

Wallacea, Pistosia and Neodownesia:
three distinct genera and their tribal placement
(Coleoptera: Chrysomelidae: Cassidinae)

Lukáš SEKERKA

Department of Entomology, National Museum, Cirkusová 1740, CZ-19300, Prague, Czech Republic;
e-mail: sagrinae@gmail.com

Abstract. *Wallacea* Baly, 1859, *Pistosia* Weise, 1905 and *Neodownesia* Gressitt, 1953 are transferred from Gonophorini to Bothryonopini based on absence of setigerous pores on the pronotum, mouthparts situated close to antennal insertions, scutellum on the same plane as the elytra, and morphology of the larva. *Pistosia*, stat. restit., and *Neodownesia*, stat. restit., are removed from synonymy of *Wallacea* based on the structure of mouthparts and antennae. Three species are included in *Pistosia*: *P. maculata* Weise, 1905, *P. terminalis* (Baly, 1869) comb. nov. (from *Estigmena* Hope, 1840), and *P. testacea* (Fabricius, 1801); all endemic to Sulawesi and neighbouring small islands. Type localities of all three species are specified and Arecaceae is considered as potential host plant family. Three species are also included in *Neodownesia*: *N. sita* (Maulik, 1919) comb. nov., *N. mediovittata* (Gestro, 1920) stat. restit. & comb. nov., and *N. rubra* Gressitt, 1953, stat. restit.; the first two are transferred from *Wallacea* and the last two are removed from synonymy with *N. sita* based on study of type material. Distribution of *Neodownesia* species is corrected, *N. mediovittata* and *N. sita* are reported as new to Thailand. Keys to genera of Bothryonopini and to species of *Pistosia* and *Neodownesia* are also given. *Macrispa* Baly, 1859 stat. restit. is removed from synonymy of *Bothryonopa* Guérin-Ménéville, 1840 and includes two species: *M. ingenua* (Gestro, 1904) and *M. saundersii* (Baly, 1859). Following species were until now cited only in *Wallaceana* or *Pistosia* and are here transferred to *Wallacea*: *W. biseriata* (Uhmann, 1931) comb. nov., *W. costata* (Uhmann, 1939) comb. nov., *W. costipennis* (Uhmann, 1931) comb. nov., *W. drescheri* (Uhmann, 1935) comb. nov., *W. fasciata* (Uhmann, 1948) comb. nov., *W. impicta* (Uhmann, 1931) comb. nov., *W. nigra* (Chen & Sun, 1964) comb. nov., and *W. phoenicia* (Maulik, 1930) comb. nov. All taxa of *Neodownesia*, *Pistosia* and *Wallacea*, the latter containing 29 species, are provided with bibliographic catalogue, known distribution and host plants. Years of publication of respective taxonomic papers are corrected based on actual dates of publication.

Key words. Coleoptera, Chrysomelidae, Cassidinae, Gonophorini, Bothryonopini, *Neodownesia*, *Pistosia*, *Wallacea*, entomology, taxonomy, new combination, new synonymy, Oriental Region

Introduction

BALY (1859) proposed the genus *Wallacea* for three newly described species and designated *W. bowringii* Baly, 1859 as the type species. He placed the new genus among *Macrispa* Baly, 1859, *Bothryonopa* Guérin-Méneville, 1840, *Hispopria* Baly, 1859, *Estigmaena* Hope, 1840, and *Anisodera* Chevrolat, 1836 and stated that the genus stands closest to *Hispopria* and is distinguished from it by the different length of the second antennomere and simple femora (not armed with spines). CHAPUIS (1875) created group Wallacéites for *Wallacea* and placed it between Neotropical tribes Céphaloléites (nowadays Imatidiini Hope, 1840 – see SEKERKA 2014) and Hispoleptites (nowadays Hispoleptini). WEISE (1911a,b) placed *Wallacea* in Gonophorini Chapuis, 1875 without any comments. MAULIK (1928) found that Baly's genus is homonymous with *Wallacea* Doleschall, 1858 (Diptera), however, he was not able to find exact dates of publication and concluded that 'Doleschall's paper may have appeared a few months earlier than Baly's book' and thus proposed a new substitute name *Wallaceana* for *Wallacea* Baly, 1858. Since that publication, *Wallaceana* has been used as a valid name.

