

## A new species of *Thoradonta* from New Guinea with some remarks on other Tetrigidae (Orthoptera) taxa from Indo-Australia

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**Abstract:** A new pygmy grasshopper species is described from New Guinea – *Thoradonta novaeguineae* **spec. nov.** being the first record of the genus from the island. Several new combinations of Tetrigidae are proposed: *Hyrotetrix butlini* (Blackith & Blackith, 1987) **comb. nov.** for *Thoradonta butlini* Blackith & Blackith, 1987 from Sulawesi, *Thoradonta latifera* (Walker, 1871) **comb. nov.** for *Criotettix latiferus* Walker, 1871 from unknown origin, *Loxilobus tristis* (Günther, 1935) **comb. nov.** for *Coptotettix tristis* Günther, 1935 from New Guinea and Kai Islands, *Pseudoparatettix gentilis* (Günther, 1936) **comb. nov.** for *Paratettix gentilis* Günther, 1936 from New Guinea, *Scelimena novaeguineae* (Bolívar, 1898) **comb. nov.** for *Gavialidium novaeguineae* Bolívar, 1898 from New Guinea and *Scelimena eremita* (Günther, 1938) **comb. nov.** for *Gavialidium eremitum* (Günther, 1938) from New Guinea. In addition the following taxa are synonymized: *Tetrix misera* (Walker, 1871) **syn. nov.** with *Thoradonta nodulosa* (Stål, 1861), *Paratettix vexator* Günther, 1938 **syn. nov.** and *Paratettix infelix* Günther, 1938 **syn. nov.** with *Paratettix nigrescens* Sjöstedt, 1921, *Probolotettix exilis* Blackith, 1990 **syn. nov.** with *Euparatettix tricarinatus* (Bolívar, 1887) and *Paratettix feejeeanus* Bruner, 1916 **syn. nov.** from Fiji with *Paratettix pullus* Bolívar, 1887. The genus *Gavialidium* Saussure, 1862 is retransferred (from the subfamily Cladonotinae) to Scelimeninae Bolívar, 1887.

**Rangkuman:** Spesies baru belalang kerdil dideskripsi dari New Guinea – *Thoradonta novaeguineae* **spec. nov.** merupakan rekor pertama genus tersebut dari pulau ini. Beberapa kombinasi baru dari Tetrigidae diajukan: *Hyrotetrix butlini* (Blackith & Blackith, 1987) **comb. nov.** untuk *Thoradonta butlini* Blackith & Blackith, 1987 dari Sulawesi, *Thoradonta latifera* (Walker, 1871) **comb. nov.** untuk *Criotettix latiferus* Walker, 1871 dari tempat yang tidak diketahui asalnya, *Loxilobus tristis* (Günther, 1935) **comb. nov.** untuk *Coptotettix tristis* Günther, 1935 dari New Guinea dan Kepulauan Kei, *Pseudoparatettix gentilis* (Günther, 1936) **comb. nov.** untuk *Paratettix gentilis* Günther, 1936 dari New Guinea, *Scelimena novaeguineae* (Bolívar, 1898) **comb. nov.** untuk *Gavialidium novaeguineae* Bolívar, 1898 dari New Guinea and *Scelimena eremita* (Günther, 1938) **comb. nov.** untuk *Gavialidium eremitum* (Günther, 1938) dari New Guinea. Sebagai tambahan taksa berikut adalah sinonim: *Tetrix misera* (Walker, 1871) **syn. nov.** dengan *Thoradonta nodulosa* (Stål, 1861), *Paratettix vexator* Günther, 1938 **syn. nov.** dan *Paratettix infelix* Günther, 1938 **syn. nov.** dengan *Paratettix nigrescens* Sjöstedt, 1921, *Probolotettix exilis* Blackith, 1990 **syn. nov.** dengan *Euparatettix tricarinatus* (Bolívar, 1887) dan *Paratettix feejeeanus* Bruner, 1916 **syn. nov.** dari Fiji dengan *Paratettix pullus* Bolívar, 1887. Genus *Gavialidium* Saussure, 1862 ditransfer (dari subfamili Cladonotinae) ke subfamili Scelimeninae Bolívar, 1887.

**Keywords:** Indonesia, Sulawesi, Fiji, New Guinea, Orthoptera, Tetrigidae, new species, synonyms.

### Introduction

At the end of 2017 there were 2019 known Tetrigidae species worldwide (Cigliano et al 2018). They occur on all continents and populate almost all climatic zones from taiga to rainforests (Tumbrinck & Skejo 2017). Tetrigidae can easily be identified by their pronotum, which typically extends far over the body. This feature is clearly unique and proves the allocation of the species without doubt.

Since 2014, the Tetrigidae of New Guinea has been revised in several papers (Tumbrinck 2014a, 2014b, 2015, Tumbrinck & Skejo 2017). At the beginning of the revision 66 species were known from the island. With the addition of a new species and the synonymization of three species there are currently 140 species known for New Guinea.

### Abbreviations

ANIC – Australian National Insect Collection, CSIRO, Canberra City, Australian Capital Territory, Australia

BMEC – Bohart Museum Entomology Collection, Davis, California, U.S.A.

BMNH – The Natural History Museum, formerly British Museum (Natural History), London, United Kingdom

BPBM – Bernice P. Bishop Museum, Honolulu, Hawaii, USA

CJT – Collection Josef Tumbrinck, Wassenberg, Germany

HT – Holotype

IRSNB – Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgique

LEMQ – Lyman Entomological Museum and Research Laboratory, Quebec, Canada

MNCN – Museo Nacional de Ciencias Naturales, Madrid, Spain

MNHN – Muséum National d'Histoire Naturelle, Paris, France

MSNG – Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy

MZPW – Polish Academy of Science, Museum of the Institute Zoology, Warszawa, Poland (here: collection of the former Museum Stettin)

NHRS – Naturhistoriska Riksmuseet, Stockholm, Sweden

NMEG – Naturkundemuseum Erfurt, Germany

NMW – Naturhistorisches Museum Wien, Austria

OSF – Orthoptera Species Files (<http://orthoptera.speciesfile.org>)

PT – Paratype

RMNH – Naturalis Biodiversity Center, Leiden, The Netherlands

SMTD – Staatliches Museum für Tierkunde, Leipzig, Germany

ZFMK – Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany

ZMHU – Zoologisches Museum der Humboldt Universität, currently Museum für Tierkunde der Humboldt-Universität zu Berlin, Berlin, Germany

### Material and methods

The holotype of *Thoradonta novaeguineae* **spec. nov.** was photographed using the software Zerene Stacker® 1.04 (Richland, Washington, USA), based on images of pinned specimens taken with a Canon EOS 7D® mounted on a P-51 Cam-Lift (Dun Inc., VA, USA) and with the

help of Adobe Lightroom® (version 5.6). Pictures of all other specimens in OSF were photographed using Olympus OM-D® camera with a 60 mm 1:2.8 macro, a LED ring-lamp and a camera integrated stacking system. In both systems a millimetre scale was placed below the specimens. The morphological terminology and measurement follow Tumbrinck (2014a). For the localities the geographical coordinates were identified as accurately as possible and marked with square brackets.

