

THREE NEW GENERA AND SPECIES OF MENOPONIDAE (Mallophaga) FROM SOUTHEAST ASIA AND NEW GUINEA^{1,2}

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Abstract: Three new genera and new species are described and illustrated. They are *Elbelia* for *E. validi* off *Chrysocolaptes xanthopygius validus* from Malaya, *Cuculimenopon* for *C. pallidi* off *Zanclostomus javanicus pallidus* from Malaya and Thailand, and *Quatea* for *Q. irianensis* off an unknown host from New Guinea.

After a study of 3 series of bird lice (Mallophaga: Menoponidae) from Malaya, Thailand, and New Guinea, we have concluded that they represent what we believe to be undescribed genera and species. It is our purpose here to describe and illustrate them.

For brevity, we will give the following features as being in common for all 3 genera, and will not repeat them with each description. Terminologies and numbers applied to certain setae will, as nearly as possible, conform to those utilized by Clay (1969).

Head: Marginal temple setae 26 and 27 with alveoli close together, with 26 shorter and finer than 27; occipital setae 21, 22, and 23 long to very long, with alveoli in straight line each side; without scattered dorsal minute alveoli or ventral spinous processes; distinctly widest across temples; without preocular slit, at most with shallow notch; gula undivided, unsculptured, posteriorly rounded; antenna exposed, with terminal segment undivided, from slightly longer to distinctly longer than wide, and pedicel without prolongation; hypopharyngeal sclerites well developed.

Thorax: Outer central pronotal seta longer than inner; prosternum without well developed median plate and with only usual pair of very short setae; postnotum oblong, typical; with 4 anterior mesonotal setae, pair on each side close together; metanotum with only pair of short medioanterior setae; venter of femur III with brush of setae.

Abdomen: Tergites undivided, without anterior setae, and those anteriorly of essentially same length; postspiracular setae very long on I-VIII; pleurites without processes or internal thickenings; with well developed brush at least on each side of sternite IV. ♀ having anus essentially oval, without inner setae; without seta-bearing postvulval plates; poorly defined genital chamber, occasionally with microtrichia. ♂ genitalia essentially symmetrical, sac with fine spiculation and variable associated sclerites.

Genus *Elbelia* Price & Emerson, n. gen.

Type-species: *Elbelia validi* Price & Emerson, n. sp.

Little sexual dimorphism (fig. 1, 3), other than somewhat smaller ♂ dimensions. Head with shallow preocular notch; marginal temple setae 24 and 25 very short; dorsal sensillum *c* absent; mid-dorsal setae 17 and 18 short but not minute; subocular comb row preceded by 3 or so medium subequal setae. Abdomen with distinct sternal brushes on IV-VI; sternite I poorly developed, without setae. ♀ with sternites VII-VIII fused; subgenital plate posteriorly rounded. ♂ sternite VIII separate from subgenital plate; ♂ genitalia (fig. 2) with parameres pointed, bent outward; sac with several small associated sclerites.

