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A REVIEW OF THE GENUS *DICTEISIA* BEDFORD (MALLOPHAGA: MENOPONIDAE) WITH DESCRIPTION OF A NEW SPECIES[1]

By **Roger D. Price**[2]

Abstract: Five species of the genus *Dicteisia* Bedford are recognized, discussed, and keyed. A new species, *D. keleri*, is described from the crested screamer, *Chauna torquata*, from Paraguay. A neotype is designated for *D. tristis* (Giebel), thereby fixing the type-host as *Chauna torquata*.

The situation existing within the mallophagan genus *Dicteisia* Bedford, 1939 has proven most interesting in spite of the fact that this is a small group restricted in its known distribution to the 3 species of screamers (Order Anseriformes: Family Anhimidae) recognized by Peters (1931). Among the problems contributing to this confusion are those of mistaken louse identities, a species based only on nymphs, and the common occurrence of 2 species of the genus on the same host individual. This paper is presented in order to clarify the species characterization and, in so doing, to describe a new species.

In the following descriptions, the characters associated with the members of the genus are enumerated first and will not subsequently be repeated. Measurements are given in millimeters. Reference to tergites, pleura, and sternites pertains to the abdomen unless stated to the contrary. The nomenclature of the hosts follows that of Peters (1931).

The known members of the genus *Dicteisia* share the following characteristics. Head with shallow preocular slit, expanded temples; occipital and preocular nodi developed, with weak associated carinae; with 2 pairs of long occipital setae; margin of temple with 2 very long setae on each side; with 4 minute middorsal setae; with 2 postocular setae on each side, the outer longer than the inner; subocular comb row with 2 longer setae immediately anterior to it; without ventral spinous processes; weak gular plate, with 4 + 4 setae; terminal antennal segment from 1.5 to 3.0 times longer than wide, projecting to mostly concealed, undivided; sitophore sclerite of hypopharynx of typical *Colpocephalum* type.

Thorax with prosternal plate developed, having 2 longer setae; mesosternal plate cordate, with numerous setae; metasternal plate roughly trapezoidal, with many setae; venter of each femur III with 3 to 4 comb rows of short spiniform setae.

Abdomen showing a degree of sexual dimorphism; single comb row on each side of sternites III to IV; most or all tergites with anterior setae; tendency for fusion of pleural and sternal plates, especially posteriorly; with internal pleural thickenings developed to varying degrees. ♀: at least tergites VII to IX partially to fully tripartite; with small pair of dorsal terminal plates on last segment; sternites VII to IX fused (vulva); margin of vulva rounded, with row of medium marginal setae and lateral hooked submarginal setae; anus broadly oval, without inner ventral setae, with 5 to 7 inner dorsal setae; internal structure of genital chamber with anterior ringlike portion and posterior reticulated area. ♂: tergites undivided or weakly divided at midline; sternites VIII to IX fused (genital plate); genitalia as in FIG. 6 or 14, with tapered slender basal plate, roundly flattened endomeral plate, straight parameres, and barbed penis.

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Dicteisia tristis (Giebel) FIG. 1–6.

Menopon chavariae Giebel, 1866, Zeit. f. Ges. Naturwiss. **28**: 391. *Nomen nudem.*

Menopon triste Giebel, 1874, Insecta Epizoa: 297. Type-host: *Palamedea chavaria* = *Chauna torquata* (Oken) (see Clay 1953).

Colpocephalum pilosum Piaget, 1885, Les Pediculines, Suppl.: 128. Type-host: *Palamedea chavaria* = *Chauna torquata* (Oken).

For this species, values in parentheses following a statement of range represent expanded ranges when different for host species other than the type-host.

