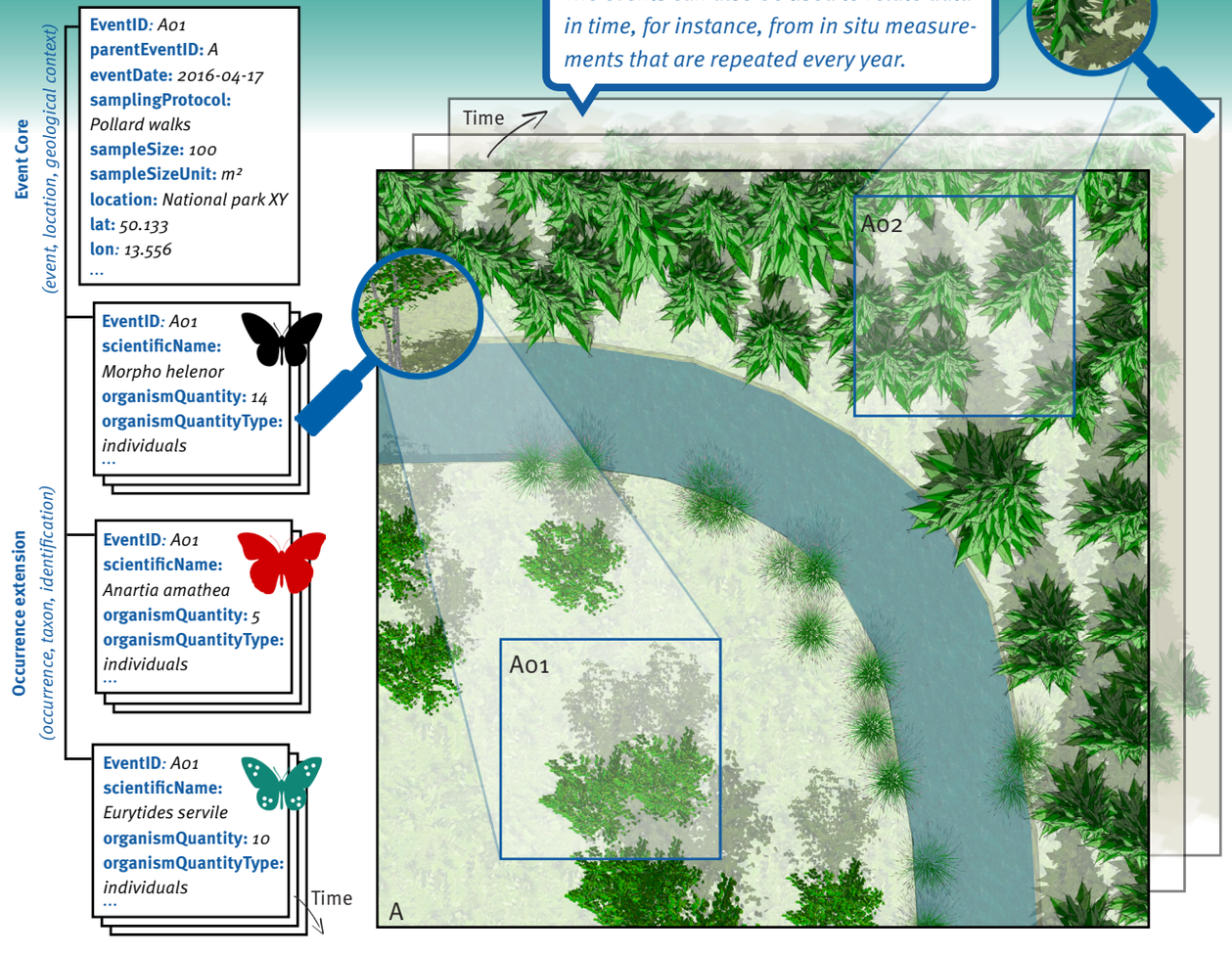
The Event Core in support of biodiversity monitoring

Efforts to track biodiversity change have increased the amount of species information available through monitoring programs. Beyond presence-only data, these systematically collected datasets capture richer, more complex details about abundances and frequency of occurrence. The newly introduced Event Core takes advantage of this wealth of information.

Placing the sampling event at the center of the simplified data structure, it enables data holders publishing through GBIF to share dynamic population abundance data (including time series population data) or presence/absence data, while documenting the sampling protocol.

The Event Core brings together data from the same sampling area, or from an atlas, connected via their 'parent' event.

The events can also be used to relate data in time, for instance, from in situ measurements that are repeated every year.



Data publishers can now provide information on the sampling protocol, sample size, or organism quantity, in addition to the occurrence records, for each species found at each site.

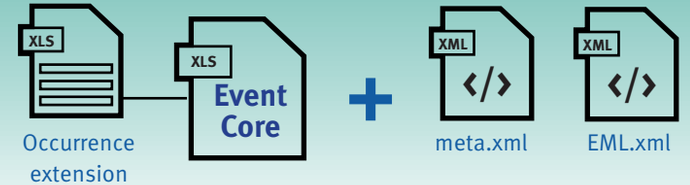
Darwin Core in a nutshell...

