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# Exploration du Parc National de la Garamba

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MISSION H. DE SAEGER

en collaboration avec

P. BAERT, G. DEMOULIN, I. DENISOFF, J. MARTIN, M. MICHA, A. NOIRFALISE,  
P. SCHOEMAKER, G. TROUPIN et J. VERSCHUREN (1949-1952).

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FASCICULE 24

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| <ol style="list-style-type: none"><li>1. <b>ACARI</b> by GERALD W. KRANTZ (Corvallis).</li><li>2. <b>HISPINAE</b> von ERICH UHMANN (Stollberg).</li><li>3. <b>BIBIONIDAE and DORILAIIDAE</b> by D. ELMO HARDY (Honolulu).</li></ol> |
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BRUXELLES

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1961

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**PARC NATIONAL DE LA GARAMBA. — MISSION H. DE SAEGER**

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**Fascicule 24 (1)**

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# ACARI

BY

GERALD W. KRANTZ (Corvallis, Oregon)

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## **FREE-LIVING MESOSTIGMATA FROM GARAMBA NATIONAL PARK, CONGO.**

### I. — TWO NEW GENERA OF *MACROCHELIDAE* <sup>(1)</sup>.

Three new species of mites representing two new genera in the family *Macrochelidae* were found by the author in samples collected by H. DE SAEGER in Garamba National Park, Congo. Their descriptions, presented below, comprise the first of a series of taxonomic studies on the free-living Mesostigmata of this locale.

## MESOSTIGMATA

Family **MACROCHELIDAE** VITZTHUM, 1930.

Genus **LORDOCHELES** n. gen.

Dorsal shield strongly sculptured, scalloped laterally; with twenty-eight pairs of dorsal setae and a single unpaired seta  $D_7$  <sup>(2)</sup>; medially with a

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<sup>(1)</sup> The species herein described are from the collection of the Mission H. DE SAEGER (1949-1952).

Manuscript deposited on April, 28, 1960.

<sup>(2)</sup> References to setae are derived from a nomenclatorial system used by EVANS (EVANS, G. O., 1956, British mites of the subfamily *Macrochelinae* TRÄGÄRDH (*Gamasina-Macrochelidae*), *Bull. Brit. Mus. (Nat. Hist.)*, IV [No. 1], 55 pp., 4 plates, 85 figs.).

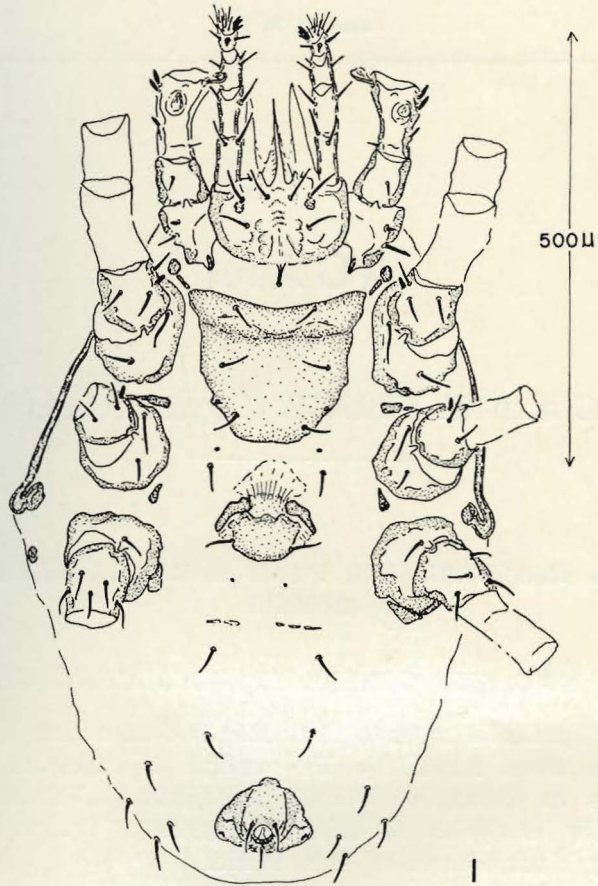


FIG. 1. — *Lordocheles desaegeri* n. sp. : venter of female.

longitudinal depression bordered posteriorly by a series of large « pores ». Sternal shield reduced; endopodal shields free in the integument. Metasternal shields absent. Anal shield small, without pre-anal setae. Chelicerae strongly bent dorsad, variously toothed. Laterodistal elements of pretarsi considerably longer than claws, undivided distally.

