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***Leptus (Leptus) chiusicus* nov.sp (Acari, Prostigmata, Erythraeidae) from Sicily, Italy**

R. HAITLINGER & M. ŠUNDIĆ

A b s t r a c t : *Leptus (Leptus) chiusicus* nov.sp. is described and illustrated from larvae collected on undetermined Orthoptera in Sicily. It is the third report of *Leptus* having one palpgenuala and more than four setae between coxae II and III in the world.

K e y w o r d s : Acari, Erythraeidae, Orthoptera, new species, Sicily.

Introduction

20 *Leptus* species were known from Italy hitherto; 11 of them were known only as adults and 9 of them were known only of larval stage or from adults and larvae: *L. (L.) phalangii* (DE GEER, 1778), *L. (L.) dubius* (PAOLI, 1937), *L. (L.) molochinus* (C. L. KOCH, 1837), *L. (L.) mariae* HAITLINGER, 1987, *L. (L.) meloidarum* BERON, 1975, *L. (L.) trimaculatus* (ROSSI, 1794), *L. (L.) josifovi* BERON, 1975, *L. (L.) hammameticus* HAITLINGER, 1998 and *L. (L.) pozoicus* HAITLINGER, 2007. Only two *Leptus* species were known from Sicily: *L. (L.) siculus* CANESTRINI, 1884 and *L. (L.) hammameticus* (PAOLI, 1937, HAITLINGER 1998, 2007a, b, 2011, BERON 2008, MAKOL & WOHLTMANN 2012). In this paper we describe the larva of *Leptus (Leptus) chiusicus* nov.sp. from Sicily.

Material and Methods

Two larvae were collected on undetermined Orthoptera. They were preserved in 70% ethanol and later mounted on microscopic slides using Berlese medium on a glass slide. Measurements (given in micrometers) were made using microscope NIKON Eclipse 80i. Figures were drawn using Carl Zeiss Axioskop A1 microscope. The terminology and abbreviations follow HAITLINGER (1999) and WOHLTMANN et al. (2007).

Results

Family E r y t h r a e i d a e ROBINEAU-DESVOIDY, 1828

***Leptus (Leptus) chiusicus* nov.sp.**

D i a g n o s i s : the new species belongs to the group species with one palpgenuala and

more than four setae between coxae II – III. Larva with the following features: fD 96, AW 81-82, AL 53, PL 47, Ta I 145-150, Ti III 209-217, fn Ta I-III 23-24, 20-22, 22, fn Ti I-III 14, 14, 14.

M a t e r i a l e x a m i n e d : the holotype and paratype were collected by R. Haitlinger on undetermined Orthoptera, 3 July 2013 in Chiusa Sclafani (37°41' N, 13°16' E), Palermo prov., Sicily. The holotype and paratype are deposited in Museum of Natural History, Wrocław University (MNHU), Poland.

D e s c r i p t i o n (larva): Idiosoma with 96 barbed setae. One pair of eyes (Fig. 1). Scutum in a very small degree, longer than wide (in paratype slightly wider than long), with two barbed scutalae AL and PL, AL > PL. Anterior sensillae ASE shorter than posterior sensillae PSE, both with setules on their distal part (Fig. 3). Ventral surface of idiosoma bearing two barbed setae *1a*, two barbed setae *2a*, eight barbed setae between coxae II-III, two setae *3a* and 28 slightly barbed setae behind coxae III. Setae *1b* about twice longer than setae *2b* and distinctly longer than setae *3b* (Fig. 2). NDV = 124.

Gnathosoma with smooth hypostomata. Palpfemur and palpgenu each with one barbed seta. Palptibia with three barbed setae; palptarsus with 6 (5N, 1B) normal setae, solenidium and eupathidium (Fig. 4).

