

The *Colpocephalum*¹ of the Cuculiformes²

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ABSTRACT

A redescription is given for *Colpocephalum ignotum*, the only previously recognized species from cuckoos. Two new species are described: *Colpocephalum phasianini* from *Centropus phasianinus* from Papua and *Colpocephalum sinensis* from *Centropus sinensis* from India.

Colpocephalum ignotum Tendeiro from the cuckoo, *Centropus superciliosus burchelli* Swainson, is the only species of this genus currently recognized as occurring on hosts within the order Cuculiformes. Since I have recently obtained series of lice from this host species as well as several additional species of cuckoos, I have used these to form the basis for a redescription of *Colpocephalum ignotum* and a description of 2 new species.

All material studied here is from specimens of the genus *Centropus*, and this would suggest that, within this bird order, *Colpocephalum* is perhaps restricted to *Centropus* and possibly closely related genera. For the 3 species of *Colpocephalum* recognized here, the first is represented by specimens from 3 species of hosts of African origin, the second is from a Papuan host, and the third from an Indian host.

In the following descriptions, the characters in common to these species of lice are given first and not subsequently repeated for each. Measurements are in millimeters. The host nomenclature follows that of Peters (1940).

Head.—Broadly rounded in front, distinctly broadest across temples; shallow preocular slit; preocular and occipital nodi moderately developed, associated carinae poorly developed; middorsal setae typically 4 (less often 5-6), minute; occipital setae with inner

pair very long, outer pair minute; 2 very long marginal temple setae on each side; no ventral spinous processes; gula evenly pigmented, rounded to flattened posteriorly, with 4-6 setae on each side; subocular comb row with 3-4 setae immediately anterior to it; antennae with only moderately expanded second segment, terminal segment longer than wide, undivided, and not concealed beneath head; sitophore sclerite of hypopharynx as for other *Colpocephalum*.

Thorax.—Weakly developed prosternal plate, without longer setae; elongate, narrow mesosternal plate; roughly trapezoidal metasternal plate; venter of each femur III with 3 comb rows of short spiniform setae.

Abdomen.—All tergites undivided, with I-VIII of approximately equal length; tergoventral setae widely spaced, medium to long; postspiracular setae long on I, very long on II-VIII; sparse medioanterior row of medium setae on I-VIII; without evident internal pleural thickenings; sternite III with 2 comb rows on each side, rarely with weak anterior third row of 3 or so setae; female ventral terminalia with sternites VII-IX fused (vulva), margin of vulva with row of medium setae and without lateral hooked setae, anus oval and with ventral and dorsal fringe of 30-45 short to medium setae in each, anus without inner setae, and either no evident internal structure of genital chamber or with small weak ringlike structure; male ventral terminalia with sternites VIII-IX fused (genital plate); male genitalia with broad conspicuously barbed apical portion of penis, broad genital

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sclerite, tapered basal apodeme, evenly rounded endomeral plate, and short straight parameres.

Colpocephalum ignotum Tendeiro
(Fig. 1-3)

Colpocephalum ignotum Tendeiro, 1958: 225. Type-hosts: *Centropus superciliosus burchelli* Swainson and *Hirundo smithi smithi* Leach.

Specimens from *C. superciliosus* Hemprich and Ehrenberg as follows, with data in parentheses representing those of specimens from other host species if data differ from those of type-host material.

MALE.—As in Fig. 3. Margin of pronotum with total of 14 setae, all long except lateral corner seta on each side (specimens from *C. monachus* Rüppell variable in having third marginal seta from corner long as in Fig. 3 to short as in Fig. 5). Mesosternal plate with 4 (3-4) longer setae. Margin of metanotum with 13 (10-12) setae, all long; medioanteriorly with 6 (5-7) setae, including at least 1 longer seta on each side; metasternal plate with 6 (6-8) setae. Posterior margin of each femur III with 2 stout setae. Marginal abdominal tergal setae, including postspiracular setae: I, 10 (10-11); II, 12 (10-12); III-VII, 12

