

## WEST INDIAN COCCINELLIDAE I (COLEOPTERA): THE GENUS *PSOROLYMA* SICARD

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### ABSTRACT

Two new species of the genus *Psorolyma*, *sicardi* and *cyanella*, are described, a key to species is provided, and a lectotype is designated for *Psorolyma maxillosa* Sicard.

This is the first of a series of papers dealing with the classification of West Indian Coccinellidae. Although West Indian members of the family are much better known than those from Central or South America, it will be some time before the West Indian Coccinellids can be treated as a whole. These papers are intended as an outlet for information resulting from interim investigations.

The genus *Psorolyma* was described by Sicard (1922) for the species *P. maxillosa* Sicard and has remained a monobasic genus ever since. *P. maxillosa* was described from Puerto Rico and is probably restricted to that island. There are many specimens of *maxillosa* in the U. S. National Museum collection, all from Puerto Rico. Specimens of 2 other species of *Psorolyma* from Hispaniola and Jamaica are present in collections and are herein described.

Material from the Canadian National Collection (CNC), U. S. National Museum (USNM), Museum of Comparative Zoology (MCZ), American Museum of Natural History (AMNH) and British Museum (Natural History) (BMNH) has been examined.

I wish to thank Dr. R. D. Pope (BMNH) for permitting examination of the types of *Psorolyma maxillosa* Sicard. Illustrations presented herein were prepared by Miss Kate Conway.

### *Psorolyma* Sicard

*Psorolyma* Sicard, 1922:358; Korschefsky, 1931:84; Blackwelder, 1945:443.

Type-species: *Psorolyma maxillosa* Sicard, monobasic.

Head wide, eyes widely separated, narrowed anterior to antennal insertion, apex of clypeus feebly to deeply emarginate (Fig. 1); gena slightly extended onto margin of eye; antenna long, slender, inserted under lateral margin of frons immediately beside eye, club 2-segmented, ultimate segment conical, penultimate segment widened and produced (Fig. 3); maxillary palpus securiform; apical segment of labial palpus densely pubescent, strongly tapered toward apex. Pronotum short, wide, margined laterally and basally. Prosternum with anterior margin broadly, feebly emarginate, intercoxal process truncate apically, lacking carinae. Legs slender, unmodified; tarsus

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cryptotetramerous; claw without tooth but with distinct basal angulation. Epipleuron flat (*P. maxillosa*) or obliquely inclined. Abdomen with 6 visible sterna; postcoxal line incomplete, extending nearly to posterior margin of first sternum with apical part nearly parallel to margin (Fig. 4). Male genitalia with basal lobe more or less compressed laterally, expanded dorsoventrally (Fig. 6, 7); siphon extremely slender (Fig. 8). Female genitalia with cornu of spermathecal capsule strongly bent, with a falciform appendix at apex, no nodulus or ramus present, accessory gland short, sperm duct slightly pigmented (Fig. 18); genital plate long, slender.

### Key to species of *Psorolyma* Sicard

1. Dorsal punctation composed of mixed coarse and fine punctures; clypeus of male with a strong, triangular projection on each side (Fig. 1); Puerto Rico.....*maxillosa* Sicard
- 1'. Dorsal punctation fine, not mixed; clypeus of male not as figured above; not known from Puerto Rico ..... 2
2. Elytron yellow with 2 black spots (Fig. 2); Jamaica..... *sicardi*, n. sp.
- 2'. Elytron dark metallic blue, violet or green; Hispaniola.....  
.....*cyanella*, n. sp.

### *Psorolyma maxillosa* Sicard

*Psorolyma maxillosa* Sicard, 1922:360; Korschefsky, 1931:84; Blackwelder, 1945:443.

The male of this species cannot be confused with any presently known species of Coccinellidae because of the unusual clypeal margin (Fig. 1). The metallic blue or green dorsal surface gives *maxillosa* a slight resemblance to members of the genus *Scymnillus*. The male genitalia are distinctive (Fig. 6-9). Female spermathecal capsule as in Fig. 18.

There are 6 specimens in the BMNH collection, all labeled "Lares, Porto Rico, Apr. 19, 1921". The first of these is here designated lectotype and so labeled, the remaining 5 as paralectotypes.

