

Two New Species of *Colpocephalum* (Mallophaga: Menoponidae) from Neotropical Ciconiiformes¹

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ABSTRACT

Colpocephalum cayennensis is described from *Mesembrinibis cayennensis* (Gmelin) from Colombia, and *C.*

infuscati from *Phimosus infuscatus* (Lichtenstein) from Colombia and Brazil.

Subsequent to a study of the *Colpocephalum* from the Ciconiiformes reported by Price and Beer (1965), there have become available for study good series of specimens representing 2 undescribed species from hosts within this bird order. These species are here described and illustrated.

In the following descriptions, the value in parentheses following a statement of range is the mean. All measurements are in millimeters. Reference to tergites, pleura, or sternites, unless stated to the contrary, pertains to the abdomen. Nomenclature of the hosts follows that of Peters (1931).

Colpocephalum cayennensis, new species

Type-host.—*Mesembrinibis cayennensis* (Gmelin).

FEMALE.—As in Fig. 1. Head with well-developed nodi and carinae. Short middorsal head setae, with inner pair about twice length of outer. Margin of temple with 3 very long setae on each side. Occipital setae medium. Shallow preocular notch. Antennae without second segment greatly expanded distally. Subocular comb row typically with only 2 setae immediately anterior to it. Gular plate pigmented across anterior portion, with 4 + 4 or 4 + 5 setae. No ventral spinous head processes. Pronotum with 10 long, 6 short marginal setae; prosternal plate poorly developed, without setae. Metanotum marginally with 13–18 (15.2) medium to long setae, medioanteriorly with 9–13 (11.2) short to medium setae; mesosternal plate elongate, with 4–5 medium setae; metasternal plate trapezoidal, with 9–10 setae. Femur III with 3 ventral comb rows, posterior margin with 2–3 short, slender setae. Abdomen with tergites I–VIII of much the same length, undivided. Marginal tergal setae with lengths as shown: I, 18–22 (19.4); II, 22–27 (24.2); III, 24–29 (26.6); IV, 22–27 (24.8); V, 19–25 (22.8); VI, 15–22 (19.6); VII, 14–19 (16.2); VIII, 13–16 (14.4). Irregular, single row of short to medium anterior tergal setae: I, 16–20 (17.6); II, 17–28 (22.0); III, 21–34 (26.4); IV, 19–31 (24.8); V, 14–27 (20.2); VI, 12–23 (16.8); VII, 7–15 (10.2); VIII, 1–5 (2.6). Postspiracular setae very long on III and VII–VIII, shorter on I–II and IV–VI. Last tergite divided at midline; with 1 very long marginal seta on each side, preceded by 2–3 lateroanterior setae, and with 4–5 short inner posterior

setae; 1 anterior seta adjacent to each very long seta and 1 near inner margin of each plate. Sternite III with 2 well-developed comb rows on each side. Sternal setae: I, 4–7 (5.6); II–III, 29–39 (33.0); IV, 42–49 (46.2); V, 33–42 (38.0); VI, 28–40 (34.6); VII, 26–30 (27.6). Sternites VII–VIII not fused. Vulval margin indented at midline, with 21–25 (22.8) short stout spiniform setae; anteriorly, fused sternites VIII–IX with 43–48 (45.2) setae. Anus essentially oval, without inner setae; ventral fringe with 52–62 (56.3) setae, dorsal fringe with 52–63 (59.8). Genital chamber with large conspicuous ringlike structure, 0.080–0.085 wide; inner walls of anus and vulva with microtrichial vestiture. Dimensions: preocular width 0.28–0.30; temple width 0.44–0.47; head length 0.28–0.29; prothorax width 0.31–0.33; metathorax width 0.42–0.46; total length 1.43–1.70.

MALE.—Head and thorax essentially as for female. Abdomen as in Fig. 2, with chaetotaxy much as for female. Marginal tergal setae: I, 15–19 (16.8); II, 21–23 (21.8); III, 24; IV, 21–23 (21.6); V, 18–20 (19.2); VI, 16–19 (17.8); VII, 14–15; VIII, 11–14 (13.0). Anterior tergal setae: I, 9–14 (11.6); II, 13–19 (16.8); III–V, 13–26 (18.6); VI–VII, 8–15 (10.9); VIII, 5–7 (6.2). Postspiracular setae very long on III and VI–VIII or III and V–VIII, shorter on other segments. Last tergite undivided, with 1 very long seta on each side, 2–4 setae lateroanterior to this, and 4 medium inner posterior setae; 8–11 medium anterior setae laterally placed. Sternal setae on I–VII as for female. Sternite VIII with 21–27 (24.0) setae, remainder of genital plate with 58–76 (68.0) setae, especially dense laterally. Genitalia as in Fig. 3, with tapered basal plate, endomerale plate apically expanded to form laterally directed points, parameres extending distinctly beyond endomerale plate, and with only a short transverse sclerite medially. Dimensions: preocular width 0.25–0.28; temple width 0.37–0.42; head length 0.26–0.28; prothorax width 0.27–0.29; metathorax width 0.35–0.39; total length 1.30–1.51; genitalia width 0.10–0.11; genitalia length 0.58–0.65.

