Spinelli & Wirth: Neotropical Phaenobezzia

Rolston (1983). *Acrosternum istum* does seem to be related to *A. marginatum*, as the female genitalia are similar in both species; the basal plates have a posterolateral projection. The male genitalia, however, are distinctive, and in both sexes the dorsal punctuation is much less dense in *A. istum* than in *A. marginatum*. The holotype specimen of *A. istum* was examined.

The Panama specimens were collected while beating and sweeping plants in the family Convolvulaceae.

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References Cited


THE NEOtROPICAL SPECIES OF PHAENOBEZZIA (DIPTERA: CERATOPOGONIDAE)

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Abstract

The genus *Phaenobezzia* Haeselbarth is recorded for the first time from the Neotropical Region, and a key is given for the 3 Neotropical species: *P. fulvithorax* (Malloch) from northern Mexico, *P. astyla* n. sp. from Colombia (type locality) and Ecuador, and *P. maya* n. sp. from Belize (type locality) and ranging from southern Texas to Panama.

Resumen

Se cita por primera vez al género *Phaenobezzia* Haeselbarth para la Región Neotropical, y se ofrece una clave para la identificación de las 3 especies Neotropicales: *P. fulvithorax* (Malloch) para el Norte de México, *P. astyla* n. sp. para Colombia (localidad tipo) y Ecuador, y *P. maya* n. sp. para Belice (localidad tipo), registrándose esta última desde el Sur de Texas hasta Panamá.
Haeselbarth (1965) proposed the genus *Phaenobezzia* for *Probezzia pista* Ingram and Macie (type-species) and 11 other African species. Remm (1974) considered *Phaenobezzia* to be a subgenus of *Bezzia* Kieffer and included 1 species *R. rubiginosa* (Winnertz), in the fauna of the USSR. Wirth did not record the genus (or subgenus) in his catalog of the Oriental (1973) and Neotropical (1974) Regions. More recently, Wirth & Ratanaworhaban (1981) gave a key to 5 species occurring in Southeast Asia and Wirth & Grogan (1982) revised the 5 North American species. The purpose of this paper is to record the genus for the 1st time from the Neotropical Region with the description of 2 new species, and to record a North American species from Mexico.

Good diagnoses of the genus *Phaenobezzia* may be found in the papers by Haeselbarth (1965), Wirth & Ratanaworhaban (1981) and Wirth & Grogan (1982). For general terminology of the Ceratopogonidae see Wirth et al. (1977) and Downes and Wirth (1981). The holotypes of our new species and most of the paratypes are deposited in the National Museum of Natural History in Washington, D.C. Paratypes will be deposited in the following collections: British Museum (Natural History), London; Canadian National Collection, Agriculture Canada, Ottawa; Florida State Collection of Arthropods, Florida Department of Agriculture, Gainesville, Florida; Museo de La Plata, La Plata, Argentina; and Museo de Zoológia, Universidade de São Paulo, São Paulo, Brazil.

**Key to the Neotropical Species of Phaenobezzia Haeselbarth**

1. Females

   - Males

2. Eyes broadly separated, by diameter of 5-6 ommatidial facets; apex of last flagellar segment bluntly rounded, not tapering

   - Eyes narrowly to moderately separated, by diameter of 1-3 ommatidial facets; apex of last flagellar segment tapering

3. Antenna short, segment 11 1.5 as long as segment 10, antennal ratio 1.08;

   - Antenna elongated, segment 11 1.4 as long as segment 10, antennal ratio 1.00;

4. Eyes broadly separated, by diameter of 5-6 facets

   - Eyes narrowly to moderately separated, by diameter of 1-3 facets

5. Dististyle absent; sensilla chaetica forming the antennal plumule stout

   - Dististyle present but reduced; sensilla chaetica forming the antennal plumule slender

**Phaenobezzia astyla** n. sp.

(Fig. 1)

*Female.* Wing length 2.02 (1.81-2.21, n = 10) mm; breadth 0.70 (0.59-0.79, n = 10) mm.

Head: Brownish, eyes separated for a distance equal to diameter of 1 ommatidial facet. Antenna (Fig. 1a) relatively long and slender, entirely brownish; lengths of flagellar segments in proportion of 17:14:14-14:14-14:14-14:16-22-22-22-30; length of segment 11, 1.4 x length of segment 10; antennal ratio 1.00 (0.99-1.03, n = 10); apex of last segment tapering. Palpus (Fig. 1b) with lengths of segments in proportion of 5:10-14:8:10; palpal ratio 3.00 (2.80-3.25, n = 10); 3rd segment with scattered sensilla. Mandible with 6-7 teeth.

Thorax: Brownish, mesonotum without anterior spine. Legs yellowish, knees darkish. Ventral palisade setae absent on foretarsus, in 1 row on tarsomeres 1 and 2 on mid
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**Fig. 1.** *Phaenobezzia astylus*: a-e, female; f-g, male. a, antenna; b, palpus; c, 4th and 5th tarsomeres and claws; d, wing; e, spermathecae; f, male genitalia, parameres omitted; g, parameres.

Leg and tarsomere 3 on hind leg, in 2 rows on tarsomeres 1 and 2 on hind leg; 5th tarsomere (Fig. 1c) with 3-7 pairs of strong, long, sharp-pointed ventral spines; hind tarsal ratio 2.50 (2.35-2.55, n = 10); claws not very curved, each with internal basal tooth. Wing (Fig. 1d) slightly infuscated, with costa extending to 0.88 (0.87-0.89, n = 10) of total length; venation as figured. Halter brownish.

Abdomen: Brownish; 5 pairs of well-sclerotized gland rods; spermathecae (Fig. 1e) ovoid with short necks; unequal, measuring 0.76 by 0.053 mm, and 0.053 by 0.041 mm; rudimentary 3rd spermatheca present.

