

especially in the ♂. Sometimes the ground colour in a little paler, which may clearly be seen from the photo.

4. There is a stronger tendency to reduce the number of the eye spots, especially in the ♂, where the two spots which are placed over each other on the inner margin, fail as a rule. In the female the spots are better developed, but on an average clearly smaller than with the heath form.

So the dune form is a very special form, which certainly deserves a particular name: race *arenaria* nov. Types and cotypes in my coll., a very fine series of cotypes in coll.-Van Wisselingh.

Among race *arenaria* the following individual forms were observed:

1. f. *senilis* Dhl. A few males of a very pale lilac-blue tint and paler under side are referable too this form.

2. f. ♀ *caerulescens* nov. Basal half of the fore wings (and less strongly of the hind wings) blue, otherwise unicolorous blackish (fig. 7). Rare, ¹⁾ a few examples in coll. Wiss.

3. f. *paucipuncta* nov. The number of eye spots on the underside of the wings strongly reduced. One example in coll.-Wiss.

There are some very striking features in race *arenaria*. First its melanism. In the cases where our *Lepidoptera* have developed a special dune race, this is always paler (clearer) than the inland form, but here the reverse is the case. Then of course that *alcon*, which tends so little to the formation of races, has developed a special form in a limited area of the dunes of Holland, which is perfectly stable and no doubt hereditary. The cause of the development of *arenaria* is very probably the same as with the dune races of other species: the higher temperature. In other words: it is an oecological form.

Résumé. In de Wassenaarsche duinen komt op de vindplaatsen van de kruisblad gentiaan (*Gentiana cruciata* L.) een ras van *Lycaena alcon* F. voor, waarvan Ir. T. H. van Wisselingh in 1938 zoo gelukkig was de eigenlijke vliegplaats te ontdekken en dat zich scherp van onzen heidevorm onderscheidt. Het is kleiner, de ♀♀ zijn op de bovenzijde eenkleurig zwartachtig zonder spoor van de zwarte submedian vlekken (zelden de wortelhelft blauw, maar ook dan ontbreken de vlekken: f. *caerulescens* nov.), de ♂♂ hebben soms een duidelijke rij zwarte vlekjes voor den achterrand tusschen de aderen, de ocellen aan de onderzijde zijn kleiner en toonen vooral bij de ♂♂ neiging tot reductie in aantal. Ongetwijfeld is de vorm volkomen erfelijk; hoogstwaarschijnlijk dankt hij zijn ontstaan aan de hogere temperatuur van zijn omgeving vergeleken met die der heidedieren. Ik noem dit ras: *arenaria* nov. Ik dank ten slotte den heer L. V á r i voor de uitstekende foto, die hij voor mij vervaardigde.

¹⁾ In the heath race females of the same form occur very rarely: one example of Oosterwijk (coll.-Zoöl. Mus. Amsterdam). They may of course be indicated by the same name.

ON A COLLECTION OF INDO-AUSTRALIAN, MELANESIAN AND MICRONESIAN TETTIGONIIDAE

by

C. WILLEMSE.

(Continued).

Subfam.: PHANEROPTERINAE.

Sympaestroides nov. gen.

♂, ♀: Body stout, broad. Head much shorter than the pronotum. Antennae long and filiform, first joint broad, about two times as long as broad, from above slightly sulcate, reaching beyond the apex of fastigium of vertex, second joint much narrower, somewhat longer than broad.

Vertex horizontal, nearly smooth, fastigium produced in advance a little beyond the eyes, triangular, with a median impression at the top, top narrowly rounded, acuminate, forming with the frons a rounded rectangular angle. Eyes small, globose, prominent. Frons almost perpendicular, about as high as broad, nearly smooth with a few points, not produced or tuberculate.

Pronotum longer than broad, anterior margin nearly straight, posterior margin broadly rounded, disc flat, not or only poorly punctured, with a V-shaped impression in the middle, pro- and metazona indicated by a shallow transverse impression, metazona with a shallow median groove; sides of disc slightly narrowing anteriorly; lateral lobes vertical, obtuse angulately inserted, distinctly higher as broad, lower margin, anterior and posterior angle broadly rounded, forming a large rounded bow, margins ciliate, sinus humeralis distinct.

