

1926

Trans. N. Z. Inst. 57: 671-684.

Author
Card

catalogued

Extract from the Transactions of the N.Z. Institute, Vol. 57, 1926.

see below
for date
of issue

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Hemiptera Heteroptera from New Zealand.

By E. BERGROTH, D.Sc., Ekenaes, Finland.

Communicated by J. G. MYERS.

[Read before the Wellington Philosophical Society, 22nd October, 1924;
received by Editor, 24th October, 1925; issued separately,
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Up to recent years the hemipterous fauna of New Zealand has been considered exceedingly poor. In his list of the Hemiptera of this country, G. W. Kirkaldy (1909) enumerated 48 species of Heteroptera, but of these 2 have proved to be synonyms of other species included in the list, and no less than 12 are either imported or widely-dispersed species outside New Zealand. The number of known truly endemic species was thus at that time 34. In this number I include *Henicocephalus macluchlani* Kirk., which in my opinion is certainly endemic, although Kirkaldy said: "probably not endemic, but Australian, though not known elsewhere than in New Zealand." Since 1909 very few additions to this suborder have been made. The apparent scarcity of Hemiptera in New Zealand was in Kirkaldy's opinion due to insufficient collecting, and he had "no hesitation in estimating at least 750 species of endemic Hemiptera for New Zealand" and thought that "this is really much too little." I think that Kirkaldy's expectations were exaggerated, but however this may be, very important additions to the New Zealand hemipterous fauna have in the last years accumulated through the assiduous efforts of my zealous and highly-valued correspondent, J. G. Myers and his friends. The additions are especially considerable in the families Aradidae, Myodoichidae and, above all, in the Miridae. The material of the Heteroptera has been submitted to me for determination, and I hope I may find time to describe the novelties in a series of papers. In this first instalment I am dealing only with groups poorly represented in New Zealand.

Fam. PENTATOMIDAE.

MYPSITHOCUS n. gen.

Body broadly ovate, somewhat depressed and laterally laminate. Head a little broader than long, as long as pronotum in the middle, flat, slightly concave in the apical half, moderately declivous, amplified from collum to eyes, in front of each eye produced in a short, triangular, apically rather blunt, outwardly directed lobe, then narrowing, laterally and apically rather broadly rounded with thin acute margins, the antecular part twice broader than long, clypeus gradually narrowed from base to apex, juga longer than clypeus and almost meeting in front of it, with an oblique callus on their under-side, ocelli wanting in the brachypterous form, antenniferous tubercles removed from lateral margins, not visible from above, antennae about half the length of body, gradually somewhat thickened from second to fifth joint, first joint not quite reaching apex of head, fourth with a distinct smooth basal stylus, bucculae low, straight, reaching base of head, rostrum reaching base of venter, first joint a little shorter than bucculae, second much shorter than

the two last joints combined, fourth shorter than third. Pronotum but little declivous, at apex a little broader than head and rather deeply biangulately sinuated, apical margin neither elevated nor levigated, its median part straight, its lateral parts oblique, touching the whole postocular part of head and posterior part of the eyes, apical angles passing posterior end of eyes, but not reaching their middle, with a very small tooth directed obliquely outwards, lateral margins moderately converging, not elevated, but broadly and slightly reflexed, almost straight from the obtuse non-prominent lateral angles to beyond middle, then rounded, basal margin in front of scutellum almost straight, in front of elytra a little oblique, not much deviating from the transverse axis of the body so that the lateral angles lie but little more forwards than the scutellar basal level. Scutellum much longer than broad, and reaching to a little beyond middle of antepenultimate dorsal segment (not counting the genital segment), almost gradually tapering from base to narrowly-rounded apex, at base scarcely narrower than head, with no distinct impression or callus at basal angles, frena reaching beyond middle of scutellum. Elytra across their greatest width a little broader than pronotum, in the brachypterous form a little longer than scutellum, slightly passing base of penultimate dorsal segment (exclusive of genital segment), corium in the brachypterous form exteriorly moderately rounded from base to beyond middle, then strongly rounded to apex of scutellum with costal and apical margins broadly rotundately confluent, exocorium broad, at the base but little narrower than somewhat before the middle, costal margin slightly reflexed at base, membrane very short, forming a narrow interiorly slightly widening strip attached to intero-apical margin of corium. Sterna sulcated in middle; metasternal orificia very small and short, not produced in a fold or furrow. Abdomen laterally evenly rounded, last female tergal segment broadly and slightly sinuate at apex, venter unarmed and not elevated at base, rather broadly and very slightly sulcated from its base to middle of fifth segment, spiracles very small, much more distant from lateral than from apical margin of the segments. Femora unarmed; tibiae sulcated above; first joint of tarsi slightly shorter than the other two taken together.

Although this genus has several characters in common with the Sciocorinae and Myrocheinae I place it provisionally in Staal's group 4 (21) of the true Pentatominae, but it is not nearly allied to any described genus. Owing to its complex affinities a very detailed description of it has been necessary. The genus is, judging from the figure, somewhat similar to *Trincavellius* Dist. from the Galapagos Islands, but Distant referred this genus, possibly in error, to the Discocephalinae, in which *Hypsithocus* can certainly not be placed.

Hypsithocus hudsonae n. sp.

