Tisztelt Társasági Tagok!

Ezúttal két felhívást teszek közzé:

1. Az MTT-nek **2021. szeptember 1. és december 31.** között kell sort kerítenie az IUSS Osztály és Bizottsági elnökeinek és elnök-helyetteseinek választására (Election of IUSS Division and Commission Officers), mely választott tisztségek a 2022-2026 időszakra vonatkoznak. A Division-1-ben két magyar aspiránsra is lehet szavazni: Dobos Endre és Csorba Ádám is indult.
A szavazási felület az MTT honlapján elérhető:
http://talaj.hu/iuss-osztaly-es-bizottsagi-elnok-es-elnok-helyettes-valasztas/

2. Az EJP Soil Joint Program keretében induló SERENA projekthez kapcsolódón kaptuk az alábbi megkeresést. Az INRA várja végzett MSc hallgatók jelentkezését (l. a mellékelt felhívás), PhD pozícióra.
A pályázat beadási határideje **2021. október 13**!

Üdvözlettel:
Bakacsi Zsófia

Dear colleagues,
In the framework of the SERENA project recently accepted by the European Joint Program Soil (EJP Soil), you will find attached a PhD position on the evolution of ecosystem services provided by soils in response to changes in climate, use and management. This subject is proposed jointly by the UMR INRAE-Institut Agro SAS in Rennes and the UMR INRAE-AgroParistech Ecosys in Paris.

Evolution of soil-based ecosystem services in response to changes in climate, land use and land management
Contacts:
Pr. Christian Walter (UMR SAS, christian.walter@agrocampus-ouest.fr)
Dr. David Montagne (UMR ECOSYS, david.montagne@agroparistech.fr)
The deadline for applications is 13 October 2021. *Auditions will take place between 15 October and 30 October 2021. The start of the doctoral contract is scheduled on 1 December 2021, but may be postponed to the beginning of 2022 depending on the availability of the candidates*

Sincerely
C. Walter and D. Montagne.
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PhD Position

Evolution of soil-based ecosystem services in response to changes in climate, land use and land management

Scientific Background

At the interface between lithosphere, hydrosphere, biosphere and atmosphere, soils play a crucial role in the sustainable delivery of a large range of provisioning (food, water, energy,…), regulating (water and air quality, detoxification,…) or cultural ecosystem services and ultimately on human well-being (Dominati et al., 2010; Greiner et al., 2017). When such linkages are increasingly recognised, the practical implementation of that awareness into strategies to improve soil management for the delivery of multiple ecosystem services is still incomplete for various reasons. First, soil-based ecosystem services are often not recognized (Fossey et al., 2020; Choquet et al., 2021) but confused with those provided by land cover resulting in difficulties for translating the management of ecosystem services into soil management. In addition, medium to long-term trajectories in the delivery of soil-based ecosystem services according to climate, land-uses or land-management changes are poorly known (Zank et al., 2016) particularly when it is not question of individual services but of bundles of services and of their relationships (Obiang Ndong et al., 2020).

Overall aim and main steps

In such context this PhD aimed at assessing changes in bundles of soil-based ecosystem services according to scenarios of climate, land-use and land-management evolutions in well documented agricultural territories. More specifically, changes in bundles of soil-based ecosystem services will be assessed in an intensive livestock territory in western France as a function of climate and land-management changes and in a peri-urban crop farming territory near Paris as a function of urban sprawling. In the frame of the project SERENA funded by the European Joint Program on agricultural soil management (EJP Soil) in which this PhD takes place, main scientific steps consist in:

1- Contributing to the development of a methodology to evaluate bundles of soil-based ecosystem services;

2- Harmonizing, when necessary, the current assessment of individual services between the two study sites (Choquet et al., 2021) in terms of list of services considered, indicators used to quantify the services, and tools to model the service indicators.

3- Applying the methodology developed in the first step to assess changes in bundles of soil-based ecosystem services according to future trends in climatic conditions and in livestock production systems or as a function of past soil sealing. Concerning, climate changes, the impact of extreme events, intense droughts for examples, will be more particularly addressed.

4- Propose and test various scenarios built for mitigating adverse changes or for optimising favourable ones.

Required skills and qualifications

Master of Science in soil sciences, agronomy, environmental sciences or other related disciplines

Desirable skills

1- background in soil sciences
2- background or strong interest in the spatiotemporal modelling of soils
3- very good communication skills in oral and written English

Practical Information

This PhD is part of the European project SERENA (Soil Ecosystem seRvices and soil threats modElling aNd mApping) funded by the European Join Program on agricultural soil management (EJP Soil) involving 45 partners from 15 Member States of the European Union, belonging to the most recognized research institutions in the fields of ecosystem services assessment and mapping, thus providing the opportunity to be part of an international research consortium. The PhD work will be localized in the Joint Research Unit INRAE/Institut Agro SAS in Rennes with periods in the Joint Research Unit Paris-Saclay University/INRAE/AgroParisTech ECOSYS in Paris. These two laboratories will provide data from two well documented study sites: the long term environmental research observatory AgrHyS ERO and the Saclay plateau as well as access to a large range of skills including soil-based ecosystem services assessment and mapping, soil mapping, soil-plant modelling, (geo)statistical analysis,… and thus the potential to establish highly visible and internationally competitive research.

The duration of this PhD position is three years starting between November 1st 2021 and January 1st 2022 (depending on funding and candidate availability). The gross monthly salary is 1,975€ in 2022 (2,083€ in 2023 and 2,192€ in 2024), social security being covered by the doctoral contract.

Please send your application including motivation letter, CV and references to Christian Walter (christian.walter@agrocampus-ouest.fr) and David Montagne (david.montagne@agroparistech.fr) before October 13st 2021.

Bibliography

Choquet, P., Gabrielle, B., Chalhoub, M., Michelin, J., Sauzet, O., Scammacca, O., Garnier, P., Baveye, P.C., Montagne, D., 2021. Comparison of empirical and process-based modelling to quantify soil-supported ecosystem services on the Saclay plateau (France). Ecosystem Services 50, 101332.

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