



Call for papers for thematic issue on ‘Conservation Artificial Intelligence’

The explosion of machine learning (ML) methods across all areas of digital society is automating analysis of large volumes of data, saving us from dull tasks and helping to provide the large and complex datasets that we need to inform management of the Earth. Yet the applications of these artificial intelligence (AI) methods to conservation problems has been limited to date. There is little enough guidance for investigators wishing to benefit from AI, and even less guidance for established or new conservation practitioners as to what such methods do and how they might be applied. Part of the limitation of machine learning algorithms for conservation is that they typically operate in a black box, with little to no representation of the underlying ecological processes. Yet a rapid increase in very large datasets from a wide range of sensors and other observations suggests the time is right for conservation scientists to take stock of the range of methodologies involved, and for resource managers and conservation practitioners to become familiar with the potential benefits of AI and how they can be applied to management and conservation of the world's natural systems.

In this thematic issue of *Environmental Conservation* we are seeking review and research papers in any area of conservation science and conservation – from theory to application – that showcase what AI and related ML algorithms can do to support conservation principles, practices and outcomes. Specific topics include, but are not limited to:

- ML methodologies for acquiring, archiving, and analysing data on ecosystems and biota
- Land and marine habitat image analysis, classification, and mapping
- Identification and tracking of animals and people in time and in space
- Quality control of big data for studying ecological large-scale change or at remote locations
- Modelling of species distributions and change

Managing Editor

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Submission Guidelines

Standard Research papers (max 6000 words) are of particular interest but Reviews (Max 8000 words), Reports (max 4000 words) and Comments (max 2000 words) may also be relevant. It is essential to abide by the Instructions for Contributors (www.cambridge.org/core/journals/environmental-conservation/information/instructions-contributors), submit via the web site (<https://mc.manuscriptcentral.com/envcon>) and indicate a paper is for the ‘Conservation AI’ theme. All papers are subject to rigorous screening and peer-review. Abiding by the schedule of dates below will facilitate access to the thematic issue, otherwise they may be stand-alone papers.

Important Dates

Manuscript submission deadline: 1st September 2019

Submission of final revised paper: 1st March 2020