

SEED Biocomplexity Index Announced – A Globally-Standardized Metric for Measuring Biodiversity

COP16, Cali, Colombia – October 2024 – On Business Day at CBD COP16 conference in Colombia, a revolutionary new tool for measuring biodiversity was announced: <u>the SEED Biocomplexity Index</u>. This globally-standardized biodiversity metric, developed by scientists at the <u>Crowther Lab</u>, offers a comprehensive and holistic view of the health of our ecosystems.

Valuing biocomplexity to effectively measure nature

Climate change and biodiversity loss threaten the future of our planet. Ultimately, these global challenges are underpinned by our tendency to value individual parts of nature at the expense of everything else. By valuing only the parts that we use for food, textiles, timber, medicines, energy etc, we then propagate these parts at the expense of everything else, giving rise to a patchwork of simplicity. If we are going to build a sustainable future on this planet, then it is critical that we begin to value the whole complexity of nature over its individual parts.

"For a nature-positive future, we need to value the whole of nature over its parts," **said Prof Thomas Crowther.** "By allowing us to measure the state of nature in its full complexity across the globe, the development of SEED represents a massive leap forward in this process."

In recent decades, countless political and financial mechanisms have been designed to promote the full complexity of biodiversity. A central challenge to these efforts has been the need to measure the holistic state of nature, and its changes over time. This has been challenging due to biodiversity being an inherently complex system, or network of systems, that cannot be defined or measured by choosing one specific part – for example, carbon markets are a great step in the right direction to help drive finance towards protecting and restoring nature, but in placing carbon as the central measurement of biodiversity these mechanisms have in some cases failed to proliferate biodiversity, instead leading to monocultures.

SEED is the first metric to account for biodiversity across the ecosystem, species and genetic levels, and one of few to include microbes, working to capture the full biological complexity (biocomplexity) of nature. SEED is also a framework to enable radical scientific collaboration, designed with the ability to ingest a variety of data sources to continuously update and improve the model. The current inputs include global maps and remotely-sensed data, with the capability to integrate emerging ground-sourced data, including eDNA, bioacoustics and other novel technologies.

"Useful measures of the state of nature must simultaneously embrace its inherent complexity whilst providing simple, integrated signals to inform and shape positive action - in delivering this, SEED is today as good as it gets." - **Simon Zadek, co-CEO Nature Finance**

A science-based tool to aid policy and action

This groundbreaking measurement fills a critical gap for policymakers, businesses, and NGOs working to protect biodiversity. With SEED, they can now make informed decisions based on globally-standardised, high-integrity, and comparable data.



Significantly, the Crowther Lab's science, which underpins SEED, is part of the groundbreaking <u>Planetary</u> <u>Boundaries Annual Health Check partnership</u>. Led by Potsdam Institute for Climate Impact Research, this partnership will provide annual updates on the health of Earth's systems. The partnership harnesses a robust and tested methodology, the latest geospatial technology and world-class analytics and scientific modeling capabilities. This recognition of the Crowther Lab as leaders in biodiversity science highlights the vital role of SEED in monitoring the health of our planet.

Unprecedented Accessibility and Transparency

SEED is designed to be accessible and transparent with the mission to democratise access to information. An open-access version will be available on the <u>Restor</u> platform, allowing users to assess the state of biological complexity (biocomplexity) for any location on Earth. The initial launch offers 1km x 1km resolution, with finer 30m x 30m data and time-series analysis coming in 2025.

Currently SEED is in its beta phase. This means companies and financial institutions have the opportunity, alongside Nestle and Nuveen Natural Capital, to become early adopters of SEED – to help develop and refine the product to meet their nature investment needs, and supply chain requirements.

The SEED Biocomplexity Index represents a significant leap forward in our ability to understand and protect the intricate web of life on Earth. By providing a clear and comprehensive picture of biodiversity, SEED empowers stakeholders to make informed decisions for a healthier planet, accelerating the restoration of nature.

We're using SEED to help us better understand the state of biodiversity across the farms we work with. This understanding will equip us with the tools to implement regenerative agricultural practices that promote thriving yields and thriving ecosystems" says **Cristina Hastings, Head of Sustainability at Nuveen Natural Capital.**

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ABOUT GLOBAL BIODIVERSITY CONSORTIUM

The Global Biodiversity Consortium (GBC) is a unique coalition of initiatives that brings together cutting-edge knowledge in global ecological research (<u>Crowther Lab</u>), a globally-standardized biodiversity metric providing a holistic, high-resolution measure of the state of nature for every terrestrial location on Earth (<u>SEED Biodiversity Index</u>), and an open-data, geospatial platform that offers nature stewards access to the latest ecological science for impact storytelling (<u>Restor</u>). With over 200,000+ sites, Restor is the largest network of community-led restoration and conservation efforts across the globe.

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