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Orthoptera, Acridoidea chiefly from Java in the Zoologisches Staatsinstitut und Zoologisches Museum of Hamburg

by

Fer Willemse[1])

(with 14 figures)

Through the kindness of Professor Dr. H. Weidner of the Hamburg Museum, I had the opportunity of studying the Acridoidea, obtained from Le Moult and collected chiefly in Java, 1936. The specimens, including the types of one new species and one new subspecies, are in the collection of the Zoologisches Staatsinstitut und Zoologisches Museum of Hamburg. A few duplicates have been retained for future study.

Family Eumastacidae

Erucius apicalis (Westwood, 1842)

Java, 1936, 3 ♂♂, 3 ♀♀; Mt. Djampang, West Java, 1936, 2 ♂♂; Tjimerang, Djampang, West Java, 1936, 1 ♂, 1 ♀; Bibidjilan, Djampang, West Java, 1936, 1 ♂; Penandjoeng, Java, VII. 1936, 1 ♀; Soekaboemi, West Java, 1936, 1 ♂, 1 ♀.

A common species occurring in Peninsular Siam, Malaya, Sumatra, Java and Borneo.

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Chorotypus pusillus Brunner v. W., 1898

Java, 1936, 1 ♀; Mt. Djampang, West Java, 1936, 1 ♀; Soekaboemi, West Java, 1936, 4 ♂♂.

A species only known from Java (Malang and Idjen, East Java and Soekaboemi, West Java). The female was first described by C. Bolivar (1944). The same author (1930) states that the Soekaboemi males differ from the holotype (Malang) by: „sus elitros más claros, en los que destaca una línea oblicua oscura imprecisa en el tercio apical". This is quite correct. All four Soekaboemi males at hand exhibit this stripe. Three specimens have light elytra, brown or greenish brown in colour. The fourth specimen is obscure greenish brown. The females agree with the description and the figure of the tegmina given by C. Bolivar. As till now no figure has been given of the whole female insect, I take this opportunity to give a picture of the lateral aspect (tab. I, fig. 1).

Family Pyrgomorphidae

Atractomorpha crenulata rhodoptera Karsch, 1888

Mt. Djampang, West Java, 1936, 1 ♂, 1 ♀.

A common species occurring in S. E. Sumatra, Java, and the Lesser Sunda Islands.

Atractomorpha psittacina (De Haan, 1842)

Java, 1936, 3 ♂♂.

A common species and very easily distinguishable by its very slender elongate form. Known from Ceylon, India, East Pakistan, Lower Burma, Siam, Indo-China, Malaya, Sumatra, Java, Borneo, Celebes, the Eastern Moluccas and the Philippines.

Tagasta marginella (Thunberg, 1815)

Tjimerang, Djampang, West Java, X. 1936, 1 ♂.

Occurring in Java, Sebesi Isl., Sumatra and the Malay States.

Annandalea haemoptera (De Haan, 1842)

Java, 1936, 1 ♂.

Known from Java.

Family Acrididae

Subfamily Oxyinae

Oxya chinensis (Thunberg, 1815)

Mts. Djampang, West Java, 1936, 1 ♂, 5 ♀♀, Mts. Djampang, West Java, V. 1936, 1 ♀; Tjimerang, Djampang, West Java, X. 1936, 1 ♀; Kangean Isl., East Java, 1936, 1 ♀; Bangka Isl., 1936, 1 ♀; Java, 1936, 5 ♀♀

A very common and widely distributed species.

Oxya sp.

Polewali, Celebes, 1936, 1 ♂; Java, 1936, 4 ♂♂; Rawa Lakbok, West Java, 24. VII. 1936, 1 ♂.

Single male specimens are not identifiable.

Quilta mitrata Stål, 1860

Mt. Djampang, West Java, 1936, 1 ♂, 2 ♀♀; Java, 1936, 2 ♂♂, 5 ♀♀.

A common species in Java.

Oxytauchira elegans n. sp. (figs. 2—10)

This new species is placed preliminarily in the genus *Oxytauchira,* RAMME, 1941. On the one side there are some differences with *Oxytauchira,* on the other hand the available material is too small to come to a more definite decision.

The genus *Oxytauchira* is known by a single species, *O. gracilis,* described as *Tauchira gracilis* by C. WILLEMSE (1931). The type series consists of two females. No further material is at hand. The holotype is in the Basel Museum. Unfortunately the other specimen was lost during the war. It is the one upon which RAMME, designating this specimen "Typus II", decided to erect the genus *Oxytauchira.* The new species described here is represented only by one male specimen. Taking into account the sex differences, the new species differs from *O. gracilis,* apart from the different colour pattern, in the following major features:

O. elegans is strikingly more slender, in particular in the head, pronotum and hind femur. The frontal ridge is narrower, its margins more elevated, the surface less punctate. Face, eyes and pronotum are distinctly more elongate. Elytra less lanceolate, wings less elongate, more subcycloid. As in *O. gracilis,* there are no transverse veinlets between the radial veins in the apical half of the elytra, which are characteristic for *Tauchira* and the subfamily Hemiacridinae in general. The cerci of the new species are compressed laterally with two blunt teeth at the apex, differing strongly from the male cerci in *Tauchira* species. The phallic complex also differs from that in *Tauchira* species. More material is needed to decide if for *O. elegans* a new genus has to be erected.

