

THE METHODOICAL GUIDE
FOR CONDUCTING
FIELD TRAINING
IN THE DISCIPLINE
ZOOLOGY



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The manual is the second issue of methodological manuals (the first one is Botany, 2015). It provides guidelines for conducting field training in the disciplines of Zoology of Invertebrates and Zoology of Vertebrates. The technique of observing animals from the practice area, clarifying the features of their distribution over different biotopes, etc., is described in detail.

The manual is illustrated with color photographs (24 figures, 12 tables) of invertebrates and vertebrates in the area.

The methodological guide is intended for university students studying in the field of Biology, Biotechnology, Biology-Pedagogy, Fisheries, Ecology, as well as all readers who are interested in the animal world.

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PREFACE

Field training of zoology is important for students of various specialties. In this regard, for first-year students of the Faculty of Biology and Biotechnology of Al-Farabi Kazakh National University, field-training is conducted on the shore of Ile River in the disciplines Zoology, Variety of plants and animals for students in the specialties Biology, Biology and pedagogy, Biotechnology, Fisheries and industrial fish farming. This practice examines the diversity of invertebrates and vertebrates, their biology and significance. Students apply their theoretical knowledge obtained during the year, numerous botanical and zoological methods of research.

In order to conduct daily observations in the natural conditions, excursions to different biotopes are conducted; students are acquainted with the methods of observation, studying the number and capture of animals. After fixing the caught invertebrate animals and visual observation of vertebrate animals, with the help of determinants they can identify animal species; practically get acquainted with the systematic characters and external morphology, reflecting their place in the living world. Students learn to identify vertebrates by traces, voices, habits, using images (silhouettes) of flying birds. In the course of field practice in the disciplines «Zoology» and «Biodiversity of Plants and Animals», students are acquiring techniques of scientific research.

It should be noted that there is no training manual or methodological instruction in the state language on conducting field training practices and on the fauna of the practice area. Although there are textbooks and methodological manuals in the language of international

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Educational issue

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