GRESSITT (1953) described the new genus and species, *Neodownesia rubra* Gressitt, 1953, from Fujian, China and placed it in Gonophorini next to *Downesia* Baly, 1859. UHMANN (1955, 1958) synonymized the genus with *Wallaceana*, but later GRESSITT & KIMOTO (1963) did not accept the synonymy and restored the generic status of *Neodownesia*.

WÜRMLI (1975) revised the genera of Old World hispines, synonymized *Wallaceana* and *Neodownesia* with *Pistosia* Weise, 1905 and kept the genus in Gonophorini. CHEN et al. (1986) placed *Pistosia* and *Bothryonopa* in Anisoderini beside genera traditionally classified in the tribe. The synonymy of *Pistosia* was accepted but the placement was not, and following authors included the genus in Gonophorini (e.g. MOHAMEDSAID 2004, BOROWIEC & SEKERKA 2010). While KIMOTO (1999) did not list tribes of hispines he did provide a key to the genera and an overview of species occurring in south-east Asia, and he placed *Pistosia* between *Bothryonopa* and *Anisodera*.

WOODLEY (2001) published a short note on nomenclature of *Wallacea* finding that both names were actually published as late as 1859, not in 1858, and that Baly's name must have priority over DOLESCHALL'S (1859) as it appeared earlier. As a result, *Wallacea* became the oldest available name for taxa placed in *Pistosia*. However, authors continued to use *Pistosia*, probably not knowing about Woodley's paper, until BOROWIEC & SEKERKA (2010). However, the fact that Baly's *Catalogue of Hispidae in the collection of the British Museum. Part I.* was actually published in 1859 (SHERBORN 1934) was overlooked. Hence all taxa described in that book must be understood as published in 1859 not in 1858.

Recently, I had an opportunity to study type material of various species currently classified in *Wallacea* and found that the genus is wrongly assigned to the tribe Gonophorini and that the genera previously synonymized with it are distinct. Below I give the circumstances which lead me to these conclusions.

Material and methods

All specimens were studied using methods of standard comparative morphology. Type localities are cited as they appeared in the original descriptions supplemented with approximate coordinates and present day geographic names of respective administrative divisions. Label data for all specimens are given verbatim as they appeared on the labels. Individual labels are separated by a double vertical bar ('||') while data on different rows by a single vertical bar ('|'). Additional comments and explanatory notes are given in the square brackets and following abbreviations are used for characteristics of the label: cb – cardboard label, hw – handwritten, p – printed, s – soft label, w – white.

All species classified until now in *Wallacea* are provided with bibliographic catalogue containing all references known to me. Distribution is given according to published records with the respective source. Information on host plants is included with plant names adjusted to current nomenclature (WCSP 2015). Only original sources containing the first published information are cited for host plants; publications referring to these are listed among other references.

With the exception of Figs 5–6 provided by the respective institutions, photographs were taken with a Canon EOS 550D camera with a Canon MP-E 65 mm lens at lowest aperture as numerous separate images at different focal planes and then composed in Helicon Focus software (<http://www.heliconsoft.com>).

References are organized chronologically and those of Baly, Gestro and Uhmans are provided with exact dates of publication as in several cases the actual date of publication did not correspond with the one currently used. The dates are given according to the original wrappers or were extracted from published accounts on respective journals (cf. EVENHUIS 2003; POGGI 2008, 2010; SHERBORN 1934).

