

A NEW GENUS AND SPECIES OF LARVAL EUTROMBIDIINAE THOR, 1935 (ACARI: MICROTROMBIDIIDAE) FROM AN AFROTROPICAL SPIDER

A. Fain¹ and R. Jocqué²

1. Institut royal des Sciences naturelles de Belgique, rue Vautier 29, B-1040 Bruxelles, Belgium. 2. Musée royal de l'Afrique centrale, B-3080 Tervuren, Belgium.

SUMMARY - The larva of *Spinnitrombium kenyense* nov. gen., nov. spec. (Acari: Microtrombidiidae: Eutrombidiinae) is described from a spider, *Metaleptyphantes perexiguus* (Sim & Fage) (Linyphiidae), from Kenya.

RÉSUMÉ - La larve de *Spinnitrombium kenyense* nov. gen., nov. spec. (Acari: Microtrombidiidae: Eutrombidiinae) est décrite d'une araignée, *Metaleptyphantes perexiguus* (Sim & Fage) (Linyphiidae) du Kenya.

INTRODUCTION

The new trombidiid larval mite described here was collected by the junior author from a spider, *Metaleptyphantes perexiguus* (Sim & Fage) (female), from Kenya. It represents a new genus and species, *Spinnitrombium kenyense*, in the Microtrombidiidae, Eutrombidiinae.

The subfamily Eutrombidiinae has been revised by Southcott (1993). It includes at present 3 tribes: Eutrombidiini Thor, 1947, Milliotrombidiini Southcott, 1993 and Hexathrombidiini Fain & Drugmand, 1993.

The new genus belongs to Eutrombidiini but it is clearly distinct from the other two genera (*Eutrombidium* Verdun, 1909 and *Verdunella* Southcott, 1993) included in this tribe in the presence of only 2 claws on leg I and II (the anterior claw being lacking). The new genus is close to *Verdunella* in the location of the eyes which are incorporated in the anterior scutum.

All measurements are in micrometers (μm). The metric data are those of Southcott (1986). The symbols of the specialized setae follow Fain (1992) and Fain & Baker (1993).

Genus *Spinnitrombium* nov. gen.

Definition: This genus presents some characters described for *Verdunella* Southcott, i.e. the incorporation of the eyes in an extension of the anterior scutum, the presence of a long barbed seta on the palptarsus, the poor development of idiosomal chaetotaxy, the number of setae

on legs I-III (excluding tarsi), the situation of medial seta of coxa I (removed from the internal border of this coxa).