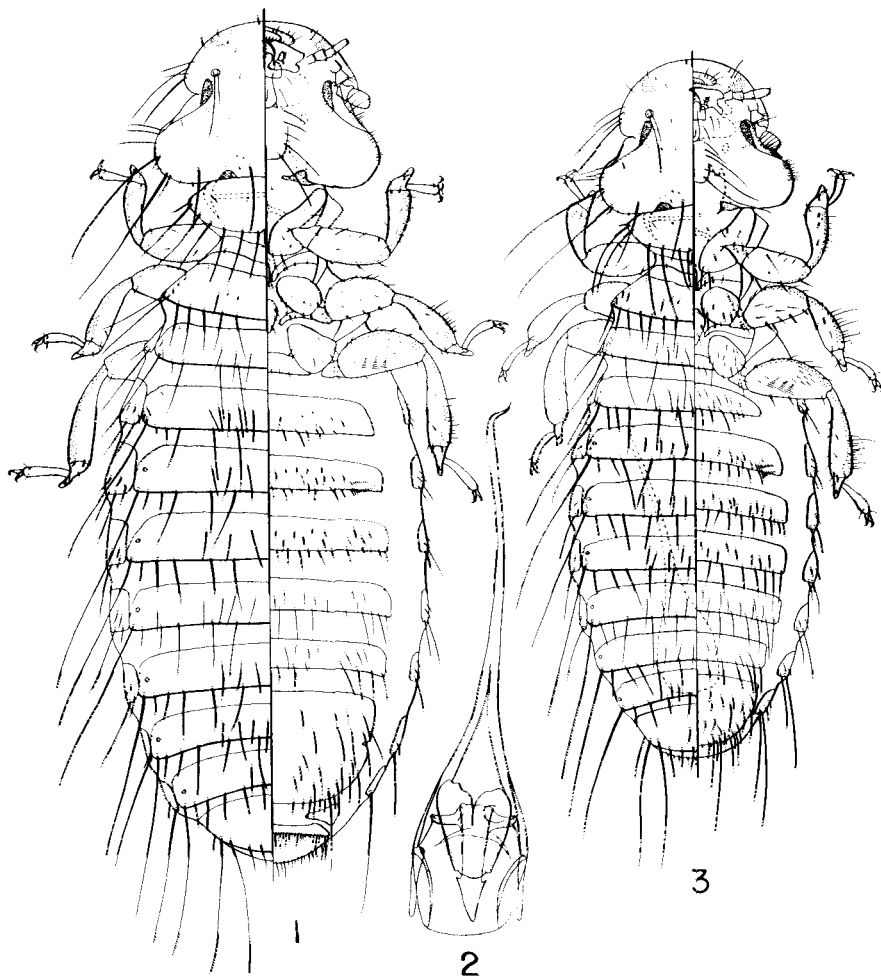


FIG. 1-3.—*Colpocephalum ignotum*. 1, female; 2, male genitalia; 3, male.

(11-12); VIII, 10. Medioanterior abdominal tergal setae: I, 9 (3-7); II, 8 (5-8); III, 9 (4-10); IV, 9 (6-8); V, 10 (6-9); VI, 7 (4-9); VII, 5 (3-6); VIII, 5 (3-4). Last tergite with 5 (4-5) medium inner posterior setae, 2 (1-4) medium anterior setae. Abdominal sternal setae: I, 4 (3-6); II, 24 (26-34); III, 27 (27-37); IV, 39 (35-44); V-VI, 31 (25-35); VII-VIII, 20 (15-25). Genital plate posteriorly with 28 (24-42) short to very long setae. Genitalia as in Fig. 2, with proportionately long and tapered apical portion of penis set off by barbs, genital sclerite without evidence of lateroposterior projections. Dimensions: preocular width, 0.35 (0.33-0.36); temple width, 0.45 (0.43-0.45); head length, 0.32 (0.31-0.34); prothorax width, 0.33 (0.32-0.35); metathorax width, 0.40 (0.40-0.44); total length, 1.60 (1.52-1.70); genitalia width, 0.14 (0.14-0.16); genitalia length, 0.64 (0.62-0.76).

FEMALE.—As in Fig. 1. Head and thorax much as for male, except for margin of metanotum with 11-12 (10-12) setae, metanotum medioanteriorly with 5 (4-7) setae, metasternal plate with 6-7 (6-10) setae, and posterior marginal setae of each femur III not so stout. Marginal abdominal tergal setae, including postspiracular setae: I, 9-10 (9-11); II, 12 (10-13); III-V, 12 (12-13); VI-VII, 12; VIII, 11 (10-12). Anterior abdominal tergal setae: I-VII, 5-9 (4-8); VIII, 2-3 (0-2). Last tergite with 3 (2-6) inner posterior setae, no anterior setae. Abdominal sternal setae: I, 6-7 (5-8); II, 27-30 (22-37); III, 28-32 (24-40); IV, 38 (39-48); V, 30 (26-40); VI, 27-29 (26-39); VII, 20-23 (19-25). Vulva marginally with 12 (12-18) setae, with small gap in center; anteriorly, 19-20 (21-26) setae. Dimensions: preocular width, 0.38-0.39 (0.35-0.38); temple width, 0.52-0.53 (0.44-0.52); head length, 0.33-0.34 (0.32-0.38); prothorax width, 0.35-0.36 (0.33-0.37); metathorax width, 0.45-0.47 (0.43-0.49); total length, 1.82-1.91 (1.73-1.93).

Although I have not seen any of the type-series of *Colpocephalum ignotum*, there are no features of the description that significantly differ from the series at hand. Tendeiro (1958) shows only a line drawing of the dorsal male head and photographs of a male and female, these lacking much in detail. In view of available materials from *Centropus* species, it seems questionable whether *Hirundo smithi* represents a true host for this louse.