The features of this new species agree with the characteristics of the subfamily *Oxyinae,* as indicated by DIRSH (1961), i. e. the combination of the spine-like lower lobe of the hind knee, the divided bridge of the epiphallus and the hairy distal sternites of the abdomen. The same author, in the same paper, records that the prosternal process of the Oxyinae is conical. This is correct for the majority of genera. But in the genus *Chitaura,* like in *Oxytauchira,* the prosternal process is lamellate transverse instead of conical. Nevertheless DIRSH included the genus *Chitaura* in the subfamily Oxyinae.

Description of the holotype:

Body slender, size small, surface shiny, punctate. Antennae long, filiform, reaching as far as halfway the hind femur. Joints elongate, basal joint conical, second joint cylindrical, two third of the length of the basal joint. Middle joints about four times as long as broad, distal joints flattened, top joint subacute. Surface of proximal antennal joints finely punctate, more densely in the distal joints.

Head narrow. Face strongly reclinate, in profile straight. Fastigium of vertex about as long as broad, reaching just beyond the basal antennal joint. Its lateral margins from the base parallel in frontal direction, but at one fourth of their total length bending medially, linearly converging anteriorly. Margins and the very apex obtusely rounded. Surface punctate, anteriorly with an indication of a median carina. Base of the fasti-

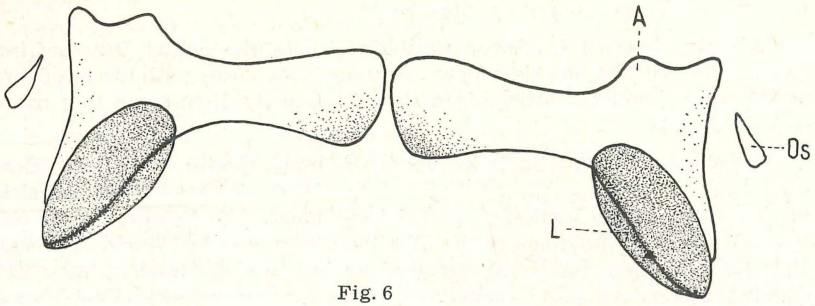

Fig. 6

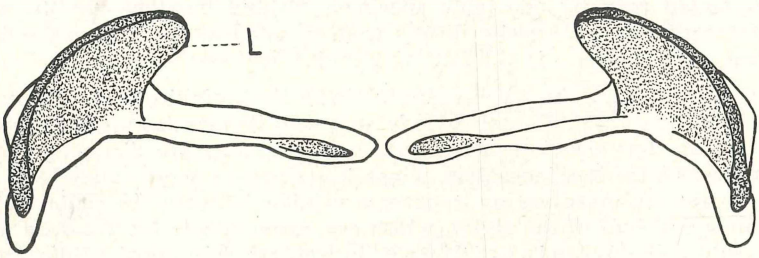

Fig. 7

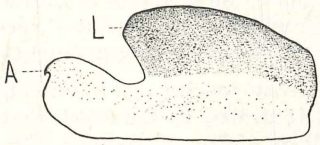

Fig. 8

Figs. 6—8 *Oxytauchira elegans* n. sp.

Dorsal aspect (fig. 6), posterior aspect (fig. 7) of the epiphallus of the holotype and lateral aspect of the left side of the same epiphallus (fig. 8). Epiphallus bridge-shaped, interrupted in the middle. Ancorae (A) small tuberculiform in dorsal aspect (fig. 6), hook-shaped in profile (fig. 8) Lophi (L) shell-shaped, with median side concave (fig. 7), surface with regular sculpture, strongly sclerotised. A pair of oval sclerites (Os) present (fig. 6).

gium impressed. Fastigium convex in profile, forming an acute angle with the frontal ridge, with the vertex nearly perpendicular. Interocular distance narrow, as broad as the length of the second antennal joint. Vertex convex, occiput at a higher level than the fastigium. Surface of the vertex medially slightly punctate, laterally and in the very median zone lesser, almost smooth. Eyes about twice as long as broad, prominent. Frontal ridge narrow, sulcate, from the fastigium between the antennae continuous to the clypeal margin. Margins distinctly elevated, smooth, parallel, slightly constricted between the median ocellus and the insertion of the antennae. Surface of the frontal ridge basally with some indistinct punctures, smooth above the median ocellus. Face much longer than broad, distance from fastigium to clypeal margin two times as long as the width at the level of the median ocellus. Surface rugosely punctate. Lateral

facial keels distinct, in frontal view straight, diverging ventrally, in profile scarcely convex. Genae smooth.

Pronotum narrow, cylindrical, pro- and metazone somewhat widened anteriorly and posteriorly respectively. Disc two times as long as broad. Median keel distinct only in the metazone, no lateral keels. Anterior margin of the disc rounded with a hardly visible indication of a median incision. Posterior margin in the middle rounded truncate, from the middle linearly diverging frontally. First, second and third transverse sulcus present, the third most distinct. The first and the third dividing the length of the disc in three parts of equal length. The second nearer to the first than to the third sulcus. Surface of the disc rugosely punctate. Lateral lobe as high as long. A submarginal sulcus along the anterior margin, the first sulcus not distinct, the second and third sulcus distinct. Lower margin with posterior two fifth part subhorizontal, the anterior part ascendant, anterior angle subacutely rounded, posterior angle obtusely rounded. Anterior margin of lateral lobe straight, posterior margin slightly concave. Surface rugosely punctate and with in the upper part two small smooth area's, the anterior one between the submarginal and the second sulcus, the posterior area between the second and the third sulcus transversus. — Prosternal spine broad, strongly transverse with the apex widened and emarginate; apex laterally with on each side an indication of an obtuse tubercle. Mesosternal lobes as long as broad, inner margins convex, interspace longer than broad. Metasternal lobes with inner margins touching posteriorly, diverging anteriorly. — Pleurae rugosely punctate. Large tympanum present. — Elytra reaching the eighth tergite, apex broadly rounded. No parallel transverse veinlets between the radial veins in the apical half. Wings subcycloid, shorter than the elytra, reaching the sixth tergite.