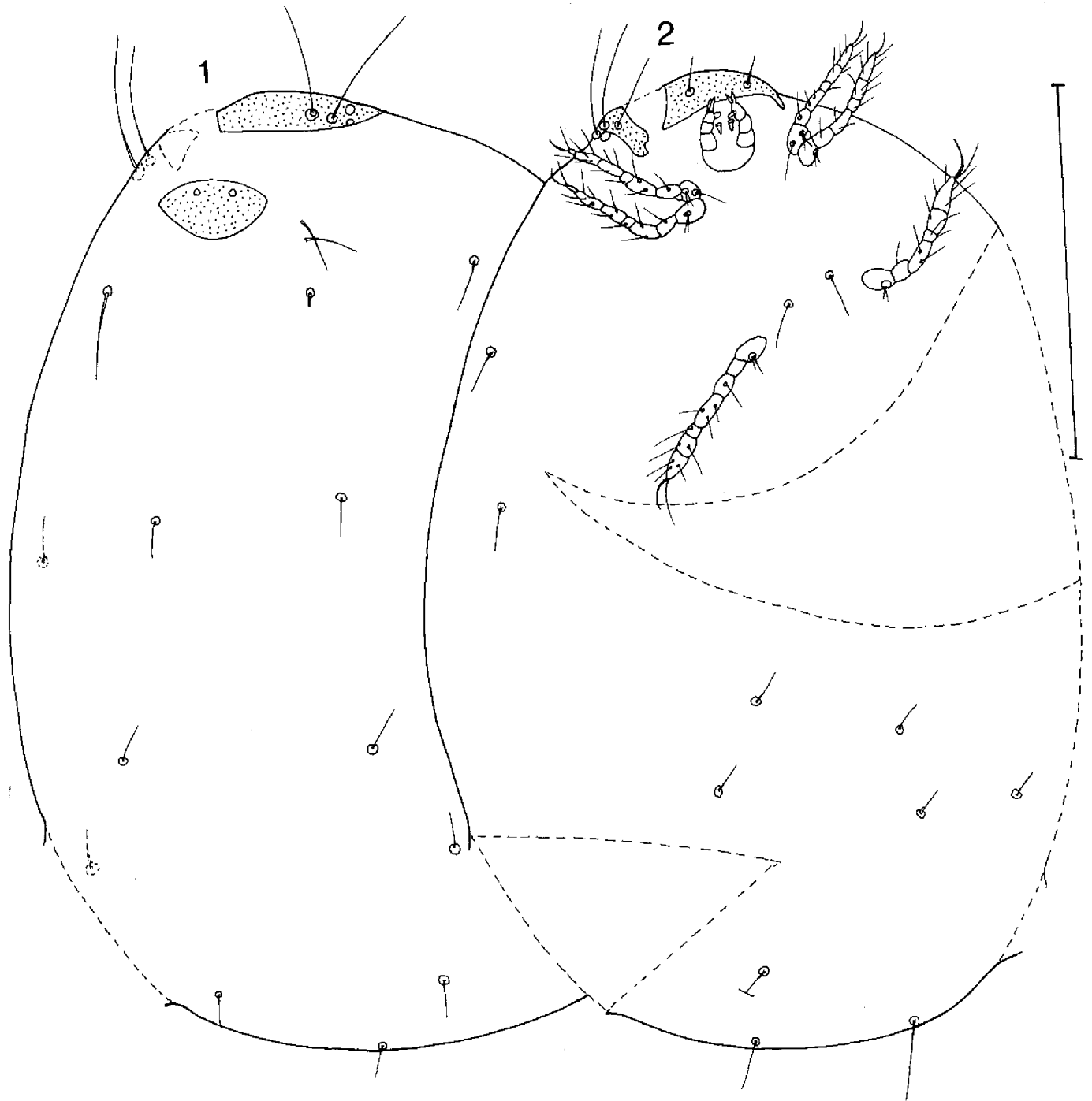
It differs from *Verdunella lockleii* by the following characters: complete absence of the anterior claw on tarsi I and II, anterior claw of tarsus III banana-shaped, presence of one eupathidium (ventral) on both tarsi I and II, ωI sub-basal and much longer, the two σI situated almost at the same transverse level.

In *Spinnitrombium* the hypostomal setae are very thick and banana-shaped, the apical palpal tibial spine is deeply forked, and the chitinous ring surrounding the mouth presents vestigial indentations.

Type species: Spinnitrombium kenyense nov. spec.

Spinnitrombium kenyense nov. spec.

