

XXXIX.—*The Mallophaga parasitic on Musophagidæ*  
(*Plantain-eaters*).—I. By GORDON B. THOMPSON.

[Plate XII.]

THE Musophagidæ or Plantain-eaters etc. are confined to the African continent. In the present classification of birds they are placed between the Cuculidæ (Cuckoos) and Psittacidæ (Parrots).

Five species of Mallophaga have so far been described from this family of birds. They may be listed as follows:—

1. *Colpocephalum scleroderma* Ewing.

Proc. Biol. Soc. Wash. 1930, xliii, pp. 127-128.

*Type-host*.—*Musophaga rossæ* Gould (*Musophaga rossæ*, Belgian Congo, Ituri Forest).

2. *Colpocephalum subrotundum* Giebel.

Insecta Epizoa, Leipzig, 1874, p. 266.

*Type-host*.—*Musophaga violacea* Isert. (*Musophaga violacea*—dry skin).

3. *Philopterus acuminatus* (Piaget).

Tijdschr. Ent. 1888, xxxi, pp. 147-148, pl. iii, fig. 1.

*Type-host*.—*Turacus persa* (Linn.) subsp. ? (*Turacus purpureus*).

4. *Esthiopterum distinctum* Harrison.

(Nom. nov. for *Esthiopterum dispar* (Piaget), Les Pédiculines, Suppl., Leiden, 1885, pp. 79-80, pl. viii, fig. 7.)  
Parasitology, 1916, ix, p. 133.

*Type-host*.—*Turacus m. macrorhynchus* (Fraser) (*Corythus macrorhynchus* [Liberia]).

5. *Esthiopterum opimum* (Piaget).

Les Pédiculines, Suppl., Leiden, 1885, pp. 78-79, pl. viii, fig. 6.

*Type-host*.—*Corythæola cristata* (Vieillot) (*Turacus giganteum* [Leiden Mus.]).

Having received a considerable number of specimens of Mallophaga from a number of different species of Musophagidæ for study, this paper is written as the first of a series in which I hope to deal with all the species parasitizing this interesting group of birds. I wish to record my very best thanks to Mr. G. H. E. Hopkins for the opportunity of studying this material and to Dr. J. W. Shackle for the excellent photographs.

For the first contribution I am taking the species described by Ewing (1930). The description of this species was based on a single male, and the unique type is in the United States National Museum Collection, Washington (Cat. no. 42851). I have therefore been unable to compare my specimens with the type, but since they agree so perfectly with Ewing's description I feel confident that they represent that species.

A new genus is here proposed for the reception of Ewing's species and another closely allied species here described as new. The new genus may be described as follows:—

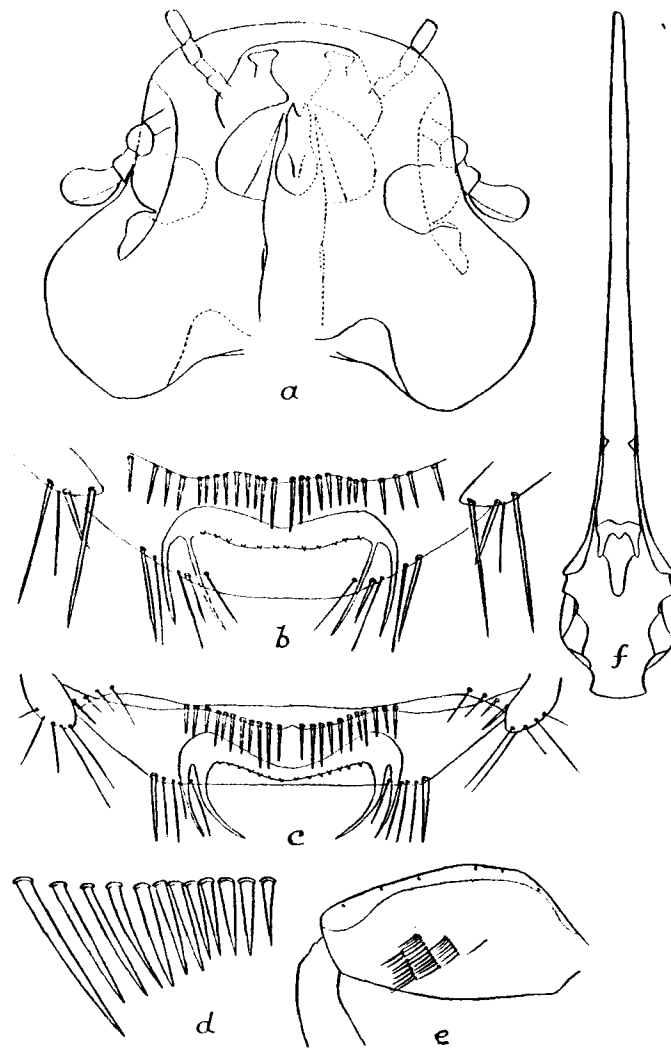
*TURACŒCA*, gen. nov.

Menoponidæ of small size, pale coloured, heavily sclerotized along the outer margins of the legs and abdomen, with combs of spines (see fig. *d*) on the third, fourth, and fifth or on the third and fourth abdominal sternites, and two or three combs of spines (see fig. *e*) on the ventral surface of the posterior femora.

Head broad, somewhat angular, wider than long, temples very prominent. The fourth and part of the third segment of the palpi project beyond the anterior portion of the head (see fig. *a*).

