Taxonomic Notes on the Genera *Platycheirus* and *Melanostoma* (Dipt., Syrphidae)  
With Lectotype Designations  

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Abstract

Characters separating the genera *Platycheirus* and *Melanostoma* are discussed. The name *Melanostoma* Schin. is restricted to species with a distinct type of metasternum present in the type species, *M. mellinum* L. Lectotypes are designated for *Scaeva ambigua* Fall., *S. transfuga* Zett., and *S. dubia* Zett. The two firstmentioned belong to *Platycheirus* and the latter to *Melanostoma* s. str.

The delimitation of the genus *Melanostoma* Schiner

Problems have arisen about the proper delimitation of the genus *Melanostoma* Schiner, 1860. As far as the European fauna is concerned it has been difficult to find good characters to separate *Melanostoma* from *Melangyna* Verrall, *Epistrophe* Walker, *Platycheirus* Lep. et. Serv., etc. Kanervo (1938) has discussed the matter and reviewed earlier works on it.

From Northern Europe five *Melanostoma*-species have been listed: *mellinum* L., *scalare* Fabr., *dubium* Zett., *ambigua* Fall., and *transfugum* Zett. It has been questioned whether the latter two really belong to *Melanostoma*, as they have some characters typically found in *Platycheirus*: specialized hairs and bristles on male legs, and distinct square yellow markings or blue dustspots on abdomen.

Enderlein (1938) described the new genus *Pachysphyria* with *ambigua* as typus generis. He also listed *dubia* Zett. in this genus which he discriminated from *Melanostoma* on rather indistinct characters: first segment of hind tarsi in male sex more or less strongly dilated (in *Melanostoma* not dilated), hind margin of eyes in male and female quite stright (in *Melanostoma* a little incurved). Szilády (1940), Frey (1946), Coe (1953), Stackelberg (1958), and Bankowska (1963) do not mention the genus *Pachysphyria*. Goffe (1952) treats it as a distinct genus, while Séguy (1961) and Stone et al. (1965) list it as a synonym of *Melanostoma*.

Fluke (1957) has published a study on the male genitalia of Melanostomini. He found that the species of *Platycheirus* are distinctly different from those of *Melanostoma* in the build of the male genitalia. By the presence of a thumb-like processus the styles (paralobi, forceps) of *Platycheirus* are basally bifid and in this genus the superior lobes are recurved and sickle-shaped. The styles of *Melanostoma* are simple and the superior lobes are squarish and not recurved. Cf. fig. 2 and 3.

There is also another distinct character discriminating *Platycheirus* and *Melanostoma*, which I have not found to be mentioned in the literature. In the type species of *Melanostoma*, *Musca mellina* L., the strongly sclerotized part of metasternum is largely reduced and shows a spearhead-shaped figure (fig. 1 A). In *Platycheirus* this part of metasternum is fully developed (fig. 1 B). I think this is an important character and that the reduced metasternum is characteristic for all true *Melanostoma* species. *Melanostoma scalare* Fabr. and *M. dubium* Zett. (vide below) agree with *M. mellinum* L. in the general type of male genitalia and in the build of metasternum.

Males identified as *Scaeva ambigua* Fall. and *S. transversa* Zett. have male genitalia of *Platycheirus* type with branched styles and
sickle-shaped superior lobes. The metasterna are fully developed. They also possess other characters commonly found in *Platycheirus*, such as specialized hairs and bristles on legs, inflated frons and bluish dust on abdominal spots. Therefore, I consider that these two species should be transferred to *Platycheirus* and that *Pachysphyria* End. is a synonym of *Platycheirus* Lep. et Serv. It is possible that *Pachysphyria* should be retained as a subgenus of *Platycheirus* in agreement with the opinion of Dušek and Láska (1967).