

100 % Postdoctoral researcher position (2025-2026), 24 months in Palynology
Location
La Réunion, France University of La Réunion, UMR PVBMT Plant Protection Pole, Saint-Pierre
Missions
<p>Background :</p> <p>If insularity has allowed the development of endemic species, they are now made much more vulnerable to extinction due to human activities. The Mascarene Islands, including Reunion Island, thus have a high rate of endemism, extraordinary biodiversity, but increasing human pressure and global changes make them critical areas for the conservation of biological diversity. Also, these islands were colonized late by humans, Reunion Island 350 years ago, but have experienced rapid and massive defaunation leading to definitive ruptures in plant-animal interactions as well as the introduction of much more competitive invasive species. The postdoctoral project aims to estimate the dynamics of biological diversity over the long term to estimate periods of acceleration and tipping points of biological communities before and after human disturbances. To do this, we will study temporal biological diversity from the analysis of fossil pollen grains trapped in lake or marshy sediments that we have been able to collect in recent years from several sites on the island. These analyses will be coupled with several paleoecological analyses such as sedimentary coal deposits that are directly linked to fires and XRF analyses that allow, through the elementary composition of the sediments, to characterize the deposits and estimate the sedimentary dynamics of the watershed.</p> <p>However, before being able to properly reconstruct the dynamics of past vegetation using fossil pollen assemblages, it is very interesting to establish a current map of pollen production and deposits in relation to the different types of vegetation that produce them. To do this, we have started to take surface soil samples from permanent plots and carried out botanical surveys above. This work will be continued with the candidate. This is why we are looking for a palynologist candidate, specialized in tropical flora with the desire to explore and sample the different habitats of Réunion Island.</p> <p>This project is part of the European Biodiversa+ project, BioMonI (Biodiversity monitoring of islands) led, for WP3, by Claudine Ah-Peng and Dominique Strasberg at the UMR PVBMT of the University of La Réunion. The main objective of BioMonI is to develop a long-term monitoring network adapted to the specific needs of the conservation of island ecosystems. By using environmental archives, this project allows to explore the climatic and geological changes, the human influence that have impacted the flora and ecosystems of Réunion. The position will be mainly based in La Réunion, at the Plant Protection Pole, but it is possible to plan one or two months in Montpellier to update the morphology of pollen grains in the region using the ISEM reference collection (https://data.oreme.org/observation/pollen).</p> <p>Similarly, the methodology used will be applied in two other archipelagos, the Canaries and the Azores, a short mobility at the University of La Laguna (Léa de Nascimento and José-Maria Fernandez Palacios) could be considered to exchange on the monitoring protocols used and inter-archipelago comparisons within the framework of the BioMonI project (WP2-WP3).</p> <p>Project partners in BIOMONI are:</p> <p>Pr. Holger Kreft and Dr. Nathaly Guerrero Ramirez, Macroecology and Biogeography, University of Göttingen Pr. Paulo Borges, Pr. Rui Elias and Pr. Rosalina Gabriel, Azorean Biodiversity Group, University of Azores, Spain Dr. Jairo Patino and Dr. Brent Emerson, Instituto de Productos Naturales y Agrobiología, CSIC, Canarias, Spain Dr. Léa de Nascimento and Pr. José-Maria Fernandez Palacios, Department of Botany, Ecology and Plant Physiology, Universidad de la Laguna, Spain</p>

Dr. Bernd Lenzner and Dr. Franz Essl, Botany and Biodiversity Research, University of Vienna, Austria

Other collaborators:

Pr. Laurent Bremond from the EPHE in Montpellier, who coordinated the sampling of fossil sediments in Réunion, will contribute to the scientific supervision. Collaborations will also be considered with the EC2CO CNRS Carbon Island projects (Dr. Gaël Le Roux, University of Paul Sabatier and Pr. David Beilman, University of Hawaii), ANR Palavas (Pr. Fabien Arnaud, University of Chambéry and Pr. Laurent Michon, University of La Réunion).

Duration : 24 mois

Anticipated started date: **April 2025**

Localisation: Pôle de Protection des Plantes, Saint-Pierre

Your profile

- **Ph.D. in palynology, paleoenvironments**
- **Motivated for international collaborative work**
- **Good organizational, writing and communication skills**
- **Fluent in English (written and spoken) is essential; French is an advantage.**

Application

To apply, please provide until **20.03.2025**: (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 Dr. Claudine Ah-Peng (claudine.ahpeng@univ-reunion.fr).