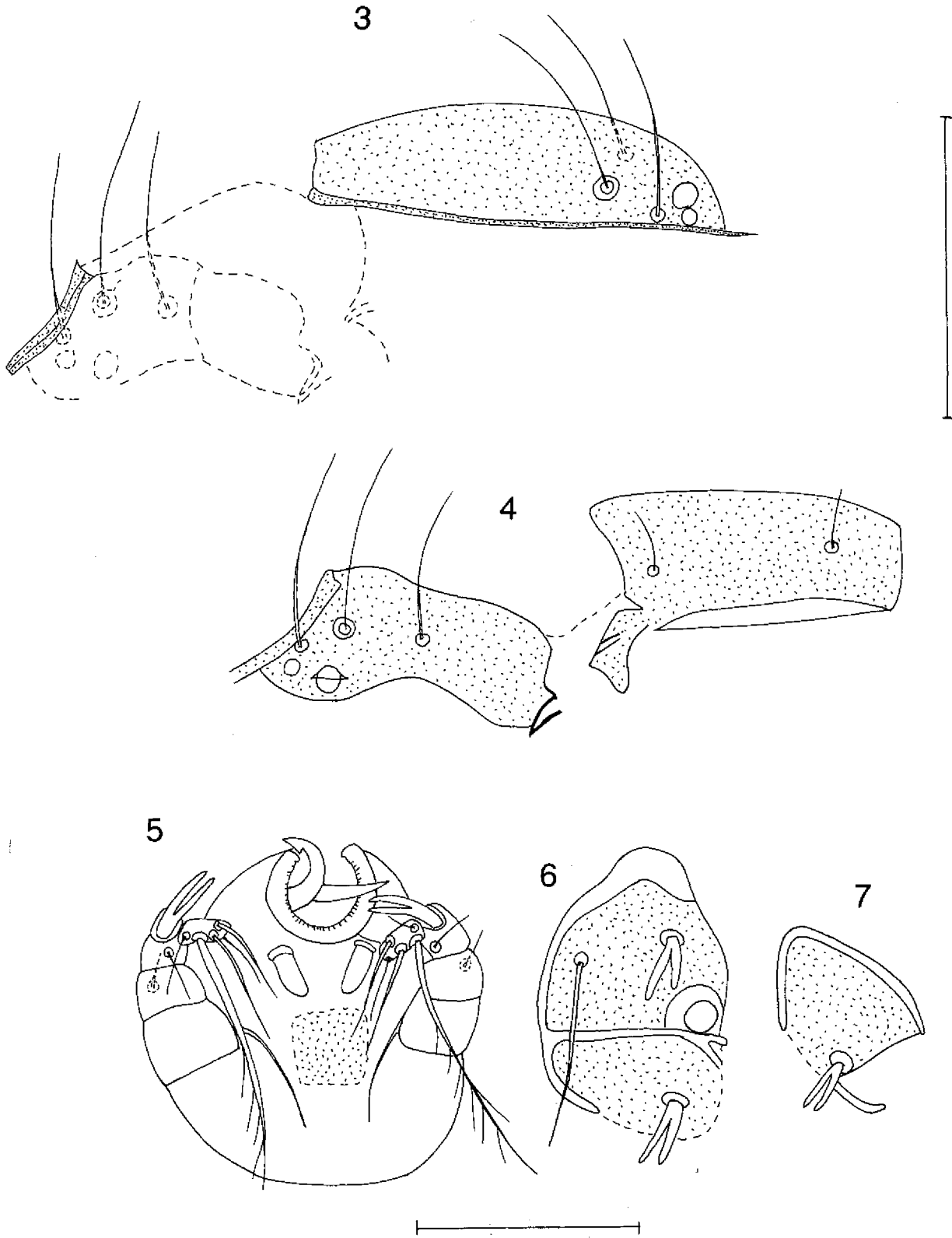
Larva, holotype (Figs. 1-12): **Metric data:** see table I. This specimen was strongly engorged and partly crushed in mounting. Total length of idiosoma 1260, maximum width 840. **Dorsum:** scutum finely punctate. Sensilla smooth, very thin. PL relatively thick without distinct pectinations and inserted very close to the posterior eyes. Diameter of eyes 8,5 and 7 respectively. Postero-medial shield with posterior border strongly convex. The setae *QW* have been rubbed off and are visible in the slide mount at some distance from the shield. Idiosoma apparently with 7 pairs of smooth and thin setae. **Venter:** Intercoxal setae III smooth, 40 long. Medial smooth seta of coxa I 38 long. Lateral setae of coxae I-III very deeply bifid. Coxae II-III bearing only a bifid seta. Urstigma circular (Fig. 6). Opisthogaster with 4 or 5 pairs of short



