

A New Species of *Silba* (Diptera, Lonchaeidae) from Puerto Rico¹

José I. Romero S. and Robert F. Ruppel²

INTRODUCTION

The genus *Silba* (Diptera, Lonchaeidae) is composed of about 60 known species distributed in the tropics and subtropics. The known species are predominately Oriental and Ethiopian; only a few have been described from the Neotropical Region. The species are rather poorly known although many are agricultural pests.

The genus was last reviewed by Bezzi (1) and the Old World species were revised more recently by McAlpine (6,7). The Neotropical species were reviewed only partially by Malloch (5), Blanchard (2) and Hennig (4), thus in need of thorough revision.

One of the species of *Silba*, identified tentatively as *Lonchaea chalybea* Wiedemann (8), was studied by the senior author as a pest of manioc (*Manihot esculenta* Crantz) in Puerto Rico (Romero, unpublished M.S. thesis, University of Puerto Rico, Mayagüez Campus). It attacks tips of manioc (yuca) plants and is known in Puerto Rico and other West Indies islands as *Lonchaea chalybea* or by the common name "la centella de la yuca," Wolcott (9). Identification of this species was questioned by Dr. J. F. McAlpine (personal correspondence) who pointed out that it closely resembles but is distinct from *S. batesi* Curran (3).

This new West Indian species is described from Puerto Rico in advance of a thorough generic revision for the purpose of providing a valid name for this economically important agricultural pest.

¹ Manuscript submitted to Editorial Board September 27, 1972.

² Professor of Biology, Bayamón Regional College, University of Puerto Rico and Professor of Entomology, Michigan State University, East Lansing, Mich. The authors are grateful to Dr. M. E. Pérez Escolar of the Department of Entomology, Agricultural Experiment Station, Río Piedras, P.R. for his enthusiastic cooperation and constructive criticism during the period of previous research. The species is named for him. We are also indebted to Mr. J. F. McAlpine, Entomology Division, Department of Agriculture, Ottawa, Canada; to Mr. G. Steyskal, Systematic Entomology Laboratory, Agricultural Research Service, U.S. Department of Agriculture, and to Mr. Silverio Medina Gaud, Department of Entomology, Agricultural Experiment Station, Río Piedras, P.R., for suggestions in helping clarify the taxonomic classification of the species.

DESCRIPTION OF SPECIES

Silba perezii n. sp.

The species most closely resembles *Silba batesi* Curran described from Guatemala but is distinguished from it as follows: General color shining black, *batesi* is black with a light bluish-green tinge; frontal lunule with 7 setulae on each side, *batesi* lacks these; *perezii* has 3 oral setulae, *batesi* only 1 or 2; *perezii* has 3 anterodorsal and 4 posterior bristles on mesopleuron, *batesi* 4 and 5, respectively; *perezii* calyptrae has 6 black hair-like bristles, *batesi* 5 large and thick ones.

MALE: Length about 5.50 mm. (from 4.70 to 6.20). Shining black throughout (except the basal portion of arista, and the lunule). Front a little longer than wide, sides nearly straight. Orbital bristles directed backward. Outer vertical bristles three-fourths length of inner vertical bristles. Two large interocellar bristles directed forward and longer than the inner ones. Lunule with 7 setulae on each side. Vibrissae longer than setulae of lunule but much shorter and weaker than orbital bristles, with 3 oral setulae above it. Antennae dark-brown, longer than the face; third segment about 4.5 times as long as wide. Arista plumose, light-brown basally, plumosity at widest about twice as long as the basal arista, and with apices bent toward main stem. Palpi wide, flat, almost as long as proboscis.

Mesonotum shining black with black bristles. Scutellum dark-brown, pollinose, each side with three and apex with 2 setulae between the long, strong apical scutellar bristles. Mesopleuron with 3 anterodorsal and 4 posterior bristles. No hairs behind sternopleural bristle. A pair of hairs between apical scutellars. Wings brown hyaline, base pale yellow; veins yellow on the basal half of wing, some of them wholly yellowish. Calyptrae and their fringes pale yellowish-white; cilia at inner side much longer than on outer side and with 6 black hair-like bristles. Halteres dark-brown.

Legs brownish-black; profemora with 3 rows of long posteroventral bristles, midfemora with single row.

Abdomen almost one and one-half longer than wide, shining black; sternites brown anteriorly. Hair black. Genitalia as shown in figure 1, A and B, with relatively small cerci; broad, well rounded and heart-shaped epandrium. Aedeagus rod-shaped, as long as surstylus. Posterior lobe of surstylus with a comb-like row of about 13-15 equal-sized black teeth. Spermatheca single (fig. 1, C), curved and wrinkled, with rounded folds on distal end, and corncob-shaped.

FEMALE: Resembling male in color and other general characters except as follows: shorter, mean length 5.20 mm. (from 4.40 to 5.90). Ovipositor (fig.

