



## Publisher Information

Source: Mountain Research and Development, 43(1)

Published By: International Mountain Society

URL: <https://doi.org/10.1659/0276-4741-43.1.p2>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

## Mountain Research and Development (MRD)

An international, peer-reviewed open access journal published by the International Mountain Society (IMS) [www.mrd-journal.org](http://www.mrd-journal.org)

### Publisher

*Mountain Research and Development (MRD)* (online ISSN 1994-7151, print ISSN 0276-4741) is published by the International Mountain Society (IMS), c/o Centre for Development and Environment, University of Bern, Mittelstrasse 43, 3012 Bern, Switzerland.

### Institutional Members of the International Mountain Society (IMS)

**Andean Initiative**, International Potato Center, Lima, Peru

**ARU**, Afromontane Research Unit, University of the Free State, Phuthaditjhaba, South Africa

**CDE**, Centre for Development and Environment, University of Bern, Switzerland

**CIRM**, Interdisciplinary Centre for Mountain Research, University of Lausanne, Switzerland

**CMN**, Canadian Mountain Network, University of Alberta, Edmonton, Canada

**CONDESAN**, Consortium for the Sustainable Development of the Andean Ecoregion, Lima, Peru

**FAO**, Food and Agriculture Organization of the United Nations, Rome, Italy

**FoLAP**, Forum Landscape, Alps, Parks, Bern, Switzerland

**GLOMOS**, Global Mountain Safeguard Research, United Nations University Institute for Environment and Human Security, Bonn, Germany and Eurac Research, Bolzano, Italy

**ICIMOD**, International Centre for Integrated Mountain Development, Kathmandu, Nepal

**IGF/ÖAW**, Institute for Interdisciplinary Mountain Research, Austrian Academy of Sciences, Innsbruck, Austria

**IMHE**, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Chengdu, China

**MRI**, Mountain Research Initiative, Bern, Switzerland

**UCAS**, University of Chinese Academy of Sciences, Beijing, China

MRD collaborates with Mountain Forum and The Mountain Partnership to further the cause of mountains on the international development and research agendas.

### Editorial Office

Thomas Breu, Editor-in-Chief  
Pema Gyamtsho, Editor-in-Chief  
Yanfen Wang, Editor-in-Chief  
Sarah-Lan Mathez-Stiefel, Associate Editor  
Brigitte Portner, Associate Editor  
Susanne Wymann von Dach, Associate Editor  
Carolina Adler, MountainMedia Editor  
Marlene Thibault, Assistant Editor  
Production Editors at KnowledgeWorks Global, LTD

### International Editorial Board

Irasema Alcántara-Ayala (Mexico City, Mexico), João Carlos Azevedo (Bragança, Portugal), Jörg Balsiger (Geneva, Switzerland),

Ketema Bekele (Haramaya, Ethiopia), Jill M. Belsky (Missoula, MT, USA), Astrid Björnsen (Birmensdorf, Switzerland), Rosalind Bryce (Perth, Scotland, UK), Vincent Ralph Clark (Phuthaditjhaba, South Africa), Andrea Fischer (Innsbruck, Austria), J. Marc Foggin (Vancouver, Canada), Georg Gratzler (Vienna, Austria), H. Ricardo Grau (Yerba Buena, Tucumán, Argentina), Jun He (Kunming, China), Andreas Heinimann (Bern, Switzerland), Thomas Hofer (Bangkok, Thailand), Bahadar Nawab Khattak (Abbottabad, Pakistan), Hermann Kreuzmann (Berlin, Germany), Karina Liechti (Bern, Switzerland), Graham McDowell (Calgary, Canada), Tamara Mitrofanenko (Vienna, Austria), Geoffrey Mukwada (Phuthaditjhaba, South Africa), Sara Nowreen (Dhaka, Bangladesh), Marcus Nüsser (Heidelberg, Germany), Stefano Pagiola (Washington, DC, USA), Manuel Peralvo (Quito, Ecuador), Julio Postigo (Bloomington, USA), Emmanuel Reynard (Lausanne, Switzerland), Nadine Salzmann (Davos, Switzerland), Dietrich Schmidt-Vogt (Freiburg, Germany), Stefan Schneiderbauer (Bolzano, Italy), Eklyabya Sharma (Gangtok, India), Surendra Pratap Singh (Dehradun, India), Thomas Streifeneder (Bolzano, Italy), Joerg Szarzynski (Bonn, Germany), Graham Thiele (Lima, Peru), Cecilia Turin (Lima, Peru), Davnah Urbach (Bern, Switzerland), Yanhong Wu (Chengdu, China), Maria Wurzingler (Vienna, Austria), Jianchu Xu (Kunming, China), Kai Xue (Beijing, China), Gete Zeleke (Addis Ababa, Ethiopia), Wei Zhao (Chengdu, China), Anne Zimmermann (Bern, Switzerland).