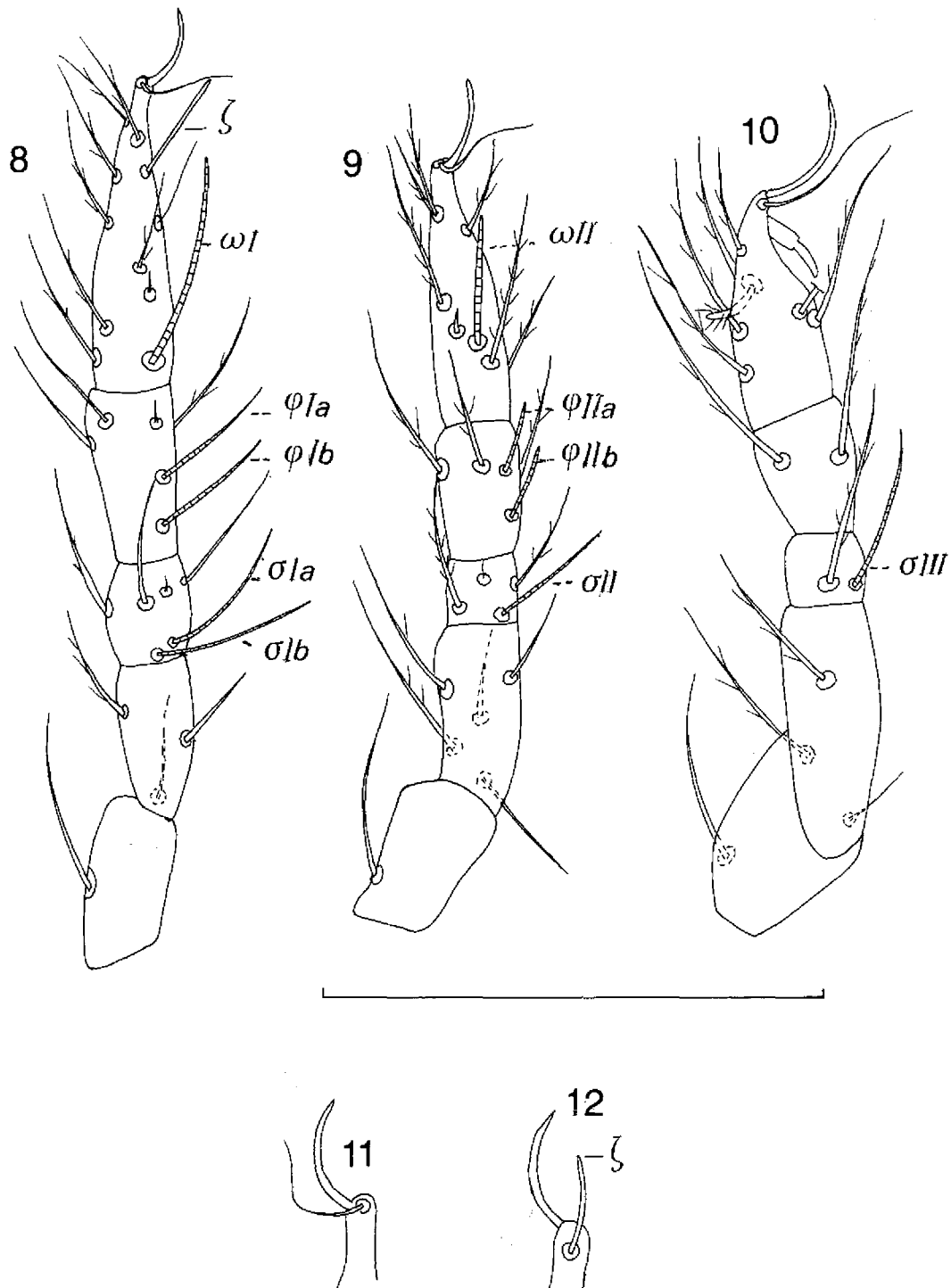
Figs. 1-2. *Spinnitrombium kenyense* nov. spec. (larva) - 1. dorsal view, 2. ventral view. Scale line 500 μ m.

and thin smooth setae. Legs with 5 free segments, femora entire. *Leg chaetotaxy*: Trochanters 1-1-1, femora 6-5-4, genua 4-2-2, tibiae 6-5-5. Most of these setae bearing a

few short barbules, the others smooth. Tarsi I and II each with a ventral eupathidia, situated close to the base of posterior claw. *Gnathosoma* 90 long and 75 wide, the ring



Figs. 3-7. *Spinnitrombium kenyense* nov. spec. (larva) - 3. anterodorsal shield in dorsal view, 4. anterodorsal shield in ventral view, 5. gnathosoma, 6. coxae I and II, 7. coxa III. Scale lines 100 μ m (Figs. 3-4) and 50 μ m (Figs. 5-7).



Figs. 8-12. *Spinnitrombium kenyense* nov. spec. (larva) - 8. leg I in dorsal view, 9. leg II in dorsal view, 10. leg III in dorsolateral view, 11. apical portion of leg I in dorsal view, 12. apical portion of leg I in ventral view. Scale line 100 μ m (Figs. 8-10).

Table 1. Metric data of *Verdunella lockleii* (Welbourn & Young, 1988) and *Spinnitrombium kenyense* n.g., n.sp. N.B. 1. The symbols used by Welbourn & Young are in parentheses. 2. The coxa and the claws are not included in the length of the legs.

