Environmental Conservation

Call for Papers

Integrating Wildlife and Other Biotics into Essential Biodiversity Measures

Climate changes and increasing human demand on natural resources have resulted in governing and management bodies pledging through the Convention on Biological Diversity to meet national biodiversity targets (e.g. Aichi Targets). These pledges involve an increasing reliance on remote measures of biodiversity to evaluate their effectiveness. Evaluating movement toward or away from the Aichi Targets relies on biodiversity and ecosystem metrics that may not be readily available. Essential Biodiversity Variables (EBVs) can aggregate data across multiple scales (Pereira et al. 2013 Science, 339: 277-278; Brummitt et al. 2017 Biological Conservation, 213:252-255), depending to varying degrees on intensive or extensive monitoring of target species, remote sensing, genomics, and focused ecological studies (Proenca et al. 2017 Biological Conservation, 213:256-263). Concerning forests, remote sensing platforms can monitor landscape attributes (shape and size), carbon loads, tree species diversity, and exotic invasions that impact trees. However, the symptoms of an empty forest, either due to removal of key species through poaching or disease, invasion of exotics into the understory, loss of plant-insect synchrony, or any of the trophic cascades that result from these factors, are not readily detectable through standard remote sensor arrays.

Most species are loosely linked to measurable remotely-sensed attributes and their direct status is not easily detected. In these cases, ancillary remote sensing tools or complementary ground measures of an intensive or extensive nature are needed. Monitoring networks such as NEON, TEAM, BBS, ILTER, IWC have been formed to provide direct data on animal or plant populations. Aggregates of species assessments, such as the IUCN Red List, have potential (Collen et al. Biology Letters 2016 12: 20150843) and more integrated systems have been proposed (see Bush et al. 2017 Nature Ecology and Evolution 1:0176), but rarely are these measures linked directly back to management or policy.

This Call for Papers seeks examples of integrated systems that are, or can be, used to inform policy or management at the landscape, country or regional level. Studies of interest include use of sensor arrays, volunteer networks and resource use (e.g. bushmeat) surveys to create metrics used by managers or agencies to alter management and policy toward target species or ecosystems. These studies should be either at the scale needed for EBVs or capable to scale to that level. We will consider manuscripts on all terrestrial ecosystems, as well as fresh and coastal waters, that show a direct link between biotic measures and higher level management or policy metrics. Papers may address, but are not limited to, the following subjects:

- Requirements for camera trap arrays to monitor mammal populations in tropical forests
- Anti-poaching patrols as a source of biodiversity data
- A dispersed acoustic system measuring multiple taxa through automated species recognition
- eDNA measures to track important fish species in tropical lakes
- Integrating village interviews into standard measures of species richness
- Country-level Red Lists as reliable indicators of species' status
- Using local market data to measure changes in plant species richness and abundance

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 'Essential Biodiversity Measures' 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 June 2018
Submission of final revised paper: 1st December 2018
Expected publication: March - June 2019