The female of *C. cayennensis*, when identified in the key to the ciconiiform *Colpocephalum* given by Price and Beer (1965), comes out in couplet 23 with *C. uchidi* (Qadri). However, it is quite different from *C. uchidi* in several features (Price and Beer 1965: Fig. 85), including the spiniform marginal vulval setae, the inner, ringlike genital chamber structure, the longer setae on the posterior tergites, the larger anus with longer fringe setae, the separation of sternites VII–VIII, and other features of chaeto-

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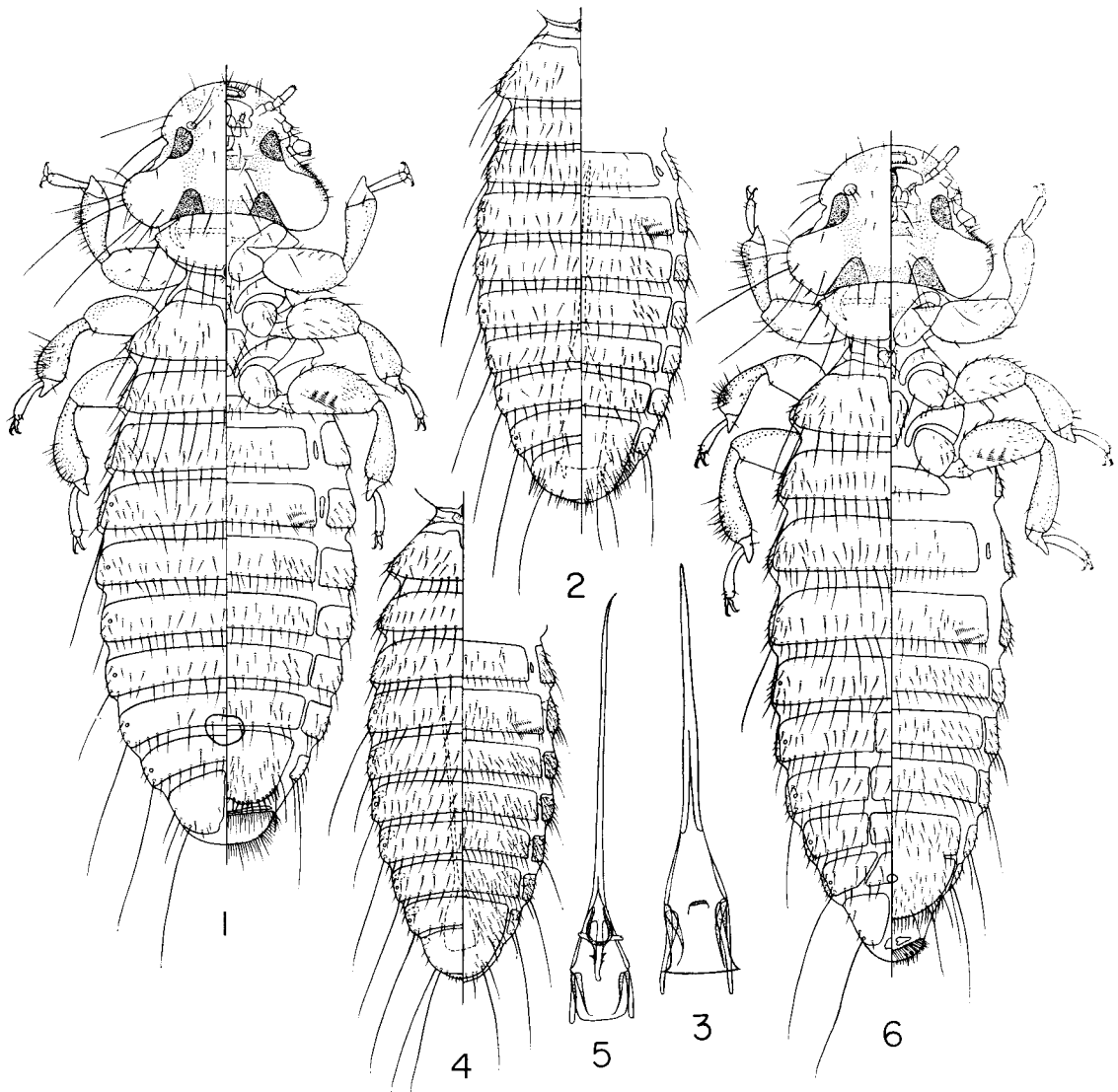