Elytra reaching a little behind the apex of hind femora, broad, lanceolate, gradually narrowing apically, posterior margin rounded, apex acutely rounded, with dense reticulation more or less coriaceous and only a few principal veins.

Anterior area less broad than the other together, mediastinal vein indistinct. Subcostal and radial vein nearly straight, separated by a very small interspace or contiguous, reaching from base to nearly the apex.

Subcostal vein with irregular branches, reaching the anterior margin of elytra. Radial vein with a branch in the apical third which is bifurcate before or behind its middle, sometimes followed by an indistinct second branch near the apex, both branches not reaching the margin of elytra, but dissolved into the dense reticulation. Medial vein straight, arising in the basal half of the cubital vein or only slightly separated from the cubital vein, without branches and terminating into a branch of the first radial sector.

Cubital vein straight, without distinct branches, parallel and partly connected with the anal vein. Stridulating field of the left elytra in the male not reaching beyond the third part of elytra, with irregular reticulation and badly developed stridulating vein. Speculum of right elytra long oval, posteriorly

not bordered by a distinct vein, its surface subhyaline, with an irregular dense reticulation.

Wings overreaching the elytra not or only a little, principal veins well developed, with only a few branches.

Legs slender. Anterior coxae without spine. Anterior femora sulcate from below, without spines, genicular lobes obtusely rounded, anterior tibiae rounded, with a row of 2—3 spines on both sides from below, with an apical spine from above on the outer side, auditory foramina oval, open on both sides.

Median femora as anterior femora, median tibiae not sulcate from above but rounded, with a row of 3—4 spines from below on both sides, with a row of 6—7 spines from above on the inner side and an apical spine from above on the inner side.

Hind femora only slightly incrassate at the base, smooth from above, sulcate from below with a row of 4—7 spines on both sides, genicular lobes with a spine on both sides.

Prosternum obtuse. Meso- and metasternum about as long as broad, the lobes obtusely, triangularly rounded.

♂ : 4th—8th tergite with the posterior margin a little produced in the middle. Ultimate tergite with a small triangular projection in the middle.

Supra-analplate small, triangular, apex truncate. Cercus long and slender, cylindrical, somewhat incrassate at the base, reaching behind the subgenital plate, gradually curved inward and upwards in the apical half, apex obtuse, more or less crossing each other at the apex.

Subgenitalplate much longer than broad, with median and lateral keels, slightly narrowing apically, apex deeply, triangularly incised, styli cylindrical, a little longer than the depth of the incision. Fig. 17.

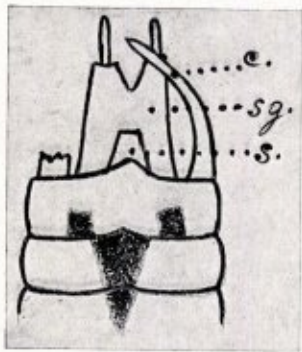


Fig. 17. *Sympaestroides retifolia* de Haan.

♂. Abdomen from above, c = cercus, s = supra-analplate, sg = subgenitalplate.

Fig. by Willemse

♀ : 4th—8th tergite with the posterior margin produced in the middle. Supra-analplate small, triangular. Cercus reaching behind the supra-analplate, cylindrical, gradually narrowing apically, slightly curved inward, apex more or less pointed.

Ovipositor short, about as long as the pronotum, broad, strongly compressed and curved up-

wards at the base, margins near the apex crenulate, apex obtuse. Subgenital plate triangular, short, about as long as broad, apex rounded or subobtuse. Fig. 18.

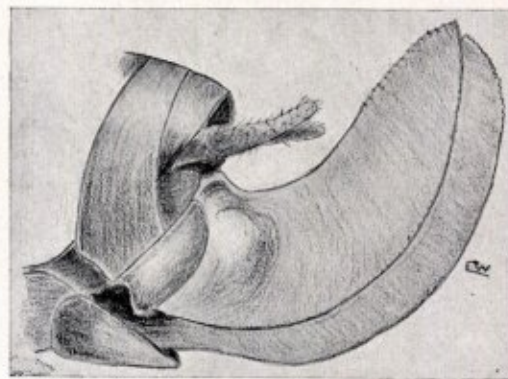


Fig. 18. *Sympaestroides retifolia* de Haan, ♀. Ovipositor.

