

INRAE presentation

The French National Research Institute for Agriculture, Food, and the Environment (INRAE) is a public research establishment. It is a community of 12,000 people with more than 200 research units and 42 experimental units located throughout France. The institute is among the world leaders in agricultural and food sciences, in plant and animal sciences, and is 11th in the world in ecology and environment. INRAE's main goal is to be a key player in the transitions necessary to address major global challenges. In the face of the increase in population, climate change, scarcity of resources and decline in biodiversity, the institute develops solutions for multiperformance agriculture, high quality food and sustainable management of resources and ecosystems.

Work environment, missions and activities

■ INRAE invites applications for a postdoc position that will develop and use trait-based integral projection models for forests to analyse the resilience of European forests to different disturbance regimes. This postdoc will work within the European BIODIVERSA project FUNPOTENTIAL, which focuses on testing how functional diversity can increase the disturbance resiliency of forests and forest-based socio-ecological systems. The postdoc will contribute to the ongoing development of the model (see Kunstler et al. 2020 J. Ecol.) by including the effect of different disturbances on tree mortality and modelling how forest resilience is influenced by pre-disturbance trait composition of the forest. The post-doc will also help connecting the IPM model to economic analysis to test how diversity affects economic risks and returns.

■ The post-doc will work in the DYNAMICS team of the LESSEM research unit (Mountain Ecosystems and Societies Laboratory). We study forest dynamics and use a broad range of modelling technics ranging from the individual up to the landscape level, with expertise in Bayesian statistics, statistical inference for stochastic simulation models, and connection between demographic data and functional traits. LESSEM is part of Université Grenoble Alpes (UGA). The postdoc will be supervised by Dr Georges Kunstler. The postdoc will have strong interactions with two other postdocs and students hired in the project. We expect tight collaborations with Dr Mikko Peltoniemi (LUKE) for the disturbance regimes and Prof. Carola Paul (University of Göttingen) for the economic analysis. The postdoc will also have strong interaction with other postdocs in the newly funded ANR project DECLIC. Our research unit is connected to a local network of labs working on ecology-related topics, and situated in attractive surroundings in the heart of the French Alps. Université of Grenoble-Alpes has a special office to facilitate the arrival of international students and scientists.

Training and skills

■ We are looking for candidates with (i) an excellent doctoral degree in ecology (or applied statistics), (ii) experience with demographic models, or Bayesian statistics, and (iii) a demonstrated ability to communicate in English and to publish in international scientific journals. Skills in R programming are mandatory. Good knowledge of functional traits and an interest in interdisciplinary research on socio-ecosystems is a bonus.

INRAE's life quality

By joining our teams, you benefit from:

- 30 days of annual leave + 15 days "Reduction of Working Time" (for a full time position);
- [parenting support](#): CESU childcare, leisure services;
- skills development systems: [training](#), [career advise](#);
- [social support](#): advice and listening, social assistance and loans;
- [holiday and leisure services](#): holiday vouchers, accommodation at preferential rates;
- [sports and cultural activities](#);

↘ Job details

- Research Unit: LESSEM
- Location : Campus 38402 Saint Martin d'Hères
- Contrat : Postdoctoral position
- Duration : 24 months
- Starting date : from 01/04/2021
- Salary : starting from 2516 Euros (gross) per month

↘ How to apply

Applications and inquiries should be sent via e-mail to Georges Kunstler
georges.kunstler@inrae.fr

Please submit your application as a single PDF file. This file should contain a 1-page cover letter describing your motivation to apply, a CV including relevant certificates, a publication list, and contact details of 2 potential referees. Review of applications will begin on January 4 2021 and will continue until the position is filled.