### *Psorolyma sicardi* Gordon, **new species**

**Male:** length 2.23 mm, greatest width 1.73 mm. Form oval, widest at middle of elytra. Color yellow except elytron with 2 large, black spots, anterior spot at basal margin covering humeral callus, posterior spot larger than anterior, occupying most of apical half (Fig. 2). Head with clypeal margin broadly, distinctly emarginate, lateral angle bluntly rounded; eyes widely spaced, separated by slightly less than length of antenna; surface shining, punctured, punctures separated by their diameter or less. Pronotum and elytron shining, punctures on pronotum fine, separated by 1 to 2 times their diameter, punctures on elytron coarser than on pronotum, separated by less than to 3 times their diameter. Epipleuron slightly obliquely inclined. Abdomen with postcoxal line indistinct, short, widely incomplete (Fig. 4); apex of 6th sternum feebly emarginate apically. Genitalia with basal lobe flattened in ventral view, anterolateral angle abrupt (Fig. 10, 11); siphon as in Fig. 12 and 13.

**Female:** Similar to male except apex of 6th sternum entire, rounded. Spermathecal capsule abruptly curved (Fig. 19).



**Variation:** Length 2.00 to 2.31 mm, width 1.49 to 1.76 mm. A single specimen has the head and pronotum black and all femora piceous.

**Holotype:** Male, JAMAICA: St. Thomas, Penlyne Castle, 20-VII-1966, Howden & Becker [CNC].

**Paratypes:** Total 26, 10 with same data as holotype; 5, JAMAICA, 4000', Hardwar Gap, 17-VII-1966, Howden & Becker; 10, JAMAICA, St. Thomas, Whitfield Hall, 27-VII-1966; 1, JAMAICA, Port., Port Antonio, 1-7-VII-1966, E. C. Becker. [CNC] [USNM].

This species bears a strong resemblance to *Zagreus ritchiei* (Sicard), which is also from Jamaica. With the exception of *ritchiei*, *P. sicardi* can immediately be distinguished on dorsal color pattern alone. The species closely resembles *P. maxillosa* in all details except color, male genitalia and distribution.

*Psorolyma cyanella* Gordon, **new species**

**Male:** length 2.27 mm, greatest width 1.75 mm. Form round, slightly elongate, widest at middle of elytra. Dorsal surface black with strong metallic sheen, head with violet sheen, pronotum greenish violet, elytron green; ventral surface mostly piceous to dark brown except antenna, mouthparts, tibiae and tarsi yellow. Head with clypeal margin feebly emarginate medially, anterior angle broadly rounded; eyes separated by 0.75 length of an antenna; surface shining, punctured, punctures separated by 1 to 3 times their diameter. Pronotum shining, punctures separated by less than to 3 times their diameter. Elytron shining, punctured, punctures separated by twice, or less, their diameter. Epipleuron obliquely inclined. Apical margin of prosternum protruding slightly at middle. Postcoxal line on metasternum beginning in deep pit. Abdomen with postcoxal line narrowly incomplete, beginning in deep pit (Fig. 5); apex of fifth sternum truncate. Genitalia simple, basal lobe as long as paramere, flattened laterally (Fig. 14, 15); siphon slender (Fig. 16, 17).

**Female:** Similar to male except apex of fifth abdominal sternum rounded. Spermathecal capsule elongate, slender, cornu abruptly bent (Fig. 20).

**Variation:** length 1.98 to 2.39 mm, width 1.53 to 1.85 mm. Dorsal color varies from almost entirely metallic green to entirely metallic violet or occasionally metallic blue.

