

## Special Issue

# Application of Machine Learning in Marine Ecology

### Message from the Guest Editors

Machine learning is a field of computational science which first emerged in the 1950s. However, our ability to effectively harness the power of machine learning techniques was only truly realised in the 1990s. In ecology, the earliest adoption of machine learning came about in the early 2000s, when regression tree algorithms were applied to spatial data to predict species distributions. Since that time, machine learning algorithms have been adapted and applied in various studies in the marine environment, from population models, image recognition, and experimental studies.

The purpose of this Special Issue is to highlight the use of machine learning algorithms for studying marine ecosystems. Studies focusing on any marine species, including those in the coastal environment, are welcome. Articles may address, but are not limited to, the following topics:

- Species distribution modelling;
- Marine protected area planning;
- Machine learning for experimental research;
- Image recognition for marine conservation;
- Audio recognition;
- Machine learning tools and tag development;
- Sustainability planning using machine learning.

### Guest Editors

Dr. Grant R.W. Humphries

HiDef Aerial Surveying Ltd. The Observatory, Dobies Business Park, Lillyhall, Workington, Cumbria, UK

Dr. Marianna Chimienti

Centre d'Etudes Biologiques de Chizé, 405 Route de Prissé la Charrière, 79360 Villiers-en-Bois, France

### Deadline for manuscript submissions

closed (20 December 2022)



## Remote Sensing

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 8.6



[mdpi.com/si/74868](https://mdpi.com/si/74868)

*Remote Sensing*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[remotesensing@mdpi.com](mailto:remotesensing@mdpi.com)

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





# Remote Sensing

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 8.6



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



## About the Journal

### Message from the Editor-in-Chief

*Remote Sensing* is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

---

### Editor-in-Chief

Dr. Prasad S. Thenkabail

Senior Scientist (ST), U. S. Geological Survey (USGS), USGS Western Geographic Science Center (WGSC), 2255, N. Gemini Dr., Flagstaff, AZ 86001, USA

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

#### Journal Rank:

JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)