



Post-doctoral fellowship for the LabEx CORAIL project SYNERGY

Social-ecological system approach

to coral reefs sustainability management:

**Operationalizing global social-ecological frameworks to inform
local coral reef sustainability management**

Location: CRIOBE, 52 avenue Paul Alduy, Université de Perpignan, France

Salary: between 32280€ and 47917€ gross per annum, depending on experience

Contract: 1 year fixed term research contract, full time, renewable once.

Closing date: October 17 2022, 6PM CET

Starting date: January 2022

Job information

About LabEx CORAIL

The [Laboratory of Excellence CORAIL](#) (Coral reefs in the face of global change) unites French research partners from across France and its tropical Overseas Territories around a common theme – coral reefs. The LabEx CORAIL is focused on the study of coral reef ecosystems to ensure their persistence through effective management. The LabEx CORAIL's primary objective is to create a French center of excellence that will secure France's role within the global community as a leader in research for the future of our planet's coral reefs. This unique construction for a LabEx supports the national trend to consolidate research laboratories and to build collaborations on common topics to enhance international visibility and research excellence. The LabEx CORAIL is now widely recognized as France's authority on coral reefs and is the trusted advisor for French decision makers.

About CRIOBE

The CRIOBE is a research laboratory with more than 70 staff, including academic professors, research scientists and administrative and technical personnel from three of France's premiere research institutions - École Pratique des Hautes Études ([EPHE](#)), the National Centre for Scientific Research ([CNRS](#)) and the University of Perpignan Via Domitia ([UPVD](#)) – that together form the CRIOBE USR 3278 research unit. The CRIOBE falls under the prestigious umbrella of the [PSL \(Paris Sciences & Letters\) Research University](#). CRIOBE's activities span multiple disciplines : ecology, conservation biology, genetics, chemistry and anthropology and its laboratories are spread across two main campuses : the [Perpignan campus](#), within the University of Perpignan in the south of France, and the [CRIOBE research station](#) located on the island of Moorea, French Polynesia.

About SYNERGY

Despite ever increasing conservation efforts, the decline of coral reefs remains a major global issue. The integration of a transdisciplinary systemic perspective from the social-ecological sciences in the fields of development, conservation and management of natural resources can improve the level of equity and coordination between individual initiatives and effectiveness of the whole. To date, attempts to integrate ecocentric and sociocentric approaches have mainly focused on the search for trade-offs between ecological and social components of social-ecological systems. A methodological framework¹ has recently been developed to promote the identification of synergies in the choice of interventions to manage human-resource systems. However, this framework has not been tested on a more regional scale that would answer the following questions: Do the different characteristics of coral reef social-ecological systems, particularly in the French overseas territories, call for types of particular interventions? Can a typology of favorable interventions by site, archipelago or region be made? What types of interventions are most likely to remain viable under regional climate change scenarios? What types of intervention are most likely to remain adapted to future socio-cultural and socio-economic regional transformations? What are the risks and uncertainties associated with these scenarios? These are all questions that SYNERGY will attempt to answer. The general objective of SYNERGY is to broaden the conceptual, historical and geographical scope of the analysis of the Human-Reef relationships to propose fit-to-purpose, systemic and operational management measures. We wish to develop an evaluation framework that makes it possible to better identify, and propose in a transparent manner, management measures for sustainability, adapted to each study region and adaptable to various sites within these regions. The project will be based on a set of Human-Reef relationships and will try to bring out the regional particularities. The SYNERGY partnership will produce original, solution-oriented research based on the synthesis of multiple existing datasets on social and ecological conditions in coral reef social-ecological systems.

Through engaging a transdisciplinary team of leading academics from LabEx CORAIL partners (e.g., [ENTROPIE](#), [CREDO](#), [BOREA](#) research laboratories), our group will challenge disciplinary boundaries and forge creative connections between these groups and disciplines.

Your role

The post-doc is expected to:

¹ Thiault T, Gelcich S, Marshall N, Marshall P, Chlous F, Claudet J (2020). Operationalizing vulnerability for social–ecological integration in conservation and natural resource management. *Conservation Letters* 13: e12677. <https://doi.org/10.1111/conl.12677>

- Assess how existing global initiatives (e.g., [IPBES multiple values framework](#), [Nature Futures framework](#)) can be operationalized at multiple scales, from local to global, to inform coral reef sustainability management;
- Adapt existing global initiatives to incorporate the multiplicity of Human-Reefs relationships;
- Perform data analysis to extract socio-ecological patterns at various scales;
- Lead peer-reviewed papers based on this work;
- Assist the coordination of the SYNERGY project;
- Contribute to the building, standardization and implementation of a shared social-ecological monitoring framework among project partners;
- Work alongside project partners to generate a practical and feasible multi-site engagement strategy to implement and scale up best practices for improving sustainability management in coral reefs.

Working environment:

The post-doc fellowship will be hosted in Perpignan (France) at CRIOBE (see description above). The post-doc fellow will be under the supervision of Joachim Claudet (CNRS/CRIOBE, Paris), Mohsen Kayal (IRD/ENTROPIE, Noumea), and Sébastien Galliot (CNRS/CREDO, Marseille) and will benefit from the expertise of all project members. SYNERGY will also provide a specific budget for travels to visit the project PIs.

Requirements

A PhD in an environmental field (e.g., sustainability science, geography, resource management, environmental studies/science, or related disciplines). The ideal candidate will be a highly motivated person with demonstrated interdisciplinary background and training.

Qualifications

- *Required skills*
 - Interdisciplinary background (e.g., sustainability science, geography or environmental science)
 - Quantitative skills: statistical and modelling
 - Qualitative data skills
 - Experience working with and synthesizing different types of social and ecological data at various spatial scales , and large spatial datasets in R or GIS
 - Experience working in R
 - Experience in social-ecological systems thinking
 - Strong written, digital and verbal communication skills, able to translate complex ideas into accessible concepts and language tailored to multiple audiences
 - Good team player, able to work independently and coordinate with large interdisciplinary teams and in different time zones,
 - Strong organizational skills and attention to detail
 - Fluency in English, both written and verbal
- *Preferred*
 - Experience with marine science and/or tropical environments

Application instructions:

Applicants should send the following materials to [Joachim Claudet](#), [Mohsen Kayal](#), and [Sébastien Galliot](#). Please, start your email subject line with: “[SYNERGY/Postdoc#2]”.

- Curriculum vitae
- A cover letter describing your background and career goals (1 page, max 2 pages)
- Names and email addresses of 3 references
- Google scholar profile (if possible)

Applications must be sent no later than October 17 2022, 6PM CET.