April 1999

Attraction of *Pedilus Lugubris* (Coleoptera: Pyrochroidae) to *Epicauta Murina* and *Epicauta Fabricii* (Coleoptera: Meloidae) and New Food Plant Records for *Epicauta* Spp.

Andrew H. Williams  
*University of Wisconsin*

Daniel K. Young  
*University of Wisconsin*

Follow this and additional works at: https://scholar.valpo.edu/tgle

Part of the Entomology Commons

Recommended Citation
Williams, Andrew H. and Young, Daniel K. 1999. "Attraction of *Pedilus Lugubris* (Coleoptera: Pyrochroidae) to *Epicauta Murina* and *Epicauta Fabricii* (Coleoptera: Meloidae) and New Food Plant Records for *Epicauta* Spp.," *The Great Lakes Entomologist*, vol 32 (1)  
Available at: https://scholar.valpo.edu/tgle/vol32/iss1/12

This Peer-Review Article is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in The Great Lakes Entomologist by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.
Pedilus lugubris was found associated with Epicauta murina feeding on Lathyrus venosus foliage and with E. fabricii feeding on Lupinus perennis flowers. Epicauta cinerea and E. funebris were found feeding on foliage of Anemone canadensis and Physalis heterophylla, respectively. This is the first reported association of P. lugubris with any species of Epicauta, and the first reported use of Lathyrus venosus by E. murina, of Lupinus perennis by E. fabricii, of Anemone canadensis by E. cinerea and of Physalis heterophylla by E. funebris.

Many Epicauta cinerea (Forster) were found feeding on the leaves of Anemone canadensis in moist prairie vegetation on the afternoon of 22 July 1997, in Richland County, Wisconsin. These included both the margined and cinereous forms; series of four of each form were collected. Many Epicauta funebris Horn were found feeding and mating on the leaves of Physalis heterophylla in prairie vegetation on the afternoon of 9 August 1997, in Columbia County, Wisconsin, and three were collected.

Twenty Epicauta murina (LeConte) were found feeding and mating on the youngest leaves of Lathyrus venosus in prairie vegetation on the afternoon of 6 June 1997, in Dunn County, Wisconsin. Several Pedilus lugubris (Say) were very close to them. Five E. murina were collected by grasping them with fingers and pushing them into vials containing ethanol, wetting the fingers in the process. Shortly thereafter, two P. lugubris landed on the dried hand and one of these chewed the tip of a finger; these were collected, with four others.

Several Epicauta fabricii (LeConte) were found feeding on flowers of Lupinus perennis in prairie vegetation late in the morning of 11 June 1997, in Portage County, Wisconsin, and four were collected. Though Lathyrus venosus was also present, E. fabricii was seen only on Lupinus perennis. A single P. lugubris was present and was collected.

In neither case was P. lugubris seen to touch an Epicauta. Specimens are deposited in the Insect Research Collection at the University of Wisconsin-Madison.

1Department of Entomology, University of Wisconsin, Madison, WI, 53706.
DISCUSSION

Like all other studied species of Meloidae, those in Epicauta produce cantharidin, which attracts various other fauna (Young 1984). Several species of Pedilus have been observed in association with Meloe spp. (see Young 1984), including P. lugubris with Meloe angusticollis Say (LeSage and Bousquet 1983, Butler 1984 (as P. collaris (Say), see Young 1981)). Pedilus labiatus (Say) has been reported near caged E. fabricii (Abdullah 1964). Observations reported here are the first for P. lugubris associated with any Epicauta species, the first for any species that is attracted to cantharidin being attracted to E. murina, and of a second species of Pedilus being attracted to E. fabricii, presumably via cantharidin.

Adults of both E. murina and E. fabricii favor food plants in Fabaceae (Werner 1945). Epicauta murina has been reported to feed on alfalfa, Convolvulus arvensis, flax, legumes, Melilotus officinalis, potato plants, radish leaves and sugar beet (Carruth 1931, Werner 1945, Kirk and Balsbaugh 1975, Arnold 1976). Epicauta fabricii has been reported to feed on flowers, foliage, or both of alfalfa, Amorpha canescens (flowers), Astragalus, Baptisia leucanthera, B. tinctoria, beans, Caragana (Siberian pea), clover, cowpeas, honey locust, Kentucky coffee tree, lupines, Melilotus alba, M. officinalis, peas, Robinia pseudo-acacia and soybeans in Fabaceae, as well as on anemones, chrysanthemums, ironweed, potato, sugar beet, sweet potato, and tomato in other families (Harris 1841, Claypole 1881, Wickham 1896, Chittenden 1898, Blatchley 1910, Robertson 1928, Carruth 1931, Gilbertson and Horsfall 1940, Horsfall 1943, Werner 1945, Werner et al. 1966, Kirk and Balsbaugh 1975, Arnold 1976, Blodgett and Higgins 1988). There are several reports of E. fabricii damaging potato vines (Harris 1841, Wickham 1896, Blatchley 1910, Gilbertson and Horsfall 1940, Horsfall 1943, Kirk and Balsbaugh 1975), but these reports of other non-leguminous food plants (Chittenden 1898, Blatchley 1910, Kirk and Balsbaugh 1975) may warrant confirmation. This is the first report of E. murina feeding on Lathyrus venosus foliage and of E. fabricii feeding on Lupinus perennis flowers.

Adults of E. cinerea have been reported to feed only on Clematis (Pinto 1991). This is the first report of E. cinerea feeding on Anemone canadensis foliage, and of the cinereous form of this beetle occurring in Wisconsin (Pinto 1991). Both Clematis and Anemone are in Ranunculaceae. Adults of E. funebris have been reported to feed on a variety of plants, including both native species in Solanum and crops in Solanaceae (Pinto 1991). This is the first report of E. funebris feeding on Physalis heterophylla foliage; Physalis is also in Solanaceae.

LITERATURE CITED


https://scholar.valpo.edu/tgle/vol32/iss1/12
Williams and Young: Attraction of *Pedilus Lugubris* (Coleoptera: Pyrochroidae)