## Genus *Thoradonta* Hancock, 1909

Type species *Thoradonta dentata* Hancock, 1909 (Malaysia)

**Diagnosis:** Members of the genus are easily separated from other genera by the course of the external lateral carina.

**Description:** Zha et al. (2016a) updated the generic characteristics very accurately and give a key to the species (2016b). One amendment is required: the hind wings are always visible in all species. The only species without visible hind wings was *Thoradonta butlini* Blackith & Blackith, 1987, but the species is placed here in *Hydrotetrix* (see below). The genus *Thoradonta* is characterized by the external lateral carina being bent upwards behind the humeral angles – in lateral and dorsal view appearing as curved inwards (fig 1). One addition to the generic characteristics is the number of antennal segments including scapus and pedicel: in the collection of CJT among *Thoradonta* specimens (*Thoradonta apiculata* Hancock, 1915, *T. dentata*, *Thoradonta lativertex* Günther, 1938, *T. nodulosa*) only males with 15-segmented and females with 16-segmented antennae were present but Zha et al. (2016b) refers 16-segmented antennae in the male of *Thoradonta varispina* Zha & Sheng, 2016.

**Distribution:** The known species are distributed in subtropical and tropical Asia: from Pakistan (*Thoradonta spiciloba* Hancock, 1912) to Vietnam and China (Zha et al. 2016a, CJT). The existence of the described African species *Thoradonta spinata* Hancock, 1909 from “Equinoctial Africa” is doubtful. Since the description of *T. spinata*, there have been no other records of the genus from Africa. Species of the genus *Thoradonta* occur on all major islands of SE Asia (Sri Lanka, Philippines, Sumatra, Java, Sumba, Flores, Borneo, Sulawesi) and the record from New Guinea thus represents the easternmost border of the genus occurrence.

### *Thoradonta novaeguineae* spec. nov. (figs 1, 2, 3)

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**Holotype:** ♂, Papua New Guinea, [Chimbu Province], Sipagul School, 12 mi. Kundiawa [6°01'S 144°58'E], 16.vi.1962, leg. K. W. Ströder (LEMQ).

**Paratype:** 1 ♂, same as holotype (LEMQ).

**Diagnosis:** *Thoradonta novaeguineae* **spec. nov.** is closely allied to *T. nodulosa* (Stål, 1861). It differs by the following characters: i) tegmen distinctly smaller and more acutely rounded posteriorly; ii) alae shorter than the pronotum; iii) pronotum broader, equal in length to *T. nodulosa* but stouter; iv) hind femora stouter. Another macropronotal and macropterous species from the islands of South East Asia is *T. palawanica* Günther, 1938, in which the pronotum in the anterior part is more flattened and the hind femora are more slender. It differs from *T. dentata* from Malaysia and *T. spinata* by the stouter pronotum and smaller tegmen. It differs from *Thoradonta bengalensis* Shishodia, 1991 by the stouter pronotum and the spine of the lateral lobes curved backwards. All other known species from the mainland of South East Asia are brachypronotal and macropterous.

**Description:** Measurements (in mm): pronotum length HT 6.56/PT 6.32; pronotum lobe width HT 4.24/PT 4.25; pronotum height HT 1.84/PT 1.85; vertex width HT 0.72/PT 0.70; eye width HT 0.50/PT 0.45; tegmen length HT 1.27/PT 1.15; hind wing length HT 4.75/PT 4.08; postfemur length HT 4.24/PT 4.20; postfemur width HT 1.85/PT 1.80.

Head not protruded over the level of the pronotal surface; vertex 1.4-1.5 wider than an eye, anterior margin straight, protruding but not surpassing the anterior margins of the eyes; medial carina absent in the posterior half and, in dorsal view, a little protruding in front of the anterior margin of the fastigium; transverse carina curved backwards to the medial carina; lateral carina slightly upwards but, in lateral view, not visible above the eyes; frontal costa in lateral view slightly visible before the eyes, distinctly concave between superior ocelli and protruded between the antennae; scutellum as wide as the scapus; antennae broken (not present in HT and PT, probably N-segmented as in other members of the genus); eyes globose, weakly protruded but not higher than the level of pronotum; superior ocelli situated slightly below the middle of the eyes; upper margin of the antennal grooves as high as the lower margin of the eyes; length of the frontal costa 1.5 diameter of the superior ocelli; its furcation into the facial carinae begins one diameter of a superior ocelli above them.

Pronotum with its surface covered with numerous small granules and nodules, a little bit longer than the abdomen, reaching the hind knees, prozonal carinae erected, nearly parallel or slightly converging and, in lateral view, ascending in height caudad; median carina not reaching the anterior margin of the pronotum, disappearing in the middle of the prozona; median carina in lateral view with a first lamellate arc above the lateral lobes; and a second lower arc above the infrascapular area, then with abrupt decrease backwards, median carina between the first and second arc concave; interhumeral carinae erected, together with the second arc positioned on a broad hump; posterior part of the pronotum from the end of the infrascapular area (in lateral view) flattened and undulated; humeral angles rectangular; spine of the lateral lobes acute and, in dorsal view, extending outwards and backwards; posterior margin of the lateral lobes; visible part of tegmina ovate, 3.0 times as long as wide; mid femur distinctly wider than fore femur and visible part of the tegmen, thicker from basal to distal area; dorsal margin of the fore and mid femora weakly undulated, ventral margin strongly undulated; hind femora broad, 2.3-2.6 times as long as wide; genicular and antegenicular teeth small; third segment of the hind tarsus broken; third pulvillus longer than first and second, apex of all three pulvilli acute, bearing secondary tooth at apex.

Body brown with paler parts; holotype with a pale band between the lateral lobes; fore and mid femora with three pale rings, hind tibia with two pale rings.

All pictures of holotype and paratype are available in higher resolution in OSF with *Thoradonta novaeguineae*.

**Distribution:** The species is only known from the type locality near Kundiawa (Chimbu Province).

**Etymology:** The species is named after the island of New Guinea where it is the first and yet only record of the genus *Thoradonta*.

