NOTES ON THE MALLOPHAGAN GENUS COMATOMENOPON
AND DESCRIPTIONS OF TWO NEW SPECIES

By Donald W. Tuff

Abstract: Comatomenopon dichromanassae n.sp. from Dichromanaassae rufescens and Comatomenopon thulae n.sp. from Florida thula are described and figured. The collection of C. thulae in quills of its host is discussed. The ardeid hosts were collected in Texas, USA and Tamaulipas, Mexico.

The genus Comatomenopon superficially resembles Colpocephalum except that Comatomenopon lacks the dark pigmentation of the head typical of Colpocephalum. The entire organism is lightly sclerotized excepting the pigmented mandibles and tarsal claws.

Prior to the work by Emerson (1957) there was considerable confusion concerning the genus Comatomenopon. The host record of the type species, C. elongatum, as given by Uchida was shown to have been incorrect. Emerson described two species, C. ibis and C. eleophi, from Bulbulus i. ibis Linn. and Ardea p. purpurea Linn., respectively.

Recently Price (1965) described two additional species in the genus, C. grayi from Ardeola grayi and C. exilis from Isobrychus exilis. Price also placed Colpocephalum xenium Kellogg from Isobrychus sturnii in the genus Comatomenopon.

All of the above mentioned hosts as well as the hosts of the two new species described below belong to the avian family Ardeidae. Thus, it readily appears that members of the genus Comatomenopon are indeed restricted to this large ciconiiform family.

The habitat of one of the new species was revealed during the course of the investigation. The same habitat undoubtedly is occupied by all members of the genus. The lack of sclerotization and the elongate bodies in species of Comatomenopon are also found in the parasite, Somaphantus spencei Emerson, of the Indo-Chinese Green Peafowl. Emerson (1958) stated that S. spencei has been found inside quills of fully developed primaries that had dropped from the host.

A similar condition was observed in quills from the Snowy Egret, Florida thula (Molina). Several adults had been taken from the host body. When the host was examined for feather mites a small hole was noted in each of three quills. Upon further examination, several live nymphs and adults of Comatomenopon were removed. Many cast skins and much frass were also observed. The adults taken from the body probably had emerged through the hole in the quill. In the several collections of Comatomenopon 1 have recovered only adults from the hosts. The number of specimens obtained and the percentage of hosts found to be infested with Comatomenopon is very low. The small numbers of specimens recovered probably relate to the degree of emergence from the quills and are not an indication of the extent of infestation.

With continued collecting of members of the Ardeidae and a closer examination of the quills, there is little doubt that the genus Comatomenopon will be found to be widely distributed.

Holotypes of the species herein described are in the U.S. National Museum. Paratypes are deposited in the British Museum (Natural History), K.C. Emerson collection, Department of Entomology collection at Texas A & M University, and the author's collection.

Comatomenopon dichromanassae Tuff, n.sp.

Type material: Holotype ♂ and allotype ♀ from Dichromanaassae rufescens (Gmelin), Galveston Co., Texas, 13.V.1961, D.W. Tuff, U.S.N.M. No. 68966; 3♂ paratypes with same data as holotype; 2♀♀ paratypes from type host, Mud Island, Aransas Co., Texas, 19.VII.1960, D.W. Tuff. Holotype ♂: Head wider than long; anterior margin strongly arched with a pair of lateral setae on anterior margin; 1 pr short submarginal setae on dorsal marginal carina; several long and short

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2Southwest Texas State College, San Marcos, Texas, USA.
FIG. 1, 2. Dorsal-ventral view of holotype male of (1) *C. dichromemnssae* Tuff, n.sp. and (2) *C. thalae* Tuff, n.sp.

setae on median dorsal surface; very long setae on coni, 1 long and 1 short seta near base of first antennal segment; temporal lobes blunt, each lobe with 3 long setae and several setae of short and moderate length; occipital margin with 4 setae of medium length; pigmentation of head greatly reduced and limited primarily to the mandibles and 4 lightly colored spots in region of eye and clypeofrontal suture; terminal antennal segment slightly truncate.

Prothorax more than $2 \times$ wide as long, 1 short and 1 long seta at anterolateral angle, 1 short submarginal seta also present; dorsoposterior margin with 8 long setae, median pair somewhat shorter than the others; a single short seta dorsally at each end of transverse band; prothorax without ventral setae.

Pterothorax $2 \times$ as wide as long, posterolateral angles bearing several long setae, lateral margin with numerous short marginal and submarginal setae; dorsal surface with 2 patches of medium-length setae separated from marginal setae by a bare area; posterior margin with 8–10 long setae, setae on medial area of margin absent; ventral surface of pterothorax with some short setae; medial areas of meso- and metathorax without well defined sternal plates but with numerous setae, 5 median mesosternal setae and 15 median metasternal setae in definite rows.

