Postdoctoral researcher in sustainability science: social-ecological resilience at the land-sea interface

INRAE (UMR SAS) and IFREMER (UMR AMURE) invite applications for a 16-months postdoctoral position to review social-ecological systems conceptual frameworks and their relevance for addressing long-lasting pollution problems at the land-sea interface.

The postdoctoral position is fully funded.

The deadline for application is October 30, 2024.

About the opportunity

The candidate will work with Dr. R. Mongruel from IFREMER at UMR AMURE in Brest, Dr. V. Viaud from INRAE at UMR SAS in Rennes, and partners within the GreenSeas research project.

IFREMER and INRAE are 2 main research institutes in France. IFREMER is the French National institute for ocean science and technology. Well-established in the international scientific community, its vision is to advance vision is to advance science, expertise and innovation to protect and restore the ocean, sustainably use marine resources to benefit society, and create and share ocean data, information and knowledge. INRAE (French National Research Institute for Agriculture, Food, and Environment) is among the top research organisations in the agricultural and food sciences, plant and animal sciences, as well as in ecology and environmental science. It is the world's leading research organisation specialising in agriculture, food and the environment. INRAE's goal is to be a key player in the agricultural, food, and environmental transitions necessary to address major global challenges.

GreenSeas is a 4-year project (http://greenseas.fr/) funded by the French National Research Agency (ANR), which investigates past and current adaptation of vulnerable coastal systems exposed to long-lasting, and possible transformative pathways towards more sustainable futures. The project build on the complex multi-site case of Brittany (France), one of the most severely affected coastal areas in Europe. In this area as in many other eutrophic systems worldwide, eutrophication is still persistent, despite long-term efforts and deep knowledge of the phenomenon.

In this context, GreenSeas specifically aims at providing an integrated understanding of the social ecological system (SES) adaptation dynamics. The project develops a transdisciplinary approach along the land-sea continuum, mixing interdisciplinary sciences (agronomy, ecology, biogeochemistry, social anthropology, environmental history, political science, and economics) and stakeholder expertise. A major characteristic of the project is that it is based on retrospective analysis of the dynamics of coastal ecosystems and the social-political changes that influence coastal areas at multiple spatial and organizational levels. The project can benefit from existing data in the study area.

The post-doc will contribute to this integrated analysis, and in particular to analysis of the resilience of coastal SES in the face of eutrophication. The candidate will play a key role in designing a framework for investigating the processes underlying the resilience of these coastal SES.

The candidate will be based preferably with Dr R. Mongruel at UMR AMURE in Brest (https://www.umr-amure.fr/) or with V. Viaud at UMR SAS in Rennes (https://umrsas.rennes.hub.inrae.fr/), but will have an opportunity to visit and work in strong interactions with both scientists.

Main responsibilities

Your key responsibilities will be to
- review existing conceptual frameworks of SES to address long-term eutrophication phenomena in the coastal zone.
- conduct a critical literature review, based on an original assessment grid to be built, which will consider various criteria including the scope of the SES frameworks, the kind of resilience problems they are intended to deal with, their operability, but also more fundamental issues including the paradigms behind the choice of the objects to be mobilized
- analyze their operationality for representing the adaptation processes and specific resilience issues of coastal SES facing long-lasting eutrophication. Particular attention will be paid to the ability of SES frameworks to explicitly represent dynamics, land-sea coupling and decoupling processes, and social-ecological interactions.
- develop insights for the implementation of SES frameworks for the analysis of case studies of the GreenSeas project
- collaborate with a large team of colleagues working in an interdisciplinary research environment
- publish research in high quality, peer-reviewed journals in collaboration with the members of the project team
- discuss and disseminate results in academic venues ; in particular a workshop may be organized in relation with the French long-term social-ecological research network.

Eligibility conditions
This call is open to applicants of any nationality who already have a research experience (PhD or post-doctoral contracts).
A postdoctoral researcher is an employee who is employed primarily for research and who has been awarded a doctoral degree or has a foreign degree that is deemed equivalent to a doctoral degree.

Requirements for the position are:
- PhD in Sustainability Science, including Environmental Science, Sociology, Political Science, and other, for the position, relevant disciplines.
- Experience in SES related research.
- Experience in authoring academic publications.
- Ability or experience of working in interdisciplinary teams mixing environmental and social scientists.

Assessment criteria
This is a merit-based position focused primarily on research abilities.

Terms of employment
Type of employment: temporary position (full time)
Duration: 16 months
Start date: December 1, 2024 at the earliest, or by agreement
Employer: INRAE
Gross salary: according to INRAE's official salary scale (approx. €3,100 gross per month)
Location: Brest or Rennes (France)

Application procedure
Required documents:
- Personal letter
- CV – degrees and other education, work experience and list of publications
- Project plan/research plan (should not exceed 3 pages) that describes:
  o why you are interested in the area/project described in the advertisement

o why and how you want to carry out the project
o what makes you suitable for the project in question
- Copy of proof of doctoral degree
- A single important publication to support your application.

Please send your application by email to R. Mongruel and V. Viaud.

Last application date: October 30, 2024

Selection procedure

Candidate will be auditioned at the beginning of November (remote interview possible).

Contacts:
- Rémi Mongruel, institutional economy and sustainability sciences; GreenSeas WP4 coordinator (remi.mongruel@ifremer.fr)
- Valérie Viaud, agronomy and sustainability sciences; GreenSeas coordinator (valerie.viaud@inrae.fr)