### Representatives of IMS Institutional Members

Carolina Adler (MRI, Switzerland); María Argüello (CONDESAN, Peru); V. Ralph Clark (ARU, South Africa); Stef de Haan (Andean Initiative, Peru); Andrea Fischer (IGF/ÖAW, Austria); Yonggang Ge (IMHE, China); Rosalaura Romeo (FAO, Italy); Nicole Olivier (CMN, Canada); Emmanuel Reynard (CIRM, Switzerland); Stefan Schneiderbauer and Joerg Szarzynski (GLOMOS, Italy and Germany); Ursula Schüpbach (FoLAP, Switzerland); Theresa Tribaldos (CDE, Switzerland); Laurie Ann Vasily (ICIMOD, Nepal); Kai Xue (UCAS, China).

### Publication Policy

*Mountain Research and Development* is published quarterly by the International Mountain Society and is freely available online and open access in collaboration with BioOne (<https://bioone.org/journals/mountain-research-and-development>).

The journal is subject to the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0>). Ownership of the copyright in articles is retained by the authors, but anyone may read, download, copy, reuse, distribute, print, search, and link to the full texts of articles in MRD provided that the original authors and source are properly acknowledged and cited. For any reuse or redistribution of a work, the license

terms under which the work was published must be made clear.

### Print Version

Authors and readers may produce their own printouts from the downloadable PDFs available at <https://bioone.org/journals/mountain-research-and-development/issues>. On advance request from IMS member institutions, the Editorial Office can arrange for the production of print-ready, press-quality PDF files of individual articles or entire issues for delocalized printing.

### Indexing

MRD is indexed in the Science Citation Index, Current Contents/Agriculture, Biology and Environmental Sciences, Web of Science, BIOSIS Previews, Geo Abstracts, C.A.B. International Series Checklist, AGRICOLA databases, Meteorological and Geostrophical Abstracts (MGA), CABS (Current Awareness in Biological Sciences), and others. MRD is also listed in the Directory of Open Access Journals (DOAJ), ProQuest, EBSCO, and Gale/Cengage Learning.

### Correspondence

*Please address correspondence to:*

MRD Editorial Office  
Centre for Development and Environment  
University of Bern  
Mittelstrasse 43  
3012 Bern, Switzerland  
E-mail: [mrd-journal.cde@unibe.ch](mailto:mrd-journal.cde@unibe.ch)  
Internet: [www.mrd-journal.org](http://www.mrd-journal.org)

**Please note that all papers must be submitted online.**

See <https://www.mrd-journal.org/for-authors/>

*Please send material for “MountainMedia” to:*

Dr. Carolina Adler  
Executive Director, Mountain Research Initiative  
MRI Coordination Office  
Centre for Development and Environment (CDE)  
University of Bern  
Mittelstrasse 43  
3012 Bern, Switzerland  
E-mail: [mm-editor@mountainresearchinitiative.org](mailto:mm-editor@mountainresearchinitiative.org)

### Back Issues

MRD is published online and open access in collaboration with BioOne. All back issues of MRD from 2000 onwards are available online and free of charge through BioOne; previous issues (1981–2000) are available online through JSTOR ([www.jstor.org](http://www.jstor.org)), and single articles as well as entire issues may be purchased there.

For single hardcopy issue sales from Volume 12 through Volume 28, please contact [mrd-info.cde@unibe.ch](mailto:mrd-info.cde@unibe.ch).

© 2023 International Mountain Society (IMS) for the journal

© 2023 Authors for the individual articles