A NEW GENUS AFRIMENOPON FOR FRANCISCOLOA WAAR EICHLER (Mallophaga: Menoponidae)[1]

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ABSTRACT

Franciscoloa waar Eichler and *Mimemamenopon zumpti* Carriker, both from South African parrots, are discussed and illustrated. A new genus **Afrimenopon** is erected to contain *F. waar*.

Due to the inadequacy of the description of *Franciscoloa waar* Eichler, Price and Beer (1966) were unable to determine the status of this species in a review of the genus *Franciscoloa* from South Pacific parrots. The few details furnished in the description, along with the presumed South African parrot type-host *Agapornis roseicollis* (Vieillot), made us suspect that *F. waar* might not be a member of *Franciscoloa*. Therefore, with no material from the type-host and little else to work from, we left *F. waar* as a species *sedis incertae* within *Franciscoloa*.

Recently, through the kindness of Dr. Hugo Andersson of the Zoological Institute, Lund, Sweden, I was able to borrow a female and male of *F. waar* from the Brinck-Rudebeck South African collection. A study of these specimens convinced me that this species is not a *Franciscoloa* and that it is sufficiently different from the recognized genera of Menoponidae to justify its placement in a new genus. It is my intent here to describe a new genus *Afrimenopon* to contain *F. waar* and to redescribe and illustrate *F. waar* and its presumed close relative *Mimemamenopon zumpti* Carriker.

Afrimenopon, new genus

Little sexual dimorphism except that associated with terminalia and dimensions. Head (Fig. 1) with temple width about one-fifth wider than frontal region; rounded anterior margin; deep preocular slit; moderate preocular and occipital nodi, without evident associated carinae; without ventral sclerotized spinous processes; gular plate evenly pigmented, flatly rounded posteriorly; antenna (Fig. 3) mostly concealed, with greatly expanded pedicel and undivided spherical terminal segment; maxillary palpus (Fig. 2) with 2 subapical setae, penultimate segment shortest; sitophore sclerite of hypopharynx (Fig. 4) weakly developed; with numerous dorsal anterior microalveoli; ocular seta 19 short (setal

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[1] Paper No. 7126, Scientific Journal Series, Minnesota Agricultural Experiment Station, St. Paul, Minnesota 55101. Accepted for publication December 24, 1969.

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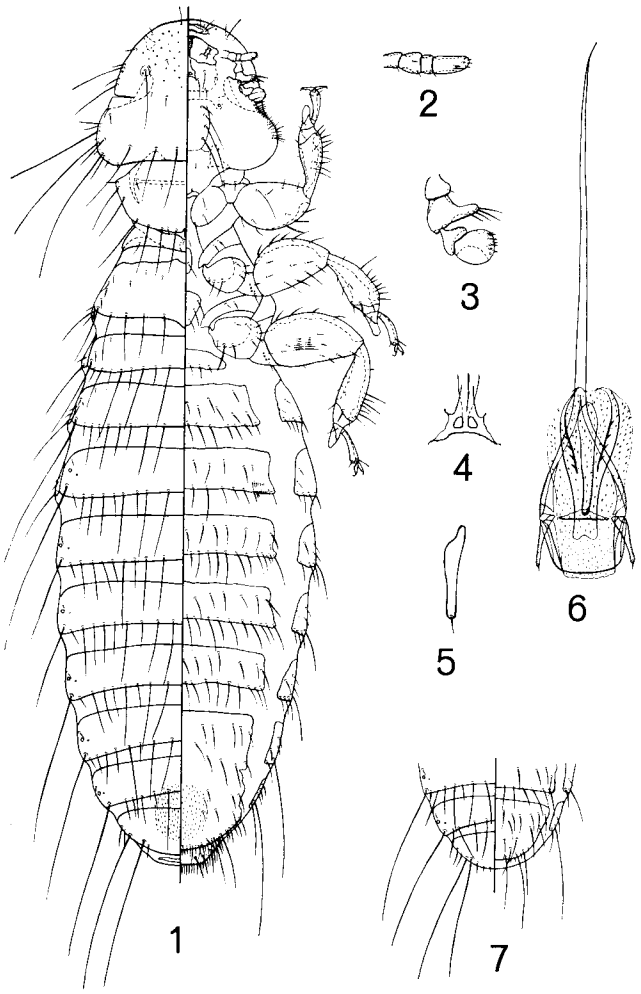


FIGS. 1–7. *Afrimenopon waar* (Eichler). 1, female; 2, maxillary palpus; 3, antenna; 4, sitophore sclerite of hypopharynx; 5, left paramere of male genitalia; 6, male genitalia; 7, male terminalia.

numbers and terminology as in Clay [1969]); preocular seta 11 longer than 10; without short seta immediately anterior to 8; setae 26 and 27 with alveoli closely associated; setae 21, 22, and 23 with bases in a straight line; occipital setae 21 and 22 long, essentially of same length and reaching beyond transverse pronotal carina; marginal temple setae

27, 29, and 31 very long; 2 to 3 subocular setae anterior to subocular comb row; irregular line of submarginal temple setae posterior to subocular comb row.

