

IV. Review of the Genus *Cracimenopon* (Mallophaga: Menoponidae) Found on the Avian Genus *Ortalis*, With Descriptions of Six New Forms

Before publishing my report on the Amblycera of the New World Galiformes in 1950, I was informed by Dr. G. H. E. Hopkins that in the forthcoming Checklist of Mallophaga he planned to place the Menoponidae, found on the Cracidae, in the genus *Amyrsidea* Ewing (except *Menacanthus*).

Several years later I was able to secure specimens of *Menopon ventralis*, the type species of *Amyrsidea*, and it was evident immediately that all of the species of Menoponidae from the avian family Cracidae and the avian genus *Odontophorus*, which I had described as *Amyrsidea*, could not possibly remain in that genus.

As a result of those studies the genera *Cracimenopon* and *Desumenopon* were erected (1954), the former embracing the Menoponidae (except *Menacanthus*) parasitic on the avian family Cracidae, and the latter, on the avian genus *Odontophorus* (family Phasianidae).

Genus *Cracimenopon* Carriker

Amyrsidea (part) Carriker, 1950, Rev. Acad. Colombiana Cienc., vol. 12, p. 490.

Cracimenopon Carriker, 1954, Nov. Colombianas, vol. 1, p. 25.—Type species: *Cracimenopon mituensis* Carriker.

Cracimenopon contains a very homogenous group of species apparently present on all species of Cracidae and on no other avian family except the genus *Odontophorus* (Phasianidae).

The most prominent generic characters are: Head much wider than long, with rounded temples, more or less circular front of head (between the ocular slits); deeply concave occipital margin; and the posterior, inner corner of the pleurites produced in the form of a slender spine, which ranges from very large (on the avian genus *Crax*) to quite small on some of the species parasitic on the avian genus *Ortalis*.

The male genitalia have an extremely short basal plate, usually shorter than the long, slender parameres. The distal abdominal segment of the female has a characteristic chaetotaxy.

The only species treated in the present paper are those parasitic on the avian genus *Ortalis*. Previously I described one species and two subspecies from hosts of *Ortalis*, of which the male was known from only the nominate race.

I have now been able to examine material from six additional hosts of *Ortalis*, with males from four of them. There is a very noticeable variation in the shape and size of the head and in the shape and markings of

the pleurites and their accompanying spinous processes, but no two species have exactly the same male genitalia. Unfortunately, the male genitalia are known from only five of the nine species examined, and the movable sclerite of one is missing.

Since the Journal in which my 1950 report appeared is not widely available and I received few separates for distribution, I am here giving figures of the three forms described in 1950 and including them in the key to the species of the genus found on the avian genus *Ortalis*.

Generally speaking, the males are much smaller than the females, with the distal abdominal segment entirely different.

In most cases the pleurites are without incrassations, or only a single one poorly formed; but in certain species (most noticeable in the males) there are three rounded, deeply pigmented spots. Also, in most of the species the portion of the head anterior to the ocular slits (frons) is rather broad and flatly rounded; but in a few species the sides of the head are constricted at the anterior end of antennal fossae, making the frons narrower and more sharply circular (*huilensis* and *caquetae*). In other species the head varies noticeably in the width at temples and at the ocular slit, the females range from 0.585–0.67 mm. at the temples and 0.39–0.446 at slit. The nodi and carinae of the occipital area, to which is attached the prothorax, also vary considerably. The ocular slit is never covered by dorsal integument but in a few cases their sides seem to be fused.

The chaetotaxy is very uniform in the various species; the only variations are in the greater or lesser density of the setae along the posterior margins of the tergites and the texture, length, and density of the patches of setae on the third femora and the sternites.

