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TWO NEW SPECIES OF MALLOPHAGA FROM GALLINACEOUS BIRDS.

By K. C. Emerson, Stillwater, Oklahoma.

The two new species of Mallophaga herewith described and illustrated are from material in the British Museum (Natural History). The author is greatly indebted to Dr. Theresa Clay for the opportunity to study this material, and for her assistance and suggestions.

Clayia zumpti, sp. n.

Material examined. Three males and four females from Francolinus sephaena sephaena (A. Smith) were collected near Newington, East Transvaal on 19th July, 1957 by Dr. F. Zumpt.

Male. As shown in fig. 1. Male genitalia as shown in fig. 4.

Female. Shape of head as shown in fig. 2. Similar to the male, except for terminal abdominal segment. Chaetotaxy of terminal abdominal segment as shown in fig. 3.

Measurements of mounted specimens, in millimetres.

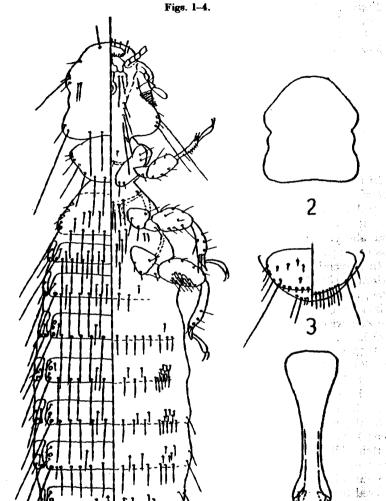
| Length of head | Holotype 0-33 mm. | Allotype 0-35 mm |
|--|----------------------|---------------------|
| Width of head Width of prothons | 0.35 | 0.35 |
| Width of prothorax Width of metathorax | 0.32 | 0.32 |
| Width of abdomen | 0.42 | 0.44 |
| Total length | 0.53 | 0.56 |
| Total length | 1.90 | 1.98 |

This species is related to C. squamata Emerson, 1956. In addition to differences in size, it differs from that species as follows: (1) head is much narrower, (2) head is of the same shape in both sexes, (3) a more dense dorsal chaetotaxy of the metathorax and first abdominal segment, and (4) fewer setæ ventrally on each abdominal segment. The male genitalia are very similar; however there are minor differences in the shape of the endomeres. Holotype male and allotype female in the British Museum (Natural History), type slide number 630.

Somaphantus spencei, sp. n.

Material examined. Twenty-five males and twenty-two females mounted on slides, and eight males and twenty females unmounted from Pavo muticus imperator Delacour. The specimens were collected in October, 1956 by Mr. Tom Spence from a host which had been in captivity at Dunbog, Newburg, Fife, since at least 1947.

Male. As shown in fig. 5. Male genitalia as shown in fig. 8.



Clayia zumpti, sp. n.

1. Dorsal-ventral view of male.
2. Outline of head of female.
3. Dorsal-ventral view of terminal abdominal segment of female. 4. Male genitalia.

Female. Shape of head as shown in fig. 6. Median row of dorsal sets on each abdominal segment with four more setze than in the male. Terminal abdominal segment as shown in fig. 7.

Measurements of mounted specimens, in millimetres*:

| Length of head | 0.27 0.23 0.26 0.40 | Allotype 0·33 mm. 0·27 0·23 0·26 0·40 2·10 |
|----------------|------------------------------|--|
| | | |

In addition to differences in size, this species can be separated from S. lusius Paine, 1914, the other species in the genus, by : (1) the triangularshaped head, (2) a comparatively sparse abdominal chaetotaxy, and (3) the characters of the male genitalia. Holotype male (slide No. 631) and allotype female (slide No. 632) in the British Museum (Natural

History); paratypes: 32 33, 41 99.

