Post-doc position in Evolutionary Ecology/Community Ecology/Theoretical Ecology Adaptation and Resilience of Spatial Ecological Networks to
human-induced changesâ

Anthropogenic environmental changes increasingly threaten biodiversity and ecosystem services, thus kindling a societal demand for predictions that ecology as a science has yet to answer. Available models are poorly suited to predicting the ecological effects of such changes because they ignore variation in speciesâ niche due to ecological interactions and evolution. Without understanding the functioning of ecological networks and how they are shaped by evolution, it is indeed difficult to predict how changes of the environment will cascade through ecosystems and make species traits evolve. Understanding the dynamics of ecological networks is a dual goal, both for fundamental research and for building informed programs on sustainable ecosystem services and species conservation. Accounting for species interactions and evolution to understand the consequences of global changes is the critical question we want to tackle through the post doc we propose here.   In this context, the post-doctoral fellow will develop models linking the coevolution of traits to the structure of ecological networks (both trophic and mutualistic networks). Such models will especially account for spatial aspects, i.e. heterogeneous landscapes and dispersal of individuals among habitat patches, and will focus on the structure of ecological communities emerging from evolutionary processes acting at the landscape scale. Modelling will be based on adaptive dynamics and/or theoretical quantitative genetics methods.   Application Process   This job is supported by a larger ANR project ARSENIC (2015-2019) involving a network of 8 different labs, most of them in France. More precisely, this position will involve collaborations between the Ecology, Evolution & Paleontology lab in Lille and of the Institute of Ecology and Environmental Sciences in Paris. The post-doctoral fellow will work at IEES Paris (Institute of Ecology and Environmental Sciences of Paris). IEES is a new laboratory that merges different aspects of ecology, such as evolutionary ecology, community ecology and functional ecology. The post-doc fellow would be part of the team âEcology and Evolution of Interaction Networksâ (team leader: Nicolas Loeuille).   The post-doctoral position will particularly focus on the theoretical developments proposed above. We welcome applications from candidates with a PhD in ecology, evolutionary biology or applied mathematics, with good skills in ecological modelling, theoretical ecology and evolutionary ecology. Skills in game theory, adaptive dynamics or quantitative genetics modelling will be particularly appreciated.   The position is funded for two years. Salary depends on experience (eg, about 2200 euro two years after PhD). **Applications will be considered**

until the position is filled.
   To apply, send a CV and a letter expressing why the project interests you to Nicolas Loeuille
(
nicolas.loeuille@upmc.fr
) and François Massol (
francois.massol@univ-lille1.fr
), and have two researchers you collaborated with send us reference letters.   Francois Massol <
francois.massol@univ-lille1.fr
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