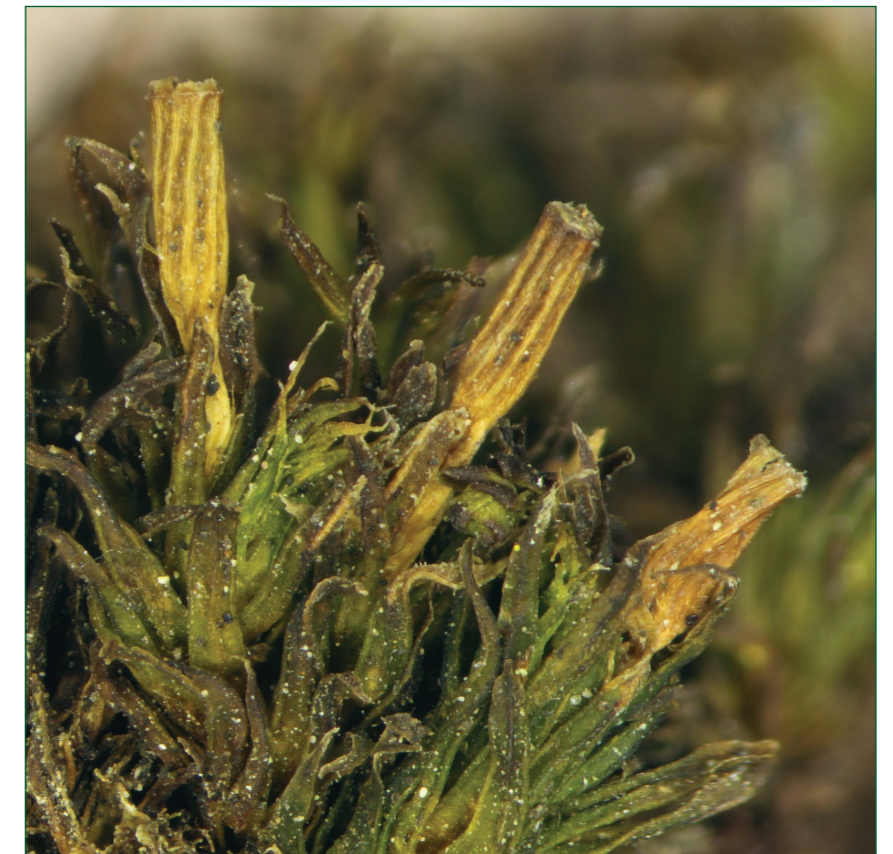


Contents

- 1** *Primula weiliei* (Primulaceae), a new species from Hubei, Central China
Lin-Sen Yang, Zhi-Kun Wu, Hong-Wei Liang, Meng-Hua Zhang, Xian-Chun Zhang, Shuai Peng, Guang-Wan Hu
- 9** *Viola suavis* var. *pannonica* (Violaceae), a new white-flowered violet from central Europe
Iva Hodálová, Pavol Mereda Jr
- 21** Re-discovery and taxonomic clarification of *Oreocharis leveilleana* (Gesneriaceae) in Guizhou, China, over 100 years
Xiao-Kai Xiong, Song-Tao He, Yu-Lu Zhou, Fang Wen, Xin-Xiang Bai
- 31** *Vaccinium dehongense* (Ericaceae), a new species of *Vaccinium* sect. *Epigynium* from western Yunnan, China
Yi-Hua Tong, Xing-Er Ye, Jing-Bo Ni
- 39** *Cocconeis crisscrossis* sp. nov., a new monoraphid diatom (Bacillariophyta) from southern China
Huiwen Zhou, Pan Yu, Luyi Guo, John Patrick Kociolek, Quanxi Wang, Qingmin You
- 51** *Orthotrichum camanchacanam*, a remarkable new moss species from Chile (Bryopsida, Orthotrichaceae)
Vítězslav Plášek, Jakub Sawicki, Felipe Osorio, Monika Szczecińska, Hana Režnarová
- 69** A new classification system and taxonomic synopsis for Malpighiaceae (Malpighiales, Rosids) based on molecular phylogenetics, morphology, palynology, and chemistry
Rafael F. de Almeida, Isa L. de Moraes, Thais Alves-Silva, Higor Antonio-Domingues, Marco O. O. Pellegrini
- 139** Five new species in the genus *Staurosirella* (Bacillariophyta) from European freshwater habitats
Bart Van de Vijver, Valérie Peeters, Iris Hansen, Petra Ballings, Myriam de Haan
- 161** Refining the phylogeny and taxonomy of the apple tribe Maleae (Rosaceae): insights from phylogenomic analyses of 563 plastomes and a taxonomic synopsis of *Photinia* and its allies in the Old World
Hui Wang, Xiao-Ya Li, Yan Jiang, Ze-Tao Jin, Dai-Kun Ma, Bing Liu, Chao Xu, Bin-Jie Ge, Ting Wang, Qiang Fan, Shui-Hu Jin, Guang-Ning Liu, Bin-Bin Liu
- 229** *Thismia malayana* (Thismiaceae), a new mycoheterotrophic species from Peninsular Malaysia
Mat Yunoh Siti-Munirah, Chin Hardy-Adrian, Shariipudin Mohamad-Shafiq, Zainuddin Irwan-Syah, Abd Halim Hamidi
- 241** Seven new species of *Rinorea* (Violaceae) from the Neotropics
Saúl E. Hoyos-Gómez, Ricardo Callejas Posada, Gregory A. Wahlen
- 273** *Gymnostachyum calcicola* (Acanthaceae), a new species from limestone karst of Peninsular Malaysia
Abdul Rahman Rafidah, Abdul Rahman Ummul Nazrah, Poh Teck Ong
- 281** *Alseodaphnopsis maguanensis* is conspecific with *A. hokouensis* (Lauraceae) based on morphological and molecular evidence
