



## Editor's Message: The 2023 Editors' Choice articles

Clifford I. Voss<sup>1</sup>

Received: 8 January 2024 / Accepted: 9 January 2024 / Published online: 19 February 2024  
© The Author(s), under exclusive licence to International Association of Hydrogeologists 2024

Since 2010, at least five *Hydrogeology Journal (HJ)* published articles have been designated as highlights of each publishing year. These are denoted as “Editors’ Choice” articles.

The Editors’ Choice articles are those that are considered to be exceptional by our journal Editors – Martin Appold, Jean-Christophe Comte, Jean-Michel Lemieux, Rui Ma, Maria-Theresia Schafmeister and Clifford Voss. The selected articles are ones that the editors especially like for a variety of reasons from among the ~150 articles that were published in the *HJ* issues of 2023.

Each Editors’ Choice article is distinguished by a variety of positive attributes that may include: outstanding science, innovative approach, very interesting or unusual thought-provoking content, potentially important interpretations or conclusions, significant new methodology or innovative assessment of existing methodology, interesting field area or hydrogeologic phenomena, human/political/social/governance/historical/philosophical interest, challenging or inspiring arguments, and more. The editors believe that *HJ* readers will find these articles to be especially interesting and valuable. These highlight the importance of groundwater in our world, how we humans interact with groundwater, and how we might preserve and manage groundwater resources in the future.

The 2023 *HJ* Editors’ Choice winning articles are listed in Table 1, in order of appearance within the year’s issues. In this selection, the articles can be considered as belonging to four important areas of hydrogeology:

1. Characterizing heterogeneity of subsurface properties, and impacts of heterogeneity on flow and transport

- Worthington considers patterns of bedrock heterogeneity and their possible impacts on fluid flow patterns and their subsequent impacts on solute or energy transport.
  - Kawo et al. evaluate patterns and modes of hydrogeologic heterogeneity in glacial sediments using geostatistics.
2. Borrowing valuable data for use in hydrogeologic studies from nonhydrologic sources, such as oil and gas field measurements
    - Quiroga et al. discover possible deep groundwater supplies in water-poor regions using atypical groundwater field data.
  3. Improving education and public awareness of water issues
    - Vargas-Payera et al. contribute new socio-hydrogeologic procedures that educate and engage children regarding water functionality and water problems.
  4. Sand-tank experiments for learning about groundwater processes and for research
    - Stoeckl and Houben provide clear, thorough, and useful background and advice for creating modern sand-tank experiments.

We invite you to download, read, and share all five articles. These articles may well provide an excellent set of discussion topics for students in groundwater and hydrogeology classes, and for groundwater professionals at both formal and informal meetings and sessions. These also provide important guidance for future expansion of hydrogeologic knowledge and practical and effective management of groundwater resources.

To make it easier for readers to access all of these articles, Springer Nature will grant free online access to the article that is not already freely available online, for a period of time after publication of this Editor’s Message. The Editors’ Choice articles are also highlighted on the International Association of Hydrogeologists’ website (IAH 2023) and via IAH and Springer-Nature social media.

---

C.I. Voss is the executive editor of *Hydrogeology Journal*

---

✉ Clifford I. Voss  
HJ.Editor.CVoss@gmail.com

<sup>1</sup> International Association of Hydrogeologists, PO Box 4130, Reading, Goring RG8 6BJ, UK

**Table 1** *Hydrogeology Journal's* 2023 Editors' Choice articles

Authors	Title	Vol(No.):pages DOI link Open access (OA) status
Stephen R. H. Worthington	Examining the assumptions of the single-porosity archetype for transport in bedrock aquifers	31(1):87–96 <a href="https://doi.org/10.1007/s10040-022-02576-4">https://doi.org/10.1007/s10040-022-02576-4</a> Not OA
Elizabeth Quiroga, Claudia Bertoni, Fridtjov Ruden	Deep low-salinity groundwater in sedimentary basins: petrophysical methods from a case study in Somalia	31(3):685–705 <a href="https://doi.org/10.1007/s10040-022-02589-z">https://doi.org/10.1007/s10040-022-02589-z</a> OA
Sofia Vargas-Payera, Matías Taucare, Claudio Pareja, Jessica Vejar	Improving school children's understanding of water scarcity with a co-produced book on groundwater in Central Chile	31(5):1165–1179 <a href="https://doi.org/10.1007/s10040-023-02641-6">https://doi.org/10.1007/s10040-023-02641-6</a> OA
L Stoeckl, G Houben	How to conduct variable-density sand tank experiments: practical hints and tips	31(5):1353–1370 <a href="https://doi.org/10.1007/s10040-023-02635-4">https://doi.org/10.1007/s10040-023-02635-4</a> OA
Nafyad Serre Kawo, Jesse Korus, Mats Lundh Gulbrandsen	Multiple-point statistical modeling of three-dimensional glacial aquifer heterogeneity for improved groundwater management	31(6):1525–1546 <a href="https://doi.org/10.1007/s10040-023-02658-x">https://doi.org/10.1007/s10040-023-02658-x</a> OA

The hydrogeologic and water-resource communities hereby send their congratulations and gratitude to all of these distinguished authors for producing such valuable and interesting articles!

While announcing the list of distinguished 2023 articles, the HJ editors and staff also wish to thank those special people who make high-quality article publication possible by freely providing a significant amount of their personal time and energy. The continued excellent volunteer support provided to HJ and its authors by the HJ associate editors (see list of editorial board members), by the reviewers of HJ manuscripts, and by HJ's abstract translation managers and their teams of helpers is vital to the success of this

journal and is much appreciated by HJ readers around the world! We would also like to acknowledge and thank the staff at Springer Nature, who guide us and the authors through the increasingly complex business of publishing. We especially appreciate HJ's regular copyeditors and production team.

## Reference

IAH (2023) Editors' Choice articles (Hydrogeology Journal). International Association of Hydrogeologists (IAH). <https://iah.org/hydrogeology-journal/hj-editors-choice-articles>. Accessed January 2024

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.