# Species of *Anthicomorphus* Lewis, 1895 (Coleoptera: Anthicidae) from the Indo-Australian transition zone (Wallacea), with comments on selected taxa from adjacent areas

DMITRY TELNOV, Rīga

# Abstract

The genus Anthicomorphus Lewis, 1895 is widely distributed in Asia - from Japan in the North to the Solomon Islands and Micronesia in the South-East. There are no monographs or species keys dedicated to this genus. A list of known species of Anthicomorphus is given for the region of the Indo-Australian transition and adjacent areas (including Sulawesi, Moluccas, New Guinea, Solomon Islands, and Micronesia). Nine new species are described: Anthicomorphus biakensis sp. nov. (West Papua: Biak Island), A. brunneus sp. nov. (North Sulawesi), A. greensladei sp. nov. (Solomones: Malaita Island), A. legenyem sp. nov. (Raja Ampat Islands), A. martini sp. nov. (Raja Ampat Islands), A. moluccanus sp. nov. (North Moluccas), A. rufopubescens sp. nov. (West Papua), A. suppeditus sp. nov. (West Papua), and A. weigeli sp. nov. (New Ireland Island). Three new synonyms are proposed: Anthicomorphus Lewis, 1895 (= subgenus Walesiomorphus Pic, 1910a svn. nov., = genus Walesius Pic, 1896 svn. nov.), Anthicomorphus theresae (Pic, 1896) (= Walesius corporaali Pic, 1923 syn. nov.). Lectotypes are designated for two species, namely Anthicomorphus moultoni Krekich-Strassoldo, 1914 and Anthicomorphus theresae (Pic, 1896). An identification key to Anthicomorphus species of the study area and an annotated species list are presented.

# Zusammenfassung

Die Gattung Anthicomorphus Lewis, 1895 kommt in Ostasien weit verbreitet – von Japan im Norden bis Salomonen und Mikronesien im Südosten. Bis dato gab es keine umfassende Arbeit oder Artenschlüssel für diese Gruppe. Eine Liste der bekannten Anthicomorphus-Arten aus der Indo-Australischer Übergangszone (Wallacea) und angrenzender Gebiete (inklusive Sulawesi, Molukken, Neuguinea, Salomonen und Mikronesien) wird präsentiert. Neun neue Arten werden beschrieben: Anthicomorphus biakensis sp. nov. (Westpapua: Insel Biak), A. brunneus sp. nov. (Nord-Sulawesi), A. greensladei sp. nov. (Salomonen: Insel Malaita), A. legenvem sp. nov. (Raja Ampat Inseln), A. martini sp. nov. (Raja Ampat Inseln), A. moluccanus sp. nov. (Nord Molukken), A. rufopubescens sp. nov. (Westpapua), A. suppeditus sp. nov. (Westpapua) und A. weigeli sp. nov. (Insel Neu-Irland). Drei neue Synonyme werden vorgeschlagen: Anthicomorphus Lewis, 1895 (= Untergattung Walesiomorphus Pic, 1910a syn. nov., = Gattung Walesius Pic, 1896 syn. nov.), Anthicomorphus theresae (Pic, 1896) (= Walesius corporaali Pic, 1923 syn. nov.). Lectotypen für zwei Arten werden designiert, namentlich Anthicomorphus moultoni Krekich-Strassoldo, 1914 und Anthicomorphus theresae (Pic, 1896). Bestimmungsschlüssel der Anthicomorphus-Arten aus dem Studiengebiet, sowie eine kommentierte Artenliste werden präsentiert.

**Key words:** Coleoptera, Anthicidae, Anthicinae, *Anthicomorphus, Walesius*, Wallacea, Sulawesi, Moluccas, New Guinea, Solomon Islands, Micronesia, taxonomy, new species, new synonymy, lectotype designation, identification.

#### Introduction

Ant-like flower beetles of the genus *Anthicomorphus* Lewis, 1895 are recognizable from other Anthicinae by having large and prominent eyes, a pronotum distinctly constricted laterally behind the middle, long and strong antennae (males often with intermediary antennomeres ciliate), the shape of both the anterior and posterior margins of the pronotum (Fig. 1) – with a cavity at the sides near the anterior collar, a deep and densely pubescent cavity laterally in the constriction area, and dense but flat punctuation of the whole dorsal surface. Mesothorax with mesepisterna broadly meeting in front of mesosternum; the latter broadly rounded or truncate



Figure 1: Genus Anthicomorphus Lewis, structure of pronotum on example of A. moultoni Krekich-Strassoldo (& from E Malaysia, Sarawak, Kuching): 1A - dorsal view; 1B - lateral view.

anteriorly and broadly bordered (Fig. 2). These relatively large anthicids are widely distributed from Japan and Sri Lanka to Micronesia and the Solomon Islands, with most of the 43 species (including those described in this article) known from the Philippines, Indonesia and Indochina. No species analysis, keys or recent species list exists for *Anthicomorphus* and subgenus *Walesiomorphus*.



**Figure 2:** Genus *Anthicomorphus* Lewis, structure of mesothorax on example of *A. theresae* (Pic) (Paralectotype  $\mathfrak{P}$ ).

The genus *Walesius* was originally established by PIC (1896) for a single species erroneously arranged to the Australian fauna (New South Wales). This group has been considered to be closely related to *Anthicomorphus* and they are synonymized in the current publication.

Nine new species of *Anthicomorphus* are described here and a key to species from the Indo-Australian transition zone (Sulawesi, Moluccas, New Guinea) and adjacent areas (including Solomon Islands, Greater Sunda Islands, the Philippines, and Micronesia) is presented. A species list and bibliographical review of *Anthicomorphus* from the study area are also provided. Two lectotype designations are made and three new synonyms are presented.

# Legends

All species are listed alphabetically. All label text is reproduced exactly, with no corrections or additions; labels (if there are more than one for the same specimen) are separated by slashes ( / ). If not stated otherwise, all labels are printed. Author's comments are placed in square brackets []. Acronyms for the type material depositories:

BMNH -	British Museum, Natural History, London
	(UK);
MNHN -	Museum national d'Histoire naturelle, Paris
	(France);
NHMW -	Naturhistorisches Museum Wien (Austria);
NME -	Naturkundemuseum Erfurt (Germany);
SMF -	Forschungsinstitut und Naturmuseum
	Senckenberg, Frankfurt a. Main (Germany);
SMNS -	Staatliches Museum für Naturkunde,
	Stuttgart (Germany);
USNM -	United States National Museum of Natural
	History, Smithsonian Institution,

Washington, DC (U.S.A.);

DTC - Collection Dmitry Telnov, Rīga (Latvia).

#### Historical overview and group taxonomy

The genus *Anthicomorphus* was originally established by LEWIS (1895: 428) for two Japanese species. The type of the genus, *Anthicomorphus suturalis* Lewis, 1895, was originally designated by the author. Subsequently, about 35 other species have been described or transferred to *Anthicomorphus*. The area of distribution of the genus covers a huge territory from Japan, China and the Korean peninsula in the North (E Palaearctic region) to the Solomon Islands and Micronesia in the South-East (Australasian region), including the Asian mainland (Oriental region); the westernmost records of this genus are from Sri Lanka. Most of species are known from coastal regions of SE Asia, with the highest diversity on insular systems of the Philippines and Indonesia.

The subgenus *Walesiomorphus* Pic, 1910a of *Anthicomorphus* was first established for a single New Guinean species (type species: *Anthicomorphus subelongatus* Pic, 1910a, by monotypy). Pic mentioned two *Anthicomorphus* in this publication – *A. dohertyi* and *A. subelongatus*. He notified that the subgenus *Walesiomorphus* is established for the second of both species, describing this new subgenus after description of "? *Anthicomorphus subelongatus*" and giving the following comment after the diagnosis: "Je crois devoir établir pour cette espèce, classée provisoirement dans le genre *Anthicomorphus*, un sous-genre nouveau sous le nom de *Walesiomorphus*…" Provisional generic association with placement it in new subgenus *Walesiomorphus*, coupled with being embedded within the description of *A. subelongatus*, is referring explicitly to this species, which has a question mark before the generic name (see above). A character used for separation of this subgeneric group was given as the shape of pronotum, which is distinctly constricted laterally in or behind the middle. The name of this group reflects its morphological similarity to *Walesius* Pic, 1896. Another species, *A. mertoni*, was described in the footnote of the same publication (PIC 1910a). Pic compared *A. mertoni* with *A. subelongatus* in this footnote description "... *Mertoni* présenterait une forme encore un peu plus allongée que *subelongatus*...", but did not arranged *A. mertoni* to the subgenus *Walesiomorphus*. Only later (PIC 1911: 26), also *A. mertoni* was transferred to the subgenus *Walesiomorphus*.

The genus Walesius Pic, 1896 was established for a single species erroneously considered to be Australian (labels of type specimens show "New South Wales" as the collecting locality). The characters mentioned in the original description are the following: penultimate tarsomeres small and indistinctly bilobate [I was unable to confirm this character during my study of the type specimen]; antennae long and heavy, ciliate on antennomeres 4-7; palps elongate-triangularly; eyes large, strongly prominent, emarginate; body large; mesosternum subcircular, bordered anteriorly. In the generic diagnosis Pic compared this genus with Anthicus Paykull, 1798 s. l. and Tanarthrus LeConte, 1851. In the original description, Pic also compared W. theresae, the single described species of the genus, with the West-Palaearctic Stricticollis longicollis (Schmidt, 1842); this Stricticollis-species is also characterized by having a distinct lateral constriction of pronotum. I suspect that the description of the genus Anthicomorphus Lewis, 1895 was unknown to Pic, which published his Walesius Pic, 1896 just some months after Lewis already described Anthicomorphus. Subsequently, two other species have been originally described or transferred to Walesius. The type of this genus, W. theresae Pic, has long been a puzzle for Australian entomologists (J.Lawrence, personal communication), because no additional specimens other than type were known for it, thus no comparative material was available in the collections of Australian museums. The presence of this species in the Australian fauna considers doubtful. From the region of the Indo-Australian transition, three species of Anthicomorphus have been recorded

previously; one species of *Anthicomorphus* s. str. (*A. dohertyi* Pic) and two of the subgenus *Walesiomorphus* (*A. (W.) mertoni* Pic, *A. (W.) subelongatus* Pic). From adjacent territories, one species was hitherto known from Micronesia (*A. pacificus* Werner), 12 species – from the Philippine archipelago, and another three species from Greater Sundas (Sumatra, Java, Borneo). No modern revision, keys or recent species lists exist for any group of *Anthicomorphus* nor *Walesius*.

Interestingly, M.Pic and other authors often have had difficulties arranging their newly discovered species to any of these groups (for example, "? *Walesius borneensis*" and "? *Anthicomorphus subelongatus*" in PIC (1910a); "*Anthicomorphus (Walesius ?) rufus*" in KREKICH-STRASSOLDO 1925). This is because the characters of these three taxa (*Walesius, Anthicomorphus* s. str., *Anthicomorphus* subgen. *Walesiomorphus*) were not well defined. KREKICH-STRASSOLDO (1925) first mentioned that *Walesius* possibly should be considered as a junior synonym of *Anthicomorphus*: "It can be left to later study to decide if it be justifiable to separate *Walesius* as a distinct genus".

