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# *Chthonius thaleri*, a new endogeic species from Venetia, Italy (Pseudoscorpiones: Chthoniidae)\*

\* On Italian pseudoscorpions XXXVI

**Giulio Gardini**

## **ABSTRACT**

Contrib. Nat. Hist. 12: 545–550.

The endogeic pseudoscorpion *Chthonius (Ehippochthonius) thaleri* sp. nov. is described (♂ ♀; loc. typ.: Venetia, prov. of Padua, municipality of Arquà Petrarca: Monte Ventolone). The new species is related to the epigeic *C. parmensis* BEIER, 1963.

## **KURZFASSUNG**

*Chthonius thaleri*, eine neue endogäische Art aus Venetien, Italien (Pseudoscorpiones, Chthoniidae) – Der endogäische Pseudoskorpion *Chthonius (Ehippochthonius) thaleri* sp. nov. wird beschrieben (♂ ♀; loc. typ.: Venetia, Provinz Padua, Gemeinde Arquà Petrarca: Monte Ventolone). Die neue Art ist verwandt mit der epigäischen *C. parmensis* BEIER, 1963.

## **Introduction**

An intensive field study of the subterranean fauna of the karstic limestones of Venetia is being carried out since 1982 by Mr E. Piva and collaborators of the Speleo Club Proteo, Vicenza (Italy). A survey of the population of cavernicolous pseudoscorpions was first published by Gardini (1991), then Gardini (1996, 2000) summarized our knowledge of Venetian hypo- and epigeic pseudoscorpions. In this paper, a new endogeic species of *Chthonius* subgenus *Ehippochthonius* is described from Colli Euganei, Venetia. The species is named for the late Konrad Thaler in recognition of his contributions to the taxonomy, faunistics and ecology of alpine arachnids, chiefly Araneae.

