Campaigning for a Global Collections Network: Improving the digital representation and visibility of natural science collections from Latin America and the Caribbean

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Abstract

Global conservation of biodiversity is more important than ever before. The success of the Convention on Biological Diversity’s Post-2020 Global Biodiversity Framework and monitoring strategy will depend on the availability of reliable, information-rich biodiversity data. Natural science collections throughout the world are repositories for and stewards of primary biodiversity records, which they maintain and preserve in the long-term, and can contribute to biodiversity monitoring specifically at the species and genetic diversity levels.

Accurate and up-to-date information about scientific collections as data providers and mediators lie at the core of Findable, Accessible, Interoperable and Reusable (FAIR) data (Wilkinson 2016). The visibility and discoverability provided by collections’ digital representations promote an institution’s, a country’s and a region’s wealth in biodiversity records and data; highlight human efforts and social networks for maintaining and providing access to high-quality physical and digital records; and form the basis for attribution and effective transaction managment implementing the CARE principles (Collective Benefit, Authority to Control, Responsibility, and Ethics; Carroll 2021). Providing powerful functionality, the Global Biodiversity Information Facility (GBIF) Registry of Scientific Collections (GRSciColl) is evolving into the global catalog for information on collections.

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The Latin American and Caribbean (LAC) region is among the most biodiverse regions of the planet. Throughout the LAC region, a wealth of initiatives exists for describing, recording, protecting and managing biodiversity and biodiversity data. The region's many collections, their scientists, staff and volunteers are crucial partners in these endeavors. A diversity of local to national and regional networks are active, fostering communication, support and capacity building.

Last year, the Biodiversity Crisis Response Committee (BCRC) of the Society for the Preservation of Natural History Collections (SPNHC) in cooperation with the GRSciColl team at GBIF, developed the concept and first materials for a Global Collections Network Campaign. In cooperation with the national GBIF Node, a pilot campaign was conducted in Ecuador. In addition, close connections were formed to the task group developing Latimer Core, TDWG's upcoming collection description standard, the MaterialSample task group of Darwin Core, as well as the community developing the next-generation data infrastructure based on the Digital Extended Specimen concept (Hardisty et al. 2022) and open FAIR digital objects (Schultes and Wittenburg 2019), e.g. defined by the openDS standard.

Building on the pilot campaign and continuing the collaboration with the GRSciColl team, a partnership endorsed by GBIF's SPNHC node and led by two members of SPNHC's BCRC was formed that includes biodiversity scientists, collections staff and GBIF national node managers from Argentina, Ecuador and Guatemala. Supported by the GBIF Capacity Enhancement Support Programme and starting in August 2022, the partnership has the goal to increase the number, coverage and density of high quality records available through GRSciColl, thereby providing visibility and improving the recognition of natural science collections existing within the three countries and the LAC region. The CESP project contributes towards the aim of the campaign to build step by step an equitable, inclusive and engaged Global Collections Network.

Keywords

GRSciColl, Post-2020 Global Biodiversity Framework, TDWG Latimer Core, Digital Extended Specimen, FAIR, CARE

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Conflicts of interest

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