After studying the type specimens of *Walesius* and *Anthicomorphus* subgenus *Walesiomorphus*, as also several other species of *Anthicomorphus* s. str. I came to the conclusion that the characters used for descriptions of these three taxa are of limited taxonomical value. No additional or valuable characters appear to be available. On this base, the following new synonymy is proposed:

# Anthicomorphus Lewis, 1895: 428

- Type species: *Anthicomorphus suturalis* Lewis, 1895: 428, original designation
  - = Walesiomorphus Pic, 1910a: 47 syn. nov.
- Type species: *Anthicomorphus subelongatus* Pic, 1910a: 47, monotypy
  - = Walesius Pic, 1896: 184 syn. nov.

Type species: Walesius Theresae Pic, 1896: 184, monotypy

Consequently, the single remaining species of *Walesius* should be transferred to *Anthicomorphus: A. diversicornis* (Pic, 1914) **comb. nov.** Another species of this genus, *Walesius corporaali* Pic, 1923, is a junior synonym of other species of *Anthicomorphus* (see chapter "Type material, synonymy and lectotype designations"). A third species described in this genus has already been transferred to *Anthicomorphus* by TELNOV (2006): *A. borneensis* (Pic, 1910a).

# Type material, synonymy and lectotype designations

The following type specimens were controlled during the present research:

#### Anthicomorphus dohertyi Pic, 1910a

Holotypus MNHN: Andai N.Guinea (Doherty) [printed] / type [handwritten] / TYPE [printed, label red] / Anthicomorphus Dohertyi Pic [handwritten].

# Anthicomorphus mertoni Pic, 1910a

= Anthicomorphus mertoni Pic, 1910b [homonym]

PIC (1910a) described *Anthicomorphus subelongatus* and *A. mertoni* (footnote 1), followed by description of the homonym *A. mertoni* in 1910b. Last species has been described by holotype specimen only. The type depository of *A. mertoni* mentioned in the original description is SMF. The presence of a type specimen in SMF could not be confirmed (D.Kovac, personal communication). This type is also absent in the collection of MNHN, where the main part of Pic's types are stored. It is herewith assumed that the type of *A. mertoni* Pic, 1910a was lost.

# Anthicomorphus moultoni Krekich-Strassoldo, 1914 (Figs 9–10, 92–98)

**Lectotypus**  $\delta$ , BMNH [herewith designated]: Kuching Jan. [printed] 22 [handwritten] 190 [printed] 3 [handwritten] / T Y P E [printed, label red] /  $\delta$  [printed] / I 1914.380 [handwritten].

Paralectotypus 1♀, BMNH [herewith designated]: Matang [printed] Rd. Nov. 29 [handwritten] ft. 190 [printed] 9 [handwritten] / T Y P E [printed, label red] / ♀ [printed] / Moultoni [handwritten] det. v.Krekich [printed] / I 1914.380 [handwritten].

# Anthicomorphus rufus Krekich-Strassoldo, 1925

(Figs 12, 99-101)

2 specimens [cotypes ?], NHMW: PHILIPP. ISL. Isl. Samar Baker [printed] / rufus Kr. [handwritten] det.v.Krekich [printed] / coll. Heberdey [printed].

### Anthicomorphus subelongatus Pic, 1910a

**Holotypus**  $\mathcal{P}$ , MNHN: Humboldt B. N. Guinea (Doherty) [printed] / type [handwritten] / TYPE [printed, label red] / Anthicomorphus subelongatus Pic [handwritten] / s. g. Walesiomorphus Pic [handwritten].



Figures 3-11: Shapes of head of Anthicomorphus species: 3 – A. biakensis sp. nov. (Holotype δ); 4 – A. brunneus sp. nov. (Paratype δ); 5 – A. dohertyi Pic (δ from West Papua, Yamor Gariau Lake); 6 – A. greensladei sp. nov. (Holotype ♀); 7 – A. legenyem sp. nov. (Holotype δ); 8 – A. moluccanus sp. nov. (Holotype δ); 9 – A. moultoni Krekich-Strassoldo (Lectotype δ); 10 – A. moultoni Krekich-Strassoldo (Paralectotype ♀); 11 – A. rufopubescens sp. nov. (Holotype ♀).









15

16

17



Figures 12-18: Shapes of head of Anthicomorphus species: 12 - A. rufus Krekich-Strassoldo (Cotype? ?); 13 - A. subelongatus Pic ( & from West Papua, Meydoudga); 14 - A. subelongatus Pic (? from West Papua, Yapen Island); 15 - A. suppeditus sp. nov. (Holotype ?); 16 - A. theresae (Pic) (Lectotype ?); 17 - A. martini sp. nov. (Holotype  $\Im$ ); 18 - A. weigeli sp. nov. (Holotype  $\eth$ ).

# Anthicomorphus theresae (Pic, 1896)

(Figs 16, 102-105)

Lectotypus ♂, MHNH [herewith designated]: □ [little blue square label with no text] / N.S. Wales [handwritten] / type [handwritten] / TYPE [printed, label red] / Walesius Theresae Pic [handwritten] / commentierie in Heberdey (1938) [handwritten].

**Paralectotypus** ♀, MHNH [herewith designated]: □ [little blue square label with no text] / N.S. Wales [handwritten] / type [handwritten].

**Paralectotypus** ♀, MHNH [herewith designated]: □ [little blue square label with no text] / N.S. Wales (Staudinger) [handwritten] / type [handwritten].

*Walesius corporaali* Pic, 1923 **syn. nov.** of *A. theresae* (Pic, 1896)

Holotypus Q, MNHN: J. B. CORPORAAL Sumatra's O. K. Bandar Baroe. 850 M [printed] 2. 2. 21 [handwritten] / type [handwritten] / TYPE [printed, label red] / Walesius Corporaali Pic [handwritten].

Paratypus, BMNH: J. B. CORPORAAL Sumatra's O. K. Bandar Baroe. 850 M [printed] 18. 2. 21 [handwritten] / COTYPE: [printed] Walesius Corporaali Pic [handwritten] [black border] / Walesius Corporaali n sp [handwritten] / desiré [handwritten] / Sumatra: J. B.Corporaal. B. M.1924–373. [printed].

The new synonymy is based on morphological and anatomical similarity of studied type specimens and additional material.

#### **Species descriptions**

#### Anthicomorphus biakensis sp. nov. (Figs 3, 19-26)

**Type material. Holotypus** δ, SMNS. IRIAN JAYA: Biak-Is. Korim, Wouna 21.–22.IV.1993 leg. A. RIEDEL [label violet] (Fig. 19).

**Paratypes.** 19, SMNS. IRIAN JAYA: Biak Isl. Korim, Nernu, 100–150m 4.II.2001 leg. A.RIEDEL; 19, DTC. INDONESIA Irian Jaya Biak 30km NE, Saba E 01°07'S, 136°18'E 30.XII.1998 leg. A.Weigel.

**Description.** Measurements of the holotype: total body length 6.27 mm, maximum width in postmedian area of elytra 1.90 mm; head 1.33 mm long, through eyes 1.15 mm broad, pronotum 1.36 mm long, maximum width 0.97 mm, elytra 3.58 mm long, 1.90 mm together broad. Paratypes smaller in size, body length from 4.80 to 5.35 mm.

Colouration. Uniformly orange with black eyes.

Head subopaque, with small, prominent, finely facetted eves. Interior margin of each eve indistinctly excavated near insertion of antenna. Tempora long, as long as longitudinal diameter of an eve. Head base distinctly prolongated behind eves, shortly rounded, Frontoclypeal suture shallow, poorly visible. Dorsal surface very densely punctured. Punctures are crateriform but flat, intervals much smaller than punctures. On vertex, punctures become very small and this area is shinier than the rest of head. Ventral side of the head minutely punctured, shiny. Pubescence light orange, fine, not dense, appressed. Antennae long and stout, reaching postbasal transverse impression of elvtra. All antennomeres densely setulose, setae are whitish and erect. Antennomeres 4-5 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened. Second antennomere very short and small. Third antennomere 3 times longer than precedent. Antennomeres 4-6 and 7-10 nearly of same length. Penultimate antennomere cylindrical. Terminal antennomere elongated conical, twice so long as penultimate. Terminal maxillary palpomere suboval. Pronotum glossy and shiny, flattened dorsally. Punctures dense but small, intervals smaller to twice larger than punctures. On anterior part punctures are in generally smaller and sparser than on basal half. Frontal margin broadly rounded, and basal margin nearly straight. With distinct, deep lateral constriction behind the middle. On sides glossy and shiny, minutely punctate. Pubescence orange, fine and quite long, appressed, directed medially. Scutellum small, narrowly triangular, opaque. Elytra shiny, subparallel (becoming very indistinctly wider behind the middle). Postbasal transverse impression shallow, poorly visible. Punctures minute and dense, intervals equal to twice as large as punctures. Pubescence orange, long and dense, semierect, nearly completely hiding the sculpture of elytra, directed obliquely laterally in postbasal third. With separate not longer but erect tactile setae on elytral disc. Sutural striae narrow, developed only in apical half of elytra. Hind wings fully developed. Legs long, densely appressedly pubescent. Penultimate tarsomeres narrow, bilobate. Basal metatarsomere slightly longer than combined length of other tarsomeres. Pygidium com-



**Figures 19–26:** Anthicomorphus biakensis sp. nov.: 19 – habitus, dorsal (Holotype  $\delta$ ); 20 – pygidium, dorsal (Holotype  $\delta$ ); 21 – pygidium, dorsal (Paratype  $\mathfrak{P}$ ); 22 – sternite V, ventral (Holotype  $\delta$ ); 23 – sternite V, ventral (Paratype  $\mathfrak{P}$ ); 24 – spiculum gastrale (Holotype  $\delta$ ); 25 – aedeagus (Holotype  $\delta$ ); 26 – spiculum gastrale (Paratype  $\mathfrak{P}$ ).

pletely covered by elytra, subtruncate apically in males (Fig. 20), conical in females (Fig. 21). Visible sternite V broadly rounded apically in males (Fig. 22), slightly angulate in females (Fig. 23). Spiculum gastrale (Figs 24 & 26). Aedeagus (Fig. 25).

**Sexual dimorphism.** Females smaller, 4.80 to 5.35 mm in length. Antennae are shorter in females, with intermediate antennomeres less elongate than in males. Antennomeres 8–10 in females only very indistinctly longer than broad or transverse, but distinctly longer than broad in males.

