

Description of a new species of *Stenotabanus* from Venezuela (Diptera: Tabanidae) Descrição de uma espécie nova de *Stenotabanus* da Venezuela (Diptera: Tabanidae)

Inocência de Sousa Gorayeb^I, Zaide Tiapé Gómez^{II}, Mercedes Velásquez de Ríos^{II}

^IMuseu Paraense Emílio Goeldi/MCTI. Belém, Pará, Brasil

^{II}Universidad Nacional Experimental Rómulo Gallegos. San Juan de Los Morros, Guárico, Venezuela

Abstract: *Stenotabanus (Stenotabanus) clavijoi* n.sp. is described based on two females collected in the states of Aragua and Tachira, Venezuela. This is the 59th species of the subgenus *Stenotabanus* and the third from Venezuela. Diagnostic characters are: large species in relation to other species of the subgenus; dorsum of the body dark brown to black and belly with pruinescence and clear setae; frons with inflated callus, square, dark brown to black, shiny with an upper extension; hyaline wings; yellowish brown legs; abdomen with posterior margin with pruinescence and white hair with the aspect of narrow bands; cerci dorsally visible.

Keywords: Diptera. *Stenotabanus clavijoi* n.sp. Tabanidae. Venezuela.

Resumo: *Stenotabanus (Stenotabanus) clavijoi* sp.n. é descrita com base em duas fêmeas coletadas nos estados de Aragua e Táchira, Venezuela. Esta é 59^a espécie do subgênero *Stenotabanus* e a terceira da Venezuela. Os caracteres diagnósticos são: espécie grande em relação a outras do subgênero; dorso do corpo marrom-escuro a preto e ventre com pruinescência e pilosidade claras; fronte com calo inflado quadrado, marrom-escuro a preto, brilhante, com uma extensão superior; asas hialinas; pernas marrom-amareladas; margens posteriores dos esternitos com pruinescência e pilosidade brancas, como bandas estreitas; cercos visíveis dorsalmente.

Palavras-chave: Diptera. *Stenotabanus clavijoi* sp.n. Tabanidae. Venezuela.

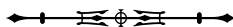
GORAYEB, I. S., Z. T. GÓMEZ & M. V. RÍOS, 2013. Description of a new species of *Stenotabanus* from Venezuela (Diptera: Tabanidae). **Boletim do Museu Paraense Emílio Goeldi. Ciências Naturais** 8(1): 41-47.

Autor para correspondência: Inocência de Sousa Gorayeb, Museu Paraense Emílio Goeldi/MCTI. Coordenação de Zoologia. Seção de Entomologia. Av. Perimetral, 1901 – Terra Firme. Belém, PA, Brasil. CEP 66017-970 (gorayeb@museu-goeldi.br).

Recebido em 06/06/2012

Aprovado em 24/04/2013

Responsabilidade editorial: Marinus Hoogmoed



INTRODUCTION

The genus *Stenotabanus* Lutz, 1913 includes bloodsucking horseflies that are found in tropical and subtropical areas and rarely in the lowland areas of Neotropics, with few species reaching the southern United States of America (Chainey *et al.*, 1999).

Fairchild (1969) considered the following characters to characterize the genus *Stenotabanus* in the tribe Diachlorini: eyes with two straight bands, wide frons moderate to large, frontal callus not ridge-shaped and usually as wide as frons. He recognized and provided a key to seven subgenera: *Aegialomyia* Philip 1941, *Brachytabanus* Fairchild 1942, *Cretotabanus* Fairchild 1969, *Melanotabanus* Lutz & Neiva, 1914, *Phorcotabanus* Fairchild 1961, *Stenochlorops* Fairchild 1969, *Stenotabanus* Lutz 1913. Fairchild & Burger (1994) included 92 species in the genus *Stenotabanus* belonging to these seven subgenera, but raised *Phorcotabanus* to genus level and erected a new the subgenus *Wilkersonia* Fairchild & Burger, 1994. They included 59 species in the subgenus *Stenotabanus*. However, Coscarón & Papavero (2009) included 94 species in this genus as follows: 24 in *Aegialomyia*, three in *Brachytabanus*, one in *Cretotabanus*, two in *Melanotabanus*, five in *Stenochlorops*, 58 in *Stenotabanus* and one in *Wilkersonia*.

