
THE POLLINATING INSECT OF THE BUMBLE BEE ORCHID *OPHRYS BOMBYLIFLORA* (MONOCOTYLEDONAE: ORCHIDAE) IN THE MALTESE ISLANDS

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ABSTRACT

During field studies at Ta' Cenc, Gozo, bees were observed on the flowers of Bumble Bee Orchids *Ophrys bombyliflora*. The insects were identified as *Eucera longicornis* (Hymenoptera: Apidae) and their activity suggested pseudocopulation.

Keywords: *Ophrys bombyliflora*, *Eucera longicornis*, pseudocopulation

One of the ways in which orchids attract their pollinating insects is by luring them sexually. The genus *Ophrys* has the most highly developed sexual lures and their flowers emit scent and also imitate visually some female Hymenoptera. The attracted male bees attempt to copulate (pseudocopulation) with the lip of the orchid's flower (Delforge, 2006).

On the 14th March 2008 during field studies at Ta' Cenc, Gozo, I noticed a bee on a flower of a Bumble Bee Orchid *Ophrys bombyliflora* Link. This bee stood on the flower for a number of seconds, emitting a distinct buzzing sound while on it, before eventually flying off. On at least 3 other occasions I observed the same species of insect on the lip of other Bumble Bee Orchids, and in all occasions the event was accompanied by the same buzzing sound. Other bees of the same species were noticed in the area, especially around Bumble Bee Orchids, sometimes 2 of them trying to alight on the same flower of a Bumble Bee Orchid at the same time. The behavior of these bees suggested they were in pseudocopulatory activity.

Bumble Bee Orchids are pollinated by different species of *Eucera* (Delforge, 2006). Closer inspection of the bees in Figures 1 and 2 showed that they were males of *Eucera longicornis* L. (Hymenoptera: Apidae), the males having a yellow face and extremely long antennae. *Eucera longicornis* is the pollinating insect, or among the *Eucera* pollinators, of the Bumble Bee Orchid in the Maltese Islands.

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Figure 1: Pseudocopulation of a male *Eucera longicornis* on a Bumble Bee Orchid *Ophrys bombyliflora* at Ta Cenc, Gozo.



Figure 2: Another male *Eucera longicornis* attempting to mate with the lip of the Bumble Bee Orchid *Ophrys bombyliflora*. Both photos taken on the 14 March 2008 at Ta Cenc.

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