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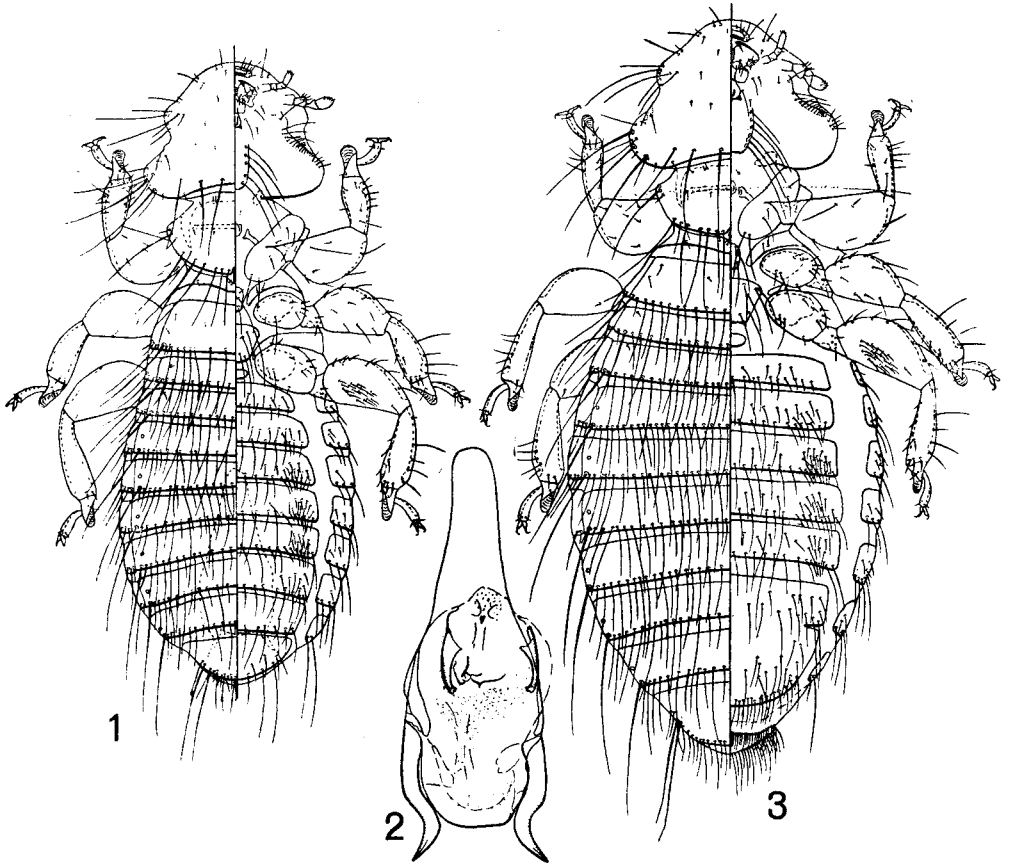


Fig. 1-3. *Elbelia validi*, n. gen. & sp. 1, ♂; 2, ♂ genitalia; 3, ♀.

Elbelia, by the lengths and positioning of head setae 26 and 27, the short head setae 24 and 25, the presence and distribution of femoral and sternal brushes instead of ctenidia, having 4 anterior mesonotal setae, an unmodified gula, and reduced hypopharynx, and the head lacking ventral spines and dorsal scattered minute alveoli, quickly identifies to the level of couplets 23-30 in the key to menoponid genera provided by Clay (1969). Supplementary characters also support this direction. *Elbelia*, therefore, enters an area in this key containing 7 genera and a generic-complex. In general form, it somewhat resembles *Meromenopon* Clay & Meinertzhagen, but the shape of the head and male genitalia of *Elbelia* are very different from those of that genus. It does not resemble any of the other genera given in couplets 23-30.

From a host standpoint, *Elbelia* is known from 2 species of Piciformes. Of the possibly related genera mentioned above, only some of the *Menacanthus*-complex occur on this host order, but the presence of a long seta among head setae 24-26, in addition to other features, separates these.

Elbelia validi Price & Emerson, n. sp. Fig. 1-3

Type-host: *Chrysocolaptes xanthopygius validus* (Temminck).

As in fig. 1 or 3. Gular setae 5 + 5 or 5 + 6. Margin of pronotum with 19-20 setae, 14-15 of these long. Mesosternal plate with 6-7 setae. Margin of metanotum with 21-22 setae, 2-4 of these much shorter than others; metasternal plate with 9-12 setae. Marginal tergal setae: I, 20-26; II-VII, 25-35; VIII, 21-26; shorter among longer setae. Last tergite with 2 very long setae each side, with 20-30 inner posterior setae of varying lengths. Sternal setae: II, 22-26; III, 33-44; IV-V, 52-74; VI, 41-52; VII, 28-33. ♂ sternite VIII with 20 setae, subgenital plate with 16 setae. Posterior portion of ♀ subgenital plate with 29-30 marginal, 26-29 anterior setae; ♀ anus ventrally and dorsally with about 50-60 setae in each fringe. ♂ genitalia as in fig. 2, 0.60 mm long, 0.23 mm wide.

Dimensions (in mm): Preocular width, ♂ 0.41, ♀ 0.46-0.48; temple width, ♂ 0.55, ♀ 0.62-0.66; head length, ♂ 0.33, ♀ 0.38; prothorax width, ♂ 0.41, ♀ 0.46; metathorax width, ♂ 0.53, ♀ 0.64-0.66; total length, ♂ 1.81, ♀ 2.12-2.24.

Holotype ♂, allotype ♀, ex *C. xanthopygius validus*, Selangor, Malaya, 26.IX.1955, R-43178. In collection of U. S. National Museum. Paratypes: 2 ♂♂, same data as holotype. Other material: 1 ♀, ex *C. lucidus guttacrastatus* (Tickell), Thailand, 14.V.1955, R. E. Elbel.