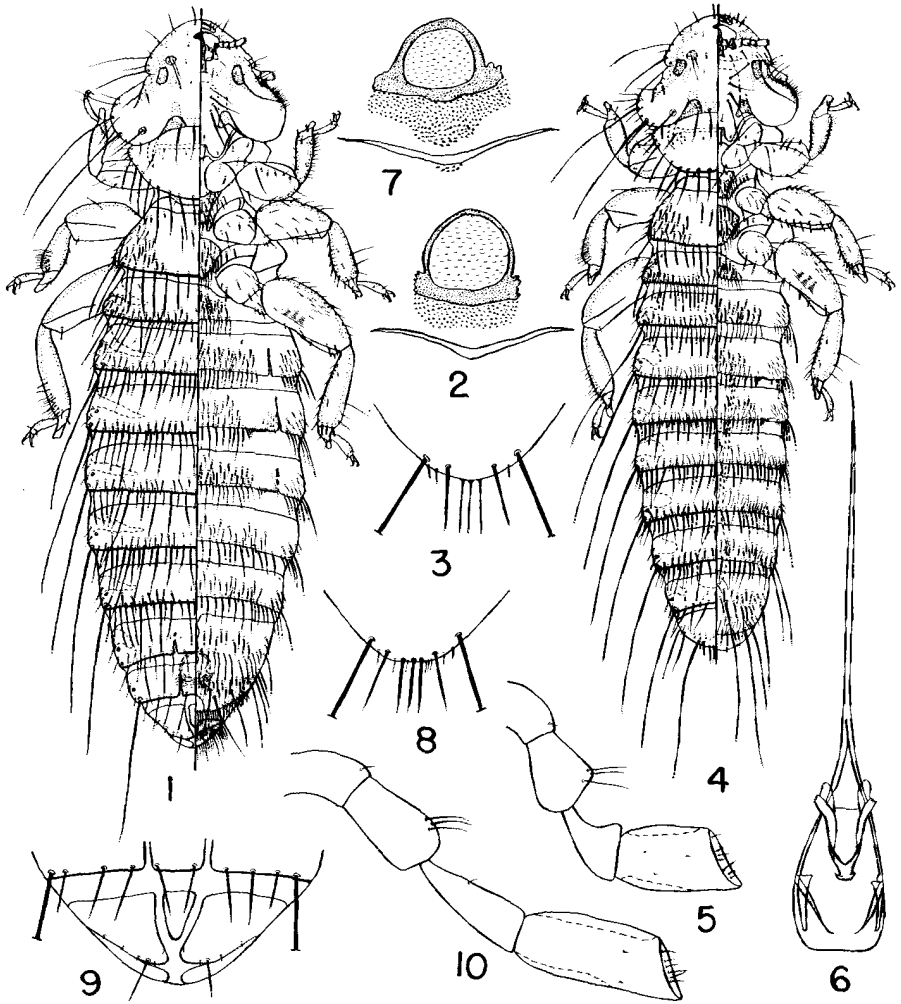

FIG. 1–10. *Dicteisia tristis:* (1) ♀; (2) ♀ genital chamber structure; (3) ♂ dorsal terminal chaetotaxy; (4) ♂; (5) ♀ antenna; (6) ♂ genitalia. *D. palamedeae:* (7) ♀ genital chamber structure; (8) ♂ dorsal terminal chaetotaxy; (9) ♀ dorsal terminalia. *D. keleri:* (10) ♀ antenna.

♀. As in FIG. 1. Broadly rounded to gently tapered anterior portion of head. Antennae (FIG. 5) with terminal segment approximately 1.5–2.0 × longer than wide, lengths of other segments as shown. Margin of pronotum with 22–25 setae. Mesosternal plate with 22–25 (15–23) setae; metasternal plate with 33–36 (31–43) setae. Margin of metanotum with 15–18 setae. Each of tergites I–VIII of similar length; VII–VIII incompletely tripartite, IX tripartite. Marginal tergal setae, including postspiracular setae: I, 25–32; II, 29–33; III, 34; IV, 33–36; V, 31–32 (30–32); VI, 28–29 (25–28); VII, 16–19; VIII, 10 (10–11). Anterior tergal setae essentially in single row, including few median microsetae: I, 27–30 (24–33); II, 28–32 (28–40); III, 30–38 (26–41); IV, 28–35 (33–36); V, 24–32 (23–34); VI, 17–23 (22–26); VII, 8–13 (13–14); VIII, 0 (0–1). Lengths of some marginal setae on tergite VIII, aside from postspiracular setae, at least 0.13, extending near to posterior margin of tergite IX. Postspiracular setae very long on II–VI and VIII, short on I, apparently only alveolus or very minute seta on VII. Well developed internal pleural thickenings on I–VII. Sternal setae: I, 39–44 (29–51); II, 76–86 (71–89); III, 56–64 (53–66); IV, 60–67 (53–74); V, 64–76 (56–74); VI, 51–62 (47–63); VII, 41–43 (35–44). Vulva with 44–48 (36–54) marginal setae, 70–87 (64–82) anterior setae, including among these a lateroposterior submarginal row composed of 5 + 7 to 10 + 10 setae. Anus with 75–100 ventral fringe setae, 54–60 dorsal fringe setae. Genital chamber structure as in FIG. 2, with fragile rounded anterior ringlike portion and no evident reticulation posterior to transverse slender sclerite.

