## A NEW TRIMENOPON FROM PANAMA

(Mallophaga: Trimenoponidae)

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In the fall of 1938, Dr. L. E. Rozeboom, now of Johns Hopkins University, gave the writer a single female specimen of the genus *Trimenopon* Cummings 1913, family *Trimenoponidae* Harrison 1915, which he had collected from a laboratory guinea pig in Panama, and which he regarded as possibly belonging to a new species. After an examination of the literature of the family, the writer was convinced it was new.

The author wishes to thank Dr. G. F. Ferris for the loan of some type material of *Trimenopon jenningsi*, Dr. H. E. Ewing for checking this description with the material in the United States National Museum, and Dr. R. Chester Hughes for his assistance with this paper.

## Trimenopon rozeboomi n. sp.

(Figs. 1-4)

Description of Female.—Length of head, 0.31 mm., thorax, 0.53 abdomen, 0.92 mm.; width of head, 0.49 mm.; thorax, 0.53 mm., abdomen, 0.69 mm.

Head (fig. 3) triangular, wider than long, and much wider across temples than across forehead. A large wide antennal fossa, sides of which form about a 90 degree angle. A rather deep incurve in region just below maxillary palps gives lateral margin a sinuate appearance. On dorsal aspect of each temporal angle, below antennal fossa, there are 1 long, 4 medium-length, and 13 small setae. Numerous short setae scattered over dorsum of head. Dorsally, a row of 15 medium-length setae on each side of mandibles extends along a faint occipital band to posterior margin, with the last two rather long and heavier than usual. Occiput fairly straight. Antenna (fig. 2) four-jointed, the fourth segment containing a pronounced sensory pit; a division of segment 3 by a transverse suture apparent. Three setae occur on apical angle of segment 1, four longer ones on apical angle of segment 2, and about 16 fine hairs, in two series of approximately 8 each, on the margin of the sensory pit.

Prothorax large, about same length as head, nearly twice as wide at anterior end as at posterior margin, with conspicuous expanded lateral margins. Dorsally, a row of six anterior medium-length setae and 2 posterior longer ones occurs along inside of each longitudinal chitinous band paralleling margin of thorax. Pterothorax about two-thirds as

long as prothorax, expanding at posterior margin to nearly same width as prothorax; abundantly supplied with setae, with a long one arising

from margin of each posterolateral angle.

Abdomen (fig. 1) about same length as head and thorax combined. Posterior margin simple, broadly rounded, attaining a width greater than that of head. Entire abdomen very thickly beset with setae which occur in 3 transverse rows on each tergite and each sternite; on the former, setae in posterior series twice as long as in other two, on each sternite the longest and shortest are in anterior and middle rows respectively.

Legs (fig. 4) normal.

Type host and Type locality.—Cavia cobaya, Panama, October 4, 1934 (L. E. Rozeboom).

Type material.—One female will be deposited in the United States National Museum.

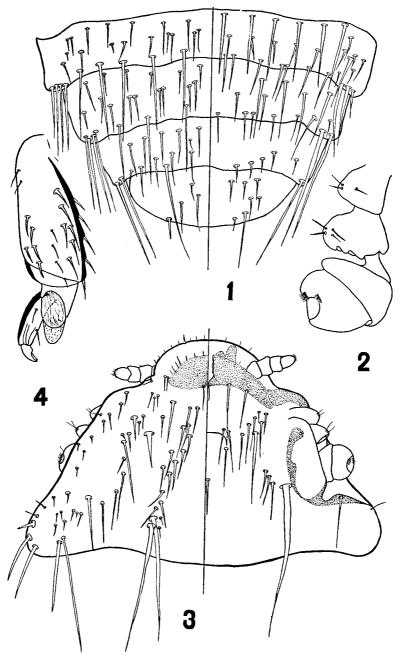
## DISCUSSION

The early workers with this group—Kellogg and Nakayama 1914, Kellogg and Ferris 1915, Harrison 1916, Ferris 1922—recognized the genera *Philandesia* Kellogg and Nakayama 1914 and *Trimenopon* Cummings 1913, as being distinctly different. The separation was based upon two minor differences; in *Philandesia* the emargination of the dorsal expansion over the antennal fossa is deep and the temporal lobes are broad and rounded, whereas in *Trimenopon* the emargination is shallow and the temporal lobes are somewhat subangulate.

The author agrees with Werneck 1936 in regarding *Philandesia* as a synonym of *Trimenopon* since these differences are not enough to establish separate genera. This viewpoint is further enhanced by the new species which is distinctly intermediate between the two types.

Besides the new form, the genus now contains five valid species found principally on Central and South American Rodents, with only one from North America. They are (1) Trimenopon jenningsi (Kellogg and Paine 1910) from Cavia cobaya, (2) Trimenopon mazzai Werneck 1933 from Eriomys chinchilla, (3) Trimenopon chinchilla Werneck 1935 from Eriomys chinchilla, (4) Trimenopon townsendi (Kellogg and Nakayama 1914) from Lagidium peruanum, and (5) Trimenopon foxi (Ewing 1927) from Marmota flaviventris.

The new species can be distinguished from the rest of the species in the genus as follows: The thorax is smaller than that of *T. jenningsi*, while the abdomen is noticeably larger, and the



All figures concern female  $Trimenopon\ rozeboomi$  n. sp. and were drawn with the aid of a projection apparatus.

Fig. 1. Tip of abdomen, dorsal and ventral views. Fig. 2. Left antenna. Fig. 3. Head, dorsal and ventral views. Fig. 4. Right posterior leg.

head and thorax, both dorsally and ventrally, have many more setae; however, the head of T. rozeboomi is more nearly like that of T. jenningsi than any of the other species. On the tip of the female abdomen of both T. mazzai and T. chinchilla are groups of rather numerous long thick setae, which are not present in T. rozeboomi. The setae on the dorsal surface of the head of T. mazzai and T. chinchilla are more or less scattered without regularity, instead of being in definite rows. The head of T. rozeboomi does not have the ocular emarginations which occur in T. townsendi, and again the rows of setae on T. rozeboomi are not found on the latter form. The last segment of the female abdomen of T. foxi has a double comb of short, marginal setae, and a broad, truncate process on the second segment of antenna are not present on T. rozeboomi.

Characteristics of T. rozeboomi not found in any of the other species of the genus are as follows: two rows of setae on the dorsal surface of the head, each containing about 15 mediumlength setae: three definite rows of setae on the dorsal surface of the abdomen; and the 16 sense hairs in two series of 8 each on the fourth segment of the antenna.

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