Differential diagnosis. All similar species, namely A. theresae (Pic) (Indonesia: Sumatra), A. moultoni Krekich-Strassoldo (East Malaysia, Brunei), A. rufus Krekich-Strassoldo (Philippines: Mindanao, Samar, Luzon). A. greensladei Telnov (Solomones: Malaita), A. moluccanus Telnov (Indonesia: North Moluccas). A. martini Telnov (Indonesia: Waigeo & Misool), A. weigeli Telnov (Papua New Guinea: New Ireland) have at least antennomeres 4-10 black or dark brown, as also comparatively larger eyes. For better recognition, genital organs of males have to be compared. Anthicomorphus pacificus Werner (Micronesia), which also bear unicolour pale antennae, is distinctly smaller (body length 3.85 mm), have the head not prolongated behind the eves and dorsal surface of the head sparsely punctured and shiny, pubescence is directed posteriorly on the whole surface of elytra. A. sulcatipennis Pic (Philippines: Mindanao) have the dorsal surface of the body much densely and roughly punctured, elytral pubescence much sparser.

**Etymology.** Named after Biak, an Island in Cenderawasih Bay on the North coast of West Papua, where all known specimens have been collected.

# Anthicomorphus brunneus sp. nov. (Figs 4, 27-31)

**Type material. Holotypus** &, BMNH. INDONESIA: SULAWESI UTARA, Dumoga-Bone N.P. February 1985. / Rothamsted light trap, site 1, 200m. H.Barlow / R.Ent.Soc.Lond. PROJECT WALLACE B.M. 1985-10. **Paratypes**, BMNH. 1 &, INDONESIA : SULAWESI UTARA, Dumoga-Bone N.P. [printed] 9-16 [handwritten] February 1985. [printed] / yellow pan trap / lowland forest ca 200m. / R.Ent.Soc.Lond. PROJ-ECT WALLACE B.M. 1985-10; 1 &, INDONESIA : SULAWESI UTARA, Dumoga-Bone N.P. February 1985. / Rothamsted light trap, site 2, 220m. H.Barlow / R.Ent.Soc.Lond. PROJECT WALLACE B.M. 1985-10 (Fig. 27); 1 &, INDONESIA : SULAWESI UTARA, Dumoga-Bone N.P. [printed] 26 iv - 28 [handwritten] May 1985. / 'Edwards' Camp Lowland forest 664 m. / Malaise trap / R.Ent.Soc.Lond. PROJECT WALLACE B.M. 1985-10.

**Description.** Measurements of the holotype: total body length 3.71 mm, maximum width in apical third of elytra 1.08 mm; head 0.74 mm long, through eyes 0.72 mm broad, pronotum 0.75 mm long, maximum width 0.61 mm, elytra 2.22 mm long, 1.08 mm together broad. Paratypes vary in body length from 3.65 to 4.05 mm. Colouration. Uniformly brown with elytra darker, eyes black, legs slightly paler with base of femora reddish, two basal antennomeres orange-brown, terminal antennomere lighter in distal part. Palps and mouthparts orange-brown.

Head opaque with large, prominent, roughly facetted and excavated near insertions of antennae eyes. Tempora long but shorter than longitudinal diameter of an eye. Head slightly prolongated behind eyes, base shortly rounded and very indistinctly notched in the middle. Frontoclypeal carina (on place of the suture!) distinct, lateral margins of the keel directed posteriorly and reaching insertions of antennae. Dorsal surface very densely punctured. Punctures are crateriform but flat, intervals much smaller than punctures. Also ventral surface densely punctured, opaque to subopaque. Pubescence fine and appressed, quite long, whitish, with few erect tactile setae. Antennae long, reaching postbasal transverse impression of elytra. All antennomeres densely covered with fine, white and erect pubescence. Antennomeres 4-7 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened and shortened, nearly cylindrical. Second antennomere very short and small. Third antennomere 4 times longer than precedent. Antennomeres 4-8 nearly of same length. Penultimate antennomere cylindrical, slightly widened distally. Terminal antennomere elongate conical, one third longer than penultimate. Terminal maxillary palpomere slightly securiform. Pronotum opaque, dorsally punctured like on the head. With distinct, deep lateral constriction behind the middle. On sides subopaque and with punctures finer than on dorsum. General pubescence whitish, fine and



Figures 27-31: Anthicomorphus brunneus sp. nov. (Paratype &): 27 - habitus, dorsal; 28 - pygidium, dorsal; 29 - sternite V, ventral; 30 - spiculum gastrale; 31 - aedeagus.

quite long, appressed, directed posteriorly. Scutellum small, triangular, opaque. Elytra slightly shiny, nearly subparallel (becoming indistinctly wider near apex). Postbasal transverse impression shallow but distinct. Punctures not crateriform, very dense, with intervals smaller or, rarely, equal in size to punctures. Toward apex, punctures becoming smaller and flatter. Pubescence dense, whitish, appressed, directed posteriorly and nearly completely hiding the sculpture of elytra. With separate not longer erect tactile setae on the elytral disc. Sutural striae narrow, developed only in apical half of elytra. Hind wings fully developed. Legs long, sparsely and finely pubescent. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere longer than combined length of other tarsomeres. Pygidium of male completely covered by elytra, subtruncate apically (Fig. 28). Visible sternite V of male broad, short, slightly angulate apically (Fig. 29). Spiculum gastrale (Fig. 30). Aedeagus (Fig. 31).

Sexual dimorphism. Female is unknown.

Differential diagnosis. Several similarly dark coloured and densely punctured species occur in the Oriental region. Anthicomorphus bicoloratus Krekich-Strassoldo, 1929 (Philippines: Basilan) have the forebody red and appendages vellow. A. consimilis Krekich-Strassoldo, 1925 (Philippines: Mindanao) have elvtra covered with erect stiff pubescence in apical part, head base is more straight. A. foveicollis (Motschulsky, 1863) (Sri Lanka) is larger (4.10 mm long), completely black, glossy, head base is strongly constricted, legs are longer and slender. A. fumeoalatus Krekich-Strassoldo, 1925 (Philippines: Mindanao; West Malaysia) have forebody and appendages reddish brown and elytra black; tempora are very short in this species. A. hirtulus Krekich-Strassoldo, 1925 (Philippines: Samar & Bulusan) has long, slender and not serrate antennae. A. infuscatus Krekich-Strassoldo, 1925 (Philippines: Mindanao) have paler brown coloured elytra, and forebody finely and not crateriform punctured. Two basal antennomeres are dark in that species. In the West Malaysian A. lividifemur Krekich-Strassoldo, 1928, the tempora are very short and head is not prolongated behind the eyes. A. obscurus Krekich-Strassoldo, 1928 (Thailand, Vietnam), the externally most similar species to A. brunneus, is smaller (3.00 mm long), have front and middle legs pale, third antennomere shorter and second antennomere longer, tempora are distinctly shorter. Another very similar species,

*A. rufescens* Krekich-Strassoldo, 1925 (Philippines: Mindanao) differs in being smaller (3.40 mm long), having comparatively shorter and broader pronotum, antennomeres 4–10 shorter and broader than in than *A. brunneus*; general colouration is paler, reddish brown, basal metatarsomere no longer than combined length of other tarsomeres. Sumatran *A. semiopacus* Pic, 1923 is similarly coloured, but with slender and not serrate antennae, second antennomere not being unusual short, head base broader, pronotum coarsely punctate.

**Etymology.** Named from Latin "brunneus" (brown, dusky), referring to the main colour of the body.

### Anthicomorphus dohertyi Pic, 1910a (Figs 5, 32-36)

**Material:** δ, NME. INDONESIA Irian Jaya Nabire 70km E, Gariau Yamor Lake 134°52'E 03°42'S 02.III.1998 leg. A. Weigel UWP KL (Fig. 32).

**Redescription.** Measurements: Total body length 5.74 mm, maximum width in the middle of elytra 1.85 mm; head 0.92 mm long, through eyes 1.11 mm broad, pronotum 1.30 mm long, maximum width 1.04 mm, elytra 3.51 mm long, 1.85 together broad.

Colouration. Dorsal surface dark red to orange-red, elytra with large black spot on disc leaving only shoulder, base and small apical part red; black colouration is reaching the sides, so epipleura are bicoloured (red in basal and apical parts, black in the median part). Antennae black, except antennomeres 1–2 orange, 3rd antennomere orange basally, and terminal antennomere dark orange in apical 2/3. Mouth parts and palps orange. Legs dark orange to reddish.

Head flattened and slightly shiny dorsally, with very large, elongate and prominent eyes, whose are strongly excavated by insertions of antennae. Tempora shorter than length of an eye, distinctly converged toward shortly rounded base. Frontoclypeal suture barely indicated, straight. Dorsal surface covered by very dense, large but flat crateriform punctures whose vary in size and are of irregularly rounded form; intervals are shiny, mostly distinctly smaller than punctures. Ventral surface of the head shiny, covered with only very fine and sparse punctures. Pubescence yellowish-orange, sparse, adpressed. Antennae long, slightly ciliate in the middle, almost reaching the second third of elytra. All antennomeres coarsely and densely punctate. Basal



Figures 32-41: 32-36: Anthicomorphus dohertyi Pic (& specimen from West Papua, Nabire env., Lake Gariau Yamor): 32 - habitus, dorsal; 33 - pygidium, dorsal; 34 - sternite V, ventral; 35 - spiculum gastrale; 36 - aedeagus. 37-41: Anthicomorphus greensladei sp. nov. (Holotype  $\mathfrak{P}$ ): 37 - habitus, dorsal; 38 - pygidium, dorsal; 39 - sternite V, ventral; 40 - spiculum gastrale; 41 - ovipositor.

antennomere thick, subcylindrical. Second antennomere very short, broader than long and third antennomere 3 times longer than previous. Antennomeres 4-8 distinctly widened distally. Terminal antennomere very elongated, narrow, slightly curved, twice as long as previous or equal to length of 9-10 antennomeres together. Pubescence white, dense and suberect on antennae, with numerous much longer erect tactile setae. Terminal maxillary palpomere elongated securiform. Pronotum flattened dorsally, shiny. Laterally, with shallow constriction just behind the middle. In basal half of the pronotal disc, punctures are flat, large and dense, of regular circular form; intervals here are smaller than punctures. On anterior half of the pronotal disc, punctures are very small, intervals 4-5 times larger than punctures. Sides of pronotum shiny, almost unpunctured. Pubescence orange, fine, long, adpressed, directed medially. With numerous much longer erect tactile setae on sides and disc. Scutellum very small, triangular, densely setose. Elytra dorsally slightly convex, strongly shiny, elongate and subparallel with maximum width in median part. Postbasal transverse impression very vague indicated. Punctures small, fine and sparse, intervals 2-4 times larger than punctures. Pubescence orange, long, suberect, directed obliquely laterally. With numerous longer erect tactile setae on disc and sides. Sutural striae narrow, developed from the middle toward the apex. Hind wings fully developed. Legs stout, covered with dense vellowish adpressed setae. Penultimate tarsomeres distinctly bilobate. Distal tarsomeres long, tarsal claws long, simple. Tibial spurs short, slightly curved. Terminal margin of pygidium exposed. Pygidium of male broadly rounded apically (Fig. 33). Visible sternite V of male broad, narrow, broadly rounded apically (Fig. 34). Spiculum gastrale (Fig. 35). Aedeagus (Fig. 36).