Thorax three segmented; prothorax less than half the length of the head and more than twice as wide as long; mesothorax small, distinct, barely half the size of the metathorax; metathorax large, being almost as wide posteriorly as the greatest width of the abdomen, with a few short spines directly outwards and posteriorly in the posterior lateral angles.

Abdomen almost rectangular in the female, somewhat swollen in the male, narrowing posteriorly, abruptly; roughly a third longer than broad; segments clearly defined; paratergites heavily sclerotized and bearing a few long, stout setæ in their posterior lateral angles.



*a.* Head of *T. scleroderma* (Ewing) (setæ not shown). *b.* Anterior part of abdomen of female of *T. bedfordi*, sp. n. *c.* Anterior part of abdomen of female of *T. scleroderma* (Ewing). *d.* Comb of spines on fifth sternite of *T. scleroderma* (Ewing). *e.* Hind femora of *T. scleroderma* (Ewing). *f.* Male genitalia of *T. scleroderma* (Ewing) (the preputial sac is not shown). (All figures drawn to the same scale except *d.*)

There is slight sexual dimorphism in the abdominal segments—in the female the first abdominal segment is long and wider in the middle than at the sides, the second segment is less than half as long as the first, whereas in the male the first and second abdominal segments are roughly the same size. The pleurites and tergites appear to be more heavily sclerotized in the females.

Male genitalia consisting of a very long, slender, basal plate extending to about three-quarters of the length of the abdomen; *Colpocephalum*-type (see fig. *f*). A preputial sac is present (not shown in drawing) which bears minute "teeth."

Female terminalia very distinct and quite unlike any other species known to me (see figs. *b*, *c*).

The chaetotaxy of the terminal abdominal segments is very characteristic in both sexes.

*Genotype*.—*Colpocephalum scleroderma* Ewing.

*Type-host*.—*Musophaga rossæ* Gould (see below).

This genus is related to *Cuculiphilus* (Uchida, 1926), which contains species parasitic on cuckoos. This is interesting in view of the relationship of the two families of birds (see above).

*Turacæca scleroderma* (Ewing).

(See Pl. XII. and figs. *a*, *c*, *d*, & *e*.)

Ewing gives *Musophaga rossæ* as the type-host of this species. The specimens which I have before me, and which I consider as representing his species, were all collected from *Corythavola c. cristata* (Vicill.). It seems probable that the host of Ewing's species may have been incorrectly stated, especially in view of the fact that the single female which I have seen from *Musophaga violacea rossæ* (Gould is a different species though congeneric. Dr. Jos. Bequaert, from whom Ewing received his single specimen, is unable to throw any light on the identity of the host—he admits the possibility of carelessness on the part of the collector of the parasite in giving the correct host name.

*Specimens examined*.—All specimens off *Corythavola c. cristata* (Vicillot), Blue or Giant Plantain-eater, from Uganda.

2 ♂♂, Kampala, Munyonyo, 5. x. 1932 (*G. H. E. H.*).

1 ♂, Kampala, Munyonyo, 7. x. 1932 (*G. H. E. H.*).

2 ♀♀, M'buya, 2. x. 1932 (*T. W. C.*).

FIG. 1.



FIG. 2.



Fig. 1.—*Turacæca scleroderma* (Ewing). ♀.  
Fig. 2.—Ditto. ♂.

× 25 approx.

3 ♀♀, 8 ♂♂, near Kampala, Namanve, 9. ix. 1932  
(*T. W. C.*).

1 ♂, 2 ♀♀, Kampala-Entebbe Road, M. 9, 3. xi. 1932  
(*G. H. E. H.*).

4 ♂♂, 3 ♀♀, near Kampala, 3. ix. 1933 (*G. H. E. H.*).

*Length*.—♂ (on slide) 1.8 mm. ; *greatest breadth* .7 mm.  
♀ (on slide) 1.9 mm. ; *greatest breadth* .8 mm.

The photographs of the male and female together with the text-figures should be sufficient to render the recognition of this species an easy matter.

*Turacœca bedfordi*, sp. n.

(See fig. b.)

*Type-host*.—*Gymnoschizorhis leopoldi centralis* Neumann.

This species comes very close to *T. scleroderma* (Ewing). I have been unable to find any differences in the male genitalia. The main differences are as follows:—It is a smaller species; the combs of spines on the sternites are only present on the third and fourth; the fifth sternite bears approximately four very short spines instead of a comb; the terminal abdominal segments of both the male and female are not almost surrounded by the eighth segment as in *T. scleroderma* (Ewing), but are normal as the anterior segments; only two combs of spines appear to be present on the ventral surface of the posterior femora.

*Specimens examined*.—1 ♂ holotype, 1 ♀ allotype, 2 ♂♂ and 4 ♀♀ paratypes off the type-host, from Uganda, Mbarara-Masaka Road, 8. vii. 1934 & 9. ix. 1934 (*G. H. E. H.*).

1 ♀ paratype off *Musophaga violacea rossæ* Gould (Violet Plantain-cater), Uganda, Nabugabo, 9. ix. 1934 (*G. H. E. H.*).

1 ♀ paratype off *Ruwenzorius j. johnstoni* (Ruwenzori Plantain-cater), Uganda, Nymabitaba, 3700 ft., 7. viii. 1933 (*W. J. E.*).

*Length*.—♂ (on slide) 1.3 mm. ; *greatest breadth* .6 mm.  
♀ (on slide) 1.6 mm. ; *greatest breadth* .7 mm.

EXPLANATION OF PLATE XII.

*Fig. 1.* *Turacœca scleroderma* (Ewing). ♀.

*Fig. 2.* Ditto. ♂.

× 25 approx.