

A NEW SPECIES OF *OPHIOMEGISTUS* (ACARI: PARAMEGISTIDAE) FROM A MALAYSIAN KUKRI SNAKE¹

By M. Lee Goff²

Abstract. *Ophiomegistus maximus* is described as new from a Kukri Snake, *Oligodon purbacens*, collected in Selangor, Malaysia.

Goff (1980) revised the genus *Ophiomegistus* Banks, 1914 and described 5 new species from scincid lizards. All known species of *Ophiomegistus* are reptile associates and of the 15 species treated by Goff (1980), only 2 had been reported from snakes: *O. luzonensis* Banks, 1914 and *O. clelandi* Womersley, 1958. The remaining species had been reported from lizards, primarily skinks. Although originally described from snakes, *O. luzonensis* was subsequently also reported from skinks (Goff 1980). *O. clelandi* is known only from the unique holotype male. With the description of the new species below, the number of species in the genus is raised to 16, and a 3rd species is recorded associated with snakes.

Holotype and allotype are in the collection of Bishop Museum, Honolulu, and paratypes there and in the collections of Field Museum of Natural History, Chicago; Acarology Laboratory, The Ohio State University, Columbus; and Institute for Medical Research, Kuala Lumpur, Malaysia. All measurements are given in micrometres. Leg chaetotaxy follows Evans & Till (1965).

***Ophiomegistus maximus* Goff, new species**

FIG. 1-4

Diagnosis. Easily separated from all other species in the genus by its size (idiosoma measuring 1648 × 980 in ♀ and 1400 × 870 in ♂) and number of setae on metapodal plates (12-16 in *O. maximus*, 0-3 in all other species). In having sternal plate entire and 5 pairs of setae in sternogenital region of the ♂, *O. maximus* is similar to *O. brachymeleus* Voss, 1966, but differs in having all setae on ventral plates simple (subulate in *O. brachymeleus*), 2 pairs of setae on jugular plates (1 pair in *O. brachymeleus*) and only lanceolate expanded setae on mesogynial-ventrianal plate (both expanded elliptical and lanceolate setae on plate in *O. brachymeleus*). In having posteriorly elongated metapodal plates, *O. maximus* is similar to *O. armouri* Goff, 1979, from which it may be separated by having 12-16 setae on metapodal plates (3 in *O. armouri*) and lacking a subapical spine on tritosternal laciniae (present in *O. armouri*). In size, *O. maximus* is most similar to *O. luzonensis* Banks, 1914 (idiosoma 1100 × 1080 in paratype of *O. luzonensis*), from which it may be separated by having only 4 simple setae on mesogynial-ventrianal plate anterior to rows of expanded setae (more than 100 simple setae in *O. luzonensis*), latigynial plates fused posteriorly with mesogynial-ventrianal plate and bearing only 2 pairs of setae (distinctly separated from mesogynial-ventrianal plate and bearing more than 20 pairs of setae in *O. luzonensis*) and only 2 pairs of setae on jugular plates (more than 7 pairs of setae in *O. luzonensis*).

Description of species. Holotype ♀ measuring 1648 × 980. *Dorsum.* Plate large, covering entire idiosoma, surface with ca 96 pairs of minute setae (5-7 μm); anterior margin with a pair of heavy, elongate setae

