UMR_C 5023 - Laboratory of Ecology of Natural and Anthropized Hydrosystems (LEHNA)

OTHER SUPERVISORY BODIES

CNRS
Université Claude Bernard Lyon 1

ÉTABLISSEMENTS ASSOCIÉS

INRAE

UNIT MANAGER

Christophe DOUADY

LOCATION

Region : Auvergne-Rhône-Alpes (Lyon)
University site : Université de Lyon
Address :
Université Claude Bernard - Lyon I - UMR 5023 - LEHNA - 3-6, rue Raphaël Dubois - Bâtiments Darwin C & Forel - 69622 Villeurbanne Cedex

The unit research themes cover a gradient of fields ranging from evolution sciences to environmental sciences, including evolutionary ecology and functional ecology. These themes are developed at different levels of organization, from the individual to the ecosystem. The main objects of study are aquatic environments and the organisms that inhabit them.

The particular characteristics of these environments offer a great diversity of environmental situations allowing us to tackle many fundamental as well as more finalised themes:

- high physical demands (e.g., continuity vs. insularity, current vs. stagnant, light vs. darkness, erosion vs. sedimentation, flooding vs. desiccation, stability vs. Thermal instability) determine living conditions characterized by high spatial and temporal variability (e.g., predictability vs. unpredictability, fragmentation vs. connectivity);
- these environments are the natural receptors of matter and energy from their watersheds. In a highly artificial landscape, they become receptors of various forms of pollution, whether agricultural, industrial or urban;
- their dynamics induce frequent habitat renewal, this instability favouring their colonization by a wide variety of organisms, including invasive introduced pathogens or taxa.

Our objective is to identify, characterize and quantify the relationships between processes involved in the functioning and evolution of biodiversity in natural and anthropized hydrosystems. To do this, we mobilize a set of strengths, skills and strong disciplinary expertise around a common will to work at the interfaces, in a triple approach combining functional ecology, evolutionary ecology and environmental sciences. Thus our objective remains the understanding of natural and anthropized hydrosystems but with an emphasis on mechanisms, multi-causality and temporal and/or spatial scale changes.

Research teams

- Biodiversity and plasticity in hydrosystems
- Plant ecology and wetlands
- Ecology, evolution, underground ecosystems
- Ecophysiology, behaviour, conservation
- Impacts of pollutants on ecosystems
- Biogeography and macroecology in deep time

Unit website : http://umr5023.univ-lyon1.fr

DOCTORAL SCHOOL(S)

E2M2

DS 341 - Evolution, Ecosystems, Microbiology, Modelling

Website : http://e2m2.universite-lyon.fr

Co-accredited institutions : Université Claude Bernard Lyon 1

Head : Fabrice CORDEY

EDISS

DS 205 - Sciences, Health, Interdisciplinary

Website : http://ediss.universite-lyon.fr

Co-accredited institutions : Université Claude Bernard Lyon 1, INSA Lyon

Head : Emmanuelle CANET-SOULAS