

Special Issue

Ecohydraulics and Ecomorphodynamics

Message from the Guest Editor

This Special Issue will focus on the morphodynamic effects of biota across multiple scales in natural and managed systems. The role of ecosystem engineers, the effect of biota on sediment and nutrient transport, bioturbation and bio stabilization by benthic communities, impacts of spawning and nesting habits, and the use of nature-based solutions for flood mitigation and coastal protection, are a few of the processes within the scope of this project. Species acting as ecosystem engineers in rivers, wetlands, estuaries, and coastal areas, provide a wide variety of ecosystem services, which contribute to the morphodynamic evolution of these systems. The emphasis of this project is on: 1) identifying and quantifying the effects of biota-driven morphodynamic processes, and 2) bridging the gap between small-scale fundamental bio-physical processes and their parameterization for large scale predictions. We welcome laboratory, field, and numerical studies, with emphasis on communication of findings across scales, to develop a suitable, multidisciplinary framework to address the challenges from interactions between hydrodynamic, biological, and morphodynamic processes.

Guest Editor

Dr. Rafael O. Tinoco

Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, USA

Deadline for manuscript submissions

closed (10 November 2020)



Geosciences

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 5.1



mdpi.com/si/44549

Geosciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
geosciences@mdpi.com

[mdpi.com/journal/
geosciences](https://mdpi.com/journal/geosciences)





Geosciences

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 5.1



[mdpi.com/journal/
geosciences](https://mdpi.com/journal/geosciences)



About the Journal

Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherent set of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientifically based political decisions.

We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. John C. Eichelberger

Alaska Center for Energy and Power, University of Alaska Fairbanks,
Fairbanks, AK, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), GeoRef, Astrophysics Data System, and other databases.

Journal Rank:

CiteScore - Q1 (General Earth and Planetary Sciences)