ($T = 71.5\%$). Other methods give results with less classification accuracy.

Key Words: Aerospace monitoring, algorithm, decoding, space images, classification, monitoring, SPNTs (specially protected natural territories), Landsat8.

Assessment of Uncontrolled Landfills Impact on Ecosystems in Georgia

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Abstract

The proper management of the wastes is one of the sound environmental problems of mankind. Uncontrolled landfill sites management is necessary for the elimination corresponding pollution risks.

In present research the inventory of the uncontrolled sites is fulfilled. It includes numerous uncontrolled landfill sites existing in the districts/regions of Georgia.

In Georgia the uncontrolled landfills, due to the inefficient management of the different types of wastes, ignoring the principles of sustainable development creates conditions for the significant increase of soil and partially surface waters pollution levels. That considerably worsens social and economic conditions of the population.

Due to the direct impact on the surrounding areas the landfill sites are often the main polluters of the environment. The special research is carried to determine quantitatively the pollution levels in the samples collected. The pollution conditions are studied based on modern methodology and techniques (ISO methods).

The analyses of received results show:

- The pollution is different for the West and East Georgia. The analysis of the water and soil samples reveal that the territories and water bodies adjacent to the landfills located in western Georgia are relatively less polluted than similar areas in the eastern Georgia;
 - In Kakheti and Samtskhe-Javakheti regions (East and South Georgia correspondingly) concentrations of various polluting ingredients (heavy metals, biogenic elements) determined from the soil and water samples exceeded the maximum permissible concentrations;
 - In East Georgia heavy metals and total coliform high concentrations are defined. The pollution by cadmium in c. Marneuli (Qvemo Kartli) and contamination by coliform forms in the water in vil. Metekhi (Shida Qartli Region) would be noted.
- Key Words:** landfill, wastes, pollution, biogenic elements, environment.

Demographic Study of Urbanization in Iran

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Abstract

In Iran, by relying on the export of crude petroleum for economic growth, cities transformed into centers of social change. The first ever census in Iran in 1956 demonstrated that less than one-third of the country's population were urban dwellers. Around 1981, the share of rural and urban dwellers become equal while according to the 2011 census, over 70 percent of Iran's population was residing in cities. Consequently, urbanization increased by 0.73 percent per annum from the first to the most recent census. With 95 percent of its population being urban dwellers, the province of Ghom occupies the first place in terms of urbanization in both the 2006 and 2011 censuses, closely followed by the provinces of Tehran, Alborz, and Isfahan. The lowest rate of urbanization was the provinces of Hormozgan and Sistan and Baloochestan. The number of Iranian cities in the first census (1956) was 201. This figure stood at 1139 in 2011, with the province of Isfahan (with 101 cities) ranking as the province with the highest number of cities, followed by the provinces of Fars, Khorassan Razavi, Kerman, Khoozestan, and East Azerbaijan that comprise almost 40 percent of Iran's urban areas. According to the 2011 census, almost 33 percent of Iran's cities have a population of less than 5000 inhabitants. Once the cities with a population of 5000-10,000 are added to this category, the percentage of cities with less than 10,000 populations is 57 percent. In the 2011 census, 14 cities had more than half a million people. Tehran is Iran's most populated city followed in order by Mashhad, Isfahan, Karaj, Tabriz, Shiraz, Ahvaz, and Ghom, with a population of over one million each. The multivariate analysis based on individual data (sample data file of the two percent of the 2011 census) delineates that the development level of origin is the most important identifier of the probability of migration to urban areas in Iran. Migrants from developed areas mostly tend to opt for urban areas. The next variables are the educational degree of the migrants, migration pattern, age at the time of migration, origin (rural, urban), migrant's sex and heading a household.

Key Words: Urbanization, Number of Cities, Most Populated Cities, Probability of Migration to Urban,

The Importance of Anthracite and Usage in terms of Energy Resources in Turkey

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Abstract

Energy which economically provides the most important income, is today, as it was in the past, the production factor which mankind emphasized and fought for in order to obtain it. Energy sources on earth have gradually started to run out and the ones still existing have become very valuable.

