# COMMUNICATIONS

FACULTY OF SCIENCES UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES DE L'UNIVERSITE D'ANKARA

**Series C: Biology** 

VOLUME: 32 Number: 2 YEAR: 2023

Faculty of Sciences, Ankara University 06100 Beşevler, Ankara-Türkiye ISSN 1303-5991 e-ISSN 2618-6470

### COMMUNICATIONS

**FACULTY OF SCIENCES** UNIVERSITY OF ANKARA DE LA FACULTE DES SCIENCES DE L'UNIVERSITE D'ANKARA

Series C: Biology

Volume: 32 Number: 2 Year: 2023

Owner

Sait HALICIOĞLU, Dean of Faculty of Sciences

**Editor in Chief** Fatma KARAKOÇ

Managing Editor Sevgi ERTUĞRUL KARATAY

**Production Editor** Hatice MUTLU EYİSON

**Technical Editor** Hakan ESKİZENGİN

Area Editors

İlker BÜYÜK (Biotechnology) Ahmet Emre YAPRAK (Botany) Türker DUMAN (Molecular Biology) Mehmet Kürşat ŞAHİN (Zoology)

Şeyda FİKİRDEŞİCİ ERGEN (Hydrobiology) Sevgi ERTUĞRUL KARATAY (Biotechnology) Alexey YANCHUKOV (Populations Genetics, Molecular Ecology and İlknur DAĞ (Microbiology, Histology)

Evolution Biology)

Esra KOC (Plant Physiology) Nursel ASAN BAYDEMİR (Zoology) Gül Nilhan TUĞ (Ecology) Aydan ACAR SAHİN (Palynology)

Talip ÇETER (Plant Anatomy and Embryology)

Ankara University, TÜRKİYE

**Editors** 

E. SARIKAYA DEMİRKAN N. AKBULUT M.H. ABU DIEYEH N.M. PINAR Hacettepe University, TÜRKİYE Qatar University, QATAR Ankara University, TÜRKİYE Bursa Uludağ University, TÜRKİYE E. OYBAK DÖNMEZ M. DOĞAN

H. AKGÜL Akdeniz University, TÜRKİYE Ş. ALAN Bülent Ecevit University, TÜRKİYE Middle East Technical University, TÜRKİYE Hacettepe University, TÜRKİYE A. ALINDAĞ Ankara University, TÜRKİYE İ. POTOĞLU ERKARA D.C. ALBACH Carl Von Ossietzky University, GERMANY M. EKİCİ

Osmangazi University, TÜRKİYE Gazi University, TÜRKİYE B. BİLMİ ASLIM A. GÜVENSEN A. GRINN - GOFRON R. ARAFEH Gazi University, TÜRKİYE Ege University, TÜRKİYE Palestine Polytechnic University, PALESTINE Szczecin University, POLAND

T. ATICI Gazi University, TÜRKİYE D. AYAZ S. MAKBUL A. KÖROĞLU Ege University, TÜRKİYE Ankara University, TÜRKİYE

Recep Tayyip Erdoğan University, TÜRKİYE M. MURTSKHVALADZE Ilia State University, GEORGIA Z. AYTAÇ Gazi University, TÜRKİYE J. BREINE E. MARTÍN Research Institute for Nature and Forest, BELGIUM Necmettin Erbakan University, TÜRKİYE

S. CEBESOY Ankara University, TÜRKİYE Z. SULUDERE Gazi University, TÜRKİYE K. BÜYÜKGÜZEL C.G. SOLDEVILLA Cordoba University, SPAIN Bülent Ecevit University, TÜRKİYE N. ÇİÇEK H. WIECLAW A.K. ÇETİN F. VARDAR

Hacettepe University, TÜRKİYE Szczecin University, POLAND Fırat University, TÜRKİYE Marmara University, TÜRKİYE A. YILDIZ H. ÖZBAY

This Journal is published two issues in a year by the Faculty of Sciences, University of Ankara. Articles and any other material published in this journal represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher(s).

Nevşehir Hacı Bektaşi Veli University,

TÜRKİYE

Correspondence Address: COMMUNICATIONS EDITORIAL OFFICE Ankara University, Faculty of Sciences, 06100 Tandoğan, ANKARA – TÜRKİYE Tel: (90) 312-2126720 Fax: (90) 312-2235000

ns.science.ankara.edu.tr/index.php?series=A1

Ankara University Press İncitaş Sokak No:10 06510 Beşevler ANKARA – TÜRKİYE Tel: (90) 312-2136655

## 

FACULTY OF SCIENCES UNIVERSITY OF ANKARA

#### DE LA FACULTE DES SCIENCESDE L'UNIVERSITE D'ANKARA

Series C:Biology

Volume: 32 Number: 2 Year: 2023

Şeyda ERGEN, Ecological risk assessment profile of lake surface sediment using metal(loid)s: a case study, the Boraboy Lake	87
Halil Mert SOLAK, Efe SEZGİN, Dagmar CİZKOVA, Jakub KREİSİNGER, Faruk ÇOLAK, Ortaç ÇETİNTAŞ, Alexey	
YANCHUKOV, The microbiota of long-living and cancer-free blind molerat (Nannospalax xanthodon) from the edge of its	
distribution in Northern Anatolia	105
Muhammet Burak BATIR, Sevinç BATIR, Feyzan OZDAL KURT, Sırrı ÇAM, The cytotoxic and apoptotic effects of Abies	
nordmanniana subsp. bornmülleriana Mattf resin extract on prostate cancer cell cells	119
Sarah Farhad NİHAD, Nefise AKÇELİK, Mustafa AKÇELİK, Detection target genes in combating biofilm forms in Salmonella	
Typhimurium 14028	137
Cansu DOĞAR, Gül Nilhan TUĞ, Natural plant diversity of three farms of Ankara University	150
Suzan ŞAHİN DOĞAN, Aytaç KOCABAŞ, Profiling the genes associated with osmoadaptation and their variation by seasonally in	
Tuz Lake	174
Şefik KARANLIK, Elnaz NAJAFI-MAJD, Elif YILDIRIM, Uğur KAYA, Embryonic development of the lemon-yellow tree frog,	
Hyla savignyi Audouin, 1827	192