MEASUREMENTS OF SPECIES OF CRACIMENOPON

	<i>body</i>	<i>head</i>	<i>frons</i>	<i>prothorax</i>
spiculum, ♂	1.69	.36 × .56	.37	.22 × .41
spiculum, ♀	1.84	.39 × .60	.39	.22 × .435
garrulae, ♀	2.06	.42 × .66	.434	.228 × .49
microspinum, ♀	2.15	.43 × .64	.44	.217 × .49
sixiolae, ♂	2.00	.42 × .67	.42	.217 × .434
mirae, ♀	2.02	.42 × .67	.434	.27 × .477
caquetae, ♂	1.50	.347 × .51	.37	.217 × .38
caquetae, ♀	1.76	.39 × .585	.40	.228 × .434
wagleri, ♂	1.71	.337 × .52	.37	.195 × .392
wagleri, ♀	2.06	.39 × .61	.41	.23 × .488
huilensis, ♂	1.52	.37 × .54	.39	.217 × .415
huilensis, ♀	1.97	.39 × .63	.40	.26 × .456
ruficaudatus, ♀	2.15	.45 × .673	.446	.26 × .52

The male genitalia of the five species represented by males are of the same general type but they differ radically in many details, as may be seen in the figures.

Considering the above, together with the differences in the shape and size of the head of the three females described in 1950, it seems best to give all of them specific rank. I feel certain that when the male of those species known only from the females is secured that their genitalia will prove to be distinct from those of the five known males.

KEY TO THE SPECIES OF CRACIMENOPON PARASITIC ON ORTALIS

Females

1. Width of head anterior to ocular slit, 0.39 mm.—0.41; at temples, 0.585–0.63 . . . 2
 Width of head anterior to ocular slit, 0.434–0.446; temples, 0.64–0.677 . . . 6
2. Head with wide, circular frons; pleurites comparatively narrow, with rather long, slender spines; occipital nodi without long, lateral, pointed wings.

C. wagleri

 Head with narrow frons, either flatly rounded or sharply circular; occipital nodi with prominent lateral wings 3
3. Frons sharply circular 4
 Frons flatly rounded; head triangular 5
4. Small body, 1.76 × 0.76; head width at temples, 0.585; width of distal abdominal segment, 0.41 **C. caquetae**
 Larger body, 1.97 × 0.91; head at temples, 0.63; distal abdominal segment, 0.456 **C. huilensis**
5. Pleurites large, somewhat quadrangular, with short, blunt spines; head, 0.39 × 0.60; frons, 0.39 **C. spiculum**
6. Large species, body, 2.15 × 0.90–0.93; head, 0.43–0.45 × 0.64–0.67; frons, 0.44–0.446 7
 Small species, body 2.02–2.06, head, 0.42 × 0.66–0.67; frons, 0.434 8

MEASUREMENTS OF SPECIES OF CRACIMENOPON—continued

	<i>pterothorax</i>	<i>abdomen</i>	<i>basal plate</i>	<i>parameres</i>
spiculum, ♂	.22 × .51	1.04 × .69	.23 × .15	.37
spiculum, ♀	.23 × .61	1.17 × .80	—	—
garrulae, ♀	.27 × .67	1.26 × .88	—	—
microspinum, ♀	.25 × .64	1.07 × .90	—	—
sixiolae, ♂	.27 × .434	1.08 × .825	.11 × .18	.228
mirae, ♀	.27 × .477	1.26 × .87	—	—
caquetae, ♂	.217 × .48	.87 × .575	.11 × .11	.087
caquetae, ♀	.206 × .61	1.12 × .76	—	—
wagleri, ♂	.195 × .48	1.06 × .68	.06 × .12	.087
wagleri, ♀	.23 × .67	1.36 × 1.00	—	—
huilensis, ♂	.217 × .50	.86 × .67	.087 × .11	.152
huilensis, ♀	.26 × .694	1.21 × .91	—	—
ruficaudatus, ♀	.303 × .69	1.36 × .93	—	—