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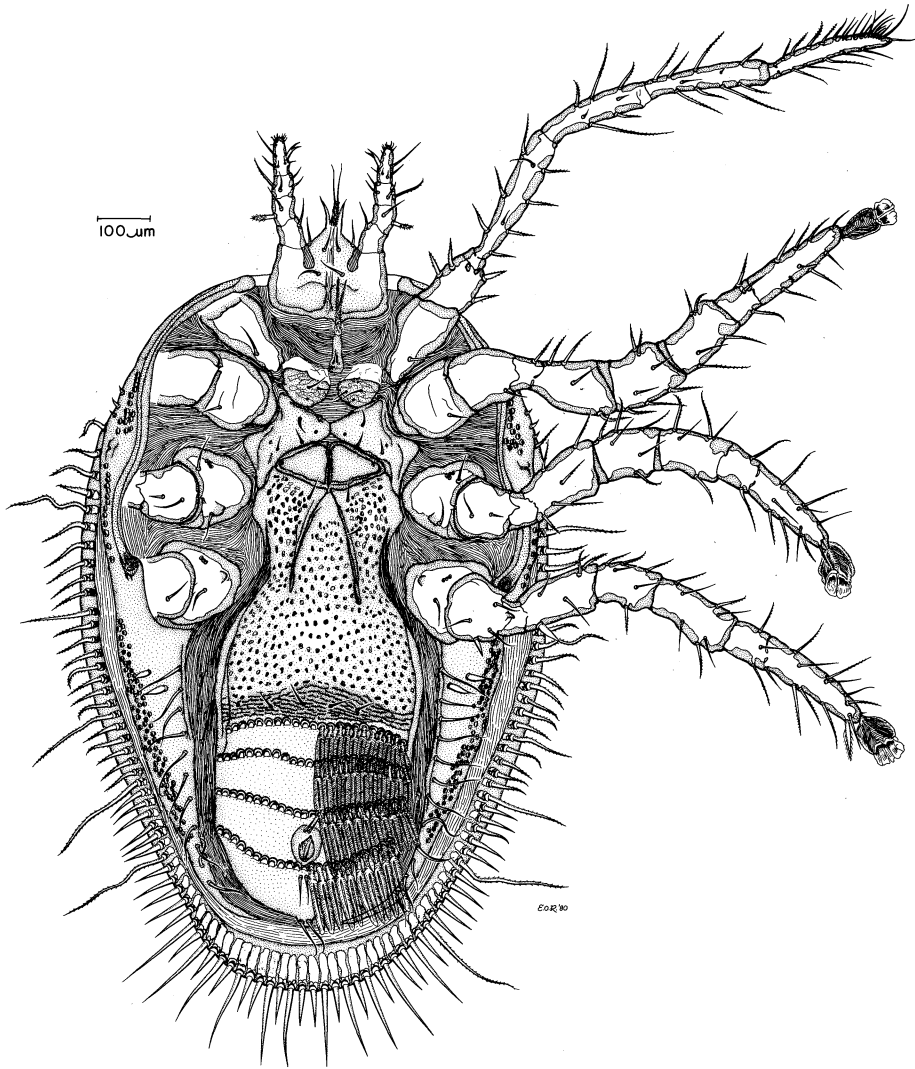


FIG. 1. *Ophiomegistus maximus*, ventral aspect of ♀.

(104–120 μm); hysterosomal margin with 102–116 heavy setae (74–370 μm). *Venter*. Plates and setae as illustrated. Jugular plates separated, irregularly shaped, bearing 2 pairs of setae (34–37) and a pair of pores. Sternal plate entire, bearing 3–4 pairs of setae (30–36) and a pair of pores. Sternogynial plate ovoid, partially divided anteriorly, bearing a pair of pores. Latigynial plates elongate, fused posteriorly with mesogynial-ventrianal plate, bearing 2 pairs of setae (24–26) and a pair of pores. Mesogynial-ventrianal plate lacking setae anteriorly, expanded posterior to coxae IV; 4 rows of expanded, lanceolate setae (100–184, posterior rows longer), all of similar form; 4 simple setae (53–55) and 1 pair of pores anterior to expanded setae; 1 pair of simple setae (90) on posterior terminal projection; anus with 1 pair of simple setae (64) anterior and 1 pair of simple setae (70–76) posterior to opening. Metapodal plates large, fused anteriorly with peritrematal shields, elongated posteriorly, bearing 1–3 subulate setae (51–70), 11–13

