

TWO NEW LARVAE OF THE GENUS *LEPTUS* LATREILLE, 1796 (ACARI, ERYTHRAEIDAE) FROM BELGIUM

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ABSTRACT - Two new parasitic larval mites of the genus *Leptus* Latreille, 1796 (Acari, Erythraeidae) are described from Belgium: *Leptus cooremani* n.sp. from an unidentified butterfly and *L. beroni* n.sp. from a phalangiid, *Mitopus morio* (F.)

INTRODUCTION

The larvae of the genus *Leptus* Latreille, 1796 are poorly known in Belgium. Only one species, *Leptus ignotus* (Oudemans, 1903) is recorded so far from this country (Cooreman, 1943 and 1945). Description herein of two new species of larval *Leptus* from Belgium: *Leptus cooremani* n.sp. found on an unidentified butterfly and *Leptus beroni* n.sp. from a phalangiid, *Mitopus morio* (F.) (Arachnida) is given. All measurements are given in micrometers.

The term "Standard data" proposed by Southcott (1961 and 1988) for the measurements of the dorsal shield, the lengths of the legs and of some setae is used. The nomenclature of the solenidions and the eupathidia is that proposed by Fain and Elsen (1987). The lengths of the legs do not include the coxae and the claws. The holotypes of the new species are deposited in the Institut royal des Sciences naturelle de Belgique (IRSNB).

1. *Leptus cooremani* nov. spec.

(Figs. 1-8)

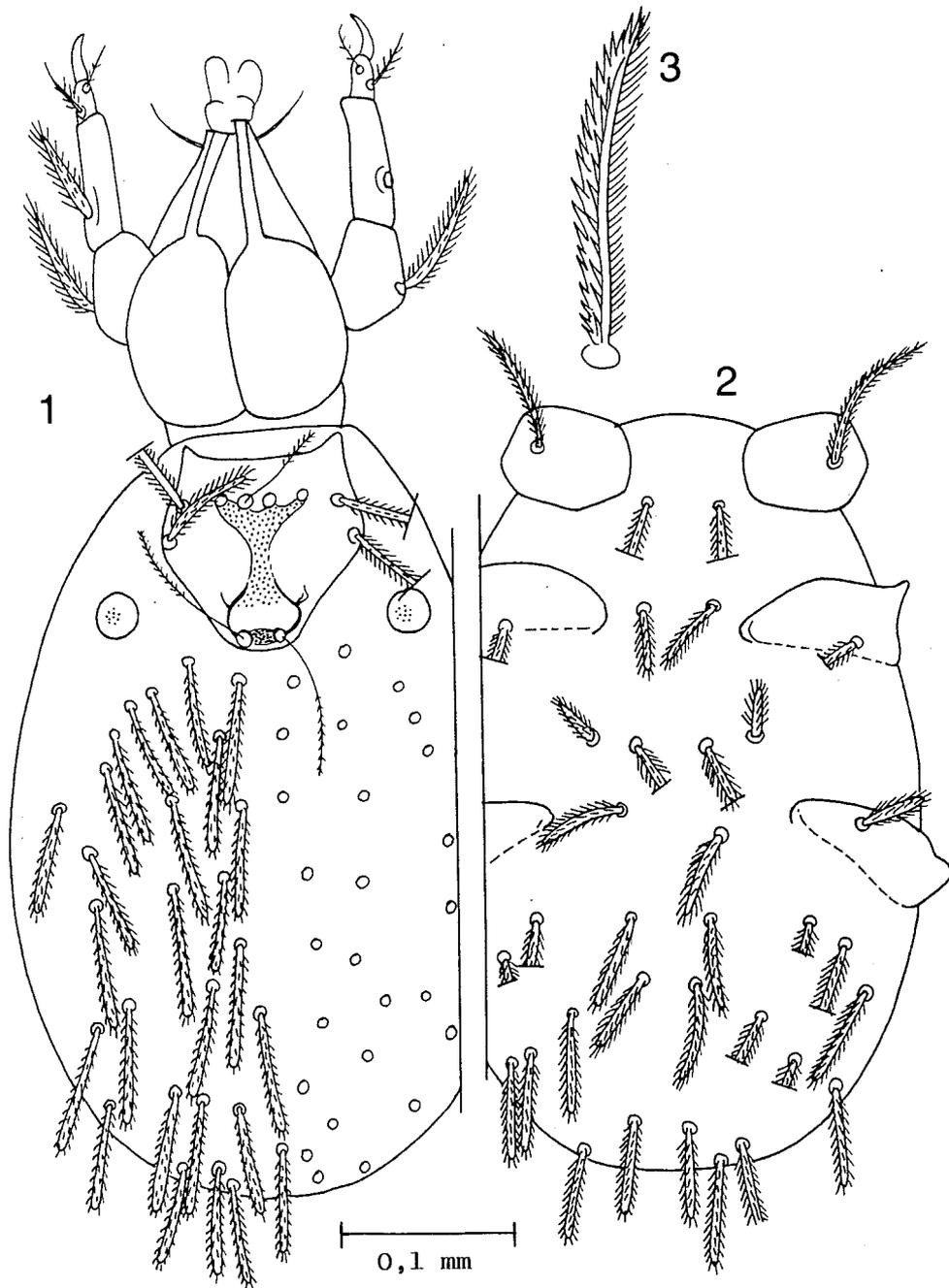
This new species is named in memory of J. Cooreman who founded the department of Acarology in the Institut royal des Sciences naturelles, in Brussels.

