

## Oviposition observed in *Chrysotoxum cautum*, *C. vernale* and *Merodon avidus* (Diptera, Syrphidae)

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Egg laying was observed in *Chrysotoxum cautum* and *C. vernale* on grass blades and in *Merodon avidus* on leaves of *Muscari* spec.

Key words: Oviposition, *Chrysotoxum*, *Merodon*, *Muscari*, Syrphidae.

### Zusammenfassung

*Chrysotoxum cautum* und *C. vernale* wurden bei der Eiablage auf Grasblättern beobachtet. *Merodon avidus* legte ein Ei zwischen die Blätter von *Muscari* spec.

*Chrysotoxum cautum* (Harris, 1776), *C. vernale* Loew, 1841 and *Merodon avidus* Rossi, 1790 are widespread and relatively common species in Europe. Nevertheless, nothing is known about the biology of their immature stages. Therefore, the following observations of ovipositing females could be of interest.

*Chrysotoxum cautum*: Locality: Germany, Nordrhein-Westfalen, Teutoburgerwald near Halle. Date: 11-VI-2004. Two females of *C. cautum* were seen flying low and slowly through open, grassy roadside vegetation on sandy soil. A couple of times they settled halfway up on blades of grass at approximately 15 cm above the ground, to lay a single egg on each blade. Afterwards they flew on in the same way, probably in search of more suitable spots for oviposition. Two eggs have been collected and kept in a small glass tube. They hatched after five days (empty egg shells in coll. M. Reemer). Only one of the larvae could be found: this small (a little more than one mm), unpigmented larva crawled around in the tube and tried to move away from the light. An attempt was made to rear it in a dark closet on a diet of small aphids (from *Cirsium* and *Salix*), but feeding was not observed, not even when aphids were offered by keeping them right before the larva. After two days the larva died. – A previous record of *C. cautum* ovipositing on grass blades is referred to by Barkemeyer (1994). Chandler (1968), who obtained eggs from gravid females in captivity, also noted that the eggs are laid singly. The ovipositing behaviour of the observed females corresponds with that described for *C. verralli* Collin, 1940 by Stubbs (2004).

*Chrysotoxum vernale*: Locality: France, Dordogne, Les Eyzies de Tayac. Date: 22-IV-2003. In the Dordogne, at the end of a sunny afternoon, two females were observed flying low and slowly through low, grassy roadside-vegetation on sandy soil. Now and then, they settled on a blade of grass to lay one egg at a height of approximately 2 cm above the ground. After laying an egg, the females continued their slow flight in search for other suitable spots for oviposition. One of the females and one egg were collected (coll. M. Reemer). Ants of the genus *Lasius* were seen nearby, but no nest entrances were found. The ovipositing behaviour of the observed females corresponds with that described for *C. verralli* Collin, 1940 by Stubbs (2004). Speight (2003) refers to an observation by P. Goeldlin, who saw females of *C. vernale* ovipositing around the nest entrances of ants of the *Lasius flavus* group in unimproved grassland.

*Merodon avidus*: Locality: Turkey, Muğla, 6 km NE of Ađla, Gökce ova Gölü, 1400 m. asl. Date: 31-V-2000. A female of *M. avidus* was seen while ovipositing in the rosette of a flowering plant of *Muscari* spec. (Liliaceae). After the specimen was caught (coll. K. Goudsmits), one egg was found between the leaves of the rosette (not collected). – Different authors have expressed the suspicion that *M. avidus* contains two cryptic taxa. Based on the colour of the tergites and the tibiae, this female belongs to "*M. avidus* A" according to Milankov et al. (2001). Van der Goot (1964) also recognized two forms of the species, but it is not clear whether these correspond with the cryptic taxa of Milankov et al. (2001). In the key of van der Goot (1964) the specimen would key to form B.

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