

## THREE NEW AFRICAN SPECIES OF CLAYIA

(MALLOPHAGA, MENOPONIDAE)

BY K. C. EMERSON, *Stillwater, Okla.*

The genus *Clayia* Hopkins 1941, as now defined, contains three species of Menoponidae found on African hosts of the Avian order Galliformes. Three new species are described in this paper from material present in the British Museum (Natural History) and the American Museum of Natural History. The author is greatly indebted to Miss Theresa Clay, British Museum (Natural History) and to Mr. G. H. E. Hopkins, Zoological Museum, Tring, for their assistance and suggestions.

### Genus *Clayia* Hopkins

*Clayia* Hopkins, 1941. J. Ent. Soc. S. Africa, 4: p. 46.—Clay, 1947. Proc. Zool. Soc. London, 117 (II and III): p. 457 (genus redefined). Type: *Colpocephalum mjobergi* Cummings, by original designation.

Medium-sized Menoponidae. Laterodorsal margins of head with broad preocular slit or shallow notch, temples moderately expanded. Terminal segment of antenna elongate and cylindrical, without signs of division. Prosternum with four or more median setae; otherwise, thorax as in *Colpocephalum* s. str. Venter of third femur with a distinct patch of setae. Abdominal sternites IV-VI with distinct patches of setae in each posterior lateral angle. Male genitalia with long, moderately broad basal plate; and parameres and endomeres which are free distally, rod-like and similar.

### *Clayia mjobergi* (Cummings)

*Colpocephalum mjobergi* Cummings, 1914. Bull. Ent. Res., 5 (II): p. 163, figs. 4-6.

*Clayia diasi* Kéler, 1952. Moçambique, 72: p. 26, figs. 10-11.

Material examined: Four male and one female paratypes collected from *Guttera edouardi sethsmithi* Neumann, Bundongo Forest, Bunyoro, Uganda; eight females collected from *Guttera edouardi pucherani* (Hartlaub), Kenya; and one male collected from *Guttera edouardi pucherani* (Hartlaub), Italian Somaliland.

On the basis of the description and illustrations given by Kéler, *Clayia diasi* described from two females obtained from *Guttera lividicollis* [= *Guttera edouardi edouardi* (Hartlaub)] appears to be identical with *Clayia mjobergi*.

Complete illustrations of this species have been given by Cummings. The male genitalia have been illustrated in figure 1.

**Clayia theresae** Hopkins

*Clayia theresae* Hopkins, 1941. J. Ent. Soc. S. Africa, 4: p. 46.

Material examined: Holotype male and allotype female collected from *Numida meleagris major* Hartlaub, Buruli, Buganda Province, Uganda, and three males and four females from the same host collected at Soroti, Teso, Uganda.

Complete illustrations of this species have been given by Kéler. The male genitalia have been illustrated in figure 3.

**Clayia spinosa** (Piaget)

*Colpocephalum spinosum* Piaget, 1880. Les Pédiculines, p. 537, pl. 44, fig. 9.

Material examined: Lectotype male and paratype female collected from *Francolinus capensis* (Gmelin), presumably S. Africa.

When examining the types of this species, I neglected to make a drawing of the male genitalia. Miss Clay has kindly furnished me with an illustration of the male genitalia of the lectotype, which is shown as figure 2.

**Clayia subtheresae**, new species

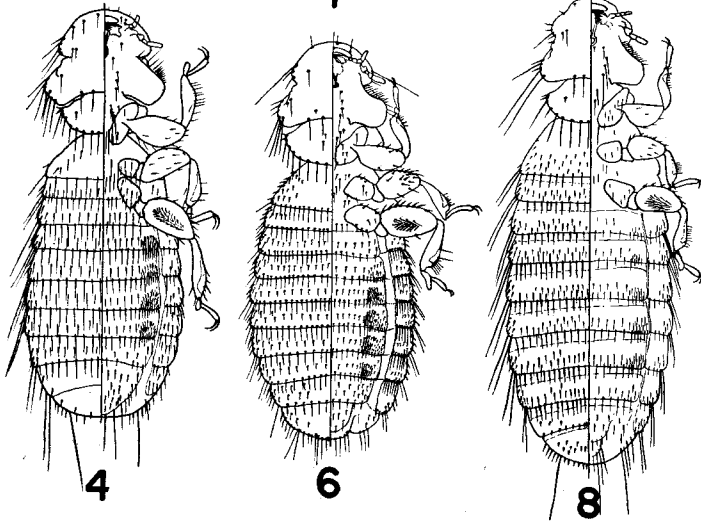
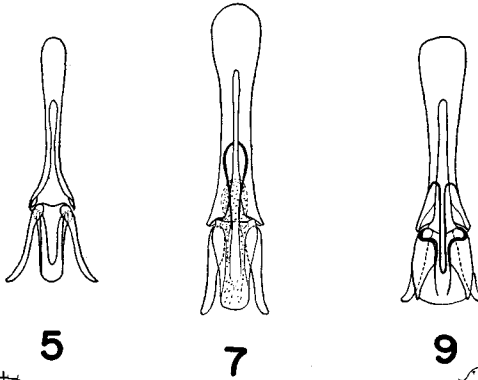
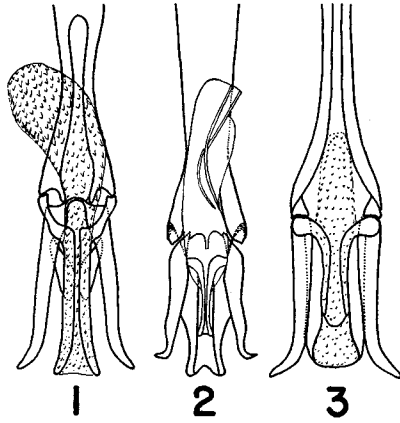
Material examined: Three males and fifteen females collected from *Acryllium vulturinum* (Hardwicke), Kenya.

