Knowledge base on species traits: a Spanish/French Plinian Core implementation use case around pollinators' interactions

Programme: CESP
Project ID: CESP2023-011
Project page: https://www.gbif.org/project/CESP2023-011/plinian-core-for-plant-pollinator-interactions
Project lead organization: Museum National d'Histoire Naturelle (GBIF France)
GBIF Participant Represented: France
Project implementation period: 1/10/2023 - 30/11/2024
Report approved: 29/1/2025

Declaration: The information provided in this report has been provided by and is the responsibility of the project lead.

Narrative Final report

Executive Summary

During this project, we successfully organized two workshops to gather both French and Spanish teams involved with species traits information and how to share them.

The first workshop took place in Paris in February 2024, and the second one was held in Madrid in October 2024, after requesting and being granted an extension to our project's end date; both allowed the project's official partners, as well as additional participants (traveling on their own funds), to exchange ideas and feedback about the use of Plinian Core applied to species traits, based on the experience of the GBIF Spain team on this topic; the main conclusions were that such a standard is very needed within the biodiversity/environment communities, but it might have limitations in terms of sharing very specific traits information.

The materials produced during these two workshops were shared between all participants, and were also sent to the project's page on GBIF.org; some deliverables, like the TAXREF dataset update with traits informations, might not appear on GBIF.org yet due to the TDWG's reviewing process of Plinian Core, but it will be done as soon as the standard is accessible to the GBIF community through official IPT extensions.

Report on Activities

Activity progress summary

First technical workshop (Technical meeting between French & Spanish teams to launch the project and identify potential issues): organized from 21 to 22 February, 2024 at MNHN, Paris.
→ Done

Mapping Knowledge trait base and Plinian Core (Mapping use case between the French Life Traits Knowledge base (with a focus on pollinator species and plant- pollinator interactions) and Plinian Core
→ Done

Second technical meeting (technical meeting between French & Spanish teams to tackle mapping issues and discuss future Plinian Core mappings). Finalisation of mapping and work on TAXREF + TAXREF-LD update on GBIF with added pollinator-plants interactions through the Plinian Core extension.
→ Meeting done
→ TAXREF update: ongoing (waiting for Plinian Core validation by TDWG community + implementation on production IPTs)
→ TAXREF-LD update: ongoing work between Franck Michel (project partner) and GBIF Spain (waiting for Plinian Core validation by TDWG community)
→ Focus on pollinator-plants interactions: ongoing (early 2025: publishing of the pollinators database

(along with data paper) on institutional data repository InDoRES + GBIF + added to TAXREF + another paper describing the base)

Documentation (Documentation on the use case (with EN/ES/FR translation). Best practice documentation on Plinian Core implementation use case around plant-pollinator interactions knowledge base (with EN/ES/FR translation)
→ Ongoing (focus of the last day of the 2nd workshop)

Completed activities

Activity name: first technical workshop

Description: The first technical workshop was successfully held in Paris (MNHN), with nearly all project partners attending except for a few justified absences. Its first day was dedicated to presenting all project partners and their respectives works and tools, while the second day was more of a brainstorming session to identify potential technical issues with the Plinian Core mapping and implementation.

Start Date - End Date: 21/2/2024 - 22/2/2024
Verification Sources: https://www.gbif.org/event/218d6d-bb61-4c76-8adc-fcc37e1/plinian-core-workshop-1

Activity name: Mapping Knowledge trait base and Plinian Core

Description: The French Knowledge trait base was mapped to Plinian Core early in the course of this project, by project partner Olivier Gargominy who works and maintains the national traits database. The results of this mapping were discussed during the project's 2nd workshop in October, leading to recommendations to enrich & improve the Plinian Core standard as some terms are lacking to adequately describe some species traits.

Start Date - End Date: 1/1/2024 - 30/4/2024
Verification Sources: https://taxref.mnhn.fr/taxref-web/traits/attributes

Activity name: second technical workshop

Description: The second technical workshop was successfully held in Madrid (Réal Jardin Botanico), again with nearly all project partners attending except for a few justified absences; a remote meeting link was provided on the two days of the meeting, for the project partners who couldn't attend the onsite meeting, and for external participants whose mission was not taken in charge by the project's funds.The main focus of this workshop were the Plinian Core implementation feedback from the French team working on the national traits knowledge base, and the production of a technical guide as mentioned in the deliverables.

Start Date - End Date: 7/10/2024 - 9/10/2024
Verification Sources: https://drive.google.com/file/d/1EEQQr_eTFFEUBsHNGm20Nj5Mc_J-HvNB/view?usp=sharing

Activity name: TAXREF Update

Description: TAXREF and TAXREF-LD updates are ongoing due to external circumstances: a first test mapping with Darwin Core & Plinian Core is ready on GBIF France's test IPT (where PliC extensions are already installed), but the generated archive cannot yet be sent to GBIF through a production IPT as Plinian Core is not yet reviewed and validated by the TDWG community. TAXREF GBIF update will be made as soon as the PluC extensions are available to the GBIF community on the production IPTs. A TAXREF-LD update is also ongoing thanks to exchanges between Franck Michel and the Spanish team; this is also waiting for the PliC review to be completed.

Start Date - End Date: 8/10/2024 - 30/11/2024
Verification Sources: https://ipt-uat.gbif.fr/resource?r=taxref_plic

Activity name: Documentation

Description: A technical documentation draft was produced during the 2nd workshop in October; a first version of it will be shared on the project's page, and a final + translated version will be published in the next few months, following the ongoing developments of Plinian Core & GBIF data model and extensions.