Genus Cuculimenopon Price & Emerson, n. gen.

Type-species: *Cuculimenopon pallidi* Price & Emerson, n. sp.

Little sexual dimorphism (fig. 4, 6). Head with shallow preocular notch; marginal temple seta 24 long, 25 short; dorsal sensillum *c* present; middorsal setae 17 and 18 minute; subocular comb row preceded by 5 or so medium subequal setae. Abdomen with distinct sternal brushes on IV-VI, less distinct on III and VII; sternite I small, but with setae. ♀ with sternites VII-VIII not fused; subgenital plate posteriorly rounded. ♂ sternite VIII separate from subgenital plate; ♂ genitalia (fig. 5) with parameres short and bluntly rounded; sac with 2 long pointed associated sclerites.

The specimens of *Cuculimenopon* key out to the *Menacanthus*-complex in couplet 28 of Clay (1969) and agree in some features with the present concept of that group. The members of this complex represent a heterogeneous assemblage placed by various workers in up to 5 genera. *Menacanthus* Neumann, found on the Galliformes, Piciformes, and Passeriformes, possesses a pair of ventral spinous head processes, thereby differing at least in that respect from *Cuculimenopon*. *Amyrsidea* Ewing sensu lato, the other component of this complex, occurs only on the Galliformes and lacks the ventral spinous head processes. Many *Amyrsidea* have a deep preocular slit, some (*Cracimenopon* Carriker) additionally have a number of pleurites with a ventral posterior prolongation; others differ in gross head shape, body shape, and/or major features of the ♂ genitalia. The ♂ genitalia and abdominal terminalia of both sexes of *Cuculimenopon* are distinctive, and the expanded preantennal region is not found in *Amyrsidea* or other species of the *Menacanthus*-complex.

Cuculimenopon pallidi Price & Emerson, n. sp. Fig. 4-6

Type-host: *Zanclostomus javanicus pallidus* Robinson & Kloss.

As in fig. 4 or 6. Gular setae 4 + 4 or 4 + 5. Margin of pronotum with 16 setae, 14 of these long. Mesosternal plate with 13-16 setae. Margin of metanotum with 13 setae, 2-3 of these much shorter than others; metasternal plate with 12-14 setae. Marginal tergal setae: I, 15-17; II, 18; III-VI, 19-22; VII, 16-20; VIII, 14-16; shorter among longer setae. Last tergite with 2-3 very long setae