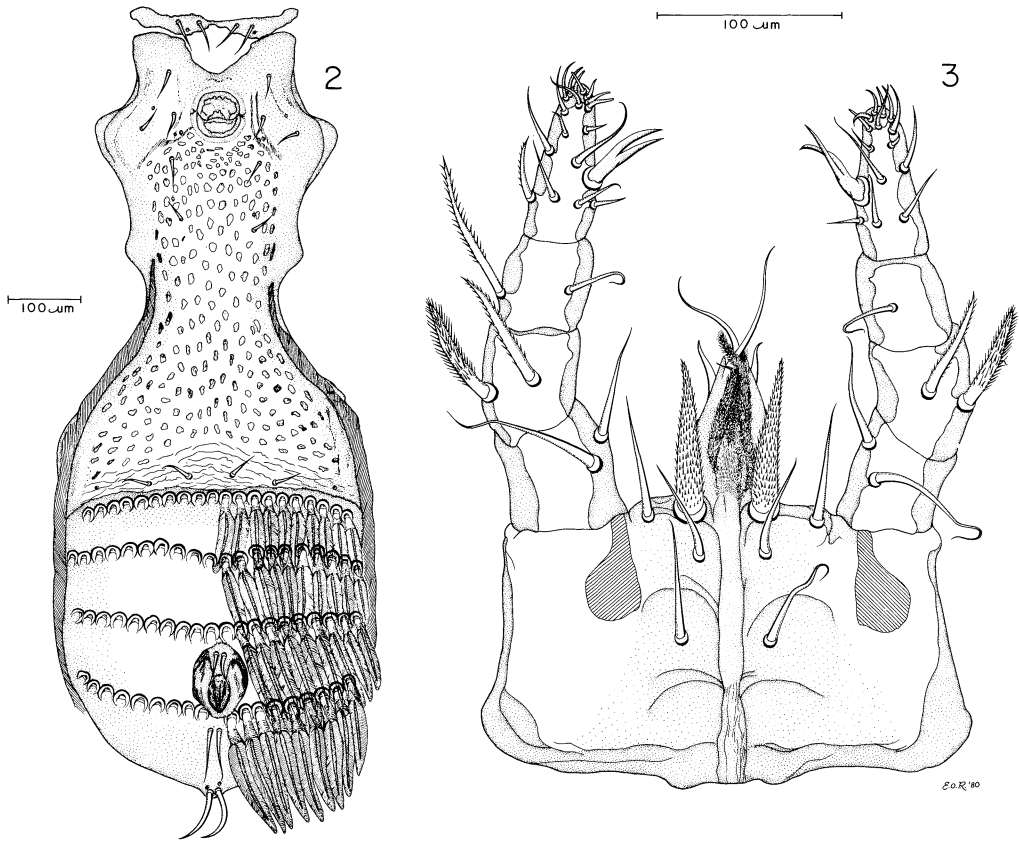


FIG. 2-3. *Ophiomegistus maximus*: 2, sternogenital-ventrianal plate of ♂; 3, ventral aspect of gnathosoma of ♀.

simple setae and several rows of pores along lateral margins. *Stigma*. Ventrolateral between coxae III and IV; peritrematal shields large, fused posteriorly with metapodal plates, with several porose areas, extending anteriorly, becoming dorsal at level of coxae I. *Tritosternum*. Measuring 205-218 from base with paired pilose laciniae measuring 74-80. *Gnathosoma*. Palps (248-252) with 4 free segments; trochanter with 2 setae; femur with 5 setae; genu with 7 setae; fused tibiotarsus with 2-tined apotele, 15 minute to large setae and 9 terminal rodlike setae; 3 pairs of hypostomal setae, anterior longest (74-80); 1 pair of capitular setae (46); chelicerae elongated (350) and curved; fixed digit (112) with a simple seta (39) arising dorso-basally and a bursa (48-50) arising ventrobasally; movable digit (151) expanded, membranous, with lateral ciliations, terminating in dendritic excrescences. Tectum a thin membrane acutely produced anteriorly. *Legs*. All 7-segmented; Leg I: 1500, slender, lacking caruncles and claws; Leg II: 1095; Leg III: 1165; Leg IV: 1184. Coxae II with a posterior projection; coxae IV with an anteriorly directed knoblike projection. Coxae III and IV each with 3-4 pores near anterior margin. Chaetotaxy as follows: coxae 2,2,2,1; trochanters I: 2-1/2-1, II: 1-0/3-1, III: 1-1/3-1, IV: 1-1/3-0; femora I: 2-2/2·3/2-2, II: 2-2/1·2/2-1, III: 1-2/1·2/1-0, IV: 1-2/1·2/1-1; genua I: 2-3/1·2/1-2, II: 2-3/1·3/1-2, III: 2-3/1·2/1-1, IV: 2-3/1·2/1-0; tibiae I: 2-3/2·2/2-2, II: 2-2/1·2/1-2, III: 2-2/1·2/1-1, IV: 2-2/2·2/1-1; tarsi I: 37, II: 17, III: 18, IV: 19.

♂. Idiosoma measuring 1400 × 870. Jugular plates narrowly joined medially, bearing 2 pairs of setae (38-44) and a pair of pores, separated from remainder of sternal plates. Sternogenital-ventrianal plate