In November, 1956, Dr. Clay received the base of four quills and a letter from Mr. Tom Spence. An extract of his letter, dated 29th October, 1956, states: "I am sending you enclosed in this letter, parts of the primaries of an Indo-Chinese Green Peafowl, Pavo muticus imperator, infested with a Mallophagan. This peafowl, a male, is a captive tame bird here at my home and was imported by the collector Frost in 1947 or 1948 and was probably bought in the animal market in Singapore. Despite its clouded origin I am pretty sure of its subspecific rank. It only came to me in March of this year and the years between its import and arrival here were spent in the collection of the later A. Ezra, of Foxwarren Park, Surrey. When he began to drop primaries a month or so ago I noticed that they were infested and did little about it till yesterday when I noted that two he dropped (always in matched pairs of course) contained living lice. His consort, a captive-reared specimen four or five years old, seems to be quite free of the infestation". The quills were examined by Dr. Clay, and she could find no openings by which the lice entered the quills. Three of the quills were opened and found to contain live adults, nymphs, cast skins, and numerous droppings. The fourth quill was submitted to Dr. James M. Harrison, Bowerwood House, St. Botolph's Road, Sevenoaks, Kent, for examination. An extract of his letter states: "I have looked at it very carefully and agree with you that there are no signs as to how the mallophaga got inside, but I feel sure personally that they must have entered during the period in the development of the feather when the calamus was soft, they would then become incarcerated as further layers of quill were laid down and hardened off". The unopened quill, and the adult lice from the other three quills were loaned to the author by Dr. Clay for study. Examination of the unopened quill revealed the fact that numerous dead lice are present in this quill,

Unmounted specimens are approximately two-thirds the length of mounted specimens.

Figs. 5-8. 6

Somaphantus spencei, sp. n.

Somaphantus spencei, sp. n.

Outline of head of female. 7. Ventral dorsal view

and disclosed no apparent openings by which the lice gained entry. A study of the life-history of this species of Mallophaga would be a fascinating project.

REFERENCES.

EMERSON, K. C. 1956. A new species of Clayia (Mallophaga: Menoponidae) from the French Cameroons. Proc. R. Ent. Soc. Lond. (B), 25, 200-204. PAINE, J. H. 1914. A new genus of Mallophaga from African Guinea Fowl in the United States National Museum. Smithsonian Misc. Coll. 61, No. 23, 1-4.

NOTES ON THE EAST AFRICAN MIRIDAE (HEMIPTERA), II: A NEW SPECIES OF PLEUROCHILOPHORUS REUTER FROM UGANDA.

By Thomas R. Odhiambo, Kawanda Agricultural Research Station, Kampala, Uganda.

During a recent survey of the Miridae found on cotton and associated plants at Serere, Eastern Province, Uganda, many specimens of a species of Pleurochilophorus Reuter were collected that did not appear to belong to any of the known species, as listed and described by Poppius (1912). This genus has so far been recorded only in the Ethiopian region (Carvalho, 1952); and a critical comparison of the descriptions of the known species with that of the specimens from Uganda revealed that the latter constitute a new species. A search through the insect collection at Kawanda brought to light several specimens of this same species.

The species has been found breeding commonly on pigeon pea (Cajanus indicus Spreng.), and may turn out to be an important pest of this crop. A few specimens have also been collected on cotton (Gossypium hirsutum L.), maize (Zea mays L.), simsim (Sesamum indicum L.), wild Crotalaria, and Gynandropsis; but it was not ascertained whether or not these are normal host-plants (as distinct from being merely food-plants), though in the case of cotton there is one specimen bearing a label: "Uganda, Kampala, nymph on cotton, 11. ii. 1930, G. L. R. Hancock ".

Type material of the new species has been went to the Commonwealth Institute of Entomology, London, for eventual deposition in the British Museum (Natural History).

Subfamily MIRINAE.

Tribe HYALOPEPLINI.

This new species may be separated from the three previously known species of the genus by the following key, based on Poppius' descriptions:

Key to Species of Pleurochilophorus Reuter, 1905.

- Hemelytra translucent; claval commissures narrowly red or reddish Hemelytra opaque; claval commissures not red .. 3. Head and pronotum with narrow, red stripes; scutellum with two large, black stripes (3) or four elongate, black spots (2); tibial spines fuscous or Head and pronotum without red stripes; scutellum with two black spots at base; tibial spines yellowish brown P. subhyalinus Poppius, 1912.

 - P. rufolineatus, sp. n.