

REICHENBACHIA

Staatliches Museum für Tierkunde Dresden

Band 34

Ausgegeben: 30. März 2001

Nr. 6

A second, sexual, Western Hemisphere species of *Thylacella* ENDERLEIN (Insecta: Psocoptera: Lepidopsocidae)

With 7 figures

ALFONSO NERI GARCÍA ALDRETE

A b s t r a c t A sexual species of *Thylacella* ENDERLEIN from the southern end of the Mexican state of Morelos, is described and illustrated here. It constitutes the second species in that genus known in the Western Hemisphere. The type specimens are deposited in the National Insect Collection, Instituto de Biología, U.N.A.M., México City, México.

K e y w o r d s Psocoptera, Lepidopsocidae, *Thylacella*, new species, western hemisphere, Mexico.

Introduction

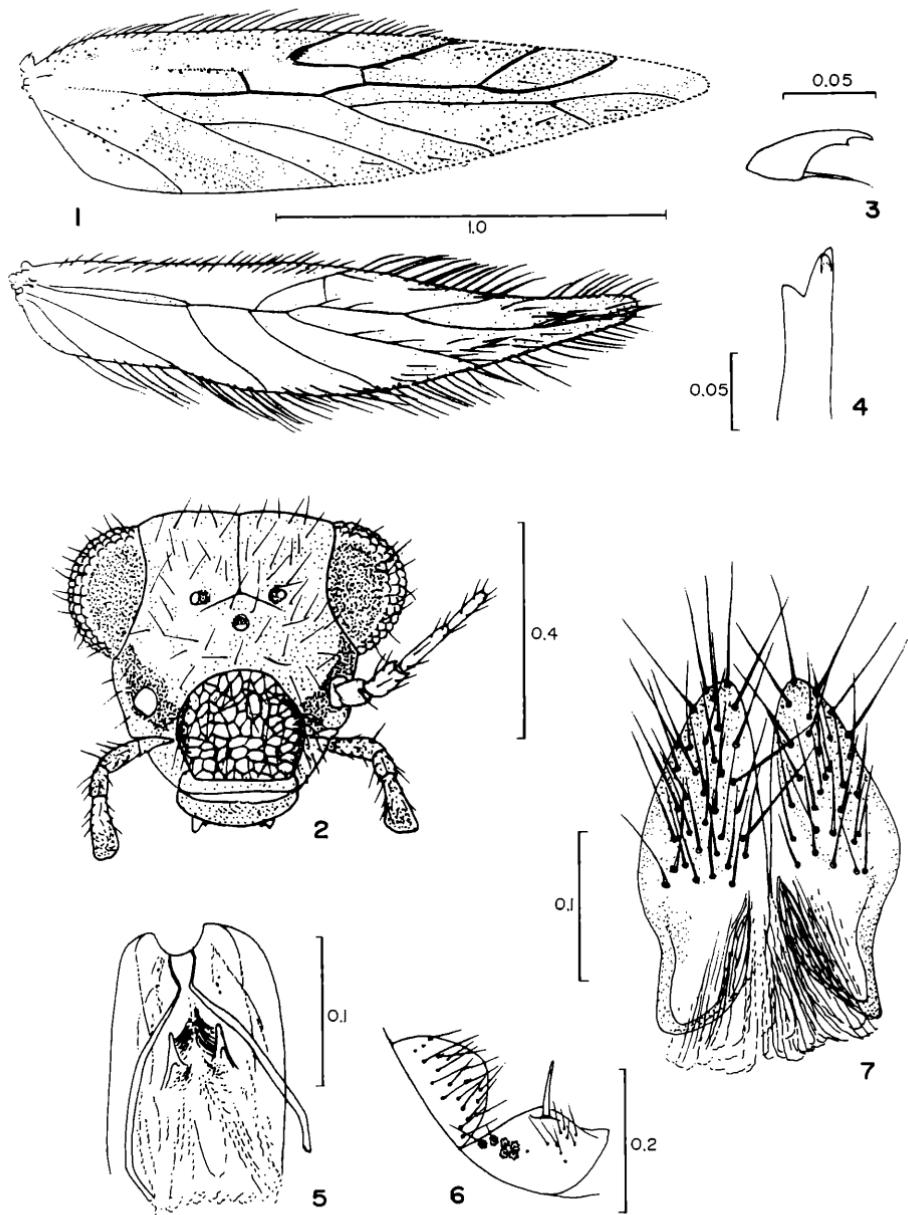
Other than *Thylacella cubana* (BANKS), distributed in Cuba, southern U.S.A., most of México, and in Central America (MOCKFORD 1974, 1993), the species of *Thylacella* – 15 known, including a fossil one – occur exclusively in Africa and Madagascar (BADONNEL 1967, 1976; SMITHERS 1967). *T. cubana* is most probably parthenogenetic, and it may have been introduced from Africa (MOCKFORD 1974).

During an insect survey, conducted at the CEAMISH field station of the University of Morelos, in the southern end of the Mexican state of Morelos, México, one male and one female of an undescribed species of *Thylacella*, distinct from *T. cubana*, were collected. It constitutes the second species in that genus known in the Western Hemisphere, and is here described, as part of a sustained effort to document the biological diversity of the Psocoptera in Mexico.

