

## AN ASYMMETRICAL BIRD-LOUSE FOUND ON THREE DIFFERENT SPECIES OF TROUPIALS.

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In a paper on the possible relation of the Mallophaga to bird phylogeny, Harrison (1914) mentions and figures the heads of three asymmetrical species of bird-lice, *Lipeurus quadrimaculatus* Piaget, *L. asymmetricus* Piaget, and *Degeeriella asymmetrica* Nitzsch, considering them congeneric, inasmuch as all three are from related hosts, all Struthioncs.

The writer, however, has recently come into possession of several specimens of both sexes of an asymmetrical form taken from skins of three closely related Icterids, collected by the Smithsonian Biological Survey of the Panama Canal Zone in 1911 and 1912—viz, Wagler's Oropendola, *Zarynchus wagleri* (Cana, E. Panama, Feb. 12, 1912), and two Caciques, *Cacicus microrhynchus* (Rio Indio, Canal Zone, Feb. 8, 1911) and *Ostinops decumanus* (= *Cassicus cristatus* in Giebel and Piaget) (Bosca de Cupe, June 19, 1912). The specimens of Mallophaga have been deposited in the collection of the United States National Museum.

This peculiar species (pl. 32, fig. a) is Giebel's *Philopeterus ambiguus*, the asymmetrical character of which has passed unnoticed since its description, an oversight probably explained by the fact that this most striking feature is completely omitted in Giebel's figures, though accurately described in the text (Giebel, 1847). Piaget (1880), in redescribing the species, of which he saw no material, makes no mention of its asymmetry. Giebel's specimens were from *Cassicus cristatus*, which corresponds specifically with one of the writer's host records.

Carriker (1903) has described a species from *Zarynchus wagleri* under the name of *Nirmus francisci*, which corresponds in host species and in all characters to *P. ambiguus*, except that no mention of asymmetry is made. It is described, however, as having an emarginate clypeus and is doubtless a synonym.

The type of asymmetry exhibited in *P. ambiguus* is similar to that in *Degeeriella asymmetrica*, consisting of a rather deep clypeal emargination, appearing symmetrical in the very youngest stages.

but becoming pushed more and more to one side in the succeeding instars until, in the adult, the emargination may overlap the chitinous thickening of the side of the head (fig. *d*).