Leg setal formula: Leg I: Ta 1 ω , 2 ζ , 23 (24 in paratype); Ti 2 ϕ , 1 κ , 14; Ge 1 σ , 1 κ , 8, Tf 5; Bf 2, Tr 1, Cx 1 (Fig. 5). Leg II: Ta 1 ω , 2 ζ , 20 (22 in paratype); Ti 2 ϕ , 14; Ge 1 κ , 8; Tf 5; Bf 2; Tr 1, Cx 1 (Fig. 6). Leg III: Ta 1 ζ , 22; Ti 1 ϕ , 14; Ge 8; Tf 5; Bf 1; Tr 1; Cx 1 (Fig. 7). Legs length: I 780 holotype, 767 paratype, II 656 holotype, 654 paratype, III 810 holotype, 819 paratype. IP = 2246 holotype, 2240 paratype.

Measurements are given in Table 1.

E t y m o l o g y : The species was named after the place where the holotype was collected.

R e m a r k s : *Leptus (Leptus) chiusicus* nov.sp. belongs to the species group with one palpgenua and more than four setae between coxae II and III. This group includes: *L. (L.) ursyni* HAITLINGER, 1991 known from Chile, obtained from *Scotobius planatus* ERICHSON, 1834 (Coleoptera, Tenebrionidae) and *L. (L.) charanyca* FAIN, 1991 known from Belgium, obtained from *Charanyca trigrammica* HUFNAGEL, 1766 (Lepidoptera, Noctuidae) (FAIN 1991, HAITLINGER 1991). It differs from *L. (L.) ursyni* in two setae between coxae I vs. four setae, two setae between coxae II vs. six setae, eight setae between coxae II-III vs. 15 setae, the shorter AW (81-82 vs. 134-138), PW (94-95 vs. 138-142), PsFd (58-62 vs. 76), AP (15-19 vs. 24) and longer seta *1a* (37-42 vs. 30-32) and from *L. (L.) charanyca* in the shorter AL (53 vs. 69-73), PL (47 vs. 66-67), longer TaI (145-150 vs. 115), Ti III (209-217 vs. 165), fD (96 vs. 146) and fnTi (14-14-14 vs. 15-15-15).