Material Examined.—2 ♀, 1 ♂, *Centropus superciliosus*, Transvaal; 8 ♀, 6 ♂, *C. monachus*, Mozambique, French Cameroon; 2 ♀, 3 ♂, *C. senegalensis* (L.). N. Rhodesia.

Colpocephalum phasianini, n. sp.
(Fig. 5, 6)

Type-host.—*Centropus phasianinus* (Latham).

MALE.—As in Fig. 5. Differing from *C. ignotum* as follows: pronotum always with short first and third marginal setae near each lateral corner. Only 9-10 marginal metanotal setae; without longer medioanterior seta on either side. Posterior margin of each femur III with 3 rather stout setae. Fewer marginal

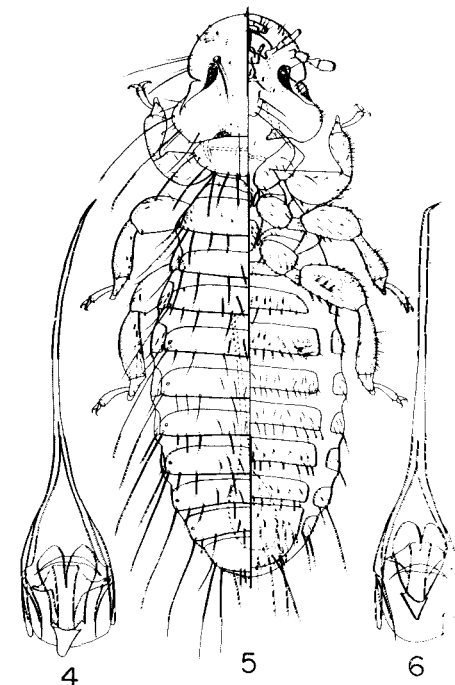


FIG. 4.—*Colpocephalum sinensis*, male genitalia. FIG. 5, 6.—*C. phasianini*. 5, male; 6, male genitalia.

abdominal tergal setae: I, 6; II-VI, 8-10; VII-VIII, 8. Anterior abdominal tergal setae: I, 2-5; II-III, 5-6; IV, 5-7; V-VI, 6-9; VII, 4-8; VIII, 1-4. Without anterior setae on last tergite. Sternite IV with 44-53 setae, showing group of short spiniform lateroposterior setae occasionally aligned in weak comb row. Genitalia as in Fig. 6, with proportionately shorter and more pointed apical portion of penis. Somewhat smaller in size: preocular width, 0.32-0.34; temple width, 0.40-0.42; head length, 0.31; prothorax width, 0.31-0.32; metathorax width, 0.39-0.42; total length, 1.45-1.62.

FEMALE.—Differs from *C. ignotum* in much the same ways as the male, having pronotum, metanotum, and abdominal tergal chaetotaxy on I-VIII essentially as for male. All specimens with last tergite having only 2 inner posterior setae. Sternite IV with 51-55 setae, including lateroposterior spiniform setae as for male. Vulva with 16-20 setae distributed across margin, without central gap. Tendency for smaller size than female of *C. ignotum*: preocular width, 0.35-0.37; temple width, 0.44-0.47; head length, 0.31-0.34; prothorax width, 0.30-0.34; metathorax width, 0.41-0.45; total length, 1.64-1.84.

Material Examined.—Holotype ♂, *Centropus phasianinus* (BBM-NG 50355), Balimo, Papua, 25 Mar.

1964, H. Clissold; at Bishop Museum. Paratypes, 9 ♀, 6 ♂, same data as holotype.

Colpocephalum sinensis, n. sp.

(Fig. 4)

Type-host.—*Centropus sinensis* (Stephens).

MALE.—Head, thorax, and marginal abdominal tergal setae much as for *C. ignotum*, except no longer medioanterior metanotal setae. Perhaps fewer anterior abdominal tergal setae on V–VIII, with 4, 5, 3, and 2, respectively. No anterior setae on last tergite. Genitalia (Fig. 4) distinctively different from both *C. ignotum* and *C. phasianini*, with genital sclerite having conspicuous pointed lateroposterior projections and with comparatively short bluntly rounded apical portion of penis.

FEMALE.—Head and thorax as for male. Tendency for more marginal abdominal tergal setae than for *C. ignotum*: IV, 13–15; V, 13–16; VI, 12–13; VII, 12–14. Fewer anterior abdominal tergal setae on: IV, 3–4; V–VI, 1–4; VII, 1–3; VIII, 0–1. With 4–6 inner posterior setae. Otherwise, sternites and terminalia as for *C. ignotum*.

Material Examined.—Holotype ♂, *Centropus sinensis sinensis*, Bakawalpur, India, Jan. 1939, Meindertshagen slide 13991; in British Museum (Natural History). Paratypes, 9 ♀, same data as holotype.

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