

Open position: **Postdoctoral Researcher - *Population modelling and ecological connectivity***

100% of full-time position, 2 years with possibility to extend the contract

The successful candidate will develop multi-species metapopulation models that account for species interactions and climate and land-use change impacts on local population dynamics and dispersal (focusing on southern Spain and Portugal). To do so, they will integrate available data on focal species in the Doñana study area, including meso- and large predators and both vertebrate and invertebrate herbivores to develop a framework for functional connectivity and metapopulation modelling that can be scaled from the local to the European scale. The research will be done in collaboration with the NaturaConnect consortium which includes scientific institutes across Europe and some of the major European NGOs. The research will also involve the translation of the outputs into tools that can be used by stakeholders in decision-making processes.

Tasks:

- Develop the multi-species demographic models and mobilize and integrate the necessary data to train and validate the models.
- Develop the functional connectivity framework and apply it across scales, i.e., local to (trans)national to regional.
- Project the impact of future corridors design on local populations and their functional connectivity using the scenarios that will be produced within the consortium.
- Write research articles and participate in the communication on findings of the research to various stakeholders (e.g., policy briefs, scientific conference presentation, dissemination articles).

Requirements:

- A PhD degree in ecology, conservation biology, environmental sciences or related disciplines.
- Fluent in at least one scientific coding language (R, Python, C++).
- Robust knowledge of spatially explicit agent-based modelling.
- Excellent organizational skills, pro-active and results-oriented, and the capacity to deliver on allocated tasks and respond in a timely manner to deadlines.
- Ability to work independently and capacity to collaborate and work with multiple people and groups in an international environment.
- A track record of publishing high-quality scientific research (commensurate to career stage).
- Excellent communication skills (both written and oral) in English.

Desirable but non-mandatory skills and experiences:

- Experience in parallel computing, collaborative coding and version control (e.g., Git).
- Skills in processing analyzing movement data.
- Knowledge of demographic modelling is advantageous but not essential.
- Good understanding of current applied ecology and conservation research.
- Knowledge of Spanish (written and oral)

Terms of employment

The selected candidate should be available to take up the position by July 2023. We offer a full-time (40 hours per week) employment contract for two-year with the potential for extension.

Duties will be carried out at EBD-CSIC in Sevilla (up to 100 - non-consecutive - days per year home office working within Spain is possible).

We offer

Very competitive salaries (ca. 40K€/year, with net salary depending on the family situation).

A dynamic research team and research environment (EBD-CSIC is among the best European institutions for ecological research).

State-of-the art infrastructure (including access to cloud computing and supercomputer).

Family-friendly work environment (high flexibility for candidates with child-care responsibilities).

Context

This position is funded by the Horizon Europe research project “NaturaConnect: Designing a resilient and coherent Trans-European Network for Nature and People”. NaturaConnect aims to support the implementation of the EU Biodiversity Strategy for 2030, through an integration of interdisciplinary research and stakeholder engagement across scales, to develop spatial planning policy supporting tools. A key objective is to incorporate population dynamics and dispersal processes into the design of the corridors of the future Trans-European network of protected areas.

The position is affiliated with the Department of Conservation Biology and Global Change of the Doñana Biological Station (EBD-CSIC). EBD-CSIC offers an interdisciplinary and international workplace, and the possibility to interact with researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in ecological research.

At EBD-CSIC, our group develops and applies state-of-the art ecological knowledge and methods that focus on movement and population dynamics of animal species. We conduct research within several collaborative projects all around the globe and our principal study area is the Doñana National Park. One of our main motivations is to develop appropriate management options that have ecological implications and conservation relevance.

Application process

Queries concerning the application process and the research project should be directed to Laetitia Navarro (laetitia.navarro@ebd.csic.es) and Maria Paniw (maria.paniw@ebd.csic.es). Please upload your CV and motivation letter in English here: <https://saco.csic.es/index.php/s/ztCZBsT35Tz93BM>. In your CV, include the names of three senior scientists who could serve as possible references.