Lang Li, Dian-Yang Zou, Ya-Meng Mao, Jie Li
- 293** *Impatiens yingjingensis* (Balsaminaceae), a new species from Sichuan, China
Xinqiang Song, Boni Song, Mingxia Fu, Jiakai Wang, Jingyi Liu, Weirui Qin, Yuzhou Jiang, Leni Fan, Biao Yang
- 307** *Amalophyllum miraculum* (Gesneriaceae), an exceptionally small lithophilous new species from the western Andean slopes of Ecuador
John L. Clark, Andrea Fernández, J. Nicolás Zapata, Camilo Restrepo-Villarroel, Dawson M. White, Nigel C. A. Pitman
- 317** A missing piece is found: a new species of *Paepalanthus* (Poales, Eriocaulaceae) and the puzzling relations of the campos rupestres mountaintop floras of eastern Minas Gerais, Brazil
Luiz Henrique Rocha, Paulo Minatel Gonella, Caroline Oliveira Andrino
- 333** Molecular, morphological, and morphometric evidence reveal a new, critically endangered rattlepod (*Crotalaria*, Fabaceae/Leguminosae, Papilionoideae) from tropical China
Shabir A. Rather, Sirilak Radbouchoom, Kaikai Wang, Yunxue Xiao, Hongmei Liu, Harald Schneider



Orthotrichum camanchacanam Plášek, Sawicki & Osorio, sp. nov.

For those who want their work rapidly known to the World !

FOUNDER

Lyubomir Penev

Institute of Biodiversity and Ecosystem Research
Bulgarian Academy of Sciences
Yurii Gagarin Street 2
1113 Sofia, Bulgaria
E-mail: l.penev@pensoft.net

EDITOR-IN-CHIEF

W. John Kress

Smithsonian Institution
Washington, USA

EDITOR-IN-CHIEF

Sandy Knapp

The Natural History Museum
London, UK

DEPUTY EDITOR-IN-CHIEF

De-Zhu Li

Chinese Academy of Sciences
Kunming, China

DEPUTY EDITOR-IN-CHIEF

Susanne Renner

University of Munich (LMU)
Munich, Germany

EDITORIAL DIRECTOR

Pavel Stoev

National Museum of Natural History at the
Bulgarian Academy of Sciences
Sofia, Bulgaria

EDITORIAL OFFICE

Pensoft Publishers
Prof. Georgi Zlatarski 12, 1700 Sofia, Bulgaria.
Tel. +359-2-8704281, Fax +359-2-8704282
E-mail: phytokeys@pensoft.net

FOCUS AND SCOPE

PhytoKeys is a peer-reviewed, open-access, rapidly disseminated journal launched to accelerate research and free information exchange in taxonomy, phylogeny, biogeography and evolution of angiosperms, gymnosperms, monilophytes, bryophytes, and algae. **PhytoKeys** aims to apply the latest trends and methodologies in publishing and preservation of digital materials to meet the highest possible standards of the cybertaxonomy era. **PhytoKeys** will publish papers in systematic botany containing taxonomic/floristic data on any taxon of any geological age from any part of the world with no limit to manuscript size.