Glabrous, scarcely shining, black (including rostrum and legs), outer margins of head, of prothorax, of corial basal part, and of connexivum very narrowly fawny with a tinge of olive-green, outer margins of venter narrowly greenish white; epipharynx white at base; antennae fuscous-black, apex of first three joints and base of

second narrowly pale testaceous, fourth and fifth joints ferruginous, apical third of fifth dusky; above densely and rather strongly punctate, much more finely so on abdominal tergum with connexivum and on under-side of body, middle of venter almost impunctate. Head a little less than half the width of pronotum. interocular space a little more than six times broader than an eye, first antennal joint a little thicker near base than at apex, second sublinear, third and fourth gradually somewhat incrassated from base to apex, fifth cylindrical apart from the narrowed base and apex, second and third joints of equal length, fourth distinctly longer than third and slightly shorter than fifth. Pronotum slightly over $2\frac{1}{2}$ times broader than its medium length. Scutellum somewhat shorter than head and pronotum together. Corium in the brachypterous form with radial vein posteriorly strongly incurved, ending at apex of corium where it joins radial sector, of which only apical part is visible, cubital vein ending in inner margin of corium immediately behind apex of narrow clavus, which is as long as frena, all veins impunctate, but scarcely elevated. Abdomen with sixth female ventral segment in middle twice longer than fifth, female dorsal genital segment over three times broader than long, its apical margin straight, toward lateral ends a little rounded. Length, ♀ 8.8 m.m., width, 5.8 m.m.

Of this insect—doubtless an endemic form—only two specimens are known, one of which I have seen. They were found by Miss Stella Hudson at a considerable elevation above the bush-line at Lake Wakitipu in the southern part of the South Island. The still unknown macropterous form will possibly be obtained at a lower elevation.

Fam. TINGIDAE.

Subfam. CANTACADERINAE.

CYPEROBIA n. gen.

Body narrowly rhomboidal, its greatest width a little behind middle. Head triangular, longer than broad, shorter than pronotum, the anteocular part provided with four robust, rather short, tubercle-like spines directed forwards and upwards and arranged in two pairs, one behind the other, the antec antennal part as long as postantennal part, bucculae rather low, apically roundly meeting in front of clypeus, posteriorly curvedly divergent and ending at base of head a little inside the eyes, first antennal joint suboval, second narrower than first and about half its length, subglobular, not nearly reaching apex of head, third long and very slender, fourth fusiform, as long as the two first together; (the length of the rostrum cannot be stated in the single carded type). Pronotum broader than long, divided by a laterally abbreviated transverse impression into two lobes, interior lobe less than half the length of the posterior and forming, seen from side, an angle with anterior declivity of the longitudinally and transversely convex posterior lobe, at apex a little narrower than head, across widest part of the posterior lobe more than twice wider than apically, apical margin very slightly sinuate, basal margin straight, the greatest part of the anterior lobe occupied by an anteriorly truncate,

rectangularly bent forwards on each side, reaching only the apical angles. There is thus a "*strictura spuria*" similar to that of the subfamily Mirinae. This species is the smallest hitherto-described member of this family, whereas *Gamostolus subantarcticus* surpasses all other Hemiccephalidae in size and stoutness.*

Gamostolus tonnoiri n. sp.

Above quite opaque, black or fuscous-black, only the head a little shining, beneath fuscous; antennae fuscous; rostrum yellowish, fuscous at base; legs testaceous, here and there fuscous. Head a little longer than pronotum, the posterior lobe a little longer than broad and slightly broader than width across eyes, laterally very slightly rounded, almost parallel, ocelli rather near one another, the distance between them scarcely twice the diameter of one ocellus, antennae short, about as long as head, the three last joints subequal in length, each of them a little longer than first, which passes apex of head a little, rostrum a little convex. Pronotum flattened with no trace of discal impressions, sparsely set with almost recumbent bristles, especially near margins, collar terminated behind by a fine line. Scutellum triangular, flattened. Elytra reaching slightly beyond apex of abdomen, so dull that the venation is faintly visible only with the aid of the microscope and strong electric light. Fore-legs strongly incrassated, femora scarcely three times longer than broad, tibiae gradually but highly dilated from base to apex, where they are almost broader than femora, their interior apical process armed with some spines, tarsus armed beneath with two spines abreast, claws about as long as tarsus, subequal in length, the outer one only slightly shorter. Hind legs slender. Length, 4—4.5 m.m.

Korokoro, Wellington, 30th March, 1921, G. V. Hudson; Nelson, 13th January, 1922, A. Tonnoir.

Judging from the rather small, only slightly prominent eyes, the specimens before me are females.

Much smaller and more slender than *G. subantarcticus* Berg, which differs from the New Zealand species also in the following points: the rostrum is shorter, broader at base and flattened, the second antennal joint is much longer, basal lobe of head is shorter, transverse, laterally more rounded with much more separated ocelli, pronotum is slightly and flatly impressed in centre, collar separated from disc by a broader, obtuse impression, elytra are tawny with veins fuscous and therefore quite conspicuous, fore-tibiae are parallel from apex to beyond middle, then obliquely narrowed to base, and their interior apical process is on its inner side armed with tubercles (instead of spines).

That this genus is represented only in the southernmost part of America and in New Zealand is an additional proof of the near faunal affinities of these distant countries.

*The African *Aemictopechys Alluaudi* Jeann. is not allied to that genus, but much more so to *Hemiccephalus*, and it is difficult to understand why Jeannel placed it in Breddin's genus, with which it agrees only in the structure of the rostrum. The pronotum has the two usual deep transverse impressions (although the lobes are differently subdivided), the fore coxal cavities are closed behind, the fore coxae are globular, the tegminal venation is totally different, and the four posterior tarsi are one-jointed. It is the type of a new genus for which I propose the name *Aerorchestes*.