Anterior and median legs without particulars. — Hind femur slender, with lower basal lobe much shorter than the upper one; keels smooth, not serrate; lower inner and outer kneelobes acutely spined. Hind tibiae with rounded margins, not expanded apically, fourteen spines on inner margin, nine spines on outer margin, besides a distinct outer apical spine. Spines on fairly regular distances. Hind tarsus long, almost half as long as the tibia. Second joint two third of the length of the first joint, third joint as long as the first and second together.
Abdomen with the three posterior sternites hairy, medially on each side. — Male: Penultimate tergite with narrow but long furcula, one fourth of the length of the supra-anal plate. Supra-anal plate triangular, basally with a median sulcus; apex somewhat elongate posteriorly and rounded, lateral margins faintly sigmoid. Cercus scarcely longer than the length of the supra-anal plate, at the base slightly curved medially, straight, compressed laterally, median side concave; apex with two blunt teeth, the ventral one longer than the dorsal one. Subgenital plate short, conical, apex obtuse.

Phallic complex*). Ephiphallus, situated on the dorso-proximal part of the phallus, is bridge-shaped and interrupted in the middle. For

*) Preliminary the terminology of Dirsh (1956) is used, although this is not entirely in agreement with more recent opinions of other authors (c. f. Eades, 1961. Ent. News 72: 141—149).

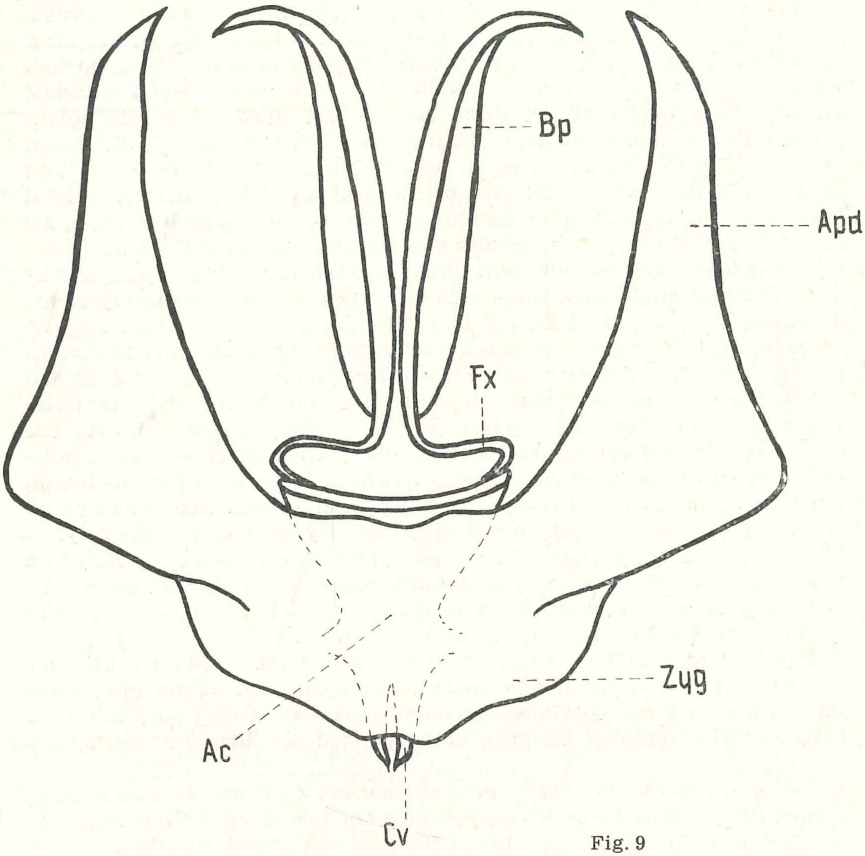

Fig. 9

Figs. 9—10 *Oxytauchira elegans* n. sp.

Dorsal aspect of cingulum, cingular valves and basal penis valves (fig. 9), and lateral aspect of cingulum (left apodeme, zygoma and left ramus), left cingular and penis valve (fig. 10). Cingulum with zygoma (Zyg), rami (Rm) and apodemes (Apd). Apodemes lamellate, rami ventrally each with a dorso posterior process (dpp.) Ventral side of the zygoma joined with the arch (Ac). From the arch arises a pair of cingular valves (Cv) (= dorsal aedeagal valves of Roberts). Penis valves each divided in an apical (Ap) (= ventral aedeagal valves of Roberts) and basal half (Bp), connected by a narrow S-shaped flexure (Fx). Basal penis valves lamellate with a gonopore process (Gpr). Apical penis valves situated ventrally to the cingular valves, reaching almost the apex of the latter. Apex of cingular and apical penis valves simply acuminate.

