

THREE NEW ORIENTAL AND NEW GUINEAN *DEGEERIELLA* (Mallophaga: Philopteridae)

By Robert E. Elbel¹ and Roger D. Price²

Abstract: Descriptions and illustrations are given for 3 new species, *Degeeriella quatei* from *Henicoperis longicauda*, *D. storeri* from *Accipiter trivirgatus*, and *D. traylori* from *Spizaetus cirrhatus*.

The *Degeeriella* species here described fall within the *fulva* group as delineated by Clay (1958), and characters common to that group are not repeated by us. Appreciation is expressed to Dr Theresa Clay, British Museum (Natural History), for her examination of our specimens and for her many suggestions; and to her as well as the following individuals for the loan of material: Dr K. C. Emerson, Smithsonian Institution (USNM); Dr R. L. Wenzel, Field Museum of Natural History (FMNH); Professor T. C. Maa, Taipei, Taiwan; and Dr Nixon Wilson, formerly of Bernice P. Bishop Museum (BBM). For fresh material collected in Thailand, hosts were identified by H. G. Deignan, USNM, and Ben King. Dried material was obtained from museum skins by T. J. Lewis at the FMNH and the University of Michigan Museum of Zoology (MMZ) and by R. E. Elbel at the USNM and the American Museum of Natural History (AMNH). Nomenclature of the hosts is that of Mayr (1949) for *Accipiter trivirgatus* and Deignan (1963) for the other hosts, except that Peters (1931) was followed for species not discussed by Deignan.

***Degeeriella quatei* Elbel and Price, new species** Fig. 1, 2, 6, 7.

Type-host: *Henicoperis l. longicauda* (Garnot).

♀. Head triangular as in fig. 1; ventral suture not reaching anterior margin of head. Antennae filiform. Abdominal tergites II-III with median indentation, surrounded by dark pigmentation on II. Pleural thickening narrow, ventral outline straight (fig. 6). Tergocentral setae: II normally 4, range 4-6; III-VIII normally 6, range 6-8. Pleural setae: V-VIII as for *D. storeri*, n. sp. (fig. 3). Sternal setae: II-VI normally 4, range 4-6. Terminal segments as in fig. 6; vulval margin with 16-20 short setae and postvulval sclerite long and narrow.

♂. Similar to ♀ except for terminal segments (fig. 7): X with 4 tergoventral and 4 ventrolateral setae. Genitalia as in fig. 2.

Dimensions (in mm): Head width, ♀ 0.48-0.50, ♂ 0.45-0.47; head length, ♀ 0.56-0.58, ♂ 0.54-0.55; pterothorax width, ♀ 0.52-0.53, ♂ 0.48-0.51; abdomen width, ♀ 0.67-0.74, ♂ 0.63-0.66; total length, ♀ 2.12-2.20, ♂ 1.77-1.95.

Holotype ♂ (BISHOP 9838), *Henicoperis l. longicauda*, Sibil Valley, Star Mts, NW New Guinea (W. Irian), 29.X.1961, L. W. Quate; in BBM. Paratypes: 4 ♀♀, 3 ♂♂, same data as holotype.

