

## A NEW SPECIES OF *BOETTCHERIA* (DIPTERA: SARCOPHAGIDAE) FROM THE DOMINICAN REPUBLIC

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*Boettcheria solo* sp. n. from the Dominican Republic is described and it is argued that its most probable sister group is *B. parkeri* Aldrich, 1916 from Jamaica. *Boettcheria Parker, 1914* is briefly diagnosed and a list of included species is provided.

Key words: *Boettcheria solo* sp. n. - Sarcophagidae - Dominican Republic

Extensive sorting of New World Sarcophagidae from the collections of Florida State Collection of Arthropods, Gainesville (FSCA), revealed a specimen of an undescribed species of *Boettcheria* Parker, 1914. I take this opportunity to describe and name it, and for the convenience of the user, a list of all species presently included in *Boettcheria* is given.

Descriptive terminology follows that used in Pape (1989).

*Boettcheria solo* sp. n.  
Figs 1-4.

**Etymology.** The species epithet is an acronym formed from the first letters in Souza Lopes, to whom the species is dedicated.

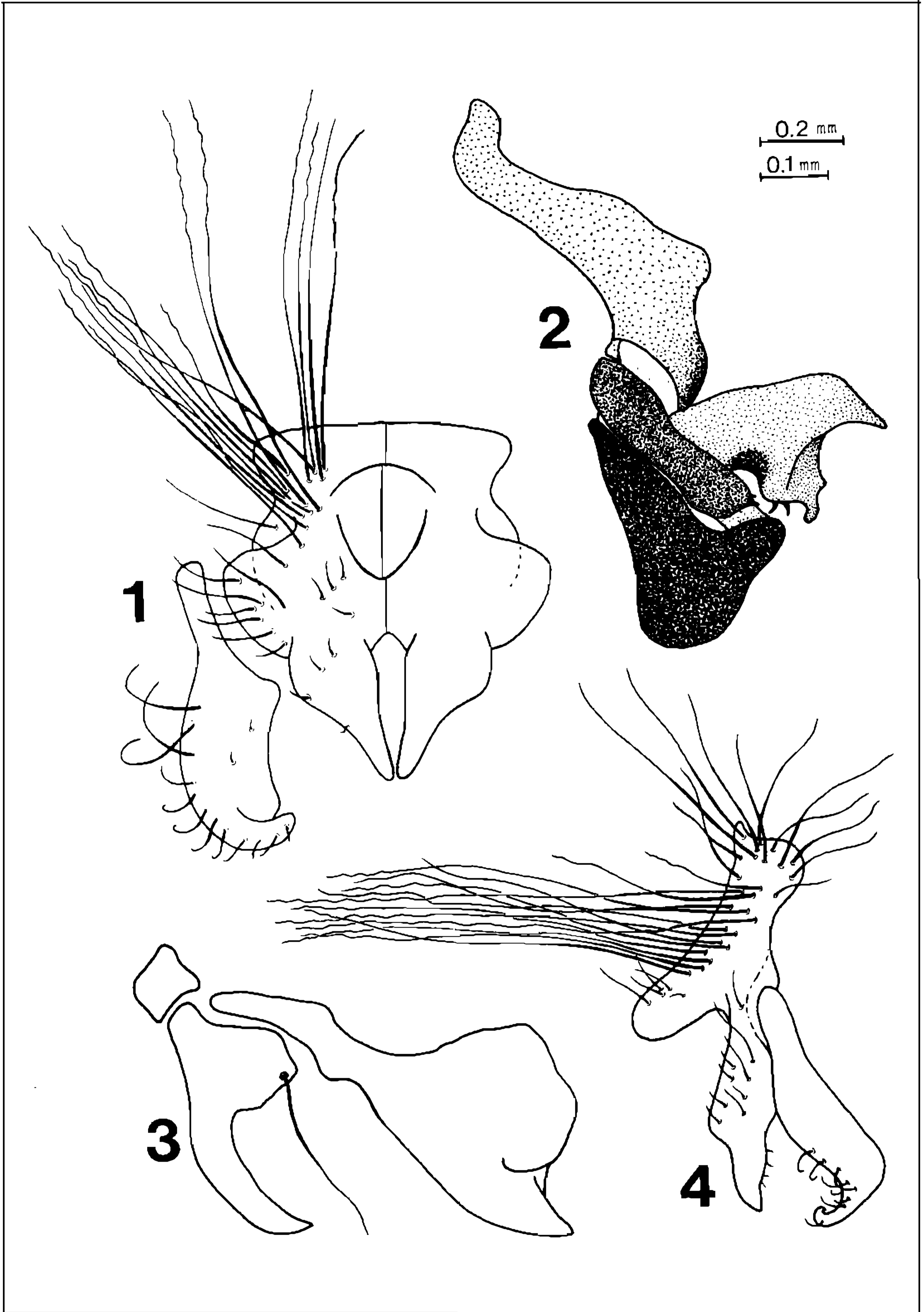
**Type material.** Holotype ♂, DOMINICAN REPUBLIC: Province El Seibo, 29.v.1985, L. Stange & R. Woodruff. The holotype is deposited in Florida State Collection of Arthropods, Gainesville, USA.

