

A NEW SPECIES AND NEW RECORDS OF CHIGGERS (ACARI: TROMBICULIDAE) FROM NORTH SULAWESI, INDONESIA¹

M. Lee Goff² and Lance A. Durden³

2. Department of Entomology, University of Hawaii at Manoa, 3050 Maile Way, Honolulu, Hawaii 96822, USA.

3. Department of Cell Biology, School of Medicine, Vanderbilt University, Nashville, Tennessee 37232, USA.

ABSTRACT — *Gahrlipeia (Walchia) dumogaensis* is described from a specimen collected from *Paruromys dominator* Sulawesi, Indonesia. Records are given for *Leptotrombidium deliense* (Walch), *Gahrlipeia lupella* Traub & Evans, *Odontacarus australiensis* (Hirst), *Schoengastia sulawesiensis* (Goff et al.), and *Walchiella oudemansi* (Walch) collected off murid rodents in North Sulawesi, Indonesia.

INTRODUCTION

Examination of a small collection of chiggers from murid rodents collected in North Sulawesi, Indonesia, by C.H.S. Watts and L.A. Durden has revealed a new species of *Gahrlipeia (Walchia)*, described below, and new records of previously described trombiculid species. The holotype of the new species is in the collection of the U.S. National Museum of Natural History/Smithsonian Institution (chigger collection currently housed in the Acarology Laboratory, University of Hawaii at Manoa). Terminology follows Goff et al. (1982). All measurements are given in microns.

1. *Gahrlipeia (Walchia) dumogaensis* Goff & Durden, n. sp. (Fig. 1)

Description of species - Larva.

Idiosoma - Measuring 310 X 250 in engorged holotype. Eyes 2/2, on ocular plate, anterior larger. One pair of slightly expanded humeral setae, measuring 34; 30 slightly expanded dorsal idiosomal setae, measuring 23-33, anterior setae longer, arranged 6-6-6-6-4-2; 2 pairs of sternal setae, anterior 28, posterior 22; 34 preanal setae, 16-18; 12 postanal setae, 22-24; total idiosomal setae 82.

Gnathosoma - Palpal setal formula B/N/NNN/4B; galeala N; palpal claw 3-pronged; cheliceral blade (27) with tricuspid cap; gnathobase moderately punctate bearing a pair of branched setae.

