

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NOTES ON SOME MALLOPHAGA FROM
FORMOSAN MAMMALS

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This is a report on a small collection of Mallophaga, taken during the period 1957-1962, from native mammals on Formosa. This collection constitutes a part of materials taken in a broad program supporting epidemiologic and biomedical studies related to parasite infections and parasite diseases of man and animals. This work was supported in part by funding under Public Law 480, Section 104(c).

Mallophaga were obtained from hosts examined by personnel of the Parasitology Department of the U. S. Naval Medical Research Unit No. 2, Taipei, Taiwan (Formosa) under the direction of Dr. Robert E. Kuntz, Captain, MSC, USN. Representative specimens of this collection are now in the U. S. National Museum. Host identifications were provided by Dr. David H. Johnson, Curator, Division of Mammals, U. S. National Museum.

Felicola jucci (Conci, 1942)

Paradoxuroecus jucci Conci, 1942. Bull. Soc. Ent. Ital., 74: 141.

From *Paguma larvata taiwana* Swinhoe, 1862; Wu-lai, Taipei Hsien, 12 January 1960 and 14 March 1962; and Lo-tung, I-lan Hsien, 17 November 1959 and 14 March 1962.

The Formosan specimens agree with specimens from *Paguma larvata grayi* (Bennett), the type host as illustrated by Conci (1947).

Felicola rohani Werneck, 1956

Felicola rohani Werneck, 1956. Rev. Brasil. Biol., 16 (1): 25, figs. 1-5.

From *Herpestes urva* Hodson, 1836; Fen-lin, Hua-lien Hsien, 15 April 1960; and I-lan, I-lan Hsien, 8 December 1959.

Type host for this species is *Herpestes edwardsi edwardsi* (Geoffroy). Hopkins (1960) recorded this species from *Herpestes auropunctatus*

siamensis (Kloss), after careful comparison of material from the two hosts. The specimens from *Herpestes urva* have been compared with specimens from *Herpestes auropunctatus siamensis* identified by Hopkins, and no significant differences were found.

Tricholipeurus indicus Werneck, 1950

Tricholipeurus indicus Werneck, 1950. *Malofagos de Mamiferos*, 2: 177, figs. 267-272.

From *Muntiacus reevesi micrurus* Sclater, 1875; Fen-lin, Hua-lien Hsien, 1 April 1960; Chun Yang, 29 January 1958; and Taipei, 23 December 1957.

These specimens agree with Werneck's description and illustrations based on specimens from *Muntiacus muntjak* (Zimmermann), the type host.

Bovicola thompsoni Bedford, 1936

Bovicola thompsoni Bedford, 1936. *Onderstepoort J. Vet. Sci.*, 7: 42, fig. 10.

From *Capricornis swinhoei* Gray, 1862; Pu-li, Nan-tou Hsien, 9 June 1960; Fu-yuan, Hua-lien Hsien, 14 April 1960; Tung-men, Hua-lien Hsien, 13 April 1960; Jui-hui, Hua-lien Hsien, 3 April 1960; Lung-chien, Hua-lien Hsien, 2 March 1960; Pu-li, Nan-tou Hsien, 24 September 1959; and Chou-sheh, Nan-tou Hsien, 25 April 1959.

The type host for this species is *Capricornis sumatraensis* (Bechstein). The type, a female, has been illustrated by Werneck (1950); and the specimens from *Capricornis swinhoei* agree with those illustrations. The male of *Bovicola thompsoni* from the type host is unknown. The male of the Formosan specimens possess genitalia of the type illustrated by Werneck (1950) for *Bovicola dimorphus* Bedford, 1939.