♂. As in FIG. 4. Head and thorax close to those of ♀, but 19–25 (19–28) mesosternal plate setae, 29–36 (32–37) metasternal plate setae. Tergites I–VIII of similar lengths, II–VIII entire to weakly divided at midline. Marginal tergal setae, including postspiracular setae: I, 26–30; II, 29–32 (32–34); III, 30–34; IV, 27–33 (31–35); V, 28–29; VI, 24–27; VII, 16–20 (20–21); VIII, 10–13. Anterior tergal setae in single row as for ♀: I, 18–27; II, 22–32; III, 23–33; IV, 26–30 (29–32); V, 24–28 (26–30); VI, 20–23 (23–24); VII, 13–16; VIII, 3–8 (1–5). Postspiracular setae very long on II–VIII, short on I. Last tergite marginally as in FIG. 3, with very long seta on each side, 2 medium submarginal setae between these, 5–6 (5–8) setae on posterior margin, including longer 3 median setae slenderer and often shorter than 2 submarginal ones and located at posterior margin as for other fine short marginal setae. Internal pleural thickenings on II–VIII well developed. Sternal setae: I, 30–36; II, 63–72 (58–73); III, 48–53 (44–57); IV, 51–56 (44–55); V, 64–70 (60–71); VI, 54–60 (52–65); VII, 40–46 (42–48); VIII, 35–41. Remainder of genital plate (sternite IX) with 36–39 (27–36) setae. Genitalia as in FIG. 6.

Dimensions: Preocular width, ♀ 0.45–0.47 (0.44–0.47), ♂ 0.43–0.44 (0.42–0.43); temple width, ♀ 0.72–0.74 (0.66–0.75), ♂ 0.65–0.69; head length, ♀ 0.43–0.46 (0.39–0.43), ♂ 0.39–0.43 (0.36–0.39); prothorax width, ♀ 0.58–0.60 (0.54–0.60), ♂ 0.52–0.56 (0.51–0.55); metathorax width, ♀ 0.69–0.75 (0.67–0.75), ♂ 0.64–0.65 (0.60–0.63); total length, ♀ 2.96–3.04 (2.58–2.99), ♂ 2.55–2.63 (2.30–2.47); ♂ genitalia width, 0.12–0.13; ♂ genitalia length, 0.87–0.96 (0.73–0.81).

Clay (1953), in commenting upon the status of *Colpocephalum pilosum* Piaget, discusses the true type-host of *Dicteisia tristis* and concludes that it could well be *Chauna torquata* instead of *C. chavaria*. I have found the lice from both of these hosts to be conspecific, representing *D. tristis*. Since the choice as to which of these *Chauna* species actually supplied the material for the original description may never be resolved, and since the single ♂ type of *D. tristis* in the Halle collection has been destroyed (Clay 1953), I have chosen to establish a ♀ from *C. torquata* (Paraguay 1915, Meinertzhagen 13330) as the neotype for *D. tristis*; this specimen has been so labelled and is in the British Museum (Natural History). This neotype ♀ is from the same series as 2 ♂ homotypes, compared by Kéler with the type of *D. tristis* before its destruction. By this designation, the type-host of *D. tristis* is fixed as *C. torquata* and is thereby consistent with the type-host as presently interpreted by most workers.

The long series of lice from *Anhima cornuta* (Linn.) represents a single collection from Matto Grosso, Brazil (Meinertzhagen 8380). As will be discussed later in this paper, there is reason to suspect that this is not normally a host for this louse. All other collections of lice of this *tristis*-group from *Anhima* are included within the following species.

Material Examined: 3 ♀, 5 ♂ (including ♀ neotype, 2 ♂ homotypes of *D. tristis*), *Chauna torquata*, Paraguay (1 collection), Argentina (1 collection), and London Zoo (1 collection); 30 ♀, 32 ♂, *C. chavaria*, Colombia (4 collections), Venezuela (2 collections), National Zoological Park (1 collection), and Toronto Zoo (1 collection); 1 ♀, 3 ♂, "Bird", Colombia (1 collection); 26 ♀, 32 ♂, *Anhima cornuta*, Brazil (1 collection).

Dicteisia palamedeae Eichler FIG. 7–9.

Dicteisia tristis palamedeae Eichler, 1954, Beitr. Fauna Perus **4**: 43. Type-host: *Anhima cornuta* (Linn.).

♀. Very close to that of *D. tristis*. Marginal tergal setae of VIII, aside from postspiracular setae, with none over 0.12 long, typically only extending halfway across tergite IX (FIG. 9). Tendency for fewer sternal setae, especially on III–IV: I, 31–37; II, 60–78; III, 39–48; IV, 40–48; V, 53–57; VI, 40–50; VII, 30–37. Fewer anterior vulval setae, with 48–66, including among these a lateroposterior submarginal row with only 3–5 setae on each side. Internal structure of genital chamber much as in FIG. 7, typically with thicker anterior ringlike portion of somewhat different shape, and reticulate fragments mediposterior to transverse slender sclerite.