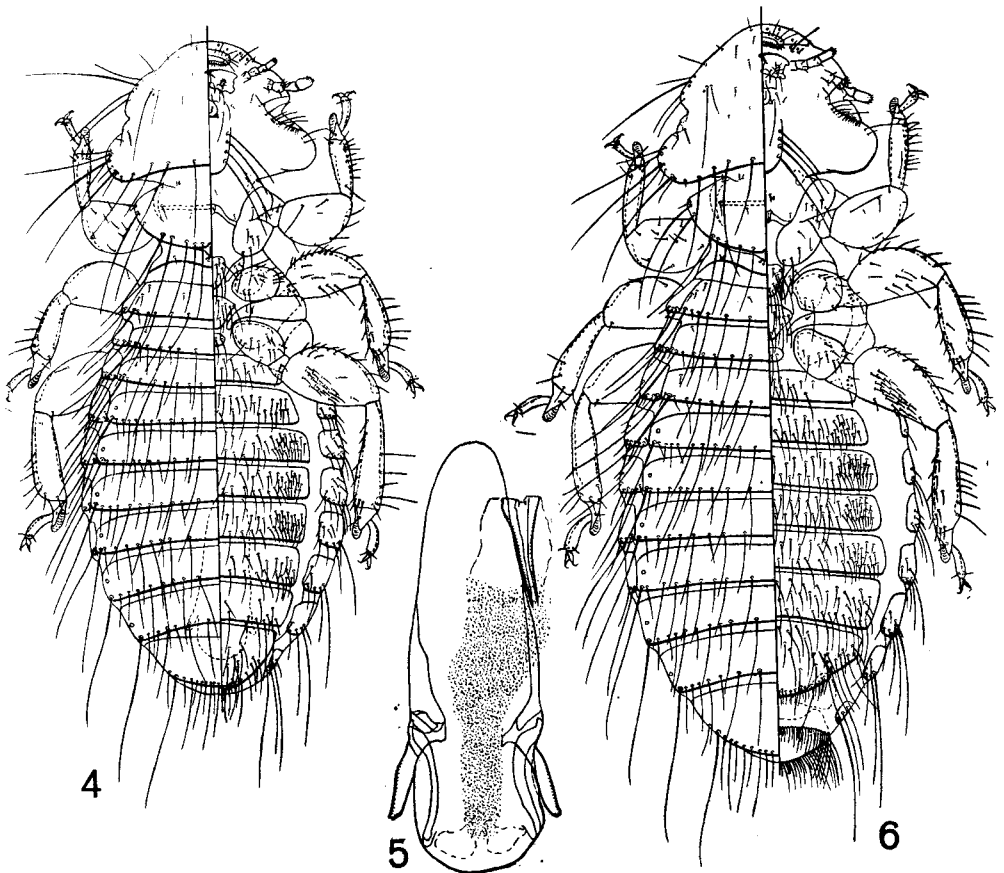


Fig. 4-6. *Cuculimenerpon pallidi*, n. gen. & sp. 4, ♂; 5, ♂ genitalia; 6, ♀.

each side (some shown ventral in fig. 4, 6), about 14-20 inner posterior setae of varying lengths. Sternal setae: I, 3-4; II, 13-18; III, 56-60; IV-VI, 77-88; VII, 49-64. ♂ sternite VIII with 27 setae, subgenital plate with 46 setae. ♀ subgenital plate with 21-31 marginal, 27-39 anterior setae; ♀ anus with 52-55 ventral fringe setae, 61-70 dorsal. ♂ genitalia as in fig. 5, 0.53 mm long, 0.15 mm wide.

Dimensions (in mm): Preocular width, 0.47-0.50; temple width, 0.61-0.66; head length, 0.34-0.39; prothorax width, 0.44-0.49; metathorax width, 0.54-0.59; total length, 1.87-2.14.

Holotype ♂, allotype ♀, ex *Z. j. pallidus*, Ulu Gombak For., Selangor, Malaya, 8.II.1957, R-47428. In collection of U. S. National Museum. One paratype ♀, ex *Z. j. pallidus*, Ban Bang Non, Bang Non, Ranong, Thailand, 29.V.1955, B. Lekagul, SC-2466.

Genus *Quatea* Price & Emerson, n. gen.

Type-species: *Quatea irianensis* Price & Emerson, n. sp.

Little sexual dimorphism (fig. 7, 9). Head without preocular notch; marginal temple setae 24 and 25 very short; dorsal sensillum *c* absent; middorsal setae 17 and 18 short; subocular comb row preceded by 4-5 setae, with 1 of these long, curving posteriorly over comb row. Abdomen with dis-

tinct sternal brush only on IV; sternite I small, with setae; dorsal terminalia modified as shown, with tergites VII-VIII arched anteriorly, very short medially, and with much enlarged last tergite. ♀ with sternites VII-VIII not fused; subgenital plate flattened posteriorly. ♂ sternite VIII fused with subgenital plate; ♂ genitalia (fig. 8) with parameres slender, elongate, tapering; sac with small sclerites.

Quateia keys to *Menopon* Nitzsch in couplet 26 of Clay (1969). However, it also resembles *Numidicola* Ewing. The highly distinctive dorsal terminalia easily set *Quateia* apart from these and other genera. The ♂ genitalia are also distinctive, as is the abdominal dorsal chaetotaxy. *Quateia* is of special interest because no host is recorded for it and, from this same collection, another series of menoponids was obtained that was used by Clay & Price (1970) as the basis for the type-species of another most unique genus, *Cavifera*. A 2nd species included in *Cavifera* led to the suggestion that a member of the Columbiformes might be the type-host.

