

SEAB2021

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The 5th Symposium on EuroAsian Biodiversity

the 5th international
symposium on
euroasian
biodiversity



JULY 1-3
2021 Almaty
KAZAKHSTAN
Muğla **TURKEY**

Abstract
eBook

Chief Editor

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ISBN: 978-625-409-945-8



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About the Symposium

The 5th Symposium on EuroAsian Biodiversity (SEAB-2021) will be organized by Al-Farabi Kazakh National University, KAZAKHSTAN, and Muğla Sıtkı Koçman University, TURKEY, in collaboration with other universities and institutes from seven different countries, on July 01-03, 2021. SEAB-2021 will be conducted online due to COVID-19 pandemic.

SEAB is one of the largest symposiums that gets together of scientists, conservationists, environmentalists, civil society groups and local communities, a platform to discuss the current status of biodiversity in EuroAsia, an inclusive colloquium to forward strategies and policies to conserve the rich biodiversity heritage of the area.

It is expected that we will have colleagues from related countries for this conference that will represent valuable scientific presentations. During the SEAB-2021, we will have keynote speeches, paper and poster presentations.

SEAB-2021 will provide a scientific platform for conservation leaders, thinkers, and practitioners, scientists, natural resource managers, and environmental consultants to planners, environmental advocates, and corporate and public policy-makers around the EuroAsia to exchange knowledge, discuss issues, share innovations, and network.

Partners

- Muğla Sıtkı Koçman University, Department of Molecular Biology and Genetics; Department of Biology; Department of Chemistry, Muğla, **Turkey**
- Faculty of Biology and Biotechnology, Al-Farabi Kazakh National University & Institute of Plant Biology and Biotechnology, Science Committee of Ministry of Education and Science, **Republic of Kazakhstan**
- Azerbaijan National Academy of Science, Institute of Dendrology Mardakan, Baku, **Azerbaijan**
- Institute of Cell Biology and Genetic Engineering, NASU, (Kyiv, Ukraine) & Taras Shevchenko National University of Kiev, **Ukraine**
- The Georgian Academy of Agricultural Sciences, Tbilisi, **Georgia**
- Russian State Agrarian University, Faculty Agronomy and Biotechnology, Department of Genetics, Biotechnology, Plant Breeding and Seed, Moscow, **Russia**
- Belarus State University, Faculty of Biology, Minsk, **Belarus**



Symposium Topics

Animal Biodiversity
Artificial Intelligence
Biochemical Diversity of Life
Biodiversity and Conservation
Biodiversity and Education
Biodiversity and Food Security
Biogeography and Biodiversity
Bioinvasion and Biodiversity
Bioremediation
Biotechnological Application of Biodiversity
COVID 19
Ecotourism
Environmental Toxicology and Biodiversity
Forest Ecosystem and Biodiversity

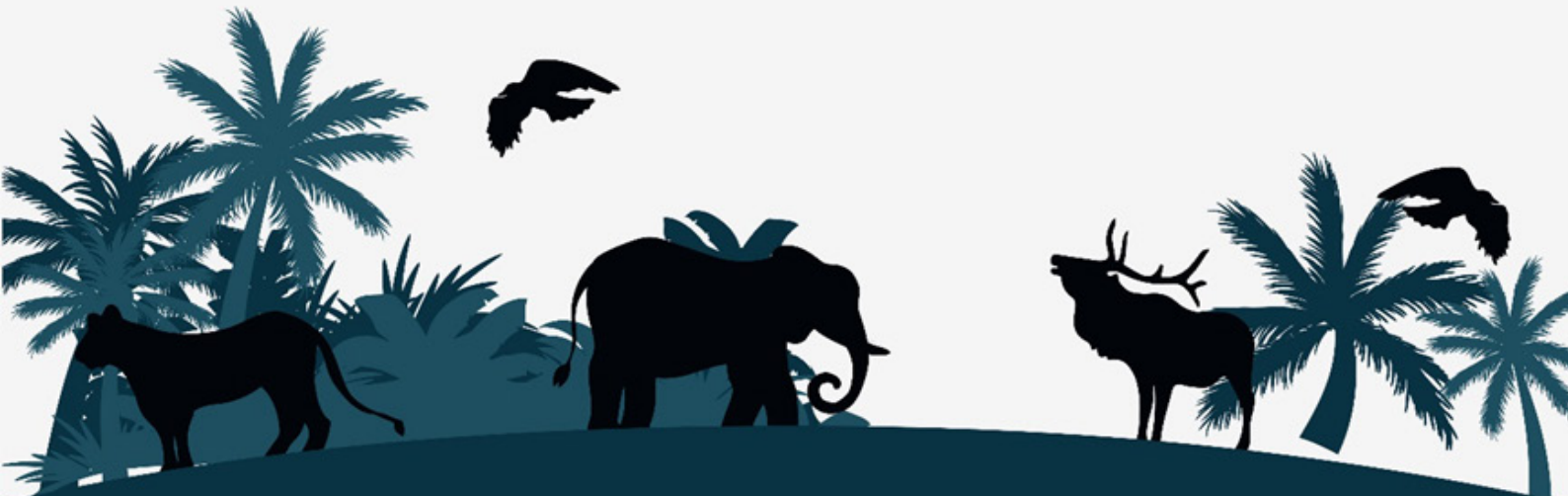
Genetically Modified Organisms and Biodiversity
Genetic Resources and Biodiversity
Global Health Disease and Biodiversity
Green Energy Technology and Biodiversity
Impact of Climate Change and Biodiversity
Marine & Freshwater Biodiversity
Microbial Biodiversity
Plant Biodiversity
Post Genomic Technologies and Biodiversity
Renewable and Sustainable Biodiversity
Soil Biodiversity
Urban Biodiversity
Wild Life Biodiversity