**Sexual dimorphism.** Antennae slightly longer and more distinctly ciliate in males rather than in females.

**Differential diagnosis.** This species is easily recognizable due body colouration within the genus. The only similarly coloured species, *A. serricornis* (Marseul, 1882) (Indonesia: Sumatra), is different in having the pronotum densely punctured dorsally also on anterior part (intervals are smaller than or as large as punctures), antennomeres 4–6 ciliate (in females), comparatively smaller eyes and minimal interocular distance being larger, than in *A. dohertyi. Anthicomorphus pasteuri* Pic, 1901 from Java have dark coloured forebody, broadly rounded head base and black elytral marking being strongly medio-laterally excavated on each elytron.

#### Anthicomorphus greensladei sp. nov. (Figs 6, 37-41)

**Type material. Holotypus** <sup>2</sup>, BMNH. SOLOMON IS. Malaita [printed] Valuba 22/I [handwritten] 196[printed] 5 16213. [handwritten] P.Greenslade [printed, small caps] / SOLOMON IS: Pres. P. J. M.Greenslade. B. M. 1966–477. [printed] (Fig. 37).

**Description.** Measurements of the holotype: Total body length 5.37 mm, maximum width in the middle of elytra 1.60 mm; head 1.10 mm long, through eyes 1.01 mm broad, pronotum 1.12 mm long, maximum width 0.82 mm, elytra 3.14 mm long, 1.60 mm together broad. Colouration. Uniformly orange, legs slightly lighter. Antennomeres 1–2 orange, 4–10 black, third antennomere darkened distally, terminal antennomere darkened basally and pale apically.

Head dorsally slightly convex and slightly shiny, with very large, nearly broadly triangular and prominent eves. Base rounded in broad arc together with tempora. Frontoclypeal suture not indicated. Frons with feeble but distinct transverse impression between eyes. Frons covered by dense, flat and partly crateriform punctures; vertex more finely and sparsely punctured, almost glossy. Intervals distinctly smaller than punctures on frons, distinctly larger than these ones on vertex. Ventral surface very shiny, almost unpunctured. Pubescence yellowish, long and appressed. Antennae long, distinctly ciliate in the middle, reaching base of elytra. Antennomeres 3-9 coarse and dense punctate. Basal antennomere slightly thickened, elongated. Second antennomere very short, round, third antennomere 3 times longer than precedent. Antennomeres 4-9 distinctly thickened distally. Antennomeres 9-10 broader than long. Terminal antennomere elongated, narrow, more than twice as long as previous or equal to combined length of 8-10 antennomeres. Pubescence white, dense, short and suberect on antennae, with several much longer erect tactile setae. Terminal maxillary palpomere elongate. Pronotum dorsally slightly convex, shiny, laterally with shallow constriction before the base. Punctures of pronotal disc are flat and sparse, larger on basal third, distinctly smaller on anterior part; intervals equal

to double of size of punctures. Sides of pronotum shiny, similarly punctured as on anterior half of pronotal disc. Pubescence orange, fine, long, appressed, directed medially. Few longer whitish erect tactile setae on sides and on disc. Scutellum short and broad, subtruncate, densely setose. Elytra dorsally slightly convex, shiny, broad and elongate with maximum width in median part. Postbasal transverse impression very feebly indicated. Punctures very minute, fine and dense, intervals equal or 2-3 times larger than punctures. Pubescence orange, long, appressed, directed obliquely laterally in basal third, posteriorly - on the rest of the elytral dorsum. Few longer erect tactile setae on disc and sides. Sutural striae narrow, developed from behind the middle toward the apex. Hind wings fully developed. Legs stout, covered with sparse yellowish appressed setae. Penultimate tarsomeres small, distinctly bilobate. Pygidium of female triangular, rounded apically (Fig. 38). Visible sternite V of female slightly angulate apical margin (Fig. 39). Spiculum gastrale (Fig. 40). Ovipositor (Fig. 41).

Sexual dimorphism. Male unknown.

Differential diagnosis. From the other uniformly pale coloured species, A. greensladei can be distinguished by a combination of the following characters: antennomeres 4-10 black (orange in A. biakensis Telnov (West Papua: Biak) and A. pacificus Werner (Micronesia)); head with feeble but distinct transverse impression on frons above the insertions of antennae (absent in A. weigeli Telnov (Papua New Guinea: New Ireland); in lateral view, the head behind eyes is distinctly shorter than maximum width on an eye (indistinctly shorter in A. moluccanus Telnov (Indonesia: North Moluccas); elvtral pubescence pale, of same colour as their dorsal surface and poorly visible on elytral background (in A. moluccanus and A. rufus Krekich-Strassoldo (Philippines: Mindanao, Samar & Luzon), elytral pubescence whitish, gravish or light reddish, but not of same colour as dorsal surface of elytra); body longer than 5.00 mm (about 4.00 mm long in A. pacificus and A. martini Telnov (Indonesia: Waigeo & Misool)); head broadly rounded behind eyes (in A. moultoni Krekich-Strassoldo (E Malaysia, Brunei), head is narrowing behind eves); elvtral pubescence directed obliquely laterally in basal third of elytra, head base without short impression in the middle, basal antennomere no less than 1.5x longer than broad (in A. moultoni and A. theresae (Pic) (Indonesia: Sumatra), elytral pubescence is directed posteriorly, head base is shortly notched in the middle). *A. sulcatipennis* Pic (Philippines: Mindanao) have the dorsal surface of the body much densely and roughly punctured, much sparser pubescent on elytra.

**Etymology.** Named after the first collector, famous entomologist Peter J.M. Greenslade.

### Anthicomorphus legenyem sp. nov. (Figs 7, 42-46)

**Type material. Holotypus** δ, NME. W-PAPUA Raja Ampat Pr. Waigeo Isl., Lopintol 0°07'54''S, 130°53'45''E 11.I.2004 leg. A.Weigel (Fig. 42).

**Description.** Measurements of the holotype: total body length 6.05 mm, maximum width in median area of elytra 2.00 mm; head 1.41 mm long, through eyes 1.07 mm broad, pronotum 1.24 mm long, maximum width 0.93 mm, elytra 3.41 mm long, 2.00 mm together broad. Colouration. Elytra black, pronotum with scutellum dark reddish brown, head dark red with labrum paler. Antennomeres 3–11 black, second antennomere dark red, basal antennomere dark red, darkened basally. Palps dark red

with terminal palpomere darkened. Legs reddish brown with dark reddish tarsi and bases of femora. Underside dark red with mesosternum being slightly darkened. Head opaque with very large and prominent eyes. Tem-

pora long but not longer than longitudinal diameter of one eye. Head distinctly prolongated posterior to eyes, broadly rounded. Frontoclypeal suture feeble. Dorsal surface very dense covered with large, crateriform but flat punctures. Intervals much smaller than punctures. On vertex and between insertions of antennae punctures are not crateriform, but minute and dense; surface between punctures glossy. Ventral surface of the head densely and minutely punctate, slightly shiny. Pubescence pale, fine and short, appressed. With several longer and erect tactile setae. Antennae stout, reaching the postbasal area of elytra. All antennomeres densely covered with fine whitish suberect pubescence and with numerous longer and erect setae. Antennomeres 4-5 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened and shortened, slightly curved, cylindrical. Second antennomere very short and small. Third antennomere 3 times longer than precedent. Antennomeres 4-5 and 6-10 nearly of same length. Penultimate antennomere cylindrical,



Figures 42–51: 42–46: Anthicomorphus legenyem sp. nov. (Holotype &): 42 – habitus, dorsal; 43 – pygidium, dorsal; 44 – sternite V, ventral; 45 – spiculum gastrale; 46 – aedeagus.

47-51: Anthicomorphus martini sp. nov.: 47 - habitus, dorsal (Holotype  $\mathfrak{P}$ ); 48 - pygidium, dorsal (Paratype  $\mathfrak{P}$ ); 49 - sternite V, ventral (Paratype  $\mathfrak{P}$ ); 50 - spiculum gastrale (Paratype  $\mathfrak{P}$ ); 51 - ovipositor (Paratype  $\mathfrak{P}$ ).

slightly widened distally. Terminal antennomere elongate, twice so long as penultimate. Terminal maxillary palpomere oval, slightly elongate. Pronotum dorsally subopaque, densely punctate. Punctures are small on anterior part and larger and crateriform on basal part. Intervals are equal to punctures on anterior part of pronotum to smaller than punctures on basal part. With distinct and deep lateral constriction behind the middle. On sides densely punctate, subopaque; punctures are large and crateriform in the area of constriction. Pubescence gravish, fine, sparse, appressed, directed medially. With separate long and erect tactile setae on disc and sides. Scutellum small, triangular, densely minute punctate, subopaque. Elytra subopaque, elongate, becomes indistinctly wider across the middle. Postbasal transverse impression very feebly indicated, almost invisible. Punctures fine but very dense, intervals equal to twice as large as punctures. Toward apex, punctures becoming distinctly smaller and flatter. Pubescence gravish, fine and short, sparse, adpressed, directed obliquely laterally. With separate erect tactile setae on disc. Sutural striae broad, developed only in apical half of elytra. Hind wings fully developed. Legs covered with fine sparse gravish pubescence. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere slightly longer than combined length of other tarsomeres. Pvgidium of male completely covered by elytra, broadly truncate apically (Fig. 43). Visible sternite V of male broad and short, broadly rounded apically (Fig. 44). Spiculum gastrale (Fig. 45). Aedeagus (Fig. 46).

Sexual dimorphism. Female unknown.

**Differential diagnosis.** All similar species, namely *A. subelongatus* Pic (Indonesia: West Papua), *A. mertoni* Pic (Indonesia: Aru Islands), *A. suppeditus* Telnov (Indonesia: West Papua), *A. rufopubescens* Telnov (Indonesia: West Papua) have pronotum red or tan, distinctly different in colour from elytra. In *A. mertoni* Pic and *A. rufopubescens* Telnov, elytral pubescence is reddish or orange. Head is less prolongated behind the eyes by all of these species, than in *A. legenyem*.

**Etymology.** This species is named after Legenyem, one of living local languages of indigenous tribes on Waigeo Island, spoken in Lopintol village. Actually, about only 250 people speak Legenyem (GORDON, 2005: report data 2000).

#### Anthicomorphus martini sp. nov. (Figs 17, 47-51)

**Type material. Holotypus** ♀, NME. W-PAPUA Raja Ampat Prov. Waigeo Isl., Lopintol 0°07'54"S, 130°53'45"E 11.I.2004 leg. A.Skale UWP (Fig. 47). **Paratypes** 1♀, NME. W-PAPUA Raja Ampat Pr. Waigeo Isl., Lopintol 07'54"S, 130°53'45"E 11.I.2004 leg. A.Weigel; 1♀, DTC. INDONESIA E, Prov. Raja Ampat, Misool SW, distr. Misool Utara, Aduwey (Adua) vill. 2-5 km NNW, valley of River Hakau, 01°58'46"S, 129°54'37"E, 31.III.2009, primeval lowland forest, sweep-netting, leg. M.Kalniņš.