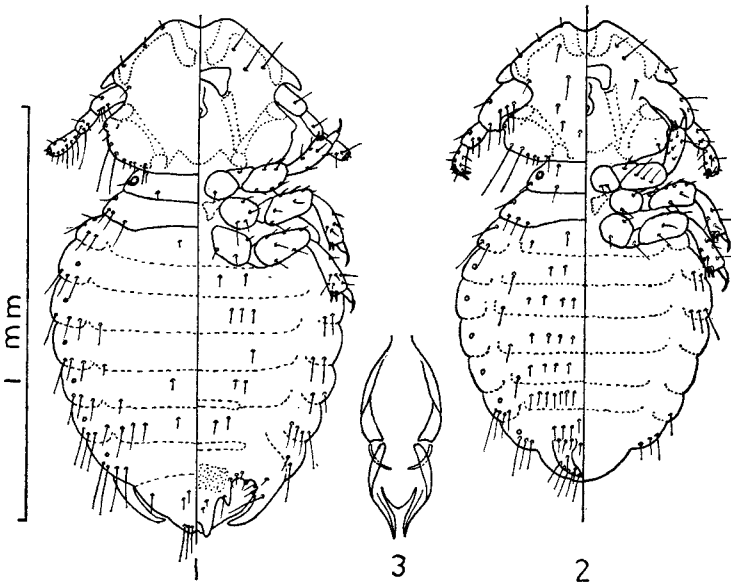
Trichodectes kuntzi n. sp.

From *Melogale moschata subaurantiaca* Swinhoe, 1862; Shih Pa-fen, Taipei Hsien, 19 March 1962; and Tung-men, Hua-lien Hsien, 10 April 1960.

Holotype male: Head slightly wider than long. Anterior margin of head with a wide shallow osculum. First antennal segment wide, and as long as combined length of second and third segments. First antennal segment with four long setae and a short blunt appendage. Terminal antennal segment each with two short stout peg-like spines. Dorsal and ventral chaetotaxy of head as shown in Fig. 2.

Thoracic and abdominal segments short, with weakly sclerotized tergites and sternites. Abdomen slightly longer than wide, with six pairs of spiracles. Chaetotaxy sparse as shown in Fig. 2. Terminal abdominal segments distinctive in structure and chaetotaxy as shown in Fig. 2.

Male genitalia as shown in Fig. 3.



FIGS. 1-3. *Trichodectes kuntzi* n. sp. 1, Dorsal-ventral view of female; 2, dorsal-ventral view of male; 3, male genitalia. Marginal scale applies to Figs. 1 and 2.

Allotype female: Except for antenna, larger but of the same general shape as in the male. Antennae filiform, with chaetotaxy as shown in Fig. 1. Fewer dorsal setae on the head than in the male.

Thoracic and abdominal segments short, with weakly sclerotized tergites and sternites. Abdomen as wide as long; with six pairs of spiracles. Chaetotaxy sparse, even less than in the male, as shown in Fig. 1. Terminal abdominal segment as shown in Fig. 1.

Discussion: This species is closest to *Trichodectes emersoni* Hopkins, 1960, found on *Helictis orientalis everetti* Thomas. In both sexes, the chaetotaxy of *T. kuntzi* is considerably more dense than in *T. emersoni*. The male genitalia of the two species are similar, but in *T. kuntzi* the parameres are separated by a distinct rounded structure which is probably a primitive basal plate. The heavy lateral margins of the genital opening on the male are distinctive and not found in other species of the genus.

Type material: Holotype male (USNM 67139), allotype female and 10 paratypes collected off *Melogale moschata subaurantiaca* Swinhoe, 1862, at Shih Pa-fen, Taipei Hsien; and 31 paratypes collected at Wu-lai, Taipei Hsien, Formosa.

LITERATURE CITED

- BEDFORD, G. A. H. 1936. Notes on species of Trichodectidae with descriptions of new genera and species. *Onderstepoort J. Vet. Sci.*, 7: 33-58.
- CONCI, C. 1942. Diagnosi preliminari di tre nuovi generi e di una nuova specie di Trichodectinae. *Boll. Soc. Ent. Ital.*, 74: 140-142.
- . 1947. Il Genere "Paradoxuroecus" ed il suo generotipo (Mallophaga). *Rev. Brasil. Biol.*, 7: 247-249.
- HOPKINS, G. H. E. 1960. Notes on some Mallophaga from mammals. *Bull. Brit. Mus. (N. H.), Ent.*, 10: 75-95.
- WERNECK, F. L. 1950. Os Malofagos de Mamiferos, 2: 1-207.
- . 1956. A respeito de alguns Malofagos de Mamiferos. *Rev. Brasil. Biol.*, 16: 25-32.