FIG. 1-3.—*Colpocephalum cayennensis*, new species. 1, female; 2, male pterothorax and abdomen; 3, male genitalia. FIG. 4-6.—*C. infuscatus*, new species. 4, male pterothorax and abdomen; 5, male genitalia; 6, female.

taxonomy and structure. The identification of the male of *C. cayennensis* in the ciconiiform *Colpocephalum* key becomes impossible at the level of couplet 25. The genitalia are closest in gross shape to those of *C. melanocephalae* Price and Beer or *C. uchidi* (Price and Beer 1965: Fig. 51, 86), but differ from each in various details. Also, the abdomen of the male of *C. melanocephalae* has only 1 comb row on each side of sternite III and lacks medioanterior setae on tergites I-VIII (Price and Beer 1965: Fig. 50), and the male of *C. uchidi* has only minute marginal and anterior tergal setae (Price and Beer 1965: Fig. 84).

Coincidental with the description of *C. cayennensis* from material representing 3 separate collections from *Mesembrinibis cayennensis*, there are also available specimens of the same species from 3 other hosts from diverse host orders—a falconiform, a charadriiform, and a passeriform. All of these undoubtedly

represent contamination during collection or preparation. The locality and date for the falconiform are identical to those for 1 of the *M. cayennensis* of Carriker. The passeriform material is in a longer series of another *Colpocephalum* species that likewise appears to be of ciconiiform origin.

Material Examined.—Holotype ♀ (USNM), *M. cayennensis*, Taraza, Antioquia, Colombia, 26 April 1948, M. A. Carriker, Jr. Paratypes from type-host: 6 ♀, 5 ♂, same data as holotype; 6 ♀, 3 ♂, Norosi, Bolivar, Colombia, 4 March 1947, M. A. Carriker, Jr.; 1 ♀, El Real, Antioquia, Colombia, 10 March 1948, M. A. Carriker, Jr. Other specimens, all presumably from erroneous hosts and not designated as paratypes: 2 ♂, *Cyanocorax cristatellus* (Temminck) (Passeriformes), Brazil; 1 ♀ *Gampsonyx swainsonii* Vigors (Falconiformes), Colombia; 1 ♂, *Lobipes lobatus* (L.) (Charadriiformes), U.S.A.

Colpocephalum infuscati, new species

Type-host.—*Phimosus infuscatus* (Lichtenstein).

FEMALE.—As in Fig. 6. Head and prothorax much as for *C. cayennensis*, but with both pairs of mid-dorsal head setae virtually of same length. Metanotum marginally with 17–18 rather long setae, medioanteriorly with 14–23 (18.5) medium setae; mesosternal plate elongate, with 4–5 medium setae; metasternal plate with 9–13 (11.3) setae. Posterior margin of femur III with 3–4 short stout setae. Abdomen with tergites I–III slightly longer than IV–VIII, and with V–VIII tripartite. Marginal tergal setae: I, 19–24 (21.7); II–III, 23–26 (24.7); IV, 21–23 (22.2); V, 17–18; VI–VII, 14–15; VIII, 10. Anterior tergal setae in irregular single row: I, 23–25 (24.3); II, 23–33 (28.3); III, 19–32 (25.7); IV, 16–32 (21.2); V, 14–27 (18.2); VI, 12–23 (16.5); VII, 9–17 (13.0); VIII, 9–13 (10.2). Postspiracular setae very long only on III, VI, and VIII, shorter on I–II and IV–V, and minute on VII. Last tergite divided at midline, with medioposterior irregularly circular plate; 1 very long marginal seta on each side, preceded by 3–5 short setae, and with 2–3 short inner posterior setae. Sternite III with 2 well-developed comb rows on each side. Sternal setae: I, 8; II, 26–36 (31.0); III, 33–45 (39.0); IV, 57–80 (66.3); V, 52–56 (53.8); VI, 37–52 (46.8); VII, 38–46 (40.8). Sternites VII–IX fused. Vulval margin evenly rounded, with 26–32 (29.3) setae; anteriorly, fused sternites VIII–IX with 42–50 (46.8) setae. Anus oval, with 4–7 (5.6) short inner dorsal setae; ventral fringe with 46–49 (47.3) setae, dorsal fringe with about 60 shorter, close-set, difficult-to-count setae. Genital chamber with small ringlike structure, 0.024–0.034 wide; without evident internal reticulate area. Dimensions: preocular width 0.29–0.31; temple width 0.41–0.46; head length 0.28–0.30; prothorax width 0.29–0.32; metathorax width 0.41–0.47; total length 1.61–1.85.