Increasing of energy usage area as main source of economical activity increases demand of energy sources in parallel with energy necessities. Nowadays, electrical energy is accepted as one of the most important component of economical progress and social comfort. Electric energy has to be available when it is required and it must be good quality, economic, reliable, continuous, environment friendly and cheap.

In order to see Turkey in and to continue the economic growth give the necessary importance to the energy sector, the strategic plan must be realized as soon as possible.

Key Words: Energy, Energy Sources, Energy Sector in Turkey, Hardcoal.

Karstification on Conglomerates: Case Study in the Göller Highlands and Surroundings (Kozan - Adana)

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Abstract

The Study area is located in the Mediterranean region and its sub region Adana. Its far of the Kozan district is 50 km Northeast direction. Its coordinates are 37°49'29"N latitude and 35°58'48"E longitude in West, 37°47'34"N latitude and 36°15'48"E longitude in East, in terms of Geographical Coordinate System. Karstic Landforms which extent NE-SW direction demonstrat parallelism in respect of direction Middle Tours. They are from 930 m. to 2230,4 m. at highs from sea level. These Landforms have been shaped with carstification, erosion and tectonic movements in the Upper Miocene Conglomerates.

Karstic Landforms have been shaped with carstification together tectonic movements/lines. The Region has been occurred with faults which are formed between Misis and Göksun at the east part of Gezit Mountain. West part of study area has been shaped with Göksu Fault and Near Parallel Faults. These Karstik Landforms are different more than other shapes because These have formed Upper Miocene Conglomerate Rocks. This Formation covers more than other old formations in terms of angular incongruous. This is because Carstification landforms and term of carstification are very different on the Paleozoic, Mesozoic, Cenozoic limestones and Gympus. Conglomerate Rocks have very different Carstic landforms and period of carstification.

The aim of in this study is to determine The Karstik Landforms (Lapies, Dolins, Uvalas, Poljes and Caves), to introduce carstification on the Miocene Conglomerates, to evaluate tourism potential and land use situation on the Göller Summer Resort and Near Surroundings.

Key Words: Karstic Landforms, Paşalı Polje, Gezit Polje, Gezit Mountain, Hopka Mountain, Karstification of Miocene Conglomerates.

Some Travertine Areas in Turkey: As Touristic Attractions

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Abstract

Turkey is a rich country in terms of cultural and natural touristic attractions. Travertines are one of the natural touristic attractions. Travertines are the sedimentary rock consist of Calcium carbonate that deposited by hot or cold springs containing $\text{Ca}(\text{HCO}_3)$. Travertine bridge, terrace, chimney, cone or some forms in caves are the examples of structures of Travertines. These are rare forms. Turkey has many Travertine areas could be benefited in natural tourism. For example Pamukkale is the most important travertine site in Turkey. Over one million tourists visit it every year. Hisaralanı (Sındırgı –Balıkesir), Bolluk Gölü (Cihanbeyli-Konya), Akçalı (Van), Kuzalan (Giresun), Diyadin (Ağrı), Akkaya (Bolu), Otlukbeli Gölü (Erzincan) are other travertine sites not so famous. Some of the waterfalls such as Düden, Kurşunlu (Antalya), Dipsizgöl (Doğanşar-Sivas), Gürlevik (Erzincan), Pamukkale, Baraklı (Taşova-Amasya), Ağlayankaya, Cindere (Güney-Denizli), Ocaklı (Tokat) developed on travertines. Travertines contribute diversification and development of tourism. In addition to this, some precautions needed to protect the natural heritage in order to develop the nature tourism. In this study, travertine areas with high tourism potential and their main problems in Turkey discussed.

Key Words: Travertine, Natural Heritage, Tourism Geography, Natural Site.