

ECOLOGIA BALKANICA

International Scientific Research Journal of Ecology

Volume 13, Issue 1
June 2021



UNION OF SCIENTISTS IN BULGARIA - PLOVDIV



UNIVERSITY OF PLOVDIV PUBLISHING HOUSE

International Standard Serial Number
Online ISSN 1313-9940; Print ISSN 1314-0213 (from 2009-2015)

Aim & Scope

„Ecologia Balkanica” is an international scientific journal, in which original research articles in various fields of Ecology are published, including ecology and conservation of microorganisms, plants, aquatic and terrestrial animals, physiological ecology, behavioural ecology, population ecology, population genetics, community ecology, plant-animal interactions, ecosystem ecology, parasitology, animal evolution, ecological monitoring and bioindication, landscape and urban ecology, conservation ecology, as well as new methodical contributions in ecology. The journal is dedicated to publish studies conducted on the Balkans and Europe. Studies conducted anywhere else in the World may be accepted only as an exception after decision of the Editorial Board and the Editor-In-Chief.

Published by the Union of Scientists in Bulgaria – Plovdiv and the University of Plovdiv Publishing house – twice a year. Language: English.

Peer review process

All articles included in “Ecologia Balkanica” are peer reviewed. Submitted manuscripts are sent to two or three independent peer reviewers, unless they are either out of scope or below threshold for the journal. These manuscripts will generally be reviewed by experts with the aim of reaching a first decision as soon as possible. The journal uses the double anonymity standard for the peer-review process. Reviewers do not have to sign their reports and they do not know who the author(s) of the submitted manuscript are.

We ask all authors to provide the contact details (including e-mail addresses) of at least four potential reviewers of their manuscript. These should be experts in their field of study, who will be able to provide an objective assessment of the manuscript. Any suggested peer reviewers should not have published with any of the authors of the manuscript within the past five years and should not be members of the same research institution. Members of the Editorial Board of the journal can be nominated. Suggested reviewers will be considered alongside potential reviewers identified by their publication record or recommended by Editorial Board members.

Once an article is accepted, it is published in Ecologia Balkanica immediately online first as a PDF file. The paper will subsequently be published in both full text formatted PDF online (open access) and in the print copy of the journal.

Abstracting & Coverage

- Scopus (SJR₂₀₂₀ = 0.144; SiteScore₂₀₂₀ = 0.2; SNIP₂₀₂₀ = 0.207)
- SCImago Journal Rank (SJR, 2016-2020 - Q4)
- Thomson Reuters Master Journal List - Zoological Record (Web Of Science)
- Thomson Reuters BIOSIS Reviews (Web Of Science)
- Thomson Reuters Biological Abstracts (Web Of Science)
- Index Copernicus (ICv2015=84.21; ICv2016=96.15; ICICv2018=109.62; ICv2019=111.46)
- Directory of Open Access Journals (DOAJ)
- EBSCO
- CAB International – CABI Abstracts
- All-Russian Institute of Scientific and Technical Information (VINITI) (Referativnyi zhurnal)
- Elsevier (GEOBASE)
- Ulrich's Web (ProQuest)
- Google Scholar Search Engine and many others.

Editorial Board

Editor-In-Chief:

Prof. Iliana Velcheva, PhD

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Co-Editor-In-Chief:

Assoc. Prof. Ivelin Mollov, PhD

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Editorial Secretary:

Chief Assist. Prof. Vessela Yancheva, PhD

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Technical Editor:

Alexander Petrov

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Subject Editors/Responsible Editors:

Ecology and conservation of microorganisms -

Prof. Velizar Gochev, PhD

University of Plovdiv, Faculty of Biology, Department of Biochemistry and Microbiology, BULGARIA

Ecology of plants, community ecology -

Assoc. Prof. Kiril Vasilev, PhD

Institute of Biodiversity and Ecosystem Research, BAS, Sofia, BULGARIA

Ecology of vertebrates, animal evolution -

Prof. Kerim Çiçek, PhD

Ege University, Faculty of Science, Biology Department, Bornova/Izmir, TURKEY

Landscape and urban ecology; conservation ecology; physiological ecology; behavioral ecology; parasitology -

Assoc. Prof. Ivelin Mollov, PhD

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Population genetics; genotoxicity -

Prof. Evgenya Ivanova, DSc

University of Plovdiv, Faculty of Biology, Department of Developmental Biology, BULGARIA

Ecological monitoring and bioindication; ecotoxicology; soil ecology; ecosystem ecology -

Assoc. Prof. Gana Gecheva, PhD

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Advisory Board:

Assoc. Prof. Dilian Georgiev, DSc

University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation, Plovdiv, BULGARIA