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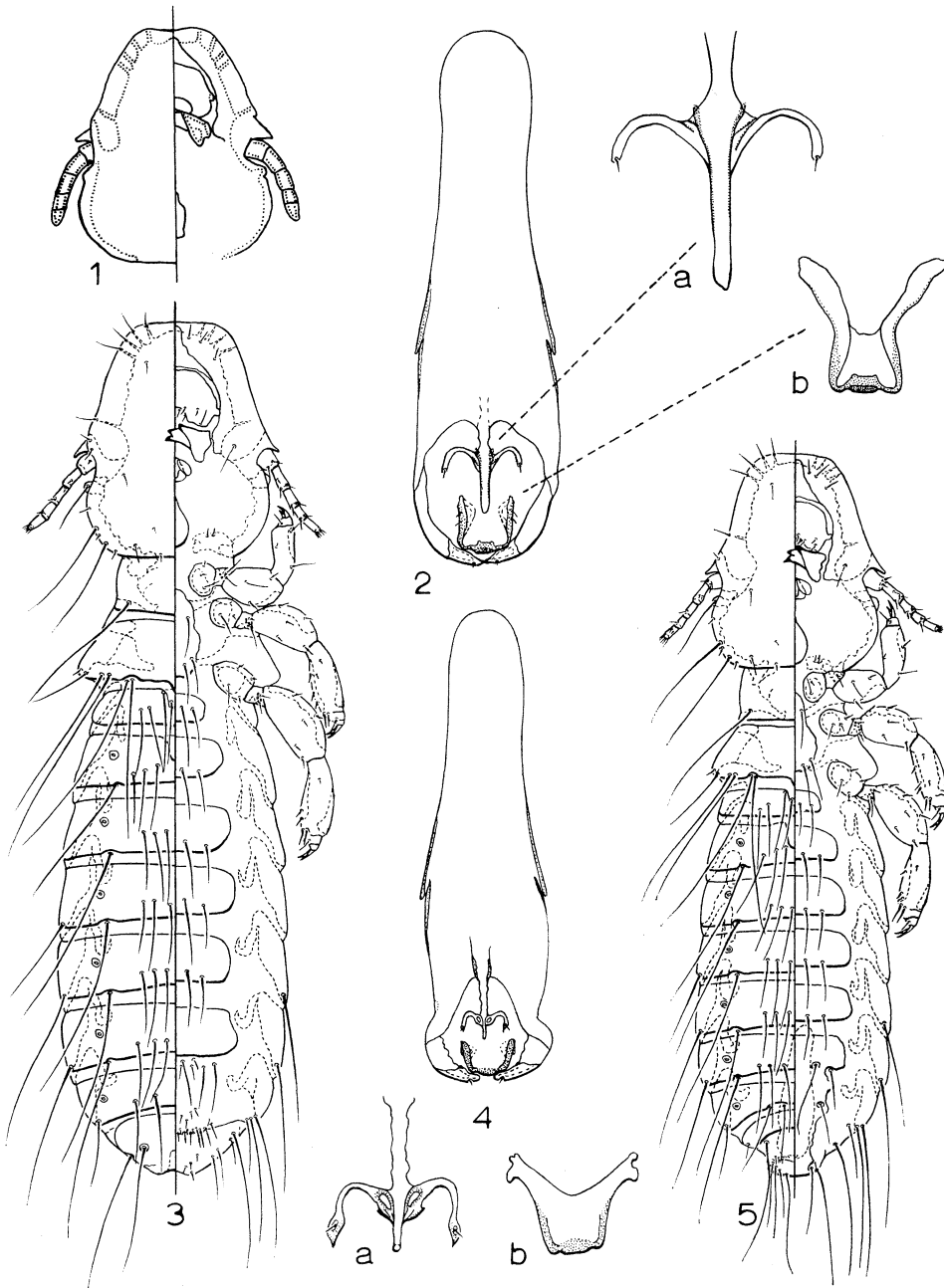


Fig. 1-5. 1-2. *Degeeriella quatei*, n. sp.: 1, ♀ head; 2, ♂ genitalia, ventral view; a, penis and penial arms; b, endomerai plate, dorsal view. 3-5. *D. storeri*, n. sp.: 3, ♀; 4, ♂ genitalia, ventral view; a, penis and penial arms; b, endomerai plate, dorsal view; 5, ♂.

Degeeriella quatei resembles most closely *D. n. nesus* (Giebel). The head of *D. quatei* is much wider than that of *D. n. nesus*; Clay (1958) showed maximum head widths for *D. n. nesus* as ♀ 0.42, ♂ 0.39, and minimum head widths are shown above for *D. quatei* as ♀ 0.48, ♂ 0.45. *D. quatei* resembles *D. fusca* (Denny) in the darkly pigmented central area of abdominal tergite II, but *D. quatei* is distinguished by the narrow pleural thickening with inner edges straight (fig. 6, 7) in contrast to *D. fusca* (fig. 16, 17), *D. n. nesus*, and *D. storeri* (fig. 3, 5) in which the pleural thickening is broad with inner edges convex; in *D. fusca* the pleural thickening has a darkly pigmented inner line. The ♀ postvulval sclerite is long and narrow in *D. quatei* (fig. 6), but shorter and wider in *D. n. nesus* and *D. storeri* (fig. 8). The ♂ segment X has 4 tergoventral setae and 4 ventrolateral setae in *D. quatei* (fig. 7), but 2 tergoventral setae and 2 ventrolateral setae in *D. fusca* (fig. 17), *D. n. nesus*, and *D. storeri* (fig. 9).

