

Flowers as hunting ground for *Platypalpus vegrandis* Frey, 1943 (Diptera, Hybotidae, Tachydromiinae)

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Abstract

Platypalpus vegrandis Frey, 1943 is reported using flowers as a hunting ground for prey.

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Species of the genus *Platypalpus* are ferocious hunters that usually use a flat horizontal substrate for hunting prey. Generally they are found on leaves of shrubs and trees and when suitable prey lands on the leaf, they jump on it, hold it with the thickened fore and middle legs and puncture the prey in the neck region with their strong proboscis. Eventually body fluids are sucked up. Prey consists of small Diptera (Agromyzidae, Sciaridae etc.) and microhymenoptera. KOVALEV (1966) reports about additional feeding of *Platypalpus ecalceatus* on nectar of Apiaceae.

Species of *Platypalpus* are very common on hedges bordering fields and prairies with a preference for plants with hairy leaves such as *Salix* trees. Net sweeping on prairies generally yields few *Platypalpus*.

However, during a 10-day field trip (1-10 July 2010) at the Biological station of Kamishanova Polyana (Krasnodar region, Russia) in North Caucasus at an altitude of 1,200m *Platypalpus vegrandis* was quite often swept from herbs in the densely flowered natural prairies. In contrast to other *Platypalpus* species, *P. vegrandis* uses flowers as hunting ground instead of the leaf surfaces of plants. It was observed hanging on the underside of the white flowers of *Achillea*, *Heracleum* and *Daucus* (Apiaceae), and also on the yellow flowers of *Lapsana intermedia* (Asteraceae). In fact this predatory behaviour is similar to crab spiders and bugs that ambush prey under flowers. Small Diptera and Hymenoptera continuously visit these flowers searching for

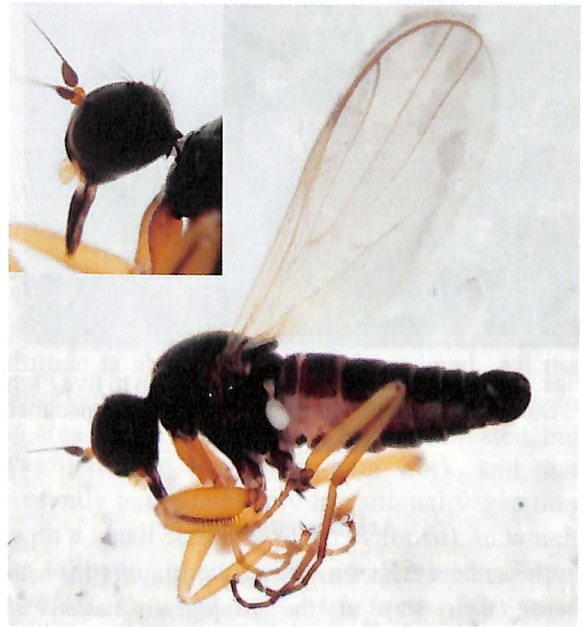


Fig. 1. *Platypalpus vegrandis* male habitus; inset showing head female with strong proboscis.

nectar and hence they form easy prey for *P. vegrandis*. The latter is a small *Platypalpus* of about 2-3 mm that is easily recognisable because the male bears black spines on the hind trochanters instead of the usual bristles (GROOTAERT, 1983). At Kamishanova Polyana, this species was only found in the prairies and never in nearby habitats. Therefore we suppose that *P. vegrandis* adapted to this type of microhabitat to hunt for prey.



Fig. 2. *Lapsana intermedia* a host plant where *Platypalpus vegrandis* hides under the yellow petals. During rain and at night when the flower closes, *Platypalpus* hides inside the flower (see insert).



Fig. 3. *Achillea millefolium*: *Platypalpus vegrandis* hides underneath the tiny white flowers. Usually only one specimen is observed per umbel.



Figs. 4-5. *Heracleum mantegazzianum*: Up to five *Platypalpus vegrandis* are hiding underneath the petals of the tiny flowers of an umbel. Hence more than 30 specimens can be found on all umbels of one plant.

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