

A NEW SPECIES OF *SIBINIA* GERMAR
FROM MEXICO (COLEOPTERA: CURCULIONIDAE)

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ABSTRACT

A new species of Curculionidae, *Sibinia sociomelina*, from the state of Chiapas, Mexico, is described and illustrated. Adults of the new species were collected on flowers of an unidentified mimosoid legume tree, along with adults of *S. melina* Faust which is reported for the first time from Mexico. The fact that *S. sociomelina* and *S. melina* share a common host and synapomorphic character states is evidence that the two are sister-species.

The New World members of the genus *Sibinia* Germar were the subject of a recent taxonomic revision (Clark 1978). Therein 133 species, distributed from central Argentina northward to the western United States, were recognized. Additional new species, 3 from Argentina and 2 from Panama, are described elsewhere (Clark 1979a, 1979b). The purpose of this paper is to describe a new species from Mexico, and to report the occurrence of *S. melina* Faust in that country.

Owing primarily to my own collecting efforts, and to those of C. W. O'Brien, the *Sibinia* fauna of Mexico is better known than that of the other Latin American countries. Fifty-eight species are now known to occur there. Specimens of the new species and specimens of *S. melina* were collected by James R. Cate (Texas A&M University) and me in the state of Chiapas, Mexico, while making a survey of the curculionid fauna of the area in search of natural enemies of the boll weevil, *Anthonomus grandis* Boheman.

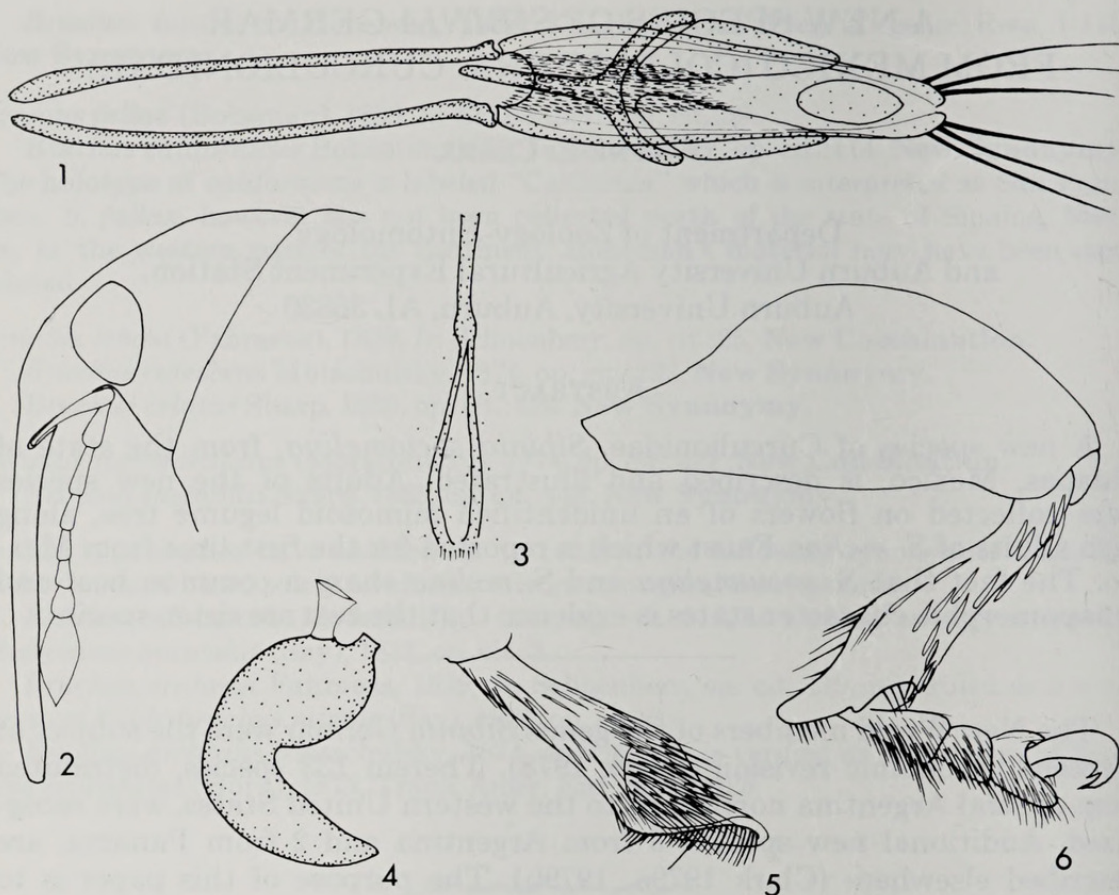
Sibinia (Microtychius) sociomelina Clark, **new species**
(Figs. 1-6)