Fig. by Willemse

Genotype : *Locusta* (*Phylloptera*) *retifolia* de Haan.

In the key of Brunner this genus runs near *Pseudophaneroptera* by the absence of a spine in the anterior coxae, the distinct horizontal vertex forming an angle with the frons, the open auditory foramina on both sides and the rounded anterior tibiae.

Its general appearance is that of *Sympaestria* from which it at once is distinguished by the absence of a spine in the anterior coxae.

From *Pseudophaneroptera* it is distinguished by the robust form, the shape of elytra, the wings not extending beyond the elytra and the presence of styli on the subgenitalplate in the male.

Sympaestroides retifolia de Haan.

1842. *Locusta* (*Phylloptera*) *retifolia*, de Haan, Verh. Ned. Overz. Bezitt. Orth. p. 198.
 1869. *Phylloptera retifolia*, Walker, Cat. Derm. Salt. B. M. II, p. 381.
 1920. *Locusta* (*Phylloptera*) *retifolia*, Karny, Zool. Meded. Leiden, V, p. 185, 209.¹⁾

♂, ♀ : General coloration green or brown. Head brown or greenish brown, cheeks and frons sometimes more whitish brown, clypeal margin brown, vertex with a black longitudinal stripe on each side, running from the eye to the anterior margin of pronotum. Pronotum brown or greenish brown, disc sometimes darker coloured than the lateral lobes. Elytra green, brown at the base and along the radial and cubital vein, posterior margin bordered with brown or green. Wings hyaline, anterior margin and extreme tip greenish.

Legs yellowish brown or brown. Sternum and abdomen brown, abdomen from above with a black median stripe, penultimate tergite in the male with a black spot on each side. Fig. 19.

¹⁾ This species was not mentioned by Brunner von Wattenwyl nor by Kirby.

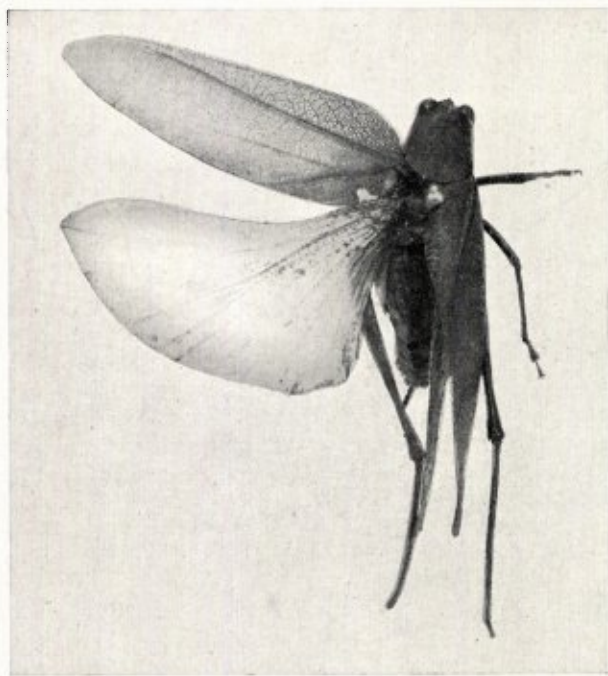


Fig 19. *Sympaestroides retifolia* de Haan. ♂. type.
Photo by Willemse

	♂	♀
Length of body	21—23 mm	23—24 mm
" " pronotum	5,3—6 "	5,5—6 "
" " elytra	26—28 "	28—30 "
Width " "	8—9,2 "	8,5—9 "
Length of anterior femora	4,5—6 "	5—7 "
" " median femora	5,5 "	6 "
" " hind femora	17—20 "	18 "
" " ovipositor		5,5—6 "

Locality: 1 ♂ Java (type), 1 ♀ Java (coll. Mus. Leiden); 1 ♂ Tjibodas-Gedeh, Java, Aug. 31 (leg. Handschin, coll. Mus. Basel), 1 ♀ Goen. Tangkoebanprahoe 1600 M. Java (leg. E. Jacobson, coll. mea).

