

ORTHOPTEROID INSECTS FROM THE MARITIME PROVINCE OF SIBERIA

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In July and August, 1923, Prof. T. D. A. Cockerell and his wife collected insects at and about Vladivostok in Siberia and at various localities for a distance of some four hundred miles northeast of that place. An interesting account of this excursion appears on pages 415-433 of the *Scientific Monthly* (vol. 29, 1924). The following report is on the Orthopteroïd insects taken on the above trip, all of which are deposited in the United States National Museum.

Order DERMAPTERA

Family FORFICULIDAE

Subfamily FORFICULINAE

ANECHURA ATHYMIA Rehn

Apterygida athymia REHN, Proc. U. S. Nat. Mus., vol. 27, 1904, p. 540.

One adult male from Kongaus in August and one nymph from Okeanskaya, also in August.

This male agrees structurally with one from Soochow, China, determined as this species, but the color is noticeably darker. The nymph here recorded has the abdomen missing.

FORFICULA TOMIS Kolenati

Chelidura tomis KOLENATI, Melet. Ent., vol. 5, 1846, p. 74, pl. 17, fig. 6a.

One male, Kongaus in August.

FORFICULA VICARIAE Semenov

Forficula vicariae SEMENOV, Rev. Russ. d'Ent., vol. 2, 1902, pp. 99, 100, fig. 1.

Two males, Kongaus in August. Also a female nymph of a *Forficula* which may perhaps belong to this species was taken at Low Lighthouse, a hundred miles or so north of Kongaus, on July 13.

Order ORTHOPTERA

Family BLATTIDAE

Subfamily PSEUDOMOPINAE

BLATTELLA GERMANICA Linnaeus

Blatta germanica LINNAEUS, Syst. Nat., ed. 12, vol. 1, 1767, p. 668.

One female, Kongaus in August. Professor Cockerell also brought home a male from Japan. This latter specimen, together with six others from Japan now in the National Museum collection, exhibits decided variation in size and in pronotal coloration, the median stripe of the pronotal disk being continuous to the posterior margin in some specimens while in others it falls noticeably short of that margin, and in some specimens, especially noticeable in one female examined, this stripe is narrower than common, being about as in Indian specimens determined by Mr. Hebard as *Blattella cognata* Brunner.

Family ACRIDIDAE

Subfamily TETRIGINAE

ACRYDIUM SIBERICUM Bolivar

Tettix sibericus BOLIVAR, Ann. Soc. Ent. Belg., vol. 31, 1887, pp. 187, 258, 265.

Three females, one from Amagu on the Kudia River in July and two from Okeanskaya in August.

ACRYDIUM FULIGINOSUM ? Zetterstedt

Acridium fuliginosum ZETTERSTEDT, Fauna Ins. Lapp., vol. 1, 1828, p. 452.

One female nymph from Amagu on the Kudia River perhaps belongs here. The fastigium of the vertex extends decidedly further anterior of the eyes than in the specimens determined above as *sibericum*.

Subfamily ACRIDINAE

PODISMOPSIS USSURIENSIS Ikonnikov

Podismopsis ussuriensis IKONNIKOV, Ann. Mus. Zool. St. Petersburg., vol. 16, 1911, p. 246.

Two males in July, one at Preobrageniya Bay and one at Barhatnaye near Kongaus, and one female at Kongaus in August.

GOMPHOCERUS SIBERICUS, var. **KUDIA**, new variety

Male.—Structurally very much like typical *sibericus*, with the anterior tibiae greatly swollen, as characteristic of that form. The size is, however, so much greater that a varietal name seems almost a necessity. The thorax in the two specimens examined is almost black, much darker than usual in typical *sibericus*, but this is perhaps subject to variation.

Measurements.—Length, pronotum, 5.5 mm.; antennae, about 10 mm.; posterior femora, 12 mm.; tegmina, 19 mm.

Type locality.—Amagu on the Kudia River, Siberia.

Described from two males, type and paratype, collected by T. D. A. Cockerell in July, 1923.

Type.—Cat. No. 29212, U.S.N.M.

A female nymph bearing the same data as the type probably belongs here.