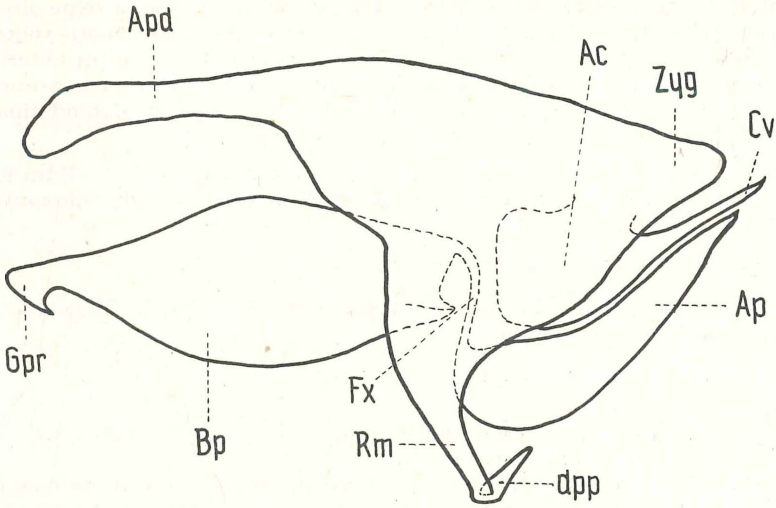

Fig. 10

details see figures 6—8. Ectophallic membrane thin. Basal fold short. Ventral fold and median ventral lobe provided with U-shaped sclerotisations. For details of cingulum, cingular and penis valves see figures 9—10.

Coloration:

General: shiny, dorsally green, laterally black and yellow striped. — Antennae brown, with basal joint yellow, distal joints blackish brown, top joint light brown. — Frons bright lemon yellow. Frontal ridge between the antennae till the median ocellus black, sharply demarcated. Clypeal margin of frons black, laterally somewhat spreading over the frons. Clypeus yellow, labium brown, mandibles and palpi greenish yellow. Eyes brown. Genae yellow, with a narrow black stripe on the inferior margin. The black stripe continued over the lower margin of the lateral lobe of the pronotum and inferior parts of the pleurae. Behind the eyes a black stripe, continued as a broad black band over the upper part of the lateral lobe of the pronotum and the upper area's of the pleurae and anterior part of the elytra.

Fastigium and vertex dull yellow with the median zone of the vertex from the occiput, greenish brown, continued over the disc of the pronotum. Disc of pronotum laterally more bright coloured. Lateral lobe of pronotum bright yellow with the already mentioned broad black band in the upper area und a narrow black stripe along the inferior margin. Pleurae similarly coloured. Prosternal spine dark brown. Meso and metasternum dark brown. Epimerum of prothorax greenish yellow. Elytra dark infumate except for a greenish yellow stripe from the base to the posterior margin near the apex, over the ulnair veins. Posterior margin itself infumate. Wings with dark venation, infumate especially along the

anterior margin. Abdomen brownish yellow, last tergites with some olivaceous green. Genitalia externa brown. Anterior coxa and femora yellow, median femur yellowish orange, kneelobes, tibiae and tarsi of the anterior and median legs green. Hind femur yellowish orange, distally green, knees blackish brown. Hind tibiae and tarsi dark blue. Spines of hind tibiae with black tips, condyle yellow. Pulvilli brown.

Measurements (mm): L. corp. 16,5; l. antennae 12,5; l. elytra 9,5; l. hind femur 10,5; l. hind tibia 9,1; l. hind tarsus 4,2; l. disc pronotum 3,3; br. disc pronotum 1,6.

Geographical distribution: Java.

Material studied: 1♂ (holotype), "Java 1936, Coll Le Moult, Eing. Nr. 1—1957", (Mus. Hamburg).

Subfamily Hemiacridinae

Gesonula sp.

Mts. Djampang, West Java, 1936, 1 ♀; Sepandjang Isl., East Java, VI. 1926 (1 ♀), VI. 1912 (1 ♀), [Le Moult vend.].

No specific name is given to these specimens, as there is no distinct feature to separate females of *G. punctifrons* (Stål, 1860) from those of *G. mundata* (Walker, 1870). Rehn (1952) gave a clear survey of the genus *Gesonula*. Further remarks on this genus were given by the same author in 1959. From this paper I quote:

"In a recent 'Synopsis of the Acridoidea of the Indo-Malayan and Adjacent Regions' Willemse has failed to clarify the distribution of *Gesonula punctifrons*, and continues to include in its distributional area localities in the Philippines, and Java, which regions were shown in my study of 1952 to possess members of the *mundata* line of the genus, and not of the *punctifrons* one, which is, as far as known, entirely continental Asian in its occurrence. The information here presented shows also that in southern Thailand the representative of the genus is *G. mundata laosana*, and not *G. punctifrons* as given by Willemse. Further I cannot help but question his records of *G. mundata mundata* form New Guinea, New Pomerania and the Aru Islands, as these records probably relate to *G. mundata sanguinolenta*, which is the form of that species found in New Guinea and the Solomon Islands, and which had the Aru Islands as one of its original localities".

On account of this remark, I have re-examined the *Gesonula* specimens in the collection of C. Willemse. Three male specimens are labeled by C. Willemse as *G. punctifrons*. Only one, a Fruhstorfer specimen from "Nord-Ceylon", proved, however, to belong to *G. punctifrons*. The second, a male from Java, captured by Dr. Candèze, collection Brunner, belongs to *G. mundata pulchra* (Rehn, 1909), while the third, a male of Siargao, the Philippines, belongs to *G. mundata zonocera* (Navás, 1904). No Thailand specimen is present. Specimens identified as *G. mundata mundata* in C. Willemse's collection are a male labeled "Neu-Pommern, Kinigunang, C. Ribbe", a discolored female "S. Manoembai, I Aroe, 26. III. 1929, Prince Léopold", and a male specimen labeled "Neu-Guinea". The males from New Guinea and New Britain proved to belong to *G. mundata sanguinolenta* (Krauss, 1903). The discolored female from Aru Island may be also *G. mundata sanguinolenta*. Thus it may be said that the remarks by Rehn (1959), concerning the records on distribution given by C. Willemse (1956) of *Gesonula mundata mundata* and *G. punctifrons*, are correct, as

far as the collection of C. WILLEMSE is responsible for his records on the distribution of these species.

