

Postdoctoral researcher position, 09.2024 - 07.2025
“Literature review on island biodiversity”

Background

Biodiversity monitoring on islands: Oceanic islands contribute disproportionately to global biodiversity and harbor a high number of endemic species that exhibit unique evolutionary and functional adaptations, shaped by their life in isolation. Owing to their exceptional endemism and diversity, high vulnerability to multiple global change drivers, and under-representation in many global biodiversity databases and initiatives, oceanic islands are a top priority for assessing the status and monitoring the trends of biodiversity.

The Conservation Biology Lab at the University of Neuchâtel (lead by Prof. Clara Zemp) is part of a European project (BioMonI) that aims at building a global long-term monitoring network specifically tailored to the pressing needs of biodiversity conservation and monitoring on islands.

Literature Services: For over a decade, the Text Mining group (led by Prof. Patrick Ruch) at the Swiss Institute of Bioinformatics (SIB) and the University of Applied Sciences Geneva maintained the SIB Literature Services (SIBiLS). In 2023, SIBiLS received a significant upgrade with the launch of the Biodiversity PMC digital library, which is likely the largest digitally-native repository of articles for biodiversity research and related disciplines. Users can now query this extensive content to find information on species traits and biotic interactions.

The BioMoQA (Biodiversity Monitoring via Question Answering) project, funded by swissuniversities, aims at develop the services further to support experts and researchers in biodiversity conservation, ecology and environmental sciences who need better search & access services to all bio-related publications.

More information on the projects:

- The European project *Biodiversity monitoring of island ecosystems*:
<https://biomoni.github.io/BioMonI/>
- The SIBiLS/Biodiversity PMC services : [Towards "Biodiversity PMC" \(pensoft.net\)](https://www.pensoft.net/)
- More information about the BioMoQA project are available here:
<https://bitem.hesge.ch/news/BioMoQA/>

Your tasks:

1. Collect literature contents related to biodiversity on islands.
2. Use library search tools (e.g., Biodiversity PMC, Google Scholar, OpenAlex, JSTOR) to expand the corpus of texts.
3. Define a set of factoid questions and answers, supported with published evidence. This will be used to measure the answering power of Biodiversity PMC's question answering functions.
4. Write a scientific review article on biodiversity on islands in collaboration with the team.
5. Contribute to communication through the website and social media

6. Contribute to a comprehensive training support (for example with a presentation and self-evaluation questionnaires) to describe all aspects of the literature services and how it can help biodiversity researchers.

We offer: An inclusive and supportive working environment that encourages scientific curiosity, creativity and engagement with society. Collaboration with international scientists in the European Union and Switzerland. Salary (postdoctoral researcher) and social benefits follow the rules of the University of Neuchâtel.

Your profile:

- PhD in ecology, conservation biology or related field
- Motivated by collaborative work
- Experience in literature review and meta-analysis
- Interest in biodiversity monitoring and conservation
- Excellent skills in scientific writing
- Fluent English (written and spoken)
- An interest in AI and Natural Language Processing technologies and methods (e.g., language models) and their application to biodiversity would be an asset

Duration of the contract: The anticipated starting date is September 2024, with some flexibility. Funding is secured until 30.06.2025.

Application: To apply, please provide: (1) a one-page letter describing your motivation, (2) a CV including contact information of two references, (3) complete list of publications and access to the most relevant paper. Please, send all the information in a single PDF with the subject "Postdoc application_[your name]" to Prof. Dr. Clara Zemp (clara.zemp@unine.ch). For any questions, contact me using the same email address.

The application will run until a suitable candidate is found. Applications received later than 15.08.2024 will not be evaluated.