7. Pleurites wide, with prominent spines; distal segment of abdomen wider (0.54); occipital nodi small, without lateral wings and with connecting carina marginal **C. ruficaudatus**
 Pleurites narrow, with small spines; distal segment of abdomen narrower (0.456); occipital nodi large, with black center only and short lateral wings; connecting carina submarginal **C. microspinum**
8. First pair of coxae not extending beyond posterior margin of prothorax; frons flatly circular; pleurites with short, sharp spines; occipital nodi round, black and strongly submarginal, with narrow connecting carina and long, slender lateral wings **C. mira**
 First pair of coxae extending far back of posterior margin of prothorax; occipital nodi and connecting carina marginal and without lateral wings . **C. garruli**

Males

1. Total length, 1.50 mm.–1.52; pleurites more or less quadrangular, with short spines, and bearing three small, round incassations in the form of a triangle . 2
 Total length, 1.69–2.00; pleurites quadrangular with either one incassation, or none 3
2. Head wide at temples, 0.337×0.56 ; frons, 0.39; abdomen wider, 0.86×0.67 , and distal segment wider, 0.29. Genitalia distinctive **C. huilensis**
 Head narrow at temples, 0.347×0.51 ; frons, 0.37; distal abdominal segment narrower, 0.24. Genitalia distinctive **C. caquetae**
3. Pleurites without incassations or marginal carina; head, 0.42×0.67 ; frons, 0.42; genitalia large, distinctive **C. sixiola**
 Pleurites with one faint incassation in anterior portion, or else in center, touching marginal carina 4
4. Incassation in anterior end of pleurite; body, 1.7×1.00 ; head small, 0.337×0.52 ; frons, 0.37; genitalia very small and distinctive . . . **C. wagleri**
 Half-moon-shaped incassation in middle of pleurite, touching marginal carina; head large, 0.36×0.56 ; frons, 0.37; genitalia distinctive . . **C. spiculum**

Cracimenopon spiculum (Carriker)

FIGURES IV:1,4,14

Amyrsidea spicula spicula Carriker, 1950, Rev. Acad. Colombiana Cienc., vol. 7, p. 506, figs. 54–55a. Host: *Ortalis v. vetula* (Wagler).

Fully described and figured in the original description, but new figures are presented here because of the small circulation of the journal in which the original description was published and the small number of separates allotted to the author for distribution, and also to facilitate comparison with the remaining species of this group. See table of measurements and key to the species for comparative data.

Cracimenopon garruli (Carriker)

FIGURES IV:2,5

Amyrsidea spicula garruli Carriker, 1950, Rev. Acad. Colombiana Cienc., vol. 7, p. 506, figs. 56–58a. Host: *Ortalis g. garrula* (Humbolt).

Fully described and figured in the original description. See table of measurements and key to the species for additional data.

Cracimenopon microspinum (Carriker)

FIGURES IV:3,6

Amyrsidea spicula microspina Carriker, 1950, Rev. Acad. Colombiana Cienc., vol. 7, p. 507, fig. 59. Host: *Ortalis r. ruficrissa* Sclater and Salvin.

No figures were given for this species in the original description, merely the characters to distinguish it from *A. s. spicula* and *A. s. garruli*. It is known only from the female. The key to the species, the table of measurements, and the figures here given are sufficient for the recognition of the species.

Cracimenopon sixiola, new species

FIGURES IV:21,22

Amyrsidea spicula subspecies, Carriker, Rev. Acad. Colombiana Cienc., vol. 7, p. 507.

This species, represented by two males in poor condition, was not described in the 1950 paper, but it was tentatively classified as a race of *A. spicula*.

Holotype male from *Ortalis garrula frantzii* (Cabanis) collected by the author at Rio Sixiola, Costa Rica, in 1903 (type in USNM).

