

Sancarlosia tamaulipecta gen. et sp. n. (Hymenoptera: Encyrtidae) reared in Mexico from *Differococcus argentinus* (Morrison) (Homoptera: Coccidae) on the American Spiny Hackberry *Celtis pallida* Torr.

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Sancarlosia tamaulipecta gen. et sp. n. is described from Mexico, State of Tamaulipas. The new genus is compared with the genera *Cyderius* Noyes and *Lohiella* Noyes. A list of 44 world genera of Encyrtidae, parasitoids in Coccidae is added.

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In 2000, S.N. Myartseva visited Sierra San Carlos in the Mexican State of Tamaulipas and collected there a soft scale on twigs of the American Spiny (Desert) Hackberry *Celtis pallida* Torr. (fam. Ulmaceae). This species of *Celtis* grows in wild condition in USA (southern and western Texas, southern parts of New Mexico and Arizona) and in Mexico (states of Baja California, Sinaloa, San Luis Potosí, and Tamaulipas). The soft scale was identified by Dr. Evelyn M. Danzig (Zoological Institute, St. Petersburg) as *Differococcus argentinus* (Morrison) known earlier only from Argentina where it infests mimosaceous plants *Acacia caven* (Mol.) Molina, *A. viscosa* Griseb., *Prosopis alpataco* Philippi, and *Zuccagnia punctata* Cav. (Granara de Willink, 1999). The encyrtid parasitoid reared from *D. argentinus* in Mexico belongs to an undescribed genus and species.

Sancarlosia gen. n.

Type species: Sancarlosia tamaulipecta sp. n.

Description: *Female*. Body rather compact. Head hypognathous. Occipital margin acute and slightly concave. Frontovertex broad. Eyes nearly reaching occipital margin. Ocelli forming an obtuse triangle. Facial depression deep and broad,

formed by antennal scrobes united above; upper and lateral borders of facial depression rounded. Toruli at the level of inferior margins of eyes. Interantennal prominence of face developed but reaching below only the level of inferior margins of toruli. Malar space shorter than eyes. Subocular suture present. Antennae thin and long (Fig. 1); scape only slightly broadened; funicle 6-segmented with all segments longer than wide; clava 3-segmented, only slightly wider than 6th funicular segment, its apex rounded. Mandibles with 2 teeth and truncation (Fig. 2). Maxillary palpi 4-segmented (Fig. 3); labial palpi 3-segmented (Fig. 4).

Thorax moderately convex. Pronotum transverse, short, with almost straight posterior margin. Praepectus large, triangular. Mesoscutum with short parapsidal lines attaining 1/3 the length of the sclerite. Apices of axillae meeting. Scutellum with pointed apex. Wings not shortened. Forewings not infuscated; marginal vein punctiform (Fig. 5); stigmal vein straight, strongly broadened at apex; postmarginal vein shorter than stigmal, although an infuscation along margin of the wing creates false impression of existing very long postmarginal vein. Linea calva with differentiated borders, not interrupted by hairs. The wing beyond the linea calva densely pubescent

what gives an effect of "infumation"; marginal fringe present. Mesopleura reaching base of gaster. Mesotibial spur as long as corresponding metatarsus. Propodeum very short in the middle. Gaster a little shorter than mesosoma; pygostyles approximately at the level of the middle of gaster length. Ovipositor sheaths slightly exerted.

Body only with slight metallic lustre.

Male unknown.

Etymology. *Sancarlosia* is formed from settlement San Carlos in Mexico (Gr. f.), where the insect was found.

Comparison. The genus *Sancarlosia* gen. n. belongs to the subfamily Encyrtinae, where its position is difficult to ascertain. We compare it with the genera *Cyderius* Noyes (Noyes, 1980; Myartseva & Trjapitzin, 2001) including 2 species: one from Trinidad and one from Mexico, and with *Lohiella* Noyes, known only from Mexico (Noyes, 1980).

