Annex 2. Topic 2: Improving access to local taxon lists and taxon-related scientific data through pragmatic name-mapping workflows

1. Challenges to address by the Proposal

Proposals should address the challenge of linking local, regional and national taxon lists or other taxon related data types to international resources such as EUNomen/PESI, CoL, World Flora Online and GBIF Checklist Bank. This challenge is pressing because linking locally curated taxon lists provides an important contribution to the integration of much needed de-centrally curated research data, such as monitoring in specific regions, red lists, and data curated in collection management systems and observation databases.

2. Practical impact on site

Proposals should contribute to better linking the taxonomic data and systems they curate at the European and international level and make the developed linkage opportunities available to the community (e.g., via publications).

3. Collaborative approach (compulsory activities)

The proposals should involve collaboration, for example, between taxonomic experts, collection managers, biodiversity informaticians, and national red list infrastructure who have expressed interest in testing the workflows. Supported projects will test TETTRIs' name matching and linking workflows, which will be available at the start of the project, for specific use cases. Based on the results, complementary infrastructure components and methods may be developed to enable and optimise the workflows for linking taxon-related data and have a positive impact on the data integration goals of TETTRIs. In this context, the Taxonomic Resolution Engine (TRE) may serve as an innovative solution to create and maintain links between various resources, providing a more consistent way to query them, and enable the integration of new local taxon-related resources as they become available. The TRE provides a Wikibase based platform to curate links between taxon-referenced resources and taxonomic checklists. In order to make the links "informed", relevant slices of checklists will be made available in the TRE.

TETTRIs WP2 team members will support the setup of 3PP projects, ensure that development efforts contribute to the TETTRIs objectives and assist the documentation results.

Applicants representing smaller infrastructures or not yet fully elaborated information resources for testing mapping methods are explicitly invited to apply, possibly also as part of a partnership. Preparatory work, such as the revision of a local checklist for specific taxonomic groups or the preparation of collection information, can also be brought to the proposal.

A first version of the name mapping workflows and recommendations to be developed in the project will be published (starting in July 2023) in a suitable way and linked to the TETTRIs website. Please note that the methods will evolve over the project lifetime and 3PP projects are expected to contribute to the content.

4. Innovation

In addition to the collaborative approach with TETTRIs consultants, supported projects can also include own creative activities and innovations, such as (**but not limited to**):

- **Citizen Science:** Proposals could involve Citizen Scientists who work with local lists and would like to link them to international checklists. Special platforms or UIs could be created to facilitate access to scientific checklist services and workflows.
- **Machine Learning:** Artificial intelligence, machine learning and language processing methods could be developed to enable automated or semi-automated mapping between taxon lists and to automate the quality control of existing mappings.

- **Open Data:** Proposals would make the taxon-mapping data open and accessible to everyone. This could encourage collaboration and innovation, and allow other researchers and organisations to use the data for their own projects. A special role could be played here by the representation of scientific name information and its linkage on Wikidata.

5. Expected outcomes

Successful projects must demonstrate that by testing and applying the workflows provided by TETTRIs, they have significantly improved the linkage of taxonomic resources to the international backbone services. Alternatively, or in addition, it can be demonstrated that additional technical developments have led to an improvement in the linking capabilities.

6. Specific conditions

None

General Instructions to applicants:

To be considered for funding, proposals should clearly address all three key aspects of the topic, i.e. 1) demonstrating a strong practical impact, 2) implement a collaborative approach, and 3) integrate innovative dimensions to biodiversity identification, monitoring and/or conservation.

Proposals should provide a detailed budget and timeline, as well as clear metrics for measuring project success.

Applicants should also demonstrate relevant experience and expertise in areas such as biodiversity science, citizen science, data analysis, and stakeholder engagement.

Citizen science aspects can be involved in all topics. However, Proposals focused primarily or exclusively in Citizen science engagement will fall under Topic 7.

See the Call text for further detailed information.