Type : *L. desaegeri* n. sp.

***Lordocheles desaegeri* n. sp.**

(Fig. 1-5.)

With insects taken in grassy savannah, Garamba National Park, 6.XI.1951, 5 ♀♀ (Coll. No. 2743).

With other arthropods from marshy area in sparsely forested habitat, Garamba National Park, 6.II.1952, 2 ♀♀ (Coll. No. 3112).

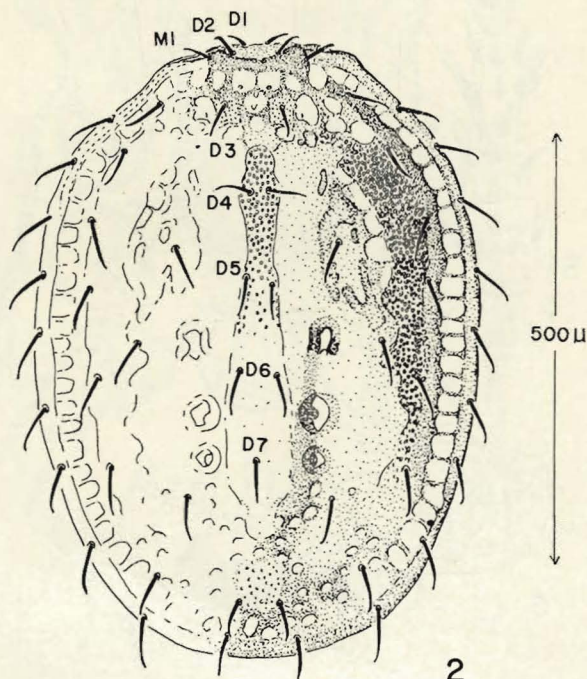


FIG. 2. — *Lordocheles desaegeri* n. sp. : dorsum of female.

Female : Length of idiosoma averages 730  $\mu$ ; width of idiosoma at level of coxae III averages 552  $\mu$ .

Dorsal aspect. — Dorsal shield strongly sculptured and pitted; with twenty-eight pairs of simple setae inserted as illustrated in figure 2;  $D_7$  unpaired; medially with a longitudinal narrow depression on which setae  $D_4$ - $D_7$  are located; with several pairs of large sclerotized pits latero-medially, the function of which are unknown.

Ventral aspect. — Tritosternum reduced; divided distally. Sternal shield reduced laterally and posteriorly, not fused to endopodals I and

II (fig. 1); with three pairs of simple setae and two pairs of sternal pores. Endopodals I spherical, each flanked posteromedially by a narrow platelet which abuts but is not fused to the sternal shield. Metasternal shields absent; metasternal pores and setae situated posterior to and laterad of

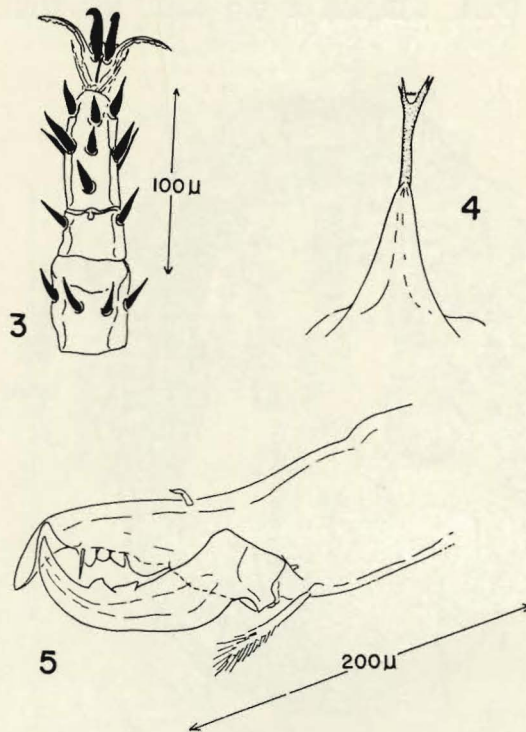


FIG. 3-5. — *Lordocheles desaegeri* n. sp. Female.  
Fig. 3 : Tibia and tarsus II; fig. 4 : Tectum; fig. 5 : Chelicera.

sternal setae III. Epigynial shield reduced; with a pair of genital setae at the posterolateral angles; anteriorly with a membranous flap; lateral vaginal sclerites curved posteriorly, strongly sclerotized. Anal shield convex anteriorly; with a pair of adanal setae inserted slightly anterior to the anal opening, postanal seta present; with a pair of anal pores at the posterolateral angles of the shield. Ventral area with two pairs of setae inserted behind and mediad of coxae IV. Stigmata between coxae III and IV; peritremes joining the stigmata posteriorly, extending anteriorly beyond coxae I, curving dorsad, and terminating anterolaterad of setae  $D_2$ .

