

Description of *Pareucamptonyx waldreni*, a new species of Dryinidae from Texas

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Abstract

Pareucamptonyx waldreni n. sp., from Telge Park (Houston, Texas, USA), is described. The new species is the first *Pareucamptonyx* collected in the Nearctic region. Previously this genus was known only in the Neotropical region, from Costa Rica to Bolivia and Brazil.

Key words: taxonomy, Hymenoptera, Chrysidoidea, Gonatopodinae, Nearctic region, USA.

Introduction

Dryinidae (Hymenoptera Chrysidoidea) are parasitoids of Hemiptera Auchenorrhyncha (Guglielmino and Bückle, 2003; 2010; Guglielmino *et al.*, 2006; 2013; 2015; Guglielmino and Virla, 1998). Nearctic Dryinidae have been studied in recent years mainly by Guglielmino and Olmi (2013), Krombein (1979), Olmi (1984; 1987a; 1987b; 1987c; 1991; 1992; 1993a; 1993b; 1995; 1996; 1997; 2003; 2010; 2011) and Olmi and Guglielmino (2010a; 2010b; 2013).

Among Dryinidae, the genus *Pareucamptonyx* Olmi is recorded only from the Neotropical region (Olmi, 1991; Olmi and Virla, 2014), where two species are known: *Pareucamptonyx townesi* (Olmi), recorded from Brazil, and *Pareucamptonyx zulianus* (Olmi), known from Bolivia, Brazil, Costa Rica, French Guiana and Venezuela (Olmi, 1984; 1986; Olmi and Virla, 2014). Species of *Pareucamptonyx* are considered rare: in fact only seven specimens are known, one of *P. townesi* and six of *P. zulianus*. The male and the hosts are unknown. No Nearctic species are recorded.

Pareucamptonyx is one of the two genera of apterous Gonatopodinae characterized by an enlarged claw with distal apex rounded and not provided with subdistal tooth. The other genus is *Eucamptonyx* Perkins, recorded from the Australian, Nearctic and Neotropical regions (Olmi and Virla, 2014; Perkins, 1907). The only difference between the two above genera regards the enlarged claw: with one row of lamellae in *Eucamptonyx* (figure 1D), with one row of bristles in *Pareucamptonyx* (figure 1B). In the Nearctic region, only one species of *Eucamptonyx* is known: *Eucamptonyx testaceus* Perkins, recorded from the USA (Arizona, California, New York, Texas) (Olmi, 1984; Perkins, 1907).

In 2014, the authors examined a small collection of dryinids collected by Mr. George C. Waldren (Logan, Utah). This study resulted in the discovery of one new species of *Pareucamptonyx* from Texas described herein.

The description of the new species is based on the study of one only specimen. The authors are aware that descriptions of new taxa should normally be based on more individuals. However, Dryinidae are so rare that it is not common to find more than one specimen of each

species. In addition, on the basis of the experience and knowledge of the authors, the new species is sufficiently characterized to justify its description.

Materials and methods

The descriptions follow the terminology used by Olmi (1984; 1994; 1999), Olmi and Virla (2014), Olmi and Xu (2015) and Xu *et al.* (2013). The measurements reported are relative, except for the total length (head to abdominal tip, without the antennae), which is expressed in millimetres. In the descriptions POL is the distance between the inner edges of the lateral ocelli; OL is the distance between the inner edges of a lateral ocellus and the median ocellus; OOL is the distance from the outer edge of a lateral ocellus to the compound eye; OPL is the distance from the posterior edge of a lateral ocellus to the occipital carina; TL is the distance from the posterior edge of an eye to the occipital carina.

To complete the present paper the types of all Neotropical species of *Pareucamptonyx* were examined.

The material studied in the present paper is deposited in the collections of the Department of Agriculture and Forestry Sciences (DAFNE), University of Tuscia, Viterbo, Italy (MOLC - Massimo Olmi's collection).

Pareucamptonyx waldreni n. sp.

Diagnosis

Female with scutum provided with lateral pointed apophyses (figure 1A), metanotum hollow behind the scutellum (figure 1C) and with sides protruding (figure 1A), posterior surface of propodeum strongly and completely transversely striate (figures 1A, 1C), enlarged claw with one row of bristles, distal apex rounded and not provided with subdistal tooth (figure 1B).

Material examined

Female holotype, "USA: Texas, Harris County, Houston, Telge Park, 29°57'N 95°38'W, 30.V.2010, G.C. Waldren leg."; [red] "*Pareucamptonyx waldreni* n. sp. A. Guglielmino, M. Olmi, S. Speranza det. ♀" (MOLC).