Subfamily Tropidopolinae

Oxyrrhepes obtusa (DE HAAN, 1842)

Mt. Djampang, West Java, 1936; 1 ♂; Bibidjilan, Mt. Djampang, West Java, VII. 1936, 1 ♀; Java, 1936, 1 ♀.

A common species occurring in China, Indo-China, Formosa, Ceylon, India, Burma, Sumatra, Java, Lombok, Bali, Sebesi Isl., Ceram, Celebes and Gilolo Isl.

Subfamily Coptacridinae

Coptacra foedata (SERVILLE, 1839)

Mt. Djampang, West Java, 1936, 2 ♀♀; Soekaboemi, West Java, 1936, 3 ♂♂, 7 ♀♀; Penandjoeng, Java, VII. 1936, 1 ♀; Java, 1936,1 ♂, 3 ♀♀.

A common species distributed in Japan, Formosa, China, Cochin China, Cambodia, Burma, Java and Ambon.

Traulia azureipennis (SERVILLE, 1839)

Bangka, 1936, 1 ♂; Billiton, X. 1926, 1 ♀.

A species known from Tenasserim, Lower Burma, Malacca, Sumatra, Nias Isl., Riouw Arch., Rhio-Lingga Arch., Bangka Isl., Billiton Isl., Java, Bali and Borneo.

Subfamily Catantopinae

Stenocatantops exinsula (WILLEMSE, 1934)

Kangean Isl., East Java, 1936, 2 ♂♂, 8 ♀♀.

This species comes near *S. splendens* (THUNBERG, 1815). From the same locality I have before me one female representative of the latter species. In the ten *S. exinsula* specimens at hand, the pattern on the external disc of the hind femur shows no transitional form to the pattern of *S. splendens*. The present locality was not yet known, but it is in the neighbourhood of known localities, Lombok, Sumbawa, Sumba, Komodo Isl., Flores, Timor, Kambing Isl., Kera Isl., Wetta Isl., Postiljon Isl., Tenimber Isl., Amboina (?).

Stenocatantops splendens (THUNBERG, 1815)

Mt. Djampang, West Java, V. 1936, 1 ♀; Semarang, Central Java, 1936, 2 ♂♂; Radjamandala, Java, 1936, 1 ♀; Penandjoeng, Java, VII. 1936, 1 ♀; Kangean Isl., East Java, 1 ♀; Polewali, Celebes, 1 ♂; Banton Isl., the Philippines [LE MOULT vend.], 1 ♀.

A common species widely distributed, known from India, Ceylon, the Andaman Isl., Burma, Siam, Malaya, China, Korea, Hainan, the Philippines, Borneo, Čelebes, Sumatra, Java and the Moluccas.

Stenocatantops angustifrons (WALKER, 1870)

Mt. Djampang, West Java, 1936, 1 ♀; Mt. Djampang, West Java, V. 1936, 1 ♀; Radjamandala, Java, 1936, 1 ♂, 2 ♀♀; Semarang, Central Java, 2 ♂♂, 2 ♀♀; Java, 1936, 1 ♀; and: Soekaboemi, West Java, 1936, 4 ♀♀ and: Kangean Isl., East Java, 1936, 6 ♀♀; Java, 1936, 2 ♀♀.

All these specimens belong to *S. angustifrons*, which proved to be a group of species. In the future I hope to give a revision of the genus *Stenocatantops*, based on the phallic complex. A preliminary examination

of this showed that *S. angustifrons* at least comprises three different species. The Soekaboemi females (second series) differ from those of the first series by the more robust habit and by the pattern on the external disc of the hind femur. The first dark fascia on the external disc of the hind femur is continuous till the lower outer keel, as distinct from that in the specimens of the first series. The females of the third series, on the contrary, are smaller than those of the first and have a same continuous fascia on the external disc of the hind femur as the females from Soekaboemi. The Kangean specimens are related to some specimens which C. WILLEMSE labelled as *S. angustifrons* f. *transversa* (WILLEMSE, 1953).

Xenocatantops humilis humilis (SERVILLE, 1839)

Mt. Djampang, West Java, 1936, 2 ♂♂, 1 ♀; Radjamandala, Java, X. 1936, 1 ♀; Radjamandala, Java, 1936, 1 ♀; Penandjoeng, Java, VII. 1936, 1 ♂; Java, 1936, 1 ♀; Bangka Isl., 1 ♀.

A common species occurring from S. Tibet, India and Ceylon, Eastwards over Burma, Siam, Indochina and Malaya to Sumatra, Java, Borneo and the Philippines. DIRSH (1956) records also New Guinea, but I suppose these specimens will prove to belong to the *Stenocatantops angustifrons* group.

The following genera are provisionally placed in the subfamily Catantopinae:

Bibracte hagenbachi (DE HAAN, 1842)

Soekaboemi, West Java, 1936, 4 ♂♂.

A species occurring in Java and Sumatra.

Bibracte maculata BRUNNER v. W., 1898

Soekaboemi, West Java, 1936, 2 ♂♂.

Only known from Java.

Parastenocrobylus borneensis WILLEMSE, 1922

Mt. Djampang, West Java, V. 1936, 1 ♂.

A species distributed in the Malay Penins., Sumatra, Borneo and Java.

