



DISCO-WEED

Disentangling the role of anthropic disturbances and ecological processes on weed community assembly

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Weeds are an important threat to crop production and management rules have been developed to regulate weeds in fields. However, intensive use of herbicides and inorganic fertilizers, large-scale simplification of crop sequences and repeated ploughing has caused **considerable biodiversity loss in European agroecosystems**; many weed species are currently threatened with extinction. Moreover, the drastic decline observed in weed diversity and abundance has highlighted the **crucial functional role weeds play in agroecosystem food-webs**; including in pollination, provision of habitat and biological control.

The recognition of the need to better balance food production with other, non-provisioning ecosystem services, is reflected in the 2014-2020 reform of the Common Agricultural Policy which, for the first time includes 'greening measures' as a requirement for Pillar 1 **payments** (i.e. direct income support payments to farmers) that primarily support agricultural productivity. Assuring food security and conserving farmland biodiversity while reducing chemical inputs has also been the motivation for a number of National initiatives (e.g. French *Ecophyto* Plan, Campaign for the Farmed Environment in the UK). In this context, **it is imperative that the consequences of agricultural management on weed abundance and crop production are investigated.**

The Disco-Weed project addressed these challenges using an interdisciplinary approach and aimed at filling the knowledge gap to reducing chemical inputs and understanding the effects of weeds on crop production.

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