TANYPEZIDAE (TANYPEZID FLIES) 58

Kyle Apigian and F. Christian Thompson

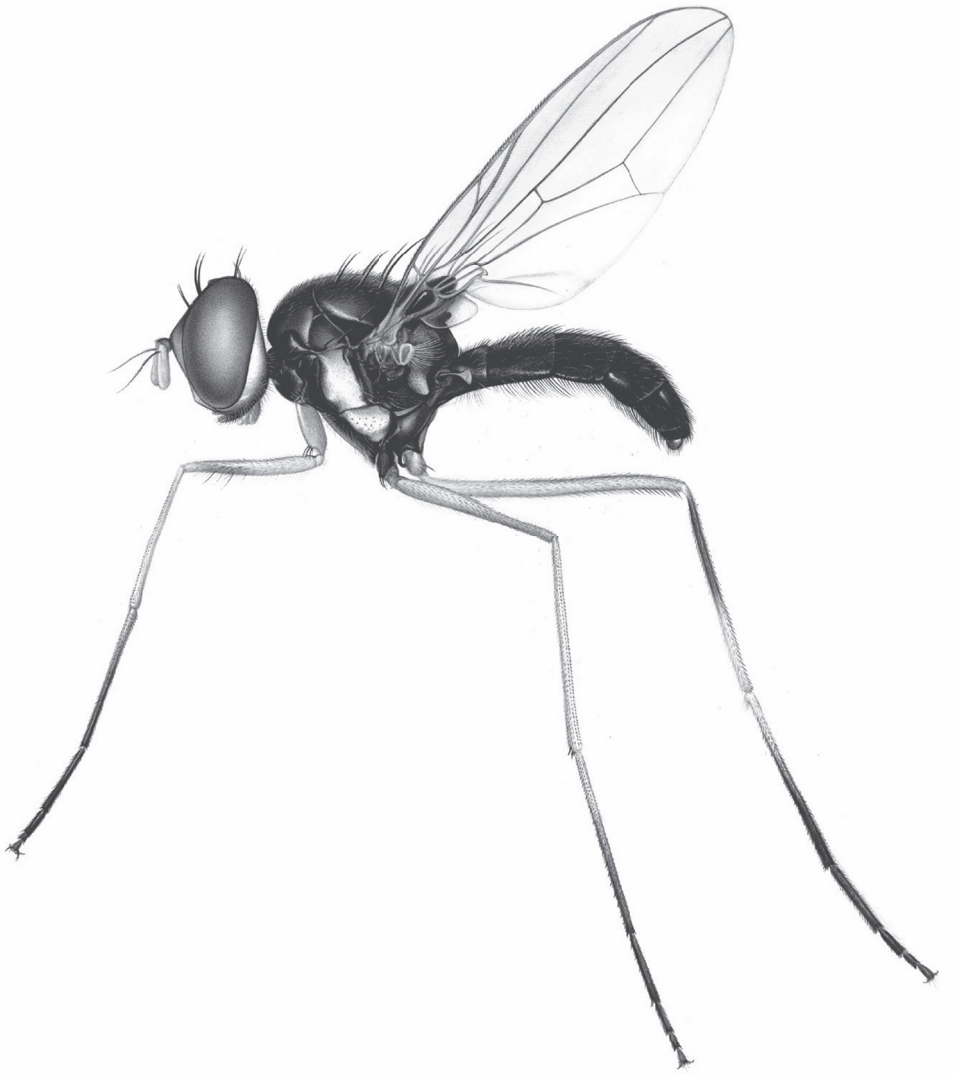


Fig. 58.1. Male of *Neotanypeza elegans* (Wiedemann), (illustrated by T. Litwak).

Diagnosis

Small to medium-sized (body length 5.0–11.5 mm), slender flies, with large head and long legs (Fig. 1). Head large, hemispherical; compound eye covering most of lateral aspect; ptilinal suture and lunule distinct; antennal pedicel without dorsal suture. Thorax without greater ampulla; anepisternum with prominent bristle near posterodorsal margin; katepisternum setose, without bristles; legs long, slender, yellow; wing hyaline, vein R_1 setose dorsally; veins R_{4+5} and M converging apically. With silvery tomentose maculae on head and thorax.