Subfamily Cyrtacanthacridinae

Chondracris rosea brunneri UVAROV, 1924

Semarang, Central Java, 1936, 1 ♂, 1 ♀; Soekaboemi, West Java, IV. 1936, 1 ♂; Tjimerang, Djampang, West Java, X. 1936, 1 ♂; Bibidjilan, Djampang, West Java, XI. 1936, 1 ♀; Mt. Djampang, West Java, 1936, 1 ♀; Java, 1936, 1 ♀.

A species widely distributed over India, Assam, Burma, Siam, Cochinchina, Annam, Cambodia, Tenasserim, Perak, Sumatra, Java and Lombok.

Austracris guttulosa (WALKER, 1870)

Java, 1936, 2 ♂♂.

The geographical distribution extends from the Philippines Southward to Australia, from Celebes Eastward through Melanesia to Eastern Polynesia. Keeling Island (S. W. of Java), Sumba and Flores are also recorded. This would be the first record from Java, but unfortunately no detailed locality is given.

Valanga nigricornis melanocornis (SERVILLE, 1839)

Kangean Isl., East Java, 1936, 3 ♂♂, 6 ♀♀; Preanger, Wijnkoops Baai, West Java, 1936, 1 ♂; Mt. Djampang, West Java, 1936, 1 ♂, 2 ♀♀; Bibidjilan, Djam-

pang, West Java, VII. 1936, 1 ♂; Soekaboemi, West Java, 1 ♀; Java, 1936, 1 ♂, 5 ♀♀.

The most common *Valanga* species on Java.

Valanga transiens (WALKER, 1870)

Polewali, Celebes, 1936, 3 ♂♂, 3 ♀♀.

The representative species of the genus *Valanga* on Celebes.

Valanga sp.

Banton Isl., the Philippines [LE MOULT vend.] 1 ♂, 4 ♀♀.

These specimens do not agree exactly with the known Philippine *Valanga* species (REHN & REHN, 1941). They resemble *V. transiens* (WALKER), but show some differences. I abstain from giving a diagnosis, since the genus Valanga is badly in need of revision.

Subfamily Acridinae

Acrida willemsei DIRSH, 1954

Tjimerang, Djampang, West Java, X. 1936, 4 ♀♀; Mt. Djampang, West Java. 1936, 2 ♂♂, 1 ♀; Soekaboemi, West Java, 1936, 1 ♀; Kangean Isl., East Java, 1936, 1 ♀; Java, 1936, 8 ♀♀; Sepandjang Isl., East Java, VI. 1926 [LE MOULT vend.], 1 ♂, 1 ♀.

A very common species, widely distributed over Burma, Siam, Malaya, China, Formosa, Hainan, the Philippines, Celebes, Java and Sumatra.

Phlaeoba fumosa (SERVILLE, 1839)

Mt. Djampang, West Java, 1936, 3 ♀♀; Tjimerang, West Java, 1936, 1 ♀; Soekaboemi, West Java, 1936, 4 ♀♀; Semarang, Central Java, 1936, 1 ♂, 2 ♀♀; Java, 1936, 3 ♂♂, 9 ♀♀.

A common species on Java and Bali.

Locusta migratoria manilensis (MEYEN, 1835)

Tjimerang, West Java, X. 1936, 1 ♂; Java, 1936, 3 ♀♀.

All four specimens represent the phase solitaria.

Aiolopus tamulus (FABRICIUS, 1798)

Banka Isl., 1 ♂, 1♀; Billiton Isl., X. 1926, 1 ♂; Semarang, Central Java, 1936, 1 ♂; Mt. Djampang, West Java, 1936, 1 ♂; Tjimerang, West Java, X. 1936, 1 ♀; Soekaboemi, West Java, 1936, 1 ♀; Radjamandala, Java, 1 ♀; Java, 1936, 2 ♂♂, 3 ♀♀; Kangean Isl., East Java, 1936, 1 ♀; Sepandjang Isl., East Java, VI. 1926 [LE MOULT vend.], 1 ♀.

A very common species widely distributed from Japan to Australia, from S. E. Asia to the Sunda Islands.

Gastrimargus marmoratus (THUNBERG, 1815)

Tjimerang, Djampang, West Java, X. 1936, 2 ♂♂, 2 ♀♀; Mt. Djampang, West Java, 1936, 2 ♂♂, 2 ♀♀; Soekaboemi, West Java, 1936, 1 ♀; Java, 1936, 8 ♂♂, 3 ♀♀; Semarang, Central Java, 1936, 1 ♂, 1 ♀.

The differentiation into *G. marmoratus transversus* (THUNB., 1815) and *G. marmoratus grandis* (SAUSS., 1888) seems artificial since so many transitional forms are met with.

Trilophidia cristella (STÅL, 1860)

Tjimerang, Djampang, West Java, X. 1936, 2 ♂♂; Mt. Djampang, West Java, 1936, 1 ♂, 1 ♀; Kangan Isl., East Java, 1936, 1 ♂; Java, 1936, 2 ♂♂, 5 ♀♀.

A common species in the Indo-Malayan region.

Trilophidia annulata (THUNBERG, 1815)

Mt. Djampang, West Java, 1936, 1 ♀; Soekaboemi, West Java, 1936, 3 ♀♀; Semarang, Central Java, 1936, 2 ♂♂; Sepandjang Isl., East Java, VI. 1912 [LE MOULT vend.], 1 ♂; Java, 1936, 2 ♂♂, 10 ♀♀.

A very common species in continental S. E. Asia and the Greater Sunda Islands.