The subgenus *Stenotabanus* is the largest in South America with most species occurring in wet and dry forests of low altitude (though they seem to be missing in much of Central Amazonia), with one species occurring in the lowland area of the Andes (Chainey *et al.*, 1999). These authors mentioned the following morphological characteristics: abdominal patterns ranging from a pale median stripe to pale bands, most species have a median dark brown spot at the frons, ocelli vestigial, notopleura with a dark brown stripe, many have a distinct brown subantennal band; clypeus and parafacialia tomentose, frontal callus reaching the base of the frons and presenting a median dorsal extension, mesonotum and scutellum with a mixture of recumbent shining green hairs, yellow or white and black short erect hairs. These authors also reported

that small *Tabanus* (*T. occidentalis* L., 1758 and *T. trivittatus* Fabricius, 1805) with band on eyes, thorax with bright green hairs and median pale stripe, are similar to *Stenotabanus* (*Stenotabanus*) but can be easily distinguished by the different frons and haired basicosta. Chainey *et al.* (1999) presented a guide to identify the South American species with 25 species drawn of the subgenus *Stenotabanus*, of which only two occur in Venezuela: *S. (S.) maculifrons* (Hine, 1907) and *S. (S.) obscurus* Kröber, 1929. Thus, *Stenotabanus (Stenotabanus) clavijoi* n.sp. is the 59th species of the subgenus and the third one record from Venezuela.

The terminology of adult morphology follows McAlpine (1981).

TAXONOMY

STENOTABANUS (STENOTABANUS) CLAVIJOI N.SP (FIGURES 1-2)

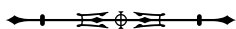
Holotype female. Venezuela, Aragua: El Limón (10° 18' 14.79" N; 67° 34' 0.44" W); 450 m, en la luz; 15-V-1979, leg. J. Clavijo (deposited in the "Museo del Instituto de Zoología Agrícola, Universidad Central de Venezuela").

Paratype female. Venezuela, Táchira: Rio Frio (7° 54' 49.32" N; 72° 8' 29.81" W); 600 m, 2-10-IX-1981, leg. F. Fernández Y., J. Clavijo, A. Chacon (deposited in the "Museu Paraense Emílio Goeldi, Belém, Pará, Brazil").

Diagnosis – Large species in relation to other species of the subgenus *Stenotabanus*. Dorsal surface dark brown to black. Ventral surface with pruinescence and setae white. Frons with shining dark brown to black swollen basal callus. Frons with a large, conspicuous median spot, extending from the callus to the region of the vestigial ocelli. Ocellar tubercle absent. Wings hyaline. Posterior margin of abdomen with pruinescence and narrow bands of white hair. Cerci visible dorsally.

Description of female

Body length 10.8 mm (10.5-10.8) (n = 2). Length of the wing 8.7 mm (8.7-9.7), width of the wing 2.7 mm (2.7-2.9). Frons:



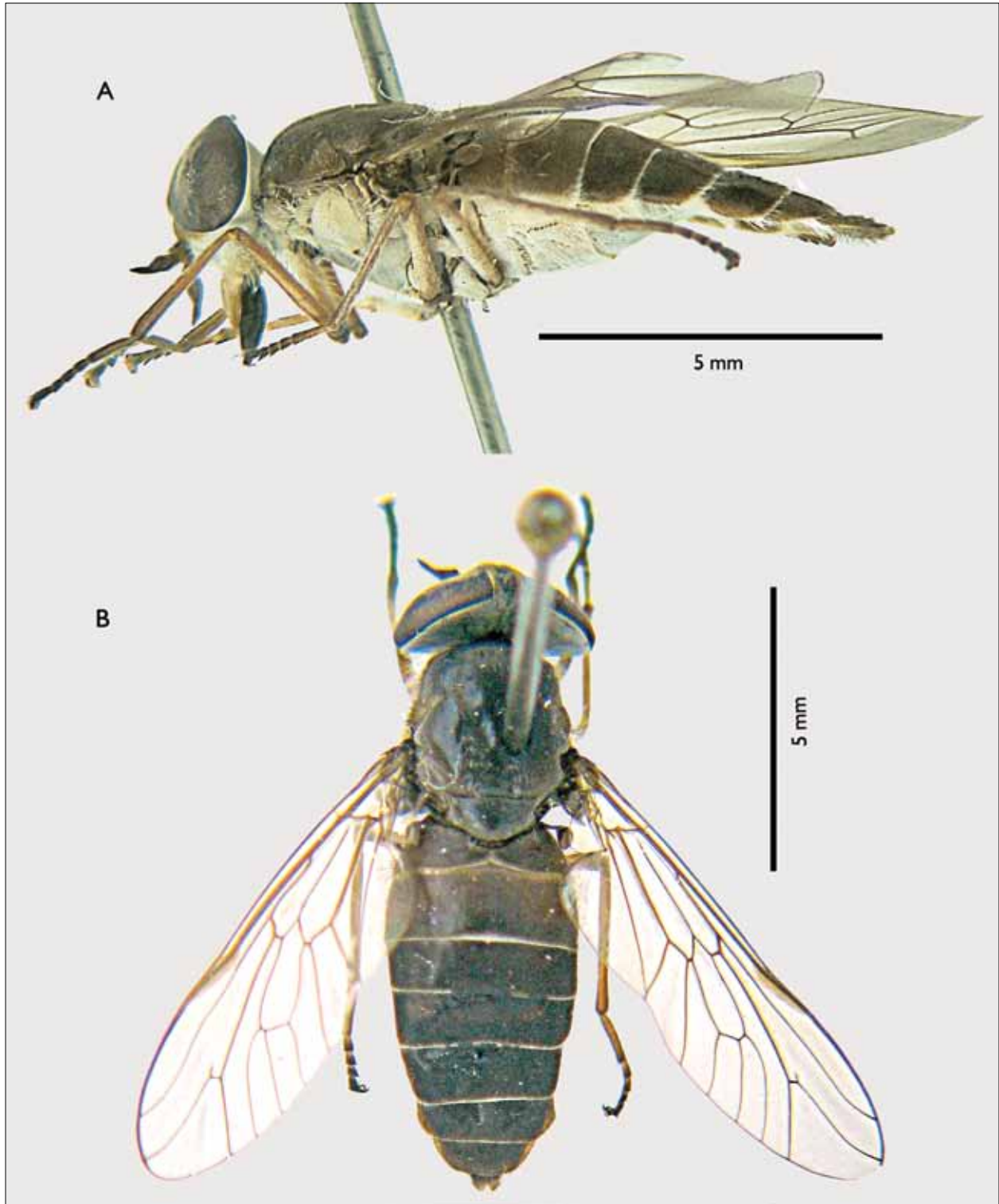


Figure 1. *Stenotabanus (Stenotabanus) clavijoi* n.sp. A) body, lateral view; B) body, dorsal view.

height of the frons 1.5 mm (1.5-1.6); width of the vertex 0.6 mm; width of the base 0.4 mm; frontal index 3.3 (3.3-3.7); divergence index 1.2 (1.2-1.4).

Head – Eyes bare with two bands (Figures 2A, 2B). Basal callus square-shaped, swollen, shining dark brown to black (Figure 2C); frons with a large dark median spot, extending from the callus to the vestigial ocelli. Vertex with a depression, without ocellar tubercle and with few hairs and a shining dark brown spot encircling ocelli; the rest of the frons up to the margin of the eyes, between the callus and the medial spot of the vertices with yellow pruinescence and black sparse setae. Subcallus and parafacialia, from the margin of the eyes to the region comprising the ventral gena with yellowish brown pruinescence, the remainder of the parafacial, clypeus and gena with white pruinescence. Clypeus and parafacial with dark setae, with few white hairs close to the ventral gena. Antennal scape and pedicel (Figures 2A, 2D) yellowish brown with black hairs; basal plate and stylus dark brown. First palpomere (Figures 2A, 2B, 2E) with sparse yellow pruinescence and white hairs; second palpomere with yellow pruinescence and dark brown pilosity and some white hairs at the base. Occiput with white pruinescence and dark brown setae at the eyes margin.