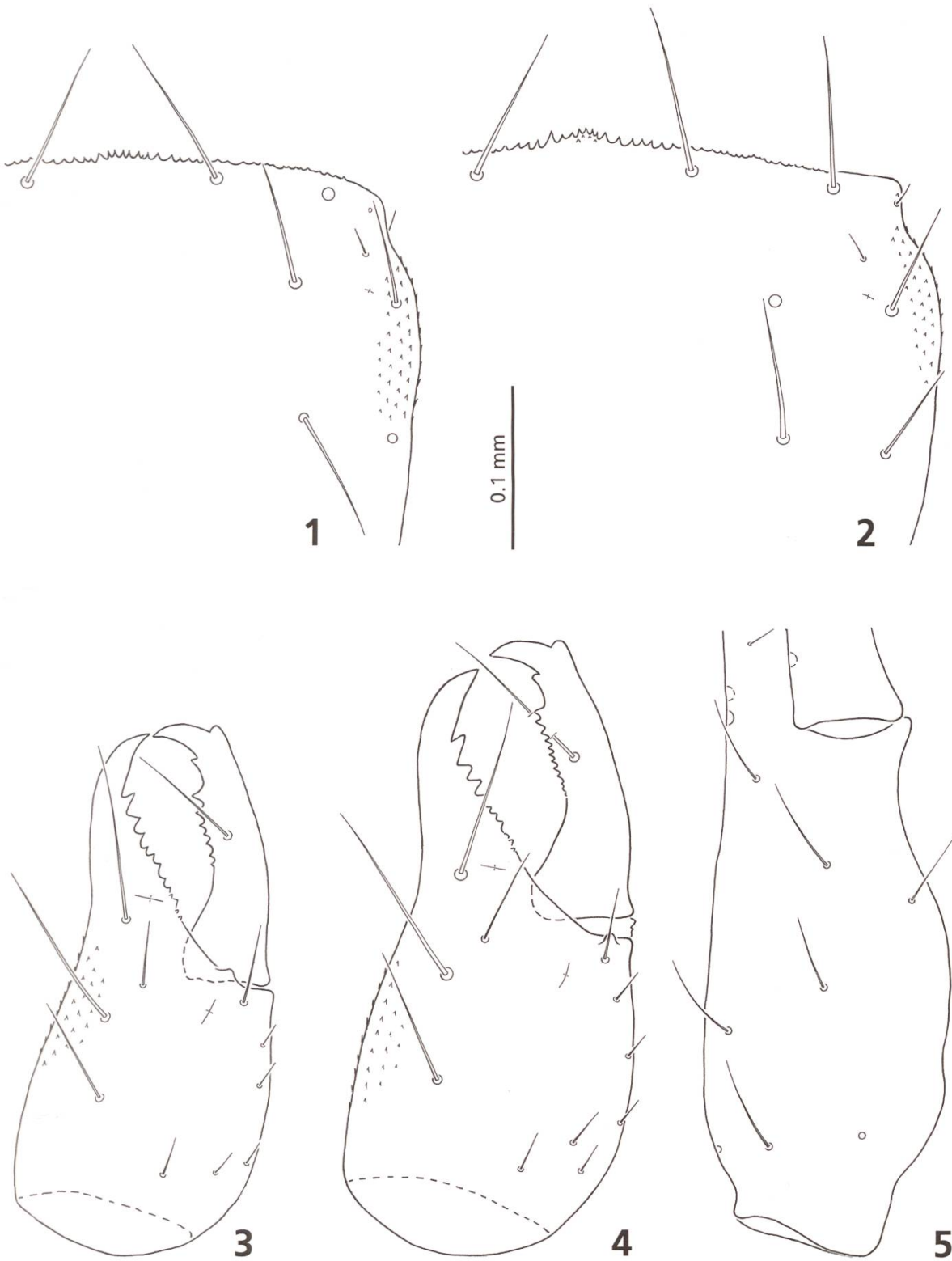
## Description

### *Chthonius (Ehippochthonius) thaleri* sp. nov.

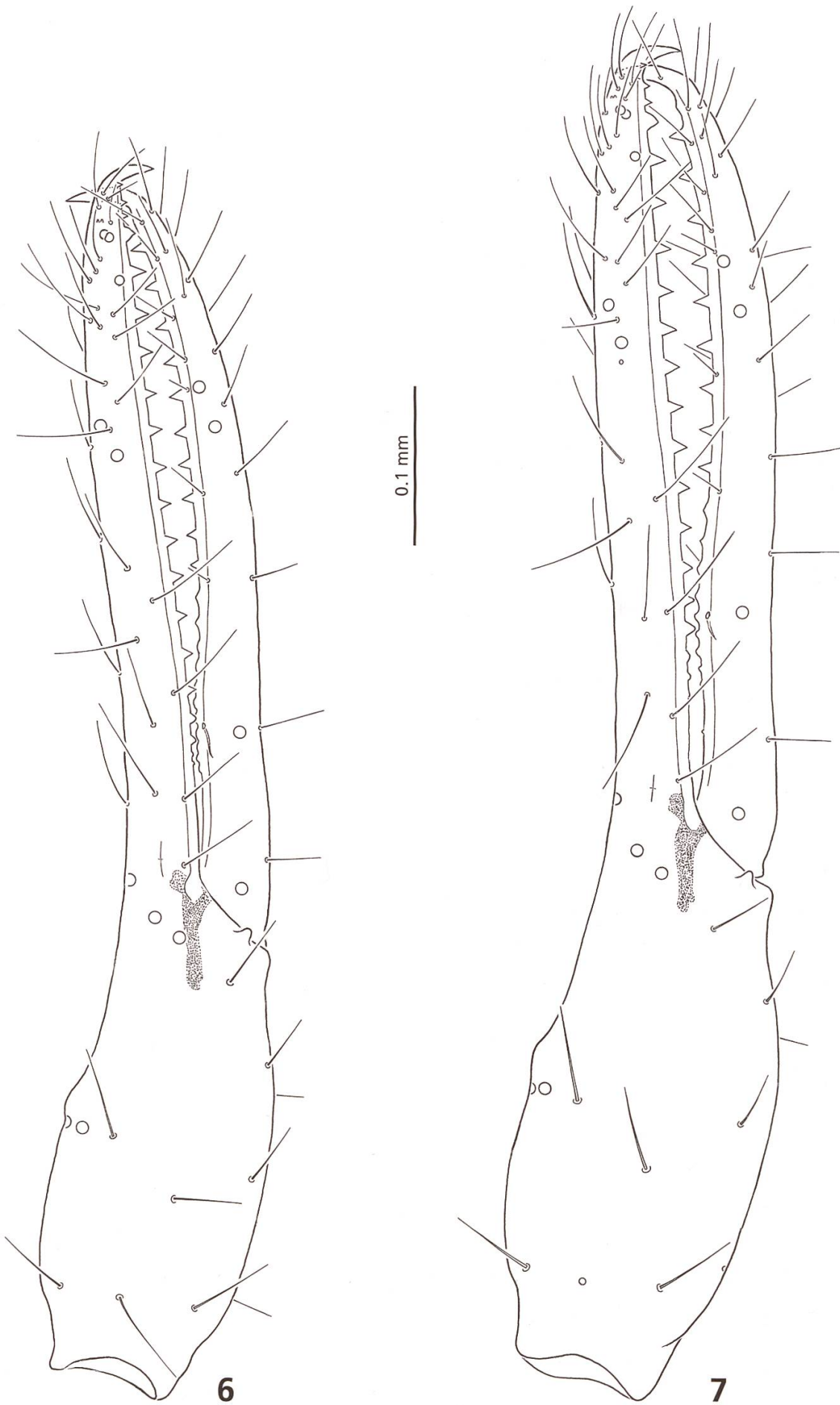
Material studied: 1 ♂ and 4 ♀: Veneto, prov. di Padova, Colli Euganei, Arquà Petrarca, pendici N Monte Ventolone, 180 m, scavo in valle attiva, 8. IV. 1996, E. Piva leg. (1 ♂ holotype); id., 19. IV. 1996, E. Piva leg. (1 ♀ paratype); id., 200 m, 22. X. 1995, G. Peretto & E. Piva leg. (3 ♀ paratypes) (Coll. G. Gardini, c/o Dip. Te. Ris., Genoa; 1 ♀ paratype in coll. E. Piva, Vicenza).