♂. Likewise close to that of *D. tristis*. Chaetotaxy of last tergite as in FIG. 8, with very long seta on each side, 2 medium submarginal setae between these, 8–13 setae at posterior margin, with median 3 longer ones with slightly submarginal bases and of stouter nature, being similar in thickness to 2 submarginal medium setae. Tendency for fewer sternal setae: I, 27–35; II, 53–63; III, 33–43; IV, 35–45; V, 53–57; VI, 42–51; VII, 35–38; VIII, 29–33.

Eichler (1954) originally described this as a subspecies, basing his description on a single ♀ from Paraguay (Meinertzhagen 3809). The description contains no illustrations, but the general discussion and dimensions given agree well with

my *Anhima* material. Of further importance, I was able to study, among other specimens, 2 ♀ and 2 ♂ from the same Meinertzhagen collection as the holotype.

Whereas both sexes of this louse are very close to *D. tristis*, I find sufficient indication of differences in quantitative sternal chaetotaxy of the ♀ and ♂ as well as quantitative and qualitative differences associated with ♀ and ♂ terminalia to justify its recognition for the present as a distinct species. I have consistently been reluctant to recognize subspecies at our present state of Mallophaga taxonomy; the differences of these series merit more a species recognition than synonymy under *D. tristis*.

The evidence supplied by the available collections indicates that *D. palamedeae* is the species of the *tristis*-group that occurs on *Anhima* and that *D. tristis* is normally restricted to the 2 species of *Chauna*.

Material Examined: 12 ♀, 12 ♂, *Anhima cornuta*, Brazil (5 collections), Paraguay (1 collection), Ecuador (1 collection), and Colombia (1 collection); 8 ♀, 5 ♂, "in cage of birds," Peru; at Miami, Florida.

Dicteisia keleri Price, **n. sp.** FIG. 10–14.

Type-host: *Chauna torquata* (Oken).

In the following description of *D. keleri*, ranges include material from both *C. torquata* and *A. cornuta*.

♀. Specimen from *Anhima cornuta* as in FIG. 11. Somewhat tapered anterior portion of head. Antennae (FIG. 10) with terminal segment approximately 3.0 × longer than wide, lengths of other segments as shown. Margin of pronotum with 25–28 setae. Mesosternal plate with 22–26 setae; metasternal plate with 37–46 setae. Margin of metanotum with 16–21 setae. Each of tergites I–IV slightly longer than V–VIII, with rather abrupt narrowing behind IV; tergites IV–V appear to be incompletely tripartite, VI–IX tripartite. Marginal tergal setae, including postspiracular setae: I, 29–35; II, 34–38; III, 36–41; IV, 38–42; V, 34–41; VI, 20–26; VII, 18–21; VIII, 12–14. Lengths of marginal tergal setae as shown, with special importance associated with the shorter among longer setae medially on II–III, and somewhat on I. Anterior tergal setae numerous and scattered, not in rows: I, 46–70; II, 80–100; III, 95–135; IV, 100–130; V, 82–100; VI, 42–57; VII, 16–24; VIII, 2–4. Postspiracular setae very long on II–V and VIII, short on I, and alveolus or very minute seta on VI–VII. Moderately developed internal pleural thickenings on II–V. Sternal setae: I, 53–65; II, 107–126; III, 71–82; IV, 85–97; V, 70–80; VI, 55–68; VII, 45–50. Vulva with about 25 marginal setae, 70 anterior setae. Anus with about 100 ventral fringe setae, 75 dorsal fringe setae. Genital chamber structure as in FIG. 12, with fragile elongate anterior ringlike portion.

♂. Specimen from *Anhima cornuta* as in FIG. 13. Head and thorax much as for ♀, but with 18–23 mesosternal plate setae, 32–41 metasternal plate setae, and 15–16 marginal metanotal setae. Tergites not enlarged and not divided.

Marginal tergal setae, including postspiracular setae: I, 24–29; II, 25–31; III, 26–30; IV, 25–31; V, 24–30; VI, 22–24; VII, 19–21; VIII, 12–13. Lengths of marginal setae as shown, with shorter among longer median setae at least on I–IV. With scattered anterior tergal setae, not in rows: I, 25–46; II, 50–72; III, 60–87; IV, 50–73; V, 48–61; VI, 24–41; VII, 14–22; VIII, 1–4. Postspiracular setae very long on II–VIII, short on I. Last tergite with 3 medioposterior stout medium setae, in addition to others, as shown. Internal pleural thickenings developed on II–VIII. Sternal setae: I, 50–56; II, 91–106; III, 63–74; IV, 70–80; V, 80–88; VI, 64–71; VII, 50–55; VIII, 37–44. Sternite IX with 30–36 setae, including several short stout posterior marginal spiniform setae. Genitalia as in FIG. 14.