*Male*. As illustrated in figure 4. Genitalia as illustrated in figure 5.

*Female*. Except for terminal abdominal segments, similar to the male. Tergite VIII bare except for lateral setae; five short setae on each lateral margin, and one long and four short setae in each posterior lateral angle. Tergite IX bare except for marginal setae; three short setae on each lateral margin, two long setae in the posterior lateral angles, and twelve short stout setae on the posterior margin. Genital plate oblong, posterior margin broadly rounded; bare except for eighteen long slender setae on the posterior margin. Fourteen long slender setae in the anal fringe.

Measurements:	Male	Female
Length of head .....	0.37 mm.	0.40 mm
Width of head .....	0.55	0.58
Width of prothorax .....	0.46	0.48
Width of metathorax .....	0.58	0.67
Width of abdomen .....	0.72	0.85
Total length .....	1.90	1.98

Figs. 1-3, 5, 7 and 9, male genitalia of *Clayia* spp.: fig. 1, *C. mjobergi* (Cummings); fig. 2, *C. spinosa* (Piaget); fig. 3, *C. theresae* Hopkins; fig. 5, *C. subtheresae*, n. sp.; fig. 7, *C. chapini*, n. sp.; fig. 9, *C. distincta*, n. sp. Fig. 4, *C. subtheresae*, male, dorsoventral view. Fig. 6, *C. chapini*, male, dorsoventral view. Fig. 8, *C. distincta*, male, dorsoventral view.



Holotype male and allotype female in the British Museum (Natural History), type slide number 610.

*Clayia chapini*, new species

Material examined: Two males and one female collected from *Afropavo congensis* Chapin, East Congo Forest.

*Male*. As illustrated in figure 6. Genitalia as illustrated in figure 7.

*Female*. Except for terminal abdominal segments, similar to the male. Tergite VIII bare except for lateral setae; four short setae on each lateral margin, and one long and two medium-length setae in each posterior lateral angle. Tergite IX bare except for marginal setae; four short setae on each lateral margin, two long setae in the posterior lateral angles, and twelve short setae on the posterior margin. Genital plate oblong, posterior margin broadly rounded; bare except for twenty long slender setae on the posterior margin. A patch of fourteen long slender setae on each side of the genital plate. Twelve long slender setae in the anal fringe.

Measurements:	Male	Female
Length of head .....	0.33 mm.	0.33 mm.
Width of head .....	0.47	0.47
Width of prothorax .....	0.42	0.42
Width of metathorax .....	0.53	0.57
Width of abdomen .....	0.70	0.74
Total length .....	1.68	1.70

Holotype male and allotype female in the American Museum of Natural History, type slide number 611. Paratype male in the British Museum (Natural History).

*Clayia distincta*, new species

Material examined: Four males collected from *Francoislinus levailanti kikuyuensis* Ogilvie-Grant, Uganda.

*Male*. As illustrated in figure 8. Genitalia as illustrated in figure 9. This species differs from other species in the genus in the atypically small head and long slender abdomen. The endomeres are not free distally, and they are not similar to the parameres; yet all other characters leave little doubt that the form belongs in this genus.

Measurements of the male: Length of head, 0.36 mm.; width of head, 0.48 mm.; width of prothorax, 0.44 mm.; width of metathorax, 0.64 mm.; width of abdomen, 0.73 mm.; and total length, 2.13 mm.

Holotype male in the British Museum (Natural History), type slide number 612.

REFERENCES

- Clay, T., 1947. A Preliminary Key to the Genera of the Menoponidae (Mallophaga). Proc. Zool. Soc. London 117 (II and III): p. 457-477.