

**Supervisor :**

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**Project title :**

Attractivity of Cornflower for pollinators in various floral assemblages

**Keywords :**

Pollination ; floral ecology ; agroecosystem services ; segetal species

**Summary (150 words at the maximum):**

Cornflower (*Cyanus segetum* Hill.) is a segetal species which some populations show low occurrence due to massive use of herbicides in agrosystems. Its flowers are rich in pollen and nectar resources for insect foraging. If preserved, Cornflower as well as numerous segetal species may contribute to maintain sustainable pollination services in agroecosystems.

The aim of the study is to compare Cornflower attractivity for pollinators when the plant species co-occurs with some other segetal species. We suspect that the floral attractivity of Cornflower is enhanced by the occurrence of various local floral resources.

Various floral assemblages will be grown in an experimental garden to compare their attractivity for insect pollinators. The different assemblages will be designed in Cornflower monocultures or with one, two or three others species which flowers vary in pollen and nectar resources. The assemblage diversity should vary in species and functional composition. Insect pollinators will be observed and identified by photography survey during summer 2016. Pollinator effectiveness as reproductive success of Cornflower will be assessed by counting the seeds collected.

**Relevant literature (up to two references):**

Bellanger *et al.* 2012. *Centaurea cyanus* as a biological indicator of segetal species richness in arable fields. *Weed Research*, 52 (6) : 551–563.  
Wratten *et al.* 2012. Pollinator habitat enhancement: Benefits to other ecosystem services. *Agriculture, Ecosystems & Environment*, 159 : 112–122

**Techniques involved in the project:**

Field monitoring ; plant trait measurement

**Desired skills and abilities:**

Student availability during summer 2016