A Practical Approach to Publishing and Using Event-based Biodiversity Data

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Abstract

Despite the rapid growth of biodiversity data within global and national biodiversity infrastructures, the types of data available in these infrastructures are limited. In particular, the lack of data that captures presences/absences of species over multiple survey or sampling events has been identified as a major weakness of the Global Biodiversity Information Facility (GBIF) and the Atlas of Living Australia (ALA).

The ALA, in collaboration with GBIF, have started work to deliver improved access to data types in the short-term by focusing on event-based biodiversity data, like from expeditions or ecological surveys, as part of the ALA Extended Data Model project.

The ALA takes an opinionated approach to publishing event-based biodiversity data using Event Core Darwin Core Archives (DwCA), adding fields and vocabularies to Darwin Core that represent nested events, and link occurrence records to a parent event (based on The Ocean Biogeographic Information System (OBIS) ENV-DATA). They have currently developed a pilot system to showcase how data are published, and a user interface for querying and downloading data directly from the system.

Through this collaboration to create a pilot event-based system, GBIF aims to enhance its indexing and representation of event-based data by trialling a demonstration tool to explore

event data. This tool will also allow for feedback for the new GBIF extended data model tasks.

Publishing event-based biodiversity data will make information like collection methods, sampling effort, and species presence/absence accessible. This data, in addition to existing occurrence data, will allow people to answer more detailed ecological questions using more complex statistical analyses of species distributions over time.

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