**Male.**—Wing length 1.22 mm; breadth 0.43 mm; costal ratio 0.80. Similar to female with usual sexual differences; antenna with lengths of flagellar segments in proportion of 18-15-13-12-12-12-11-14-15-15-17-26; antennal ratio (12-15/3-11) 0.60; plume formed by strong sensilla chaetica. Genitalia as figured (Fig. 1f); basistyle short and stout; dististyle absent. Aedeagus with broad basal arch extending to 0.4 of total length, basal arms slender, distal portion tapering to slender process with expanded, capitulate tip. Parameres (Fig. 1g) with caudal process long, dorsally bent at apex.

**Distribution:** Colombia, Ecuador.


Discussion: This species can be distinguished from the other Neotropical species by the large number of ventral spines on the 5th tarsomere in the female, and by the stout sensilla chaetica in the male antennal phalme, as well as the absence of dististyle in the male genitalia.

**Phaenobezzia fulvithorax** (Malloch)


*Phaenobezzia fulvithorax* (Malloch); Wirth and Grogan, 1982: 185 (redescribed; combination; distribution).


**Phaenobezzia maya** n. sp.

(Fig. 2)

Female. Wing length 2.00 (1.75-2.45, n=10) mm; breadth 0.71 (0.63-0.83, n=10) mm.

Head: Dark brown, eyes separated for a distance equal to diameter of 2-3 ommatidial facets. Antenna short (Fig. 2a), dark brown, narrow bases of flagellar segments paler (entirely dark brown in some specimens); lengths of flagellar segments in proportion of 20-13-12-12-12-12-14-23-24-24-26; segment 11, 1.5 as long as 10; antennal ratio 1.08 (0.96-1.18, n=10); apex of last segment tapering. Palpus (Fig. 2b) with lengths of segments in proportion of 6-10-16-10-10; palpal ratio 2.88 (2.65-3.20, n=10); 3rd segment with sensilla. Mandible with 7-8 teeth.

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Fig. 2. Phaenobezzia maya; a-e, female; f-g, male; a, antenna; b, palpus; c, 4th and 5th tarsomeres and claws; d, wing; e, spermathecae; f, male genitalla, parameres omitted; b, parameres.
Thorax: Brownish to dark brown, mesonotum with a very short, blunt, anterior spine (not visible in the holotype). Legs yellowish brown, knees darkish, hind tibia slightly infuscated in some specimens. Ventral palisade setae sparse on tarsomeres 1-3 on mid leg, dense on tarsomeres 1-3 on hind leg; 5th tarsomere (Fig. 2c) on all legs with 4-5 pairs of strong, sharp-pointed ventral spines; hind tarsal ratio 2.50 (2.30-2.65, n=10); claws moderately long and curved, each with internal basal tooth. Wing (Fig. 2d) slightly infuscated, with costa extending to 0.85 (0.84-0.87, n=10); of total length; venation as figure. Halter brown.

Abdomen: Brownish to dark brown; 5 pairs of dorsal gland rods, but only the posterior pair and the anterior margin of the tergum on which they are borne sclerotized dark brownish to blackish; spermathecae (Fig. 2e) ovoid with slender and short necks; unequal, measuring 0.064 by 0.053 mm, and 0.049 by 0.041 mm; rudimentary 3rd present.

*Male*. Wing length 0.97 mm; breadth 0.34 mm; costal ratio 0.72. Similar to female with usual sexual differences; antenna with lengths of flagellar segments in proportion of 14-10-9-9-8-8-10-12-13-15-18-24; antennal ratio (12-15/3-11) 0.79; plume formed by slender sensilla chaetica. Genitalia (Fig. 2f) as figured; basistyle short and stout, length equal to basal breadth; dististyle about 0.5 as long as basistyle. Aedeagus with broad basal arch extending to 0.33 of total length, basal arms slender and well sclerotized, distal portion with stout tip. Parameres (Fig. 2g) with basal arms elongated, well sclerotized and directed mostly cephalad; caudal process long and slender, slightly expanded distally, with somewhat pointed tip.

*Distribution*: Belize, Costa Rica, El Salvador, Honduras, Mexico, Panama, U. S. A (Texas).


*Discussion*: This species is closely related to the Neartic species *P. opaca* (Loew), from which it can be distinguished by the shorter antenna (antennal ratio 1.08 in *P. maya*, 1.82 in *P. opaca*), by the presence of 4-5 stout bristlelike setae on 5th tarsomere (3-4 in *P. opaca*), and by the stout tip of the aedeagus.

The species is named for the Mayan Indians, early inhabitants of the area of the type locality.

*References Cited*

PHANEROTA CUBENSIS AND PHANEROTA BRUNNESSA
N. SP., WITH A KEY TO THE SPECIES OF PHANEROTA
OCcurring IN Florida (Coleoptera: Staphylinidae)

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Abstract

Phanerota cubensis Casey, previously known only from Cuba, is reported from Florida, and a new species, Phanerota brunnessa n. sp., is described and illustrations of distinctive features are provided. A key for identification of the 5 species of Phanerota occurring in Florida is provided, and diagnostic characteristics of the species are discussed. Species of Phanerota can be distinguished primarily by differences in color pattern, sculpture and secondary sexual characteristics of males. Structure of the male copulatory organ is very similar among species and offers unreliable distinguishing characteristics for some species. Similarity in sexual form among Phanerota species, in contrast to the interspecific diversity of form among other gyrophaenine staphylinids, suggests that study of these groups may provide insight into evolution of isolating mechanisms among species.

Resume

Phanerota cubensis Casey, previamente conocida solo de Cuba, se reporta en la Florida, y una nueva especie, Phanerota brunnessa n. sp., es descrita y se proveen