***Degeeriella storeri* Elbel and Price, new species** Fig. 3-5, 8, 9.

Type-host: *Accipiter trivirgatus indicus* (Hodgson).

♀. As in fig. 3. Head flattened anteriorly; ventral suture not reaching anterior margin of head. Antennae filiform. Abdominal tergites II-III with median indentation. Pleural thickening broad, ventral outline convex. Tergoventral setae: II-VII normally 6, range 4-6; VIII normally 4, range 4-6. Pleural and sternal setae as in fig. 3. Terminal segments as in fig. 8; vulval margin with 12-14 setae and postvulval sclerite short and wide.

♂. As in fig. 5. Similar to ♀ except for terminal segments (fig. 9). Genitalia with very short penis (fig. 4, 4a).

Dimensions (in mm): Head width, ♀ 0.43-0.49, ♂ 0.42-0.45; head length, ♀ 0.52-0.60, ♂ 0.51-0.55; pterothorax width, ♀ 0.45-0.54, ♂ 0.42-0.48; abdomen width, ♀ 0.53-0.64, ♂ 0.50-0.61; total length, ♀ 1.80-2.15, ♂ 1.77-1.90.

Holotype ♂, *Accipiter trivirgatus indicus*, Khao Soi Dao Tai, Chanthaburi, Thailand, 7.IV.1966, Ben King; in USNM. Paratypes: 13 ♀♀, 9 ♂♂, same data; 14 ♀♀, 14 ♂♂, Thapput, Phangnga, Thailand, 19.VIII.1962, W. Songprakob & W. Suwan Laong; 1 ♀, USNM skins, Trang, Thailand, 1896-1899, W. L. Abbott; 3 ♂♂, USNM skins, Mergui Archipelago, II. 1900, W. L. Abbott; 2 ♀♀, 1 ♂, FMNH skin, Ubon, Thailand, 22.XI.1928, C. J. Aagaard; 1 ♀, FMNH skin, Bantion, Laos, 15.XII.1931, J. Delacour; 9 ♀♀, 4 ♂♂, FMNH skins, Khasia Hills, Assam, India, IV-V. 1949, W. Koelz; 1 ♀, MMZ skin, Malacca, Malaysia, 1875, J. B. Steere; 6 ♀♀, 2 ♂♂, MMZ skins, Garo Hills, Assam, India, I-III. 1950, W. Koelz; 4 ♂♂, MMZ skins, Khasia Hills, Assam, India, 4.VI.1952, W. Koelz.

OTHER SPECIMENS: 24 ♀♀, 5 ♂♂, *A. t. formosae* Mayr, Liukuei and Tzepeng, Taiwan, I-IV. 1964, T. C. Maa; 1 ♂, *A. t. palawanus* Mayr, Brookes Point, Palawan, Philippines, 2.IV.1962, M. Thompson, BBM; 3 ♀♀, 2 ♂♂, San Pedro, Calamianes, Culion, Philippines, 1.IV.1947, H. Hoogstraal, FMNH; 2 ♀♀, FMNH skin, same data except collected by M. Celestino; 1 ♀, FMNH skin, Iwahig, Palawan, Philippines, 5.III.1947, A. P. Castro; 1 ♂, *A. t. layardi* (Whistler), FMNH skin, Walgama, Ceylon, 7.V.1894; 2 ♀♀, *A. t. peninsulæ* Koelz, FMNH skin, Castle Rock, Kanara, Bombay, India, 13.II.1941, R. L. Fleming.

Degeeriella storeri resembles most closely *D. n. nesus*. The head is flattened anteriorly in *D. storeri*, but rounded in *D. n. nesus*. The genitalia of *D. storeri* differ from all known species of *Degeeriella* in the very short penis and the type of penial arms (fig.