Abdomen cylindrical, lateral margins parallel, sclerotization reduced or absent; dorsoposterior margin of segments I–VI with 8 long setae between a pair of lateral submarginal setae that may reach the length of 2 or 3 abdominal segments; lateral margins bear several short and medium length
of ctenidia ventrally; relatively few setae on coxae I, coxae II and III with numerous short setae.

Male genitalia well developed, similar to those of *Colpocephalum* group, and appear to have little taxonomic significance. ♀ similar to ♂ except for chaetotaxy of the terminal abdominal segment.

**Measurements:**

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<th>Holotype Male</th>
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<th>Allotype Female</th>
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<td>Head</td>
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<td>Pterothorax</td>
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<tr>
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<td>1.56</td>
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<td>Total</td>
<td>2.17</td>
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**Diagnosis:** Males of this species can be easily separated from other species by the small number of setae on the dorsoanterior margin of the head. The male (Fig. 1) when compared with the male of *thulae* (Fig. 2) has a more evenly spaced setal arrangement on the dorsoposterior margin of the abdominal segments. The terminal antennal segment is much more blunt than in other species. Some difficulty is encountered in distinguishing between the females of the various species of *Comatomenonopon*. Females of these species are quite similar in size and shape as well as in setal patterns. The chaetotaxy of the terminal abdominal segments offers the most reliable method of species separation.

Eight host specimens were collected and examined. Of these, only three were infested with this species of Mallophaga.

**Comatomenonopon thulae** Tuff, n.sp. Fig. 2, 4.

Type material: Holotype ♀ and allotype ♂ from *Florida thula* (Molina), Rio Americano, Tampico, Tamaulipas, Mexico, 25.VIII.1961, M.A. Price and O.H. Graham. U.S.N.M. No. 68967; and 10 ♀ and 3 ♂ paratypes with same data as holotype.

**Holotype ♀:** Head wider than long; anterior margin evenly arched, with 1 medial and 1 lateral pair of short stout setae on anterior margin; 3 pr short stout submarginal setae on dorsal marginal carina; conal setae moderately long, setae near base of first antennal segment as in other species; temporal lobes blunt, each lobe with 3 long setae, other setae of variable length; pigmentation and chaetotaxy of head similar to that of other species; terminal antennal segment clubbed.

Prothorax wider than long, anterolateral angle with 1 or 2 short setae and 3 long seta; 1 or 2 sub-
marginal setae also present; posterior margin with
8 long setae which become progressively shorter at
median line; a single short dorsal seta at each end
of the transverse band; ventral setae absent.

Pterothorax more than 2 × wide as long; 2 paral-
lel rows of short setae on lateral margin; postero-
lateral angle dorsally with 1 long and several
medium length setae; dorsoposterior margin with
8 long setae separated into 2 groups of 4 by a median
bare area; a patch of medium length setae on each
side of dorsal surface not directly associated with
marginal and submarginal rows; median area be-
tween posteromedial angle of coxae I and antero-
medial angle of coxae II with 5 medium length
setae; setae in metasternal area similar in number
to other species but do not appear to be associat-
ed with even a poorly developed metasternal plate
as in dichromannassae.

Abdomen cylindrical with parallel lateral mar-
gins; sclerotization greatly reduced, pigmentation
absent; general setal pattern as represented in fig.
2; an extremely long seta present dorsally at each
submarginal area of postero lateral region of seg-
ments I–VIII; segment VIII with 3 long setae
at each lateral angle, also 6 long setae on ventral
posteromedial margin; spiracular arrangement as
in other species; 2 rows of ctenidia on postero lateral
margin of sternite III.

Legs normal to genus, with numerous setae;
setae, particularly on femora, slightly stouter than
on other species.

Little difference exists between ♂♂ and ♀♀.
The ♀ lacks short stout submarginal setae charac-
teristic of the ♂♂. Chaetotaxy of ♀ head is not sig-
nificantly different from that of the other species.

Primary difference is in chaetotaxy of terminal
abdominal segment.

Measurements:

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Diagnosis: Males are characterized by the short,
stout submarginal setae on the head and short
conal setae. The antennae are clubbed but with-
out the blunt appearance as in dichromannassae.
In addition, males of thulae have fewer and stouter
setae on the dorsoanterior margin of the head and
fewer abdominal setae than ibis. Females can be
separated from related species by the setal arrange-
ment of the terminal abdominal segment.

I collected and examined 17 specimens of Florida
thulae (Molina) but was unable to recover any speci-
mens of C. thulae. Only two of the several type
hosts examined from Mexico yielded specimens.
Comatomenopon thulae was recovered from inside the
quills of one of these Mexican birds.

LITERATURE CITED

Emerson, K.C. 1957. New species of Comatomenopon (Mal-
1958. Two new species of Mallophaga from Gallinaceous
birds. Ibid. ser. 13, 1: 102–06.

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