

Post-Doctoral Fellowship: 24 months

Grassland Ecosystem Research Unit (UREP) INRAE Clermont Ferrand

The National Research Institute for Agriculture, Food and the Environment (INRAE) is a public research establishment bringing together a working community of 12,000 people, with 268 research, service and experimental units, located in 18 centers throughout France. INRAE is positioned among the world leaders in agricultural and food sciences, plant and animal sciences. Our research aims to build solutions for multi-performance agriculture, quality food and sustainable management of resources and ecosystems.

We are recruiting a PostDoctoral scientist to study the responses of different grassland systems to climate variability. Grassland ecosystems play a key role in the provision of environmental (biodiversity, regulation of biogeochemical cycles, soil fertility), economic and societal services. Moreover, grasslands are carbon sinks and can help to mitigate GHG emissions and global warming. However, grassland ecosystems are sensitive to climatic events such as prolonged drought, with cascading effects on the provision of ecosystem services. Analysis of long-term data series is a critical tool to better understand and quantify the impacts of climate variability on grassland ecosystem functioning. The challenge is to identify and promote agricultural practices that increase the resilience of grasslands to climate variability and extreme events.

By using long-term data of grassland trials (> 17 years), this research project will examine the interactions along the “atmosphere-vegetation-herbivores-soil” continuum of upland grasslands with respect to climate and management factors.

WORK ENVIRONMENT, MISSIONS AND ACTIVITIES

You will be hosted by Grassland Ecosystem Research Unit (UREP; <https://www6.ara.inrae.fr/urep/>). UREP uses both academic research (functional grassland ecology) and applied science in order to identify sustainable grassland management practices under climate change. UREP comprises 25 permanent staff and around ten temporary staff (short-term contracts, doctoral students, post-docs). This PostDoc research position will be supervised by Katja Klumpp (specialist in C/N cycles, principal investigator of a permanent grassland site of the ACBB long-term Observatory of AnaEE and ICOS), and supported by researchers from UREP working on climate change impacts.

The post-doc will : (i) examine the relationships between ecosystem properties (forage production, plant diversity, C, N, P fluxes) in managed grasslands, climate variables and climate indicators; (ii) investigate responses of grassland functioning under future regional climate scenarios (link with the research and development projects); (iii) participate in the monitoring of the long-term grassland observatory, and writing of scientific articles.

EXPERIENCE ET REQUIRED SKILLS

Required training: You should have a recent doctorate with a solid background in agronomy or ecology or environmental sciences.

Required knowledge: You must have strong expertise in (i) biogeochemistry and ecosystem ecology, (ii) biostatistics (statistical programming language R) applied to biological and climatic data.

Experience appreciated: Skills in analyzing high-frequency data series (weather and eddy covariance data) and / or the calculation of climate indicators.

Desired skills: motivated to work in a team and as part of a collective project, curiosity, scientific rigor, adaptability, autonomy, and a sense of organization. Communication (oral and written), English.

Post	Application
Work group : INRAE, UREP Lieu : 63000 Clermont Ferrand Duration : 24month Start : earliest February –March 2021 Salary: 2371 à 2516 euro according to level.	Cover letters and CVs are to be sent to Katja Klumpp (katja.klumpp@inrae.fr) before December 15th, 2020 . Final selection: interviews are organized in mid-December 2020 for the shortlisted candidates