### ***Thoradonta latifera* (Walker, 1871) comb. nov.**

*Tettix latifera* Walker (1871: 839)

*Acantholobus latiferus*: Kirby (1910: 18)

*Criotettix latiferus*: Günther (1938b: 132); Steinmann (1969: 223); Blackith (1992: 37); Yin et al. (1996: 863); Otte (1997: 70)

**Holotype:** ♂, no information available (BMNH: coll. no. NHMUK 010924497)  
(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101590>)

**Note:** Walker (1871) wrote in the description about a single female as the type specimen. In fact, the specimen is a male. Kirby (1910) falsely attributed the species to *Acantholobus* Hancock, 1904. Perhaps he was not aware of the newly established genus *Thoradonta* Hancock, 1909 or he had not seen the type. Günther (1938) accepted the confiscation of the genus *Acantholobus* and thus logically attributed the species in his revision to *Criotettix* Bolívar, 1887, without having seen the type. So did Steinmann (1979) and Blackith (1992). However, the species undoubtedly belongs to the genus *Thoradonta*. The holotype of this species was examined and photographed (available in OSF) in BMNH by the author. Walker (1871) gives no data on the place of origin. Steinmann (1969) states "Java?" as a possible place of origin. This is highly speculative and very likely to be wrong. Blackith (1990) has adopted Steinmann's (1969) information. This specimen does not match with the type of *T. nodulosa* from Java. A connection with the known species could not be determined because of the strongly converging prozonal carinae and the short lateral spines of *T. latifera*. The species is therefore transferred to the genus *Thoradonta* without synonymizations.

### ***Thoradonta nodulosa* (Stål, 1861)**

*Tetrix misera* Walker (1871: 835) **syn. nov.**; Steinmann (1970: 233); Yin et al. (1996: 919)

*Acridium miserum*: Kirby (1910: 45)

*Tetrix miserus*: Blackith (1992: 183); Otte (1997:130)

**Holotype *Tetrix misera*:** ♂, Indonesia, Java (BMNH: coll. no. NHMUK 010924559)  
(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102491>)

**Note with *Tetrix misera*:** The type specimen of *misera* is damaged, the hind legs are missing. Walker (1871) writes about damaged prothorax and missing hind legs (thus the name *misera* = miserable). He rightfully places the species close to *T. nodulosa* and differentiates it from this species by the banded four front legs. This is not a distinguishing feature in the genus but subject of variability. The holotype is examined and photographed in BMNH by the author. This type specimen is identical to the type of *T. nodulosa* from Java and therefore *Tetrix misera* (Walker, 1871) **syn. nov.** is a junior synonym of *Thoradonta nodulosa* (Stål, 1861).

***Hydrotetrix butlini* Blackith & Blackith, 1987 comb. nov.**

*Thoradonta butlini* Blackith & Blackith (1987: 7, 9); Blackith (1992: 188); Yin et al. (1996: 926); Otte (1997: 73); Zha et al. (2016a: 74)

**Holotype:** ♀, Indonesia, N. Sulawesi, Minahassa Prov., Dumoga-Bone Nat. Pk., '1440 summit', 24.vii.1985, leg. R. Butlin (BMNH: coll. no. NHMUK 010924490).

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101660>)

**Note:** The species was described after one specimen. The holotype was examined and photographed at the BMNH in London. The species certainly does not belong to the genus *Thoradonta*, as there are no indentations of the external lateral carinae. The species is brachypronotal and wingless. The frontal margin of the pronotum is in dorsal view protruded in the area of the middle keel. The facial carinae are very narrow and constricted below the ocelli. All these features speak against the assignment within *Thoradonta*. However, it is uncertain to which genus this species belongs. It is not similar to any of the 38 species currently known from Sulawesi. The species bears a certain resemblance to *Apterotettix* Hancock, 1904, but the prozonal carinae are shorter, the antennae inserted deeper with about 17 segments and the lateral lobes directed downwards and positioned closely to the body. It resembles *Hydrotetrix* Uvarov, 1926 but the frontal margin of the pronotum in *Hydrotetrix* is straight. Tentatively the species is transferred to *Hydrotetrix*, but further studies may show that it belongs to a new genus.

By placing *Thoradonta butlini* in *Hydrotetrix*, *Thoradonta* now is represented in Sulawesi only by *T. nodulosa* a species described from Java. I have seen one specimen from "1-2 km South of Airmadidi" (NMNG), 6 specimens from Gorontalo Utara (CJT) and 3 specimens from Central Sulawesi (Kabupaten Banggai, CJT). They have a smaller fastigium than the holotype of *T. nodulosa* from Java, but this is in the range of variation of this species.

***Paratettix nigrescens* Sjöstedt, 1921**

*Paratettix nigrescens* Sjöstedt (1921: 15, 17); Sjöstedt (1931: 1; 1936: 10); Rehn (1952: 149, 152-155); Steinmann (1970: 162); Moeed (1971: 86); Günther (1972: 277-278); Key (1981: 53); Blackith (1992: 138); Yin et al. (1996: 894); Otte (1997: 118); Saeed, Azhar, Suhail & Majeed (2000:1074); Majeed, Suhail, Sabir & Yousuf (2001: 165)

*Paratettix pullus* (nec. Bolívar, 1887) Günther (1935: 111; 1936: 324; 1937b: 138)

*Paratettix vexator* Günther (1938a: 36-39, fig 66) **syn. nov.**; Günther (1941: 150; 1972: 265-266, 285, figs. 19-21); Kevan (1966: 384); Steinmann (1970: 163); Blackith (1992: 141); Yin et al. (1996: 898); Otte (1997: 122); Kevan et al. (1997: 161)

*Paratettix infelix* Günther (1938: 39) **syn. nov.**; Steinmann 1970: 163; Blackith 1992: 137; Yin et al. 1996: 895; Otte 1997: 117

**Lectotype** (selected and designated from K. H. L. Key 1958 by labelling and here confirmed): ♂, Australia, Queensland, Malanda, leg. Mjöberg (NHRS)

**Paralectotypes:** 4 ♂♂, 4 ♀♀: Australia, Queensland, Malanda and Bellenden Ker, leg. Mjöberg (3 ♂♂, 4 ♀♀ NHRS; 1 ♂ SMTD); 1 ♀, same as lectotype (SMTD)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102419>;

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102457>;

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102348>)

**Notes with *Paratettix nigrescens*:** Sjöstedt (1921) mentions 5 females and 5 males from Bellenden Ker and Malanda (Queensland, Australia). Key (1981) examined 4 males and 2 females deposited in NHRS and a male from Malanda with a "Type" label as Lectotype designated. In SMTD, one male from Bellenden Ker (leg. Mjöberg) and one female from Malanda, both labeled as "cotype". Therefore, a female from the series of 9 paralectotypes could be missing and Sjöstedt (1921) is wrong and the type series includes 6 males and 4 females. The author examined and photographed two types of *P. nigrescens* from Queensland (Australia) in NHRS (lectotype and paralectotype ♀ from Malanda). Rehn (1952) synonymized 3 species from Australia with *P. nigrescens*: i) *P. dunkensis* Sjöstedt, 1932; the holotype (nymph) from Dunk Island in Queensland Museum Brisbane is not examined by the author; ii) *P. longipennis* Sjöstedt, 1936; and iii) *P. parvus* Sjöstedt, 1921. The holotypes of *P. longipennis* and *P. parvus* were examined and photographed by the author in NHRS and the synonymization by Rehn is confirmed. The synonymy of *P. nigrescens* with *P. parvus* in Steinmann (1970) and with *P. argillaceus* (Erichson, 1942) in Yin et al. (1996) are mistakes.