***Euanerota curvata* nov. spec.**

♂, ♀: General coloration pale green or light reddish brown or yellow. Antennae of the same color, darker apically, with or without darker joints. Head and pronotum with fine reddish brown points or dots, sometimes forming a certain figure. Elytra much shorter than the wings, gradually narrowing apically, apex rounded. Elytra pale green or yellowish brown, the small cells along the hind margin blackish; anal area in the female with a distinct, irregular, black spot near the hind margin. Wings hyalinous with a tinge of pale rose, except the exposed part when the wing is closed, which is green with a row of blackish dots in the cells along the radial vein.

Legs of the same colour as the body, with or without very fine reddish brown points or with a reddish brown stripe.

♂: Anal tergite not produced, its hind margin truncate, slightly concave in the middle. Supra

analplate large, nearly quadrangular, its sides subparallel, hind margin slightly triangularly expanded or subtruncate, in strongly dried specimens partly concealed. Cercus cylindrical, roundly curved, gradually narrowing towards the apex, near the apex suddenly bent inwards and terminating into a very sharp, fine blackish point. Subgenitalplate elongate, produced, curved upwards, its margins subparallel or slightly narrowing apically, its apex rounded with a small, narrow, median or slitlike incision.

♀: Supra analplate small, rounded triangular. Cercus conical, roundly bent inwards, apex sharply pointed. Ovipositor short, broad, curved upwards, upper margin crenulate, lower one only near the apex; plica basalis swollen, long oval, the apex rounded. Subgenitalplate small, narrow, apex rounded. Fig. 20.



Fig. 20. *Euanerota curvata* nov. sp.
♂. Apex of abdomen from above and in profile.
Fig. by Willemse

	♂	♀
Length of body	14 mm	15 mm
" " pronotum	3,5 "	4 "
Width " pronotal disc	2,5 "	2 "
Length " lateral lobe of pronotum	3 "	2,5 "
Width " " " "	2,5 "	3 "
Length " elytra	15 "	17 "
Width " "	3 "	3,5 "
Length " wing	24 "	26 "
" " anterior femora	4,5 "	5 "
" " posterior femora	18 "	18 "
" " ovipositor		4 "

Locality: W. Bali, Prapetagoeng, May 1935, 30 ♂♂, 1 ♀, (type coll. mea). 1 ♂ Java, Malang, March 1933, (coll. mea).

This species differs from *furcifera* Stål and *neglecta* Karny, who both are only known from the Phillippines, by the form of the supra analplate and the cercus in the male. Supra analplate by *furcifera* and *neglecta* deeply excised in the middle of the posterior margin, the cercus is gradually bent inwards, not abruptly near the apex as is the case to the new species.

***Euanerota dentata* nov. spec.**

♂, ♀: General coloration pale green or light reddish brown. Antennae of the same color, darker apically. Head, pronotum and legs with fine, reddish brown dots. Elytra much shorter than the wings, gradually narrowing towards the apex, apex rounded. Elytra pale green, the small cells along the hind margin blackish. Stridulating field

of left elytra in the male pale rose or reddish brown. Wings hyalinous, principal veins in the male pale rose in the basal half, the exposed part green, with a row of blackish dots in the cells along the apical third of the radial vein.

♂ : Anal tergite not produced, much broader than long, hind margin roundly excised in the middle. Supra analplate partly concealed, as far as visible with the sides subparallel, lateral margin near the apex roundly thickened, hind margin subtruncate. Cercus quite different from all the other known species, cylindrical, thick, slightly curved inwards, from the middle decurved and at this place provided with a strong, obtuse tooth; apical half gradually narrowing apically, the very apex turned inwards and split up into two sharp, black teeth, a smaller and a larger one.

Subgenitalplate long, curved, gradually widened towards the apex, the apex rounded with a deep median slit.

♀ : Supra analplate short, hind margin broadly rounded. Cercus conical, gradually curved apically, apex pointed. Ovipositor short, broad, strongly curved upwards, upper margin crenulate, lower one only near the apex; plica basalis swollen, long oval, apex rounded. Subgenitalplate small, narrow, apex rounded. Fig. 21, 22.