LARVA (holotype and only known specimen) (Figs. 1-8): Idiosoma 495 long and 318 wide. **Shield**: Standard measurements: L 140; W 128; ASens 69; PSens 95; ASBa 42; ASBM 30; AW 96; PW 120; SBa 18; SBp 21; ISD 87; A-P 30; TaI 204; TiI 309; GeI 195; CXI 105.

Sensillae with thin and short barbs in its apical half. Dorsum behind shield with 56 barbed and slightly clavate setae, 63 to 85 long. Diameter of eye lens 27. **Venter**: with 30 barbed setae, 30 to 72 long, slightly inflated in their apical half. Setae StI and StII 36-40 long (they could be incomplete). Area between coxae II and III with 2 pairs of setae. **Gnathosoma**: 240 long. **Palps**: femur and genu both with one barbed seta, 87 and 69 long respectively. Length of legs I-III: 1050-900-1120. Tarsi 204-175-195. Tibiae 309-270-370. Genua 195-150-165. Femora 295-240-310. **Chaetotaxy of the legs**: with the usual number of setae. Basifemur III with one barbed seta, tibiae with 15 barbed setae. Solenidions: ω I 37; ω II 27; φ Ia 37; φ Ib 46; σ incomplete. Eupathidia *Eti* and *Egl* 16 to 18 long.

HOST AND LOCALITY: Holotype larva, and only known specimen, from an unidentified butterfly, from the Aye region, near Marche-en-Famenne, Belgium (Coll. L. Berger, IX.1941). Holotype in the IRSNB.

REMARKS: This species is characterized by the great length of the legs and the measurements of the shield. The shield resembles that of *Leptus orthopterarum* Beron, 1975, described from Bulgaria. However, in that species the legs, the ventral setae and the eupathidia are much shorter and the shield is smaller. Two other species present very long legs, i.e. *L. draco* Southcott, 1984 described from New Guinea and *L. calidus* Shiba, 1976, described from Malaya. From *L. draco* it differs by the much larger size of the shield and of several other characters of the shield (AL, PL, ISD etc.). It is distinguished from *L. calidus* by the larger size of the shield and the shorter legs.



Figs 1-3. *Leptus cooremani* nov. spec. (Larva)- 1. Dorsum, 2. Venter, 3. Dorsal seta in dorsolateral view.

2. *Leptus beroni* nov. spec.

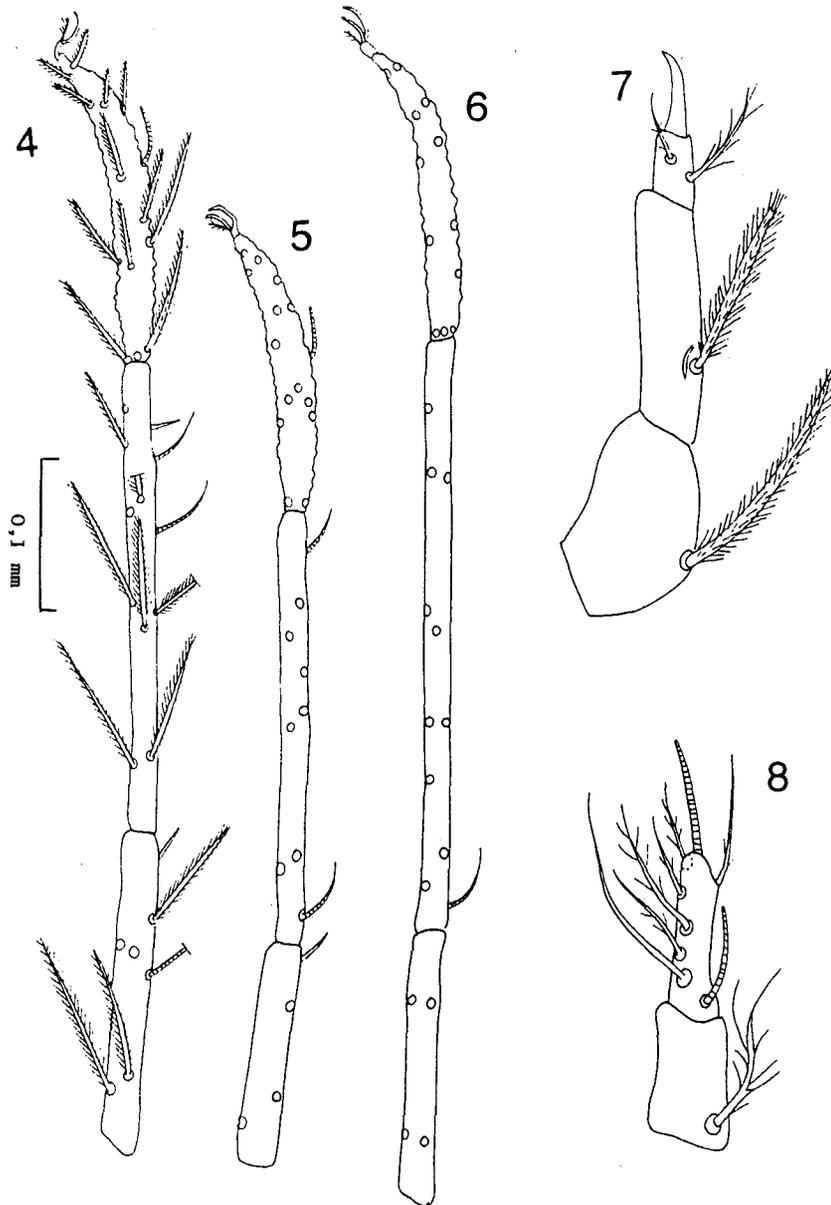
(Fig. 9)