**Lectotype *Paratettix vexator*** (here designated): ♀, Vanuatu, Malekula, Ounua, ii.1929, leg. L. E. Cheesman (SMTD, D057XF01)

**Paralectotypes *Paratettix vexator*** (after Günther 1938a): 65 ♂♂ & ♀♀, Papua New Guinea, Kokoda, 400 m, iv, vi-x.1933, leg. L. E. Cheesman (BMNH); 1 ♂, Solomon Islands, Russell Islands, Pepesala, xi.1934, leg. R. J. A. Lever (SMTD); 1 ♀, Solomon Islands, Tulagi, vii.1933, leg. H. T. Pagden; 1 ♀, Solomon Islands, Guadalcanal, ii.1932, leg. R. A. W. Lever; 2 ♂♂, Indonesia, Prov. Maluku, Kei Islands, Toedal, 1922, leg. H. C. Siebers (SMTD); 13 ♂♂, 13 ♀♀, Vanuatu, Malekula, Ounua, ii-iv.1929, leg. L. E. Cheesman (BMNH).

**Notes with *Paratettix vexator*:** Some specimens were found in other museums: the lectotype (SMTD) and two paralectotypes: 1 ♀, Vanuatu, Malekula, Ounua, ii.1929, leg. L. E. Cheesman (SMTD, D057XM01); 1 ♂, Vanuatu, Malekula, Ounua, ii.1929, leg. L. E. Cheesman (SMTD).

The syntype series has been studied by the author from all localities and all specimens are indeed conspecific. Günther (1938a) cites all specimens, previously reported as *Paratettix pullus* Bolívar, 1887 from the Solomon Islands, as *P. vexator*. This is confirmed by the author,

having seen some of the cited specimens. *Paratettix pullus* is a different species which is only known from Fiji (see below). *Paratettix nigrescens* is widespread in New Guinea. This is confirmed by the author after having seen more than 300 specimens of both species. The species is found from sea level up to over 2000 meters, especially in cultivated land.

Günther (1972) raises the question whether *P. vexator* and *P. nigrescens* are synonymous with *Paratettix femoralis* Bolívar, 1887. He only noticed a difference in the median carina, which is consistently present to the anterior margin of the pronotum in *P. femoralis*, while in the other species it is usually lacking. He doubts the distinction by this feature, since he saw specimens of *P. nigrescens* from Guadalcanal and the New Hebrides, whose median carina of the pronotum was present at the frontal margin. Ultimately, he did not synonymize *P. femoralis* and *P. nigrescens* and this is followed here currently, as they can be distinguished by the mentioned median carina differences.

**Holotype *Paratettix infelix*:** ♂, Papua New Guinea, [Madang Prov.], Astrolabe Bay, Erima [5°24'S 145°44'E], 1897, leg. L. Biró (ZMHU)

**Allotype *Paratettix infelix*:** ♀, same as holotype (ZMHU)

**Paratype *Paratettix infelix*:** 1 ♂ Papua New Guinea, Regenbergl, 550 m, 8-15.v.1913, leg. S. G. Bürgers (SMTD)

**Notes with *Paratettix infelix*:** Günther (1938a) distinguished *Paratettix infelix* Günther, 1938 only on the basis of the slightly narrower fastigium than *P. vexator* (= *nigrescens*). The color and size of *P. nigrescens* vary a lot. There are specimens with a wider and narrower fastigium. There are forms with shorter and longer pronotum, shorter and longer alae. Günther (1938a) himself has already seen the range of variation. Nevertheless, he described *P. infelix*. The pulvilli are always bearing apical teeth in *P. nigrescens* which distinguishes the species from the usually much larger *Paratettix amplus* Sjöstedt, 1921. The fastigium, in lateral view, is visible clearly in front of the eyes, sometimes more rounded, sometimes more angular. The fastigium is broader, but can be narrower in some specimens, which is the case with types of *P. infelix*. Such differences are found in series of specimens of *P. nigrescens* from the same site. All these features prove that *Paratettix infelix* Günther, 1938 is conspecific with *P. nigrescens*.

**Distribution:** *Paratettix nigrescens* is distributed from Waigeo and the Kai Islands in the West through the whole of New Guinea (including Supiori and Biak Island), Manus Island and North Australia, the Bismarck Archipelago, Bougainville and Solomon Islands (Lavongai, Guadalcanal, Rennell Island, Tulagi), New Hebrides. Günther (1972) refers to a female from New Caledonia but is not sure about the right identification. The indication "New Caledonia" by Blackith (1992) for *vexator* is currently not supported by any evidence, however, two specimens from New Caledonia are present in BMNH (♂ & ♀, Yaoué, 12.XII.1965) which need confirmation of the identity. The records by Moeed (1971), Saeed et al. (2000) and Majeed et al. (2001) from Pakistan and India are considered to be extremely doubtful, since the authors did not provide a detailed comparison.

The species has not been reported from Halmahera, Misool and the Moluccas.



### ***Paratettix pullus* Bolívar, 1887**

*Paratettix feejeanus* Bruner (1916: 157) **syn. nov.**; Caudell (1927: 10); Günther (1972: 288-290, figs 34-39, 42-43); Blackith (1992: 137); Yin et al. (1996: 895); Otte (1997: 115)

**Syntypes *Paratettix feejeanus*:** 1 ♂, 1 ♀, Fiji, Rewa, leg. Muir, iv.1906 and Nausori, vi-vii.1913 (BMNH?) Not found.

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102385>)

**Notes with *Paratettix feejeanus*:** Two taxa of *Paratettix* from Fiji were known: *P. pullus* Bolívar, 1887 and *P. feejeanus* Bruner, 1916. Both were considered closely related to *P. nigrescens*. Bruner (1916) examined 2 specimens of *P. pullus* from Rewa (locus typicus of *P. feejeanus*) and separated *P. feejeanus* on the basis of shortened pronotum and wings. The holotype of *P. pullus* from NMW is not examined by the author. The syntypes from *P. feejeanus* could not be traced in BMNH.

Günther (1972) lists brachypronotal specimens from Fiji and the New Hebrides. His drawings of a specimen from the New Hebrides (figs 36-37) do not match with what he identified as *P. feejeanus*. Whether the species occurs here is therefore questionable. The specimens concerned have not been examined yet by the author. The macropronotal specimens from the New Hebrides, which Günther assigned to *P. feejeanus*, but with question mark, could either be *P. pullus* or *P. nigrescens*. The same applies to the question of whether the species occurs in Samoa. Günther (1972) reports two specimens from that island, of which the first he assigned to *P. feejeanus*. The drawings are not sufficient to make an accurate identification. Except in the lengths of pronotum and alae, the specimens examined are similar. *Paratettix pullus* is macropronotal and macropterous. The alae are longer than the pronotum. *Paratettix feejeanus* is brachypronotal and brachypterous – the alae do not reach the end of the pronotum. Therefore it is concluded here that *P. feejeanus* Bruner, 1916 is conspecific with *P. pullus* Bolívar, 1887 and both taxa concern different forms of one species.