Dimensions: Preocular width, ♀ 0.49–0.52, ♂ 0.47–0.49; temple width, ♀ 0.82–0.87, ♂ 0.77–0.81; head length, ♀ 0.53–0.57, ♂ 0.49–0.53; prothorax width, ♀ 0.69–0.73, ♂ 0.64–0.68; metathorax width, ♀ 0.88–0.93, ♂ 0.72–0.77; total length, ♀ 3.50–4.02, ♂ 3.35–3.50; ♂ genitalia width, 0.15–0.16; ♂ genitalia length, 1.10–1.23.

This species, along with the following 2, forms a group easily separable from that of the first 2 species. Among some of the more obvious features distinguishing the *keleri*-group are the larger dimensions of the ♀, ♂, and ♂ genitalia; the different head shape; the more elongate terminal antennal segment; the presence of many more anterior tergal setae; differences in ♀ tergal divisions; legs longer and slenderer; the ♀ postspiracular setae absent or minute on both VI and VII; and the ♀ internal genital chamber structure of different shape.

When Kéler (1938) proposed the new genus *Dicteisia*, he included and discussed 2 species—*D. tristis* (Giebel), which agrees well with that species as delimited here, and *D. pilosa* (Piaget), an unfortunate error in identification. As pointed out elsewhere (Clay 1953, Carriker & Diaz-Ungria 1961), *D. pilosa* (Piaget) is actually a junior synonym of *D. tristis* and *D. pilosa* (Piaget) *sensu* Kéler represented an unnamed large "hairy" species of *Dicteisia*. Nevertheless, Kéler (1938) did not designate 1 of these 2 species as the type-species, thereby invalidating the genus. Bedford (1939) independently described *Dicteisia* Kéler, 1938, and, by so doing and by designating *M. triste* Giebel as the type-species, has received credit for the genus.

Dicteisia pilosa (Piaget) *sensu* Kéler was based on a ♀ and ♂ taken from *Chauna cristata* [= *C. torquata*] from Paraguay; these 2 specimens represent the type-series of *D. keleri*. The *Anhima* host (Meinertzhagen 8380) for the remaining *D. keleri* material is the same and only individual of this genus also to have *D. tristis*; all other collections from *Anhima* represent *D. palamedeae* and/or *D. abdominalis* Carriker. This bird bearing the *D. tristis* and *D. keleri* was taken in Matto Grosso, Brazil, where both the *Anhima* and *C. torquata* occur; thus, there is a chance of misidentification of the host or confusion in interpretation of a common name. Also,