Leptus ignotus Beron, 1975: 57, nec *L. ignotus* (Oudemans, 1903: 92)

Beron (1975) assigned to *Leptus ignotus* (Oudemans, 1903) a series of larval *Leptus* that he found on Opilionids, especially *Mitopus morio* (F.), from Bul-

garia. Also from *Mitopus morio*, but in Belgium, we found 3 larvae of *Leptus* which correspond exactly to the specimens described and depicted by Beron in Bulgaria under the name *L. ignotus*.

According to Southcott (1988) the specimens described by Beron do not correspond to the description of Oudemans (1903 and 1912, p. 156, 197 and 198) mainly because they present a smaller number of dorsal setae than in *ignotus*. Dr. van Helsdingen of the Leiden Natural History Museum kindly forwarded us an



Figs 4-8. *Leptus cooremani* nov. spec. (Larva)- 4. Leg I, tarsus, tibia and genu in lateral view, 5. Leg II, tarsus, tibia and genu, 6. Leg III, tarsus, tibia and genu. 7. Palp in dorsal view, 8. Palp tarsus and palp tibia in ventral view.

original unpublished drawing of Oudemans which gives more details on the morphology of *L. ignotus* (Fig. 9) and proves that the specimens studied by Beron do not belong to *L. ignotus* but represent, in fact, a new species that is described herein.

Description of *Leptus beroni* nov spec.