PROGRAMME

of the 5th Symposium on EuroAsian Biodiversity

(KAZAKHISTAN TIME)



DEAR Colleagues

We invite you to take part in the International scientific and practical conference «**The 5th Symposium on EuroAsian Biodiversity (SEAB-2021)**», which takes place on 1-3 July 2021 at 12 AM (by Almaty time), «Al-Farabi Library» of KazNU, 4th floor, No. 3 conference hall and online (Zoom)

Organizers:

- Al-Farabi Kazakh National university
- Muğla Sıtkı Koçman University

Opening Remarks, Plenary reports and Hall A. 1-2 July 2021.

<https://us02web.zoom.us/j/88530986101?pwd=YmhzU1J3bGIvMnc0SHkxVXJKUUVMTUT09>

Conference ID: 885 3098 6101

Access code: 206558

Will be organized by KazNU side.

Hall B. 1-2 July 2021.

<https://us02web.zoom.us/j/85401178233?pwd=TjVER3JLaWRSMlZoL2JEY3VySTNFUT09>

Conference ID: 854 0117 8233

Access code: 279961

Will be organized by KazNU side.

Hall C.

<https://zoom.us/j/8076698176?pwd=MXFhNUdlV2FNeXp6UHE3c1ljeW9EZz09>

Conference ID: 807 669 8176

Access code: SNDAP2

Will be organized by Mugla Universty side.

Hall D.

<https://zoom.us/j/2820125369?pwd=cGxxN1J6VVUvelJLSXNBK0Yvc1Jpdz09>

Conference ID: 282 012 5369

Access code: Zg0HcP

Will be organized by Mugla Universty side



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A Model Method for Using STEM Integration in the Training of the Discipline Biotechnology

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Abstract: Of great importance for the study of the discipline of biotechnology is the analysis of the deep content of standard methods and their application. In this regard, one of the urgent problems is the use of modern integrated STEM programs for the development of scientific competence and professional competence of the individual.

In many countries of the world, the idea of modernizing education, bringing it as close as possible to real life conditions, is implemented using integrated interdisciplinary STEM programs. The abbreviation STEM: S-science, T-technology, E – engineering, M – mathematics means the interaction of natural science disciplines and technologies, the creation of new engineering solutions using mathematical knowledge. The concept of the STEM program involves the creation of students' own project-product, its scheme or model after a preliminary analysis of theoretical information. STEM technologies are aimed at developing practical skills, forming students' readiness to implement creative ideas and further professional activities. During the lesson, students independently create a prototype of the product, using modern materials and equipment, analyzing simple and affordable engineering solutions. It can use existing data and knowledge to create the final product.

Allows you to use elements of medicine, chemistry, biology, mathematics, and physics using STEM integration when teaching plant biotechnology. As a model experience and in the context of in vitro, it is possible to observe the mutual integration of several fields of science at the stages of the processes of growing aquatic plants, studying the meaning, composition, and use of plants. When analyzing the results of research conducted by students in pairs, groups among themselves according to these processes, the opportunities for the development of engineering, technological, mathematical and scientific competencies increase.

During the study of the elective discipline "plant biotechnology", students were given the questions of a comprehensive study of aquatic plants by growing them in the laboratory. The students' research works were presented as a result of the interrelation of the fields of science, technology, mathematics, engineering, technology of growing aquatic plants, the study of biologically active substances in the composition, the construction of special diagrams with a mathematical analysis of the results obtained and the results of research on what products can be obtained based on the results of the research work. The ways of implementing STEM-learning are not limited to these opportunities, their prospects are much broader and today depend on the pedagogical skills and personal interest of each teacher, on how much society is ready for the widespread introduction of innovative technologies.

Keywords: STEM, Students, Biotechnology, Aquatic plants.