Thorax with weakly developed prosternal plate without setae; postnotum well developed; 4 anterior mesonotal setae, alveoli close together each side; elongate narrow mesosternal plate, separate from mesopleurites; metanotum normal, undivided; roughly triangular metasternal plate; each femur III with 2 well developed ventral ctenidia.

Abdomen with tergites entire, more or less of equal length, without anterior setae; spiracles opening on tergites; postspiracular setae outermost on I–VIII; without evident internal pleural or tergal thickenings; sternite I present, with setae; sternite III with 2 well developed ctenidia each side; pleurites widely separated from sternites.

Female terminalia with sternites VII and VIII fused; posterior margin of subgenital plate rounded, extending beyond ventral anal margin; anus broadly oval, with at least 6 stout dorsal inner setae; diffuse round internal genital chamber structure, with microtrichia; short wide terminal plate posterior to principal tergite of last segment.

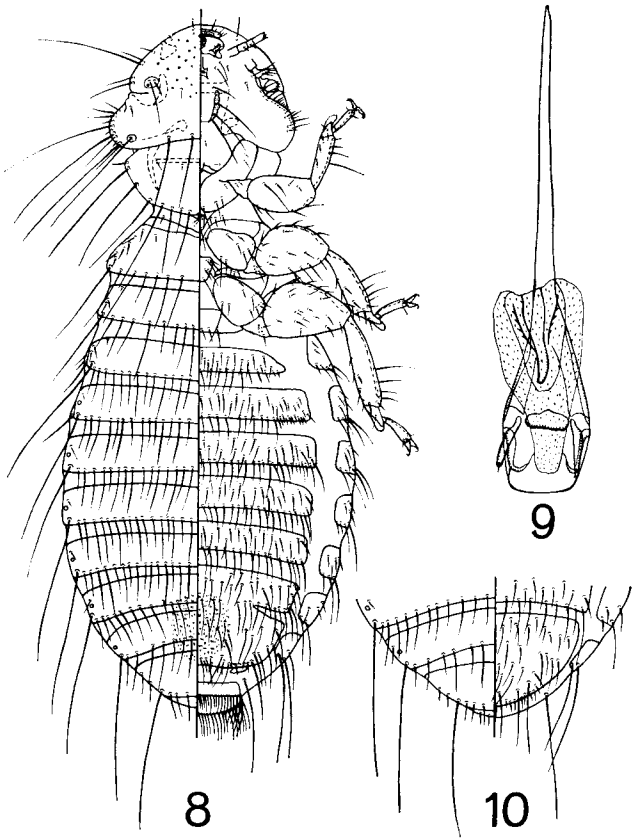
Male terminalia (Fig. 7) with subgenital plate including sternite VIII and evenly rounded posteriorly. Male genitalia (Fig. 6) with tapered slender basal apodeme; flatly rounded symmetrical endomeral plate; parameres straight, with prominent apical seta (Fig. 5); spinous genital sac, with median unbarbed penis flanked anteriorly by slender serrated sclerites.

Type species. *Franciscoloa waar* Eichler, 1947. Gender of *Afrimenopon* is neuter.

In the key to menoponid genera given by Clay (1969), *Afrimenopon* falls within the *Colpocephalum*-complex of couplet 7. The generic limitations within this group of lice are still poorly defined and must await more work before stabilization is possible. Because of this, care must be exercised in deciding which aberrant forms to place in a new genus or to lump within an existing genus.

A comparison of *F. waar* with other *Franciscoloa* species reveals that it cannot remain as a member of that genus. Among some of the differences are *Franciscoloa* species having a well developed sitophore sclerite, no dorsal anterior head microalveoli, a short seta immediately anterior to head seta 8, sternite IV with 1 to 2 ctenidia each side, and male genitalia with markedly different genital sac sclerites and parameres without an apical seta.

Of the remaining genera currently recognized within the *Colpocephalum*-complex, *Afrimenopon* perhaps comes closer to the Neotropical *Heteromenopon*. It shares such features as numerous dorsal anterior head microalveoli, a weakly developed sitophore sclerite, and apical paramere setae. However, these *Heteromenopon* species differ in having setae on the prosternal plate, postspiracular setae not outermost on tergites III-VI, quite different female terminalia, and male genitalia



FIGS. 8–10. *Mimemamenopon zumpti* Carriker. 8, female; 9, male genitalia; 10, male terminalia.

with an asymmetrical flattened endomeral plate and different genital sac sclerites.

The genus *Mimemamenopon* (Figs. 8–10) contains a single species *M. zumpti*, which is also found on a South African psittaciform host. Even though this louse lacks femoral ctenidia and well developed sternal ctenidia, thereby not falling within the *Colpocephalum*-complex as now defined by Clay (1969), it probably represents the closest known relative of *Afrimenopon*. Such features as presence of dorsal anterior head microalveoli, weakly developed sitophore sclerite, and essentially identical antennae and male genitalia (Fig. 9) reinforce this conjecture. Aside from the ctenidial differences, *Mimemamenopon* has slightly more

expanded temples, a somewhat different gular structure, and different female anal and subgenital plate structure.

