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NEOHAEMATOPINUS APPRESSUS, A NEW SPECIES OF SUCKING LOUSE FROM AN ASIAN TREE SQUIRREL (Anoplura)

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Abstract: *Neohaematopinus appressus*, n. sp., from Laotian *Tamiops rodolphei rodolphei* is described and compared to related species in *Neohaematopinus*. A description and illustrations of the third-stage nymph of *N. appressus* are included.

Introduction

The new species of sucking louse described in this paper belongs to a group of *Neohaematopinus* species that infest North American and Asian tree and flying squirrels. Species in the group tend to be large and are characterized by being well sclerotized, with all abdominal and tergal plates present and large; the head is broadly rounded anteriorly; the postantennal (occipital) region is strongly extended laterally; and the first antennal segment is enlarged. Included species are *sciuropteri* (Osborn) from North American species of *Glaucomys*, *pteromydis* Blagoveshchensky from northeast Asian *Petaurista* (=*Pteromys*) *volans*, *echinatus* (Neumann) from Indian *Funambulus palmarum*, *ceylonicus* Ferris from Ceylonese *Funambulus tristriatus*, *capitaneus* Johnson from Thai *Hylopetes phayrei*, *kinabalensis* Johnson from Bornean *Hylopetes sagitta*, and *pansus* Johnson from Bornean *Petaurillus hosei*. All the hosts except for *Funambulus* and *Tamiops* are flying squirrels. Original descriptions and/or discussions and illustrations of the above species of lice will be found in the list of references.

Specimens of the new species were received from Bishop Museum, Honolulu, and the types are deposited there.

Neohaematopinus appressus Johnson, new species

Type data: Female holotype (BISHOP 9622), male allotype, one male and three female paratypes from *Tamiops rodolphei rodolphei*, Laos: 18 km NW Xieng Khouang, 3450′, 30 August 1960, R. Leech collector, no. 248. Five male, seven female paratypes and one third-stage nymph as above but 19 August 1960, no. 161. Two male paratypes as above but 20 August 1960, Leech and Nadchatram collectors, no. R70357-58. Also examined: one female from *Callosciurus macclellandi*, Laos: Xieng Khouang Province, Lat Huang, 3500′, no. R70195.

Diagnosis. Differs from all related species by having the third pair of legs much larger than the second pair and the thoracic sternal plate has the posterior apex straight, not with posteriorly projecting points on each posterolateral angle. The female is unlike all described species of *Neohaematopinus* by having the third antennal segment modified and bearing short spinelike setae, as is true of the male of *appressus*, n. sp., and all males of related species.

Lengths. ♀: holotype, 1.95 mm, paratypes 1.8-2.25 mm, (one ♀ 1.8 mm, all others at least

1.9 mm.). ♂ : allotype, 1.75 mm, paratypes 1.5–1.75 mm.

Description. **A robust species with heavily sclerotized head and thorax. Thorax strongly dorsoventrally flattened. All setae tend to be stout, rigid, and spinelike.**

♀ (fig. 1). *Head* almost as broad as long, anterior apex broadly rounded, occipital area **strongly extended laterally ; first antennal segment enlarged, broader than long, bearing stout,** short thornlike seta on mediodorsal aspect ; second segment dorsally with two short stout posteriorly directed setae ; **third segment modified, with two median posteriorly directed spinelike setae on dorsum.** ***Thorax*** **much broader than long, its sternal plate (fig. 7)** with rounded anterior apex, broadly angled laterally, posterior apex straight. Pronotum present as **a narrow longitudinal median plate.** ***Legs*** **with coxae flattened, platelike ; tarsal claw of first leg apparently not apically bifid ; third leg much larger than second.** ***Abdomen*** **no** wider than thorax, relatively short, all plates well sclerotized, two plates per typical segment **dorsally and ventrally ; numerous setae present laterally off plates, both dorsally and ventrally.** Paratergal plates (fig. 4) with plate I bearing 2–4 stout apical setae, sometimes this plate connected to plate II. Plate II with one short, one long apical setae; plates III–VI with