Fig. 21. *Euanerota dentata* nov. sp.
♂. Cercus and subgenitalplate from above and in profile.

Fig. by Willemse

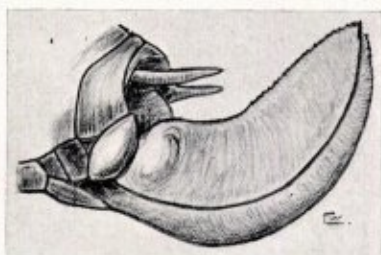


Fig. 22. *Euanerota dentata* nov. sp.
♀. Ovipositor.

Fig. by Willemse

	♂	♀
Length of body	14 mm	11,5 mm
" " pronotum	4 "	3,5 "
Width " pronotal disc	3 "	2,5 "
Length " lateral lobe of pronotum	3 "	2,5 "
Width " " " "	2,5 "	2 "
Length " elytra	17 "	19 "
Width " "	3 "	4 "
Length " wing	25 "	25 "

Length of anterior femora	4,5 mm	4 mm
" " posterior femora	missing	17,5 "
" " ovipositor		5 "

Locality: Isle of Flores, Endeh, Dec. 1931 coll. E. Handschin) 1 ♂ (type) 1 ♀ (allotype). Type Mus. Basel.

This species is at once distinguished from all the other known species by the dentate cercus of the male.

Euanerota longicauda nov. spec.

♀ : General coloration yellowish brown (in vivo pale green?), head pronotum and legs with fine reddish brown dots. Antennae missing. Elytra much shorter than the wings, gradually narrowing apically, apex rounded. Elytra yellowish brown, the smaller cells along the hind margin blackish or dark reddish brown. Wings hyalinous, except the exposed part which is of the same colour as the elytra, with a row of brown dots in the cells along the apical third of the radial vein.

♀ : Supra analplate small, rounded, hind margin broadly convex. Cercus relatively stout, conical, slightly curved inwards, apex subacute. Ovipositor long, gradually curved upwards, upper margin in the apical third crenulate, lower one only near the apex; plica basalis swollen, long oval, apex obtuse. Fig. 23.

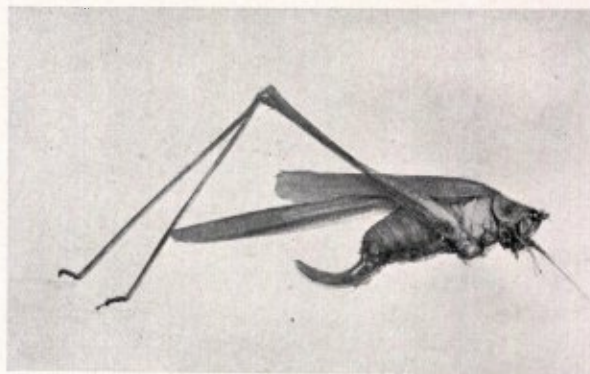


Fig. 23. *Euanerota longicauda* nov. sp. ♀, type.
Photo by Willemse

	♀
Length of body	16 mm
" " pronotum	5 "
Width " pronotal disc	3 "
Length " lateral lobe of pronotum	4 "
Width " " " "	3 "
Length " elytra	20,5 "
Width " "	3,5 "
Length " wing	30 "
" " anterior femora	6 "
" " posterior femora	21 "
" " ovipositor	8 "

Locality: Isle of Flores, Endeh, Todabeloe, Dec. 1931 (coll. E. Handschin) 1 ♀. Type Mus. Basel.

This species is at once distinguished from all the other known species by the form of its long ovipositor.

Fam. : GRYLLACRIDIDAE.

Stonychophora salomonensis nov. spec.

♂, ♀ : Size medium, body covered with golden hairs. General coloration dull brown. Antennae long and slender, about 5 times as long as the body, brown, first antennal joint with a yellowish brown stripe.

