FELLOW

Weeds as crop fellows? Spatio-temporal dynamics of weed communities and their role on biodiversity-mediated ecosystem services along a gradient of human pressures

Principal Investigators

Guillaume Fried
ANSES (FR)

Elena Kazakou
Inst. Agro Montpellier (FR)

Postdoctoral Fellow

Greta La Bella

Members

K Barkaoui, MC Bopp, J Cambecedes, S Cordeau, B Giffard, A Metay, H Metcalfe, A Michelot-Antalik, B Ricci, S Winter.

2025 — 2028 — After — Return

Agroecosystems are one of the terrestrial environments that have been subjected to the greatest pressure by human activities with agricultural intensification during the 20th century [...]. By using multi-scale monitoring data from annual and perennial crops in Europe, coupled with innovative trait-based approaches, the FELLOW project aims to quantify the relative importance of different factors on the functional properties of the flora and to evaluate its biodiversity value for providing resources for pollinators, insects, birds and other organisms. In the first part of the FELLOW project, we will quantify the relative impact of human-induced pressures but also benefit actions, and pedoclimatic conditions on the functional properties of arable plant communities present in different crops. Our second aim will focus on the most endangered segetal species in order to identify whether they have a particular combination of traits (rare species syndrome) and to refine the agroecological conditions that are likely to ensure their survival. This will also make it possible to highlight the areas to be studied and monitored as a priority and identify where subsidies for suitable agri-environmental measures would be most effective. The third part of the project will evaluate the biodiversity value of arable plant communities and endangered segetal species as a support of the diversity of wildlife, including insects and birds. To do so, we propose to construct trait-based indicators of plant potential for providing ecosystem services such as pollination, biological regulations and pest control services by using functional traits [...].

This project was selected from the **2023 Joint call** for proposals with **MTE & OFB**.