Sancarlosia differs from *Cyderius* in mandibles having two teeth and a truncation (three teeth in *Cyderius*), in the two funicular segment of antenna not ring-like (ring-like in *Cyderius*), in punctiform marginal vein of the forewing (longer than wide in *Cyderius*), and in eyes not pubescent (in *Cyderius* eyes with sparse short hairs). From *Lohiella*, the new genus differs in the punctiform marginal vein of the forewing, presence of malar suture (absent in *Lohiella*), and naked eyes (in *Lohiella*, eyes with numerous short hairs).

Comments. Now, the following genera of the Encyrtidae of the world fauna reared from scale-insects of the family Coccidae are known to us (the list has not been published yet):

Adelencyrtoides Tachikawa & Valentine, 1969; *Aloencyrtus* Prinsloo, 1978; *Americencyrtus* Sugonjaev, 1989; *Ammonoencyrtus* De Santis, 1964 (hyperparasitoid); *Anasemion* Annecke, 1967; *Anicetus* Howard, 1896; *Aphycoides* Mercet, 1921; *Argutencyrtus* Prinsloo & Annecke, 1974; *Arketypon* Guerrieri & Noyes, 2002; *Atropates* Howard, 1898; *Baeocharis* Mayr, 1876; *Blastothrix* Mayr, 1876; *Bothriophryne* Compere, 1937; *Cerapteroceroides* Ashmead, 1904 (hyperparasitoid); *Cerapterocerus* Westwood, 1833 (hyperparasitoid); *Cheilonuromyia* Girault, 1915 (hyperparasitoid ?); *Cheloneurus* Westwood, 1833 (hyperparasitoid); *Cheilopsis* Prinsloo, 1983; *Choreaia* Westwood, 1833; *Coccidoctonus* Crawford, 1912 (hyperparasitoid); *Cyderius* Noyes, 1980; *Discodes* Förster, 1856; *Diversinervus* Silvestri, 1915; *Encyrtus* Latreille, 1809; *Eusemion* Dahlbom, 1857 (hyperparasitoid); *Gahaniella* Timberlake, 1926 (hyperparasitoid); *Homosemion* Annecke, 1967; *Hoplopsis* De Stefani, 1889; *Mashhoodiella* Hayat, 1972; *Metablastothrix* Sugonjaev, 1965 (hyperparasitoid); *Meta-*

phycus Mercet, 1917; *Microterys* Thomson, 1876; *Oriencyrtus* Sugonjaev & Trjapitzin, 1974; *Paraphaenodiscus* Girault, 1915; *Pareusemion* Ishii, 1925; *Philosindia* Noyes & Hayat, 1984; *Pseudorhopus* Timberlake, 1926; *Ruandella* Risbec, 1957; *Sancarlosia* Trjapitzin & Myartseva gen. n.; *Sauleia* Sugonjaev, 1964; *Subprionomitus* Mercet, 1921; *Tonkinencyrtus* Sugonjaev, 2002; *Tremblaya* Trjapitzin, 1985 (hyperparasitoid); *Trichomasthus* Thomson, 1876.

These 44 genera belong to different tribes and subtribes of the subfam. Encyrtinae and constitute only about 9.5% from 462 recent genera of Encyrtidae described till now in the world fauna.

Sancarlosia tamaulipeca sp. n. (Figs. 1-5).

Holotype. ♀, Mexico, Tamaulipas, San Carlos, 12.II. 2000, ex *Differococcus argentinus* (Morrison) (adult female) on *Celtis pallida* Torr. (S. Myartseva).

