

Eco-Ethology of Bees Visitors on *Vicia faba* L. var. Major (Fabaceae) in Algeria

Authors : L. Bendifallah, S. Doumandji, K. Louadi, S. Iserby, F. Acheuk

Abstract : Due to their ecological key position and diversity, plant-bee relationships constitute excellent models to understand the processes of food specialisation. The purpose of this study is to define and identify the most important species of bees foraging broadbean flowers, we estimated morphological, phonological and behavioural features. We discuss the results by considering the food specialisation level of the visitor. In the studied populations (Algiers, Algeria), visiting bees belong to four different genus: *Apis*, *Andrena*, *Eucera* and *Xylocopa*. *Eucera* is foraging broad beans flowers during months of April, May. The genus *Andrena* and *Xylocopa* were found on weeds after the flowering period of beans. The two species have not a preferred type of vegetation compared to *Eucera*. The main pollinators were generalist bees such as *Apis mellifera* L. and *Xylocopa pubescens* Spinola (Apidae), and specialist bees such *Eucera numida* Lep. (Apidae). The results show that no one of the studied species, neither the specialist, nor the generalist ones, share adaptative morphological or behavioural features that may improve foraging on *Vicia faba*. However, there is a narrow synchronisation between the daily and yearly phenologies of *Eucera numida* and those of *V. faba*. This could be an adaptation of the specialist bee to its host plant. Thus, the food specialisation of *Eucera numida*, as for most specialist bees, would be more linked to its adapted phenology than to an adapted morphology.

Keywords : *Vicia faba*, bees, pollinators, Algeria

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