A new Echmepteryx from northwestern Wisconsin, USA (Psocoptera: Lepidopsocidae)

ALFONSO N. GARCÍA ALDRETE*

Resumen. Una especie nueva de Echmepteryx, en el subgénero Echmepteryx, colectada en Wisconsin, Estados Unidos, aquí se describe e ilustra. El holotipo $\mathfrak P$ está depositado en la Colección Nacional de Insectos, Instituto de Biología, UNAM, México, D. F.

Palabras clave: Echmepteryx, Wisconsin, Estados Unidos, nueva especie.

Abstract. A new species of *Echmepteryx*, subgenus *Echmepteryx*, from Wisconsin, USA, is here described and illustrated. The holotype $\mathfrak P$ is deposited in the National Insect Collection, Instituto de Biología, UNAM, Mexico City.

Key words: Echmepteryx, Wisconsin, USA, new species.

Introduction

Echmepteryx is a genus predominantly neotropical, that presently includes 31 described species, five of which occur in the United States: E. hageni (Packard) is distributed throughout much of eastern US, south to north peninsular Florida and north to the Boundary Waters region of northern Minnesota, and in southeastern Canada; the other four species, E. intermedia Mockford, E. youngi Mockford, E. falco Badonnel and E. madagascariensis Kolbe occur in peninsular Florida. The second one has also been collected in southeastern Georgia, and the two latter ones are tropical waifs. E. hageni, E. intermedia and E. youngi constitute the E. hageni complex and belong in subgenus Echmepteryx, whereas E. falco and E. madagascariensis belong in subgenus Thylacopsis (Mockford 1974, 1993).

^{*} Departamento de Zoología, Instituto de Biología, UNAM, Apartado postal 70-153, 04510, México, D.F. Correo-e: anga@servidor.unam.mx

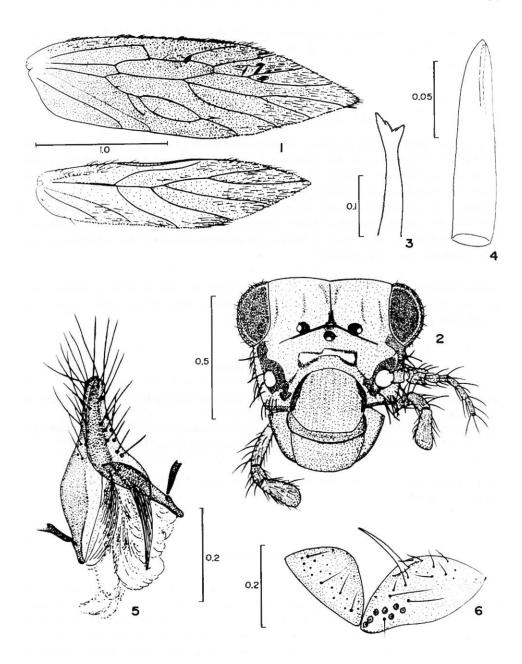
In this paper I describe a new species of *Echmepteryx*, in subgenus *Echmepteryx*, collected in Wisconsin, within the range of *E. hageni* but clearly distinct from it and from the other two species in the *E. hageni* complex. The new species is represented by a single female, which was dissected to mount its parts in Canada Balsam. The following abbreviations stand for parts measured or counted, with a filar micrometer whose measuring unit is 1.36 microns for wings and 0.53 microns for other parts: FW, HW: length of right fore and hind wings; F, T, t1, t2, t3: lengths of femur, tibia and tarsomeres of right hind leg; ctt1: number of ctenidobothria on t1; Mx4: length of fourth palpomere of right maxillary palp; f1...fn: length of antennal flagellomeres 1...n; IO, D and d: respectively, minimum distance between compound eyes, antero-posterior diameter and transverse diameter of right compound eye, all on dorsal view of head, mounted on a slide; PO: d/D. The measurements are given in microns. The holotype is deposited in the National Insect Collection, Zoology Department, Instituto de Biología, UNAM, México City.

Echmepteryx schrankeli n. sp. \(\text{Figs. 1-6} \)

Color (after 32 years in 80% alcohol). Ground color reddish brown. Compound eyes black, ocelli hyaline, with ochre centripetal crescents. An ochre band on each gena, from compound eye to epistomal sulcus, enclosing antennal fossa; sides of postclypeus ochre; a "bow tie" mark between third ocellus and epistomal sulcus. Antennae and maxillary palps pale brown. Legs brown, tibiae with an ochre ring near each apex. Fore wings reddish brown, with distal ends almost hyaline. Hind wings hyaline, veins brown.

Morphology. Epicranial sulcus well defined; ocelli separated, almost in straight line (Fig. 2). Lacinial apex bicuspid (Fig. 3). Wing venation (Fig. 1), that of fore wing anomalous, with a closed cell on Cu1a. Gonapophyses slender, elongate, typical of the genus (Fig. 5). Sclerite of spermathecal duct (Fig. 4), long, stout, narrowing distally. Paraprocts (Fig. 6), elongate, with strong mesal prong, sensory fields elongate, with eight trichobothria, as illustrated, one without basal floret. Epiproct (Fig. 6), almost triangular, setae as illustrated.

Measurements. FW: 2412, HW: 1964, F: 571, T: 1035, t1: 416, t2: 78, t3: 84, ctt1: 19, Mx4: 159, f1: 53, f2: 53, f3: 59, f4: 60, f5: 53, IO: 444, D: 256, d: 147, IO/d: 1.73, PO: 0.57.



Figs. 1-6. Echmepteryx schrankeli n. sp. (a). 1. Fore and hind wings. 2. Frontal view of head. 3. Lacinial apex. 4. Sclerite of spermathecal duct. 5. Gonapophyses. 6. Epiproct and left paraproct. Scales in mm.

Type locality. USA. Wisconsin. Washburn County. 4.8 km E of Shell Lake (Schrankel's Farm, 45° 45'N: 91° 55'W), 7.VII.1968, beating oak branches, 12, holotype, A. N. García Aldrete.

Comments

E. schrankeli differs from the other three species in subgenus Echmepteryx occurring in the US, belonging in the complex E. hageni, in facial pattern, distinct and elaborate in the three species of the complex, and absent in the new species, in which the facial pattern consists of a frontal "bow tie" mark and genal pigmented stripes. It also differs from the American species in the distinct shape and size of the sclerite of the spermathecal duct. Many other Mexican, Caribbean and South American species also show a frontal bow tie mark, but the sclerites of the spermathecal duct are different.

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