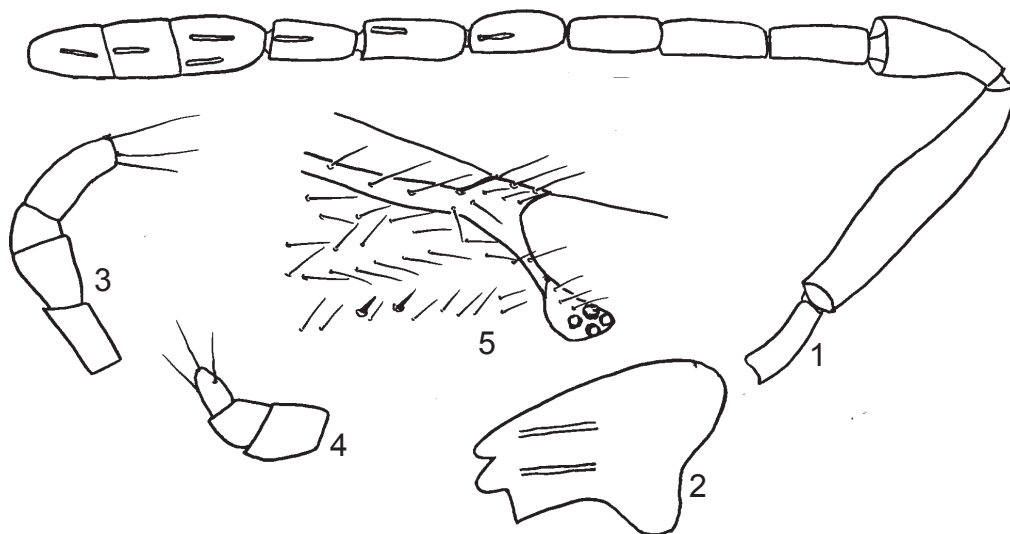
Paratypes. As holotype, 2 ♀ glued on cards and 1 microscope slide.

The holotype is preserved in UCR Entomological Collection, Department of Entomology, University of California, CA, USA, 1 paratype in the collection of UAM Agronomía y Ciencias, Universidad Autónoma de Tamaulipas, Cd. Victoria, Tam., Mexico, and 1 paratype (with slide) in the collection of Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

Description. Female (Figs. 1-5). Length: 1.44-1.50 mm (holotype 1.50 mm).

Structure. Head somewhat wider than high (34: 29). Frontoververtex slightly wider than long (17: 14). Apical angle of ocellar triangle notably more than 90°; distance between posterior ocelli twice the distance from them to anterior ocellus; distance from posterior ocellus to eye margin equal to the distance to anterior ocellus and greater than that to occipital margin (3.5: 2). Minimum width of vertex about half head width. Height of malar space half of the head height. Distance (in vertical) from upper edge of facial depression to apex of head 1/4 the distance to lower margin of head. Distance between antennal toruli somewhat greater than distance from a torulus to mouth margin (5: 4). Upper mouth margin strongly concave. Width of oral orifice about half the maximum head width. Antenna, mandible and palpi as in Figs 1-4. Mesoscutum twice as wide as long; scutellum a little longer than mesoscutum (19: 17) but not longer than wide. Forewing 2.5 times as long as its maximum width.

Coloration, sculpture and pubescence. Frontoververtex dark, with slight violet-brown-greenish metallic lustre and with rather broad brown-yellow bordering along inner orbits of eyes. Hind side of head dark with slight metallic lustre. Upper part of facial depression above superior margins of toruli dark, with similar lustre (median facial elevation also dark). Lower part of face



Figs 1-5. *Sancarlosia tamaulipeca* gen. et sp. n., female: 1, antenna; 2, mandible; 3, maxillary palp; 4, labial palp; 5, apical part of venation of the forewing.

brown-yellow. Cheeks (and malar space) dark, with slight metallic lustre. Radicula of antenna dark; scape brown-yellow, dorsally black; pedicel, funicle and clava more or less yellowish black-brown. Pronotum yellowish brown with green hind border. Mesoscutum in fore 2/5 black with slight violet lustre, the rest part brown-yellow; axillae and scutellum brown-yellow; tegulae brown-yellow in their basal halves and darkened in the apical. Praepectus brownish yellow, with greenish golden lustre. Mesopleura dark, with violet lustre, but yellowish brown in anterior third. Legs yellow, including fore and hind coxae; middle coxae darkened; fore and hind tarsi and last segment of middle tarsi more or less darkened. Propodeum black, but brown-yellow in the middle. Gaster more or less dark, with metallic lustre, but brown-yellow in its basal part, at sides and ventrally. Exserted parts of ovipositor sheaths dark. Frontovortex with well developed reticulate sculpture. Mesoscutum with minutely reticulate, almost cellular sculpture. Axillae and

scutellum superficially sculptured. Mesoscutum and scutellum with black hairs.

Etymology. The species name “tamaulipeca” is adjective (f) from “Tamaulipas”.

Acknowledgements

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