Tanypezids are occasionally misidentified as Dolichopodidae; however, close inspection will reveal the typical schizophoran ptilinum, lunule, and other characteristics that readily separate Tanypezidae from Dolichopodidae.

Biology

Little is known about the ecology and behavior of adults except that they commonly sit on leaves. The larvae of one species are apparently saprophagous, as demonstrated by Foote (1970), who reared *Tanypeza* from eggs to 3rd instar maggots on decaying watermelon rind

and pulp. Chandler (1975) suggested that *Tanypeza* larvae develop in rotten wood.

Classification

Rondani (1856) first recognized *Tanypeza* as being a distinct group or clade. In the past, the Tanypezidae have been considered part of the Ulidiidae (Hendel, 1903, as Ortalidae) or within the superfamily Tephritoidea (Enderlein, 1913, 1936, as Otitoidea). Most recent authors place the Tanypezidae as a distinct family within the superfamily Diopsoidea (=Nothyboidea of Hennig, 1973). However, McAlpine (1997) proposed placing the Tanypezidae within the Nerioidea. The sister group to Tanypezidae is Strongylophthalmyiidae (Steyskal, 1987); the only remaining question is whether they should be considered a single family (Griffiths, 1972; McAlpine, 1997) or separate families (most authors). Roháček (1998) provides the best current treatment of the family.

The family currently consists of three genera: *Tanypeza* (Holarctic) and *Neotanypeza* and *Scipopeza* (Neotropical). Hendel proposed *Neotanypeza* as a subgenus for the South American species, as they lack ocellar and postvertical bristles. Enderlein (1913, 1936) elevated *Neotanypeza* to generic status and described a series of new genera based on the number of orbital and dorsocentral bristles. Hennig (1936), followed by Steyskal (1967, 1987), reduced Enderlein's classification to three genera, *Tanypeza*, *Neotanypeza*, and *Scipopeza*, with the genus *Neotanypeza* being divided into four subgenera, *Neotanypeza*, *Polphopeza* Enderlein, *Tritanypeza* Enderlein, and *Tripolphopeza* Enderlein. These subgenera appear to be only phenetic concepts based on various permutations of the number of orbital and dorsocentral bristles.

Identification

The only keys available are those of Enderlein (1913, 1936). Care must be used with the older literature, however, as different terminology was employed for the bristles of the head. Enderlein counted only the "fronto-orbital" bristles, that is, the orbital bristles between the antenna and the ocellar triangle, whereas modern authors also count as an orbital bristle the large bristle posterior to the ocellar triangle and at the posterior dorsomedial corner of the eye. A revision based on re-examination of all types is now being prepared (F.C. Thompson & K. Apigian, in preparation).

Species determination in Tanypezidae is made using a variety of characters, including the number of orbital and thoracic bristles, the color of the palpus and first flagellomere, the shape of the first flagellomere, the color of the legs, and the extent and shape of the silvery tomentum posterior to the ocelli. Wing markings and patterns are also important characters in determining species.

