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## A New Species of *Leluthia* (Braconidae: Doryctinae) from Mexico

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ABSTRACT: *Leluthia danielensis* n. sp. (Hymenoptera: Braconidae), reared from *Scolytopsis puncticollis* Blandford (Coleoptera: Curculionidae), is described from Mexico. Illustrations of lateral and dorsal habitus and wings are provided.

KEY WORDS: Neotropical, biodiversity, braconid wasps, new species

Although 846 species of curculionids have been recorded for Mexico (Equihua and Burgos, 2002), studies on their parasitoids and those of other potential forest insect pests are limited. Records of braconids parasitizing forest pests in Mexico were summarized by López *et al.* (2003) but there are no records for the curculionid, *Scolytopsis puncticollis* Blandford.

The genus *Leluthia* was described by Cameron (1887) and revised by Marsh (1967). Six species of *Leluthia* are described from the United States, Mexico and Costa Rica (Marsh, 1967, 2002; Shenefelt and Marsh, 1976). Only *L. astigma* (Ashmead) and *L. mexicana* Cameron are recorded from Mexico. Hosts for species of *Leluthia* include buprestids and curculionids. In order to increase our knowledge of Mexican braconids, one new species of *Leluthia* reared from *S. puncticollis* is described.

### Methods

The description of the species is based on all material examined. Measurements were taken using the image analyser Image Pro Plus version 3.1 (Media Cybernetics, 1997) adapted to a video camera (Hitachi KP-D51) and an Olympus BX-50 microscope, and are given in millimeters. Terminology follows Sharkey and Wharton (1997). The figures were prepared using a DXM 1200 C Nikon camera, a SMZ 1500 Nikon stereoscope, and CombineZM (CZM) software. All specimens are deposited in the Colección de Entomología y Acarología, Colegio de Postgraduados (CEAM); Canadian National Collection of Insects, Arachnids and Nematodes (CNC); Smithsonian Institution, National Museum of Natural History (NMNH) and Instituto de Investigaciones Agropecuarias y Forestales, Universidad Michoacana de San Nicolás de Hidalgo, Tarímbaro, Michoacán, México (IIAF-UMSNH).

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## Systematic Entomology

Order Hymenoptera

Family Braconidae

Subfamily Doryctinae

*Leluthia* Cameron, 1887***Leluthia danielensis* López and Figueroa, new species***Female*

Color: Body dark brown, except for the following: area surrounding eye light brown; antenna light brown; tarsi yellowish, basal and apical areas of tibiae yellowish, all mesonotal lobes light brown; ovipositor light brown except tip dark brown.

*Head*: Head rounded in front view; without setae on vertex, temple and gena, but abundant on frons and face; face granular with irregular striae, minute striae under antennal sockets, vertex with fine transverse striae; frons with granular shallow depressions; occipital carina striate; face 1.06–1.16 times wider than high; clypeus 2.0–2.2 times wider than high, frontoclypeal suture slightly impressed, ventral margin of clypeus finely foveolate; malar space 0.07–0.09 mm; mandible width at base 0.06–0.07 mm; eye 1.25–1.33 times higher than wide; antenna shorter than body, length 1.9–2.15 mm; antenna with 16–17 flagellomeres, first flagellomere 1.15–1.20 times longer than second.

*Mesosoma*: Mesosoma 1.79 times longer than high (Fig. 1), entirely granulose; lateral surface of pronotum with short transverse carinae medially, although in some specimens they are shorter and also present on the posterior margin; notaulus sculpted with deep, wide foveolae anteriorly (Fig. 2); posterior area of notaulus with irregular longitudinal striae; scutellar sulcus deeply impressed posteriorly, with 5–6 short longitudinal carinae; posterior margin of scutellum with some striae; sternaulus with short irregular striae, moderately deep, sinuate, and narrow; propodeum strongly sculptured with irregular striae; propodeal areola pentagonal, inner surface with irregular striae; lateral protuberances short. Forewing 2.93–3.22 times longer than wide (Fig. 3); stigma broad, 2.66–3.33 times longer than wide; 1Cub 3.14–3.40 times longer than 1Cua, 1M slightly curved, (RS + M) a sinuate, 1m-cu 2.25–2.33 times longer than (Rs + M) b, 2cu-a absent, 1st subdiscal cell open distally, R1a 25.05–41.88 times longer than R1b, the latter not extending to wing tip, r-m not pigmented. Hind wing (Fig. 5) 4.44–4.72 times longer than wide; M + CU 2.0–2.75 times longer than 1M. Hind femur 2.73–2.86 times longer than maximum width; hind tibia 6.12–6.29 times longer than basal width; tarsomeres II–IV 2.29–2.36 times longer than first tarsomere; tarsal claw without distinct basal tooth.