Chief Assist. Prof. Slaveya Petrova, PhD
University of Plovdiv, Faculty of Biology, Department of Ecology and Environmental Conservation,
Plovdiv, BULGARIA

Prof. Peter Genov, DSc
Institute of Biodiversity and Ecosystem Research, BAS, Sofia, BULGARIA

Prof. Rumen Mladenov, PhD
University of Plovdiv, Faculty of Biology, Department of Botany, BULGARIA

Prof. Georgi Georgiev, DSc
Forest Research Institute, BAS, Sofia, BULGARIA

Prof. Dan Cogălniceanu, PhD
Ovidius University Constanta, ROMANIA

Prof. Bilal Öztürk, PhD
EGE University, Izmir, TURKEY

Prof. Elena Zheleva, PhD
University of Forestry, Sofia, BULGARIA

Prof. Željko Tomanović, DSc
Belgrade University, Faculty of Biology, Department of Comparative Morphology and Systematics of
Animals, SERBIA

Prof. Jordan Živanović, PhD
"Goce Delcev" University, Department of Geology and Geophysics, Stip, MACEDONIA

Prof. Vladimir Pešić, PhD
University of Montenegro, Department of Biology, MONTENEGRO

Assoc Prof. Emilia Varadinova, PhD
Institute of Biodiversity and Ecosystem Research, BAS, Sofia, BULGARIA
South-West University, Blagoevgrad, BULGARIA

Assoc Prof. Atanas Arnaudov, PhD
University of Plovdiv, Faculty of Biology, Department of Human Anatomy and Physiology, Plovdiv,
BULGARIA

Assoc. Prof. Marko Sabovljević, PhD
University of Belgrade, Faculty of Biology, Institute of Botany and Garden, SERBIA

Assoc. Prof. Ignacy Kitowski, PhD
State School of Higher Education in Chelm, POLAND

Assist. Prof. Joanna Czarnecka, PhD
Maria Curie-Sklodowska University, Institute of Biology, Department of Ecology, Lublin, POLAND

Assist. Prof. László Antal, PhD
University of Debrecen, Faculty of Science and Technology, Department of Hydrobiology, Debrecen,
HUNGARY

Pedro Vinagre, PhD
WavEC - Offshore Renewables, Marine Environment and Public Policies Team, Lisboa, PORTUGAL

Contact Publisher

Union of Scientists in Bulgaria – Plovdiv
6 Metropolit Paisii Str., 4000 Plovdiv,
BULGARIA

E-mail: ecologia_balkanica@abv.bg

University of Plovdiv Publishing House
24 Tsar Assen Str., 4000 Plovdiv, BULGARIA

IMPORTANT: Since 2016 the journal is published ONLY electronically (**open access**). You may access the full text of all issues of “Ecologia Balkanica” from our website:

<http://eb.bio.uni-plovdiv.bg>

Open Access Policy

Ecologia Balkanica provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge. Open Access in journal publishing means:

- * Direct, barrier-free, online dissemination of scientific results at no charge for readers
Authors retain the copyright of their articles,
- * Open Access papers may be copied, downloaded, and used for text- and data-mining purposes, provided that such uses are fully attributed on a non-commercial basis,
- * High visibility of the work – anyone can read your article at no charge,
- * Higher citation rates due to higher visibility,
- * Quick publishing as pre-prints published immediately upon acceptance,
- * Articles are archived and searched through several major OA repositories

Manuscript submission

The following types of manuscripts are accepted: short research notes (up to 4 pages), research articles (up to 10 pages) and review papers (up to 20 pages). Short research notes are shorter submissions of a preliminary nature or those including new records or observed phenomenon etc. Research articles should present significant original research in the various fields of ecology. Review papers should deal with topics of general interest or of contemporary importance, being synthetic rather than comprehensive in emphasis. Authors of Review papers should consult with the Editor before submission.

Submitted manuscripts are sent to two or three independent peer reviewers, unless they are either out of scope or below threshold for the journal. These manuscripts will generally be reviewed by experts with the aim of reaching a first decision as soon as possible. The journal uses the double anonymity standard for the peer-review process. Reviewers do not have to sign their reports and they do not know who the author(s) of the submitted manuscript are.

Once an article is accepted, it is published in Ecologia Balkanica immediately online first as a PDF file. The paper will subsequently be published in both full text formatted PDF online (open access) and in the print copy of the journal. The **rejection rate** of received manuscripts of the journal for 2020 is **39.72%**.