Character	<i>V. lockleii</i>			<i>S. kenyense</i>	Character	<i>V. lockleii</i>			<i>S. kenyense</i>
	Original description		From Southcott, 1993	Holotype		Original description		From Southcott, 1993	Holotype
	Holo-type	Paratypes (mean)	2 specimens			Holo-type	Paratypes (mean)	2 specimens	
AM (AM)	14	14	16	23	TaI	-	-	71;73	48
AL (AL)	33	33	32;36	60	TaII	-	-	66;66	39
PL (PL)	70	68	64;68	56	TaIII	-	-	58;59	60
SE (S)	72	65	c.60	65	TiI	-	-	37;38	35
AMB (AA)	-	61	-	58	TiII	-	-	38;36	28
AW (AW)	-	85	c.180;182	c.120	TiIII	-	-	40;38	30
PW (PW)	-	186	c.170;176	c.135	GeI	-	-	22;22	15
AP (AP)	35	37	38;36	-	GeII	-	-	15;15	12
SA	-	-	32;33	-	GeIII	-	-	14;14	15
SP	-	-	23-21	c.20	FeI	-	-	45;46	41
SB (SB)	139	131	135-140	c.98	FeII	-	-	38;41	39
L (SD)	-	138	c.180	-	FeIII	-	-	41;41	36
W	-	-	229	-	TroI	-	-	-	27
ASB (ASB)	-	116	c.150	-	TroII	-	-	-	30
PSB	31	28	30;31	-	TroIII	-	-	-	28
PSW (LSS)	175	166	179;180	140	ω I	22	20	-	42
PSL (HS)	85	82	79;82	78	ϕ Ia	19	22	-	25
QW (SS)	33	35	33;40	49	ϕ Ib	14	16	-	26
QL (cl)	-	65	66;70	48	σ Ia	24	25	-	30
PLN	-	-	15;18	12	σ Ib	25	23	-	30
DS	-	-	26-58	30-45	ω II	18	18	-	18
LPS	-	-	62	-	ϕ IIa	12	12	-	15
Legs (L)					ϕ IIb	15	16	-	18
Leg I	200	196	-	150	σ II	17	21	-	27
Leg II	190	184	-	141	σ III	25	21	-	28
Leg III	173	172	-	129					

around the mouth bearing vestigial indentations (Fig. 5). Hypostomal setae banana-shaped, 12 long and 4.8 wide. Palptarsus with 5 setae of which one is 45 long and barbed, no solenidion observed.

Host and locality: The holotype larva, and only known specimen, was attached to the abdomen of a spider, *Metaleptyphantes perexiguus* (Sim & Fage) (Linyphiidae), collected in Betty's Garden, Wilifi, Kenya. The spider was collected by J. Murphy (31.VIII.1977) and the mite by R. Jocqué. Holotype is deposited in Musée royal de l'Afrique centrale, Tervuren, Belgium.

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REFERENCES

- Fain, A., 1992. A new larval trombidiid, *Paputrombidium grootaerti* n. g. and n. sp. (Acari, Trombidiidae, parasitic on *Cymatopus* spp. (Diptera) from Papua New Guinea. Bull. Inst. r. Sci. nat. Belg., Entomologie, 62: 105-108.

- Fain, A. and A. Baker. 1993. On some larval Microtrombidiinae (Acari: Prostigmata) parasitic on phlebotomine sandflies (Diptera: Psychodidae). Bull. Anns Soc. r. belge Ent. 129: 325-339.
- Fain, A. and D. Drugmand. 1993. Notes on the genus *Hexathrombium* Cooreman, 1944 (Acari, Trombidiidae) with description of a new tribe and species from Afrotropical Staphylinidae (Coleoptera). Bull. Anns Soc. r. belge Ent. 129: 121-128 (published on 10 September 1993).
- Southcott, R.V., 1986. Studies on the taxonomy and biology of the subfamily Trombidiinae (Acarina, Trombidiidae) with a critical revision of the genera. Aust. J. Zool., suppl. ser. n° 123: 1-116.
- Southcott, R.V., 1993. Revision of the larvae of the subfamily Eutrombidiinae (Acarina: Microtrombidiidae). Invert. Taxonomy 7 (4): 885-959.
- Thor, S., 1935. Übersicht und Einteilung der Familie Trombidiidae W.E. Leach, 1814 in Unterfamilien. Zool. Anz. 109: 107-112.
- Verdun, P., 1909. Sur l'opportunité de la division du genre *Trombidium* proposée par Oudemans. C. r. Séanc. Soc. Biol., Paris 67: 244-246.
- Welbourn, W.C. and O.P. Young. 1988. Mites parasitic on spiders, with a description of a new species of *Eutrombidium* (Acari, Eutrombidiidae). J. Arachnol. 16: 375-385.
