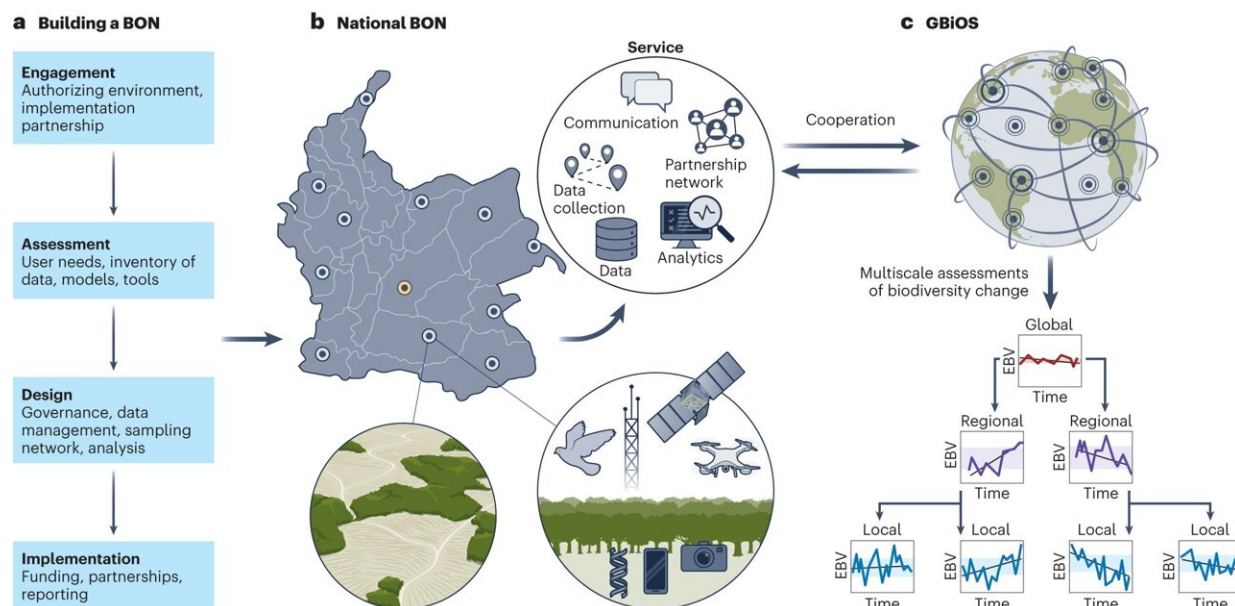


Researchers propose a global observatory to monitor Earth's biodiversity

August 25 2023, by Andrew Gonzalez



A GBiOS as a global network of interconnected national and regional BONs to assess biodiversity trends worldwide. a, Countries without a national BON can establish and implement one following the multistep process identified by GEO BON. b, Each national BON (Colombia is shown as an example) follows harmonized methods and coordinated activities for biodiversity observations, data curation and sharing, trend detection and attribution, modeling, and policy-decision support that forms a BON service. c, In the proposed GBiOS, national and regional BONs (circles) form an international network that shares technologies, data (for example, via a Global Open Science Cloud) and information about biodiversity trends (EBVs and EESVs) and ecological events, and in so doing enables the global community to make rapid multiscale assessments of progress towards international biodiversity targets and goals. Credit: *Nature Ecology & Evolution* (2023). DOI: 10.1038/s41559-023-02171-0

At a time of nature crisis driven by unparalleled rates of biodiversity loss, a new interconnected system to monitor biodiversity around the world is urgently needed to direct and focus conservation action.

"The lethal combination of habitat loss, the exploitation of natural populations, pollution, and climate change is causing [species extinction](#) rates not seen since the last mass extinction 65 million years ago," said Prof. Andrew Gonzalez, Liber Ero Chair in Conservation Biology at McGill University, and co-Chair of GEO BON. "We lack the means to monitor these impacts fast enough across most areas of the planet."

Operating much like the existing global network of weather stations that monitor [climate change](#) and its impacts, the Global Biodiversity Observing System (GBiOS), is a proposal developed by scientists from the Group on Earth Observations Biodiversity Observation Network (GEO BON), and its partners, that will combine technology, data, and knowledge from around the world to foster collaboration and data sharing among countries and to provide the data urgently needed to monitor [biodiversity](#) change and target action.

GBiOS can galvanize [collaboration](#) on the critical issue of biodiversity data access, sharing, and equitable use.

"It can provide the information we need at the pace we need it to support countries as they make progress towards their biodiversity goals," said Prof. Alice Hughes, Associate Professor at The University of Hong Kong, and one of the dozens of scientists who collaborated to develop the proposal for GBiOS.

GBiOS is a missing piece of the science-policy puzzle needed to support the Kunming-Montreal Global Biodiversity Framework agreed upon at

the COP-15 conference in Montreal last year, contributing to a representative and inclusive understanding of biodiversity change and supporting effective implementation of policies that are designed to reverse biodiversity loss and achieve the global goals for nature in the coming decades.

More information: Andrew Gonzalez et al, A global biodiversity observing system to unite monitoring and guide action, *Nature Ecology & Evolution* (2023). [DOI: 10.1038/s41559-023-02171-0](https://doi.org/10.1038/s41559-023-02171-0)

Provided by McGill University

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