### Description.

**MALE.** *Head* - Golden microtomentose on fronto-orbital plate, parafacial plate, anterior part of gena and strip between posterior eye-margin and postocular setae. Postcranium greyish microtomentose. Narrowest part of frons 0.15 X head width. Inner vertical bristle well developed, outer vertical bristle small but stronger than adjacent postoculars; reclinate prevertical bristle present. Ocellar bristles distinctly weaker than weakest frontals. Parafacial plate with two bristly setae ventrally close to genal groove, otherwise bare. Postgena

with black setae in about anterior 0.7 (strict lateral view), white postcranial setae being restricted to posterior part of postgena and area around occipital foramen. *Thorax* - Proanepisternum bare. Chaetotaxy: acrostichals = 3 (much weaker than the dorsocentrals) + 1 (prescutellar, barely differentiated from other setae), dorsocentrals = 4 (anterior 2 weak) + 3, intra-alars = 1 + 2 (the first postsutural at most half the size of the second), postalars = 1 + 3, supra-alars = 2. Scutellum with two marginals plus some additional bristly setae close to posteriormost marginal, a pair of medium sized discals and weak apicals. *Wing* - Costal spine not differentiated. Ventral surface of costa setulose to a point just distal of junction with vein  $r_1$ . Lower calypter with a fumose discal spot. *Legs* - Mid femur without a comb-like apical row of posteroventral spines. Hind trochanter with a pad of short, spiny antero-median bristles and a row of 5-6 postero-median spines. Hind tibia with elongated posteroventral setae. *Abdomen* - Groundcolour all black, silvery grey microtomentum forming the usual pattern. Tergites 1+2 - 3 without median marginal bristles, tergite 4 with a pair of weak median marginals, tergite 5 with a complete row of marginal bristles. *Terminalia* - Reddish. Each cercal base with a tuft of long dense setae, cercal bases prolonged into a median blunt process that slants backwards (posteriorly) and downwards. Surstylus with distal part curved into a curl or hook (lateral view). Aedeagus compact and densely sclerotized. Juxta domeshaped and bilobed, vesica with an anteriorly directed beak-like projection.

Length. 11.0 mm (estimated from dissected holotype).



Figs. 1-4. *Boettcheria solo*, male terminalia. Fig. 1: cerci and left surstylus, posterior view. Setosity of right cercus omitted. Fig. 2: aedeagus, lateral view. Fig. 3: right paramere and gonopod, lateral view. Fig. 4: right cercus and surstylus, lateral view. Scales: Figs 1, 4 = upper bar; Figs 2, 3 = lower bar.

Female. Unknown.

Remarks. The terminalia of *B. solo* and *B. parkeri* Aldrich, 1916 share two character states that probably are apomorphic at the level of *Boettcheria*:

- 1) Cercal bases drawn out into an unpaired median process;
- 2) Each cercal base with a dense tuft of setae.

The first state is not found in any other species of *Boettcheria* and thus presents evidence of a sister group relationship between these two species. The second state is also found in *B. taurus* (Aldrich, 1916) and *B. calceata* (Dodge, 1967), suggesting that these four species constitute a monophyletic group.

#### Genus *Boettcheria*

*Boettcheria* Parker, 1914: 65. Type species: *Boettcheria latisterna* Parker, 1914, by original designation.