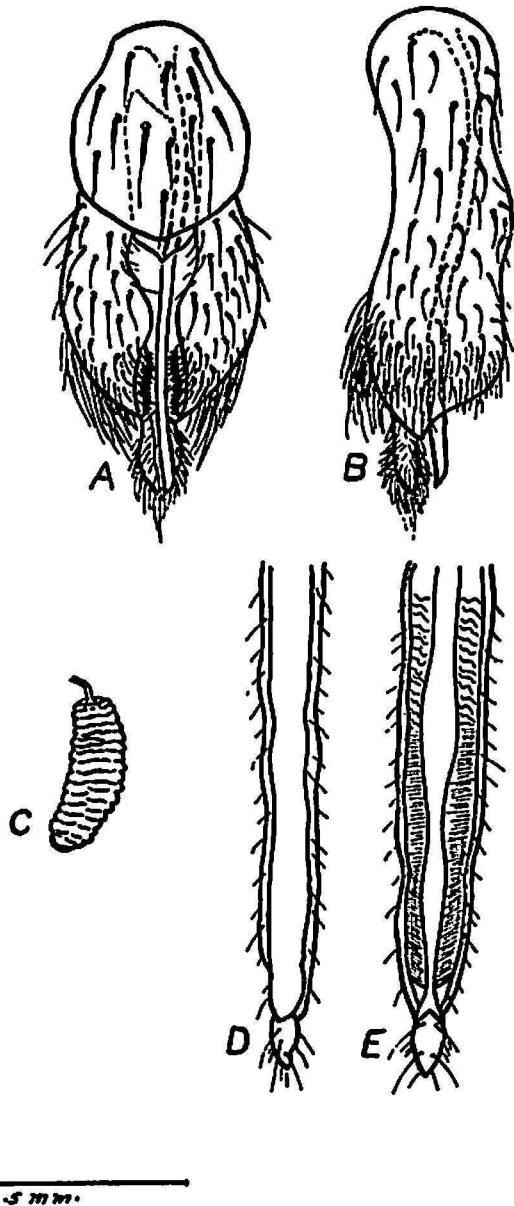


FIG. 1.—*Silba perezii* n. sp. Male genitalia: A, ventral; B, lateral; C, spermatheca. Female ovipositor: D, lateral, E, ventral.

1, D and E) narrow, more than 5 times as long as broad, sparsely ciliated, and sword-shaped.

TYPES: All type specimens collected from manioc (*Manihot esculenta* Crantz); Isabela, Puerto Rico; June 1969 by José I. Romero S. Holotype male and allotype female deposited in the U. S. National Museum, Washington, D.C.; 45 paratypes of both sexes deposited in the Department of Entomology, Agricultural Experiment Station, Mayagüez Campus, University of Puerto Rico, Río Piedras. Ten paratypes of both sexes deposited in the Entomology Research Institute, Canadian Department of Agriculture, Ottawa, Ontario.

SUMMARY

Silba perezii n. sp., a fly that attacks cassava tips, is described and illustrated, and characters are given to separate it from *S. batesii*, the most closely related species.

RESUMEN

Se describe y se ilustra una nueva especie de mosca, *Silba perezii* n. sp., que ataca los cogollos de la yuca, y se dan caracteres para separarla de *S. batesii*, la especie más parecida a *S. perezii*.

LITERATURE CITED

1. Bezzi, M., Further notes on the Lonchaeidae with descriptions of new species from Africa and Asia, Bull. Ent. Res. II: 199-210, 1920.
2. Blanchard, E. E., Synopsis de los loncheidos argentinos, Rev. Invest. Agr. Argentina, 2(4): 157-78, 1948.
3. Curran, C. H., New American Diptera, Amer. Mus. Nov. 534: 10-11, 1932.
4. Hennig, W., Beitrage zur Kenntnis des Kopulationsapparates and des Systematik der Acalyptraten IV. Lonchaeidae and Lauxaniidae, Acta Zool. Lilloana 6(4): 333-429, 1948.
5. Malloch, J. R., Diptera of Patagonia and South Chile. Part VII-Fascicle 4 Acalyptrata: Helomyzidae, Tripetidae, Sciomyzidae, Sapromyzidae, etc., Brit. Mus. Nat. Hist. London, 348-52, 1933.
6. McAlpine, J. F., Old World Lonchaeids of the genus *Silba* Macquart (= *Carpolonchaea* Bezzi), with descriptions of six new species, Canadian Ent. 86: 521-44, 1956.
7. —, Descriptions of new Lonchaeidae (Diptera) II. Canadian Ent. 96(5): 701-57, 1964.
8. Wiedemann, C. R. W., Aussereuropäische Zweiflügelige Insekten, Hamm, 2: 1-684, 1830.
9. Wolcott, G. N., The insects of Puerto Rico, J. Agr. Univ. P.R. 32: 1-975, 1948.