Whether *P. nigrescens* and *P. pullus* are conspecific remains an open question for future research. In *P. pullus*, the frontal margin of the pronotum is in lateral view almost completely flat, whereas raised in *P. nigrescens*.

**Material examined:** Macropronotal form (originally *P. pullus*): 1 ♂, Fiji, Viti Levu, 3 km N of Votualailai W of Korolevu, 200 m, 20.iii.1979, leg. Duffels, J. P. & M. J. Duffels (RMNH); 1 ♂, Fiji, Viti Levu, 10-15 km N of Namboutini, 300 m, 20.iii.1979, leg. Duffels, J. P. & M. J. Duffels (RMNH); 3 ♂♂, Fiji, Viti Levu, 10 km N of Ngaloa 15 km W of Navua, 200 m, 22.iii.1979, leg. Duffels, J. P. & M. J. Duffels (1 ♂ CJT, 2 ♂♂ RMNH); 1 ♂, Fiji, Viti Levu, 10 km W of Naimasimasi 20 km NNW of Nausori, lowland rainforest, 25.iii.1979, leg. Duffels, J. P. & M. J. Duffels (CJT).

Brachypronotal form (originally *P. feejeanus*): 1 ♀ larve, Fiji, Penang Mts., 2.ii.1920, leg. W. Greenwood (BMNH); 1 ♀ larve, Fiji, Nausori, x.1920, leg. R. Veitch (BMNH); 1 ♂ larve, Fiji, Nausori, v.1921, leg. R. Veitch (BMNH); 1 ♂, Fiji, Nausori, x.1921, leg. R. Veitch (BMNH); 1 ♂, Fiji, Levu Suva, 1.viii.1940, leg. R. A. Lever (BMNH); 1 ♀, Fiji, Lami, 13.iii.1927, leg. H. W. Simmonds (BMNH); 2 ♀♀, Fiji, Suva, 7.viii.1935, leg. R. V. Fyfe (ANIC); 1 ♂ larve, Fiji, Wainivesi, 24.viii.1941, leg. R. A. Lever (BMNH); 1 ♂, Fiji, Levu Suva, 22.x.1942, leg. R. A.

Lever (BMNH); 1 ♀ & 1 ♀ larve, Fiji, Suva, 13.i.1943, leg. R. A. Lever (BMNH); 1 ♀ larve, Fiji, Levu Suva, 16.vi.1952, leg. H. W. Simmonds (BMNH); 2 ♂♂, 1 ♀, Fiji, Viti Levu, Tholoisuva, lowland rainforest, 150 m, 18.i.1979, leg. Duffels, J. P. & M. J. Duffels (1 ♂, 1 ♀ RMNH; 1 ♂ CJT); 1 ♂, 1 ♀, Fiji, Vanua Levu, Savundrondro, reservoir area 5 km NNE of Savusavu, 100 m, 13.ii.1979, leg. Duffels, J. P. & M. J. Duffels (1 ♂ RMNH, 1 ♀ ZFMK); 2 ♀♀, Fiji, Viti Levu, Tholoisuva, 10 km N of Suva, 150 m, 26-27.ii.1979, leg. Duffels, J. P. & M. J. Duffels (RMNH); ♀, Fiji, Viti Levu, Nandrau Plateau, 5 km NW of Monasavu, road side, 7.iii.1979, leg. Duffels, J. P. & M. J. Duffels (RMNH); 8 ♂♂, 6 ♀♀, Fiji, Viti Levu, 10 km N of Ngaloa 15 km W of Navua, 200 m, 22.iii.1979, leg. Duffels, J. P. & M. J. Duffels (6 ♂♂, 4 ♀♀ RMNH; 1 ♂, 2 ♀♀ CJT; 1 ♂ ZFMK).

**Distribution:** Fiji Islands. Kevan et al. (1997) listed *P. pullus* from Palau Island, the Carolines and Marianas Islands. The species is not proven to occur on the New Hebrides.

### ***Paratettix femoralis* Bolívar, 1887**

**Notes:** *Paratettix femoralis* was described by Bolívar (1887) on the basis of a male from Sydney and was previously known only from Australia. The holotype of the species is examined and photographed in NHRS. A female with the label "*Paratettix femoralis* Bol." and a paratype label from Cedar Creek, Queensland in SMTD is correctly identified but is not a paratype. According to Bolívar (1887) there is only one type specimen, the actual holotype. Apart from Australia (Rehn, 1952) *Paratettix femoralis* also occurs in New Guinea, both in the macropronotal and in the brachypronotal form.

**Material examined:** 1 ♂, Papua New Guinea, Gulf Prov., Lakekamu Basin, Ivimka Res. Station (7°44'S 146°30'E), 120 m, 13.iv.2000, leg. T. Sears & Binatung brigade (BMEC); 1 ♀, Papua New Guinea, Gulf Prov., Lakekamu Basin, Ivimka Res. Station (7°44'S 146°30'E), 120 m, 19.iv.2000, leg. T. Sears (BMEC); 3 ♀♀, Papua New Guinea, [Western Highlands Prov.], Morehead (8°43'S 141°38'E), 25.viii.1970, leg. Key & Balderson (ANIC); 2 ♀♀, Papua New Guinea, [Western Highlands Prov.], Morehead (8°43'S 141°38'E), 30.viii.1970, leg. Key & Balderson (ANIC); 1 ♂, Papua New Guinea, [Western Prov.], Morehead, Rouku, Morehead R., iii.1962, leg. W. W. Brandt (ANIC); 1 ♂, 1 ♀, Papua New Guinea, [Western Prov.], Morehead, Rouku, Morehead R., v.1962, leg. W. W. Brandt (ANIC); 1 ♀, Papua New Guinea, [Western Prov.], Morehead, between Morehead and Rouku, 3.v.1971, leg. Balderson & Baker (ANIC); 1 ♀, Papua New Guinea, [Western Prov.], Morehead, 0-3 km NW of Morehead, 21.ix.1972, leg. Balderson & Stibick (ANIC).