Diagnosis: The largest known species of this group, the male is 2.00 mm. in length, while the next largest species is only 1.71. Head wide at temples (0.67), with rather narrow frons (0.42). The body, exclusive of head, is in a condition impossible to figure; the movable sclerite of the genitalia is missing but the genitalia are in perfect condition, as shown in the figure. It is large with distinctive features, which, together with the shape and size of the head, are sufficient for its recognition. See table of measurements and key to the species for additional data.

Cracimenopon mirae, new species

FIGURES IV:7,10

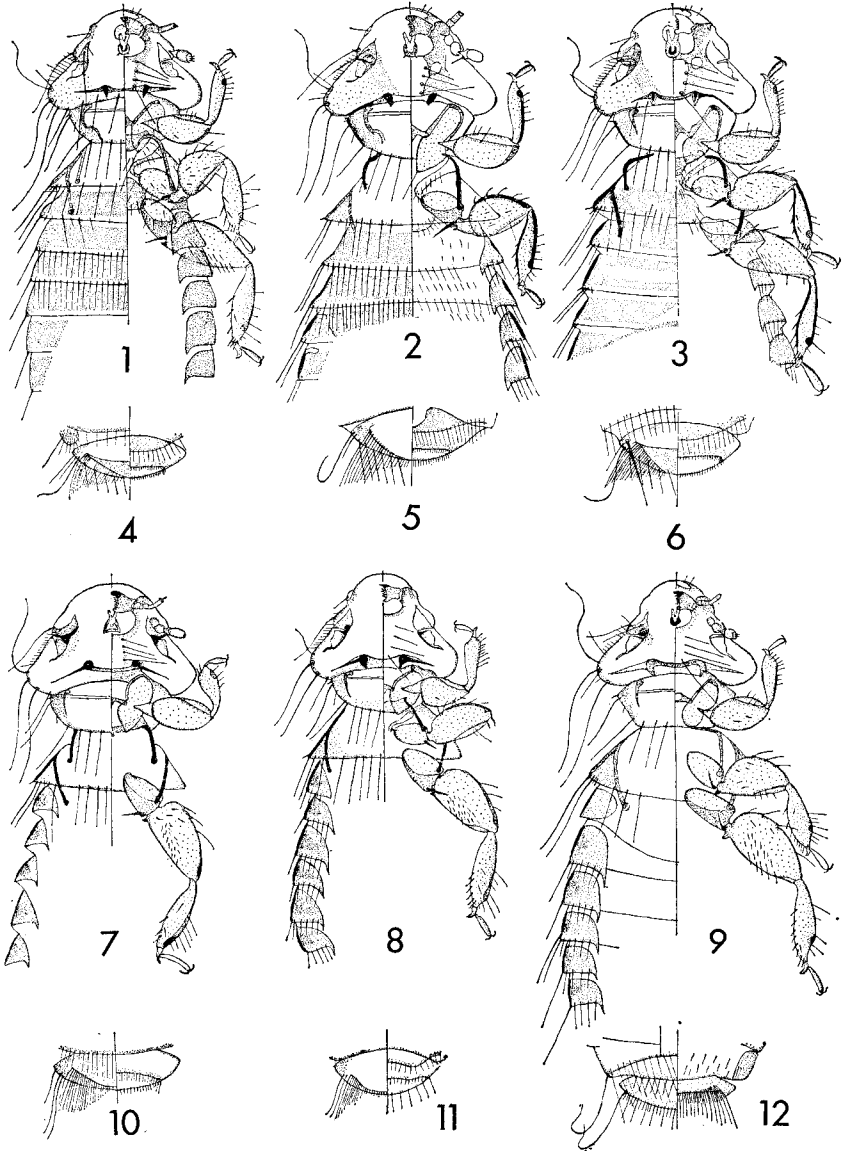
Holotype female and 2 paratypes from *Ortalis garrula mira* Griscom collected by the author at Unguia, Choco, Colombia, March 7, 1950 (type in USNM).