Start Date - End Date: 8/10/2024 - 30/11/2024
Verification Sources: https://docs.google.com/document/d/1-MhNakH6zYkVws82GWPvcCF3oaLZQbVn_r9zyEhqBhI/edit?usp=sharing

Deliverables progress summary

Deliverables match with activities. We are going to details them below.

Completed deliverables

Title: first technical workshop

Type: Training Workshop
Description: The first technical workshop was successfully held in Paris, (MNHN) in february 2024.
Sources of verification: https://www.gbif.org/event/218d6d-bb61-4c76-8adc-fcc37e1/plinian-core-workshop-1

Title: Plinian Core workshop #2

Type: Training Workshop
Description: The second technical workshop was successfully held in Madrid (Réal Jardin Botanico), again with nearly all project partners attending except for a few justified absences; in october 2024
Sources of verification: https://drive.google.com/file/d/1EEQQr_eTFFEUBsHNGm20Nj5Mc_J-HvNB/view?usp=sharing

Title: Plinian Core Mapping Use Case Guide

Type: Documentation
Description: A technical documentation draft was produced during the 2nd workshop in October; a first version of it will be shared on the project's page, and a final + translated version will be published in the next few months, following the ongoing developments of Plinian Core & GBIF data model and extensions.
Sources of verification: https://docs.google.com/document/d/1-MhNakH6zYkVws82GWPvcCF3oaLZQbVn_r9zyEhqBhl/edit?usp=sharing

Title: TAXREF + TAXREF-LD traits update

Type: Resources
Description: TAXREF and TAXREF-LD updates are ongoing : a first test mapping with Darwin Core & Plinian Core is ready on GBIF France's test IPT (PliC extensions are installed), but the generated archive can't yet be sent to GBIF through a production IPT as Plinian Core is not yet validated by the TDWG community.
Sources of verification: https://ipt-uat.gbif.fr/resource?r=taxref_plic

Events

First technical workshop

Dates: 21/2/2024 - 22/2/2024
Organizing institution: MNHN
Country: France
Number of participants: 17
Comments: The first project workshop was held at the national Museum of natural history (MNHN) in Paris, France, from 21 to 22 February, 2024. The aim of this workshop was to present each programme and tool involved in this CESP project, as well as to identify technical needs in order to begin the mapping of the French knowledge base about species interactions to Plinian Core. The programme of the workshop and the list of its participants are available as additional files.
Website or sources of verification: https://www.gbif.org/event/218d6d-bb61-4c76-8adc-fcc37e1/plinian-core-workshop-1

Events

Plinian Core workshop #2

Dates: 7/10/2024 - 9/10/2024
Organizing institution: CSIC GBIF Spain
Country: Spain
Number of participants: 12
Comments: The second technical workshop of the project was held at the Réal Jardin Botanico in

Madrid, Spain, from 08 to 09 October, 2024. The main focus of this workshop were the Plinian Core implementation feedback from the French team working on the national traits knowledge base, and the production of a technical guide as mentioned in the deliverables. The programme of the workshop and the list of its participants are available as additional files.

Website or sources of verification:
https://drive.google.com/file/d/1EEQQr_eTFFEUBsHNGm20Nj5Mc_J-HvNB/view?usp=sharing

Communications and visibility

Both project workshops were advertised on GBIF France & GBIF Spain websites, as well as on their social media (X-formerly Twitter). Both GBIF teams will do the same for the technical guide once its final version is finished and translated into French and Spanish.
Information, pictures and additional materials are also provided to our project's page on GBIF.org.

As we requested a time extension, the project's discussions and conclusions about Plinian Core could not be presented at this year's (2024) TDWG conference, but will discuss how to highlight this CESP project during the next TDWG conference.

Monitoring and evaluation

Monitoring, evaluation and lessons learned
Final Evaluation:
This project was a key opportunity for both GBIF France (and its partners working on trait data) and GBIF Spain to reunite around a common topic: the experience of GBIF Spain with Plinian Core allowed us to test its implementation in a more specific thematic (sharing traits information) and in another national context.

Best Practices and Lessons Learned:
The number of partners and external participants was a great way to start discussions and get numerous feedback on the topics covered by the project; however, it also led to increased difficulties regarding workshop logistics, and some of the original participants were finally not able to attend one or both workshops. In the future, we will try to reduce the number of participants for our next CESP projects, in order to minimize administrative and logistical hindrances.
Plinian Core is a valuable tool and we learned a lot on how to best use it during this project; it would perhaps have been best to wait until its reviewing and validation by the TDWG community, as the lack of official PliC extensions on GBIF's production IPT was the main technical hindrance during this project. It could however be implemented in the French national traits database, and mapped on the test IPT in the meantime so it was not a completely critical issue.

Post Project Activity(ies):
- Update the TAXREF dataset with PliC extensions on GBIF.org once the PliC standard TDWG reviewing process is complete (same schedule for TAXREF-LD update on Github)
- Focus on pollinators-traits interactions with an article + data paper describing this database and how it articulates with TAXREF
- Finalize and translate the PliC French use case technical documentation

Sustainability plans

The French national traits database has successfully been mapped to Plinian Core, which will continue to be used for sharing species traits information at the national level, as well as on GBIF.org. From 2025 on, all future updates of TAXREF will include PliC extensions to share as many traits information on species (and higher taxa) as possible. Discussions around the traits topic led to potential future collaborations between project partners, specifically around the pollinators-plant interactions: a curated database on this topic will soon be shared online and described in a data paper, and discussions are ongoing regarding a planned workshop on the matter in the next few months.