

**Title of the vacancy:**

PhD position in **“Towards a reliable European assessment of soil biodiversity status under current land use changes”**

**Reference – Description of the organizational unit**

The University of Vigo (UVIGO) and the Joint Research Centre (JRC) of the European Commission are inviting applications for PhD positions through the Collaborative Doctoral Partnership (CDP) scheme. The CDP scheme intends to enhance the science-policy link through strategic collaborations with higher education institutions characterized by research excellence and international reputation, in order to:

- Train a new generation of doctoral graduates in science and technology with a focus on the science-policy interface, able to understand the research needs at different stages of the policy cycle, capable of providing scientific support to policy and of using transferable skills in science communication and knowledge management.
- Co-develop, co-host and co-supervise doctoral studies between higher education institutions and the JRC.
- Strengthen collaboration between the JRC and higher education institutions by promoting mutual enhancement of related skills and competences, combining existing knowledge and capacities, and enhancing networking in key scientific areas.

**Responsibilities**

Within the CDP framework we are looking for a PhD candidate willing to embrace a multidisciplinary approach by gaining ecological/taxonomical knowledge at the University of Vigo and the modelling/biogeography capabilities within the JRC. Presently, no country has legislation that specifically protects soil biodiversity, which may be an issue considering that global food security is highly dependent on soil organisms. Protecting soils remain an important objective for the European Union (EU) but this goal cannot be achieved without considering soil biodiversity fully.

The ultimate aim of this PhD will be to provide policy tools aiming at developing actions to protect soil biodiversity at European level. So far, soil biodiversity has been neglected in environmental assessments despite its crucial roles in offering several contributions to people. Therefore, conservation measures would be necessary.

In the first phase, the PhD candidate will expand our current knowledge on soil genetic diversity beyond soil microorganisms to mesofauna and macrofauna groups in European agricultural soils. As part of LUCAS Soil survey (<https://esdac.jrc.ec.europa.eu/projects/lucas>), the JRC is analysing soil microbial biodiversity in 1,000 locations across EU using DNA metabarcoding techniques. Therefore, the first research aim will be to obtain direct measurements of the effects of land-use changes on soil fauna diversity at plot-scale and landscape levels (as they might not be the same). New soil fauna data will be combined with microbial data to get a better overview of the entire soil food web. This will provide a greater understanding of these processes and hence, contribute to better comprehend the ecosystem resilience. In a second phase during her/his stay in UVIGO, the PhD candidate will interpret findings on soil biodiversity in relation to

soil quality, biological habitat formation and ecosystem services. At a final stage, the PhD candidate will integrate all gathered information propose management practices and policy tools that promote and preserve soil organisms, their functions and related services.

## Profile

- You have (or are near completion of) a Master in Life Sciences, Soil Science, Agricultural Sciences, Environmental Sciences, Soil Ecology (or a related field) issued by a HEI from any EU state member. Candidates must have completed 300 ECTS between undergraduate and postgraduate studies.
- You have a strong interest in soils, soil biodiversity and soil functions and ecosystem services, and a demonstrable experience in these topics.
- Experience in relevant laboratory and fieldwork and a basic knowledge on soil nutrient transformations, plant-soil interactions, and soil fauna is a major asset.
- Experience in molecular techniques (DNA sequencing) and bioinformatics is an advantage
- A flair for planning and statistical treatment of data is also highly relevant.
- You work proactively and independently and in a team.
- You have a very good knowledge of English, both spoken and written.
- Relevant publications in peer review journals should be highlighted.
- You are highly motivated, enthusiastic, ambitious and result-oriented.

## Offer

- We offer a four-year PhD position in collaboration with the Joint Research Centre (JRC) of the European Commission.
- The PhD student will execute the research work at the Joint Research Centre (JRC) in Ispra, Italy, for a period of up to 24 months.
- We offer a competitive fellowship. While at the JRC in Ispra, you will get a contract as a Grant Holder 20 ([https://ec.europa.eu/jrc/sites/jrcsh/files/jrc\\_granholder\\_rules.pdf](https://ec.europa.eu/jrc/sites/jrcsh/files/jrc_granholder_rules.pdf)).

## Interested

For more information please contact Prof. Maria J.I. Briones ([mbriones@uvigo.es](mailto:mbriones@uvigo.es)). The selection process is based on the updated full CV, tests and interviews. It is composed of two phases, that is, a first selection is made by UVIGO resulting in a short list of candidates and then a second selection is made by JRC. Candidates should at the start of the employment contract with JRC:

- Have the nationality of a Member State of the EU or a country associated to the Research Framework Programs (Horizon2020).
- Candidates from other countries may also apply providing they have a residence and work permit in Italy. They will have to go through the security clearance before they can be granted the GH contract.
- After the selection process, enroll in the PhD programme Methodology and Applications in Life Sciences (<http://cvida.uvigo.es/>); <http://cvida.uvigo.es/wp->

[content/uploads/2019/10/Procedure.pdf](#)) at UVIGO hosted by the Faculty of Biology (<http://bioloxia.uvigo.es/en/>).

Candidates can apply HERE till **November 15, 2019**.