Diagnosis: May be distinguished by the broad head, with wide, circular frons; deeply submarginal occipital nodi connecting carina and lateral wings. First pair of coxae extend under the head and terminate at posterior edge of prothorax. See key to species and table of measurements for additional data.

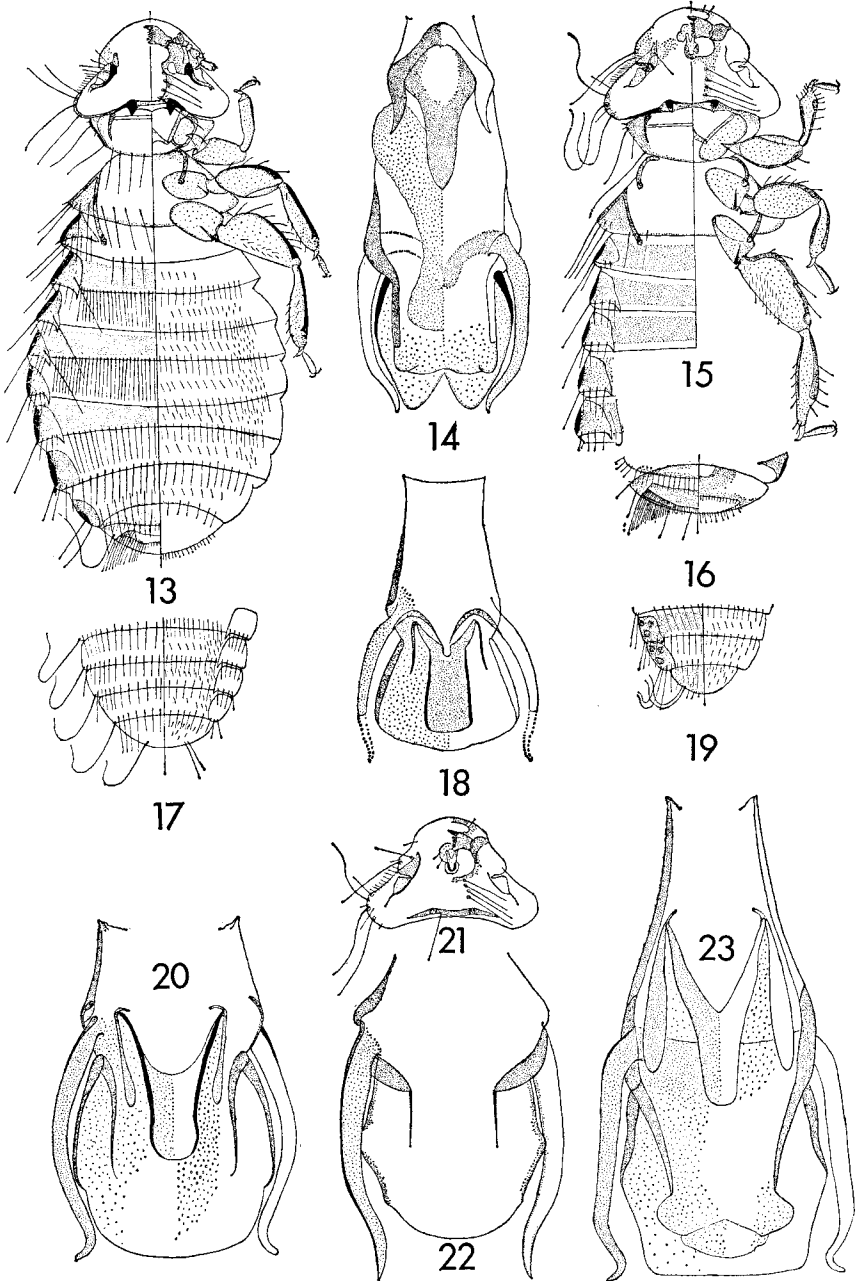
Cracimenopon caquetae, new species

FIGURES IV:8,11,19,20

Holotype female, allotype male, and 2 paratypes from *Ortalis guttata caquetae* Chapman collected by the author at Puerto Venecia, Caqueta, Colombia, June 16, 1952 (type in USNM).



