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## SYNONYMIC DATA AND DESCRIPTION OF A NEW SALDID (HEMIPTERA)

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This paper is based largely upon specimens of shore bugs in the collections of the University of Michigan Museum of Zoology and of the writers. It also includes notes on, and an illustration of, the type of *Pentacora mexicana* (Van Duzee), which is deposited in the California Academy of Sciences. The type of the new species is in the University of Michigan Museum of Zoology.

#### Saldula orbiculata (Uhler)

Salda orbiculata Uhler, Bull. U.S. Geol. Geog. Surv., 3 (1877): 450.
Salda opacipennis Champion, Biol. Centr.-Amer., Rhynch., Hem.-Het., 2 (1900): 340,
Pl. 22, Fig. 5.

Saldula severini Harris, Journ. Kans. Entomol. Soc., 16 (1943): 132. (NEW SYNONYMY).

The type of Salda orbiculata Uhler is a male from Massachusetts, in the U.S. National Museum. The wide distributional range of the species was indicated by Uhler in the original description, in which he wrote: "It occurs in eastern Massachusetts, Pennsylvania, New York, Illinois and Texas, and the Museum of Comparative Zoology has specimens from Calaveras and San Diego, Cal."

The dorsal clothing of long dark hairs and much shorter, somewhat matted, golden pubescence tends to give the insect a rather shaggy appearance. The large and nearly circular spots of bluish pruinosity (one on the clavus and four on the corium) are prominent.

In this common species both macropterous and brachypterous forms occur. They differ slightly in pronotal size and form, and the brachypterous type is almost circular-ovate in general outline. In a long series of specimens from different regions, or from the same locality, the outer margins of the pronotum vary from moderately or slightly rounded to almost straight. In gradient series of this sort, *Saldula* 

severini Harris falls among individuals whose outer pronotal margins are almost straight; therefore it is here suppressed as a synonym of S. orbiculata (Uhler). Elsewhere we have shown Salda opacipennis Champion also to be a synonym of this same species.

### Saldula ablusa, new species

Length, 3.50–4.00 mm.; width, 1.70–2.00 mm. Moderately large, clongate ovate, blackish, with a large blotch or a modified marginal stripe on each side of the pronotum pale testaceous or flavotestaceous. Underside of explanate margins of pronotum flavotestaceous. Size of pronotal blotch or modified stripe quite variable, usually not attaining the front or hind margins; in two specimens the dorsal surface of the pronotum is entirely blackish, and only the explanate margin beneath is flavotestaceous. Hemelytra pale flavotestaceous, with a small area at the base and two or three spots near the outer margins dark fuscous or blackish.

Head black, clothed with grayish pubescence, feebly shining, slightly impressed on median longitudinal line; vertex with a small testaceous spot on each side between eye and ocellus; ocelli small, reddish brown, separated by less than the diameter of one of them; apical callosities of front large, pale testaceous, meeting at the median line; clypeus swollen, convex above, testaceous, less than twice as long as wide, with a small testaceous callus on each side just before the middle; labrum and genae testaceous; gula dark. Rostrum brown-fuscous, shining, reaching the hind coxae. Antennae slender, moderately long, brown-black, first segment and apical part of second whitish testaceous; shortly pilose, without long bristly hairs; proportional lengths of segments I-IV, 28:50:32:30. Eyes large, brownish, their inner margins roundly and deeply emarginate behind the middle.

Pronotum black, with pale markings which are variable in size as noted above (about one-half of the propleura sometimes also white-testaceous); basal width more than three times the median length (115:32); hind margin deeply and roundly emarginate, lateral margins slightly rounded. Pubescence of pronotum and scutellum grayish brown, that of hemelytra more brownish. Coxal plates and posterior margins of pleural divisions white-testaceous. Legs pale testaceous, with scattered brownish or fuscous spots on the femora; pubescence pale. Hemelytra long, extending beyond apex of abdomen; clavus black, its apical fourth pale testaceous; corium pale testaceous, with a small spot at base and

two or three marginal spots brown to fuscous, often also with some indefinite areas somewhat brownish or slightly infuscated. Wings whitish, nearly as long as hemelytra. Ventral surface of abdomen blackish, with grayish pubescence; last ventral segment of female mostly whitish. Male parameres as in Figure 1.