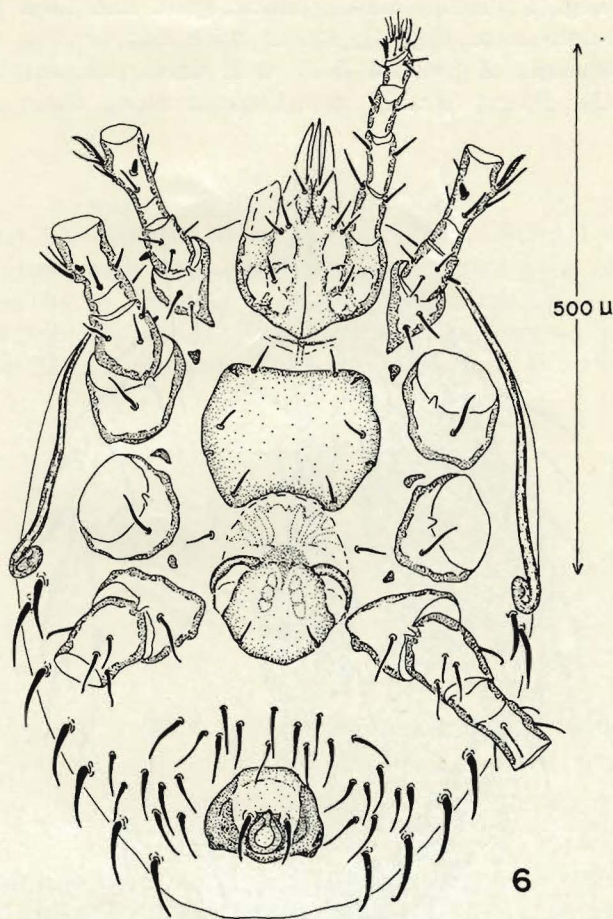


FIG. 6. — *Lordocheles rykei* n. sp. : venter of female.

Gnathosoma. — Hypostomal setae I reduced, hypostomals II and III and deutosternal setae normal. Palpi with five free segments; palpal claw three-tined; corniculi extending anteriorly to the level of the base of the palpal genu. Chelicerae (fig. 5) curved dorsad; movable digit with two broad teeth, distal point strongly curved; fixed digit with three large rounded teeth, a pilus dentilis, and a raised proximal internal ridge; with a large femoral groove which accommodates the distal end of the movable digit; dorsal seta on the fixed digit simple; with a setal brush behind the base of the movable digit. Tectum (fig. 4) without lateral processes; forked distally.

Legs. — Legs I without claws; femur, genu and tibia with a series of broad spatulate setae (fig. 1); femur with one or two weak ridges. Laterodistal elements of pretarsi II-IV well developed, extending beyond the level of the claws; weakly membranous along their entire length (fig. 3).

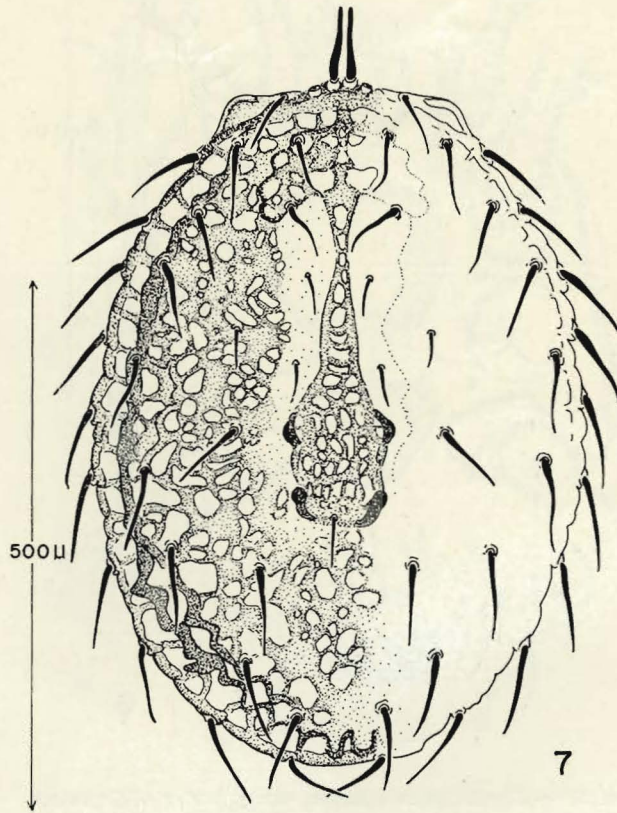


FIG. 7. — *Lordocheles rykei* n. sp. : dorsum of female.