Color was recorded by examination of the specimens in 80 % alcohol, under the dissecting microscope, with yellow light illumination. Measurements were taken on parts mounted on slides, with a filar micrometer, whose measuring unit is 1.36 μm for wings and 0.53 μm for other parts. The abbreviations used for lengths of parts measured are the following: FW, right fore wing; HW, right hind wing; F, right femur; T, right tibia; t1, t2, t3, right tarsomeres, hind leg; Mx4, fourth segment of right maxillary palpus; f1...fn, flagellomeres 1...n, right antenna; IO, minimum distance between compound eyes; D, antero-posterior diameter of compound eye; d, transverse diameter of compound eye (IO, D, and d in dorsal view of head). The type specimens are deposited in the National Insect Collection, housed in the Department of Zoology, Instituto de Biología, U.N.A.M., México City, México.

Author's address:

Dr. Alfonso Neri García Aldrete, Instituto de Biología, U.N.A.M., Departamento de Zoología, Apartado Postal No. 70-153, 04510 México, D.F. (México). E-mail: anga@servidor.unam.mx



Figs 1–7: *Thylacella huautlensis* sp. n.

1: fore and hind wings, female; 2: front view of head, female; 3: pretarsal claw, male; 4: lacinial apex, female; 5: phallosome, male; 6: epiproct and left paraproct, male; 7: gonapophyses, female.
Scales in mm.

***Thylacella huautlensis* sp. n. (figs 1-7)**

Female Color (in 80 % alcohol). Dull yellow. Compound eyes black, ocelli hyaline, with ochre centripetal crescents. Epicranial sulcus distinct. A reddish brown band from lower rim of each compound eye to fronto-clypeal sulcus, enclosing the antennal fossae (fig. 2); behind the head, a brown band runs along the thoracic pleurae, above the coxae, to the anterior end of the abdomen. Postclypeus with reticulate pattern, tinted ochre on each side. Distal halves of Mx4 pale brown. Legs and antennae pale brown. Fore wing (fig. 1) slightly fumose, unmarked. Hind wing hyaline (fig. 1).

Morphology Lacinial apices trifid, with small inner tyne and large outer tyne, this with a preapical lobe (fig. 4). Gonapophyses typical of the genus, V2 short and slender, slightly dilated distally, V3 stout, distally blunt, with setae as illustrated (fig. 7). Paraprocts slender, elongate, setose, with strong median spine and sensory fields with six trichobothria, one without basal rosette. Epiproct with sides converging to a blunt apex, with a field of setae mesally.

Measurements (in μm). FW: 1980; HW: 1603; F: 462; T: 856; t1: 319; t2: 66; t3: 55; Mx4: 124; f1: 122; f2: 76; f3: 73; f4: 58; f5: 55; f6: 67; f7: 59; f8: 58; IO: 303; D: 252; d: 159; IO/D: 1.20.

Male Color (in 80 % alcohol). Same as the female.

Morphology Hypandrium broad, setose, slightly concave anteriorly, and almost straight posteriorly. Phallosome (fig. 5), with external parameres stout, distally blunt, joined internally by membranes to form a single, concave structure. Internal parameres slender, elongate, parallel for a length posteriorly and then, diverging anteriorly; mesally between the diverging arms, two elongate, almost triangular sclerites, one to each side of longitudinal midline (fig. 5). Paraprocts (fig. 6) elongate, with strong mesal spine; sensory fields with seven trichobothria, one without basal rosette, setae as illustrated. Epiproct (fig. 6) almost bell-shaped, with mesal setal field.

Measurements (in μm). FW: 1849; HW: 1504; F: 460; T: 814; t1: 265; t2: 61; t3: 53; Mx4: 106; f1: 127; f2: 73; f3: 69; f4: 53; f5: 53; f6: 54; f7: 54; f8: 67; IO: 386; D: 212; d: 159; IO/D: 1.82.

Type locality MEXICO. Morelos. CEAMISH Biology Station, ca. Huautla, $18^{\circ}27'N$; $99^{\circ}02'W$, 940 m above sea level, sifting litter on dry riverbed, 11.VI.1996, T. MARTÍNEZ CRUZ, holotype male, allotype female, NIC.

Comments The finding of *T. huautlensis* is puzzling, on account of its restricted distribution, as a wider range would be expected for an introduced species; the female lacks the transverse bands on the fore wings, present in *T. cubana*, and the phallosome bears no relation to the phallosomes of the Madagascan sexual species (see *T. annulata* BADONNEL, 1976; *T. fasciifrons* BADONNEL, 1967; *T. montana* BADONNEL, 1967; and *T. trifurcata* BADONNEL, 1976), so relationships with *T. cubana* and with the Madagascan species seem doubtful.

Acknowledgements

To Javier GARCÍA FIGUEROA and Felipe VILLEGAS (Instituto de Biología, U.N.A.M.), for technical support in the preparation of this paper. The specimens studied here were collected during an insect survey financed by CONACyT (Project 4751N granted to Santiago ZARAGOZA CABALLERO, Instituto de Biología, U.N.A.M.).

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(Received on July 11, 2000)

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Jahr/Year: 2001

Band/Volume: [34](#)

Autor(en)/Author(s): Garcia Aldrete Alfonso Neri

Artikel/Article: [A second, sexual, Western Hemisphere species of Thylacella Enderlein \(Insecta: Psocoptera: Lepidopsocidae\) 57-60](#)