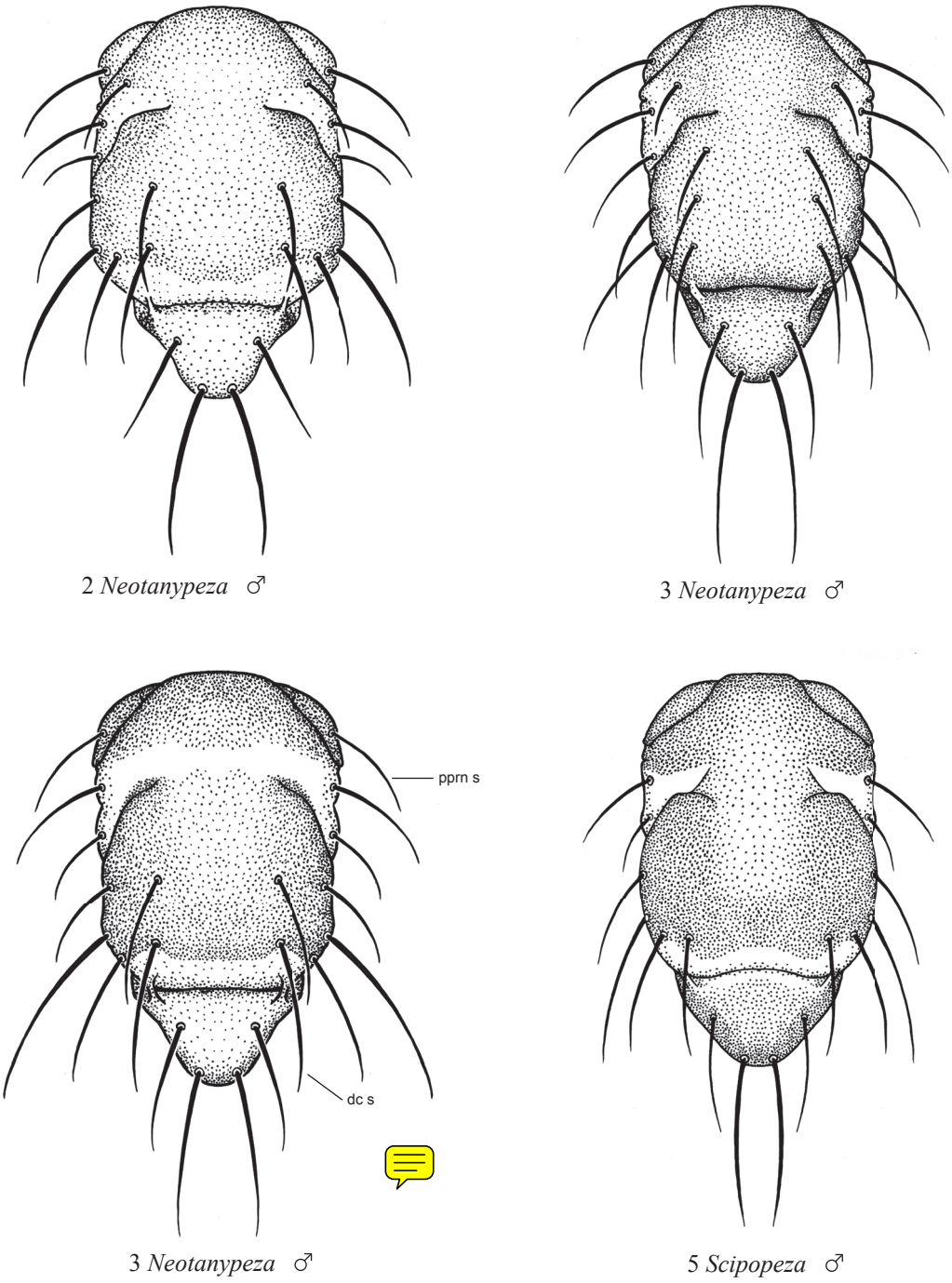
Key to the genera of Tanypezidae

1. Tarsomere 1 of hind leg not produced ventrally as distinct tubercle at base; three orbital bristles present; one dorsocentral bristle present; one postpronotal bristle present, pre-alar bristle absent; Holarctic Region . . . . . [*Tanypeza* Fallén]

– Tarsomere 1 of hind leg produced into distinct basoventral tubercle (Fig. 1); other characters various; Neotropical Region 2

2. Frons with single orbital bristle (Fig. 8); postpronotal bristle absent; pre-alar bristle absent; one dorsocentral bristle present (Fig. 5); Ecuador, Peru. . . . . [*Scipopeza* Enderlein]

– Frons with two or more orbital bristles (Figs. 6–7, 9–10); postpronotal bristle present; one to two pre-alar (supra-alar) bristles present; usually two or more dorsocentral bristles present (Figs. 2–4) . . . . . *Neotanypeza* Hendel



