PhD POSITION in ECOLOGICAL ECONOMICS

THINK GLOBAL AND ACT LOCAL: AN INTERDISCIPLINARY EVALUATION OF EUROPEAN EEL CONSERVATION ACTIONS THROUGH RESTOCKING

Irstea, the French National Research Institute of Science and Technology for Environment and Agriculture, seeks highly qualified and motivated candidates for 1 PhD position (3 years) in **Socio-ecological system approaches to develop an interdisciplinary evaluation of European eel conservation actions through restocking.**

Restocking is presented as a measure to enhance eel abundance in locations where there is no recruitment of young eels and also to get fished young eels out of locations where they would encounter adverse pressures (dams, pollution etc.). The benefit of restocking has been advocated since 1840 but it is highly controversial and the scientific proofs pros and cons are difficult to synthetize. Furthermore, within European members under eel management regulation, in the first intention, up to 65 % of the fishing would be reserved to restocking but in the facts only 21 % of glass eels are officially traded for restocking.

However, in the context of global change, interactions between distant places such as international trade are increasingly widespread and influential, often leading to unexpected ecological feedback and spillover effects. Similarly, conservation interventions can also create perverse economic feedback and spillovers. The main aim of this PhD research project is to understand how restocking of glass eel can be designed to balance the negative effects of natural resources exploitation and international trade on biodiversity and functions of ecosystems. A research gap to fill is the development of a conceptual framework able to identify these economic and ecological feedback and spillovers. This PhD research project will be focused on using and expanding the **telecoupling framework to develop robust socio-economic and biophysical indicators to quantify the extent, magnitude, and dynamics of telecoupled socio-ecological systems (of the exporter country and the and importer country) due to glass eels conservation and trade**. These indicators will be used to quantify and analyze the global to regional effects of trade on restocking efficiency and vice versa.

Moreover, in the context of global change, the conservation of biodiversity and sustainable use of natural resources cannot be ensured by exclusively applying instruments of domestic law on the basis of national boundaries. Accordingly, the protection of respective ecosystems cannot be restricted to the territory of a single state but has to be organized on a transboundary level. However, **can we observe a rise of a shared global environmental concern among citizens of the exporting country (France), and the final consumers of the importing country (Japan)?** To answer this question, another objective of the PhD research is to assess and compare (by applying choice experiment method) **conservation values for glass eels** in the two countries.

Required skills : Applicants should have or are preparing MSc (or equivalent degree) in Economics, Ecology, Environmental sciences or related fields. A sound background in quantitative methods, proficiency in database management software, strong analytic skills are required. GIS expertise is welcome. We expect strong interest in fish management and interdisciplinary work, and willingness to engage with local communities, social organizations and a range of stakeholders.

Schedule : February 2019 : start of applications; May 2019 : end of applications; June/July 2018 : selection of applications by the intake committee.

Do you consider applying? Please go to https://pasi.irstea.fr/en/campagne/1. Download and carefully read the Guide for Applicants for all specific information on the application and selection procedure.

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