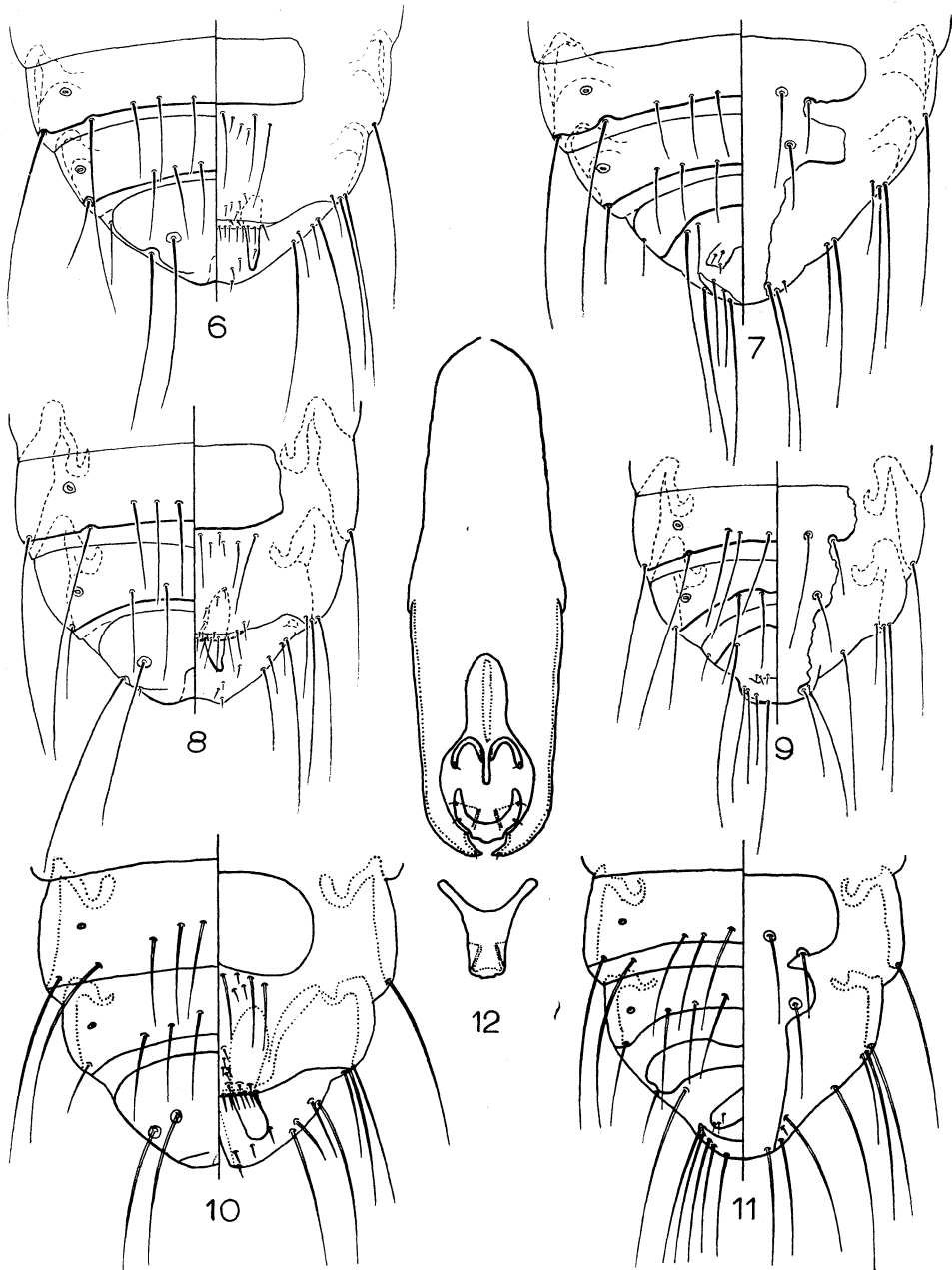


Fig. 6-12. 6-7. *Degeeriella quatei*, n. sp.: 6, ♀ terminalia; 7, ♂ terminalia. 8-9. *D. storeri*, n. sp.: 8, ♀ terminalia; 9, ♂ terminalia. 10-12. *D. traylori*, n. sp.: 10, ♀ terminalia; 11, ♂ terminalia; 12, ♂ genitalia, ventral view, and dorsal view of endomeral plate.