Thorax – Mesonotum and scutellum dark brown to black with faint whitish gray pruinescence that can be seen from some angles, which are arranged sublateral stripes; with dark brown and white hairs at the lateral and posterior margin; laterals margins, including the postpronotal lobe and notopleural lobes with yellow pruinescence. Postpronotal lobe with pale white hairs, notopleural lobe with dark brown hairs. Scutellum dark brown to black with dark brown and white hairs. Mesonotum and scutellum with dark brown and some white short hairs. Pleura with white pruinescence except on the upper part (anepisternum, anepimeron, anatergite and katatergite) where it is yellowish; tegument dark brown and setae white at all ventral part of the pleura (lower half katepisternum,

katepimeron and metakatepisternum). Legs: coxae with whitish yellow pruinescence and white setae; apices of the coxae and trochanters dark brown; hind trochanter differently coloured with light brown; all femura yellow with white pruinescence and sparse black hairs in the hind femur. Tibia yellow with white hairs and pruinescence and with dark brown hairs. Tarso yellow to dark brown with dark brown pilosity; first tarsomere of fore and mid legs with some white hairs. Wing (Figure 1B) hyaline with brown stigma; appendix at fork of vein R_{4+5} present (Figure 1B); calypter and halter brown; halter yellow at the base with yellowish brown pruinescence at apex.

Abdomen – Tergites dark brown to black with black pilosity, covered with slightly whitish gray pruinescence when viewed from some angles; lateral and posterior margin with white pruinescence; tergite 7 with faint pruinescence. Tergite 1 with white hairs close to scutellum and in the lateral margin of tergites 1-6. Sternites yellow with white hairs and white pruinescence; sternites 5-6 darker with white pruinescence; mid area of sternite 6 and sternite 7 with dark hairs. Cerci viewed dorsally, dark brown.

Male – unknown.

Etymology

The scientific name is a tribute to Jose Alejandro Clavijo Albertos for his contribution to neotropical systematics and the promotion of exchange between experts.

DISCUSSION

The species described here, *Stenotabanus (Stenotabanus) clavijoi* n.sp., will follow the key Chainey *et al.* (1999) to the couplet 26 of *S. (S.) penai* Chainey, 1999. Differs from *S. penai* in the following characters: narrower frontal index, 3.3-3.7 (wider in *S. penai*, 2.7-3.4); divergent index 1.2 (almost parallel sided in *S. penai*); the median dark spot on the frons is large and conspicuous (absent in *S. penai*); the subantennal band is not evident (brownish visible on lower margin of subcallus in *S. penai*); the legs are yellowish brown (fore coxae black-brown overlain basally with dense, long