**Description.** Measurements of the holotype: total body length 3.98 mm, maximum width across the middle of elytra 1.18 mm; head 0.92 mm long, through eyes 0.76 mm broad, pronotum 0.75 mm long, maximum width 0.61 mm, elytra 2.30 mm long, 1.18 mm together broad. Colouration. Light brown to reddish brown, elytra somewhat darker in the holotype. Head base and anterior margin of pronotum paler orange-brown. Legs orange-brown with slightly darkened tibiae. Two basal antennomeres orange-brown to light brown, antennomeres 3–11 black to black-brown. Palps light brown. Underside brown with three apical ventrites lighter.

Head glossy and shiny. Eyes very large, prominent and roughly facetted. Tempora shorter than longitudinal diameter of an eye. Head base rounded. Frontoclypeal suture distinct. Dorsal surface very densely and largely punctured, punctures are crateriform. Intervals are much smaller than punctures, but glossy. On vertex, punctures are simple (not crateriform), much smaller, intervals are equal to punctures size. Ventral surface of the head densely and minute punctate, glossy. Pubescence pale vellowish, fine and sparse, appressed. Antennae are reaching the base of elvtra. All antennomeres densely covered with fine white suberect pubescence and several long erect setae. Basal antennomere thickened, cylindrical. Second antennomere very short and small. Third antennomere 3.5 times longer than precedent. Antennomeres 4-6 and 7-10 nearly of same length. Penultimate antennomere cylindrical, slightly longer than wide. Terminal antennomere elongate conical, almost twice so long as penultimate and as long as antennomeres 9-10 combined. Terminal maxillary palpomere elongate. Pronotum glossy. Punctures of dorsal surface large, crateriform and dense, with intervals smaller than punctures. With distinct lateral constriction behind the middle. On sides minutely punctate, glossy and shiny. General pubescence pale vellowish, fine and quite long, appressed, directed medially. With separate long and erect tactile setae on the disc and sides. Scutellum subcircular, glossy. Elytra glossy and shiny, wider across the middle, narrower on basal and apical parts. Postbasal transverse impression very feeble. Punctures not crateriform, large and dense, intervals are smaller than punctures, glossy. Toward apex, punctures becoming indistinctly smaller and flatter, but intervals does not become larger. Pubescence pale yellowish, dense and long, suberect, directed posteriorly, somewhat hiding the sculpture of elytra. With several erect tactile setae on disc not being longer as the basic pubescence. Sutural striae very fine, broad, developed in apical half of elvtra. Hind wings fully developed. Legs long, densely and finely whitish pubescent. Penultimate tarsomeres small, elongate and distinctly bilobate. Basal metatarsomere as long as combined length of other tarsomeres. Pygidium of female completely covered by elytra, narrowly rounded apically (Fig. 48). Visible sternite V of female broadly angulate apically (Fig. 49). Spiculum gastrale (Fig. 50). Ovipositor (Fig. 51). Sexual dimorphism. Male unknown.

**Variability.** The specimen from Misool is black-brown on elytra with base and narrow area along the suture being reddish.

**Differential diagnosis.** In *A. biakensis* Telnov (West Papua: Biak Island) and *A. pacificus* Werner (Micronesia), antennomeres 3–11 are pale. Other similar species are larger (*A. greensladei* Telnov (Solomon Islands: Malaita) – 5.37 mm long, *A. moluccanus* Telnov (Indonesia: North Moluccas) – 5.66 mm, *A. weigeli* Telnov (Papua New Guinea: New Ireland) – 5.48 mm). *A. greensladei* has the frons transversely impressed above the insertions of antennae, the elytral pubescence directed obliquely laterally in basal third of elytra and is paler orange. *A. weigeli* is also distinctly paler orange and has similarly coloured pubescence. In *A. moluccanus* the head (with the exception of the vertex) is very densely punctured, subopaque (the frons has distinct glossy intervals between the punctures in *A. martini*).

**Etymology.** This species is named after the first collector, my dear friend and colleague, well-known Latvian odonatologist Mārtiņš Kalniņš (Sigulda).

#### Anthicomorphus mertoni Pic, 1910a

As the holotype is probably lost (see above) and no additional material from the Aru Islands is currently available, the status of this species remains disputable, especially due to possible confusion with *A. rufopubescens* Telnov, *A. subelongatus* Pic, or *A. suppeditus* Telnov. The only possibilities for recognition this species are by characters given in the original description: smaller body (4.50 mm long), elytra completely black without apex being paler, elytral pubescence rufous. *A. rufopubescens* Telnov (Indonesia: West Papua) also have reddish pubescent elytra, but this species is larger (body length 5.30–5.50 mm).

#### Anthicomorphus moluccanus sp. nov. (Figs 8, 52-58)

**Type material. Holotypus**  $\delta$ , NME. INDONESIA Halmahera m. 2–3 km N.Dolik, Dolik river 0°15'49"N [sic!], 127°42'40"E 18./20.I.2006 leg. A. Skale (Fig. 52). **Paratypes.** 1♀, DTC. INDONESIA N-Molukken Bacan, Labuha, Flußtal 3km S, 12.I.2006, leg. A. Skale plantage + UWS; 1♀, NME. IDO: N-Molukken Bacan, 10km E Labuha 38'07"N [sic!], 127°34'46"E 14.I.2006 plantage + UWP leg. A. Weigel.

Note on the collecting localities. Both collecting sites, Dolik (a settlement on South peninsula of Halmahera) and Labuha (a settlement in Central Bacan) are situated in the Southern Hemisphere. So indicating "N" on the original labels was a mistake made by collectors; "N" have to be replaced with "N".

**Description.** Measurements of the holotype: total body length 5.66 mm, maximum width in median area of elytra 1.66 mm; head 1.26 mm long, through eyes 1.17 mm broad, pronotum 1.19 mm long, maximum width 0.92 mm, elytra 3.21 mm long, 1.66 mm together broad. Paratypes similar in size to the holotype.

Colouration. Uniformly orange with black eyes and paler appendages. Antennomeres 1–2 orange, 4–10 black, 3<sup>rd</sup> and terminal antennomere reddish brown to partly reddish brown.

Head glossy and shiny with exception for the vertex and zone between insertions of antennae, whose are subopaque or only slightly shiny. Eyes very large, prominent and roughly facetted. Tempora nearly as long as the longitudinal diameter of an eye. Inner margin of an eye is slightly excavated near insertions of antenna. Head



**Figures 52–58:** Anthicomorphus moluccanus sp. nov.: 52 – habitus, dorsal (Holotype δ); 53 – pygidium, dorsal (Holotype δ); 54 – sternite V, ventral (Holotype δ); 55 – pygidium, dorsal (Paratype \$); 56 – sternite V, ventral (Paratype \$); 57 – aedeagus (Holotype δ); 58 – ovipositor (Paratype \$).

base prolongated, broadly rounded. Frontoclypeal suture feeble. Frons with broad and very flat transverse impression between the eyes. Dorsal surface very densely punctured, punctures are large and crateriform, but flat. Intervals are much smaller than punctures, dorsum is subopaque for exception of sparsely punctured vertex. Between insertions of antennae and on vertex, punctures are simple (not crateriform), much smaller, intervals are equal to twice so large as punctures size here and the surface is slightly shiny. Ventral surface of the head densely and minute punctate, shiny. Pubescence orange, fine and sparse, appressed. Antennae are reaching the base of elytra. All antennomeres densely covered with fine white suberect pubescence and numerous long and erect setae. Antennomeres 4-6 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened and shortened, slightly curved. Second antennomere very short and small. Third antennomere 3 times longer than precedent. Antennomeres 4-5 and 6-10 nearly of same length. Penultimate antennomere cylindrical in male, shortened in female, very slightly widened distally. Terminal antennomere elongate conical, one third longer than penultimate. Terminal maxillary palpomere elongated. Pronotum glossy and shiny. Punctures of dorsum diverse - fine and sparse with large intervals on anterior part and large, crateriform with intervals being mostly distinctly smaller than punctures in basal part. With distinct and deep lateral constriction behind the middle. On sides glossy and shiny, minute punctate, for exception in the lateral constriction, where punctures are larger. General pubescence pale, fine and sparse, appressed, directed medially. With separate long and erect tactile setae on the disc and sides. Scutellum small, triangular, sparsely minutely punctate and shiny. Elytra glossy and shiny, nearly subparallel, becoming indistinctly wider across the middle. Postbasal transverse impression feebly indicated. Punctures not crateriform, fine and dense, intervals equal to twice larger than punctures. Toward apex, punctures becoming distinctly smaller and flatter. Pubescence yellowish, dense and long, appressed, directed obliquely laterally, distinctly paler than the elytral surface. With numerous erect tactile setae on disc. Sutural striae narrow, developed only in apical half of elytra. Hind wings fully developed. Legs long, densely and finely pubescent. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere slightly longer than combined length of other tarsomeres. Pygidium completely covered by elytra, subtruncate apically in males (Fig. 53) broadly triangular in females (Fig. 55). Visible sternite V broad and short, broadly rounded apically in males (Fig. 54), angulate apically in females (Fig. 56). Aedeagus (Fig. 57). Ovipositor (Fig. 58).

**Sexual dimorphism.** Antennae are shorter in females, with intermediate antennomeres less elongate and broader, than in males. Antennomeres 8–10 in females only very indistinctly longer than broad, but distinctly longer than broad in males.

Differential diagnosis. In A. biakensis Telnov (West Papua: Biak), the antennae are uniformly orange. A. greensladei Telnov (Solomones: Malaita Island) have the frons distinctly transversely impressed above the insertions of antennae. In A. moultoni Krekich-Strassoldo (E Malaysia, Brunei), the pronotum is slender (less broad than in A. moluccanus) and the head is narrowing behind eyes, as also basal antennomere is shorter and broader. A. pacificus Werner (Micronesia) is smaller, with body length 4.00 mm and uniformly pale antennae. A. rufus Krekich-Strassoldo (Philippines: Mindanao & Samar) differs in having the head narrowing behind eyes and sparsely punctured pronotum. A. sulcatipennis Pic (Philippines: Mindanao) have the dorsal surface of the body much densely and roughly punctured. A. theresae (Pic) (Indonesia: Sumatra) have head narrowed behind eves. A. martini Telnov (Indonesia: Waigeo & Misool) is smaller (body about 4.00 mm long) and have head surface glossy; interving spaces between large crateriform punctures are also glossy. A. weigeli Telnov (Papua New Guinea: New Ireland) has elytral pubescence orange, not differing in colour from dorsal surface of elytra.

**Etymology.** Named after the Moluccas (Maluku in Indonesian), the wonderful archipelago between Sulawesi and New Guinea.