CONTENTS

Research Articles

- Data on Some Parasitic and Semi-parasitic Plant Species from Serpentine of Kosovo
Ismet Ahmeti, Elez Krasniqi, Fadil Millaku, Mitko Kostadinovski, Arben Mehmeti, Marash Rakaj..... 1-7
- Copulatory Behavior of the Egyptian Vulture (*Neophron percnopterus*) in the Eastern Rhodopes, Bulgaria
Vladimir D. Dobrev, Emil S. Yordanov, Georgi S. Popgeorgiev9-16
- Assessment of the Environmental State of North-Western Black Sea Coast Territories, Ukraine using Indicators of Sustainable Development
Angelina V. Chugai, Tamerlan A. Safranov, Viktor V. Pylypiuk, Iryna O. Soloshych17-26
- Data on the Stomach Content Analysis and Fat-body Morphology in the Agile Frog (*Rana dalmatina* Fitzinger in Bonaparte, 1838) during the Mating Season in Bulgaria
Teodora V. Koynova, Simona I. Valkova, Nikolay P. Simov, Mario S. Langourov, Nikolay D. Natchev27-33
- Technogenic Impact of Acid Tar Storage Ponds on the Environment: A Case Study from Lviv, Ukraine
Vasyl V. Popovych, Myroslav S. Malovanyy, Olexsandr V. Prydatko, Nataliya P. Popovych, Mykhaylo V. Petlovanyi, Kateryna A. Korol, Andriy S. Lyn, Pavlo V. Bosak, Olena G. Korolova..... 35-44
- Vascular Flora of Railway Junctions in the Upper Tracian Lowland (Bulgaria)
Tsvetanka G. Raycheva, Plamen S. Stoyanov, Krasimir T. Todorov, Teodora D. Raycheva 45-53
- Long-term Trends in *Pseudo-nitzschia* Complex Blooms in the Black Sea - is there a Potential Risk for Ecological and Human Hazards
Nina Dzhebekova, Nataliya Slabakova, Violeta Slabakova, Ivelina Zlateva, Snejana Moncheva..... 55-75
- On the Golden Jackal's (*Canis aureus* Linnaeus, 1758) Distribution During Snow Period in the Central Part of Stara Planina Mts, Bulgaria
Krasimir B. Kirilov, Stanislava P. Peeva 77-87
- Biological Activity of Native Bacterial Isolates Against Aphids in Beans and Peas Field Production
Vinelina P. Yankova, Dima M. Markova, Mladen K. Naydenov 85-92
- Population Dynamics and Structure of Zooplankton Community of Mandra Reservoir, Bulgaria
Dimitar S. Kozuharov, Eleonora Ts. Fikovska, Marieta S. Stanachkova.....93-104

Pollen Morphology and Pollen Production of Invasive and Native Impatiens Species Growing in Bulgaria
Dolja K. Pavlova, Plamen S. Glogov 105-117

Rumex kernerii Borbás (Polygonaceae) in the Bulgarian flora – Morphology, Leaf Epidermis, Pollen Morphology, and Karyology
Tsvetanka G. Raycheva, Kiril H. Stoyanov, Plamen S. Stoyanov 119-130

Aquatic Macroinvertebrates Diversity in the Upper Stretch of Una River (Una National Park, SW Bosnia and Herzegovina)
Azra Bakrac, Biljana Rimceska, Branka Bilbija, Ana Atanackovic, Aida Dzaferovic, Vera Nikolic, Vanja Markovic 131-141

Changes in the Composition of Natural Grassland (*Chrysopogon gryllus* type) in Grazing and Haymaking Mode of Use
Tatyana I. Bozhanska, Minko N. Iliev 143-153

Short notes

Cadmium Induced Ultrastructural Changes in Chloroplasts of *Elodea nuttallii* (Planch). H. St. John Leaves
Viktoria A. Hristova, Boris V. Tsenov, Dimitrina P. Koleva 155-159

Long-distance Exploratory Dispersal of an Immature Egyptian Vulture (*Neophron percnopterus*) from the Balkans
Vladimir D. Dobrev, Georgi S. Popgeorgiev 161-165

Hydnotrya michaelis – an Uncommon Fungus from Unexpected Habitat
Monica Slavova, Boris Assyov, Teodor T. Denchev, Cvetomir M. Denchev 167-171

They are Back: Notes on the Presence and the life Activities of the Eurasian Beaver (*Castor fiber* L. 1758) from the Territory of Bulgaria
Nikolay D. Natchev, Nikolay P. Nedyalkov, Maria Zh. Kaschieva, Teodora V. Koynova 173-175

Synopses

Syntaxonomical and Ecological Diversity of Class *Artemisietea vulgaris* Lohmeyer et al. in Tx. ex von Rochow 1951 in Bulgaria
Kiril V. Vassilev, Momchil I. Nazarov, Beloslava N. Genova, Borislav G. Grigorov, Stoyan I. Georgiev, Nikolay I. Velez 177-196