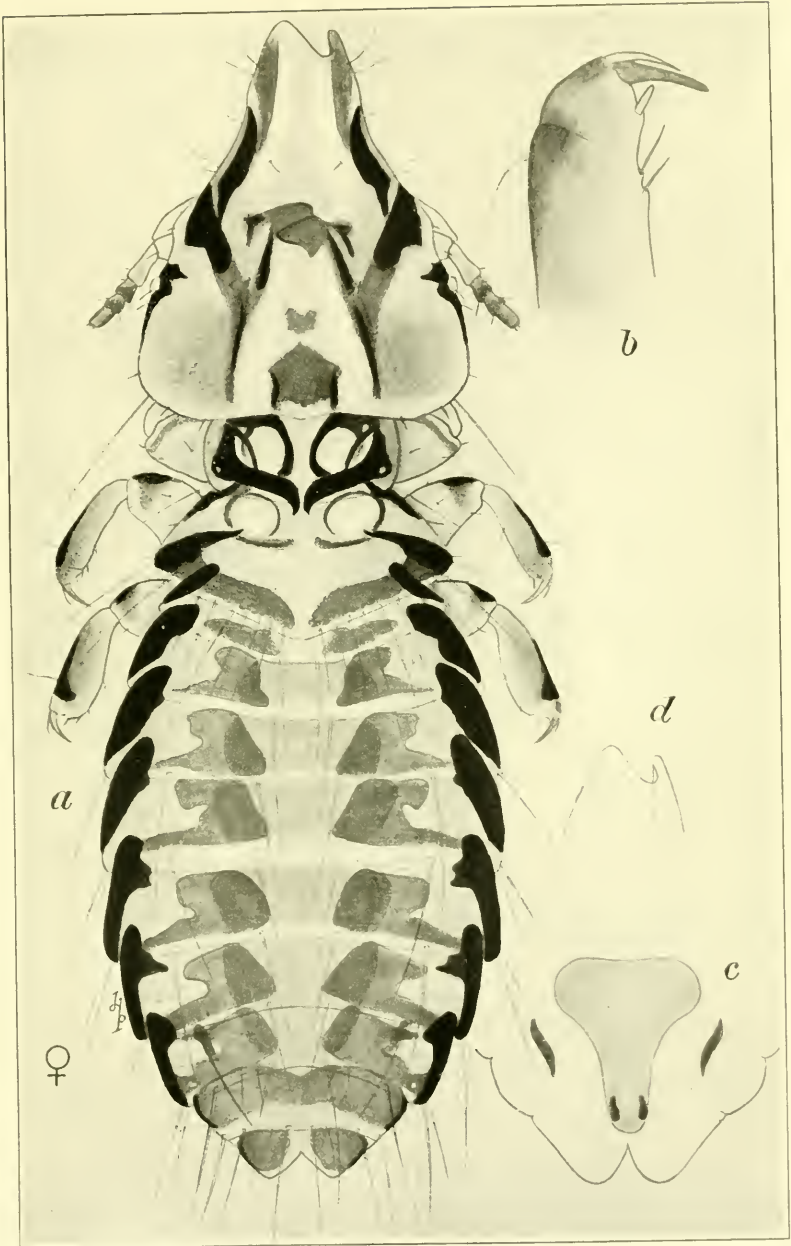
The species is strikingly marked with pitchy bands and chestnut blotches on a clear ground. The head is quite conical, a little longer than broad, with pitchy ocular and antennal bands, the latter extending forward to the anterior margin of the clypeus. The clypeal emargination is quite deep and extends obliquely from left to right; it is contained entirely within the clear, thin central portion of the clypeus, though sometimes may be pushed slightly over the chitinized margin of the head at the right; the clypeal signature is entirely lacking. The sides of the head, in front of the prominent, clear trabeculae, are concave; antennae with second segment longest and lighter in color than the three short terminal ones. The temples are broad and well rounded, and bear a long hair and three short spines; occiput almost straight with a large, prominent brown signature. The thorax is shorter and narrower than the head, with pitchy internal bands. Tarsi with one of the two claws much reduced (fig. *b*), clear and inconspicuous. Abdomen of female elliptical with pitchy lateral bands and peculiarly shaped blotches on the dorsum, which may be somewhat confused by the presence of median transverse blotches which show through from the ventral side. Genital blotch saddle-shaped (fig. *c*), broadest in front, with two small dark blotches on the posterior end and two curved, linear blotches, one on either side at about the middle. Body of male much shorter than female with more rounded abdomen. Measurements of the female are given; the male specimen appears somewhat immature.

*Measurements of female.*

	Length.	Width. <sup>1</sup>
	<i>mm.</i>	<i>mm.</i>
Total.....	2.16	0.67
Head.....	.63	.58
Thorax.....	.37	.51
Abdomen.....	.98	.67

LITERATURE CITED.

1847. GIEBEL, *Insecta Epizoa*, p. 119, pl. 8, figs. 12 and 13.  
 1880. PIAGET, *Les Pédiculines*, p. 70.  
 1903. CARRIKER, Mallophaga from Birds of Costa Rica, *University Studies*, vol. 3, No. 2, p. 17, pl. 2, fig. 5.  
 1914. HARRISON, The Mallophaga as a Possible Clue to Bird Phylogeny, *The Australian Zoologist*, vol. 1, pt. 1, p. 3.



PHILOPTERUS AMBIGUUS GIEBEL, AN ASYMMETRICAL BIRD-LOUSE.

FOR DESCRIPTION SEE PAGES 231, 232.