2 *Neotanypeza* ♂

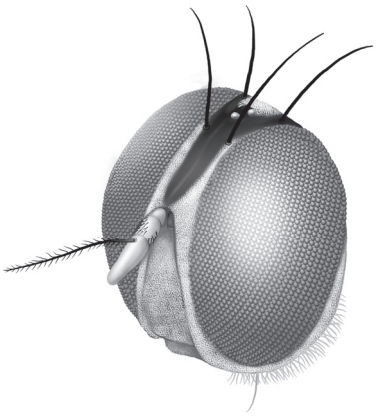
3 *Neotanypeza* ♂

3 *Neotanypeza* ♂

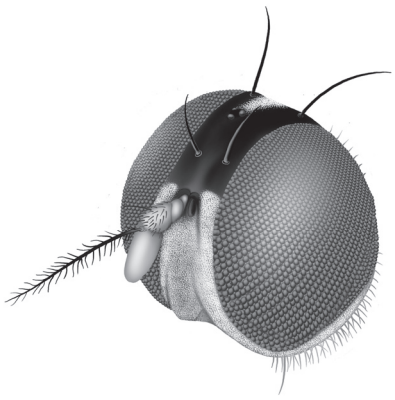
5 *Scipopeza* ♂

Figs. 58.2–5. Thoraces: dorsal view of (2) *Neotanypeza elegans* (Wiedemann); (3) *Neotanypeza flavicalx* (Enderlein); (4) *Neotanypeza ornatipes* (Bigot); and (5) *Scipopeza grandis* Enderlein. Figures 2–5 illustrated by T. Litwak.

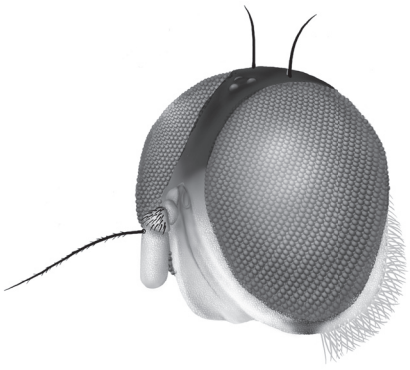
Abbreviations: dc s, dorsocentral seta; pprn s, postpronotal seta.



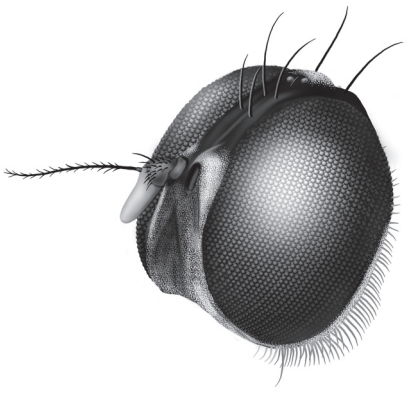
6 *Neotanypeza* ♂



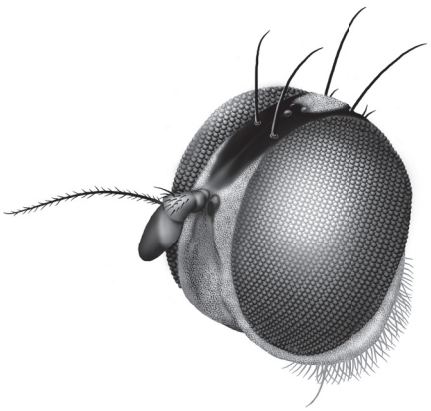
7 *Neotanypeza* ♂



8 *Scipopeza* ♂



9 *Neotanypeza* ♂



10 *Neotanypeza* ♂

Figs. 58.6–10. Heads, anterodorsal view of (6) *Neotanypeza apicalis* (Wiedemann); (7) *Neotanypeza* sp.; (8) *Scipopeza grandis* Enderlein; (9) *Neotanypeza elegans* (Wiedemann); and (10) *Neotanypeza ornatipes* (Bigot). Figures 6–10 illustrated by T. Litwak.

Synopsis of the fauna

***Neotanypeza* Hendel.** Sixteen species of this genus are found from southern Mexico to Argentina, but they are absent from the Chilean subregion. There are two named species and a couple of undescribed species in Costa Rica. The most recent key is that of Enderlein (1936).

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