#### Anthicomorphus pacificus Werner, 1965 (Figs 59-63)

**Type material. Holotypus** δ, USNM. δ [printed, label bluish] / Mt. Tamatamansakir PONAPE I.;slope ca. 500–1000 ft.alt. 29. Feb. 1948 [printed] / Pacific Sci. Board Ent. Surv. of Micronesia H. S. Dybas leg. [printed] / HOLOTYPE δ Anthicomorphus pacificus Werner [handwritten] / HOLOTYPE [printed, text red] USNM 65941 [handwritten] / Anthicomorphus pacificus Werner MS [handwritten, underlined] det. F. Werner [printed] [label black bordered] (Fig. 59).



Figures 59-68: 59-63: Anthicomorphus pacificus Werner (Holotype &): 59 - habitus, dorsal; 60 - pygidium, dorsal; 61 - sternite V, ventral; 62 - spiculum gastrale; 63 - aedeagus.

64-68: Anthicomorphus rufopubescens sp. nov.: 64 - habitus, dorsal (Holotype \$); 65 - pygidium, dorsal (Holotype \$); 66 - sternite V, ventral (Paratype \$); 67 - spiculum gastrale (Holotype \$); 68 - ovipositor (Paratype \$).

Since the original description of this species is good, a redescription is unnecessary. Some characters not mentioned by the species' author are as follows: Antennae very densely covered by white, long and erect setae. Scutellum rounded apically. Elytral pubescence appressed, directed obliquely laterally. Sutural striae of elytra narrow, only present in apical third. Hind wings full developed. Legs long and slender. Pygidium of male subtruncate apically (Fig. 60). Visible sternite V of male very broadly angulate apically (Fig. 61). Spiculum gastrale (Fig. 62). Aedeagus (Fig. 63). Differing from other uniformly pale coloured species by its smaller body size and uniformly orange antennae.

# *Anthicomorphus rufopubescens* sp. nov. (Figs 11, 64–68)

**Type material. Holotypus**  $\mathcal{P}$ , NME. W-PAPUA Manokwari Pr. vic. Mokwam (Siyoubrig) 1400–1800m, 01°06.26'S, 133°54.41'E,24.–28.II.2007 leg. A.Weigel UWP/UWS (Fig. 64).

Paratype 19, DTC. Same data as in the holotype.

**Description.** Measurements of the holotype: total body length 5.30 mm, maximum width in median area of elytra 1.52 mm; head 1.13 mm long, through eyes 0.91 mm broad, pronotum 1.10 mm long, maximum width 0.75 mm, elytra 3.07 mm long, 1.52 mm together broad. Paratype is 5.50 mm long.

Colouration. Forebody with scutellum dark red (reddish orange in holotype), appendages of same colour. Elytra black with suture being somewhat paler. Antennae black for exceptions of two dark red basal antennomeres and brownish distal part of terminal antennomere. Underside coloured as forebody. Head opaque, eyes very large and prominent. Tempora long, equal to longitudinal diameter of an eye.

Head distinctly prolongated posterior to eyes, base broadly rounded. With fine flat frontoclypeal carina (on place of the suture!). Dorsal surface very densely covered with large, crateriform, but flat punctures. Intervals much smaller than punctures. Also between insertions of antennae and on vertex punctures are crateriform, but a bit smaller and sparser. Ventral surface of the head sparsely and minute punctate, glossy. Pubescence pale, fine, quite dense, adpressed. With several longer and erect tactile setae. Antennae stout, nearly reaching postbasal transverse impression of elytra. All antennomeres densely covered with fine whitish suberect pubescence and with numerous longer and erect setae. Antennomeres 4-6 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened, slightly curved, cylindrical. Second antennomere very short and small. Third antennomere 2.8 times longer than precedent (only in females?). Antennomeres 4-8 nearly of same length. Penultimate antennomere shortened and widened distally, slightly longer than broad. Terminal antennomere conical, one third longer than penultimate. Terminal maxillary palpomere elongate. Pronotum glossy, slightly shiny. On basal part of dorsal surface covered with dense and crateriform punctures with intervals smaller or equal to their size. On anterior part punctures are smaller and sparser. With distinct and deep lateral constriction behind the middle. On sides subopaque, densely punctate, punctures are large and crateriform in the area of constriction. Pubescence pale, fine, white, long, adpressed, directed medio-posteriorly. With separate long and erect tactile setae on the disc and sides. Scutellum short and broad, opaque. Elytra glossy, shiny, elongated, slightly widened across the middle. Postbasal transverse impression feebly indicated, but well visible. Punctures dense, deep, relatively large, intervals smaller to twice as large as punctures. Toward apex, punctures becoming much smaller and flatter. Pubescence tan, fine, long, semierect, directed almost completely posteriorly. With separate not longer but erect tactile setae on disc. Sutural striae narrow, fine, developed only in apical half of elytra. Hind wings fully developed. Legs covered with fine sparse whitish pubescence. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere as long to slightly longer than combined length of other tarsomeres. Pygidium completely covered by elytra, broadly triangular in females (Fig. 65). Visible sternite V broad and short, broadly angulate apically in females (Fig. 66). Spiculum gastrale (Fig. 67). Ovipositor (Fig. 68).

Sexual dimorphism. Male is unknown.

**Differential diagnosis.** All similar species, like *A. subelongatus* Pic (Indonesia: West Papua) and *A. suppeditus* Telnov (Indonesia: West Papua) have the elytral pubescence not rufous and directed distinctly obliquely laterally. Potentially similar to *A. mertoni* Pic (Indonesia: Aru Islands) (which also has pale elytral pubescence pale), but this species has a body

length of  $\sim 4.50$  mm instead of 5.30–5.50 mm in *A. rufopubescens*.

**Etymology.** Named by combination of Latin "rufus" (rufous, orange) and "pubescence", because of rufous pubescence of elytra.

Anthicomorphus subelongatus Pic, 1910a (Figs 13-14, 69-77)

**Material:** Cotypus 1 P MNHN. Humboldt B. N. Guinea (Doherty) [printed] / type [handwritten] / TYPE [printed, label red] / Anthicomorphus subelongatus Pic [handwritten] / s. g. Walesiomorphus Pic [handwritten]. Additional material: 1 ex. NME. INDONESIA Irian Jaya Japen [sic!] SE, 15km W Serui 03.I.1999 KL leg. A.Weigel UWP (Fig. 69).

**Note on the collecting locality.** Correct spelling for this island is Yapen, not Japen as it is spelled on the locality label of one of studied specimens.

**Redescription.** Based on a  $\Im$  from Yapen Island. Measurements: total body length 6.24 mm, maximum width in the middle of elytra 1.59 mm; head 1.28 mm long, through eyes 1.05 mm broad, pronotum 1.66 mm long, maximum width 0.86 mm, elytra 3.30 mm long, 1.59 mm together broad.

Colouration. Forebody red, scutellum dark red, elytra black with somewhat paler apices. Antennae black with two basal antennomeres red, extreme apex of terminal antennomere reddish brown. Palps reddish orange with darkened terminal palpomere. Front legs red with tibiae darkened distally, middle and hind legs reddish brown. Underside red to reddish-orange, meso- and metasternum dark red.

Head opaque with exception for the vertex which is slightly shiny. Eyes very large, prominent and roughly facetted. Tempora distinctly shorter than longitudinal diameter of an eye. Head base broadly rounded. Frontoclypeal suture feeble but distinct, nearly straight. Dorsal surface very densely punctured, punctures are large and crateriform, but flat. Intervals are much smaller than punctures. On vertex punctures are simple (not crateriform), minute, intervals are equal or larger than puncture size and the surface is slightly shiny. Ventral surface of the head densely and minute punctate, shiny. Pubescence yellowish, fine and sparse, appressed. Antennae are reaching the base of elytra. All antennomeres densely covered with fine white suberect pubescence and with numerous long and erect setae. Antennomeres 4-6 slightly serrate – indistinctly prolongated on distal inner side. Basal antennomere thickened and shortened. Second antennomere very short and small. Third antennomere 4 times longer than precedent. Antennomeres 5-10 nearly of same length. Penultimate antennomere shortened and widened distally. Terminal antennomere elongated cylindrical, 2.5 times so long as penultimate and as long as combined length of antennomeres 9-10. Terminal maxillary palpomere slightly securiform. Pronotum slightly shiny. Punctures of dorsal surface diverse - smaller on anterior part and large, crateriform with intervals distinctly smaller than punctures on basal part. With distinct but feeble lateral constriction behind the middle. On sides minute punctate, glossy and shiny, for exception in the lateral constriction, where punctures are large and surface less shiny. General pubescence vellowish, fine and guite long, appressed, directed medio-posteriorly. Separate long and erect tactile setae on the disc and sides. Scutellum small, triangular, minute punctate and shiny. Elytra glossy and shiny, subparallel, becoming indistinctly wider across the middle. Postbasal transverse impression almost invisible. Punctures not crateriform, fine and dense, intervals equal to twice larger than punctures. Toward apex, punctures becoming finer. Pubescence gravish, fine and long, suberect, directed obliquely laterally. Dorsal surface of elytra is well visible between the pubescence. With separate erect tactile setae on sides and disc. Sutural striae fine and narrow, developed only in apical third of elytra. Hind wings fully developed. Legs long, densely and finely pubescent. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere so long as combined length of other tarsomeres. Pygidium completely covered by elytra, truncate apically in males (Fig. 70), rounded apically in females (Fig. 72). Visible sternite V in males very narrow, flattened apically (Fig. 71), in females short, broadly rounded apically (Fig. 73). Spiculum gastrale (Figs 74 & 76). Aedeagus (Fig. 75). Ovipositor (Fig. 77).

**Sexual dimorphism.** Male (specimen from West Papua, Meydoudga) is different in having head base very slightly angulate (visible from behind) and slightly flattened medio-dorsally. Antennae are longer in male, eyes are comparatively larger. Total body length is 5.30 mm, maximum combined width of ely-tra – 1.57 mm.



**Figures 69–77:** Anthicomorphus subelongatus Pic ( $\delta$  from West Papua, Meydoudga;  $\mathfrak{P}$  from West Papua, Yapen Island): 69 – habitus, dorsal ( $\mathfrak{P}$ ); 70 – pygidium, dorsal ( $\delta$ ); 71 – sternite V, ventral ( $\delta$ ); 72 – pygidium, dorsal ( $\mathfrak{P}$ ); 73 – sternite V, ventral ( $\mathfrak{P}$ ); 74 – spiculum gastrale ( $\delta$ ); 75 – aedeagus ( $\delta$ ); 76 – spiculum gastrale ( $\mathfrak{P}$ ); 77 – ovipositor ( $\mathfrak{P}$ ).

Variability: Body length of the holotype 5.37 mm, maximum combined width of elytra – 1.57 mm. Whole apical fourth of elytra is pale in the holotype specimen, but black or indistinctly paler in other studied specimens. **Differential diagnosis.** *A. legenyem* Telnov (Indonesia: Waigeo) has the pronotum distinctly darker than head, which is distinctly prolongated posterior to eyes. *A. mertoni* Pic (Indonesia: Aru Islands) and *A. rufopubescens* Telnov (Indonesia: West Papua) both bear pale elytral pubescence. *A. suppeditus* Telnov (Indonesia: West Papua) differs in having the elytral pubescence whitish, dense and appressed, somewhat hiding sculpture of the elytral disc; head and elytra are densely punctate in this species with their surface being subopaque.