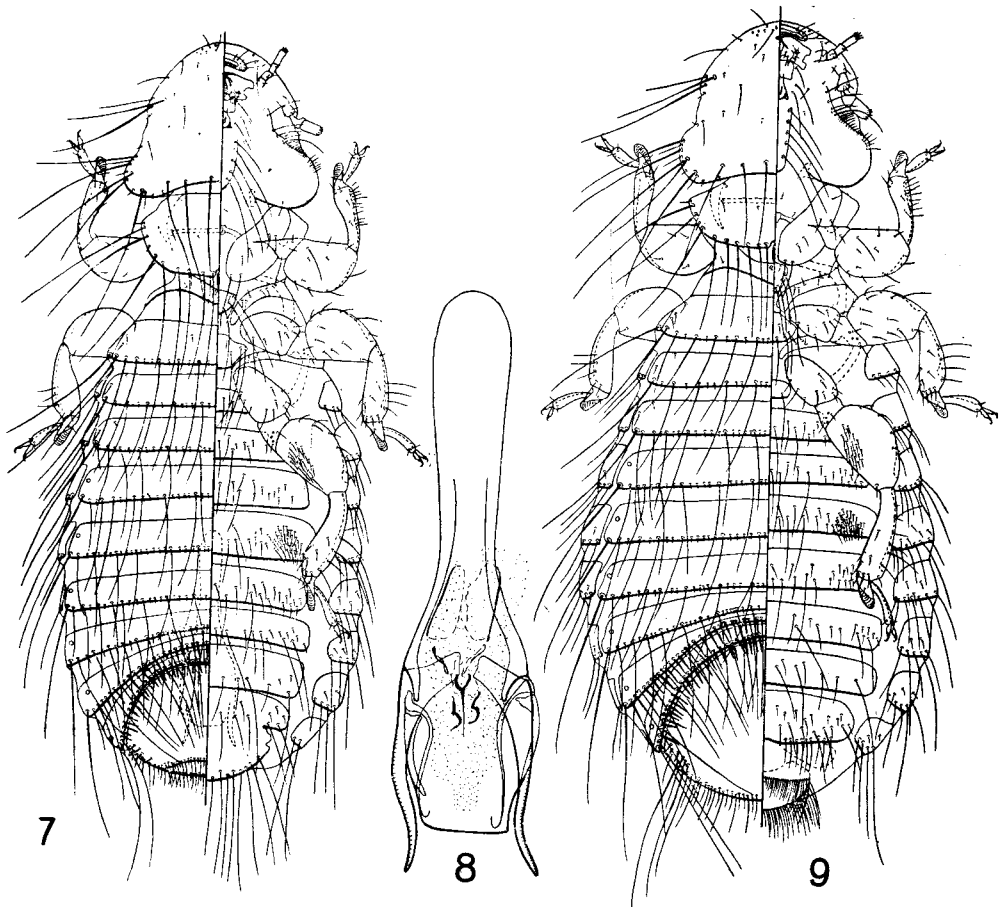


Fig. 7-9. *Quateia irianensis*, n. gen. & sp. 7, ♂; 8, ♂ genitalia; 9, ♀.

Quatea irianensis Price & Emerson, n. sp. Fig. 7-9

Type-host: Unknown. Perhaps a member of the Columbiformes.

As in fig. 7 or 9. Gular setae 5 + 5. Margin of pronotum with 21-22 setae, all but 4-5 of these long. Mesosternal plate with 8-10 setae. Margin of metanotum with 24-25 setae, about equally distributed minute among very long; metasternal plate with 8-9 setae. Long stout marginal tergal setae: I, 10; II-V, 13-18; VI, 22-24; VII, 30; VIII, 6; very short fine marginal tergal setae: I, 13-15; II-VI, 19-30; stout short marginal tergal setae: VII, 22-32; VIII, 43-52. Last tergite posteriorly with 75 or so setae of varying lengths. Sternal setae: I, 2-3; II, 18-22; III, 32-36; IV, 20-24 (plus 50-60 setae in brush each side); V, 50-54; VI, 29; VII, 13-14. ♂ sternite VIII with 19 setae, subgenital plate with 17 very long setae along posterior margin. ♀ subgenital plate with 9 marginal, 16 anterior setae each side; ♀ anus with 70-72 setae in both ventral and dorsal fringes. ♂ genitalia as in fig. 8, 0.50 mm long, 0.11 mm wide.

Dimensions (in mm): Preocular width, 0.38-0.40; temple width, 0.49; head length, 0.32-0.38; prothorax width, 0.43-0.45; metathorax width, 0.56-0.61; total length, 1.88-1.98.

Holotype ♂ (BISHOP 10,217), allotype ♀, host unknown, Archbold Lake, NW New Guinea (Irian Jaya, formerly West Irian; earlier Netherlands New Guinea), 29.XI.1961, L. W. Quate, BBM-NG 439. In collection of Bernice P. Bishop Museum, Honolulu. Paratypes: 5 ♂♂, 4 ♀♀, same data as holotype.

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