**Holotype:** Female, DOMINICAN REPUBLIC: Puerto Libertad, '52, C. F. Dowling [USNM type no. 72841].

**Paratypes:** Total 37, 3 with same data as holotype; DOMINICAN REPUBLIC: 1, San Juan, July 1-30, 1955, Rodriguez Paniagua; 1, Santiago, 1938, Darlington; 1, foothills Cord. Cent. s. of Santiago, June, 1938, Darlington; 1, Sanchez, July, 1938, Darlington; 1, Villa Altagracia, July, 1938, Darlington; 4, Constanza, 3-4000 ft., Darlington; 2, Mt. Diego de Ocampo, 3-4000 ft., July, 1938, Darlington; 7, San Jose de las Matas, 1-2000 ft., June, 1938, Darlington; HAITI: 1, Desbarrie Mf. La Hotte, nr. 400 ft., Oct. 12-14, 1934, Darlington; 1, Trow d' East, 19-XI-400 ft., 1934, Darlington; 1, Manneville, Nov. 16-17, '34, Darlington; 2, Grande Riviere, W. M. Mann; 4, Pt. au Prince, Oct., 1950, NLH Krauss; 1, Pt. au Prince, R. J. Crew; 3, Port-au-Prince 8 vic., 3-X-1934, Darlington; 1, Kenscoff, Aug. 1-6, 1961, J. Maldonado C.; 2, Camp Perrin, July, 1925, W. A. Hoffman. [CNC] [USNM] [MCZ].

This species differs from *P. maxillosa* in that the apical anterior margin of the prosternum is not evenly rounded, the postcoxal lines originate in more distinct pits, the epipleuron is obliquely descending, not flat, and the female