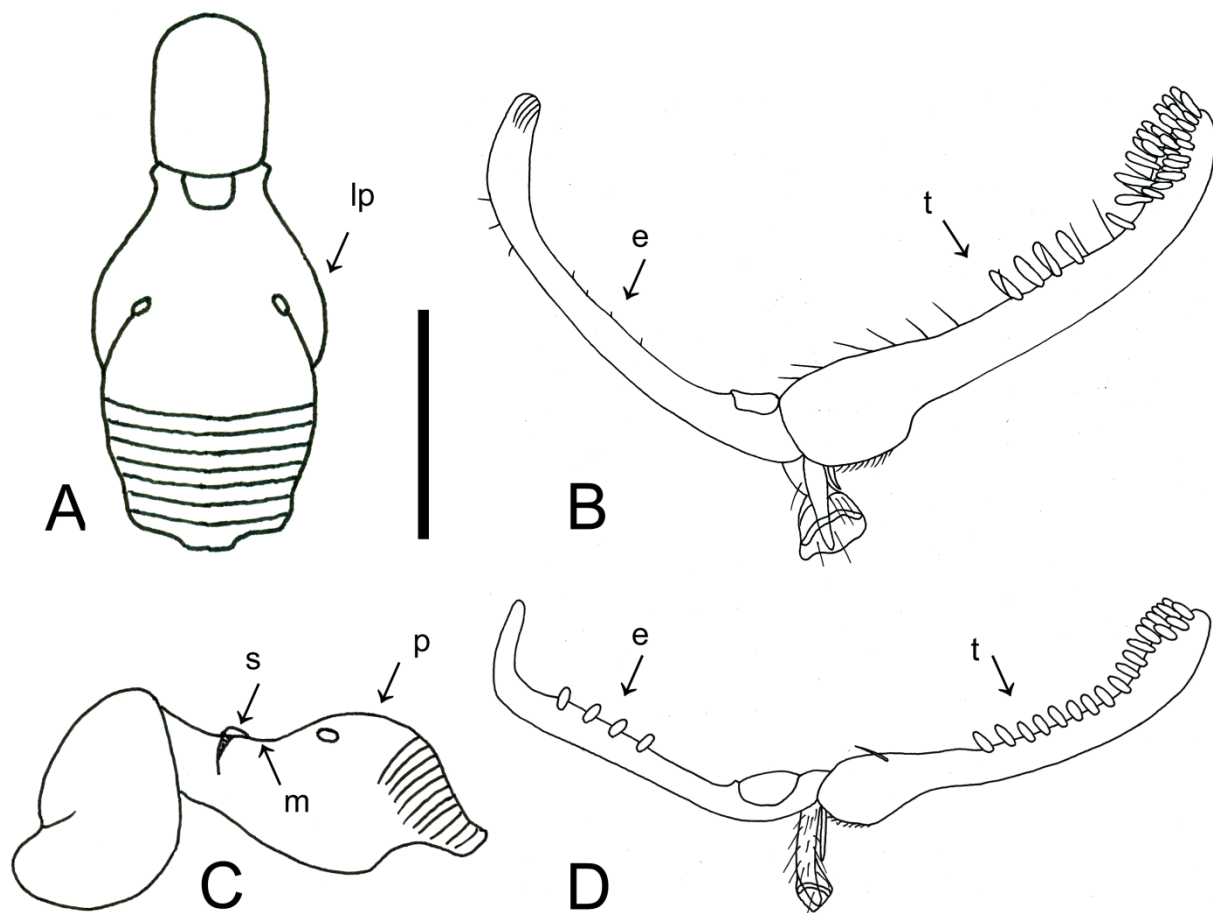


Figure 1. *Pareucamptonyx waldreni* n. sp., holotype: **A:** scutum and metathorax + propodeum in dorsal view; **B:** chela; **C:** mesosoma in lateral view. *Eucamptonyx testaceus* Perkins, holotype: **D:** chela. Scale bar: A: 0.55 mm; B: 0.31 mm; C: 0.70 mm; D: 0.38 mm. e = enlarged claw; lp = lateral protrusion of metanotum; m = metanotum; p = propodeum; s = scutellum; t = segment 5 of protarsus.