Of the more than 60 genera and subgenera now recognized in the Menoponidae, 14 are restricted to hosts within the Psittaciformes. *Afrimenopon* joins *Mimemamenopon* and *Coramenopon* as a third unusual monotypical genus known only from South Africa and Madagascar; the only other African genus is *Psittacomenopon*. *Franciscoloa* (subgenera *Franciscoloa* and *Cacamenopon*), *Eomenopon*, *Pacifimenopon*, *Heteromenopon* (subgenus *Keamenopon*), and *Kelerimenopon* (subgenus *Lorimenopon*) are limited to South Pacific and South Asian parrots. *Psittacobrosus*, *Epiara*, *Heterokodeia*, and the nominate subgenus of *Heteromenopon* are Neotropical. Additionally, a species of *Colpocephalum* occurs on the kea from New Zealand. This apparent diversity and geographical uniqueness among menoponid parrot lice may well be a reflection of an emphasis on the study of these lice and of the willingness of workers to ascribe these lice to their own separate genera. Comparisons of this nature may be unfair, especially when one considers a case such as *Colpocephalum sensu lato* and the broad diversity of species still included therein. Nevertheless, I continue to be impressed by the different forms of parrot lice and by the number of species of these birds from which menoponids are yet to be collected.

Afrimenopon waar (Eichler)
(Figs. 1–7)

Franciscoloa waar Eichler, 1947, Rev. Zool. Bot. Afr. 40: 135. Type-host: *Agapornis roseicollis* (Vieillot).

FEMALE. (Fig.1). Inner middorsal head seta 17 longer than outer seta 18; gular setae 4 + 4. Outer central pronotal seta 1, 0.02–0.03 mm long, inner seta 2, minute; margin of pronotum with 6 long, 2 short setae each side. Mesosternal plate with 1 longer seta. Metanotum with 10 long marginal setae, 4 medioanterior short setae; metasternal plate with 6 setae. Marginal abdominal tergal setae on I-VIII, respectively, 16, 17, 20, 21, 20, 19, 18, and 12. Postspiracular setae very long on II-III and VI-VIII, shorter on I and IV-V. Each side of last tergite with 2 very long setae, 2 shorter lateroanterior setae, and 1 short inner posterior seta. Sternal setae on I–VII, respectively, 6, 25, 20 (between ctenidia), 36, 29, 28, and 21. Dorsal anal fringe of 48 setae.

MALE. Head and thorax essentially as for female. Mesosternal plate with 5 longer setae. Marginal abdominal tergal setae on I-VIII, respectively, 12, 14, 15, 16, 16, 15, 15, and 10. Postspiracular setae and chaetotaxy of last tergite as for female. Sternal setae on I-VIII, respectively, 5, 21, 19 (between ctenidia), 28, 27, 20, 19, and 18. Terminalia as in Figure 7, with 22 setae on portion of subgenital plate posterior to VIII. Genitalia as in Figure 6, 0.55 mm long, 0.08 mm wide; paramere as in Figure 5.

Dimensions (in mm): Preocular width, female 0.34, male 0.30; temple width, female 0.41, male 0.36; head length, female 0.31, male 0.28; prothorax width, female 0.30, male 0.26; metathorax width, female 0.42, male 0.34; total length, female 1.87, male 1.48.

Material examined: 1♀, 1♂, *Agapornis roseicollis*, Kaskoveld, S. W. Africa, 16 June 1951, Swedish S. A. Exp. 1950–1.

Mimemamenopon zumpti Carriker
(Figs. 8–10)

Mimemamenopon zumpti Carriker, 1957, Ann. Mag. Natur. Hist. (12)10:734. Type-host: *Poicephalus c. cryptoxanthus* (Peters).

Although this species is fairly well described and illustrated by Carriker (1957), sufficient detail is lacking to require some comments here and illustrations to compare with those of *A. waar*. The ventral head does not possess a pair of curving spines; Carriker must have mistaken some internal structure for spines. Head without evident outer middorsal seta 18. Metanotum with 12 to 14 long marginal setae; metasternal plate with 10 to 13 setae. Marginal abdominal tergal setae on I-VIII, respectively, for female, 22, 31, 33, 33, 35, 31, 29, and 16, and for male, 19, 21, 27, 27, 26, 24, 21, and 13. Postspiracular setae very long on II-VIII. Last tergite with 3 inner posterior setae each side. Sternal setae on I-VII, respectively, for female, 6, 52, 45 (between weak ctenidia), 78, 65, 60, and 52, and for male, 7, 48, 36 (between weak ctenidia), 63, 55, 52, and 42. Female terminalia (Fig. 8) with lateral indentation between sternites VII–VIII; with portion of subgenital plate posterior to VII having 40 anterior setae and posterior margin well removed anteriorly from ventral anal fringe and with 14 setae; anus essentially oval, without inner setae, and with 46 ventral and 41 dorsal fringe setae. Male terminalia (Fig. 10) with sternite VIII having 33 setae and remainder of subgenital plate with 35 setae. Male genitalia as in Fig. 9. Dimensions as given by Carriker (1957), considerably larger than those of *A. waar*.

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