***Lordocheles rykei* n. sp.**

(Fig. 6-9.)

With insects taken in grassy savannah, Garamba National Park, 6.XI.1951, 1 ♀ (Coll. No. 2743).

Female. — Length of idiosoma = 653  $\mu$ ; width of idiosoma at level of coxae III = 483  $\mu$ .



Dorsal aspect. — Dorsal shield heavily sculptured as illustrated (fig. 7),  $D_7$  unpaired; median depression flanked posteriorly by two pairs of large sclerotized pore-like pits. Vertical setae long ( $80\ \mu$ ), broadened, and rounded terminally, inserted adjacent to one another; setae  $D_2$  not observed.

Ventral aspect. — Tritosternum reduced and lying beneath an integumental fold anterior to the sternal shield. Sternal shield subrectangular in outline; with three pairs of setae and two pairs of pores arranged as illustrated (fig. 6). Endopodals shields I-III small, free in the integument. Metasternal shields absent; metasternal setae inserted posterolaterad of sternal setae III. Epigynial shield between coxae IV; somewhat reduced

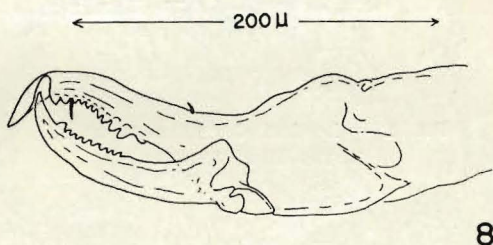


FIG. 8. — *Lordocheles rykei* n. sp. :  
chelicera of female.

laterally and bearing a pair of genital setae; anteriorly with a membranous flap which extends to the concave posterior border of the sternal shield; lateral vaginal sclerites crescentic, strongly sclerotized. Ventral area with several pairs of setae inserted anterior to and laterad of anal shield. Anal shield convex anteriorly; with a pair of pores posterolaterally as in *L. desaegeri*; postanal seta not observed. Stigmata between coxae III and IV; peritremes joining stigmata posteriorly, extending anteriorly and dorsally beyond coxae I to a point laterad of setae  $M_1$ .

Gnathosoma. — Hypostomal and deutosternal setae normal; deutosternal teeth poorly developed or absent. Palpi normal for family; corniculi extending anteriorly to the proximal aspect of the palpal genu. Chelicerae curved dorsad; movable digit with nine teeth, the most distal being the largest (fig. 8); fixed digit with eleven teeth, a pilus dentilis, and a terminal groove to accommodate the distal end of the movable digit. Dorsal seta on fixed digit simple; setal brush absent or missing from described specimen. Tectum not observed.

Legs. — Legs I without claws; femur with a laterodistal pectinate spine. Laterodistal elements of pretarsi II-IV well developed, weakly membranous (fig. 9).

Genus **SYNAPHASPIS** n. gen.

Dorsal shield strongly pitted; with twenty-eight pairs of setae. Metasternal shields fused with sternal, podal and ventrianal shields;

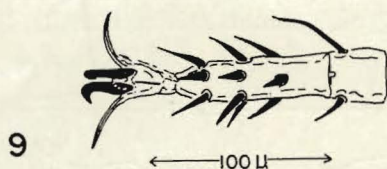


FIG. 9. — *Lordocheles rykei* n. sp. :  
tarsus II of female.

discrete metapodal shields absent. Peritrematal shields not fused to parapodals posterior to coxae II. Legs without ridges or spurs; laterodistal elements of pretarsi divided distally. Tectum trifold; lateral elements free.

Type : *S. congoensis* n. sp.

**Synaphaspis congoensis** n. sp.

(Fig. 10-14.)

From coprophagous insects in grassy savannah, Garamba National Park, 26.VIII.1952, 3 ♀♀ (Coll. No. 3975).

With insects taken in grassy savannah, Garamba National Park, 6.XI.1951, 4 ♀♀ (Coll. No. 2743).