4a). Clay (1958) stated that, with more material from *Accipiter*, some of the *Degeeriella* populations may have to be recognized as species. She considered a population as a species when the male genitalia were quite distinctive or when there were a number of other character differences. Because of the distinctiveness of the genitalia, we believe *D. storeri* represents a species rather than a subspecies.

This species is named for Dr R. W. Storer, Curator of Birds, MMZ, in appreciation for permission to examine skins in that museum.

***Degeeriella traylori* Elbel and Price, new species** Fig. 10-13.

Type-host: *Spizaetus cirrhatus limnaeetus* (Horsfield).

♀. Head as in fig. 13; ventral suture reaching anterior margin of head. Antennae filiform. Abdominal tergite II with median indentation. Pleural thickening narrow, ventral outline straight (fig. 10). Tergocentral setae: II-VIII normally 6, range 4-8. Pleural setae: V-VIII as for *D. storeri* (fig. 3). Sternal setae: II-VI normally 4, range 4-6. Terminal segments as in fig. 10; vulval margin with 12-16 setae and postvulval sclerite short and wide.

♂. Similar to ♀ except for terminal segments (fig. 11): X with 2 tergo-central setae. Genitalia with penial arms long and curved (fig. 12).

Dimensions (in mm): Head width, ♀ 0.47-0.51, ♂ 0.42-0.48; head length, ♀ 0.59-0.62, ♂ 0.51-0.58; pterothorax width, ♀ 0.48-0.51, ♂ 0.43-0.47; abdomen width, ♀ 0.54-0.58, ♂ 0.51-0.57; total length, ♀ 2.20-2.35, ♂ 1.92-2.12.

Holotype ♂, *Spizaetus cirrhatus limnaeetus*, AMNH skins, Phet Buri, Thailand, XI, 1920, L. C. Bulkley; in AMNH. Paratypes: 8 ♀♀, 7 ♂♂, same data as holotype; 1 ♀, Salok Bat, Khanu, Kamphaeng Phet, Thailand, 21.VI.1953, R. E. Elbel, USNM; 16 ♀♀, 5 ♂♂, Pa Bon, Pak Phayun, Phatthalung, Thailand, 31.V.1962, W. Songprakob & W. Suman Laong, USNM; 14 ♀♀, 10 ♂♂, USNM skins, Trang, Thailand, 1896-1897, W. L. Abbott; 3 ♀♀, 1 ♂, USNM skin, Sukadana, Teluk, Borneo, 9.VI.1907, W. L. Abbott.

Degeeriella traylori resembles most closely *D. fulva* (Giebel). However, in most specimens of *D. traylori*, both pleural setae are absent on V which prevents getting to *D. fulva* in the key of Clay (1958). The ♀ postvulval sclerite is short and wide and rounded posteriorly in *D. traylori* (fig. 10); but, as shown by Clay, this sclerite is narrower and pointed posteriorly in *D. fulva*. The ♂ genitalia have penial arms that are long and curved in *D. traylori* (fig. 12), but shorter and less curved in *D. fulva* (fig. 14 and 15). To show variation within *D. fulva* from different host populations, one can compare Clay's excellent illustrations of *D. fulva* genitalia from *Aquila c. chrysaetos* (Linnaeus) with our material (fig. 14 and 15) from *Spilornis cheela malayensis* Kirke Swann and *S. c. hoya* Swinhoe. We believe that the differences in the genitalia shown here for *D. traylori* (fig. 12) are outside the range of variation for *D. fulva*. The ♂ segment X (fig. 11) has 2 tergo-central setae for *D. traylori* but 4 tergo-central setae for *D. fulva*. We found variation only in the length of these setae in *D. fulva*; however, Clay reported the number varying from 2-6.

This species is named for Dr M. A. Traylor, Associate Curator of Birds, FMNH, in appreciation for permission to examine skins in that museum and for help with certain host designations.