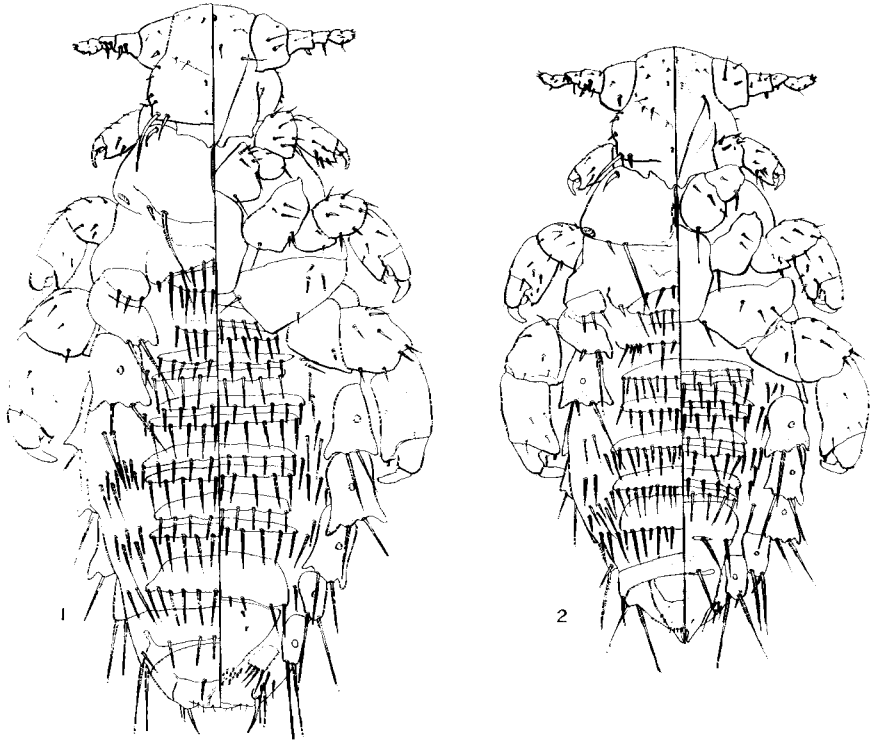

Fig. 1–2. *Neohaematopinus appressus*, n. sp. : 1, ♀ holotype ; 2, ♂ allotype.

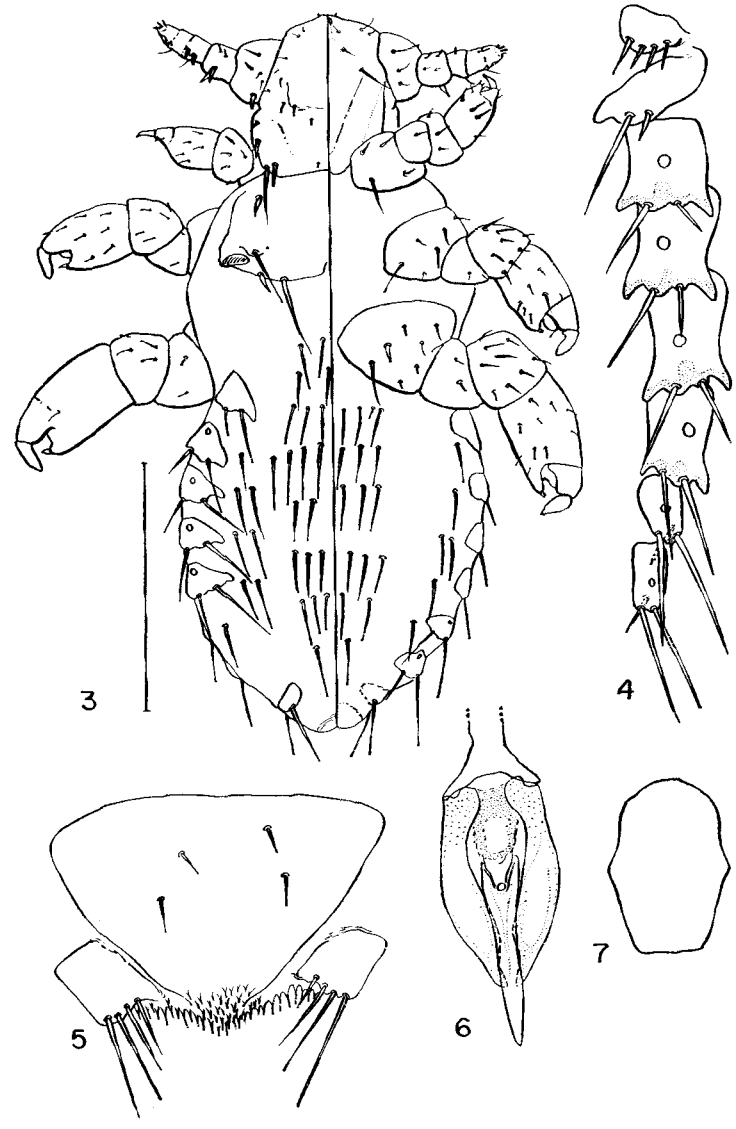

Fig. 3–7. ***Neohaematopinus appressus*, n. sp. : 3, third-stage nymph; line equals 0.5** mm ; 4, paratergal plates, ♀ holotype ; 5, genital plate and lobes, ♀ holotype ; 6. **aedeagus, allotype ; 7, thoracic sternal plate, ♀ holotype.**

dorsoapical seta about as long as plate bearing it, ventral apical seta considerably shorter. All of plates III-VI with posterior angles produced into points. Plates VII-VIII lacking posteroapical angles, each with usual two long apical setae plus a short dorsal seta. If the specimen has not been flattened during mounting, plates I-III are dorsal in position ; plate IV is lateral, and plates V-VIII are ventral. Genital plate (fig. 5) triangular ; lateral setigerous lobes of eighth segment quadrate, set at an angle.

♂ (fig. 2). ***Head, thorax,*** and ***legs*** as in female. ***Abdomen*** with one dorsal and two ventral plates on each typical segment, dorsal plate of segment 2 with lateral group of close-set setae. ***Aedeagus*** (fig. 6) with pseudopenis long, smooth, extending well beyond apices of parameres which are apically narrowly rounded and laterally broadly convex.

Nymph (fig. 3). What is probably the third stage, with head broadened laterally behind antennae ; first antennal segment enlarged, setation of antennae, including the modified setae of segment 3, as in adult. Lacking thoracic sternal plate. First pair of legs smallest, its claw apparently not bifurcate apically ; third pair of legs largest. Abdomen shaped as in adult ; dorsally and ventrally with one central row of 6-8 setae on each segment and 1-2 setae set next to each paratergal plate. Paratergal plates and spiracles present on segments 2-8, each plate bearing two long apical setae and dorsally with posterior apex produced into short subacute lobe. Segment 9 with plate bearing apical setae much as in other paratergal plates but lacking spiracles.

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