# Anthicomorphus suppeditus sp. nov. (Figs 15, 78-86)

**Type material. Holotypus**  $\mathcal{P}$ , SMNS. IRIAN JAYA: J.-Waropen Pr. Wapoga Riv., 100m, Kwadewa, loading [logging ?] road, km 80 1.–2.III.1999, leg. A. RIEDEL (Fig. 78).

**Paratypes.** 1*3*, SMNS & 1*9*, DTC, Same data as in holotype; 1*9*, SMNS. Irian Jaya:Jayawijaya Dekai, Brazza-river ca.100m,21.–22.VI. A. RIEDEL leg. 1994 [label violet]; 1*9*, NME. INDONESIA Irian Jaya Asori N Somyangga, 02°37'S, 136°13'E KU 07.I.1999 leg. A. Weigel; 1*9*, NME. INDONESIA Irian Jaya Biak 30 km NE,Saba E 01°07'S, 136°18'E 17.I.1999 leg. A. Weigel.

**Description.** Measurements of the holotype: total body length 4.87 mm, maximum width in the middle of elytra 1.38 mm; head 1.12 mm long, through eyes 0.95 mm broad, pronotum 1.00 mm long, maximum width 0.69 mm, elytra 2.75 mm long, 1.38 mm together broad. Colouration. Forebody red or dark red with mouth parts being lighter, scutellum dark brown, elytra black sometimes with reddish-brown apices. Antennae black with two basal antennomeres red and apical half of terminal antennomere reddish brown. Palps reddish orange with terminal palpomere brown. Legs red to dark reddish brown, middle and hind legs with tibiae and femora darker. Underside red to orange, meso- and metasternum darker.

In general very similar to *A. subelongatus* Pic, but differs in having less prominent eyes, elytral surface being subopaque and not shiny, pubescence of elytra being denser, appressed, directed posteriorly and partly hiding the sculpture of elytral disc, presence of feeble V-

form impression on the frons between eyes. Pygidium completely or almost completely covered by elytra, truncate apically in males (Fig. 79), broadly rounded in females (Fig. 81). Visible sternite V of male broad, very short and flattened apically (Fig. 80), longer and broadly angulate apically in females (Fig. 82). Spiculum gastrale (Figs 83 & 85). Aedeagus (Fig. 84). Ovipositor (Fig. 86).

**Sexual dimorphism.** Inconspicuous. Males have slightly longer and heavier antennae with the third antennomere longer than in females.

**Variability.** Specimen from Biak Island is generally paler, with forebody reddish-orange, antennomeres 3–11 orange-brown, terminal palpomere orange, base of elytra and epipleura reddish orange, as also elytral apices being pale. Specimens from valley of River Wapoga are generally darker, with middle and hind legs almost completely brown and front femora reddish brown. Specimen from Biak Island have a body length of 5.70 mm, male paratype from type locality is 5.80 mm long.

**Differential diagnosis.** *A. legenyem* Telnov (Indonesia: Waigeo) has the pronotum distinctly darker than head, the base of which is distinctly prolongated behind the eyes. *A. mertoni* Pic (Indonesia: Aru Islands) and *A. rufopubescens* Telnov (Indonesia: West Papua), both bear tan elytral pubescence. *A. subelongatus* Pic (Indonesia: West Papua) differs in having elytral pubescence less dense and suberect, not hiding sculpture of the elytral disc; head and elytra are less dense punctate in this species with their surface being glossy.

**Etymology.** Like a species presented by largest material series from various parts of West New Guinea, I name this species from Latin "suppedito" – to be enough, in a quantity, in abundancy.

# Anthicomorphus weigeli sp. nov. (Figs 18, 87-91)

**Type material. Holotypus** δ, NME. PNG: New Ireland Pr. New Ireland, 5 km SE Kamiraba,Lelet Plateau / 600–800m 03°15'33"S 151°55'32"E 11.III.2000 leg. A. Weigel KL (Fig. 87).

**Description.** Measurements of the holotype: total body length 5.48 mm, maximum width in the middle of elytra 1.56 mm; head 1.28 mm long, through eyes 1.02 mm broad, pronotum 1.15 mm long, maximum width 0.75 mm, elytra 3.05 mm long, 1.56 mm together broad.



**Figures 78-86:** Anthicomorphus suppeditus sp. nov.: 78 - habitus, dorsal (Holotype  $\mathfrak{P}$ ); 79 - pygidium, dorsal (Paratype  $\mathfrak{F}$ ); 80 - sternite V, ventral (Paratype  $\mathfrak{F}$ ); 81 - pygidium, dorsal (Paratype  $\mathfrak{P}$ ); 82 - sternite V, ventral (Paratype  $\mathfrak{P}$ ); 83 - spiculum gastrale (Paratype  $\mathfrak{F}$ ); 84 - aedeagus (Paratype  $\mathfrak{F}$ ); 85 - spiculum gastrale (Paratype  $\mathfrak{F}$ ); 86 - ovipositor (Paratype  $\mathfrak{P}$ ).



Figures 87-91: Anthicomorphus weigeli sp. nov. (Holotype &): 87 - habitus, dorsal; 88 - pygidium, dorsal; 89 - sternite V, ventral; 90 - spiculum gastrale; 91 - aedeagus.

Colouration. Uniformly orange with black eyes and slightly paler legs and palps. Antennomeres 3–10 black, terminal antennomere black basally, reddish-brown distally.

Head subopaque with exception for the vertex and zone between insertions of antennae, whose are slightly shiny. Eves very large, prominent and roughly facetted. Tempora long but distinctly shorter than longitudinal diameter of an eve. Head base broadly rounded. Frontoclypeal suture feeble. Dorsal surface very dense punctured, punctures are large and crateriform but flat. Intervals are much smaller than punctures. Between insertions of antennae and on vertex, punctures are simple (not crateriform), much smaller, with intervals being equal to puncture size and the surface being shiny. Ventral surface of the head densely and minute punctate, shiny. Pubescence orange, fine and sparse, appressed. Antennae are reaching the base of elvtra. All antennomeres densely covered with fine, white, suberect pubescence and with numerous long and erect setae. Antennomeres 4-6 slightly serrate - indistinctly prolongated on distal inner side. Basal antennomere thickened and shortened, nearly cylindrical. Second antennomere very short and small. Third antennomere 5 times longer than precedent. Antennomeres 5-9 nearly of same length. Penultimate antennomere cylindrical, very slightly widened distally. Terminal antennomere elongate cylindrical, twice so long as penultimate and equal to combined length antennomeres 9-10. Terminal maxillary palpomere elongated. Pronotum glossy and shiny. Punctures of dorsal surface diverse - fine and sparse with large intervals on anterior part and large, crateriform with intervals being smaller than punctures in basal part (here with indistinctly defined impunctate median longitudinal line). With distinct but feeble lateral constriction behind the middle. On sides minute punctate, glossy and shiny, for exception in the lateral constriction, where punctures are larger and surface less shiny. General pubescence orange, fine and quite long, appressed, directed medio-posteriorly. With separate long and erect tactile setae on the disc and sides. Scutellum small, triangular, minute punctate but not opaque. Elytra glossy and shiny, nearly subparallel, becoming indistinctly wider across the middle. Postbasal transverse impression almost invisible. Punctures not crateriform, fine and dense, intervals equal to twice larger than punctures. Toward apex, punctures becoming distinctly smaller and flatter. Pubescence orange, dense

and long, suberect, directed obliquely laterally. With numerous erect tactile setae on disc. Sutural striae fine and narrow, developed only in apical half of elytra. Hind wings fully developed. Legs long, densely and finely pubescent. Penultimate tarsomeres small, distinctly bilobate. Basal metatarsomere so long as combined length of other tarsomeres. Pygidium completely covered by elytra in males, truncate apically (Fig. 88). Visible sternite V of male short, broadly rounded apically (Fig. 89). Spiculum gastrale (Fig. 90). Aedeagus (Fig. 91).

Sexual dimorphism. Female is unknown.

Differential diagnosis. A. biakensis Telnov (West Papua: Biak Island) and A. pacificus Werner (Micronesia) have entirely pale antennae. A. greensladei Telnov (Solomones: Malaita) have the frons with transverse impression. A. moultoni Krekich-Strassoldo (E Malavsia, Brunei), A. moluccanus Telnov (North Moluccas) and A. rufus Krekich-Strassoldo (Philippines: Mindanao, Samar & Luzon) elytral pubescence is gravish, whitish or pale, but not of the same colour as the elytral surface. A. sulcatipennis Pic (Philippines: Mindanao) has the dorsal surface of the body more densely and roughly punctured, sparsely pubescent. A. theresae (Pic) (Indonesia: Sumatra) is generally dark red and also have elytral pubescence differently coloured than elytral surface. A. martini Telnov (Indonesia: Waigeo & Misool) is smaller (body length about 4.00 mm), and the main colouration in this species is brown with pale whitish pubescence.

**Etymology.** With a deep pleasure I devote this species to famous Cerambycidae specialist, my good friend and dear colleague Mr. Andreas Weigel (Wernburg), who first collected this species.

# Additional faunal information on known species of *Anthicomorphus* Lewis, 1895 from Indo-Australian transition zone and adjacent islands

In addition to the locality data given above in the species descriptions, the following new collecting localities are recorded:

#### Anthicomorphus moultoni Krekich-Strassoldo, 1914

19, BMNH. [East Malaysia, Sarawak] Kuching. Sarawak. G.E.Bryant. 29.XI.13.; 13, BMNH. [East Malaysia, Sarawak] Kuching. Sarawak. G. E. Bryant. 7.IV.14.



**Figures 92-98:** Anthicomorphus moultoni Krekich-Strassoldo: 92 – pygidium, dorsal (Paralectotype  $\mathfrak{P}$ ); 93 – pygidium, dorsal (Lectotype  $\mathfrak{F}$ ); 94 – sternite V, ventral (Lectotype  $\mathfrak{F}$ ); 95 – sternite V, ventral (Paralectotype  $\mathfrak{P}$ ); 96 – ovipositor (Paralectotype  $\mathfrak{P}$ ); 97 – spiculum gastrale (Lectotype  $\mathfrak{F}$ ); 98 – aedeagus (Lectotype  $\mathfrak{F}$ ).



Figures 99–105: 99–101: Anthicomorphus rufus Krekich-Strassoldo (Cotype? 2): 99 – pygidium, dorsal; 100 – sternite V, ventral; 101 – ovipositor. 102–105: Anthicomorphus theresae (Pic) (Lectotype  $\delta$ ): 102 – pygidium, dorsal; 103 – sternite V, ventral; 104 – spiculum gastrale; 105 – aedeagus.

