
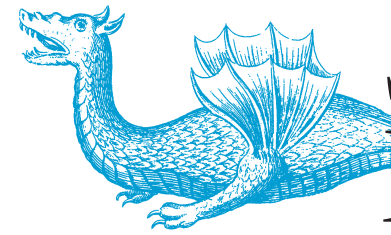


# Contents

- 1** **Water quality and biotic interaction of two cavefish species: *Typhleotris madagascariensis* Petit, 1933 and *Typhleotris mararybe* Sparks & Chakrabarty, 2012, in the Mahafaly Plateau groundwater system, Madagascar**  
*Jean R. Rasoloariniaina, Jörg U. Ganzhorn, Jana C. Riemann, Noromalala Raminosoa*
- 17** **Linking spatial scale dependence of land-use descriptors and invertebrate cave community composition**  
*Thais Giovannini Pellegrini, Lílian Patrícia Sales, Polyanne Aguiar, Rodrigo Lopes Ferreira*
- 39** **New distribution records of cave-dwelling gekkonid lizards (Sauria, Gekkonidae and Phyllodactylidae) in the Zagros Mountains of Iran**  
*Somayeh Esmaeili-Rineh, Vahid Akmal, Farajollah Fathipour, Nastaran Heidari, Nasrullah Rastegar-Pouyani*
- 49** **Distribution and a comparative analysis of the aquatic invertebrate fauna in caves of the western Caucasus**  
*Elena S. Chertoprud, Dmitry M. Palatov, Rostislav R. Borisov, Vadim V. Marinskiy, Michail S. Bizin, Roman S. Dbar*

 <http://subtbiol.pensoft.net/>



# Subterranean Biology

A peer-reviewed open-access journal  
Published by  
The International Society  
for Subterranean Biology



## Subterranean Biology - Published by The International Society for Subterranean Biology

### Editor-in-Chief

**Oana Teodora MOLDOVAN**

"Emil Racovitză" Institute of Speleology  
Romanian Academy  
Clinicilor 5, 400006 Cluj Napoca,  
Romania  
E-mail: [oanamol@hasdeu.ubbcluj.ro](mailto:oanamol@hasdeu.ubbcluj.ro)

### Editors

**Marina COBOLLI**

Università di Roma "La Sapienza", Roma, Italy

**David C. CULVER**

The American University, Washington DC, USA

**Christian GRIEBLER**

Helmholtz Zentrum München, GmbH, Neuherberg,  
Germany

**Hans-Jürgen HAHN**

Universität Koblenz-Landau, Landau in der Pfalz, Germany

**Horton HOBBS III**

Wittenberg University, Springfield, USA

**John R. HOLSINGER**

Old Dominion University, Norfolk, USA

**Williams Frank HUMPHREYS**

Western Australian Museum, Perth, Australia

**Lubomír KOVÁČ**

Pavol Jozef Safarik University in Kosice, Slovakia

**Leonardo LATELLA**

Museo Civico di Storia Naturale di Verona, Verona, Italy

**Giuseppe MESSANA**

Istituto per lo Studio degli Ecosistemi, Firenze, Italy

### Managing Editor

**Lyubomir PENEV**

Institute of Biodiversity and Ecosystem Research  
Bulgarian Academy of Sciences  
Yurii Gagarin Street 2  
1113 Sofia, Bulgaria  
E-mail: [info@pensoft.net](mailto:info@pensoft.net)

**Jos NOTENBOOM**

European Environment Agency, Copenhagen, Denmark

**Boris SKET**

Univerza V Ljubljana, Ljubljana, Slovenia

**Eleonora TRAJANO**

Instituto Biociências da USP, Sao Paulo, Brazil

**Peter TRONTELJ**

University of Ljubljana, Slovenia

**Christian JUBERTHIE**, Honorary Editor

Saint-Lizier, France

### Editorial Advisory Board

Belles X. (Spain), Blas M. (Spain), Casale A. (Italy),

Coineau N. (France), Danielopol D. (Austria), Deharveng

L. (France), Di Russo C. (Italy), Giani N. (France), Iliffe

T.C. (United States), Magniez G. (France), Marmonier P.

(France), Oromi P. (Spain), Parzefall J. (Germany), Ribera

C. (Spain), Ruffo S. (Italy), Sbordoni V. (Italy), Thibaud

J.M. (France), Turquin M.J. (France), Vigna-Taglianti A.

(Italy), Weber F. (Germany), Wilkens H. (Germany).

### AUTHOR GUIDELINES

Authors are kindly requested to submit their manuscript *only* through the online submission module at <http://subtbiol.pensoft.net>. In case of difficulties with the submission procedure, please contact [subtbiol@pensoft.net](mailto:subtbiol@pensoft.net). Full text of author guidelines is available at: <http://subtbiol.pensoft.net/about#AuthorGuidelines>

### EXCERPTS FROM THE GUIDELINES

**BODY TEXT.** All papers must be in English, checked by a native English-speaking colleague (if author(s) is/are not native English speaker(s)). Write with precision, clarity, and economy: use the active voice and first person whenever appropriate.

**WEB (HTML) LINKS.** Authors may include links to other Internet resources in their article. This is especially encouraged in the reference section. When inserting a reference to a web-page, please include the **http://** portion of the address.