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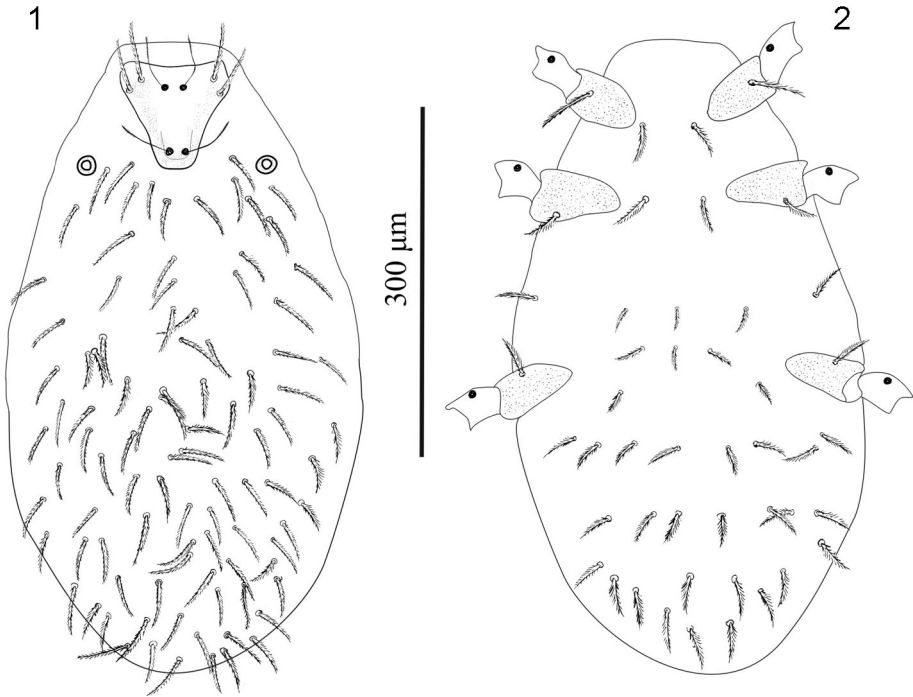
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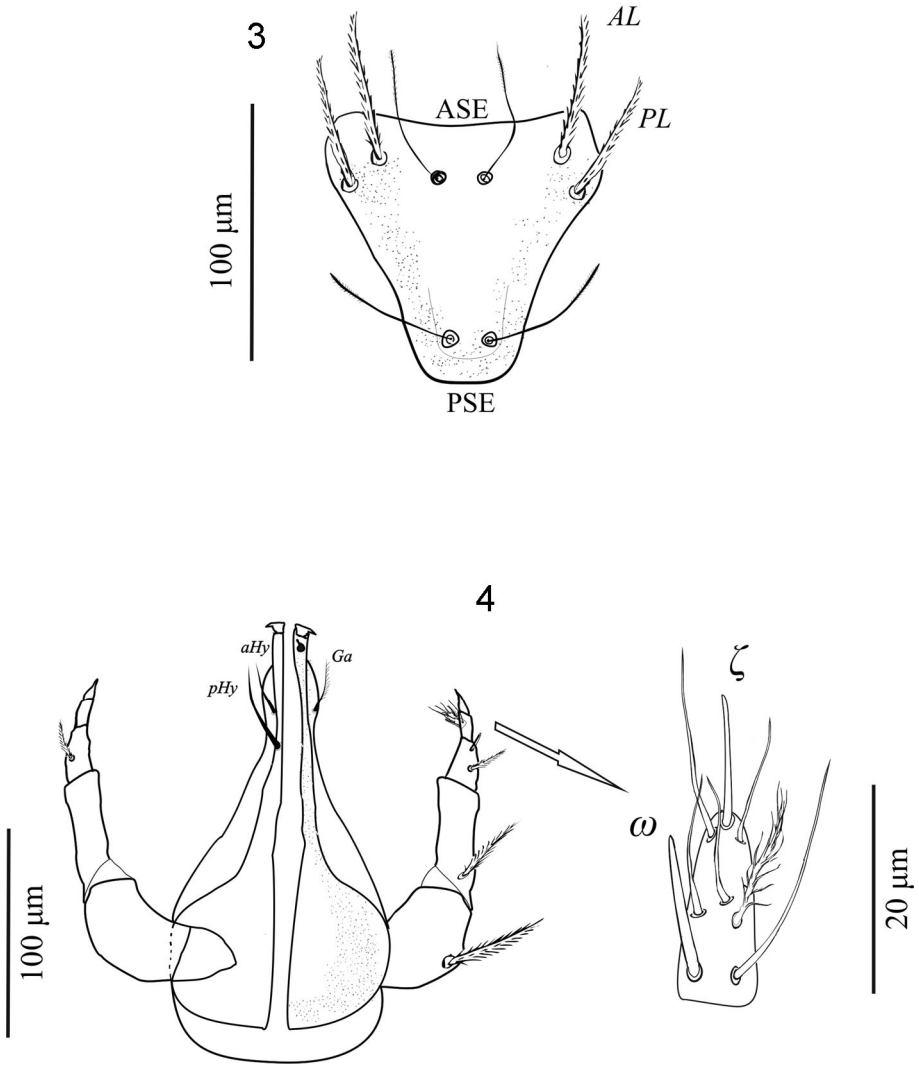
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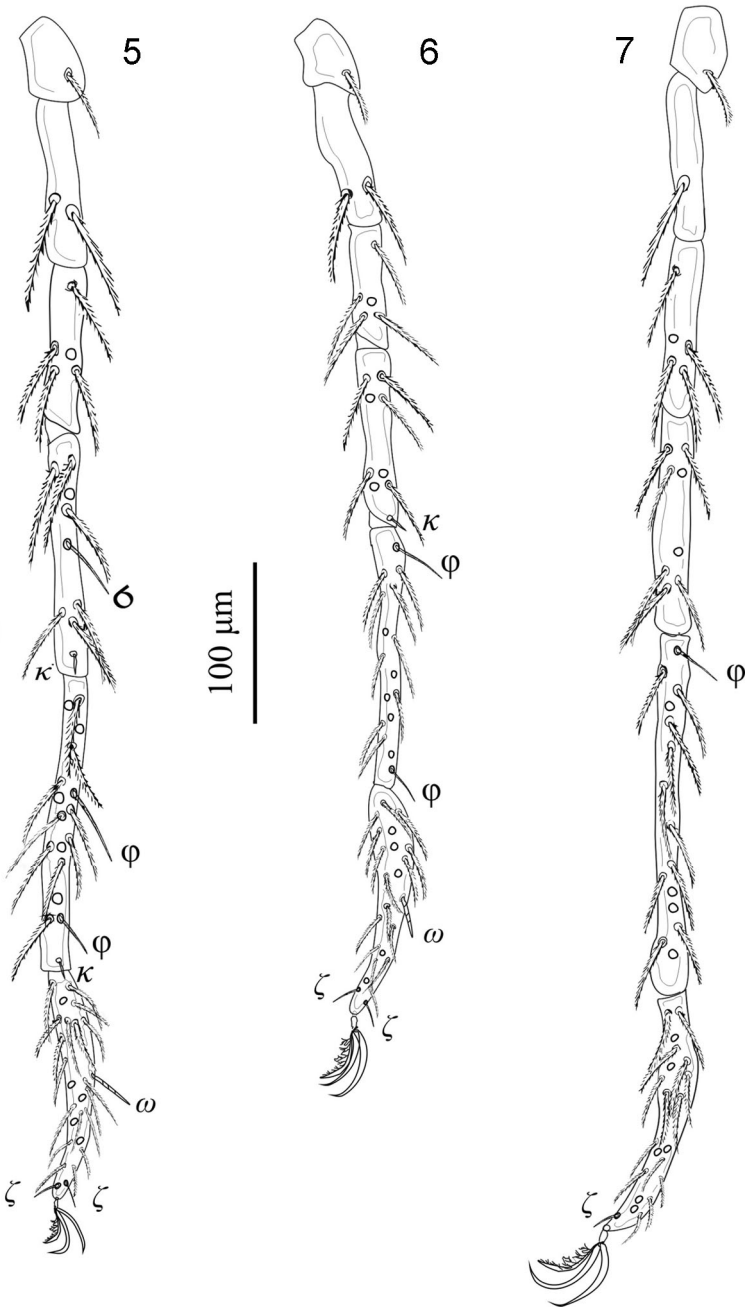
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Figs 1-2. *Leptus (Leptus) chiusicus* nov.sp. (1) dorsal view of idiosoma; (2) ventral view of idiosoma.