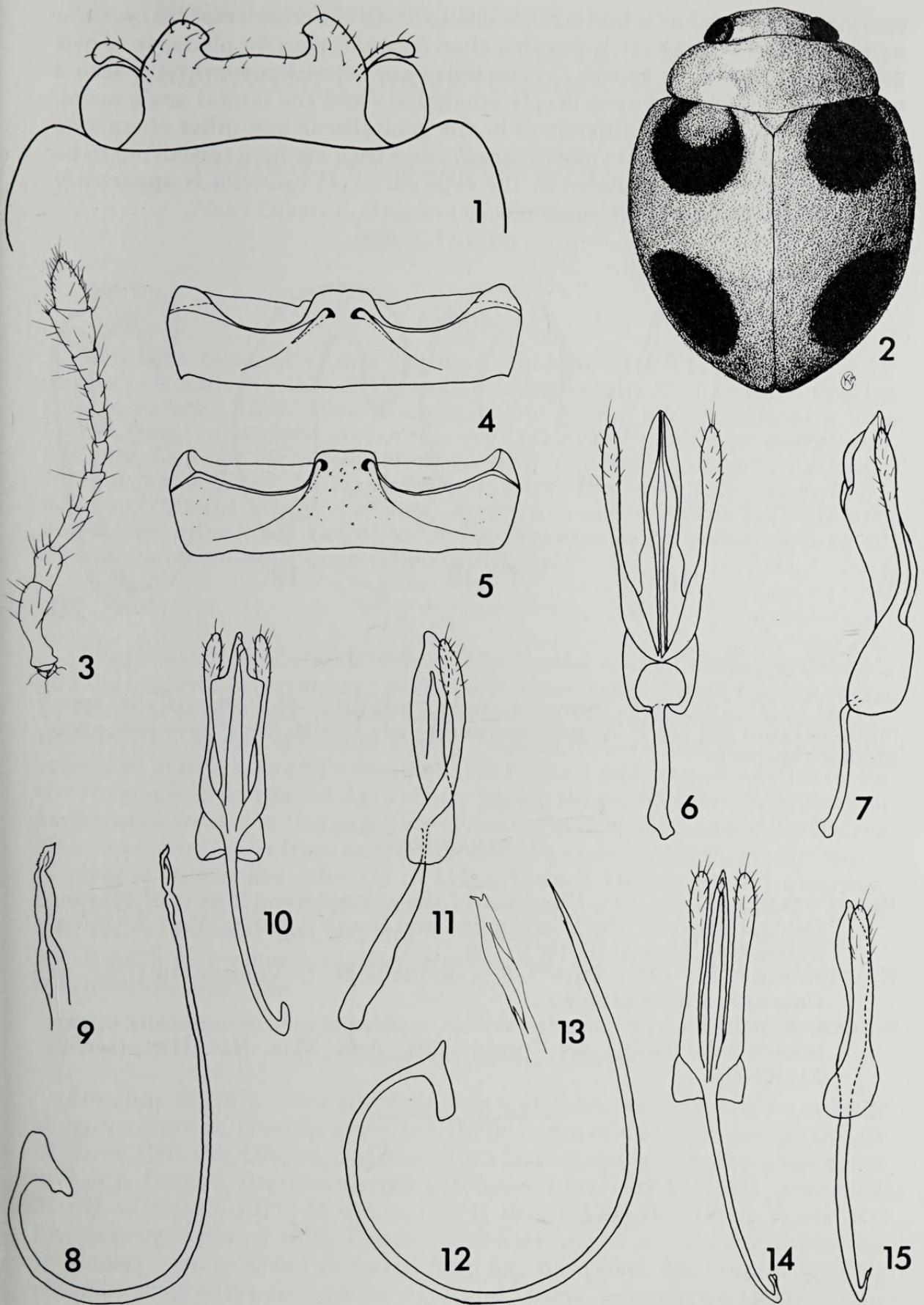


Fig. 1-15: 1) *P. maxillosa*, head; 2) *P. sicardi*, habitus; 3) *P. maxillosa*, antenna; 4) *P. sicardi*, first abdominal sternum; 5) *P. cyanella*, first abdominal sternum; 6-9) *P. maxillosa*, male genitalia; 10-13) *P. sicardi*, male genitalia; 14, 15) *P. cyanella*, male genitalia.



spermathecal capsule is much more elongate. In all other respects *cyanella* agrees with *maxillosa*. It is possible that *cyanella* may be placed in a new genus when the West Indian Coccinellidae are better known. I have seen 3 males with the clypeal apex deeply emarginate and the lateral angle acute. There are no apparent differences in the genitalia or any other characters between these males and typical *cyanella*, and they are here considered to be *cyanella* but are not included in the type series. *P. cyanella* is apparently restricted to the island of Hispaniola.

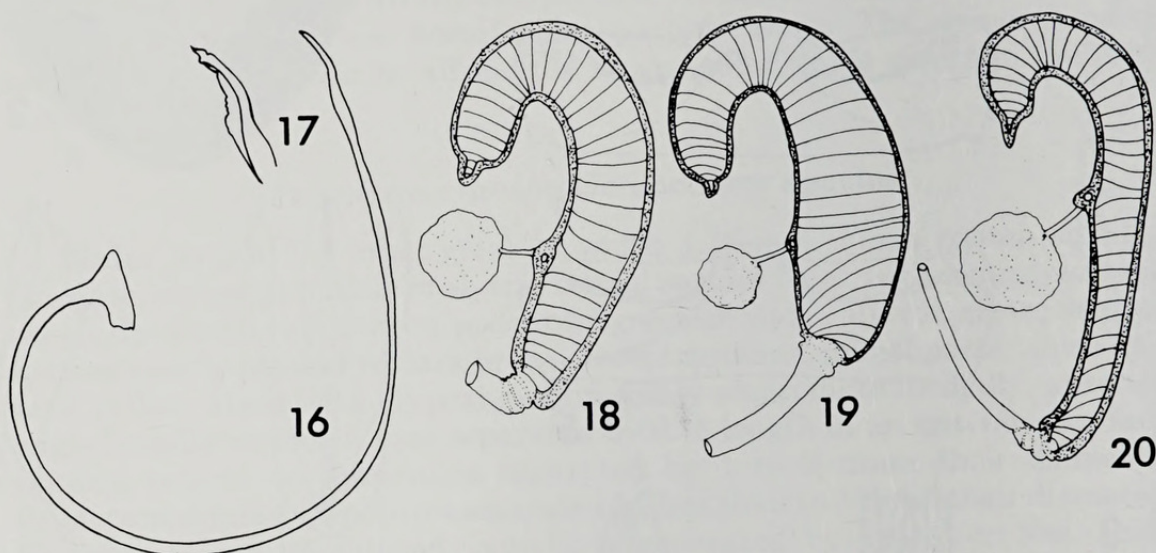
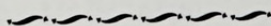


Fig. 16-20: 16, 17) *P. cyanella*, male genitalia; 18) *P. maxillosa*, spermathecal capsule; 19) *P. sicardi*, spermathecal capsule; 20) *P. cyanella*, spermathecal capsule.

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