MEGAULACOBOTHRUS KONGAUSENSIS, new species

Male.—Superficially very like *Megaulacobothrus fuscipennis* Caudell, but is smaller, the tip of the abdomen not red and the tegminal vena-

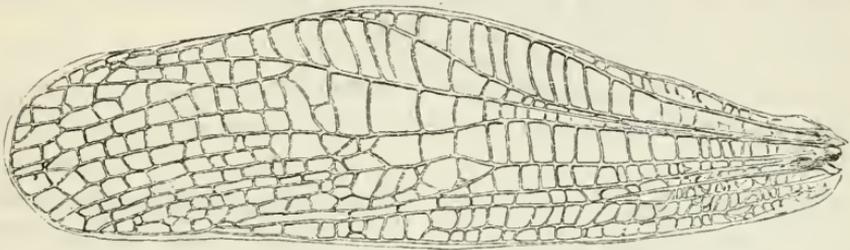


FIG. 1.—TEGMEN OF *M. KONGAUSENSIS*, NEW SPECIES

tion very different. The anterior radial vein of the tegmen diverges suddenly from the posterior one a little basad of the middle and extends to the anterior edge of the tegmen; figure 1 shows the tegmen of this new species while figure 2 shows that of *fuscipennis*. The wings are similar in the two species, being uniformly and rather

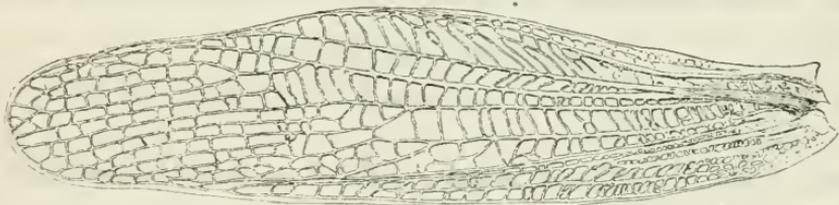


FIG. 2.—TEGMEN OF *M. FUSCIPENNIS* CAUDELL

deeply fuliginous, a feature suggested by the name *fuscipennis* but unfortunately omitted from the original description of that species.

The posterior tibiae are yellowish in the new species now under discussion, instead of red as in *fuscipennis*, and the posterior femora are yellow with the geniculations black.

Measurements.—Length, pronotum, 4 mm.; antennae, about 12 mm.; tegmina, 19 mm.; posterior femora, 11 mm.; width, tegmina at widest point, 5.25 mm.

Type locality.—Kongaus, Siberia.

Described from three adult males, type and paratypes, collected by T. D. A. Cockerell in August.

Type.—Cat. No. 29213, U.S.N.M.

STAURODERUS BIGUTTULUS Linnaeus

Gryllus locusta biguttulus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 433.

Three males, Kongaus in August; one female, Okeanskaya in August.

Subfamily **CYPTACANTHACRINAE**

PRUMNA PRIMNOA Fischer von Waldheim

Podisma primnoa FISCHER VON WALDHEIM, Orth. Ross., 1846, p. 248.

Four males and five females, the males and one female at Kongaus in August, two females at Okeanskaya in August, and two females at Amagu on the Kudia River in July.

PODISMA PARVULA Ikonnikov

Podisma parvula IKONNIKOV, Ann. Mus. Zool. St. Petersb., vol. 16, 1911, p. 260' pl. 5, fig. 3.

One male, Kongaus in August. Also an immature specimen from Amagu on the Kudia River which may belong to this species. The adult male agrees with specimens of that sex in the National Museum determined by Ikonnikov except that the pronotal disk is not notched posteriorly.

PODISMA FRIGIDA Boehman

Gryllus frigidus BOEHMAN, Oefv. Vet.-Akad. Förh., 1846, p. 80.

One female from Amagu on the Kudia River in July is referred here, though the tegmina are unusually long, measuring 16 mm. in length.

EIRENOPHILUS DEBILIS Ikonnikov

Eirenophilus debilis IKONNIKOV, Ann. Mus. Zool. St. Petersb., vol. 16, 1911, p. 265, pl. 5, figs. 5, 6.

One male, Kongaus in August, and two females, Okeanskaya in August.

Family **TETTIGONIIDAE**

Subfamily **DECTICINAE**

GAMPSOCLEIS SEDAKOVII Fischer von Waldheim

Decticus sedakovii FISCHER VON WALDHEIM, Orth. Ross., 1846, p. 161, pl. 28, figs. 2, 3.

One male, Amagu on the Kudia River in July.

Gampsocleis tamerlana Burr, *G. spinulosa* Krauss, *G. sowinskyi* Adelung, *G. kraussi* Adelung, and *G. kraussi*, var. *baicalensis* Adelung are listed as synonyms of this species. Burr, in his original description

of *tamerlana*, states that the cerci of the male are armed mesially with a large obtuse inner spine, but Uvarov, who studied the type of that species, relegates it to the synonymy under *sedakovii* and figures the cerci of the latter as with the inner tooth decidedly basad of the middle, which agrees with the specimen here recorded, the cercus of which is intermediate between those figured by Uvarov¹ for *G. kraussi* and *G. kraussi*, var. *baicalensis*. The range of variation in the cercal shape as brought out by Uvarov in the above-noted figures would seem to indicate that this character is scarcely more dependable for specific differentiation than those of femoral armature, shape of subgenital plate, and others which that writer decries as unreliable or as of no importance whatsoever.