Figs 3-4. *Leptus (Leptus) chiusicus* nov.sp. (3) scutum; (4) gnathosoma, left - ventral view, right - dorsal view and palptarus.



Figs 5-7. *Leptus (Leptus) chiusicus* nov.sp. (5) leg I; (6) leg II; (7) leg III.

Table 1: Metric data of *Leptus (Leptus) chiusicus* nov.sp H – holotype, P – paratype

	H	P		H	P
IL	556	880	Tr I	53	54
IW	312	491	Cx I	65	59
L	106	97	Ta II	132	128
W	105	100	Ti II	142	139
AW	81	82	Ge II	102	112
PW	95	94	Tf II	74	74
AA	17	12	Bf II	80	76
SB	15	13	Tr II	51	52
ISD	55	56	Cx II	74	73
AP	19	15	Ta III	156	151
AL	53	53	Ti III	209	217
PL	47	47	Ge III	130	138
ASE	52	40	Tf III	104	101
PSE	64	69	Tf III	90	92
GL	198	193	Tr III	52	54
DS	20-36	27-36	Cx III	69	66
PsFd	58	62	PaFe (L)	58	54
PsGd	49	53	PaFe (W)	39	36
<i>1a</i>	37	42	PaGe (L)	63	65
<i>2a</i>	35	35	PaGe (W)	21	22
<i>3a</i>	15	21	PaTi (L)	22	21
<i>1b</i>	57	59	PaTi (W)	13	14
<i>2b</i>	27	28	OD	27	27
<i>3b</i>	32	35	as1	42	26
Ta I	145	150	Leg I	780	767
Ti I	171	171	Leg II	656	654
Ge I	142	142	Leg III	810	819
Tf I	98	92	IP	2246	2240

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