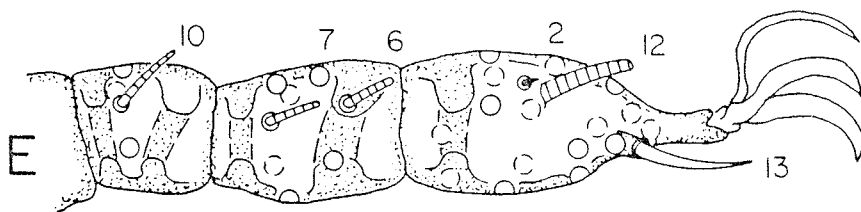
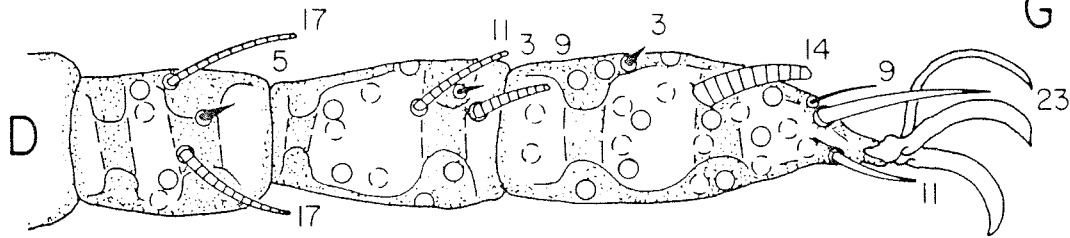
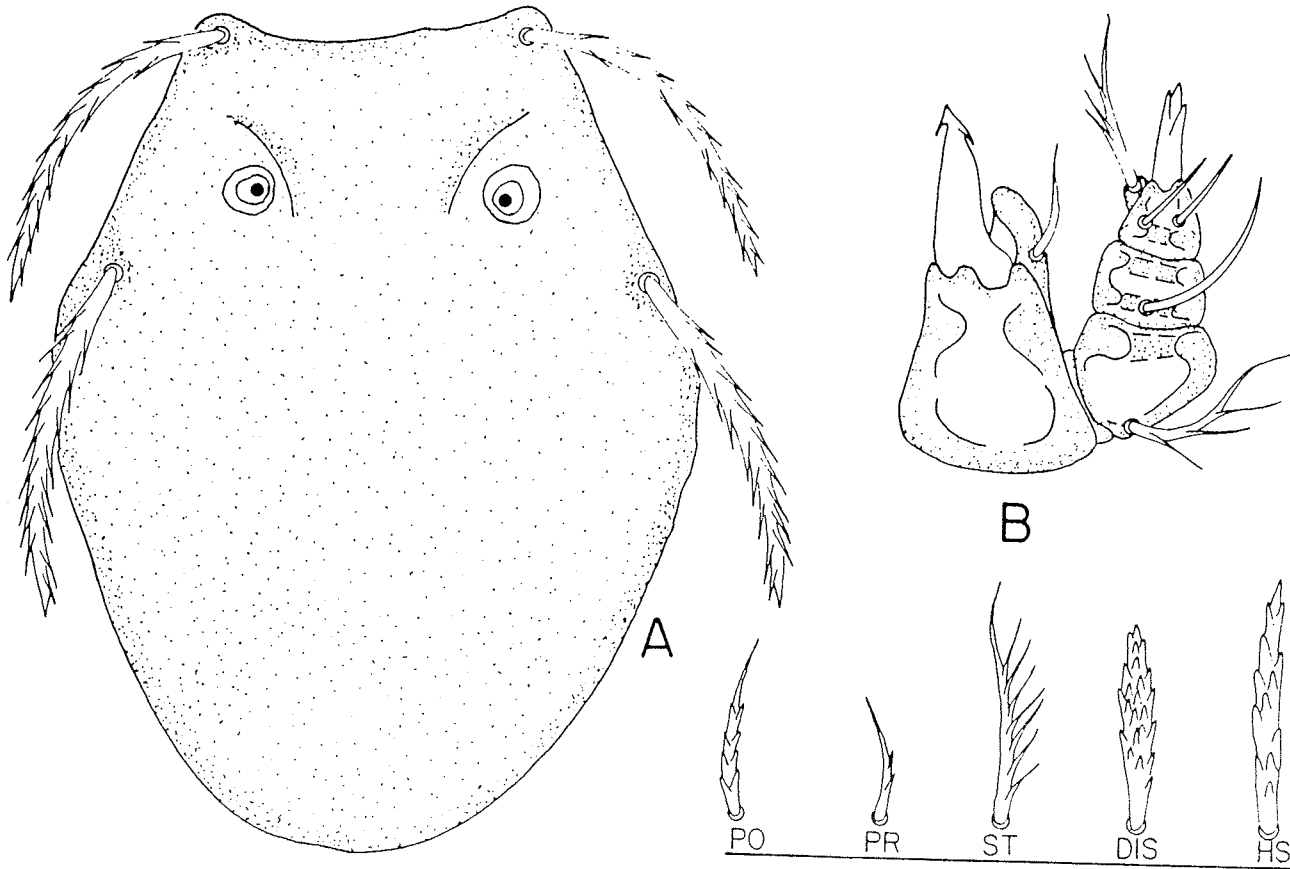
Scutum - Moderately punctate with shallowly concave anterior margin; posterior margin deeply produced, tongue-like, posterior to level of PL bases; SB anterior to level of PL bases; sensillae missing from holotype; AL = PL; PW/SD = 0.63. Scutal measurements of holotype: AW 39; PW 69; SB 33; ASB 21; PSB 88; AP 35; AL 47; PL 47.

Legs - 7-6-6 segmented, terminating in a pair of claws and a clawlike empodium. Onychotriches absent. IP = 627. *Leg I.* 216; coxa with 1 branched seta (1B); trochanter 1B; basifemur 1B; telofemur 5B; genu 4B, 2 genualae, microgenuala; tibia 8B, 2 tibialae, microtibiala; tarsus (51 X 18) 21B, tarsala (14), microtarsala, subterminala, parasubterminala, pretarsala. *Leg II.* 192; coxa 1B; trochanter 1B; femur 6B; genu 3B, genuala; tibia 6B, 2 tibialae; tarsus (44 X 17) 16B, tarsala (12), microtarsala, pretarsala. *Leg III.* 219; coxa 1B; trochanter 1B; femur 5B; genu 3B, genuala; tibia 6B; tarsus (51 X 15) 14B.