Degeeriella fusca (Denny) Fig. 16, 17.

Dr Clay sent us a series of specimens (fig. 16, 17) from *Circus a. assimilis* Jardine and Selby from Australia. Subsequently, dried material was obtained from USNM skins of *C. a. quirundus* Mathews from Celebes. The Celebes specimens are intermediate in characters between *D. fusca* from *C. melanoleucos* (Pennant) from Thailand and the Australian population. We can find no reliable means to separate these 3 populations, and consider all to be conspecific with *D. fusca*.

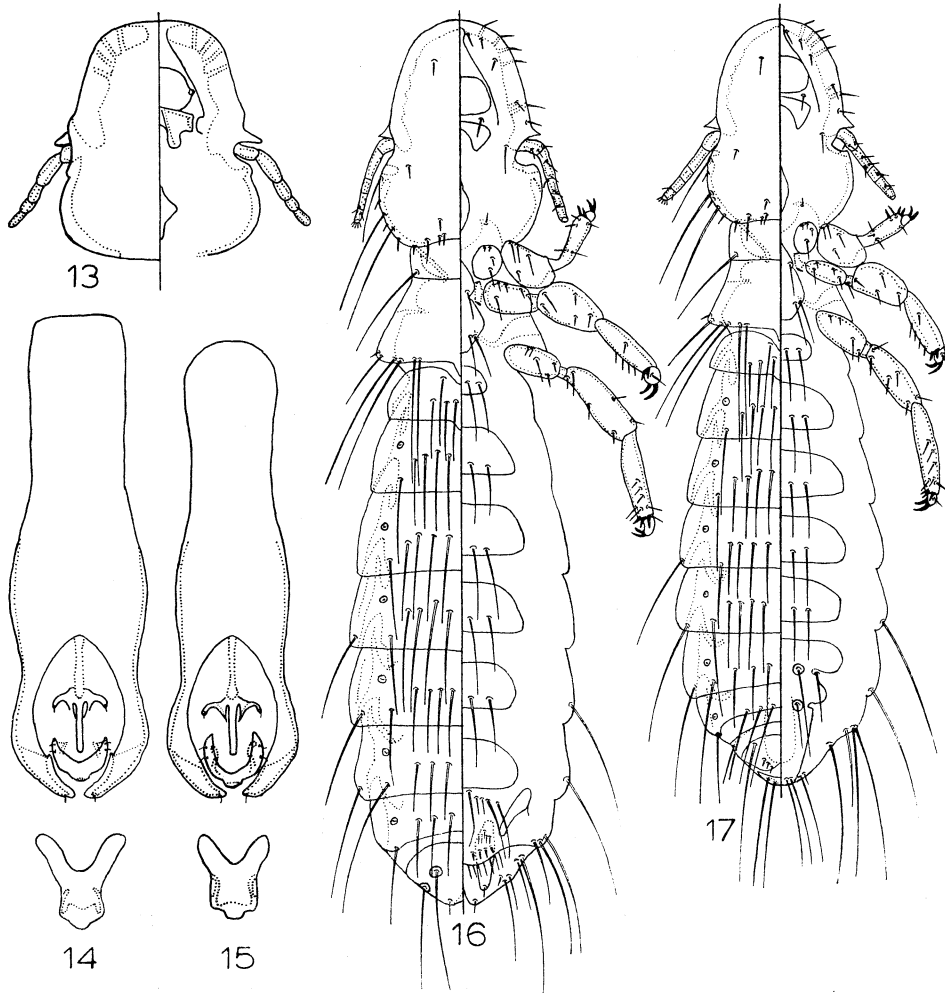


Fig. 13-17. 13, *Degeeriella traylori*, n. sp., ♀ head. 14-15. *D. fulva* (Giebel), ♂ genitalia, ventral view, and dorsal view of endomerite plate: 14, from *Spilornis cheela malayensis* Kirke Swann; 15, from *S. c. hoyae* Swinhoe. 16-17. *D. fusca* (Denny) from *Circus a. assimilis* Jardine and Selby: 16, ♀; 17, ♂.

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