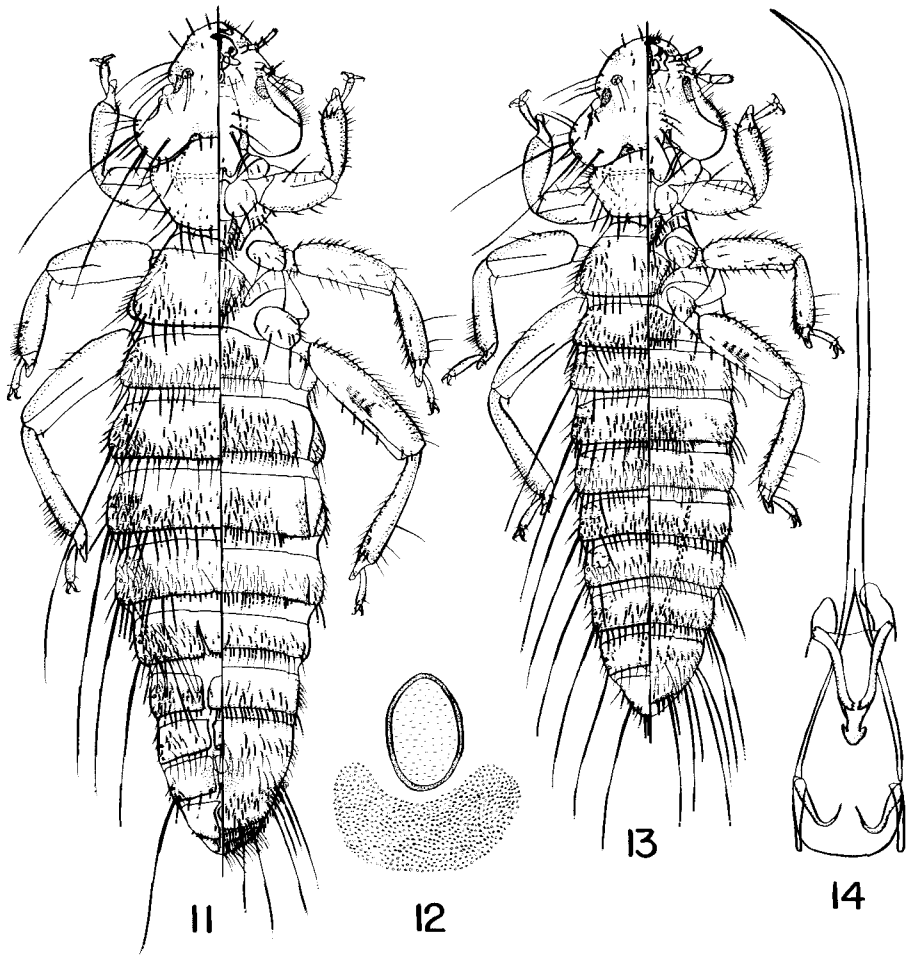

FIG. 11–14. *Dicteisia keleri:* (11) ♀; (12) ♀ genital chamber structure; (13) ♂; (14) ♂ genitalia.

there is the possibility that *D. tristis* and *D. keleri* did become established on an *Anhima* host not normally infested. Whatever the case may be, it seems most probable that *C. torquata* is the species normally infested with *D. keleri* and its selection as the type-host reflects this.

Holotype ♀ (Dtsch. Ent. Inst.), *Chauna cristata* [= *C. torquata*], Trinidad, Paraguay, 13.IV.1915, Zürcher. Paratype: 1 ♂, same data as holotype.

Other Material: 13 ♀, 5 ♂, *Anhima cornuta*, Brazil (Meinertzhagen 8380).

Dicteisia abdominalis Carriker FIG. 15–16.

Dicteisia abdominalis Carriker, 1961, Nov. Cient. Mus. Hist. Nat. La Salle (Ser. Zool.) **28**: 38.

Type-host: *Anhima cornuta* (Linn.).

♀. Head and thorax essentially as for those of *D. keleri* (FIG. 11). Dorsal abdomen and pterothorax as in FIG. 15. Marginal tergal setae, including postspiracular setae: I, 32–36; II, 38–42; III, 40–42; IV, 44–47; V, 39–46; VI, 21–22; VII, 19–21; VIII, 12–14. Median marginal tergal setae on I–III of uniformly short length. Anterior tergal setae: I, 90–120; II, 165–220; III, 220–315; IV, 250–360; V, 215–325; VI, 100–135; VII, 32–48; VIII, 1–4. Other abdominal features close to those of *D. keleri*, with possibly up to 10–20 more setae

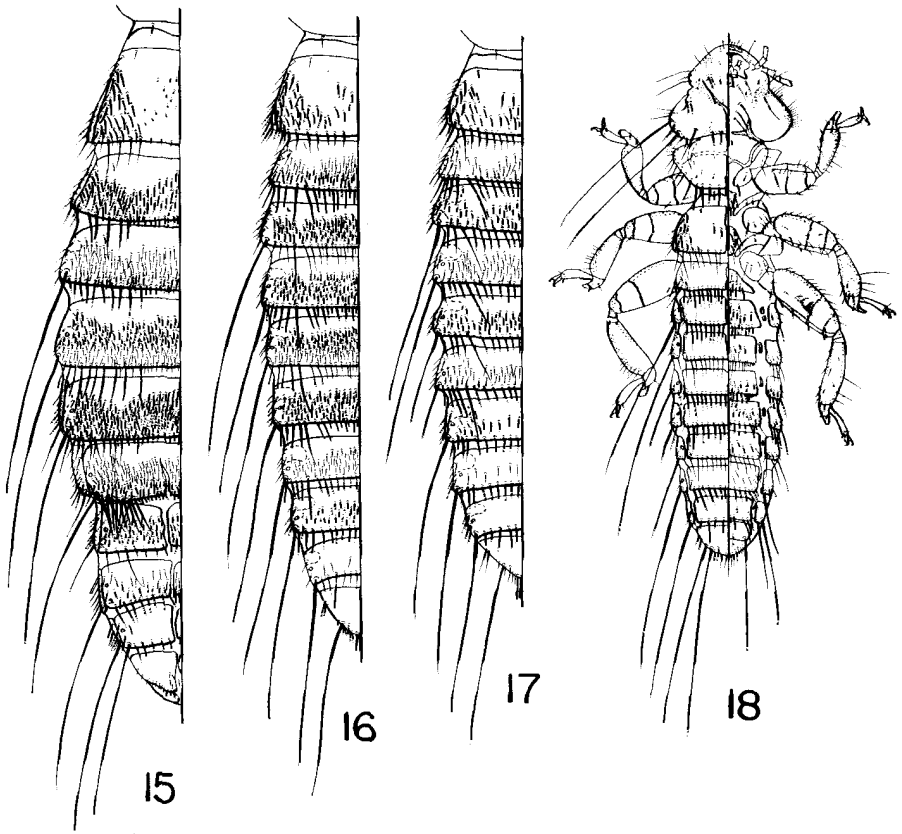

FIG. 15–18. *Dicteisia abdominalis:* (15) ♀ dorsal pterothorax and abdomen; (16) ♂ dorsal pterothorax and abdomen. *D. gracilis:* (17) ♂ dorsal pterothorax and abdomen; (18) nymph.