Fastigium of vertex narrow, sulcate in the middle. Frons brown with a small, oval median ocellar spot between the antennal scrobae, sometimes indistinct; the lower part of the frons with irregular paler or darker figures or whitish brown. Lateral ocellar spots small, yellow, placed on each side of the fastigium of vertex. Cheeks more yellowish or whitish brown or with a yellowish spot. Eyes small, blackish, variegated with reddish brown. Clypeus and mouthparts brown or reddish or whitish brown, palpi long and slender, yellowish brown with a few brown stripes or spots. Pronotum semicylindrical, brown, lateral lobes with irregular reddish or yellowish brown spots, lower margin bordered with yellow or uniformly brown. Anterior margin on the disc nearly straight, posterior margin feebly rounded, both margins very delicate, lower margin of lateral lobes more strongly indicated, convexly rounded. Pronotum seen from above distinctly longer than broad, slightly narrowing anteriorly, lateral lobes broader than high.

Posterior margin of mesonotum rounded, lower margin of its lateral lobe near the middle obtuse angulate; posterior margin of metanotum nearly straight, lower margin of lateral lobe slightly obtuse angulate in the middle or more convexly rounded.

Meso- and metanotum brown, with or without irregular yellowish brown spots on the lateral lobes. Legs long, strongly developed.

Anterior femora only with a strong movable spine on the inner genicular lobe, anterior tibiae from below with a row of 2 spines on the outer side and 2 spines on the inner side, regularly arranged and an apical spur on each side from below, inner spur only a little shorter than the outer one. Median femora only with a movable spine, each of about the same length, on the outer and inner genicular lobe, median tibiae from above with a movable spine on both sides, about in the middle and an apical spur on both sides; from below with a row of three spines on the outer and one spine in the apical third on the inner side, and an apical spur on both sides. The lower apical spurs are somewhat longer than the upper ones. Hind femora short, very incrassate at the base, from below in the middle of the inner margin with two spines, only the inner kneelobe with a spine. Hind tibiae from below and at the base cylindrical, from above sulcate, from below without spines, from above with a row of about 20 spines, gradually increasing in length. Apex on each side with three spurs, the upper ones long, the middle ones somewhat shorter and the lower ones short; the inner

upper one as long as the metatarsus with its apical spine (per varietat. in one of the female specimens with a longer outer upper spur on one side), the outer upper one shorter as the metatarsus.

Metatarsus long, from above carinate with 3—5 short, sharp spines and a long apical spine, overreaching the following tarsal joint. Fig. 24.



Fig. 24. *Stonychophora salomonensis* nov. sp.
Hind leg.

Fig. by Willemse

♂ : Hind margin of 6 th. tergite simply rounded.

The 7th tergite with its hind margin extended backwards into a distinct processus, with its margins concavely narrowing, its hind margin slightly rounded, with a small spine on each side of this margin. Cercus long and slender, slightly curved, somewhat longer than the pronotum, cylindrical, gradually narrowing to the acuminate apex. Subgenital plate arched, posterior margin truncate, styli long, straight, leaflike, flattened. Fig. 25.

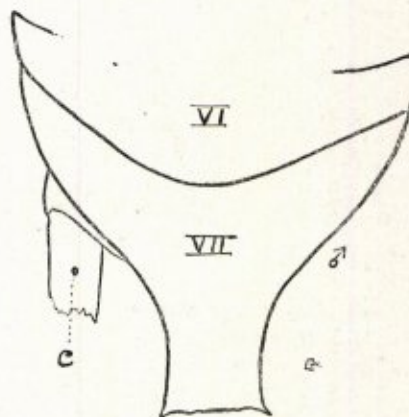


Fig. 25. *Stonychophora salomonensis* nov. sp.
♂ type, 6th and 7th tergite, c = cercus.

Fig. by Willemse

♀ : Abdominal tergites simple. Cercus very long, somewhat longer than the pronotum, slender, cylindrical, gradually narrowing apically, apex pointed. Ovipositor broad, distinctly longer than half the length of the hind femora, slightly curved upwards, lower valves crenulate near the apex, indistinct in some specimens, which looks like that they probably had already made use of their ovipositor.

Subgenitalplate short, triangular.

Legs brown or yellowish brown with or without dark longitudinal stripes. Hind femora brown or yellowish brown, area externa with unipinnate coloration of brown stripes in the incrassate basal half, the apical half more uniform brown, lower surface brown with regular yellowish spots along the lower outer margin, inner area whitish grey or light brownish grey, the basal half polished, the apical half dull. Fig. 26.