PhytoKeys will consider for publishing works on the following topics:

- descriptions of new taxa, if they are accompanied with proper diagnoses, keys and/or distinction from close relatives or similar taxa
- taxonomic revisions of extant (or "recent") and fossil plant groups
- checklists and catalogues
- phylogenetic and evolutionary analyses
- papers in descriptive and/or historical biogeography
- methodology papers
- data mining and literature surveys
- monographs, conspecti, atlases
- collections of papers, Festschrift volumes, conference proceedings

Papers containing identification keys will be accepted with priority. Extensive manuscripts consisting mostly of keys will be considered for publishing as well.

ISBN numbers will be assigned to large monographic papers (i.e., major revisions of taxa), monographs, collections of papers, Festschrift volumes, atlases, checklists, conspecti.

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.

AUTHOR GUIDELINES

Authors are kindly requested to submit their manuscript *only* through the online submission module at <https://phytokeys.pensoft.net>. In case of difficulties with the submission procedure, please contact phytokeys@pensoft.net. Full text of author guidelines is available at: <http://phytokeys.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 webpage, please include the **http://** portion of the address.

CITATIONS WITHIN THE TEXT. Citations within the text: Before submitting the manuscript, please check each citation in the text against the **References** and vice-versa to ensure that they match exactly. Citations in the text should be formatted as follows: Smith (1990) or (Smith 1990), Smith et al. (1998) or (Smith et al. 1998) and (Smith et al. 1998, 2000; Brock and Gunderson 2001; Felt 2006).

REFERENCES. It is important to format the references properly, because all references will be linked electronically as completely as possible to the papers cited. It is desirable to add a **DOI** (digital object identifier) number for either the full-text or title and abstract of the article as an addition to traditional volume and page numbers. If a DOI is lacking, it is recommended to add a link to any online source of an article. Please use the following style for the reference list:

Published Papers: Smith AR, Pryer KM, Schuettpeiz E, Korall P, Schneider H, Wolf PG (2006) A classification for extant ferns. *Taxon* 55(3): 705–731.

Accepted Papers: Same as above, but "in press" appears instead the year in parentheses.

Electronic Journal Articles: Agosti D, Egloff W (2009) Taxonomic information exchange and copyright: the Plazi approach. *BMC Research Notes* 2: 53. <https://doi.org/10.1186/1756-0500-2-53>

Paper within conference proceedings: Kress WJ, Specht CD (2005) Between Cancer and Capricorn: phylogeny, evolution, and ecology of the tropical Zingiberales. In: Friis I, Balslev H (Eds) Proceedings of a symposium on plant diversity and complexity patterns – local, regional and global dimensions. *Biologiske Skrifter, The Royal Danish Academy of Sciences and Letters, Copenhagen*, 459–478.

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: Heywood VH, Brummitt RK, Culham A, Seberg O (2007) *Flowering Plant Families of the World*. Kew Publishing, 1–424.

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: Stahlberg D (2007) Systematics, phylogeography and polyploid evolution in the *Dactylophiza maculata* complex (Orchidaceae). PhD Thesis, Lund University, Sweden.

Link/URL: BBC News: Plants 'can recognise themselves'. http://news.bbc.co.uk/earth/hi/earth_news/new-sid_8076000/8076875.stm

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).

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

- IPNI (www.ipni.org)
- Morphbank (www.morphbank.net)
- Genbank (www.ncbi.nlm.nih.gov/Genbank)
- BOLD (www.barcodinglife.org)

Providing accession numbers to data records stored in global data aggregators allows us to link your article to established databases, thus integrating it with a broader collection of scientific information. Please hyperlink all accession numbers through the text or list them directly **after the References** in the online submission manuscript.

INTERNATIONAL CODE OF NOMENCLATURE FOR ALGAE, FUNGI, AND PLANTS. **PhytoKeys** will publish papers that strictly adhere the rules of the last edition of the *International Code of Nomenclature for algae, fungi, and plants*. Descriptions of new taxa (species and below) should include the following: 1) a short Latin diagnosis followed by a full description in English, 2) an illustration (line drawing or photograph) clearly showing the diagnostic characters, 2) a comparison of the new taxon with related taxa, a diagnostic key to identification of species-group members, or at least to the closest relatives is highly desirable and may be requested by the editors 3) a discussion of the distinctive morphological characteristics, ecology, geography, and/or reproductive biology, and 4) a statement on preliminary [at least] conservation status for the taxon being described.

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. Please visit the "Article Processing Charges" section at <http://phytokeys.pensoft.net/about#ArticleProcessingCharges> to learn more of our discount and waiver policies.

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.