FIGURES IV:1-23.—Species of *Cracimenopon*, ♀. 1-3, Head, thorax, and first abdominal segments: 1, *C. spiculum* (Carriker); 2, *C. garruli* (Carriker); 3, *C. microspinum* (Carriker). 4-6, Terminal abdominal segments: 4, *C. spiculum* (Carriker); 5, *C. garruli* (Carriker); 6, *C. microspinum* (Carriker). 7-9, Head, thorax, and first abdominal segments: 7, *C. mirae*, new species; 8, *C. caquetae*, new species; 9, *C. huilensis*, new species. 10-12, Terminal abdominal segments: 10, *C. mirae*, new species; 11, *C. caquetae*, new species; 12, *C. huilensis*, new species. 13, *C. wagleri*, new species, ♀; 14, *C. spiculum* (Carriker), ♂, genitalia; 15, *C. ruficaudatus*, new species, ♀, head, prothorax, and first abdominal segments; 16, *C.*



ruficaudatus, new species, ♀, terminal abdominal segments; 17, *C. huilensis*, new species, ♂, terminal abdominal segments; 18, *C. wagleri*, new species, ♂, genitalia; 19, *C. caquetae*, new species, ♂, terminal abdominal segments; 20, *C. caquetae*, new species, ♂, genitalia; 21, *C. sixiola*, new species, ♂, head; 22, *C. sixiola*, new species, ♂, genitalia; 23, *C. huilensis*, new species, ♂, genitalia.

Diagnosis: May be recognized by the narrow temples and narrow, circular frons; by the occipital nodi and their lateral wings; by the shape of the pleurites in the female; and also by the presence of three small, round incrustations, set in the form of a triangle, on the pleurites of the male.

The male genitalia are very characteristic. See table of measurements and key to the species for other data.

Cracimenopon builensis, new species

FIGURES IV:9,12,17,23

Holotype female, allotype male, and 2 paratypes from *Ortalis guttatus colombianus* Hellmayr collected by the author at Belen, Dept. of Huila, Colombia, on March 16, 1952 (type in USNM).

Diagnosis: Resembles *caquetae* in the narrow, circular frons, but the temples are wider; the occipital nodi with connecting carina and lateral wings are characteristic; also the wide pterothorax.

The male has head of similar shape; as in *caquetae*, there are three small, round incrustations on the pleurites; the large genitalia are very distinctive. See table of measurements and key to species for further details.

Cracimenopon wagleri, new species

FIGURES IV:13,18

Holotype female and allotype male from *Ortalis wagleri* (G. R. Gray) collected in Mexico (type in USNM).

Diagnosis: Female with head rather small for size of body, narrow at temples (0.61) and wide at frons (0.41); occipital nodi large, black, with posterior half extending back of occipital margin, and without lateral wings. Pleurites roughly triangular in shape, with black outer margins, and only II-VI with prominent spines. Brush of setae on third femora with only two rows of short setae.

Male genitalia comparatively small, with endomeral sac wider than long and movable sclerite distinctive. Tips of parameres broken off at dotted lines but are probably as indicated. See table of measurements and key to species for more details.

Cracimenopon ruficaudatus, new species

FIGURES IV:15,16

Holotype female from *Ortalis ruficauda* (Jardine) from Venezuela (type in USNM).

Diagnosis: One of the largest species found on *Ortalis* (2.15×0.93), equal in length to *microspinum*, but with narrower abdomen, and head longer and wider at temples but same width at frons.

Occipital nodi marginal, as well as connecting carina, and with narrow, marginal, lateral wings. First pair of coxae elongated oval and lying entirely within prothorax (fig. 15). Brush of setae on femora consists of several irregular rows of fine, short setae. See table of measurements and key to species for other data.

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