

A NOTE ON TWO SPECIES OF LICE INFESTING DOGS  
IN THE PHILIPPINES

By LOPE M. YUTOC

*Of the College of Veterinary Science, University of the Philippines*

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TWO TEXT FIGURES

In view of the scanty reports dealing with ecto-parasites of domestic animals in the Philippines, it is interesting to record the occurrence of the two species of dog lice. As far as the writer is aware, this is the first time these are reported in the Islands, although Woodworth (1912) recorded a species of *Trichodectes* in a young puppy in Los Baños but failed to ascertain its exact zoological identity, claiming that it was not *Trichodectes latus* either. The lice studied were collected from dogs presented for treatment in the small animal clinic, College of Veterinary Science, University of the Philippines, Manila.

*Heterodoxus longitarsus* Piaget, 1880. Text figure 1.

Syn.: *Menopon longitarsus* Piaget, 1880; *Heterodoxus macropus* Le Soüef & Bullen, 1902; *Menopon spiniger* Enderlein, 1909; *Heterodoxus armiferus* Paine, 1912; *Heterodoxus longitarsus* Neumann, 1913.

This species is prevalent among the dogs in the Islands. The first case of *Heterodoxus* infestation in a dog that came to the attention of the writer was in 1926; suspecting it then a species of chicken louse. Because of its common occurrence, it is not unlikely that the species observed by Woodworth was also *Heterodoxus longitarsus*. According to Bedford (1926) this louse is very common on dogs in South Africa. It has also been found on dogs in other parts of Africa, America, Malay Peninsula, Japan and Formosa, and on kangaroos and wallabies in Australia. Roberts (1935) states that although this species, which is normally parasites on the kangaroos and wallabies has also been known for many years to infest dogs in other countries. It was not till 1933, however, that a record from a dog was made in Australia (McCulloch). In general the animals are not markedly disturbed by its presence except in one case admitted in

the college clinic. The victim was a young puppy; almost all hair had fallen off and various other lesions in the form of scabs, scratches and thickenings were observed. In spite of the numerous lice, the condition of the pup remained good. On the other hand, Roberts (1936) recorded three pups that died from gross infestation of *Heterodoxus longitarsus* in Australia.

For the sake of clarity, it would not be out of place to make a passing description of the louse.

*Description of female.*—Head conical, broader than long; ocular fleck prominent; occiput concave. Thorax well developed;

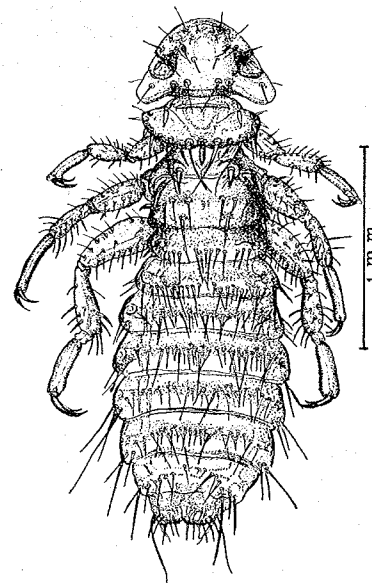


FIG. 1. *Heterodoxus longitarsus* Piaget; adult female louse, entire insect, dorsal view.

prothorax laterally and posteriorly rounded with a row of spines on the margin; mesothorax small but distinct with side rounded and a short heavy spine on each side; metathorax trapeziform. Abdomen almost quadrilateral with eight segments; a row of closely set spines across on each segment; last segment with forceps-like appendages. In the male the last segment is rounded posteriorly.

The male measures from 2.2 to 2.6 mm in length, the average being 2.4 mm, and the female 2.2 to 3.0 mm, the average being 2.5 mm. In the case of *Heterodoxus macropus* Le Soüef and Bullen the total length and width of the male and the female insect is 2.68 and 3.0 mm respectively,

while *Heterodoxus armiferus* Paine, the male is 1.78 mm and the female 1.98 mm. From the above measurements, the louse hereto described comes evidently intermediate in size. The two species are now considered synonyms of *Heterodoxus longitarsus*, Piaget.

The host specificity of lice has been long recognized to be highly developed, that the phylogenetic relationship of various hosts could be determined by comparison of the species infesting them. However, in the case of *Heterodoxus longitarsus* this does not hold true as it is found besides its normal hosts, the kangaroos and wallabies on the dogs. This adaptation to the

new host is remarkable. In this connection, Kellogg and Ferris (1915) state that it is probable that kangaroos are its normal host and the other records are due to straggling from kangaroos in museums and zoölogical gardens, and most likely also the contact of the domestic dogs with kangaroos in its natural habitat.

