



CESAB
CENTRE FOR THE SYNTHESIS AND ANALYSIS
OF BIODIVERSITY

BRIDGE

Building a bridge between river corridors, roadsides and field margins: how landscape interactions modulate taxonomic and functional plant diversity

PRINCIPAL INVESTIGATORS:

Eric TABACCHI - CNRS-INEE (FR) /

Guillaume FRIED - ANSES (FR)

START AND FINISH:

2021-2024

CO-FUNDING ORGANIZATION:



8 PARTICIPANTS:

MARTA CARBONI - UNIVERSITY OF ROME (IT) / **EDUARDO GONZÁLEZ-SARGAS** - COLORADO STATE UNIVERSITY (US) / **ALEJANDRO JUAREZ-ES-CARIO** - UNIVERSITY OF LEIDA (ES) / **CLAUDE LAVOIE** - UNIVERSITY OF LAVAL (CA) / **LINDSAY MASKELL** - UNIVERSITY OF LANCASTER (UK) / **ANNE-MARIE PLANTY-TABACCHI** - CNRS (FR)

BRIDGE aims to better understand the role of local and regional environmental factors in shaping the taxonomic and functional diversity of plant communities established along river corridors, roadside corridors and cultivated field margins.

BRIDGE includes three work packages:

- The first one will be devoted to the construction of a **homogenized and georeferenced database** in order to facilitate further statistical analyses. It will gather the available datasets from the consortium of BRIDGE collaborators, and consolidate a final database with additional information from external open sources.
- The second one will explore **functional and taxonomic diversity and similarity among ecosystems and sampling sites and the importance of particular group species** (e.g., invasive species, weeds, etc.). At a regional scale, it will pay particular attention to plant trait divergence/convergence; testing the effects of the different landscape configurations on the biodiversity patterns (community and meta-community). At the local scale, it will focus on the community response to physical disturbance, resource availability, and spread-related mechanisms considered as the main drivers for biodiversity.
- In the third one, BRIDGE will give recommendations for plant biodiversity management using the properties of the three ecosystems studied. To achieve this goal, the project members will revisit the second work package results using a **predictive modelling approach** simulating specific landscape configurations and disturbance/resource conditions according to a series of plausible future scenarios. The project will discuss the benefits for management of integrating simultaneously the properties of the three ecosystems studied.

CESAB

CESAB (Centre for the Synthesis and Analysis of Biodiversity) is FRB's flagship program and an internationally renowned research center whose objective is to implement innovative work to synthesize and analyze existing data sets in biodiversity research.