Holotype (male) and allotype (female), Sand Point, Huron County, Michigan, June 21 and June 28, 1922 (R. F. Hussey). Paratypes: 5 specimens taken with the holotype; also 7 specimens, Lakewood, Wisconsin, July 26, 1950 (H. C. Chapman), and 2 specimens, Anglesea, New Jersey, August 23, 1905 (E. P. Van Duzee).

This species shows considerable variation in the size and shape of the pale color markings of the pronotum; in all the specimens examined



Fig. 1. Right paramere of Saldula ablusa, new species.

the hemelytra are quite pale. Probably it is most closely related to Saldula coxalis (Stål), the type of which was collected in Cuba and which occurs over large areas of both North and South America. The pale marginal band in S. coxalis is always in the form of a narrow testaceous stripe and is never modified to form a large blotch; sometimes the pale stripe is more or less indistinct above, but it is always present beneath. At present it seems advisable to treat S. ablusa as a distinct species rather than a variety of S. coxalis.

More than one thousand specimens of S. coxalis (= argentina Berg) have been collected by C. J. Drake in Argentina, Chile, Peru, and California, and we found it fairly common in Mexico in the summers of

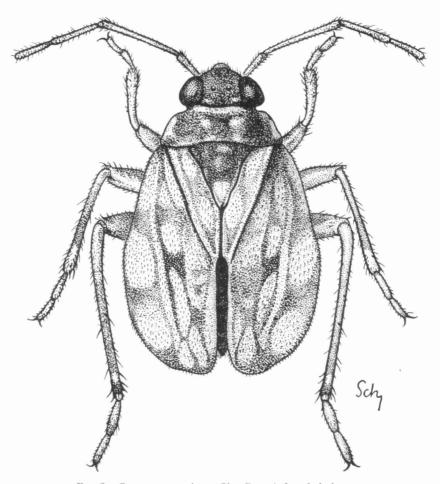


Fig. 2. Pentacora mexicana (Van Duzee), female holotype.

1950 and 1951. In addition, many specimens from Brazil, the West Indies, Central America, and the western United States have been studied, but only a few specimens taken east of the Mississippi River have been seen.

#### Pentacora sphacelata (Uhler)

Salda sphacelata Uhler, Bull. U.S. Geol. Geog. Surv., 3 (1877): 434.
Salda rubromaculata Heidemann, Proc. Wash. Acad. Sci., 3 (1901): 368. (NEW SYNONYMY.)

P. sphacelata is a shore bug found beside salt waters and is widely distributed along the sea coasts of North America and the West Indies. The Galápagos Islands constitute its southernmost record. Its general color is quite variable, and some specimens from the white sandy beaches of the tropics are very pale, almost white.

An examination of Heidemann's type from Albemarle Island, Galápagos (No. 4930, U.S. Nat. Mus.), shows that S. rubromaculata is a synonym of P. sphacelata (Uhler). The type of the latter species is also in the U.S. National Museum.

### Pentacora mexicana (Van Duzee) (Fig. 2)

Orthophrys mexicanus Van Duzee, Proc. Calif. Acad. Sci., (4) 12 (1923): 165.

The type female is figured. It was taken at Guardia Island, Lower California, Mexico, and is deposited in the California Academy of Sciences. As the type specimen is brachypterous, the veins of the membrane are not fully developed, and it is not possible to count the cells with certainty. The ocelli are more widely separated than in typical species of *Pentacora*. The antennal and pronotal differences are also distinctive, and it is thus impossible to confuse *mexicana* with its congeners.

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