MALE.—Head and thorax much as for female, except for presence of pair of short stout dorsoanterior spiniform head setae, a few dorsoanterior head alveoli, and only 12–17 (14.8) marginal metanotal setae. Abdomen as in Fig. 4, with chaetotaxy resembling that of female. Marginal tergal setae: I, 17–19 (18.0); II–IV, 19–23 (20.9); V–VI, 14–18 (15.7); VII, 11–14 (13.5); VIII, 9–11 (10.2). Anterior tergal setae: I, 15–21 (17.5); II, 22–26 (23.5); III, 19–33 (25.4); IV, 16–25 (21.0); V, 14–22 (19.0); VI, 10–16 (14.4); VII, 3–12 (9.4); VIII, 1–5 (2.5). Postspiracular setae very long on III and VI–VIII, slightly shorter on IV–V, and much shorter on I–II. Last segment with 2 very long setae on each side, 2 short setae lateroanterior to these, and 2 short inner posterior setae; without anterior setae. Generally more sternal setae than for female: I, 5–6; II, 31; III, 37–45 (40.3); IV, 70–89 (77.7); V, 63–79 (68.5); VI, 58–74 (64.0); VII, 47–62 (54.0); VIII, 30–40 (33.5). Genital plate (IX) with 15–27 (20.3) setae. Small internal pleural thickenings on III–IX. Genitalia as in Fig. 5, with tapered basal plate, evenly

rounded endomerical plate, parameres extending only to distal margin of endomerical plate, genital sclerite rounded distally and without evident points or projections, and penis slender, without distal barbs. Dimensions: preocular width 0.28–0.29; temple width 0.42–0.43; head length 0.27–0.28; prothorax width 0.29; metathorax width 0.35–0.38; total length 1.38–1.56; genitalia width 0.08–0.10; genitalia length 0.61–0.64.

Although certain features are not consistent with the characterization given by Price and Beer (1965) for the *trispinum*-group of ciconiiform *Colpocephalum*, most of these indicate *C. infuscati* to be a member of this group. The occasional borderline number of setae on the posterior margin of femur III, especially with the female, makes passage through couplet 19 of the female key and couplet 17 of the male key difficult at times. The male genitalia are similar to those of *C. trispinum* Piaget and *C. oxycercae* Price and Beer (Price and Beer 1965: Fig. 29); critical features of head chaetotaxy, female terminalia, number of sternal comb rows, fusion of sternites VII–VIII, and pronotal chaetotaxy are consistent with the 3 previously recognized species of the group. The female of *C. infuscati*, in having only tergites V–VIII tripartite, differs from the 3 others. It is further separable from *C. trispinum* in having no anterior setae on the last tergite and shorter postspiracular setae on IV–V (Price and Beer 1965: Fig. 27); from *C. oxycercae* in having more anterior tergal setae on IV–VII, a median terminal dorsal plate on the last segment, and no anterior setae on the last tergite (Price and Beer 1965: Fig. 31); and from *C. harpiprioni* Price and Beer in having more anterior tergal setae on anterior segments, fewer and longer anterior tergal setae on posterior segments, a median dorsal terminal plate on the last segment, and short postspiracular setae on V (Price and Beer 1965: Fig. 34). The male of *C. infuscati* differs from that of *C. harpiprioni* in the shape of the genital sclerite and in having fewer and longer anterior tergal setae on VI–VIII (Price and Beer 1965: Fig. 32, 33); from *C. oxycercae* in the much smaller number of anterior tergal setae and no anterior setae on last tergite (Price and Beer 1965: Fig. 30); and from *C. trispinum*, to which it is nearest morphologically, only by the possibly larger number of anterior tergal setae and smaller number and greater lengths of sternal setae (Price and Beer 1965: Fig. 26). Both sexes of *C. infuscati* are smaller in all dimensions than any of the others.

According to Peters (1931), the type-hosts for the 3 previously recognized members of the *trispinum*-group are in the consecutively listed genera *Harpiprion*, *Theristicus*, and *Cercibis*. The species described here, from *Phimosus*, extends the known host range of the group; *Phimosus* is placed by Peters (1931) just after the other 3 host genera, with only *Mesembrinibis* in between. What the significance may be of *C. cayennensis* from *Mesembrinibis* is unknown, in that it has no clear-cut morphological re-

lationship to lice from the presumably closely related hosts.

Material Examined.—Holotype ♀ (USNM), *P. berlepschi* Hellmayr, La Gloria, Magdalena, Colombia, 27 May 1943, M. A. Carriker, Jr. Paratypes: 12 ♀, 8 ♂, same data as holotype; 5 ♀, 1 ♂, *P. infuscatus berlepschi*, Fundación, Magdalena, Colombia, 15 August 1913, M. A. Carriker, Jr.; 1 ♀, *P. i. berlepschi*, Pto. Venecia, Caquete, Colombia, 17 June

1952, M. A. Carriker, Jr.; 1 ♀, *P. i. nudifrons* (Spix), Ceará, Brazil, F. L. Werneck.

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