**CITATIONS WITHIN THE TEXT.** Before submitting the manuscript, check each citation in the text against the **References** to ensure that they match exactly. Delete citations from the list if they are not actually cited in the text of the article. Citations in the text should be formatted as follows: (Smith 1990) or (Smith et al. 1998; Brock and Gunderson 2001; Felt 2006).

**REFERENCES.** It is crucial to properly format the references, because all references will be linked electronically as much as possible to the papers they cite. For all references, list all authors. You can include a **DOI** number for the full-text article as an alternative to or in addition to traditional volume and page numbers. Please use the following style for the reference list:

**Published Papers:** Polaszek A, Alonso-Zarazaga M, Bouchet P, Brothers DJ, Evenhuis NL, Krell FT, Lyal CHC, Minelli A, Pyle RL, Robinson N, Thompson FC, van Tol J (2005) ZooBank: the open-access register for zoological taxonomy: Technical Discussion Paper. *Bulletin of Zoologi-*

*cal Nomenclature* 62: 210-220.

**Accepted Papers:** Same as above, but "In press" appears instead the page numbers.

**Electronic Journal Articles:** Mallet J, Willmott K (2002) Taxonomy: renaissance or Tower of Babel? *Trends in Ecology and Evolution* 18 (2): 57-59. doi: 10.1016/S0169-5347(02)00061-7.

**Paper within conference proceedings:** Orr AG (2006) Odonata in Bornean tropical rain forest formations: Diversity, endemism and applications for conservation management. In Cordero Rivera A (Ed) *Forest and Dragonflies. Fourth WDA International Symposium of Odonatology*, Pontevedra (Spain), July 2005. Pensoft Publishers, Sofia-Moscow, 51-78.

**Book chapters:** Mayr E (2000) The biological species concept. In: Wheeler QD, Meier R (Eds) *Species Concepts and Phylogenetic Theory: A Debate*. Columbia University Press, New York, 17-29.

**Books:** Goix N, Klimaszewski J (2007) *Catalogue of Aleocharine Rove Beetles of Canada and Alaska*. Pensoft Publishers, Sofia-Moscow, 166 pp.

**Book with institutional author:** International Commission on Zoological Nomenclature (1999) *International code of zoological nomenclature. Fourth Edition*. London: The International Trust for Zoological Nomenclature.

**PhD thesis:** Dalebout ML (2002) *Species identity, genetic diversity and molecular systematic relationships among the Ziphiidae (beaked whales)*. PhD thesis, Auckland, New Zealand: University of Auckland.

**Link/URL:** BBC News: Island leopard deemed new species. <http://news.bbc.co.uk/> [accessed 3.VI.2008]

**CITATIONS OF PUBLIC RESOURCE DATABASES:** It is highly recommended all appropriate datasets, images, and information to be deposited in public resources. Please provide the relevant accession numbers (and version numbers, if appropriate). Accession numbers should be provided in parentheses after the entity on first

use. Examples of such databases include, but are not limited to:

- Zoobank ([www.zoobank.org](http://www.zoobank.org)),
- Morphbank ([www.morphbank.net](http://www.morphbank.net)),
- Genbank ([www.ncbi.nlm.nih.gov/Genbank](http://www.ncbi.nlm.nih.gov/Genbank)),
- BarCode ([www.barcodinglife.org](http://www.barcodinglife.org))

Providing accession numbers allows linking to and from established databases and integrates your article with a broader collection of scientific information. Please list all accession numbers directly **after the References**.

**INTERNATIONAL CODE FOR ZOOLOGICAL NOMENCLATURE.** **ZooKeys** will publish papers only strictly following the rules of the 4th edition of the *International Code of Zoological Nomenclature*. Each first mentioning of an animal species name within the text must be provided with author(s)' name(s). Year of publication of animal species is recommended to be given in taxonomic revisions with providing full referencing of original description in the list of references.

**OPEN ACCESS FEES.** Publication fees in open access journals ensure a barrier-free distribution of your paper at no charge for the readers and include costs involved in processing, formatting, publishing, indexing and archiving your paper.

The journal charges Open Access Publication Fee of EURO 15 per page for papers of less than 100 printed pages. Publication fees for larger papers will be discounted and can be negotiated with the Managing Editor.

Open Access Publication Fees are usually covered by institutional funds and grants. Discounts/waivers can be requested by private and retired zoologists, scientists from low- and middle-level income countries, post-graduate students, especially in case of exceptionally good manuscripts.

Discounts will be offered also to scientists who actively participate in the reviewing and editing process.

**PRINTED VERSION.** Offprints and printed issues of the journal can be purchased additionally (see journal's website). For standing orders/subscriptions please contact the Managing Editor.

**Editorial Board:** <http://subtbiol.pensoft.net/board>

### Focus and Scope

**Subterranean Biology** is an international journal published by Pensoft on behalf of the International Society for **Subterranean Biology** [SIBIOS-ISSB] for the publication of original and significant contributions on all aspects of subterranean life.

All content is Open Access distributed under the terms of the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Authors are thus encouraged to post the pdf files of published papers on their homepages or elsewhere to expedite distribution.

### Editorial Office

#### Pensoft Publishers

Prof. Georgi Zlatarski 12, 1700 Sofia, Bulgaria. Tel. +359-2-8704281, Fax +359-2-8704282  
E-mail: [journals@pensoft.net](mailto:journals@pensoft.net)