Brachypronotal form: 1 ♂, 2 ♀♀, Papua New Guinea, [Morobe Prov.], Garaina [7°53'S 147°08'E], 800 m, 16.i.1968, leg. J. & M. Sedlacek (BPBM); 1 ♀, Papua New Guinea, [Western Highlands Prov.], Kiunga [6°07'S 141°18'E], 35 m, viii.1969, leg. J. & M. Sedlacek (BPBM); 2 ♀♀, Indonesia, New Guinea, Star. Mts., Sibil Val. [4°45'S 140°40'E], 1245 m, 18.x-8.xi.1961, leg. L. W. Quate (BPBM); 2 ♂♂, Papua New Guinea, [Western Highlands Prov.], 1-2 mi. S. of Morehead (8°45'S 141°38'E), 26.viii.1970, leg. Key & Balderson (ANIC); 1 ♀, Papua New Guinea, [Western Highlands Prov.], 4 mi. S. by W. of Morehead (8°46'S 141°37'E), 29.viii.1970, leg. Key & Balderson (ANIC); 1 ♀, Papua New Guinea, Western Prov., Daru (9°05'S 143°12'E), 25.viii.1970, leg. Key & Balderson (ANIC); 4 ♂♂, Indonesia, New Guinea, Cyclops Mountains, Sabron [2°30'S 140°25'E], 1200 ft., 15.v.1936, leg. L. E. Cheesman

(BMNH); 2 ♀♀, Indonesia, New Guinea, Cyclops Mountains, Sabron Camp 1 [2°30'S 140°25'E], 930 ft., 22.v.1936, leg. L. E. Cheesman (BMNH); 2 ♀♀, Indonesia, New Guinea, Cyclops Mountains, Sabron Camp 1 [2°30'S 140°25'E], 930 ft., vi.1936, leg. L. E. Cheesman (BMNH).

### ***Euparatettix tricarinatus* (Bolívar, 1887)**

*Probolotettix exilis* Blackith (1990: 89) **syn. nov.**; Blackith (1992: 146); Vickery (1996: 6); Yin et al. (1996: 902); Otte (1997: 57)

**Holotype** *Probolotettix exilis*: ♂, Papua New Guinea, [Eastern Highland Prov.], N.E. of Goroka, at light, 22.iv.1973 leg. K.W. Ströder (LEMQ)

**Allotype** *Probolotettix exilis*: ♂ (in publication referred as ♀), Papua New Guinea, [Chimbu Province], Sipagul School, 12 mi. Kundiawa [6°01'S 144°58'E], 16.vi.1962, leg. K. W. Ströder (LEMQ).

**Paratypes** *Probolotettix exilis*: 1 ♀, Papua New Guinea, Lae, 4.ii.1973, leg. K. W. Ströder (LEMQ) (head lost); 1 ♀, Papua New Guinea, Lae, 4.ii.1973, leg. K. W. Ströder (LEMQ) [Blackith mentions only one female from Lae but with collection date 3.iii.1973]; 1 ♀, Papua New Guinea, Lae, 9.x.1973, leg. K. W. Ströder (LEMQ, labeled as allotype); 1 ♀, Papua New Guinea, Morobe Prov., Wau, M.V. Light Trap, 17.viii.1972, leg. G. G. E. Scudder (LEMQ); 1 ♀, 2 ♂♂, Papua New Guinea, Morobe Prov., Wau, M.V. Light Trap, 15.viii.1972, leg. G. G. E. Scudder (LEMQ); 1 ♂, 2 ♀♀, same as holotype (LEMQ); 1 ♂, Papua New Guinea, [Eastern Highland Prov.], N.E. of Goroka, 14.iii.1973 leg. K.W. Ströder (LEMQ)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101645>)

**Notes with *Probolotettix exilis*:** All paratypes and the holotype have been examined by the author. It is concluded that the holotype and eleven paratypes with absolute certainty are conspecific with *Euparatettix tricarinatus* (Bolívar, 1887). *Probolotettix exilis* Blackith, 1990 is therefore a junior synonym of *Euparatettix tricarinatus* (Bolívar, 1887). The female from Lae (9.X.1973) and the female from Wau (17.VIII.1972) belong to *Euparatettix personatus* (Bolívar, 1887).

### ***Loxilobus tristis* (Günther, 1935) comb. nov.**

*Coptotettix tristis* Günther (1935: 113, figs 5-6); Günther 1938a: 2, 42-43, figs 73-75; Rehn 1952: 90-91; Steinmann 1969: 234; Blackith 1992: 32; Yin et al. 1996: 860; Otte 1997: 97

**Holotype:** ♂, Indonesia, [Maluku Prov.], Key [Islands], leg. Kühn (SMTD)

**Allotype:** ♀, same as holotype (SMTD)

**Paratypes:** 4 ♂♂, 3 ♀, same as holotype (2 ♂♂, 1 ♀ SMTD; 2 ♂♂, 2 ♀♀ NMW); 1 ♂, Indonesia, [Maluku Prov.], Kei Eil., Gn. Daab, 1922, leg. H. C. Siebers (RMNH); 1 ♂, 3 ♀♀, Indonesia, [Maluku Prov.], Aru Inseln, leg. Kühne (1 ♀ SMTD; 1 ♂, 2 ♀♀ NMW)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102217>)

**Notes:** The types have been examined in SMTP and RMNH. The paratype from Aru has wider fastigium, but this is within the range of variation of the species. Otherwise, the types from the Kai Islands and Aru are identical. Due to the outward protruding lateral lobes, the species belongs to *Loxilobus* Hancock, 1904 and not to *Coptotettix* Bolívar, 1887. Species of the genus *Loxilobus* have slightly outwards protruding lateral lobes. Some species of *Loxilobus* have acute lateral spines and standing near to *Eucriotettix* Hebard, 1930. In *Coptotettix* the lateral lobes are close to the body.

*Loxilobus tristis* (Günther, 1935) **comb. nov.** could be widespread in New Guinea. Identical or nearly identical specimens are known from several places from this island. Günther (1938a) reported 3 specimens from Kokoda (Central Prov. of Papua New Guinea), that could belong to this species. However, the genus *Loxilobus* is very common and either represent many species, or there is an extremely large variability of morphological characters in some species. These questions cannot be clarified in this work. The indication of the occurrence in India by Steinmann (1969) is wrong.

*Loxilobus leverii* Günther, 1938 of the Solomon Islands and *Loxilobus novaebritanniae* Günther, 1938 from the Bismarck Archipel are not conspecific with *L. tristis*. In these species, the frontal keels protrude in lateral view further in front of the eye almost to the top. Whether both species are synonymous remains an open question. They are very closely allied. *Loxilobus leverii* is larger and has a wider fastigium.

### ***Loxilobus insularis* Günther, 1935 comb. nov.**

*Coptotettix insularis* Günther (1935:114, figs 3-4); Steinmann (1970: 234); Blackith (1992: 28); Yin et al. (1996: 859); Otte (1997: 95)

**Holotype:** ♂, Indonesia, [Maluku Prov.], Kei Eil., Gn. Daab, 1922, leg. H. C. Siebers (SMTD)

**Allotype:** ♀, Indonesia, [Maluku Prov.], Kei Eil., Gn. Daab, Toeal, 1922, leg. H. C. Siebers (RMNH)

**Paratypes:** 3 ♂♂, 3 ♀♀, same as holotype (3 ♂♂, 2 ♀♀ RMNH; 1 ♀ SMTD)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102201>)

**Notes:** Due to the outward protruding lateral lobes the species does not belong to *Coptotettix* Bolívar, 1887 and is here assigned to *Loxilobus* Hancock, 1904. The brachypronotal and brachypterous species could be the flightless form of *L. tristis*. However, there are differences in the size of the tegmen and length of the alae among the types. In some, the frontal keels protrude further in front of the eye in lateral view. The indication of the occurrence in India by Steinmann (1969) is wrong.