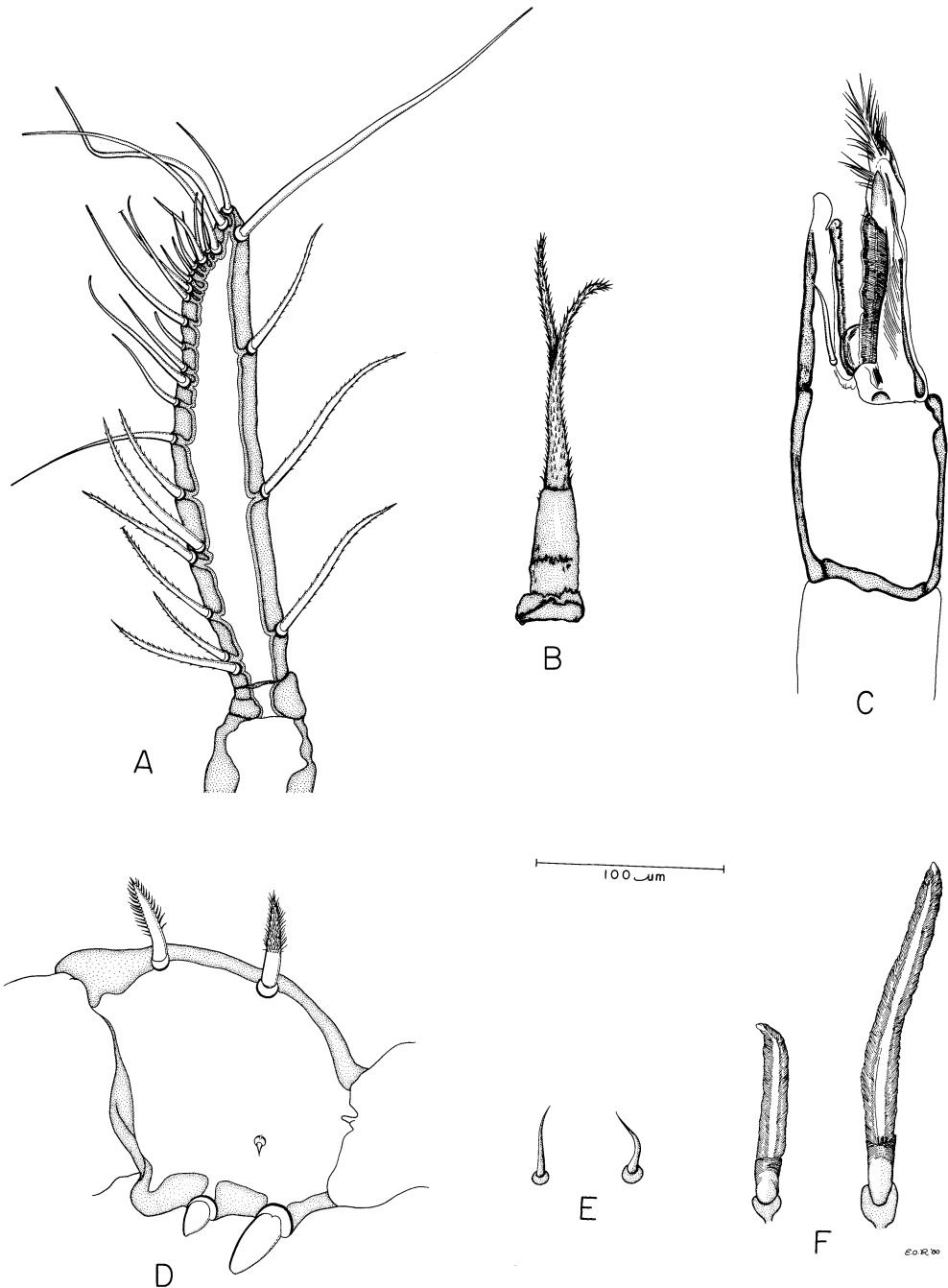


FIG. 4. *Ophiomegistus maximus*: A, tarsus I; B, tritosternum; C, chelicera; D, femur II of δ ; E, simple setae from mesognial-ventrianal plate; F, leaflike setae from mesognial-ventrianal plate.

present, 1053×410 , anterior margin deeply concave medially, covering most of remainder of venter, expanded posterior to coxae IV. Genital aperture oval ($63 \mu\text{m}$ diam.) near anterior margin of plate between coxae II, surrounded by 5 pairs of setae (28-43) and 3 pairs of pores. Setation of venter posterior to coxae IV as given for mesogynial-ventrianal plate of ♀. Median hypostomal seta enlarged (measuring 75-78 in ♂, 55-60 in ♀) with setules. Tarsi II and III each terminating in a ventrally oriented spine, bearing 2 simple setae. Femora II with posterior ventral setae (pv) modified to form heavy spines (FIG. 4D) (simple setae in ♀).

Immatures. Unknown.

Type data. Holotype ♀ (BISHOP 11,809), allotype ♂ and 6 paratypes (2♀, 4♂), MALAYSIA: Selangor, Kepong, Bukit Lagong Forest Reserve, ex Kukri Snake, *Oligodon purbacens* (R 38208), 11.X.1954, J.R. Audy & M. Nadchatram.

Remarks. Based on the setation of the metapodal plates, *O. maximus* runs to couplet 3 of the key in Goff (1980), along with *O. clelandi* Womersley, 1958 and *O. australicus* (Womersley, 1958). In both species, descriptions and diagnoses are incomplete due to lack of specimens representing both sexes (*O. clelandi* known only from the holotype ♂ and *O. australicus* from 4♀). Setation of the metapodal plates differs significantly among available specimens of these 3 species (setae absent from metapodal plates of *O. clelandi* and only 3 setae present on each plate of *O. australicus*). In addition there are significant differences in the size of the idiosomae, the shape of the ventral plates, and the setation, which serve to separate these 3 species.

The species name reflects the exceptional size of this species.

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