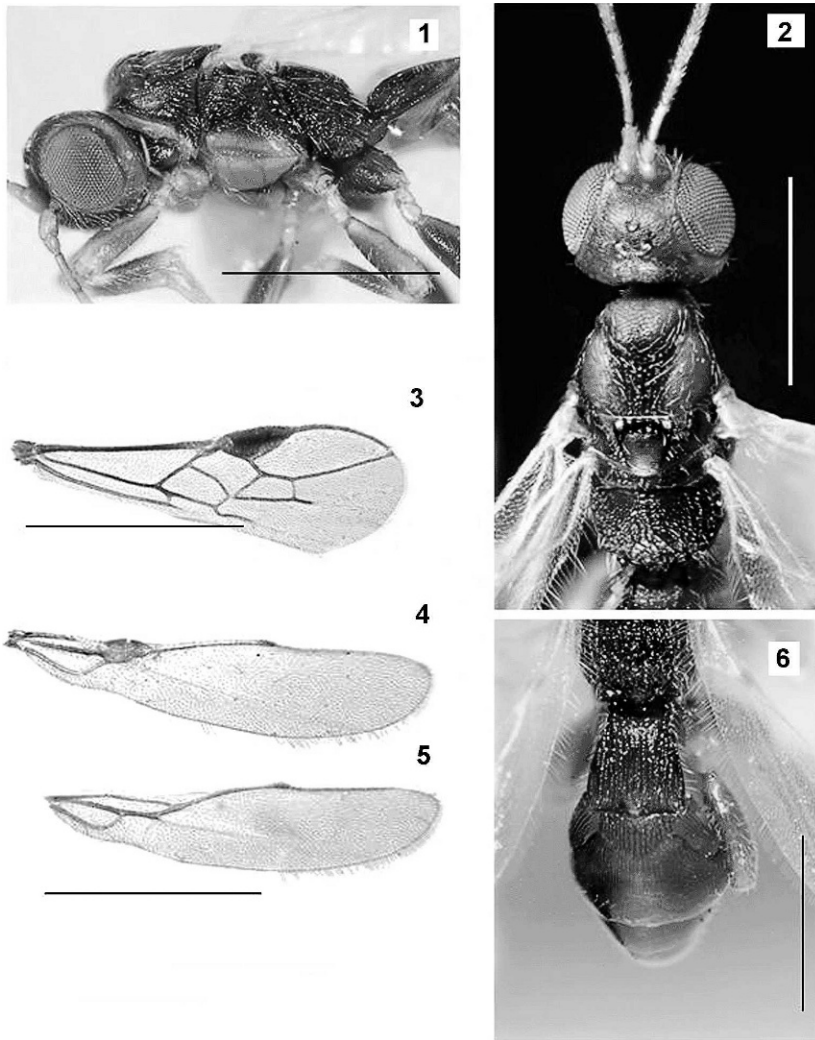
*Metasoma*: First metasomal tergite covered with longitudinal striae;  $\frac{3}{4}$  of terga II + III finely rugosopunctate with a transverse groove in a wide “M” shape (Fig. 6). Ovipositor length 1.0–1.42 mm.

Body length; 2.12–2.53 mm.

*Male*

Similar to female, except hind wing with a broad stigma (Fig. 4).

*Types*: HOLOTYPE: female, label “MÉXICO. Jalisco, Playa Perala, 3-III-1983, A. Equihua, Host: *Scolytopsis puncticollis* B., col. in *Conocarpus erectus* L.”.



Figs. 1–6. *Leluthia danielensis* n. sp.; 1. Lateral view of head and mesosoma; 2. Dorsal view of head and mesosoma; 3. Forewing of female; 4. Hind wing of male; 5. Hind wing of female; 6. Dorsal view of metasoma. Note acute transverse M-shaped groove. Scale bars = 1 mm.

PARATYPES: MÉXICO: 25 females and 39 males. Same data as holotype. Holotype deposited in CEAM, one paratype deposited in USNM, one paratype deposited in CNC, rest of paratypes deposited in CEAM and IIAF-UMSNH.

*Etymology*: This species is dedicated to the son, Victor Daniel, of the first author.

*Host*: The genus *Scolytopsis* is an ambrosia beetle, and some of these are considered to be of quarantine importance (Kliejunas, 2001), *S. puncticollis* Blandford is found in the United States, Costa Rica, Cuba, Guatemala, Mexico, Guatemala to Argentina, Brazil and Paraguay, and attack *Banisteria cornifolia* (Kunth) Sprengel, *Conocarpus erecta* L. (buttonwood, button mangrove), *Forchhammeria pallida* Liebm. and *Laguncularia racemosa* Gaertn. f. (white mangrove). In Mexico this beetle is reported only from Jalisco, Nayarit and Veracruz (Burgos-

Solorio and Equihua, 2007; Equihua and Burgos, 2002; Guadalupe del Río *et al.*, 2005; Wood and Bright, 1992) but it is likely far more widespread. The biology of *S. punticollis* was summarized by Wood and Bright (1992).

*Diagnosis:* In the key of Marsh (1967), *L. danielensis* keys to *L. mexicana*, but can be distinguished by the sculpture of tergites II + III (finely rugosopunctate with a transverse groove in a wide and acute “M” shape in *L. danielensis*; granular surface with a rounded “M” shape in *L. mexicana*) and by the fewer number of flagellomeres in *L. danielensis* (18–19 antennomeres; *L. mexicana* with 22–30 antennomeres).

From the Costa Rican species described by Marsh (2002), *L. danielensis* can be distinguished from *L. careovena* Marsh because the latter has forewing vein r-m absent (Fig. 285 in Marsh paper), whereas in *L. danielensis* it is present. *Leluthia costaricensis* has a black head, and the scape, pedicel and basal fourth of the flagellum are honey yellow; in *L. danielensis* these structures are principally brownish or dark brownish. From *L. flavocoxalis* Marsh, *L. danielensis* can be separated by its smaller size (2.12–2.53 mm; 4.5–6.0 mm in *L. flavocoxalis*); smaller number of flagellomeres (16–17; 31–40 antennomeres in *L. flavocoxalis*), and coxae color (fore and middle coxae light brown, hind coxae dark brown in *L. danielensis*; fore and middle coxae yellow, hind coxae black in *L. flavocoxalis*).

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