A NEW SPECIES OF COLPOCEPHALUM
(Mallophaga: Menoponidae) FROM THE KEA¹

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ABSTRACT

Colpocephalum pilgrimi is described as a new species, with the type host being a New Zealand psittaciform, the kea, Nestor notabilis.

The turbinatum-group of Colpocephalum is currently recognized as containing three species (Price and Beer, 1963): the widely distributed C. turbinatum Denny, with the type host, Columba livia Gmelin (Columbiformes), but also found on a number of hosts in the Falconiformes and possibly sporadically within the Ciconiiformes and Gruiformes; C. cucullare Giebel from Sagittarius serpentarius (J. F. Miller) (Falconiformes); and C. percnopteri Price and Beer from Neophron percnopterus (L.) (Falconiformes). Through the courtesy of Dr. Theresa Clay, British Museum (Natural History), Dr. Jerry

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Colpocephalum pilgrimi, n. sp.: Fig. 1, female; Fig. 2, male genitalia (without entire basal plate); Fig. 3, male abdomen.
A. Powell, University of California, and Dr. J. L. Gressitt, Bishop Museum, I have recently obtained specimens of a Colpocephalum representing four collections from the kea, Nestor notabilis Gould (Psittaciformes). These specimens, while definitely belonging to the turbinatum-group, are sufficiently different to be considered as a new species, and they are herewith described.

Colpocephalum pilgrimi, new species

**Female.** As in Fig. 1. Long middorsal head setae. Both pairs of occipital setae long. Gular setae 4 + 4. Margin of pronotum with 5 long, 3 short setae on each side. Metanotum with 11–13 marginal setae, 3–4 medioanterior setae in addition to pair of short setae located lateroanteriorly. Tergite II longer than III; tergites IV–IX tripartite, III pale medially and possibly also divided. Marginal abdominal tergal setae: I, 12–19; II, 19–23; III–VII, 15–23; VIII, 10–13. Anterior abdominal tergal setae in area corresponding to that between spiracles: I, 2–6; II, 5–10; III, 0–1; IV, 0; V, 0–2; VI, 0–3; VII–VIII, 2–10. Last segment with 0–1 medioanterior setae and 2, much less often 3, medium lateral setae anterior to very long marginal seta. Postspiracular setae very long on III and VIII, or III, VII, and VIII. Abdominal sternal chaetotaxy as shown. Pair of median long marginal setae on sternite II. Vulva flattened, with pronounced lateral row of hooked setae. Anus indented dorsally, with dorsal and ventral inner setae. With internal reticulate structure of genital chamber; small ringlike structure anterior to this.

**Male.** Head and thorax essentially as for female. Marginal abdominal tergal setae: I, 14–16; II–VII, 16–24; VIII, 12–16. Anterior tergal setae of two specimens of Christchurch series (Fig. 3): I, 10; II, 18–19; III–VII, 19–27; VIII, 12–19; IX, 0–2. Anterior tergal setae of I–IX of specimen of Canterbury Univ. series, respectively, 27, 35, 42, 42, 45, 36, 41, 31, and 11. Postspiracular setae very long on III, VII, and VIII. Genitalia as in Fig. 2, similar to those of other species of group.

**Dimensions** (in mm). Preocular width, ♂ 0.31–0.33, ♀ 0.31–0.32; temple width, ♂ 0.45–0.49, ♀ 0.42–0.45; head length, ♂ 0.28–0.31, ♀ 0.28; prothorax width, ♂ 0.28–0.32, ♀ 0.27–0.30; metathorax width, ♂ 0.41–0.49, ♀ 0.36–0.38; total length, ♂ 1.62–1.85, ♀ 1.33–1.47; ♂ genitalia length, 0.55–0.63.

**Type host:** Nestor notabilis Gould, the kea.


**Paratypes:** 1 ♂, 1 ♀, same data as holotype; 2 ♀, 2 ♂, Christchurch, New Zealand, 1 August 1965, R. L. Pilgrim; 1 ♀, Arthurs Pass, New Zealand, 12 May 1962, J. R. J.; 4 ♀, New Zealand (1618, Kellogg Coll., Univ. of Calif.).
The heterogeneity of the individuals within the turbinatum-group, especially those of C. turbinatum sensu lato from its various host species, has necessitated much caution in contemplating possible new species in the group. There is so much overlapping of quantitative features and variability of certain qualitative ones that the problem of reliable differentiation becomes most complex. However, the series described above from the kea is morphologically sufficiently different in both sexes from the other known material within the group as to justify its description as new. Additionally, it represents the first species of this group from the Psittaciformes.

Both sexes of C. pilgrimi have at most four to five medioanterior setae on the metanotum; the other species of the group are sexually dimorphic in this, with females having as few as four but usually more than six, and males with numerous setae, 15 to over 30, distributed evenly across the metanotum. Females of C. pilgrimi all have considerably fewer anterior abdominal tergal setae on every segment and only two to three lateroanterior setae on each side of the last tergite; the other species have (1) at least 5 to 10 such anterior tergal setae on each segment, and often more than this, distributed evenly across the entire tergite, and (2) usually four or more lateroanterior setae on the last tergite (see Price and Beer, 1963: Fig. 49). That the females of C. pilgrimi are from four different collections supports the reliability of this quantitative separation.

Males of C. turbinatum, in addition to having many more anterior metanotal setae, also have considerably more anterior abdominal tergal setae on all segments (see Price and Beer, 1963: Fig. 53) than the two males of C. pilgrimi from Christchurch: minimal counts for C. turbinatum range from 25 on I, 35–40 on II–VI, 25–35 on VII–VIII, and 13 on the last tergite. The male of C. pilgrimi from Canterbury Univ. quantitatively approaches C. turbinatum in its abdominal chaetotaxy and either is an aberrant specimen or one indicating the great variability to be anticipated in this male character.

Kellogg (1907) said the following for his four females from the kea: “Differs markedly from any Colpocephalum so far described from parrots and is undoubtedly identical with Piaget’s C. setosum described from the vulture, Cathartes gryphus (Zool. Garden of Rotterdam).” The recognition of affinities with a falconiform louse is correct, but the specific identification is in error. The C. setosum to which Kellogg refers is now recognized as C. trichosum Harrison, a member of the megalops-group, not the turbinatum-group.

LITERATURE CITED