# Anthicomorphus rufus Krekich-Strassoldo, 1925

19, BMNH. Philippines: Luzon. Tayabas, Malinao. C.F.Baker. New to Luzon Island.

# Anthicomorphus subelongatus Pic, 1910a

1 \$\, MNHN. [Indonesia, West Papua] Andai N.Guinea (Doherty); 1 \$\, SMNS. [Indonesia, West Papua] Testega, 1100–1300m, 30.III.–2.IV.; 1\$\delta\$, SMNS. IRIAN JAYA: Meydoudga 1200–1400m 5.IV.1993 leg. A. RIEDEL.

# Identification key to Anthicomorphus Lewis, 1895 from the Indo-Australian transition zone and to selected species from adjacent islands

Note: Morphologically similar species of *Anthicomorphus* from adjacent areas of SE Asia, particularly from the Philippine archipelago and Great Sunda Islands, are included in the key. For better species recognition, it is strongly recommended to study the genital organs of specimens.

1	Body uniformly dark red. Dorsal surface of forebody densely covered by large crateriform punctures;
	elytra also strongly but not crateriform punctured. Eyes comparatively small, head base broadly rounded;
	5-6 basal antennomeres reddish, rest of antennae brown to black; head base broadly rounded, almost
	truncate, tempora less converged toward the base; pubescence very sparse
_	Eyes large. Antennae with 2-3 basal antennomeres partly or completely pale; punctures on dorsal forebody
	less rough; head base distinctly rounded, not truncate
2	Body nearly uniformly dark brown, head somewhat paler
	Body not brown, but tan, orange, red or bicolourate
3	Body dorsally uniformly tan, dark red or light brown
_	Body non-uniformly tan, dark red or light brown coloured. Elytra completely or partly black to brown and at
	least head being orange to red
4	Antennae uniformly or nearly uniformly tan or orange
_	At least antennomeres 5–10 black or dark brown, distinctly darker than basal antennomeres whose are
	orange or reddish
5	Total body length about 4.00 mm. Pubescence in postbasal third of elytra directed posteriorly or very
	indistinctly obliquely laterally
	Total body length about 4.80–6.30 mm. Pubescence directed strongly obliquely laterally in postbasal
	third of elytra
	Elytral pubescence yellowish to orange, of same colour as elytral surface and hardly visible on their
	background
_	Elytral pubescence whitish, gravish or yellowish, but not of same colour as elytral surface and distinctly
	visible on their background
	Head with feeble but distinct transverse impression on frons above the insertions of antennae. Pronotum com-
	paratively broader. Pubescence directed distinctly obliquely laterally in postbasal third of elytra A. greensladei
	Head not impressed on frons. Pronotum comparatively slender. Pubescence directed less strongly obliquely
	laterally in postbasal third of elytra
	Total body length about 4.00 mm. Light brown with elytra somewhat darker. Elytra large and dense
	punctured
	Total body length is greater than 5.00 mm. Body orange or red. Elytra not large and dense punctate
	Head more or less distinctly narrowed behind the eyes
	Head not narrowed, broadly rounded behind the eyes

10	Body length about 6.00 mm, dorsal surface dark red. Elytral pubescence yellowish, lighter than colour of elytra
-	Body length about 5.00 mm, dorsal surface orange. Elytral pubescence orange or orange-yellow,
	not or only indistinctly differs from colour of elytra 11
11	Pygidium of male broadly rounded apically. Penultimate antennomere shortened, broader than long or as
	long as broad
-	Pygidium of male triangular, constricted toward the apex. Penultimate antennomere longer than or as
	long as wide A. moultoni
12	Body dark red, elytra with large black spot on the disc covering most of the elytral surface but leaving
	basal area and shoulder, as also apical area red
-	Head or complete forebody orange or reddish, elytra completely black or with paler apices 14
13	Punctures on anterior part of pronotal disc not crateriform and minute, distinctly smaller, than on basal part.
	Antennomeres 4-6 of female not ciliate, but slightly widened distally. Minimum interocular distance
	is smaller than distance between insertions of antennae
-	Punctures on anterior part of pronotal disc smaller than on basal part, but still large and crateriform.
	Antennomeres 4-6 of female ciliate, strongly widened distally. Minimum interocular distance is equal to
	distance between insertions of antennae
14	Pronotum darker than head. Head is strongly prolongated behind eyes
-	Pronotum of same colour as head - tan, orange or red. Head is less prolongated behind eyes15
15	Elytral pubescence rufous or orange
-	Elytral pubescence whitish or grayish, not rufous nor orange
16	Body length about 4.50 mm. Aru Islands A. mertoni
	(also see notes in species' description)
-	Body length about 5.30–5.50 mm. Northern Bird's Head peninsula A. rufopubescens
17	Elytra subopaque. Elytral pubescence dense and appressed, strongly hiding sculpture of elytral disc.
	Head base is broadly rounded in both sexes
-	Elytra glossy. Elytral pubescence dense and appressed, not hiding sculpture of elytral disc.
	Head base is shortly angulate in males

Species list of *Anthicomorphus* Lewis, 1895 from the Indo-Australian transition zone, including selected species from adjacent islands

Legends used in the list: PNG - Papua New Guinea (country).

Anthicomorphus biakensis sp. nov. Distribution: New Guinea (West Papua: Cenderawasih Bay, Biak Island).

Anthicomorphus brunneus sp. nov. Distribution: Sulawesi (North Sulawesi: Dumoga Bone National Park). Anthicomorphus dohertyi Pic, 1910a PIC (1910a: 46), as Anticomorphus [sic!] Dohertyi; PIC (1911: 26), as Anthicomorphus Dohertyi; UHMANN (1995: 525). Distribution: New Guinea (PNG: Madang; West Papua).

Anthicomorphus greensladei sp. nov. Distribution: Solomon Islands (Malaita Island).

Anthicomorphus legenyem sp. nov. Distribution: New Guinea (Raja Ampat Islands: Waigeo).

Anthicomorphus martini sp. nov. Distribution: New Guinea (Raja Ampat Islands: Waigeo & Misool).

#### Anthicomorphus mertoni Pic, 1910a

*Anthicomorphus mertoni* Pic, 1910b [homonym]
PIC (1910a: 47, footnote 1), as *Mertoni*; PIC (1910b: 316), as *Anthicomorphus Mertoni*; PIC (1911: 26), as *Anthicomorphus Mertoni* (Subgen. *Walesiomorphus*). Distribution: Aru Islands (Kobroor).

Anthicomorphus moluccanus sp. nov. Distribution: North Moluccas (Halmahera & Bacan).

Anthicomorphus pacificus Werner, 1965 WERNER (1965: 260). Distribution: Micronesia (Caroline Islands: Ponape).

#### Anthicomorphus rufopubescens sp. nov.

Distribution: New Guinea (West Papua: Manokwari surroundings).

# Anthicomorphus subelongatus Pic, 1910a

PIC (1910a: 47), as ? *Anticomorphus* [sic!] (*Walesiomorphus*) *subelongatus*; PIC (1911: 26), as *Anthicomorphus subelongatus* (Subgen. *Walesiomorphus*); UHMANN (1995: 525).

Distribution: New Guinea (PNG: Eastern Highlands, Madang; West Papua: Arfak Mountains, Jayapura & Manokwari surroundings, Yapen Island).

Anthicomorphus suppeditus sp. nov. Distribution: New Guinea (West Papua & Biak Island).

Anthicomorphus weigeli sp. nov.

Distribution: New Guinea (PNG: New Ireland Island).

# Acknowledgements

For the loan of comparative material, I am highly indebted to my dear friends and helpful colleagues Maxwell V.L. Barclay (BMNH), Thery Deuve and Azadeh Taghavian (both MNHN), Matthias Hartmann (NME), Mārtiņš Kalniņš (Nature Protection Board, Sigulda, Latvia), Wolfgang Schawaller (SMNS), and Andreas Weigel (Wernburg, Germany). For critical reviewing the manuscript I am very thankful to Dr. Stephen G. Compton (Leeds University, United Kingdom). Mr. Damir Kovac (SMF) is herewith sincerely thanked for information on the type material of *Anthicomorphus mertoni*. Kirill V. Makarov (Moscow Pedagogical University, Russia) and Sergey Vorss (Aberdeen, Scotland) are thanked for providing habitus photographs of studied specimens.

#### References

GORDON, R. G. Jr. (ed.) (2005): Ethnologue: Languages of the World, Fifteenth edition. Dallas, Texas.: SIL International. Online version: http://www.ethnologue.com (Last checked: October 1, 2009)

- KREKICH-STRASSOLDO, H. von (1914): Beiträge zur Kenntnis der Anthiciden. – Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien, Bericht der Sektion für Koleopterologie 64: 215–228.
- (1925): Anthicidae of the Philippines, I. The Philippine Journal of Science 27: 515-535, 3 pls.
- (1929): Die Anthiciden der Philippinen, II. The Philippine Journal of Science 40, No. 4: 453–483, 2 pls.
- LEWIS, G. (1895): On the Cistelidae and other heteromerous species of Japan. – The Annals and Magazine of Natural History 15, No. 6: 422–448, pl. 8.
- PIC, M. (1896): Description de Coléoptères nouveaux. Le Naturaliste (2) 18, No. 224: 184.
- (1910a): Coléoptères exotiques en partie nouveaux (suite).
   L'Échange, Revue Linnéenne 26: 45–47 (June 1910).
- (1910b): Zwei neue Coleopteren von den Aroe-Inseln. Wiener Entomologische Zeitung 29, No. 9/10: 315–316 (December 1910).
- (1911): Fam. Anthicidae [Pars 36]. In: JUNK, W. & S. SCHENKLING (eds.) Coleopterorum Catalogus. Berlin, W. Junk: 1–102.
- (1923): Nouveautés diverses. Mélanges Exotico-Entomologiques
   38: 1-32.
- TELNOV, D. (2006): Nomenclatural Notes on Anthicidae and Pyrochroidae (Coleoptera). 1. – Latvijas entomologs 43: 33–38.
- UHMANN, G. (1995): Anthicidae (Insecta: Coleoptera) from New Guinea in the Hornabrook Collection. – Journal of the Royal Society of New Zealand 25, No. 4: 517–526.
- WERNER, F.G. (1965): Coleoptera: Anthicidae. Beringe P. Bishop Museum, Honolulu. Insects of Micronesia 16, No. 5: 255–269.

# Author's address:

Dmitry Telnov Stopiņu novads, Dārza iela 10, LV-2130, Dzidriņas, Latvia / Lettland anthicus@gmail.com

# **ZOBODAT - www.zobodat.at**

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: <u>Veröffentlichungen des Naturkundemuseums Erfurt (in Folge</u> <u>VERNATE)</u>

Jahr/Year: 2009

Band/Volume: 28

Autor(en)/Author(s): Telnov Dmitry

Artikel/Article: <u>Species of Anthicomorphus Lewis, 1895 (Coleoptera: Anthicidae) from</u> the Indo-Australian transition zone (Wallacea), with comments on selected taxa from adjacent areas <u>377-408</u>