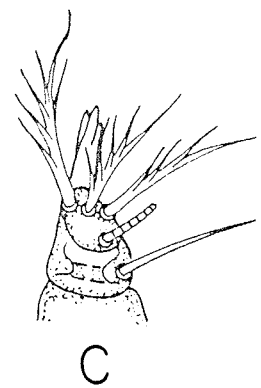
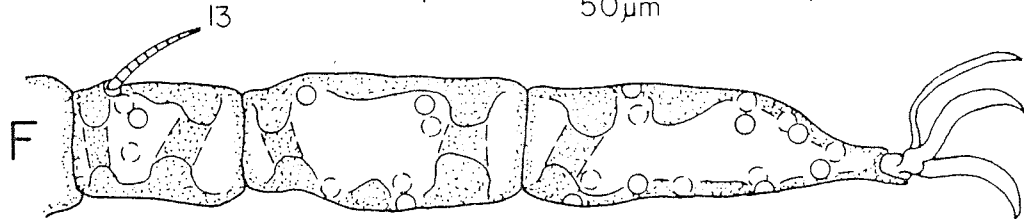
Type data - Holotype from Indonesia, North Sulawesi, Dumoga-Bone National Park, Hog's Back, 490m, 25-28.VIII.1985, ex *Paruromys dominator* (Thomas), C.H.S. Watts, coll.

Remarks - Among species of *Gahrlipeia (Walchia)* reported from Indonesia, *G. dumogaensis* is most similar to *G. (IV.) rustica* Gater, 1932, from which it may be easily separated in having slightly expanded dorsal idiosomal

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50µm



setae (not expanded in *G. rustica*), rounded posterior scutal margin (papilliform in *G. rustica*), and palpal femoral seta B (N in *G. rustica*). The species name is based on the type locality.

2. *Gahrlipeia (Walchia) lupella* Traub & Evans, 1957

Indonesia, North Sulawesi, Gunung Moajat, 1780m, 30.VII-19.VIII.1985, *Bunomys fratrorum* (2), 2 *Maxomys musschenbroekii* (4).

Remarks - The specimens examined from North Sulawesi differ from the original description by Traub & Evans (1957) and the redescription of the species by Vercammen-Grandjean (1971) in the shape of the posterior scutal margin. The present specimens have an acutely pointed posterior margin, while the previous descriptions show a less acute posterior margin. This difference does not appear to be of major significance and the specimens agree in all other aspects with *G. lupella*.

3. *Leptotrombidium deliense* (Walch, 1922)

Indonesia, North Sulawesi, Gunung Moajat, 1780m, 30.VII-28.VIII.1985, 3 *Bunomys chrysocomus* (18), 2 *Bunomys fratrorum* (5), 2 *Maxomys musschenbroekii* (8), *Paruromys dominator* (10), 4 *Rattus hoffmanni* (23), *Rattus xanthurus* (1).

4. *Odontacarus australiensis* (Hirst, 1925)

Indonesia, North Sulawesi, VIII.1985, "murid" (3).

5. *Schoengastia sulawesiensis* Goff, Durden & Whitaker, 1986

Indonesia, North Sulawesi, VIII.1985, "murid" (1), Dumoga-Bone National Park, Hog's Back, 490m, 25-28.VIII.1985, 2 *Rattus hoffmanni* (13); 200m, 2.VIII.1985, *Maxomys musschenbroekii* (1).

6. *Walchiella oudemansi* (Walch, 1922)

Indonesia, North Sulawesi, Dumoga-Bone National Park, 200-300m 2-11.VIII.1985, *Bunomys chrysocomus* (3) *Bunomys fratrorum* (1).

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Fig. 1. (Left) *Gahrlipeia (Walchia) dumogaensis* Goff & Durden, n. sp. A, scutum; B, dorsal aspect of gnathosoma; C, ventral aspect of palpal tibia and tarsus; D, leg I distal 3 segments showing specialized setae (measurements given in microns) and bases of branched setae; E, leg II as above; F, leg III as above; G, representative idiosomal setae: PO, postanal seta; PR, preanal seta; ST anterior sternal seta; DIS, dorsal idiosomal seta; HS, humeral seta.
