

ECOLOGIA BALKANICA

International Scientific Research Journal of Ecology

Volume 7, Issue 1
June 2015



UNION OF SCIENTISTS IN BULGARIA - PLOVDIV



UNIVERSITY OF PLOVDIV PUBLISHING HOUSE

International Standard Serial Number
Print ISSN 1314-0213; Online ISSN 1313-9940

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. Studies conducted on the Balkans are a priority, but studies conducted in Europe or anywhere else in the World is accepted as well.

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 & Covarage

- CAB International - CAB Abstracts
- Directory of Open Access Journals (DOAJ)
- GeoBase (Elsevier)
- Index Coupernicus
- Ulrich’s Web (ProQuest)
- Zoological Record (Thompson Reuters)
- IMBIOMED
- Reasearch4Life (OARE, AGORA, HINARI)
- BASE (Bielefeld Academic Search Engine)
- EBSCO
- All-Russian Institute of Scientific and Technical Information (VINITI) (Referativnyi zhurnal)
- Socol@r (China)
- Google Scholar Search Engine and many others.

Editorial Board

Editor-In-Chief:

Prof. Iliana Velcheva, PhD

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

Co-Editor-In-Chief:

Ch. Assist. Prof. Ivelin Mollov, PhD - University of Plovdiv, Department of Ecology, BULGARIA

Editorial Board:

Prof. Simeon Vasilev, PhD - Chairman of Union of Scientists in Bulgaria - Plovdiv, BULGARIA

Assoc. Prof. Gana Gecheva, PhD - University of Plovdiv, Department of Ecology, BULGARIA

Assoc. Prof. Dilian Georgiev, DSc - University of Plovdiv, Department of Ecology, BULGARIA

Ch. Assist. Prof. Slaveya Petrova, PhD - University of Plovdiv, Department of Ecology, BULGARIA

Ch. Assist. Vessela Yancheva, PhD - University of Plovdiv, Department of Ecology, BULGARIA

Associate Editors:

Prof. Peter Genov, DSc - Institute of Zoology, BAS, Sofia, BULGARIA

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

Prof. Panos Economidis, DSc - Aristotle University, Laboratory of Ichthyology, GREECE

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. Aziza Sharaby, PhD - National Research Center, Cairo, EGYPT

Assoc. Prof. Željko Tomanović, DSc - Belgrade University, Faculty of Biology, SERBIA

Assoc. Prof. Dimitar Bechev, DSc - University of Plovdiv, Department of Zoology, BULGARIA

Assoc. Prof. Angel Tsekov, PhD - University of Plovdiv, Department of Ecology, BULGARIA

Assoc. Prof. Atanas Arnaudov, PhD - University of Plovdiv, Faculty of Biology, BULGARIA

Assoc. Prof. Vencislava Vancheva, PhD - Agriculture University, Plovdiv, BULGARIA

Assoc. Prof. Jordan Živanović, PhD - Goce Delcev University, Stip, MACEDONIA

Assoc. Prof. Vladimir Pešić, PhD - University of Montenegro, Depart. Biology, MONTENEGRO

Assoc. Prof. Snezana Stavreva-Veselinovska, PhD - Goce Delcev University, MACEDONIA

Assist. Prof. Ignacy Kitowski, PhD - University of Life Sciences in Lublin, POLAND

Assist. Prof. Joanna Czarnecka, PhD - Maria Curie-Sklodowska University, Lublin, POLAND

Assist. Prof. Kerim Çiçek, PhD - Ege University, Bornova/Izmir, TURKEY

Assist. Prof. Marko Sabovljević - University of Belgrade, Institute of Botany and Garden, SERBIA

Dimitra Bobori, PhD - Aristotle University, School of Biology, Thessaloniki, GREECE

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

Note that there is also an electronic version of the journal – **open access**. You may download the full text version of “Ecologia Balkanica” – Volume 7, Issue 1/2015 from:

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

Sponsors



The current issue of *Ecologia Balkanica* is published with the financial support of. The Student Council at the University of Plovdiv "Paisii Hilendarski" - Plovdiv, Bulgaria.

Contact: <http://ss.uni-plovdiv.bg/>

Partners and collaborators



Index Copernicus (IC) is a world-wide gateway to complex scientific information. This system is aimed at: academic-level researchers, clinical practitioners, information and reprint providers, librarians, journal editors, government agencies.

Contact: Al. Jerozolimskie 146 C, 02-305 Warsaw, Poland.

Tel: +48 22 347 50 77 E-mail: office@IndexCopernicus.com

<http://www.indexcopernicus.com/>



Elsevier - GEOBASE

GEOBASE is a unique multidisciplinary database supplying bibliographic information and abstracts for development studies, the Earth sciences, ecology, geomechanics, human geography, and oceanography. The database provides current coverage of almost 2,000 international journals, including both peer-reviewed titles and trade publications, and provides archival coverage of several thousand additional journal titles and books. GEOBASE contains over 1.4 million records from 1980 to present, with more than 100,000 citations and abstracts added annually (almost 985 of all records include abstracts).

<http://www.elsevier.com>



CABI is a not-for-profit international organization that improves people's lives by providing information and applying scientific expertise to solve problems in agriculture and the environment. Our mission and direction is influenced by our member countries who help guide the activities we undertake. These include scientific publishing, development projects and research, and microbial services. 2010 marks 100 years of CABI. Since its beginnings as an entomological committee in 1910, it then developed into a Commonwealth organization before becoming a truly international service in agricultural information, pest identification and biological control in the mid 1980s.