Holotype. Male: MEXICO, Chiapas, 2 mi. N Tapilula, 18 Oct., 1976, Cate and Clark (USNM #76186); deposited in the National Museum of Natural History, Washington, D.C., U.S.A.

Allotype. Female: same label data as holotype; also deposited in the National Museum of Natural History.

Paratypes. Ten males, fifteen females: same label data as holotype; deposited in the collections of the National Museum of Natural History; Texas A&M University, College Station, Texas; Instituto Nacional de Investigaciones Agrícolas, Chapingo, Mexico; and the author.

Diagnosis. Scales on pronotum and elytra pale green, recumbent; female rostrum (fig. 2) abruptly narrowed proximad of antennal insertions, distal portion extremely elongate, slender, smooth, glabrous; metafemur slightly swollen in female, prominently inflated in male (fig. 6); male metatibia distended distally into an elongate, apically blunt projection



Figs. 1-6, *Sibinia sociomelina*, n.sp.: 1) male external genitalia, ventral view; 2) head and rostrum of female, lateral view; 3) spiculum ventrale; 4) spermatheca; 5) left hind tibia of male, posterior aspect; 6) left hind leg of male, anterior aspect.

(fig. 6), excavated posteriorly in distal 1/3 (fig. 5), excavation bearing long, acuminate setae; median lobe of male genitalia with extremely long apical setae (fig. 1).

Description. *Length*: male 1.67-1.8 (1.76) mm; female 1.67-1.85 (1.80) mm. *Width*: male 0.82-0.92 (0.86) mm; female 0.86-0.96 (0.92) mm. *Integument*: mostly black; rostrum and femora rufopiceous; tibiae, tarsi, and antennae testaceous. *Head*: vertex coarsely, densely punctate; scales on vertex slender, recumbent. *Eye*: height ca. $1.2 \times$ length; in dorsal view moderately convex; hind margin distinctly raised by distance ca. equal to diameter of one ocular facet. *Frons*: width subequal to that of rostrum at base. *Rostrum*: male 0.90-1.06 (0.99), female 1.10-1.19 (1.14) $\times$ pronotum length; in dorsal view feebly tapered from base to antennal insertions in male, sides subparallel to slightly proximad of antennal insertions, then abruptly narrowed in female; sides of distal portion subparallel to tip in male and female; in dorsal profile male rostrum feebly curved at extreme base, less distinctly curved to antennal insertions, broadly, feebly curved over insertions, then nearly straight to tip; in female, rostrum strongly rounded at extreme base to just proximad of antennal insertions, nearly straight from there to tip; distal portion in male short, 35-39 (37) % of total rostral length, in lateral view feebly tapered, lateral and dorsolateral sulci deep and distinct well distad of antennal insertions; in female, distal portion elongate, 67-81 (74) % of total rostral length, slender, smooth, glabrous; proximal portion in male carinate, deeply sulcate; proximal portion in female foreshortened, lacking carinae and sulci; scales on sides narrow, apically truncate, recumbent; scales on dorsum slightly narrower, recumbent. *Prothorax*: in dorsal view sides convergent in basal 3/4 to feebly-developed subapical constriction; in lateral view