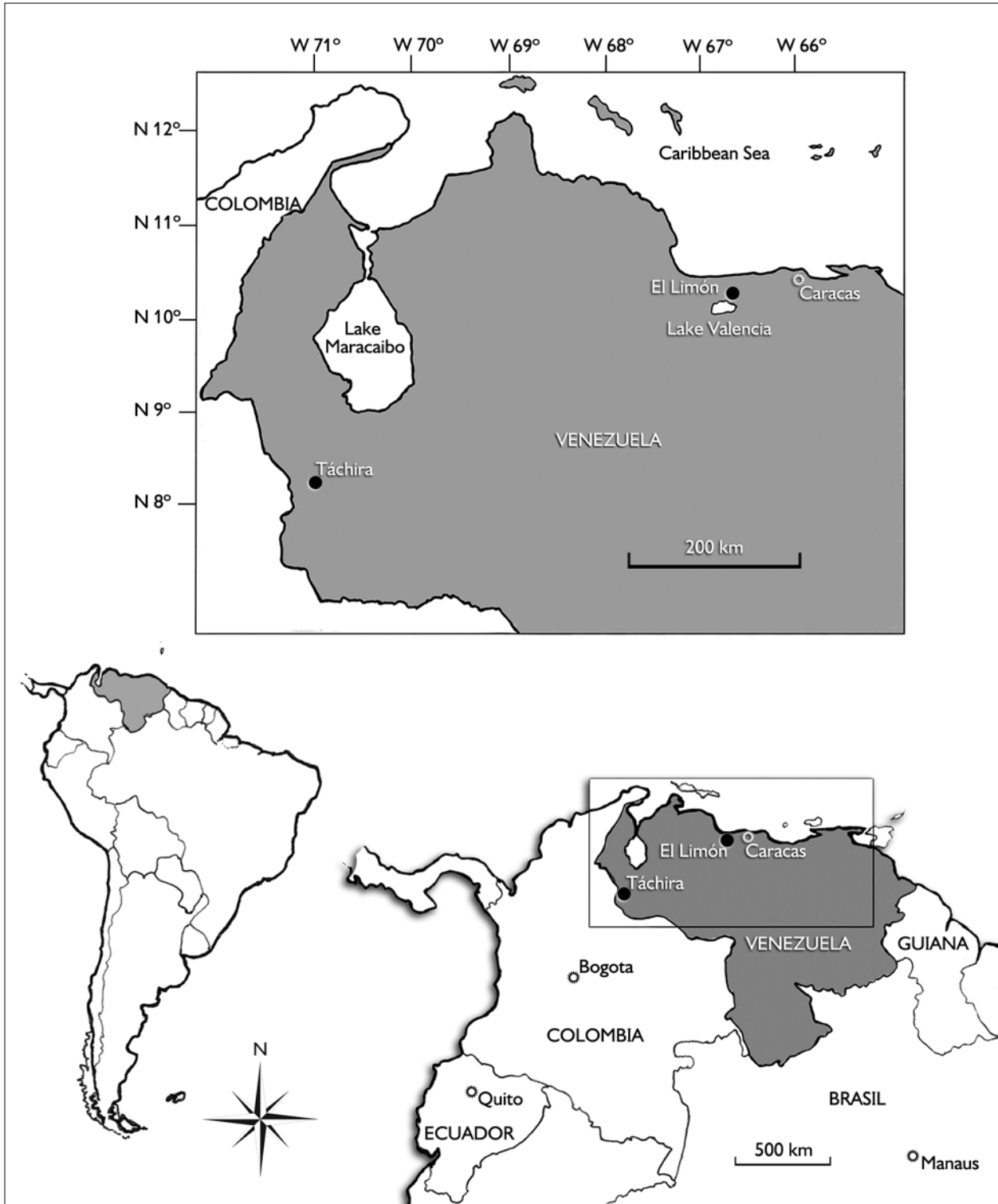


Figure 3. Map of two collection points *Stenotabanus* (*Stenotabanus*) *clavijoi* n.sp. (black circles).



pale yellowish hairs, femora black-brown, tibiae whitish with dark tips – apical half of fore tibiae, tarsi black, in *S. penai*); the tergites only with the rear bands (tergite 1 light grey with whitish hind-margin, rest of tergites black-brown with conspicuous pale hind-margin that expands into a shallow median triangle, in *S. penai*); geographical distribution Venezuela, Aragua and Táchira (Figure 3) (Peru, Madre de Dios for *S. penai*).

According to Chainey *et al.* (1999) the two species of the subgenus which were known to occur in Venezuela are *S. (S.) maculifrons* (Hine) and *S. (S.) obscurus* Kröber. *S. maculifrons* are well differentiated from *S. clavijoi* by having the scutellum conspicuously pale yellowish-gray posteriorly. *S. obscurus* has a narrow (index greater than 4) frons, fore-tibiae distinctly bicoloured, elongate triangles on tergite 2, venter dark reddish with pale hind-and lateral margins, rarely in bold contrast with dorsum.

REFERENCES

- CHAINÉY, J. E., M. J. R. HALL & I. S. GORAYEB, 1999. *Stenotabanus* Lutz (Diptera: Tabanidae): an identification guide to the South American species. In: J. F. BURGER (Ed.): **Contributions to the knowledge of Diptera**: a collection of articles on diptera commemorating the life and work of Graham B. Fairchild: 75-134. Associated Publishers (Memoirs on Entomology International, 14), Gainesville.
- COSCARÓN, S. & N. PAPAVERO, 2009. Catalogue of Neotropical Diptera. Tabanidae. **Neotropical Diptera** 16: 1-199.
- FAIRCHILD, G. B., 1969. Notes on Neotropical Tabanidae XII: classification and distribution, with keys to genera and subgenera. **Arquivos de Zoologia** 17(4): 199-255.
- FAIRCHILD, G. B. & F. J. BURGER, 1994. A catalog of the Tabanidae (Diptera) of the America south of the United States. **Memoirs of the American Entomological Institute** 55: 1-249.
- MCALPINE, J. F., 1981. Morphology and terminology. In: J. F. MCALPINE, B. V. PETERSON, G. E. SHEWELL, H. J. TESKEY, J. R. VOCKEROTH & D. M. WOOD (Eds.): **Manual of Nearctic Diptera**: v. 1: 9-63. Agriculture Canada Monograph, Ottawa.

