Post-doctoral position – simulation of forest dynamics of the Bauges natural parc UR LESSEM, Irstea center of Grenoble

Recruitment

Contract type: **12 months**
Beginning: *April/May 2019*
Gross monthly salary: *de 2240 € à 3032 €*

Job description

Irstea, the French National Institute for Research in Science and Technology for the Environment and Agriculture, is involved in 4 Strategic Scientific Areas : bio-economy and the circular economy, risks, resource adaptation management in the territories, biodiversity. Well integrated into the French and European research landscape, it conducts its research in support of public policies and in partnership with industry. It employs 1,200 people in 9 locations in France. It is certified Carnot and as such, develops a strong relationship with professionals and more generally with socio-professional circles.

Research Unit description:

The LESSEM (Mountain EcoSystems and Societies Laboratory) develops research on the dynamics of socio-ecosystems in mountains by aiming to strike a balance between disciplinary depth and the development of interdisciplinary research, between thematic contributions and methodological perspectives.

Job description:

The mobilization of forest biomass is an important issue for the development of territories and the reduction of greenhouse gas emissions. PROTEST (https://protest.irstea.fr/) is a multi-partner project that relies on the Regional Natural Park of the Bauges Massif to study in detail the current availability of the resource, evaluate possible forest scenarios for the future of the massif as part of a territorial prospective, and simulate the evolution of forest dynamics based on these scenarios. Assessments of trade-offs between different ecosystem services will be carried out on the basis of these simulations.

Forest dynamics models are being calibrated for the study site. Studies are also planned to identify ecosystem services relevant to the study area. The successful candidate will conduct simulations at the scale of the forest massif and analyze trade-offs between ecosystem services. The simulator concerned, SIMMEM (Multi-Modules Simulator for Landscape Scale), is programmed in java in the Capsis software platform (http://capsis.cirad.fr/capsis/). Depending on the progress of the intermediate tasks and their skills, the selected candidate may also participate in some field phases and modelling. He/she will be in charge of writing a scientific article presenting the results.

Desired profile

- PhD in forest science or forest ecology with strong programming skills
- Knowledge of java is not essential, but the basics must be quickly acquired.
- Scientific English required
- Proven experience in scientific publication

To candidate

Send CV and Motivation letter to Patrick Vallet (*patrick.vallet@irstea.fr*)*and* (*jean-matthieu.monnet@irstea.fr*)

More information

⇨ **Contact:**

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