Female. — Length of idiosoma averages 604  $\mu$ ; width of idiosoma at level of coxae III averages 431  $\mu$ .

Dorsal aspect. — Dorsal shield distinctly convex, pitted and sculptured as illustrated (fig. 11); with twenty-eight pairs of setae of which all but setae  $M_1$  are pectinate or plumose; vertical setae plumose, inserted anterior to a transverse sclerotized bridge which joins the peritrematal ridges laterally.

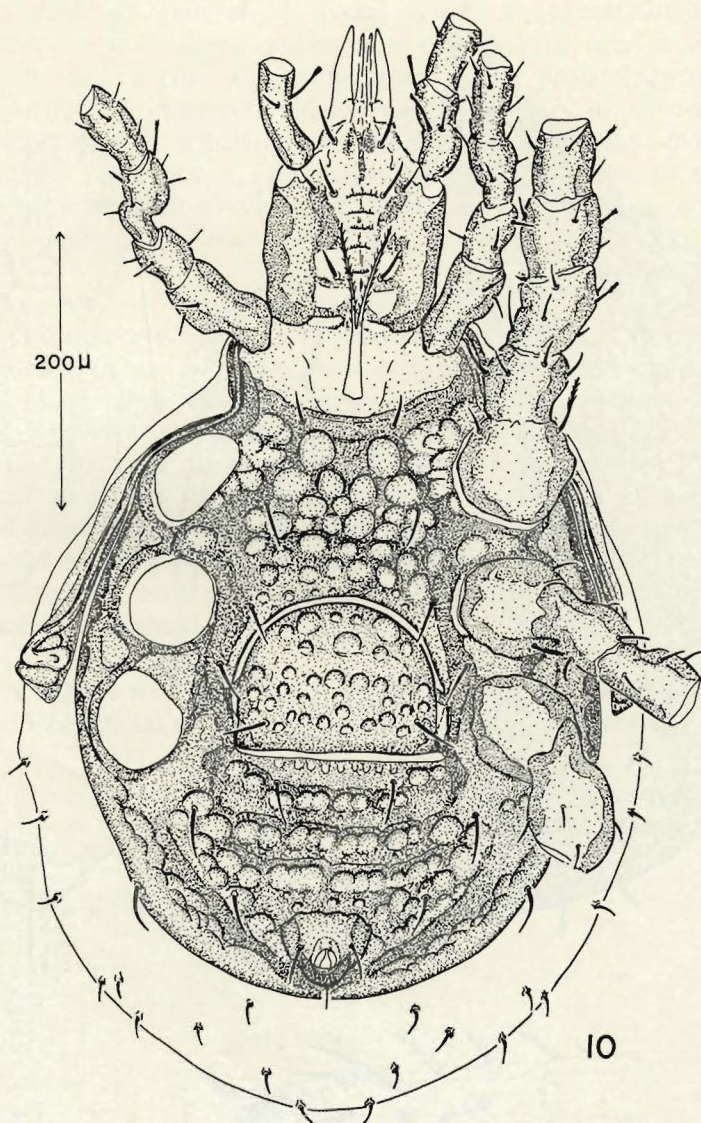


FIG. 10. — *Synaphaspis congoensis* n. sp. : venter of female.

Ventral aspect. — Tritosternum bipartite, lacinae plumose throughout their lengths. Sternal shield heavily sculptured and pitted (fig. 10), fused laterally to endopodal and parapodal shields and posteriorly to metasternal shields; peritrematal shields fused to sternal-podal elements anterior to the middle of coxae II. Metasternal shields fused posteriorly

