Evolution of GBIF's Taxonomic Backbone

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Abstract

GBIF (Global Biodiversity Information Facility) is an international research data infrastructure that mediates data from various sources such as museum collections, citizen science observations and machine generated data such as camera trap and environmental DNA. Data shared with GBIF comes with a taxonomic identification— normally a Linnaean binomial. Large data flows are now coming to GBIF without formal names but are identified by informal species hypotheses, usually based on DNA sequence similarity to a curated reference library.

GBIF's task is to integrate all this data in a repository that is accessible via a single taxonomic framework that integrates the various individual taxonomic practices. This made more challenging by idiosyncratic names that appear in GBIF-mediated datasets, which are not found in existing taxonomies. This taxonomy is known as the GBIF taxonomic backbone. GBIF is transitioning its infrastructure to build the backbone in the new ChecklistBank infrastructure so that GBIF can take advantage of the new tools the Catalogue of Life-GBIF partnership has built. This taxonomy will be more responsive to community input and will be able to integrate new knowledge at a much faster rate.

Keywords

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Conflicts of interest