on each sternite, but this was difficult to check. So many postspiracular setae were broken off of tergite V that this was surmised to be very long from the breadth and occasional length of the remaining stub.

♂. Head and thorax close to those of *D. keleri* (FIG. 13). Dorsal abdomen as in FIG. 16. Marginal tergal setae, including postspiracular setae: I, 30–35; II, 34–39; III, 34–38; IV, 30–40; V, 32–36; VI, 22–26; VII, 19–21; VIII, 12–13. Median marginal tergal setae on I–IV with shorter among somewhat longer setae. Anterior tergal setae: I, 78–100; II, 120–145; III, 140–190; IV, 140–175; V, 115–155; VI, 74–94; VII, 38–52; VIII, 3–11. Remainder of abdomen close to that of *D. keleri*, except for possibly as many as 5–30 more sternal setae on each segment.

Dimensions: Preocular width, ♀ 0.55–0.58, ♂ 0.53–0.57; temple width, ♀ 0.91–0.94, ♂ 0.82–0.92; head length, ♀ 0.57–0.59, ♂ 0.53–0.57; prothorax width, ♀ 0.71–0.75, ♂ 0.69–0.75; metathorax width, ♀ 0.91–0.98, ♂ 0.79–0.88; total length, ♀ 4.02–4.17, ♂ 3.66–3.91; ♂ genitalia width, 0.16–0.17; ♂ genitalia length, 1.08–1.19.

Dicteisia abdominalis, while having overall similarities with *D. keleri*, differs by having: (1) both sexes with tendency for more marginal tergal setae on I to V, (2) ♀ with median marginal tergal setae on I to III very short and of similar lengths, (3) both sexes with approximately twice as many anterior tergal setae on segments I to VII, and (4) both sexes tending to be larger in most dimensions.

Carriker (Carriker & Diaz-Ungria 1961) failed to recognize that there existed more than 1 species of the "hairy" *keleri*-group of *Dicteisia*. This resulted in his describing *D. abdominalis* for what he thought was encompassed by *D. pilosa* (Piaget) *sensu* Kéler. However, Carriker selected *A. cornuta* as the host for his holotype material and illustrated

all of the ♀ except abdominal segments II and III, precisely the 2 most critical segments for observing qualitative differences in the absence of appropriate quantitative data. Fortunately I was able to study a ♀ and ♂ paratype of *D. abdominalis* and confirm that it is definitely separable from *D. keleri*. Since I have seen *D. abdominalis* in 10 collections from *Anhima* and *D. keleri* from only 1, it further supports my belief that *D. abdominalis* is the typical *keleri*-group found on *Anhima*. Of these 10 collections, 7 also contained specimens of *D. palamedeae;* conversely, only 1 of the 8 collections of *D. palamedeae* did not also include *D. abdominalis*.

Material Examined: 11 ♀, 13 ♂ (including ♀ and ♂ paratypes of *D. abdominalis* Carriker), *Anhima cornuta*, Brazil (5 collections), Venezuela (1 collection), Paraguay (1 collection), Colombia (1 collection), Ecuador (1 collection), and St. Louis Zoo (1 collection).

Dicteisia gracilis Carriker FIG. 17–18.
Dicteisia gracile Carriker, 1949, Rev. Brasil. Biol. **9**: 304. Type-host: *Chauna chavaria* (Linn.).

♀. Head and thorax essentially as for those of *D. keleri* (FIG. 11). Dorsal abdomen with median marginal tergal setae on I–III as for *D. abdominalis* (FIG. 15), being short and of fairly uniform length. Number of marginal tergal setae as for *D. keleri*. Anterior tergal setae: I, 45–70; II, 86–132; III, 110–200; IV, 125–200; V, 100–160; VI, 40–60; VII, 12–20; VIII, 0–3. Numbers of anterior tergal setae consistently below range for *D. abdominalis*, being more as for *D. keleri*. Postspiracular setae differ from both of these other species in having that on V medium, about as long as following tergite, not very long extending across at least 2 tergites. Sternal setae, terminalia, and dimensions as for *D. keleri*.

