



MUSÉUM
NATIONAL D'HISTOIRE NATURELLE

Post-doc project: Mapping the biogeography of vulnerable marine ecosystems in the Southern Indian Ocean

Project: We recruit a two-year postdoc for a biogeography project in the Southern Indian Ocean. The project will consist in mapping the biogeographical regions of indicator taxa of vulnerable marine ecosystems (VME indicator taxa) in the Agreement Area of the Southern Indian Ocean Fisheries Agreement (SIOFA). VME indicator taxa include mostly sessile organisms (e.g., Ascidiacea, Bryozoa, Cnidaria, Echinodermata, Porifera). The postdoc will have to collect, clean and verify occurrence records for VME indicator taxa, as well as collect relevant environmental data for the Agreement Area. Because occurrence records for the VME indicator taxa are typically scarce and collected without standardised methodologies, the postdoc will assess their accuracy, quality and comprehensiveness in order to properly evaluate the uncertainties of any map that will be derived from them. Therefore, they will be required to implement procedures to evaluate the quality of occurrence records, quantify their uncertainty, and identify optimal taxonomic, temporal and spatial resolutions for the mapping of VME. At this step, they will also develop predictive models that will be used to inform on the potential distributions of taxa based on environmental data. On the basis of cleaned occurrence data and predicted occurrence data, they will develop several bioregionalisation schemes, based on state-of-the-art bioregionalisation procedures. Last, they will compare the different bioregionalisation schemes obtained for VME indicator taxa, discuss the strengths and weaknesses of each map, and provide recommendations for the definition of VMEs with an evaluation of confidence.

Expected candidate: We are looking for a junior postdoctoral researcher who is interested in working in an aquatic biogeography/macroecology group. We require the candidate to have analytical and modelling skills in biogeography, and to be familiar with Geographic Information Systems. The project is likely to include methodological development on top of both fundamental and applied results. Good level in English language is a prerequisite. French language is not a prerequisite.

Location: The postdoc position will be at the Muséum National d'Histoire Naturelle in Paris, France, Lab. Biologie des Organismes et Ecosystèmes Aquatiques (borea.mnhn.fr).

Starting date: 1st October 2020.

Supervisor: Boris Leroy (boris.leroy@mnhn.fr)

Application: Applications have to be sent as a single pdf by email by July 21 midnight (Paris time) to Boris Leroy: boris.leroy@mnhn.fr. The application will include a detailed CV, a motivation letter, name and contact information of reference researchers, a copy of the PhD diploma. Candidates will be selected for an interview by the end of July. Videoconference can be used for this audition.

Salary and duration: The grant is for a 20-month postdoc extendable to 24 months at a base salary of 2200€/month. The salary and duration of the project will be adjusted depending on the experience of the recruited candidate.