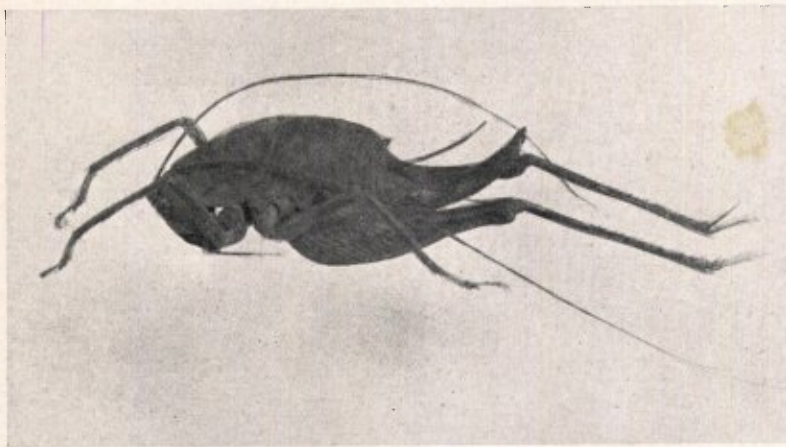


Fig. 26. *Stonychophora salomonensis* nov. sp.
♀, type.

Photo by Willemse

	♂	♀
Length of body	24 mm	28 mm
" " pronotum	9,5 "	10 "
" " anter. femora	11 "	12 "
" " median femora	11 "	11,5 "
" " posterior femora	23 "	23 "
" " posterior tibiae	21 "	21,5 "
" " cercus	10 "	12,5 "
" " ovipositor		14 "

Locality : Aola, Guadalcanar, XI, 1928. 2 ♂♂,
5 ♀♀ (Salomon Isl.). Type coll. Mus. Basel.



Fig. 27. *Gryllacris modestipennis* Karny. ♀.

Photo by Willemse

This new species runs in the key of Karny ¹⁾ near *St. papua* Brancsik, but differs in the hind margin of the 6th. tergite, being not angulately produced, but only rounded and in its length, measuring 24 mm instead of 31 mm. The female of *papua* being still unknown, it is not impossible that this new species proves to be only a subspecies of *papua*. We have to wait upon female material of this species.

¹⁾ H. Karny, Konowia, Bd. XIII, 1934, p. 73.

***Gryllacris modestipennis* Karny.**

The collection of the Bernice Bishop Museum of Honolulu contains a female from the Caroline Islands (Ponape Isl. 3. 6. 1936). Fig. 27.

***Eugryllacris moestissima* Br. v. W.
subsp. *loriae* Griffini.**

The collection of the Baseler Museum contains a female from the island of Timor (Bagaia, VIII 35). Fig. 28 and 29.

(Is continued).

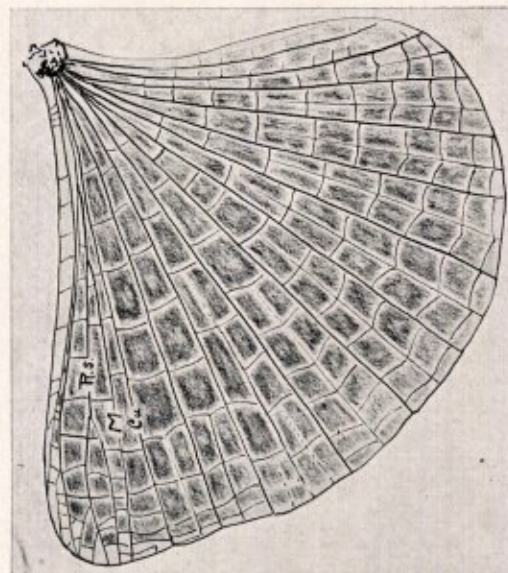


Fig. 28. *Eugryllacris moestissima* Br. v. W.
subsp. *loriae* Griffini.

Fig. by Willemse



Fig. 29. *Eugryllacris moestissima* Br. v. W.
subsp. *loriae* Griffini.

Fig. by Willemse