Contact: <http://www.cabi.org/>



EBSCOhost® databases are the most-used, premium online information resources for tens of thousands of institutions worldwide, representing millions of end-users.

Contact: 10 Estes Street Ipswich, MA 01938 USA

Phone: (978) 356-6500, Toll Free: (800) 653-2726 (USA & Canada)

Fax: (978) 356-6565 E-mail: information@ebSCOhost.com

<http://www.ebSCOhost.com/>



The free scholastic search engine is established by China Educational Publications Import and Export Corporation (CEPIEC). Under the leadership of China Ministry of Education, CEPIEC is the only company dealing with publication ex-im business in the education field. CEPIEC has been serving colleges and universities, research institutions and public libraries in China for more than 20 years, providing them with excellent academic resources from all over the world.

Contact: No 41 Zhong Guan Cun Street, Haidian District, Beijing, P.R.China 100080, Tel: +86 (0)10 6251 4068 E-mail: li_yanxia@cepiec.com.cn
<http://www.cepiec.com.cn>, <http://www.socolar.com/>



Directory of Open Access Journals is a service that provides access to quality controlled Open Access Journals. The Directory aims to be comprehensive and cover all open access scientific and scholarly journals that use an appropriate quality control system, and it will not be limited to particular languages or subject areas. The aim of the Directory is to increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact.

<http://www.doaj.org/>

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 and peer review process

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 2014 is **15.30%**.

CONTENTS

Research Articles

- Alluvial Gravel Bars as an Example of Habitat of the Widest Ecological Spectrum in the Mountain Regions – A Case of Carpathians, Southern Poland
Aldona K. Uziębło, Alicja Barć **1-11**
- Distribution and Assessment of the Nature Conservational Status of the Nature Habitat 91Z0 „Moesian Silver Lime Forests” in SCI „Svishtovska Gora” (BG0000576), Bulgaria
Violeta G. Dimitrova **13-19**
- Blood Cells Morphology and Erythrocytes Count of Two Freshwater Turtles, *Emys orbicularis* and *Mauremys rivulata*, from Turkey
Kerim Çiçek, Hüseyin Arıkan, Dinçer Ayaz..... **21-27**
- Impacts of Climate Change on Droughts in Gilan Province, Iran
Ladan Kazemi Rad, Hosein Mohammadi, Vahid Teyfoori..... **29-38**
- Susceptibility of *Rhyzopertha dominica* (F.) (Coleoptera: Bostrichidae) and *Sitophilus oryzae* (L.) (Coleoptera: Curculionidae) to Spinosad (Tracer®) as a Eco-friendly Biopesticide
Reza Sadeghi, Asgar Ebadollahi..... **39-44**
- Influence of Pheromone Trap Color and Placement on Catch of Male Potato Tuber Moth, *Phthorimaea operculella* (Zeller, 1873)
Seyed Mehdi Hashemi..... **45-50**
- The Impact of Different Habitat Conditions on the Variability of Wild Populations of a Medicinal Plant *Betonica officinalis* L.
Kinga Kostrakiewicz-Gierałt **51-61**
- Morphology and Food Plants of Cuckoo Bees (Apidae: Hymenoptera) From Indian Himalayas
Rifat H. Raina, Malkiat S. Saini..... **63-83**
- The Influence of Cadmium on the Food Consumption and Utilization of the Cotton Leaf Worm *Spodoptera littoralis* (Boisd.) (Lepidoptera: Noctuidae)
Shahenda A. Abu ElEla, Wael M. ElSayed..... **81-85**
- Intercropping System for Protection the Potato Plant from Insect Infestation
Aziza Sharaby, Hashim Abdel-Rahman, Sawsan Sabry Moawad..... **87-92**
- Estimation and Mapping Forest Attributes Using “k Nearest Neighbor” Method on IRS-P6 LISS III Satellite Image Data
Roya Abedi, Amir Eslam Bonyad..... **93-102**
- The Allelopathic Effect of the Exotic Tree *Acacia saligna* on the Germination of Wheat and Canola
Mohamed Kamel, Sabah A. Hammad **103-112**

Flora of the Mediterranean Rivers in Bulgaria
Yordanka G. Hristeva, Gana M. Gecheva, Karin Pall 113-120

A Case Study of Allelopathic Effect on Weeds in Wheat
Slaveya T. Petrova, Ekaterina G. Valcheva, Iliana G. Velcheva 121-129

Short notes

Artificial Nesting of Common Goldeneye *Bucephala clangula* on the Park Lake in Puławy
(Eastern Poland)
Krzysztof Stasiak, Karolina Piekarska 131-133

Synopses

Current Trends in the Studies of Allelochemicals for Their Application in Practice
Arsen V. Viter, Victoria O. Polevik, Oksana I. Dzjuba 135-148

Fish in Ecotoxicological Studies
Vesela Yancheva, Iliana Velcheva, Stela Stoyanova, Elenka Georgieva 149-169

Factors Affecting Mitigation of Methane Emission from Ruminants: Management Strategies
Afshar Mirzaei-Aghsaghali, Naser Maheri-Sis, Seyed Alireza Siadati, Nader Jalilnejad 171-190