#### INSTRUCTIONS TO CONTRIBUTORS

Communications Faculty of Sciences University of Ankara Series C Biology (Commun. Fac. Sci. Univ. Ank. Ser. C-Biology.) is a single-blind peer reviewed open access journal which has been published biannually since 1948 by Ankara University, accepts original res in English in the field of Biology, Review articles written by eminent scientists can also be invited by the Editor.

The publication costs for Communications Faculty of Sciences University of Ankara Series C-Biology are covered by the journal, so authors do not need to pay an article-processing and submission charges. The PDF copies of accepted papers are free of charges and can be downloaded from the website. Hard copies of the paper, if required, are due to be charged for the amount of which is determined by the administration each year.

All manuscripts should be submitted via our online submission system https://dergip Manuscripts should be submitted in the PDF form used in the peer-review process together with THE COVER LETTER and the TEX file (Source File). In the cover letter the authors should suggest the most appropriate Field Editor for the manuscript and potential four reviewers with full names, universities and institutional email addresses. Proposed reviewers must be experienced researchers in your area of research and at least two of them should be from different countries. In addition, proposed reviewers must not be co-auhors, advisors, students, etc. of the authors. In the cover letter, the author may enter the name of anyone who he/she would prefer not to review the manuscript, with detailed explanation of the reason. Note that the editorial office may not use these nominations, but this may help to speed up the selection of appropriate reviewers

Manuscripts should be typeset using a word processor editor. Authors should prepare the article using the COMMUNICATIONS style before submission to the editor via our submission system. A template of manuscript can be downloaded in doc form from the link http://derejipark.org.tr/download/journal-file/13889 (or can be reviewed in pdf form). The title page should contain the title of the paper, full names of the authors, affiliations addresses and e-mail addresses of all authors. Authors are also required to submit their Open Researcher and Contributor ID (ORCID)'s which can be obtained from http://orcid.org as their URL address in the format http://orcid.org/xxxx-xxxx-xxxxx. Please indicate the corresponding author. The abstract should state briefly the purpose of the research. The length of the Abstract should be between 50 to 5000 characters. At least 3 keywords are required. Formulas should be numbered consecutively in the parentheses (). All tables must have numbers (TABLE 1) consecutively in accordance with their appearance in the text and a legend above the table. Please submit tables as editable text not as images. All figures must have numbers (FIGURE 1) consecutively in accordance with their appearance in the text and a caption (not on the figure itself) below the figure. Required final resolution is 300 dpi for coloured images (RGB), 300–600 dpi for black and white images and 600–1200 dpi for line art. Pictures and line drawings should be saved as TIFF files. Authors Contribution Statement, Declaration of Competing Interests and Acknowledgements should be given at the end of the article before the references. The following format for the references should be used. Authors Action/weigenings stoud to given at the facility of the proper seek the advice of two, or three referees, depending on the response of the referees, chosen in consultation with appropriate members of the Editorial Board, from among experts in the field of specialization of the paper. The reviewing process is conducted in strict confidence and the identity of a referee is not disclosed to the authors at any point since we use a single-blind peer review process

Copyright on any open access article in Communications Faculty of Sciences University of Ankara Series C-Biology is licensed under a Creative Commons Attribution 4.0 International License (CC BY). Authors grant Faculty of Sciences of Ankara University a license to publish the article and identify itself as the original publisher. Authors also grant any third party the right to use the article freely as long as its integrity is maintained and its original authors, citation details and publisher are identified. It is a fundamental condition that articles submitted to COMMUNICATIONS have not been previously published and will not be simultaneously submitted or published elsewhere. After the manuscript has been accepted for publication, the author will not be permitted to make any new additions to the manuscript. Before publication the galley proof is always sent to the author for correction. Thus it is solely the author's responsibility for any typographical mistakes which occur in their article as it appears in the Journal. The contents of the manuscript published in the COMMUNICATIONS are the sole responsibility of the

With the submission of the manuscript authors declare that:

- All authors of the submitted research paper have directly participated in the planning, execution, or analysis of study;
- All authors of the paper have read and approved the final version submitted;
- The contents of the manuscript have not been submitted, copyrighted or published elsewhere and the visual-graphical materials such as photograph, drawing, picture, and document within the article do not have any copyright issue;

  • The contents of the manuscript will not be copyrighted, submitted, or published elsewhere, while acceptance by the Journal is under
- consideration.
- The article is clean in terms of plagiarism, and the legal and ethical responsibility of the article belongs to the author(s). Author(s) also accept that the manuscript may go through plagiarism check using IThenticate software;
- that the manuscript may go mough piaguarism circles using 11 neutraleas software;

  The objectivity and transparency in research, and the principles of ethical and professional conduct have been followed. Authors have also declared that they have no potential conflict of interest (financial or non-financial), and their research does not involve any human participants

Research papers published in Communications Faculty of Sciences University of Ankara are archived in the Library of Ankara University (Volume 1-67) and in Dergipark immediately following publication with no embargo.

ns.science.ankara.edu.tr Ankara University, Faculty of Sciences 06100, Besevler - ANKARA TÜRKİYE