*Trichodectes canis* De Geer, 1778. Text figure 2.  
Syn.: *Trichodectes latus* Nitzsch, 1874.

*Trichodectes canis* is rare on dogs in the Philippines. In fact, only one case has so far been met with by the writer during the last thirteen years' observations on canine patients. This finding

does not fit with the observations of Denny (1842) and Osborn (1896) who claim that it is common on dogs, but Ewing (1929) states on the other hand that although this species has been described as long as 1778, it has not been frequently reported from the dog. In China, Faust (1929) has recorded it as an infrequent ecto-parasite of dogs. Furthermore, Kellogg and Ferris claim to have not met it.

The louse is briefly described as follows: Entire insect broad and short; head large somewhat rounded with a slight concavity in front and broader than long. The thorax distinct and the abdomen of female is broad and to some extent globular in outline. As a rule the color is bright yellow. It is generally considered that *Trichodectes canis* is one of the intermediate hosts of the common dog tapeworm, *Dipylidium caninum*.

Dimensions of the lice examined:

	Length		Width	
	Male	Female	Male	Female
Head.....	mm. 0.32	mm. 0.42	mm. 0.52	mm. 0.59
Thorax.....	0.14	0.17	0.40	0.46
Abdomen.....	0.95	0.98	0.70	0.95
Total.....	1.41	1.57		

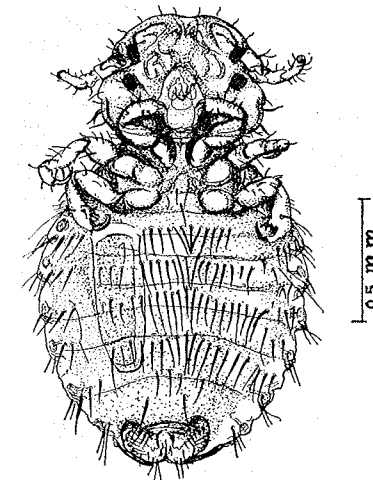


FIG. 2. *Trichodectes canis* De Geer; adult female louse, entire insect, ventral view.



This measurements are based on one male and three female lice, and closely approach those of Piaget (1880) the total length of his specimen being in the male 1.40 mm and in the female 1.47 mm. The largest louse measured in the present study being, however, 1.76 mm long.

## LITERATURE CITED

- BEDFORD, G. A. H. A check-list and host-list of the external parasites found on the South African Mammalia, Aves and Reptilia. Union of South Africa, Department of Agriculture, Part I: Reports 11 and 12 (1926) 705-817.
- DENNY, H. Monographia Anoplurorum Britanniae. Henry G. Bohn, York Street, Covent Garden, London (1842) viii § 262.
- EWING, H. E. A Manual of External Parasites. Charles C. Thomas, Publisher, Springfield, Illinois (1929) v. § 225.
- FAUST, E. C. The animal parasites of the dog and cat in China. Lingnan Science Journal. 8(1919) 27-44.
- LE SOÜEF & BULLEN. Description of a mallophagons parasites from kangaroo. Victorian Naturalist. 18(1902) 159. Cited by Paine (1912).
- KELLOGG, V. L. and G. F. FERRIS. The Anoplura and Mallophaga of North American Mammals. Stanford University, California (1915) 2-74.
- MCCULLOCK, R. N. A kangaroo louse infesting dogs. Agric. Gaz. N. S. W. 44(1933) 617-619. Cited by Roberts (1935).
- OSBORN, H. Insect affecting domestic animals: an account of the species of importance in North America, with mention of related forms occurring on other animals. Government Printing Office, Washington. Bull. 5 (1896) 3-302.
- PIAGET, E. Les pediculines. Leide, E. J. Brill, I (1880) vi § 714.
- PAINE, J. H. The mallophagan genus *Heterodoxus* Le Soüef and Bullen. Entomological News. 23(1912) 359-362.
- ROBERTS, F. H. S. A check list of the arthropod parasites of domesticated animals in Queensland. The Aus. Vet. Journ. 11(1935) 2-10.
- ROBERTS, F. H. S. Gross infestation of the dog with kangaroo louse, *Heterodoxus longitarsus* (Piaget). The Aus. Vet. Journ. 12(1936) 240.
- WOODWORTH, H. E. Notes on the list of domestic animals at Los Baños. The Philip. Agric. Rev. 15(1922) 263-266.