Pternoscirta caliginosa (DE HAAN, 1842)

Mt. Djampang, West Java, V. 1936, 1 ♀; Soekaboemi, West Java, 1936, 1 ♀: Semarang, Central Java, 1936, 1 ♀; Java, 1936, 2 ♀♀.

The specimen from Mt. Djampang and one of the specimens labeled "Java, 1936" have the wings pink instead of yellow. *P. cinctifemur* (WALKER, 1859) is synonymous with the pink winged variation of *P. caliginosa*.

Heteropternis obscurella (BLANCHARD, 1853)

Banton Isl., the Philippines [LE MOULT vend.], 1 ♂.

Geographical distribution: Borneo, the Philippines, the Sangi & Talaud Isl., Celebes, the Moluccas, the Key Isl., the Aru Isl., Timor, Sumba, W. Bali, Australia, New Guinea, the Solomon Isl., the New Hebrides, New Caledonia.

Heteropternis respondens (WALKER, 1865)

Tjimerang, Djampang, West Java, X. 1936, 1 ♀; Semarang, Central Java, 1936, 1 ♂; Java, 1936, 1 ♂, 2 ♀♀.

Geographical distribution: continental S. E. Asia, Formosa, the Philippines, Borneo, Celebes, Sumatra, Java. The records from the Lesser Sunda Isl., the Moluccas, the Key Isl. and Australia need further investigation.

Heteropternis respondens insularis n. ssp. (figs. 11—14)

Compared with a series (106 specimens from different localities) of *H. respondens,* three specimens from Kangean Island are more robust, like *H. obscurella,* and do not possess an impression in the frontal ridge between the median ocellus and the fastigium verticis (fig. 11). This impression always is distinct in the above mentioned specimens of *H. respondens,* both males and females (fig. 12). The same feature in *H. obscurella* varies, but at least an indication of the impression is present. The transition of the lower into the hind margin of the lateral lobe of the pronotum, which is rounded in *H. obscurella,* and angular in *H. respondens* (a feature that is not always very distinct), is intermediate in this new subspecies, so is not reliable as a differential feature. On the other hand the form of the male subgenital plate is very distinctly more like *H. respondens* than like *H. obscurella,* i. e. much shorter than in the latter. Besides, *H. obscurella* is characterised by a light median stripe over the disc of the pronotum, which is generally also visible on the vertex. This character is absent in the new subspecies. Otherwise it seems no further distinct morphological differences of the subspecies *insularis* with the nominotypical form are present. Also the phallic complex shows no remarkable differences.

Besides the Kangean specimens, I have eight more specimens at hand from the same region (Timor, Flores, Sumba, Malang [East Java] and one female from Central Java) agreeing in every aspect with the specimens from Kangean Island. All these specimens, in comparison with the studied

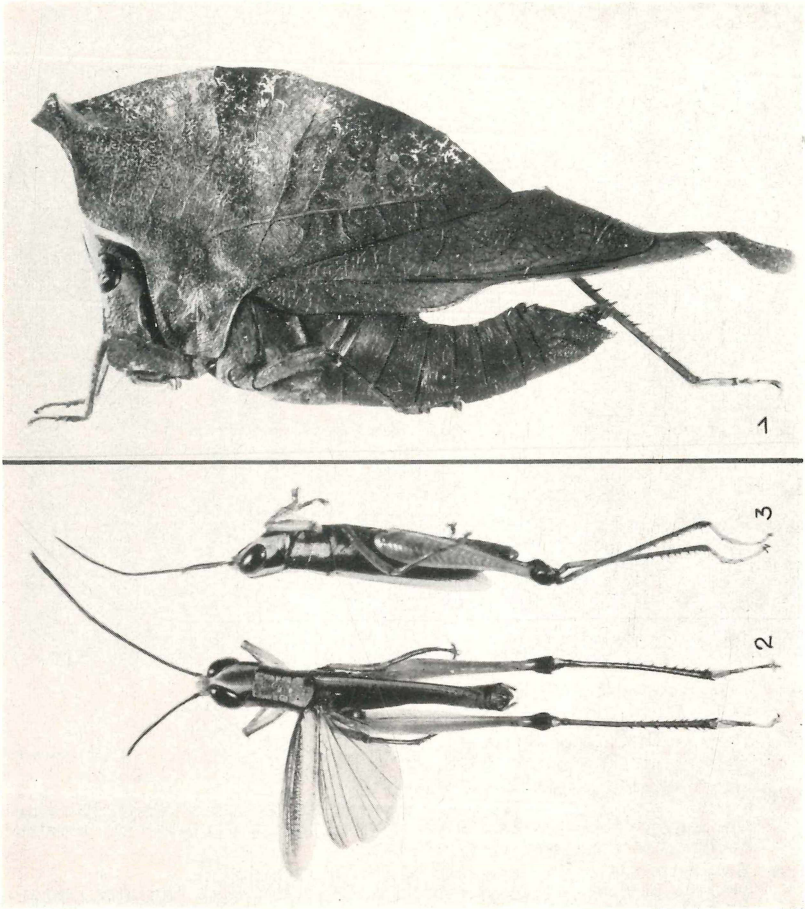

Fig. 1 *Chorotypus pusillus* Brunner v. W., 1898. Lateral aspect of the female "Java, 1936" (long. corp. 35 mm).

Fig. 2 *Oxytauchira elegans* n. sp.
Dorsal aspect of the holotype.

Fig. 3 *Oxytauchira elegans* n. sp.
Lateral aspect of the holotype.