*Melanophyto* Townsend, 1916: 304. Type species: *Melanophyto maerens* Townsend, 1916, by original designation.

*Parasarcodexia* Townsend, 1917: 192. Type species: *Sarcophaga parkeri* Aldrich, 1916, by original designation.

*Winthemiola* Dodge, 1967: 126. Type species: *Winthemiola calceata* Dodge, 1967, by original designation.

*arnaudi* Lopes, 1950: 692. Peru, Junín, Chanchamayo.

*aurifera* Lopes, 1950: 690. Brazil, Santa Catarina, Nova Teutonia.

*bisetosa* Parker, 1914: 69. USA: New York, Vermont, Massachusetts.

*calceata* (Dodge, 1967: 127) (*Winthemiola*). Brazil.

*cimbicis* (Townsend, 1892: 126) (*Sarcophaga*). USA, South Dakota.

*cubana* Lopes, 1950: 697. Cuba, Oriente, Guaro Dam.

*dentata* Dodge, 1966: 677. El Salvador, Cerro Verde.

*elegans* Lopes, 1975: 484. Dominican Republic, Trafalgar Falls.

*holmani* Rohdendorf, 1971: 108. Cuba, Habana, Habana-Marianao.

*latisterna* Parker, 1914: 67. USA, Vermont.  
*irrisoris* (Reinhard, 1952: 142) (*Sarcophaga latisterna* ssp.). USA, Texas.

*litorosa* (Reinhard, 1947: 115) (*Sarcophaga*). USA: California, Sequoia National Park.

*carata* Roback, 1952: 48. USA, California, Monterey Co.

*maerens* (Townsend, 1916: 304) (*Melanophyto*). Mexico, Mexico City.

*marstoni* Dodge, 1966: 677. Brazil, Rio de Janeiro, Guanabara.

*mexicana* Lopes, 1950: 702. Mexico, Bosencheve.

*mundelli* Blanchard, 1939: 825. Argentina, Tucuman.

*parkeri* (Aldrich, 1916: 78) (*Sarcophaga*). Jamaica.

*parkeriana* Lopes, 1976: 74. Mexico, Oaxaca, 19 km W Rizo de Oro Ridge, S. Cerro Baul.

*peruviana* Lopes, 1950: 691. Peru, Junín, Chanchamayo.

*praevolans* (Wulp, 1896: 275) (*Sarcophaga*). Mexico, Guerrero.

*siccana* (Reinhard, 1947: 117) (*Sarcophaga*). USA, Arizona.

*pyrrhopyga* (Hall, 1933: 265) (*Sarcophaga*). Panama, Canal Zone, Barro Colorado I.

*retroversa* (Lopes, 1935: 44) (*Sarcophaga*). Brazil. Rio de Janeiro, Corcovado.

*similis* Lopes, 1946: 126. Mexico, Cuernavaca.

*solo* Pape, 1990. Dominican Republic, Province El Seibo.

*taurus* (Aldrich, 1916: 82) (*Sarcophaga*). Puerto Rico, Naguabo.

The genus *Boettcheria*, as outlined above, may be effectively diagnosed within the Sarcophaginae by reference to the following four character states:

1. Ventral surface of costal vein setulose from base to or beyond junction with vein  $r_1$ .
2. Hind trochanter of both sexes with a row of short spines on posteromedian surface.
3. Hind trochanter in males with a pad of spines or spiny bristles on anteromedian surface.
4. Aedeagus with three separate styli.

Note that although this combination of states will separate the genus from other members of the subfamily, it does not provide convincing evidence for the monophyly of *Boettcheria*. These states are not mentioned in the original description of the monotypic *Boettcheriodes* Lopes, 1988, and may thus be present, in which case this genus should be considered a junior synonym of *Boettcheria*. The genus *Emdenimyia* Lopes, 1946 possesses all but the last character state, and as this may be plesiomorphic at the level of *Boettcheria*, the possibility remains that *Boettcheria* is para-

phyletic with regard to *Emdenimyia*. For the present, however, I prefer to maintain *Boettcheria* in its current state, awaiting a more elaborate generic analysis of all of the Sarcophaginae.

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