nearly flat from base to apex; scales on lower portion of pleuron oblong, pale whitish; oblong scales replaced on upper portion of pleuron and on dorsum by elongate, narrow, apically attenuate, uniformly recumbent, pale green scales. *Elytra*: in dorsal view parallel-sided in basal 2/3; in lateral view flat in basal 1/4, broadly, evenly convex in distal 3/4; interspaces flat, moderately impressed with elongate punctures; apices of interspaces 4-6 not prominent; scales triseriate on each interspace, similar in shape and color, but slightly smaller than scales on pronotum; striae scales distinctly narrower than scales on interspaces; sutural interspaces each with sutural row of smaller, whitish scales. *Pygidium*: elongate, broadly exposed, feebly convex; rounded at apex in male, more narrowly so in female; bearing short, suberect scales on basal portion; male with prominent apical tuft of longer, dense, erect scales. *Abdomen*: in male, sterna 3 and 4 and anterior portion of sternum 5 prominently swollen medially, posteromedian portion of sternum 5 narrowly concave; scales on raised median portion suberect, scales on concave portion narrower, more nearly erect; in female, median portions of sterna 4 and 5 somewhat less distinctly swollen medially, sternum 5 lacking concave area, lacking suberect scales; posteromedian portion of sternum 5 distinctly produced. *Femora*: pro- and meta-femora moderately stout, slightly inflated; metafemur more strongly inflated, especially in male. *Tibiae*: in male, pro- and mesotibiae each with long, nearly straight, apically blunt mucro; metatibia of male with modifications described in diagnosis; pro- and mesotibiae of female with small, blunt apical mucrones; metatibia unarmed. *Male genitalia*: (fig. 1). *Spiculum ventrale*: (fig. 3). *Spermatheca*: (fig. 4).

Discussion. Like *S. melina*, *S. sociomelina* is a relatively small "*Microtychius*". Larvae of both species probably develop in flower buds. Adults are of the size and general appearance of other *Microtychius* "bud predators" (see Clark 1978). *Sibinia sociomelina* is known only from adults collected on flowers of an unidentified mimosoid legume tree at the type-locality. Adults of *S. melina* Faust were taken at the same time from the same tree, hence the epithet *sociomelina*, from the Latin *socius*, or companion, and *melina*. The two species are easily separated by the modifications of the female rostrum (fig. 2) and the male femur and tibia (figs. 5, 6) of *S. sociomelina*, described in the diagnosis.

Statement 52' in the "Key to North and Central American Species of *Sibinia*" (Clark 1978), is modified as follows to accommodate the new species:

Abdominal sterna 3-5 of male flat, scales unmodified, OR,
sterna 3-4 and anterior portion of sternum 5 of male prominently swollen medially, posteromedian portion of sternum
5 narrowly concave 55.

This permits *S. sociomelina* to be keyed to couplet 56 where *S. inornata* Clark is separated from *S. melina*. Although the rostrum of the female of *S. inornata* is abruptly narrowed and smooth and glabrous, the constriction is distad of the antennal insertions, whereas in *S. sociomelina* the female rostrum is abruptly narrowed proximad of the antennal insertions.

The shared possession of very long setae at the apex of the median lobe of the male genitalia by *S. sociomelina* (fig. 1) and *S. melina* (Clark 1978, fig. 391), the shared host, and general overall resemblance indicate a sister-group relationship between the two species.

Sibinia (Microtychius) melina Faust

Sibinia melina Faust 1893:340.

Previously known from Guatemala, Venezuela, and Brazil, this species

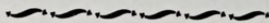
was recently redescribed and illustrated (Clark 1978: 298, 300, figs. 346, 369, 373, 391, 401, and 403). Five specimens (in the collection of Texas A&M University) collected 18 October, 1976, 2 mi. N Tapilula, Chiapas, Mexico, by James R. Cate and Wayne E. Clark were not available when these were prepared. They represent the first recorded occurrence of *S. melina* in Mexico. Adults from Venezuela with label data indicating that they were collected on *Mimosa arenosa* Poir. were examined in connection with the previous study (Clark 1978; 298). The specimens collected in Mexico were on flowers of an unidentified mimosoid legume tree. Adults of a probable sister-species, *S. sociomelina*, were present at the same time on the same flowers (see discussion of *S. sociomelina*).

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