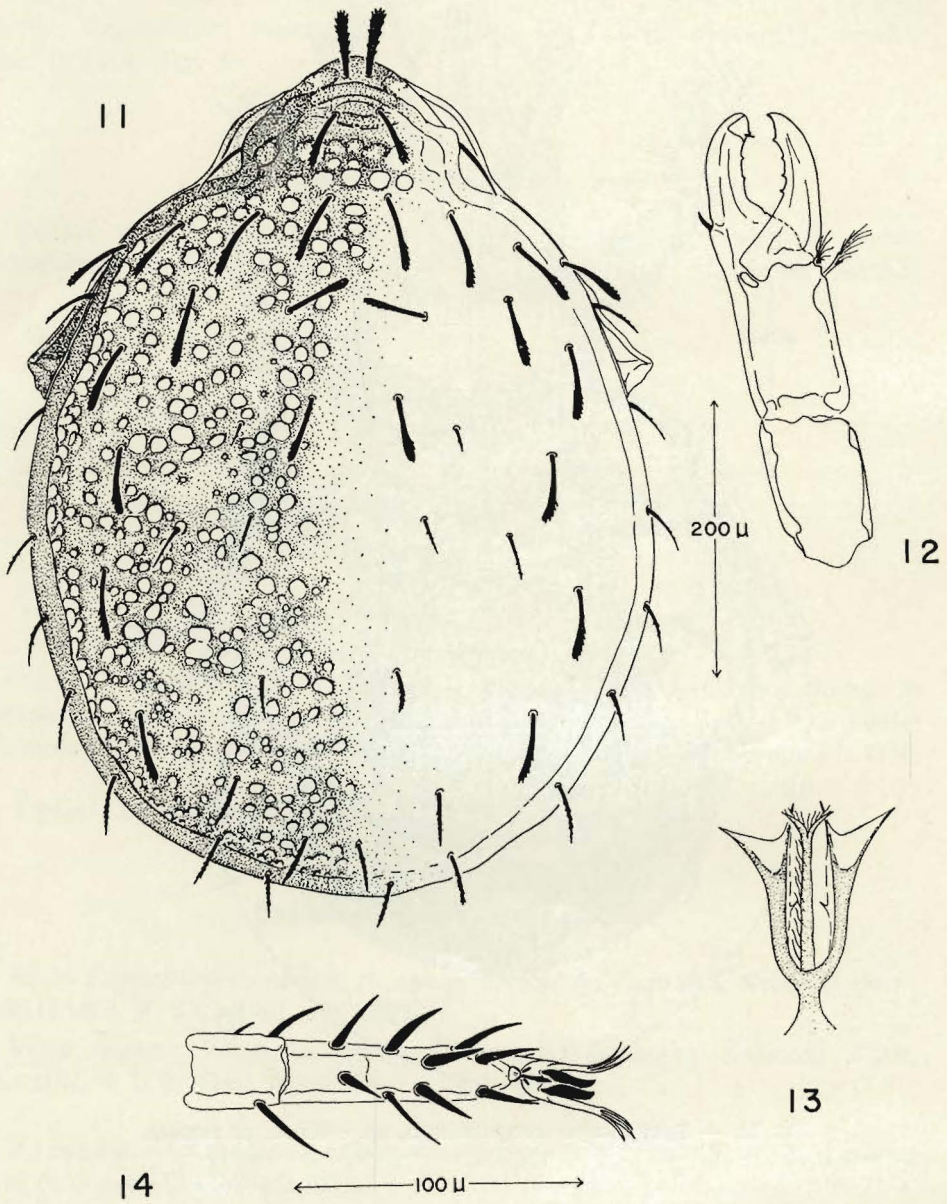


FIG. 11-14. — *Synaphaspis congoensis* n. sp. Female.  
 Fig. 11 : Dorsum; fig. 12 : chelicera; fig. 13 : Tectum; fig. 14 : tarsus II.

to ventrianal shield and laterally to podal shield. Epigynial shield convex anteriorly, truncate posteriorly; ornamented in a manner similar to that of sternal shield; with a pair of genital setae at the posterolateral angles. Ventrianal portion of idiosomal shield with four pairs of preanal setae, the most lateral pair of which is inserted at the edge of the shield; with a pair of adanal setae and a postanal seta. Stigmata between coxae III and IV; peritreme extending anteriorly on peritrematal shield beyond coxa I and dorsally to a point laterad of seta  $D_1$ .

*Gnathosoma*. — Hypostome with five rows of deutosternal teeth; hypostomal and deutosternal setae normal. Palpi with five free segments; palpal trochanter, femur and genu each with an internal distally expanded seta; palpal claw three-tined. Corniculi expanded basally, extending anteriorly to the level of the middle of the palpal femur. Fixed digit of chelicera (fig. 12) with three minute teeth and a terminal groove to accommodate the tip of the movable digit; pilus dentilis present; dorsal seta on fixed digit simple. Movable cheliceral digit with four minute teeth; with two setal brushes at the base of the digit. Tectum (fig. 13) trifid; lateral elements free, central element forked distally and bearing a series of ventral hairs throughout its length.

*Legs*. — Legs I without claws; legs II-IV with well developed claws and pretarsi; laterodistal elements of pretarsi II-IV divided distally (fig. 14).

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