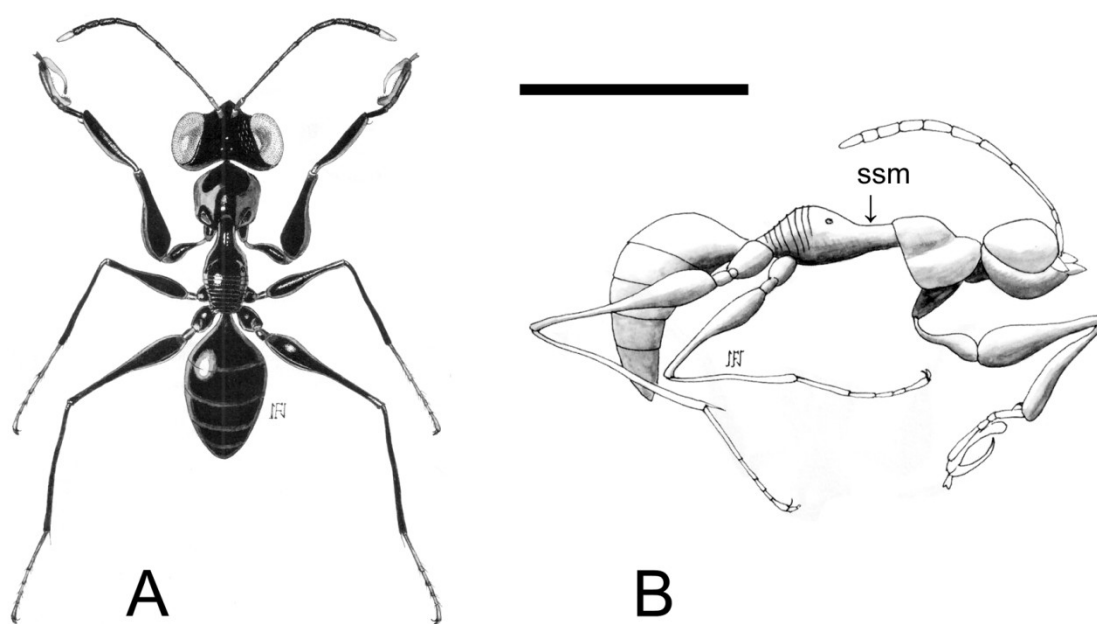


Figure 2. *Pareucamptonyx zulianus* (Olmí): female from Costa Rica, 24 km W Piedras Blancas, in dorsal (**A**) and lateral view (**B**). Scale bar: A: 2.16 mm; B: 1.63 mm. ssm = scutum + scutellum + metanotum.

Description

Female

Apterous; length 3.6 mm. Head ferruginous, except mandible testaceous; antenna brown, except segments 8-10 testaceous and ventral side of segment 1 whitish; mesosoma ferruginous; petiole black; metasoma brown, except part of first tergite ferruginous; legs ferruginous, except distal extremities of coxae and part of trochanters whitish and tarsi testaceous. Antenna clavate, with rhinaria in segments 8-10; antennal segments in following proportions: 10:6:23:12:10:9:7:6:6:9. Head excavated, shiny, unsculptured, slightly granulated on temple; frontal line complete, very thin; occipital carina absent; POL = 3; OL = 3; OOL = 10. Palpal formula 6/3. Pronotum shiny, unsculptured, crossed by strong transverse impression. Scutum shiny, smooth, unsculptured, with two small lateral pointed apophyses located at beginning of scutellum (figure 1A). Scutellum shiny, unsculptured. Metanotum flat, shiny, unsculptured, hollow behind scutellum (figure 1C, m), with sides protruding (protrusions rounded) (figure 1A, lp). Metathorax + propodeum with anterior surface shiny, unsculptured; posterior surface transversely striate (figures 1A, 1C). Meso-metapleural suture obsolete. Mesopleuron smooth, not transversely striate. Metapleuron transversely striate. Protarsal segments in following proportions: 17:4:7:15:28. Enlarged claw (figure 1B, e) with distal apex rounded, not pointed, without subdistal tooth, with one row of four bristles. Segment 5 of protarsus (figure 1B, t) with one row of 4 lamellae; distal apex with at least 40 lamellae. Tibial spurs 1/0/1.

Male

Unknown.

Hosts

Unknown.

Etymology

The species is named after the collector, George C. Waldren.

Remarks

P. waldreni has been compared with the Neotropical species of *Pareucamptonyx*. The new species is different from *P. townesi* because of the posterior surface of the propodeum strongly and completely transversely striate (figures 1A, 1C) (almost completely smooth in *P. townesi*). About *P. zulianus* the main differences are the following: in *P. zulianus*, metanotum not hollow behind the scutellum (figure 2B, ssm) and with sides rounded (figure 2A); scutum without lateral pointed apophyses (figure 2A); in *P. waldreni*, metanotum hollow behind the scutellum (figure 1C, m) and with sides protruding (figure 1A, lp); scutum with two lateral pointed apophyses (figure 1A).

P. waldreni was collected in Telge Park (Cypress, Houston, Texas, USA). It is an urban flooded reserve, what remains of the large humid forests growing in Houston area in the past.

Acknowledgements

Many thanks to George C. Waldren (Logan, Utah, USA) for sending the material studied in the present paper.

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Received November 27, 2015. Accepted February 12, 2016.