Developed by the Biodiversity Information Standards (TDWG) community, the Darwin Core plays a fundamental role in the sharing, use and reuse of open-access biodiversity data. The DwC was originally designed for occurrence data from museum collections. Today, it accounts for the vast majority of the hundreds of millions of species occurrence records available through the Global Biodiversity Information Facility (GBIF).

The recently extended Darwin Core takes full advantage of these advances and provides a solid framework for the integration, sharing, and use of broader biodiversity information.

The Darwin Core revolves around a standard file format: the Darwin Core Archive (DwC-A), which imposes a relatively simple, one-to-many relational model in which a row in a central core table can be linked to many rows in one or more surrounding extension tables together with a descriptor file (meta.xml) which is needed for software processing and a metadata document in Ecological Metadata Language (EML.xml).

This compact package contains interconnected text files and enables data publishers to share their data using a common terminology. This standardization not only simplifies the process of publishing biodiversity datasets, and also makes it easy for users to discover, search, evaluate and compare datasets as they seek answers to today's data-intensive research and policy questions.



Key benefits of the Event Core

Effective conservation and sustainable development policies fundamentally rely on well documented, timely, user-friendly, consistently generated, and available information. The Event Core, allows for the inclusion of information pertaining to sampling events inside a widely accepted data model (DwC), constituting a major major advance for the global biodiversity community.

Sampling event data is better at detecting changes and trends in species populations than presence-only observations. The Event Core will enable data holders to publish through GBIF population abundance data (including time series) or presence/absence data, while documenting the sampling protocol.

The Event Core represents a critical step for the Essential Biodiversity Variables concept that GEO BON is promoting in support of national biodiversity observation initiatives to measure the pulse of biodiversity on the planet, and to track progress towards the Aichi targets and the Sustainable Development Goals.

You can now, more efficiently, bring your data into a larger context and make them available for scientists, analysts and policymakers.

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How to get started

The most efficient way to prepare and publish Darwin Core-based datasets is through GBIF's Integrated Publishing Toolkit (IPT).

gbif.org/ipt

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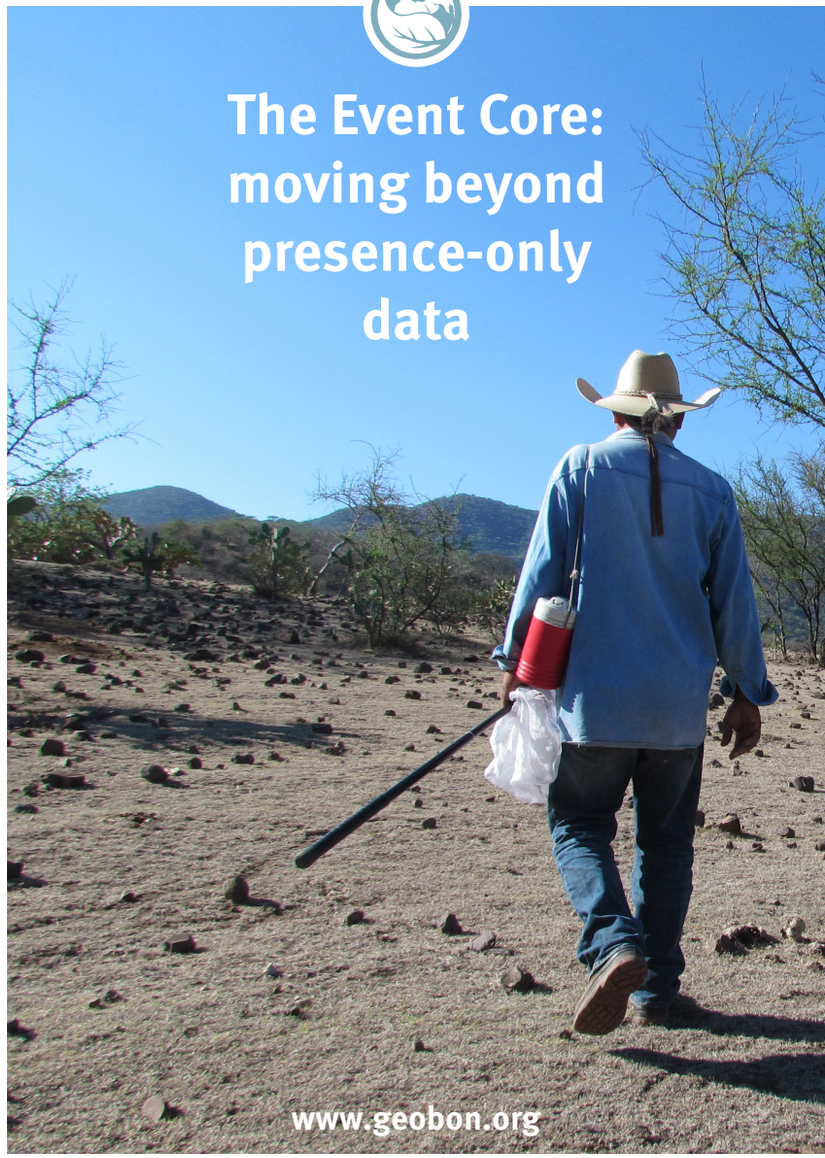
Biodiversity observations for a better future

The Event Core: moving beyond presence-only data



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