♂. Head and thorax close to those of *D. keleri* (FIG. 13). Dorsal abdomen and pterothorax as in FIG. 17. Marginal and anterior tergal setae quantitatively close to *D. keleri*. Marginal tergal setae, including postspiracular setae: I, 21–25; II–IV, 25–28; V, 22–25; VI, 22–23; VII, 20; VIII, 12–13. Median marginal setae on at least I–IV of essentially uniform length on each tergite, differing from both *D. keleri* and *D. abdominalis* in this. Anterior tergal setae: I, 34–40; II, 52–65; III, 56–82; IV, 53–80; V, 38–57; VI, 20–32; VII, 4–14; VIII, 0–1. Postspiracular setae differ from those of both of other species of this group in having those on V medium, about as long as following tergite, and suggestion that setae on IV shorter than those of III or VI. Remainder of abdomen and dimensions essentially as for those of *D. keleri*.

It is obvious that Carriker (1949) based his description of *D. gracilis* on nymphs and not on adult ♀ ♀, as he had presumed. Clay (1953) has correctly pointed this out. Carriker (Carriker & Diaz-Ungria 1961) even later commented that "It is rather unusual that the male of this species has not yet been taken." I have seen 7 nymphs from Carriker's type-series. There are 2 specimens on his holotype slide, without any indication as to which is the type. Comparing dimensions and details with those given by Carriker for the holotype, it is most probable he referred to the left of the 2 specimens and this has been so indicated on the slide. Little would be gained by contemplating a lectotype designation when an educated guess can be made as to the holotype, it being unfortunate enough that this is a nymph.

This holotype nymph is essentially as in FIG. 18; judging from its size, it is probably in the 2nd instar. Series of adults consisting of members of both the *tristis*-group and the *keleri*-group from the same host collection (MAC 3371) were identified by Carriker correctly as *D. tristis* and incorrectly as *D. abdominalis*. The shape of the head and terminal antennal segment, as suggested by Clay (1953), ally this nymph with my *keleri*-group, in this case the incorrectly identified "*D. abdominalis*" series. The lengths of the nymphal postspiracular setae also appear consistent with those of ♂ ♂ of *D. gracilis*. The 3 collections of *D. gracilis* also contained *D. tristis*.

Dicteisia gracilis, while having qualitative and quantitative features closer to *D. keleri* than *D. abdominalis*, is readily separated from both of these species by its having shorter postspiracular setae on tergite V and the ♂ with median marginal tergal setae on at least I to IV of uniform length. The reduced number of anterior tergal setae further separates both sexes of *D. gracilis* from *D. abdominalis* and the uniformly short median marginal tergal setae on I to III will separate the ♀ of *D. gracilis* from that of *D. keleri*.

Material Examined: 17 ♀, 23 ♂ (plus 7 nymphs—holotype and paratypes—of *D. gracile* Carriker), *Chauna chavaria*, Colombia (3 collections); 1 ♀, 1 ♂, "Buzzard," Colombia (at New York).

KEY TO THE SPECIES OF THE GENUS DICTEISIA

1. Majority of tergites with essentially a single anterior row of setae; none with as many as 50 anterior setae (FIG. 1, 4).....2
   Majority of tergites with patches of anterior setae, not in definite row; some with over 50 anterior setae (FIG. 11, 13, 15–17).....3
2. ♀: Marginal tergal setae of VIII, aside from postspiracular setae, extending only up to halfway across last segment (FIG. 9); up to 50 sternal setae between comb rows on each of III–IV. ♂: chaetotaxy of posterior margin of last segment close to FIG. 8 ..... **palamedeae** Eichler
   ♀: Marginal tergal setae of VIII, aside from postspiracular setae, with some extending well over halfway across last segment (FIG. 1); over 50 sternal setae between comb rows on each of III–IV. ♂: chaetotaxy of posterior margin of last segment close to FIG. 3..... **tristis** (Giebel)
3. ♀: Typically with well over 200 anterior tergal setae between spiracles on each of III–V (FIG. 15). ♂: with over 100 anterior tergal setae between spiracles on

each of III–V (FIG. 16).....**abdominalis** Carriker

♀: Typically with well below 200 anterior tergal setae between spiracles on some to all of III–V. ♂: with fewer than 100 anterior tergal setae between spiracles on each of III–V.....4

4. Median marginal setae on tergites II–III of fairly uniform length (FIG. 15, 17); postspiracular setae on tergite V extending only approximately across following segment (FIG. 17).....**gracilis** Carriker

Median marginal setae on tergites II–III with distinctly shorter among longer setae (FIG. 11, 13); postspiracular setae on tergite V very long, extending at least across following 2 segments (FIG. 11, 13) .....**keleri** Price, n. sp.

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