Total length (in mm) 1.35 (♂) 1.45–1.55 (♀). Colour yellowish; cuticular surface of carapace, chelicerae and pedipalps slightly rasp-shaped; setae thick. Carapace 1.0 longer than broad, posteriorly slightly restricted; anterior border (Figs. 1, 2) medially a little prominent and dentate, laterally entirely notched; no eyes nor eye-spots; 16 macrosetae (4:4:4:2:2) and 6 microsetae: 2 (rarely one) "preocular" microsetae on each side and 2 microsetae belonging to the ocular series (Figs. 1, 2); length of central anterior macrosetae 0.10 mm. Tergal setae I–X: 4:4:4:4:6:6:6:6:6:6. Manducatory process with 2 setae; coxal setae: pedipalpal coxa 3, I 3 + 3 marginal microsetae, II 4 + 8–9 coxal spines, III 5 + 4–5 coxal spines, IV 6; intercoxal tubercle bisetose. Genital opening (♂) V-shaped, with 6 and 7 setae; genital operculum (♂ ♀) with 10 setae; setae of sternites III–X: 8 (♂) or 6–7 (♀) (+ 3 microsetae on each stigma): 7 (♂) or 6–8 (♀) (+ 2 m. on each stigma): 8:6:6:6:6:6. Chelicera (Figs. 3, 4) 2.2 (♂) 2.1–2.3 (♀) longer than broad, palm with 5 setae and 5 (rarely 6) microsetae laterally; teeth of fixed and movable fingers and spinneret as in Figs 3, 4; one isolated subdistal tooth on movable finger; ratio  $gl = 0.54$  (♂) 0.55–0.57 (♀); flagellum with 11 setae.

Pedipalps (Figs. 5–7): femur 6.8 (♂) 6.1–6.5 (♀), patella 2.0 (♂) 1.8 (♀), chela 6.0 (♂) 5.5 (♀), hand of chela 2.2 (♂) 2.1 (♀) times longer than broad; movable chelal finger 1.7 (♂) 1.6 (♀) times longer than hand, femur 1.2 (♂ ♀) times longer than movable chelal finger and 1.5 (♂) 1.4 (♀) times longer than carapace. Hand of chela with a rounded hump distally of *ib/isb* and a marked hollow just before the base of the movable finger (Figs. 5–7). Fixed chelal finger with 16 triangular teeth (all with dental canal but the distal two) and 2–3 rounded ones (at level of *sb*); the third to last distal tooth is a little wider and with curved sides; latero-distal tooth acuminate. Movable chelal finger with 10 (♂) –9 (♀) triangular teeth (with dental canal) halfway between *sb/st* and 9–10 rounded vestigial teeth (without dental canal) with high base at level of *sb*; sensillum at level of *sb*; trichobothria see Figs. 6, 7.



**Figs. 1–5. *Chthonius (E.) thaleri* sp. nov. – 1: Male holotype: antero-lateral portion of carapace; – 2: Female paratype: id.; – 3: Male holotype: chelicera; – 4: Female paratype: id.; – 5: Female paratype: pedipalpal hand, latero-ventral view.**



**Figs. 6–7.** *Chthonius (E.) thaleri* sp. nov. – 6: Male holotype: pedipalpal chela, lateral view; – 7: Female paratype: id.

Measurements (in mm). Carapace: 0.38/0.365 (♂) 0.43–0.44/0.41–0.43 (♀). Chelicera: 0.325/0.145 (♂) 0.365–0.37/0.16–0.17 (♀), movable finger length 0.16 (♂) 0.185–0.19 (♀). Pedipalps: femur 0.575/0.085 (♂) 0.61–0.62/0.095–0.10 (♀), patella 0.215/0.105 (♂) 0.23–0.24/0.13 (♀), chela 0.78/0.13 (♂) 0.86/0.155 (♀), hand length 0.29 (♂) 0.33 (♀), movable finger length 0.485 (♂) 0.52 (♀).

## Discussion

*Chthonius (E.) thaleri* sp. nov. is clearly related to the epigeic *C. (E.) parmensis* BEIER, 1963, the only species in Northern Italy with which it shares the peculiar dentition of the chelal fingers, the presence of a distinct dorsal hump distally of *ib/isb* and the presence of an isolated subdistal tooth on the movable cheliceral finger. *C. thaleri* sp. nov. differs from *C. parmensis* by the following characters (Beier, 1963; Callaini, 1984; De Vore-Scribante, 1999): posterior margin of carapace with 2 setae (4 setae in *C. parmensis*); no eyes nor eye-spots (anterior eyes with lense, posterior ones reduced in *C. parmensis*); length of pedipalpal chela 0.78–0.86 mm (0.48–0.59 mm in *C. parmensis*); pedipalpal chela ratio 5.5–6.0 times, finger/hand ratio 1.6–1.7 times (respectively 3.8–4.8 times and 1.3–1.6 times in *C. parmensis*); movable chelal finger with 9–10 pointed teeth (6–8 in *C. parmensis*).

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