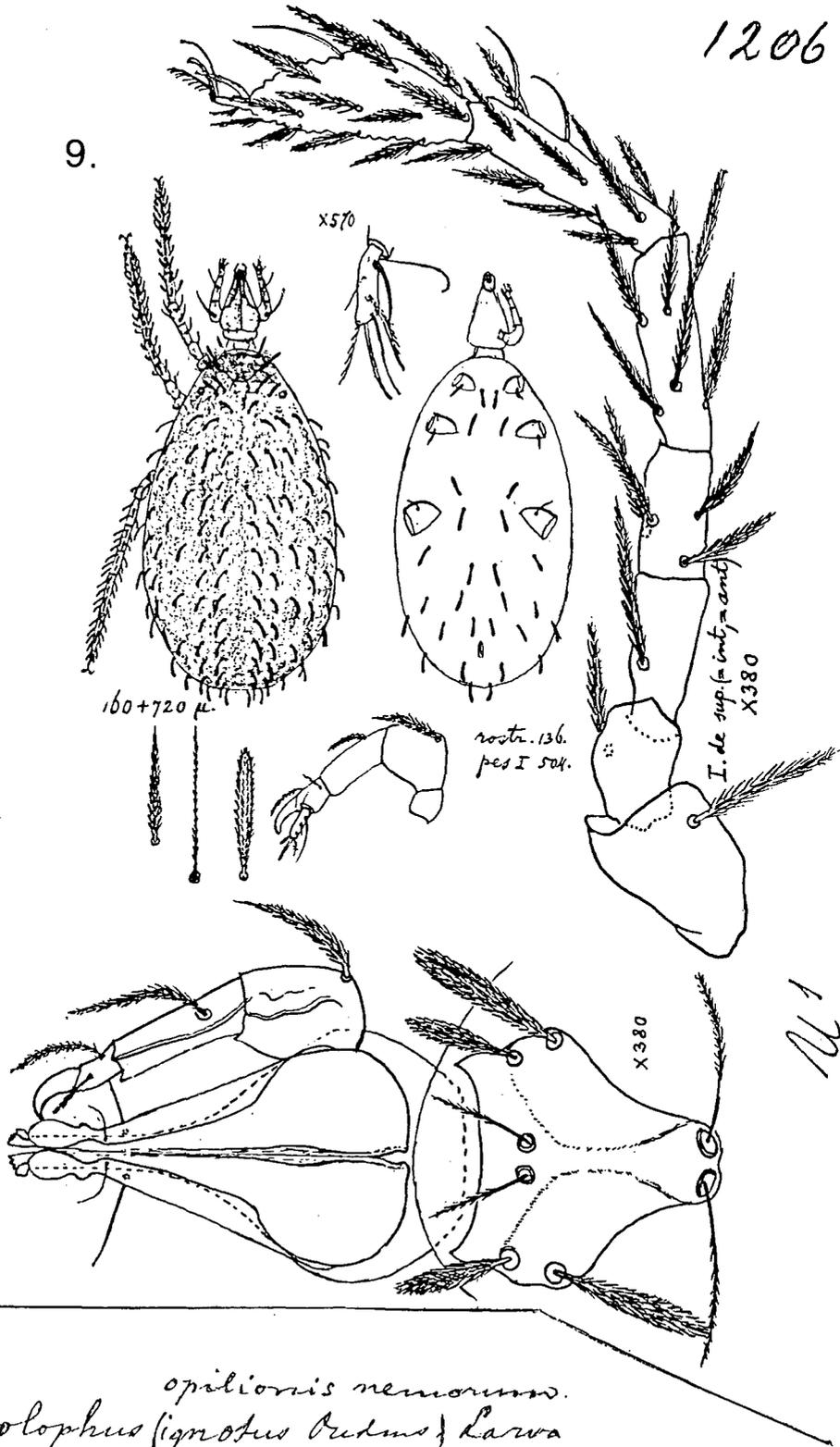
This new species is named for Dr. P. Beron, prominent Bulgarian Acarologist, in recognition of his comprehensive work on Erythraeidae in his country. As Dr. Beron has given a complete description and

numerous drawings of his "*L. ignotus*," a long description and figures are not given here.

LARVA (holotype): Idiosoma 495 long and 360 wide. *Shield*: Standard data (measurements of 2 paratypes are given in bracket): L 108 (112-118); W 110 (111-113); AL 81 (72-75); PL 72 (66-67); ASens 63 (66); PSens 87 (78-90); ASBa 30 (32); ASBM 21 (21-24); AW 84 (83-87); PW 105 (105-108); SBa 15 (15-19); SBp 18 (18); ISD 68 (66-69); A-P 19 (18-19); TaI 150 (153-159); TiI 210 (200-204); GeI 147 (146-150); StI 105 (85-89); CxI 105 (90-96); CxII (39); CxIII 80 (70-74). Dorsum with 78 barbed setae, 39 to 50 long. Sensillae with short

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9.



opilionis nemorosus.
Achorolophus (ignotus Oudemans) larva

Fig. 9. *Leptus ignotus* (Oudemans, 1903) - Original unpublished drawing of Oudemans, published with the permission of Dr P.J. van Helsdingen, Rijksmuseum van natuurlijke Historie, Leiden. (The legend of the figure is written by Oudemans in his own hand).

and thin barbs in their apical half. Diameter of eye lens 15. Venter with 42 barbed setae, narrower than dorsal setae. The intercoxal setae I (StI) longer (105) than the intercoxal setae II (78). The setae situated behind coxae II 39-45 long. *Gnathosoma*: chelicerae 190 long; palpal-genu 64 long, with a barbed seta 63 long and a longitudinal sinuous crest. Lengths of leg segments: tarsi 150-136-148; tibiae 210-170-226; genua 147-122-135.

HOST AND LOCALITY: Holotype and 2 paratypes larvae from *Mitopus morio* (F.) (Phalangidae) from the "Foret de Soignes", near Bruxelles (Coll. J. Cooreman, 31.VII and 8.VIII.1942) The specimens described by P. Beron were found on *Mitopus morio* and *Mitopus ruzikai* Sihl, from Bulgaria.

REMARKS: This new species differs from all the species described from Europe, including *L. ignotus*. (Oudemans, 1903), by the following combination of characters: setae AL distinctly longer than PL, setae StI and CxI subequal and very long (more than 100 μm), dorsal shield as long as wide, number of dorsal setae 70 to 86.

ACKNOWLEDGEMENTS

I thank Dr. P.J. van Helsingen, Rijksmuseum van natuurlijke Historie, Leiden, who provided me with original unpublished drawings of Oudemans, and allowed me to reproduce in this paper.

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