Transforming Biodiversity Data into Knowledge for Decision-making

Lauren V. Weatherdon [‡]

‡ UN Environment World Conservation Monitoring Centre, Cambridge, United Kingdom

Corresponding author: Lauren V. Weatherdon (lauren.weatherdon@unep-wcmc.org)

Abstract

Ensuring that we have the data and information necessary to make informed decisions is a core requirement in an era of increasing complexity and anthropogenic impact. With cumulative challenges such as the decline in biodiversity and accelerating climate change, the need for spatially-explicit and methodologically-consistent data that can be compiled to produce useful and reliable indicators of biological change and ecosystem health is growing.

Technological advances—including satellite imagery—are beginning to make this a reality, yet uptake of biodiversity information standards and scaling of data to ensure its applicability at multiple levels of decision-making are still in progress. The complementary Essential Biodiversity Variables (EBVs) and Essential Ocean Variables (EOVs), combined with Darwin Core and other data and metadata standards, provide the underpinnings necessary to produce data that can inform indicators. However, perhaps the largest challenge in developing global, biological change indicators is achieving consistent and holistic coverage over time, with recognition of biodiversity data as global assets that are critical to tracking progress toward the UN Sustainable Development Goals and Targets set by the international community (see Jensen and Campbell (2019) for discussion).

Through this talk, I will describe some of the efforts towards producing and collating effective biodiversity indicators, such as those based on authoritative datasets like the World Database on Protected Areas (https://www.protectedplanet.net/), and work achieved

through the Biodiversity Indicators Partnership (https://www.bipindicators.net/). I will also highlight some of the characteristics of effective indicators, and global biodiversity reporting and communication needs as we approach 2020 and beyond.

Keywords

biodiversity, essential variables, indicators, sustainable development goals, policy

Presenting author

Osgur McDermott-Long

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References

- Jensen D, Campbell J (2019) The Case for a Digital Ecosystem for the Environment: Bringing together data, algorithms and insights for sustainable development. 4th UN Environment Assembly, Nairobi. UN Environment [In English]. URL: https://un-spbf.org/wp-content/uploads/2019/03/Digital-Ecosystem-final.pdf