PARADRYMADUSA SIBERICA, new species

This is a brachypterous form running out to this genus but apparently not agreeing with any described species occurring in the region covered by this report. The diagnostic characters allocating this species generically are as follows: Anterior tibiae armed dorsally with an outer apical spine; prosternum armed with a pair of short spines; posterior tibiae armed apically beneath with four spurs; tegmina not exceeding the tip of the abdomen; pronotum moderately produced posteriorly, without median carina; ovipositor curved gently downwards; plantula of posterior tarsus quadrate, less than half as long as the basal segment of the tarsus; anal dorsal segment of the male posteriorly emarginate and the cerci short.

Male and female.—Head equal in width with the pronotum; vertex as broad as the basal segment of the antenna, beneath meeting the facial fastigium, dorsally narrowly sulcate longitudinally; eyes of moderate size, in the male a little more circular and noticeably more prominent than in the female; antennae long and slender. Pronotum with the disk flat, without median carina, the lateral carinae very rounded, almost obsolete anteriorly and bowed inwards anterior of the middle, the disk thus broader anteriorly and posteriorly, broadest behind; posterior margin of disk very broadly rounded, or subtruncate, the anterior margin subtruncate or very slightly concave; lateral lobes subvertical and well developed, being about as deep as long, the margins slanting, the anterior ones very slightly so and the posterior ones very much so; humeral sinus barely indicated; prosternal spines short, varying from scarcely longer than the basal width to decidedly elongate. Abdomen with the last dorsal segment of the male posteriorly mesially roundly notched, in the female bent downwards and concave; subgenital plate of the male as long as

¹ Trans. Ent. Soc. Lond., 1924, p. 519, figs. C, D.

broad, beneath basally sulcate longitudinally and laterally bicarinate anteriorly, apically furnished with a pair of obscurely segmented styles about five times as long as broad, the posterior margin of the plate between the styles nearly straight; subgenital plate of the female transverse, posteriorly broadly triangularly notched; cerci of both sexes short, about twice as long as basally thick, in the female cylindrical and simple, tapering to a rather sharp and gently incurved point, in the male more abruptly tapering apically to a sharp and abruptly incurved tooth and armed with a small triangular point near the base of the apical tooth on the dorsal flange formed by the flattened inner surface of the cercus; ovipositor longer than the body and curving gently downwards, the tip rather abruptly tapering, more on the dorsal margin, to a sharp point.

Legs rather slender; plantula of posterior tarsi no longer than broad, less than one-half as long as the basal tarsal segment; anterior tibiae with three dorsal spines on the outer margin, one apical, one mesial and one at the apex of the conchate foramen, and with a single apical spine on the inner margin, beneath armed with six long spines on each margin; middle tibiae with four spines on each dorsal margin and six or seven on each ventral margin; posterior tibiae armed above and below on both margins, above armed nearly to the base, the apical pair of spines much the longest, and beneath armed for a lesser distance with smaller spines, the apical ventral calcears four in number, the inner pair about one-half as long as the outer pair; anterior and intermediate femora unarmed above, beneath unarmed or armed with from one to three small teeth on the caudal margin; posterior femora long, greatly swollen in the basal third, beyond more slender and armed beneath on each margin with several short, sharp black teeth.

Tegmina short and broad in both sexes, not or but little longer than the pronotum, apically broadly rounded, in the female but little overlapping above, in the male strongly so; stridulating tympanum of the male well developed; wings narrow, slightly more than one-half as long as the tegmina.

Measurements.—Length, pronotum, male 7 mm., female 7.25 mm.; tegmina, male 11 mm., female 8 mm.; posterior femora, male 25 mm., female 26 mm.; ovipositor, 28 mm.; width, pronotum posteriorly, male 4.5 mm., female 5 mm.; posterior femora at widest point, male 4 mm., female 4.5 mm.

Type locality.—Kongaus, Siberia.

Described from one male and three females, all adults, taken by T. D. A. Cockerell in August, 1923.

Type, male; allotype, female; paratypes A and B, females.

Type.—Cat. No. 29214, U.S.N.M.

Subfamily CONOCEPHALINAE

CONOCEPHALUS LONGIPENNIS Haan

Locusta (*Xiphidium*) *longipennis* HAAN, Temminck Verhandel., Orth., 1842, p. 189.

Two adult females, Kongaus, and one adult female and an immature male, Okeanskaya, all in August.

Subfamily PHANEROPTERINAE

Genus ?? Species ??

One female nymph, Okeanskaya in August.

This specimen is too immature for even generic determination. It is evidently a long-winged form and the ovipositor is broad and short.

Family GRYLLIDAE

Subfamily GRYLLINAE

GRYLLUS DESERTUS Pallas

Gryllus desertus PALLAS, Reisen Prov. Russ. Reiches, vol. 1, 1771, p. 468.

One female nymph, Okeanskaya in August.