### ***Pseudoparatettix gentilis* (Günther, 1936) comb. nov.**

*Paratettix gentilis* Günther (1936: 344, figs 26a, 26b); Blackith (1992: 137); Yin et al. (1996: 895); Otte (1997: 116)

**Holotype:** ♀, Indonesia, New Guinea, [Mamberamo Area], Pionierbivak [2°20'S 138°00'E], vi-vii.1920, leg. W. C. v. Heurn (SMTD)

**Paratype:** 1 ♀, Indonesia, New Guinea, [Mamberamo Area], Pionierbivak [2°20'S 138°00'E], ?.1920, leg. W. C. v. Heurn (RMNH)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1102398>)

**Note:** The transverse carinae of the fastigium are in dorsal view convergent and have rounded edges. Another characteristic is the proximal segment of the fore and mid tarsi which are conspicuously elongated (fig 4). These are characters for *Pseudoparatettix* Günther, 1937 and therefore the species is transferred to this genus.

### **Genus *Gavialidium* Saussure, 1862**

The genus *Gavialidium* Saussure, 1862 was erected as a subgenus of *Scelimena* Serville, 1838, for *Gavialidium crocodilum* Serville, 1862 and *Gavialidium alligator* Serville, 1862, both from Sri Lanka. Günther (1938b) characterized the genus by the second ventrolateral spine in front of or behind the longer spine. However, Günther did not see the holotype of *G. crocodilum*. The genus is restricted to Sri Lanka and South India and includes only two species – *G. crocodilum* and *G. carli* (Amira Aqilah et al. in press). Thus, *Gavialidium* does not inhabit New Guinea, and the species from this island that were hitherto assigned to *Gavialidium* belong to *Scelimena* (see below).

Storozhenko & Paik (2011) transferred *Gavialidium* to the Tribe Xerophyllini Günther, 1979 in the subfamily Cladonotinae Bolívar, 1887, characterized by the frontal ridge which is widely forked between antennae (lateral carinae of frontal ridge forming a scutellum, which is distinctly wider than the width of 1st antennal segment and not crossed by median furrow). Other species of genus *Gavialidium* from Malaysia, Philippines and New Guinea with a narrow frontal ridge belong undoubtedly to the subfamily Scelimeninae (Storozhenko & Paik, 2011). In 2015 Storozhenko & Dawwrueng placed *Gavialidium* in the subfamily Scelimeninae Bolívar, 1887 but without explanation. Their new species *Gavialidium bufocrocodil* Storozhenko & Dawwrueng, 2015 (placed currently in *Tegotettix* after Amira Aqilah et al. In press) has a widened scutellum but it is widened with a little laterally bended fascial carinae and not forked as in Cladonotinae. Therefore, *Gavialidium* is retransferred to the subfamily Scelimeninae Bolívar, 1887.

### **Genus *Scelimena* Serville, 1838**

The genotype of *Scelimena* Serville, 1838 is *Scelimena producta* (Serville, 1838). Serville mentioned 'Java' for locus typicus. The holotype is in MNHN, but labelled "Borneo". Several specimens of *Scelimena* from Java have been examined. Two females labelled with "*Tettix producta*" from Walker's series of species and with a syntype label are not types of *S. producta* but probably types of the synonym *Tettix extensa* Walker, 1871 which could not be found in BMNH. The *S. producta* from Java has a narrow scutellum.

***Scelimena novaeguineae* (Bolívar, 1898) comb. nov.**

*Gavialidium Novae-Guineae* Bolívar (1898: 68-69)

*Eugavialidium novae-guineae*: Hancock (1909: 399); Willemse (1932: 41)

*E[ugavialidium Novae-Guineae]*: Kirby (1910: 14)

*Eugavialidium novae guineae*: Günther (1929: 42); Günther (1934: 334; 1938a: 3, 14)

*Scelimena novae guineae*: Günther (1938b: 385, 392-395; 1955: 155, 157);

*Scelimena novaeguineae*: Kevan (1966: 377); Steinmann (1970: 158); Paris (1994 [1993]: 244)

*Platygavialidium novae-guineae*: Vanschuytbroeck (1980: 7-8)

*Gavialidium novaeguineae*: Blackith (1992: 80); Otte (1997: 81)

*Scelimena novae-guineae*: Yin et al. (1996: 909)

**Lectotype (here designated):** ♂, Indonesia, New Guinea, Haveri [9°22'S 147°32'E], leg. Loria, vii-xi.1893 (IRSNB)

**Paralectotypes:** 11 ♂♂, 7 ♀♀ & 44 exx. [sex unknown], same as lectotype (6 ♂♂, 2 ♀♀ MNCN; 2 ♂♂, 3 ♀♀ IRSNB; 2 ♂♂, 1 ♀ RMNH; 1 ♂, 1 ♀ SMTD; 43 exx. MSNG; 1 ex. coll. Willemse, RMNH); 1 ♀, Indonesia, New Guinea, Ramoi, ii.1875, leg. Beccari (MNCN); 3 ♂♂, 4 ♀♀, Indonesia, New Guinea, leg. Loria, (MZPW) (Günther 1938b)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101706>)

**Notes:** Bolívar (1898) didn't report the number of syntypes. Paris (1994) refers to 58 syntypes. Here are listed 69 paralectotypes but maybe more paralectotypes can be found in other museums. The species is allied to *S. producta*. It belongs to the *Scelimena eremita* species group (Amira Aquliah et al. In press). More than 400 specimens from many localities on or near New Guinea have been examined: Aru, Misool, Waigeo (here smaller specimens with almost straight lateral spines), Biak (here smaller specimens without metalateral projections and lateral spines just bent slightly backwards), Normanby Island (2 males with narrow fastigium and strong forward curved lateral spines), Umboi Island, New Britain (also smaller specimens) and Bougainville. There are no records from the southern coast. The species lives along waterstreams and standing water bodies in the primary rainforest and in the cultivated land and can be found along the waters from the coast up into the mountains. The locality with the highest altitude is at about 2000 m.

