

Two new species of *Mulcticola* (Philopteridae: Mallophaga).

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The Ischnoceran genus *Mulcticola* Clay and Meinertzhagen, 1938, contains five forms found on the avian family Caprimulgidae. The known species, and type host, are: *M. hypoleucus* (Denny), 1842, found on *Caprimulgus europaeus europaeus* Linnaeus; *M. macrocephalus* (Kellogg), 1896, found on *Chordeiles minor henryi* Cassin; *M. nacunda nacunda* Carriker, 1945, found on *Podager nacunda minor* Cory; *M. nacunda peruviana* Carriker, 1945, type host is unknown (presumed to be a member of the Caprimulgidae); and *M. tenuiceps* Carriker, 1945, found on *Podager nacunda nacunda* (Vieillot). A new species is described from material collected by one of the authors while assigned to the United States Operations Mission to Thailand. The other new species is described from material in the British Museum (Natural History), which was graciously loaned by Dr. Theresa Clay. Appreciation is also expressed to the United States National Museum and to the Snow Entomological Museum of Kansas University for the loan of specimens.

External morphological differences between the species are not great, indicating an exceptionally compact genus. Specific characters which appear to be of taxonomic value are: size, shape of the dorsal anterior plate of the forehead, male genitalia, and chaetotaxy of the female genital region. Carriker has illustrated the male genitalia and dorsal anterior plate of the forehead of the three forms he described; in addition, a table of measurements is given for each. For the other species of the genus, illustrations of the dorsal anterior plate of the forehead and male genitalia have been included in this paper. A comparison of these structures apparently offers the best means for separation of the species.

Mulcticola deignani n. sp.

Male: As illustrated in figure 2. Dorsal anterior plate of forehead as illustrated in figure 3. Genitalia as illustrated in figure 10.

Figures 1 and 2. *Mulcticola deignani* n. sp., drawn to the same scale.

Fig. 1. Dorsal-ventral view of female.

Fig. 2. Dorsal-ventral view of male.

Figures 3-6. *Mulcticola* species, dorsal anterior plate of forehead; drawn to the same scale.

Fig. 3. *M. deignani* n. sp.

Fig. 4. *M. macrocephalus* (Kellogg), 1896.

Fig. 5. *M. minutus* n. sp.

Fig. 6. *M. hypoleucus* (Denny), 1842.

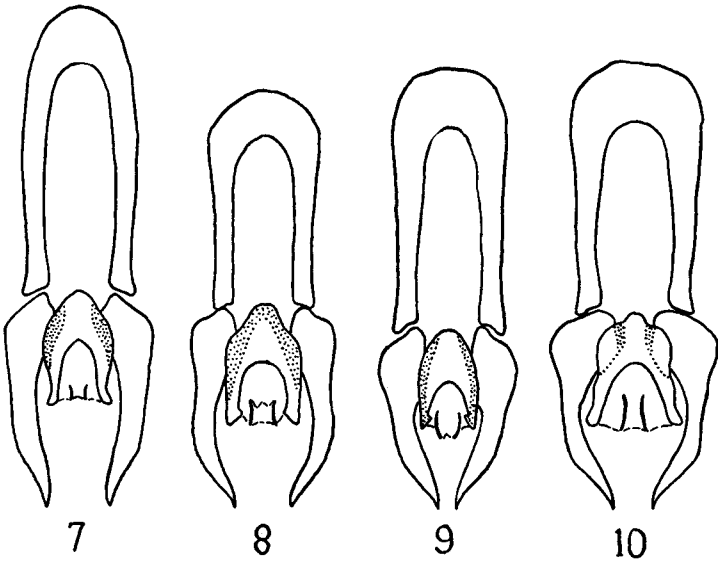
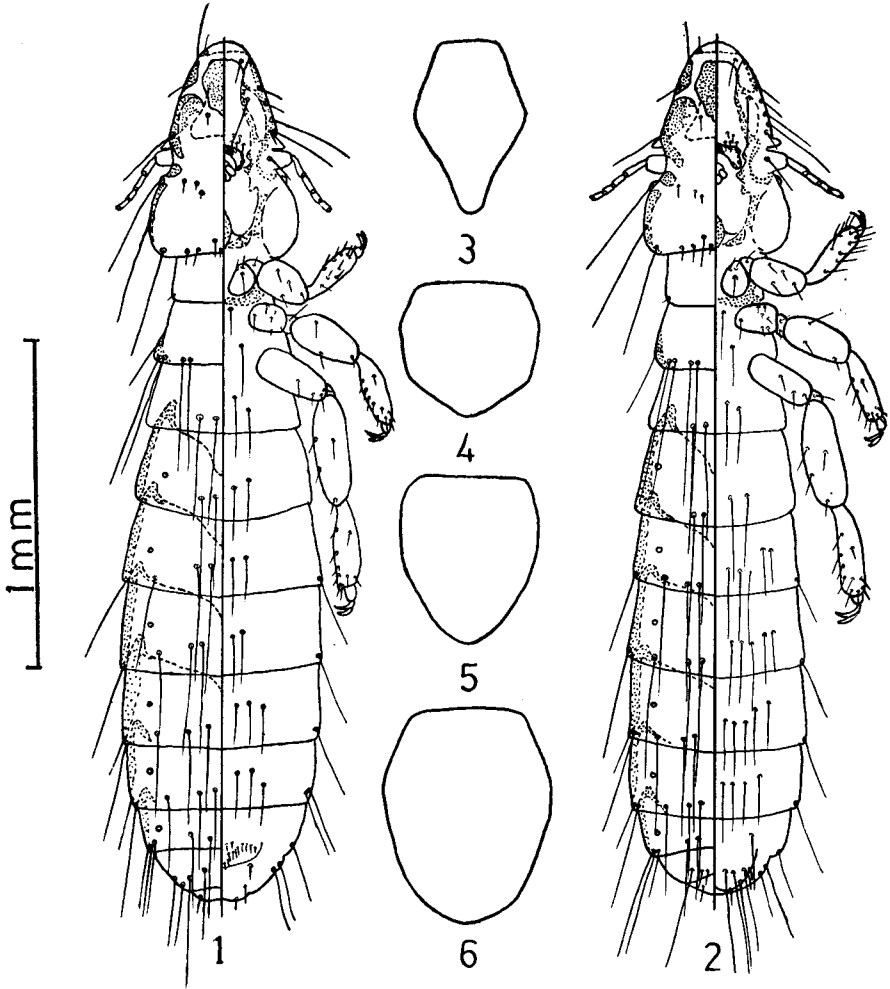
Figures 7-10. *Mulcticola* species, male genitalia; drawn to the same scale.