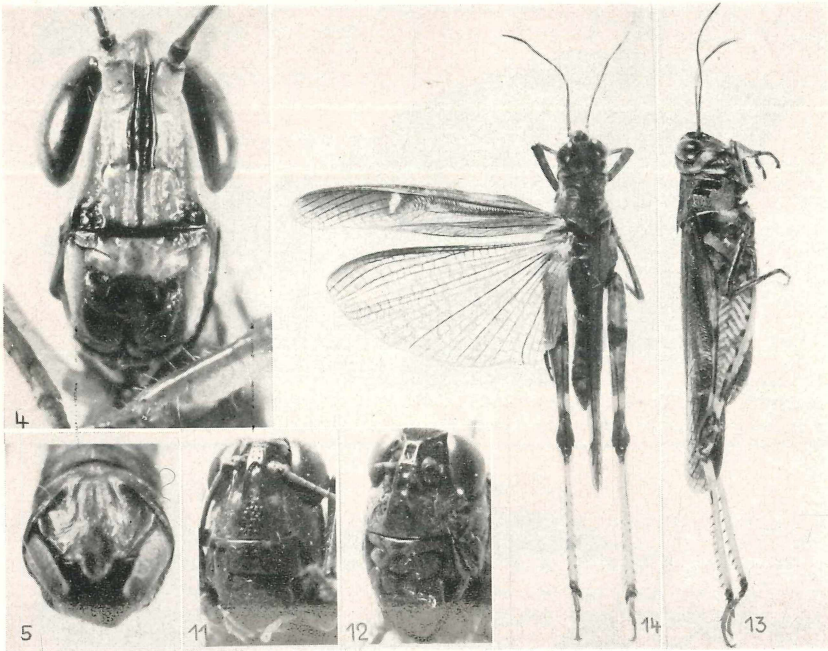

Fig. 4 *Oxytauchira elegans* n. sp.
Frontal aspect of the holotype.

Fig. 5 *Oxytauchira elegans* n. sp.
Supra-anal plate of the holotype.

Fig. 11 *Heteropternis respondens insularis* n. ssp.
Frontal aspect of the male paratype from Kangean Island, showing the absence of an impression in the frontal ridge between the median ocellus and the fastigium verticis.

Fig. 12 *Heteropternis respondens respondens* (WALKER, 1865).
Frontal aspect of a female labeled "Fort de Kock, Sumatra, 920 m, 1926, leg. E. JACOBSON", showing the presence of an impression in the frontal ridge between the median ocellus and the fastigium verticis.

Fig. 13 *Heteropternis respondens insularis* n. ssp.
Lateral aspect of the male holotype.

Fig. 14 *Heteropternis respondens insularis* n. ssp.
Dorsal aspect of the male holotype.

series of the nominotypical form of *H. respondens*, are darker coloured and with more striking contrast. The black triangular velvety spot on the upper side of the hind femur, just proximally of the middle of the hind femur, is very distinct. Mostly there is also a velvety black spot on the upper parts of the epimera and episterna of meso and metasternum. The abdomen of the males is strikingly red coloured ventrally and dorsally. The tegmina are more infumate. The females have the same pattern as the males, but less distinct, abdomen brown.

All the studied specimens from Sumatra and West Java belong to the nominotypical form. In Central and East Java the nominotypical form occurs together with the above described form, but not in the same localities. As I saw no specimens of the nominotypical form from the Lesser Sunda Islands, the subspecies *insularis* possibly represents the eastern geographical race of *H. respondens*.

Geographical distribution: Lesser Sunda Isl., Eastern half of Java.

Material studied (type series): 6♂♂, 5♀♀.

♂ (holotype), "Insel Kangeran", "Java 1963, Coll. Le Moult, Eing. Nr. 1, 1957" (Mus. Hamburg). ♀ (allotype), same data as holotype (Mus. Hamburg).

5 ♂♂, 4 ♀♀ (paratypes): same data as holotype (1 ♂); "Langgaliru C. Sumba, 11. X. 1949 Dr. Bühler, Dr. Sutter" (1 ♂); "Lokojengo C. Sumba, 25. IX. 1949 Dr. Bühler, Dr. Sutter" (1 ♂); "W. Flores I., J. K. de Jong, VI.—VII. 1937, Laboean Badjo" (1 ♀); "N. O. Soemba, Kambera, III. 1925, Dammerman" (1 ♂); "Amanese, Kupang, 27. III. 1957, leg. A. M. R. Wegner" [Timor] (1 ♀); "Malang, Java", "49" (1 ♂); "Karang nongko, Midden-Java, Dec. 1931" (1 ♀); "Mlg. [Malang?] 28. IV. 1930, opgesp. [pinned] 30. IV. 1930" (1 ♀). (Collection Willemse).

Measurements (mm):

	Holotype ♂ (Kangean I.)	♂ (Kangean I.)	♂ (C.Sumba)	♂ (C.Sumba)	♂ (Malang)	♂ (N.O.Sumba)
Long. corp.	18,6	19,7	19,3	21,8	18,—	20,1
„ antenn.	10,—	10,2	10,5	10,3	9,1	10,3
„ elytra	19,—	19,8	19,2	21,—	18,2	20,1
„ hind fem.	11,—	11,8	12,—	12,—	10,6	11,5

	Allotype ♀ (Kangean I.)	♀ (W.Flores)	♀ (Malang?)	♀ (Timor)	♀ (C. Java)
„ corp.	25,—	27,—	27,5	27,5	25,6
„ antenn.	8,—	10,—	....	9,8	....
„ elytra	24,5	25,—	25,—	25,4	23,8
„ hind fem.	15,5	15,5	15,7	16,5	15,2

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