***Scelimena eremita* (Günther, 1938) comb. nov.**

*Eugavialidium eremitum* Günther (1938a:15)

*Scelimena eremita*: Günther (1938b: 374; 1955: 148, 155, 157); Steinmann. 1970:158; Yin et al. (1996: 908)

*Gavialidium eremitum*: Blackith (1992: 80); Otte 1997: 81

**Lectotype (here designated):** ♀, Papua New Guinea, [Morobe Prov.], Kai-Inland, 50-70 km landeinwärts westlich von Finschhafen [6°37'S 147°20'E], i.1909, leg. S. Neuhauß (ZMHU)

**Paralectotype:** 1 ♀, same as lectotype (SMTD)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101705>)

**Notes:** *Eugavialidium eremita* Günther, 1938 undoubtedly belongs to *Scelimena*. The species is significantly smaller than *S. novaeguineae* and therefore appears more compact. The length of the pronotum of females is < 21 mm (*S. novaeguineae* >23 mm) and that of males <19 mm (*S. novaeguineae* >20 mm). The fastigium is narrower (males about eye width, females slightly wider than an eye) than in *S. novaeguineae* (males significantly wider than eye width, females almost twice as wide). In addition, the specimens of *S. eremita* have thick strongly yellow-colored lateral spines and other yellow parts e. g. on the middle keel. In *S. novaeguineae* the coloration is dark coloured with pale yellow parts. More than 280 specimens were examined.

**Distribution:** *Scelimena eremita* has been found only in the North-East of Papua New Guinea in Madang and Morobe Province with a western record in the Upper Jimmi Valley (Western Highlands Province) and a southern record in Taipini (Central Province). This species occurs along waterstreams and standing water bodies and can be found up to at least 1500 m.

### ***Criotettix* cf. *saginitus* Bolívar, 1887**

**Material examined:** 4 ♂♂, Indonesia, [New Guinea], W. Misool, Fakal, 17.ix.1948 (3 ♂♂), 18.ix.1948 (1 ♂), leg. M. A. Lieftinck (RMNH)

(Photographs in OSF:

<http://orthoptera.speciesfile.org/Common/basic/Taxa.aspx?TaxonNameID=1101602>)

**Note:** The syntypes of *Criotettix saginitus* from Java in MNCN and NMW were not examined but the specimens from Misool match with the description and determination key of Bolívar (1887). For New Guinea it is the first record of the genus *Criotettix* Bolívar, 1887. No other specimens were found on the mainland of New Guinea. However, the genus is in need of revision. The genotype is *Criotettix bispinosus* (Dalman, 1818) (photographed in NHRS). It is closely allied with the genus *Eucriotettix* Hebard, 1930 (genotype: *Eucriotettix tricarinatus* (Bolívar, 1887) from Sri Lanka). *Eucriotettix* is therefore probably synonymous with *Criotettix*. If this is true, the genus *Acanthalobus* Hancock, 1904, with the genotype *Criotettix miliarius* Bolívar, 1887, should be restored for species without a significantly lateral spine and long prozonal carinae that converge backwards. The present specimens from Misool are in any case closely allied with *C. miliarius*.

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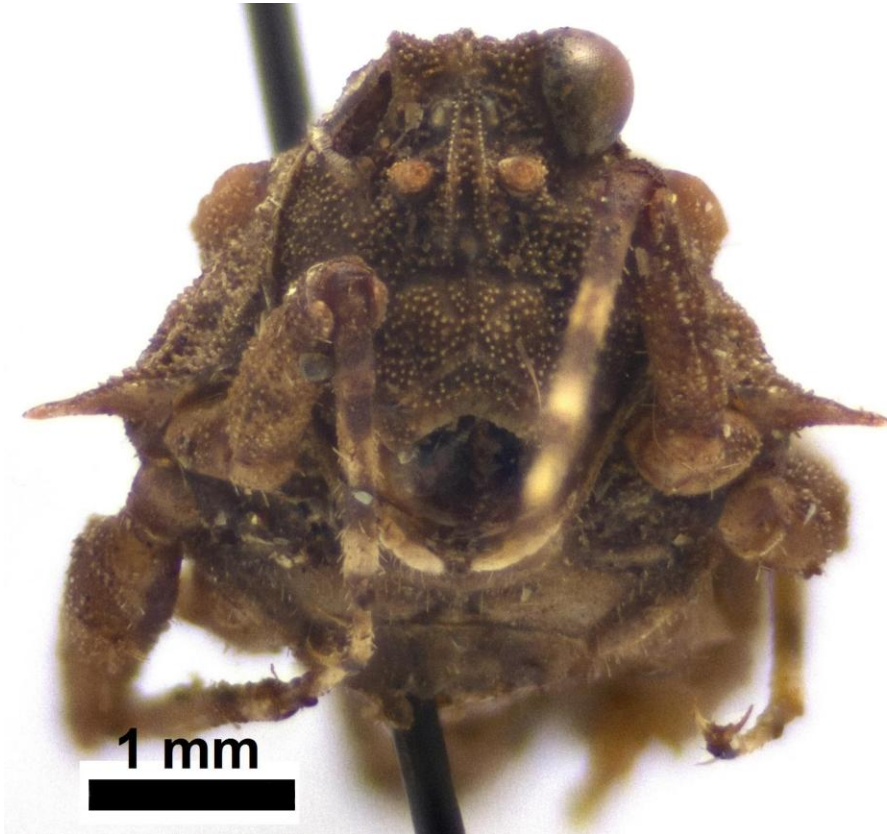
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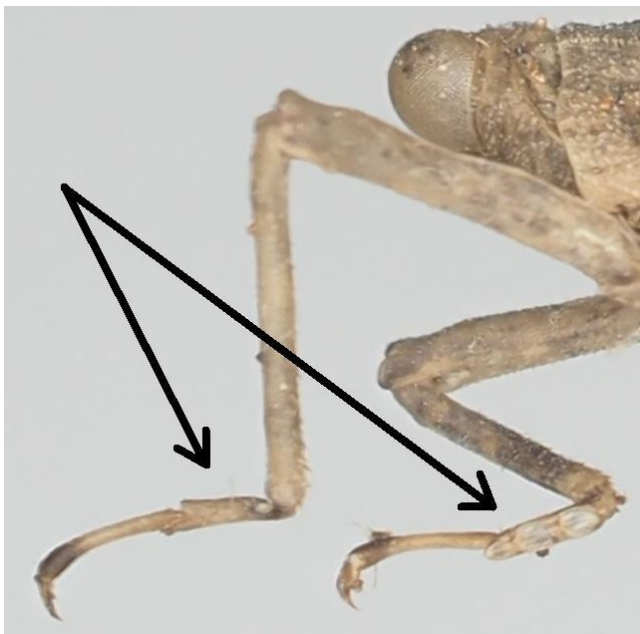
**Fig 1.** *Thoradonta novaeguineae* spec. nov. holotype ♂ (LEMQ), small picture with the external lateral carina curved inwards, dorsal view



**Fig 2.** *Thoradonta novaeguineae* spec. nov. holotype ♂ (LEMQ), lateral view



**Fig 3.** *Thoradonta novaeguineae* **spec. nov.** holotype ♂ (LEMQ), frontal view



**Fig 4.** *Pseudoparatettix gentilis* (Günther, 1936) **comb. nov.** paratype ♀ (RMNH), lateral view, arrows shows the elongated proximal segment of the fore and mid tarsi