Fig. 7. *M. minutus* n. sp.

Fig. 8. *M. hypoleucus* (Denny), 1842.

Fig. 9. *M. macrocephalus* (Kellogg), 1896.

Fig. 10. *M. deignani* n. sp.



Female: As illustrated in figure 1. Posterior margin of vulva broadly rounded; armed with approximately twenty-eight medium-length setae arranged in two irregular rows, and eight short setae.

This is the only known species in which the chaetotaxy of the male abdominal segments IV-VII differs from that of the female. Other differences are apparent from a comparison of figures 3-10.

Type host: *Caprimulgus macrurus bimaculatus* Peale.

Type material: Holotype male and allotype female collected at Lopburi, Thailand by Robert E. Elbel on 20 July 1953, have been deposited in the United States National Museum. Paratypes include: four males and three females collected on Nip Mountain, Lopburi, Thailand by Robert E. Elbel on 20 July 1953; four males and two females collected on Lomlo Mountain, Ban Maeo, Koksathon, Dansai, Loei, Thailand by Robert E. Elbel and Boonsong Lekagul on 28 March 1954; two females collected at Hinlaem, Trakhanum, Kanachana-buri, Thailand by Robert E. Elbel and H. G. Deignan on 23 November 1952; six males and one female collected at Khlong Khlung, Kanphaeng Phet, Thailand by Robert E. Elbel and H. G. Deignan on 24 April 1953; seven males and eleven females collected on Lomlo Mountain, Koksathon, Dansai, Loei, Thailand by Robert E. Elbel on 27 and 28 February, 1955; and three males and two females collected on Phak Khi Nak Mountain, Koksathon, Dansai, Loei, Thailand by Robert E. Elbel on 19 March 1955, all found on the type host. Three males and three females collected in Nepal on *Caprimulgus macrurus albonotatus* Tickell during October, 1935 are in the British Museum (Natural History.)

This species is named for Mr. H. G. Deignan, United States National Museum, in appreciation for the Mallophaga he collected while in Thailand.

Multicola minutus n. sp.

Male: Similar to *M. deignani* in general form. Dorsal anterior plate of forehead as illustrated in figure 5. Tergites II-VII each with four long median setae; sternites III-VII each with five long setae, remainder of chaetotaxy as in *M. deignani*. Genitalia as illustrated in figure 7.

Female: Similar to male in general form. Chaetotaxy, except for terminal abdominal segments, same as in the male. Vulva broadly rounded, armed with approximately twenty-eight medium-length setae arranged in a row on the margin, and with twenty-four scattered short setae.

Measurements:

| | Male | | Female | |
|-------------|---------|---------|---------|---------|
| | Length | Breadth | Length | Breadth |
| Head | 0.67 mm | 0.52 mm | 0.70 mm | 0.56 mm |
| Prothorax | 0.20 | 0.37 | 0.22 | 0.39 |
| Pterothorax | 0.21 | 0.52 | 0.22 | 0.53 |
| Abdomen | 1.63 | 0.68 | 1.77 | 0.75 |
| Total | 2.70 | | 2.86 | |

This species is closest to *M. deignani*. In addition to differences in chaetotaxy, the two may be separated by a comparison of figures 3-10.

Type host: *Caprimulgus asiaticus asiaticus* Latham.

Type material: Holotype male, allotype female, six paratype females, and three paratype males in the British Museum (Natural History) were collected in Deccan during February 1937.

The illustrations of *M. hypoleucus* (Denny), 1842, are from specimens in the British Museum (Natural History) collected off *Caprimulgus europaeus*

europaeus Linnaeus at Suffolk, England, during August 1935. The illustrations of *M. macrocephalus* (Kellogg), 1896 are from specimens in the United States National Museum, collected off *Chordeiles minor minor* (J. R. Forster) at Charleston, South Carolina on 7 September 1931 by H. S. Peters.

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