The following collection codes are used:

- BMNH Natural History Museum, London, UK (Max Barclay, Michael Geiser);
- JBCB Jan Bezděk collection, Brno, Czech Republic;
- LSPC Lukáš Sekerka collection, Prague, Czech Republic;
- MTD Museum für Tierkunde, Dresden, Germany (Olaf Jaeger);
- NHRS Naturhistoriska Riksmuseet, Stockholm, Sweden (Johannes Bergsten);
- NMPC National Museum, Prague, Czech Republic (Jiří Hájek);
- SDEI Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany;
- SYSU Entomological collection of Sun Yat-sen University, Guangzhou, China (Feng-Long Jia);
- ZMHB Museum für Naturkunde, Berlin, Germany (Joachim Willers);
- ZMUC Zoological Museum, University of Copenhagen, Denmark (Alexey Solodovnikov);
- ZMUK Zoological Museum, University of Kiel, Germany (currently in ZMUC).

Tribal placement of *Wallacea*

Although BALY (1859) placed *Wallacea* in proximity of *Bothryonopa* and compared it to *Hispopria* (nowadays synonym of the latter) and CHAPUIS (1875) keyed it near *Hispoleptini* and *Bothryonopini*. WEISE (1911a,b) placed *Wallacea* in *Gonophorini* probably based on absence of the scutellar row of punctures distinguishing it from *Bothryonopini* which have a shortened row of punctures between the scutellum and the first row of punctures. All specialists but CHEN et al. (1986) accepted this placement (e.g. MAULIK 1919, GRESSITT 1950, UHMANN

1958, WÜRMLI 1975, MOHAMEDSAID 2004). CHEN et al. (1986) placed *Wallacea* (at that time known as *Pistosia*) in Bothryonopini based on the position of mouthparts close to antennal insertions, not being separated by a large clypeus.

WÜRMLI (1975) revised tribes and genera of old world hispines and basically followed classification of WEISE (1911a,b) at the tribal level. Besides the tribe Hispini, he separated Hispinae in two major groups on the basis of presence or absence of the scutellar row of punctures. As *Wallacea* lacks this row of punctures it was placed in the second group in Gonophorini and within this tribe it was separated from all other genera by having the mouthparts situated close to the antennal insertions not separated by the clypeus.

The presence or absence of a scutellar row of punctures is a very practical character as it is easily observed, however, its utility at the tribal level is questionable as it displays great variability. The length of the row is intraspecifically variable in nearly all species possessing the character. The problem is particularly obvious in species having a very short scutellar row composed of just a few (1–3) punctures as it is often completely reduced in one elytron while present on the other. Thus specimens from one population could be placed in two genera or even in two tribes if this character is strictly applied. For instance in Cryptonychini and Chalepini the scutellar row probably evolved several times independently as many genera lack the row while in other taxa the character occurs scattered among groups defined by other structural characters such as fusion of the terminal antennomeres and reduction of their number, the structure of the mouthparts, legs, prothorax etc., characters that are likely driven by strong trophic adaptation. While the Old World hispines generally are more conservative than New World Chalepini regarding this character, the length and visibility of the row is also variable in the large genus *Callispa* Baly, 1859 and in many species of the tribe Hispini. If the scutellar row is ignored as a crucial separation character *Wallacea* falls in Bothryonopini with which it shares many evolutionarily important features:

- 1) The mouthparts are placed close to the antennal insertions with clypeus reduced while in all other Gonophorini they are widely separated by a large clypeus.
- 2) The pronotum lacks a setigerous pore which is present in all four corners in remaining Gonophorini.
- 3) The scutellum, in dorsal view, is flat on the same level as the elytra, its anterior margin is steeply declivous but hidden under the basal margin of the pronotum, leaving the visible margin on the same plane as the base of the pronotum. All other Gonophorini have the apex of the scutellum slightly projecting above the elytra, gradually declivous towards the basal margin and lower than the base of the pronotum.
- 4) The larva is exophagous with an apical expanded plate, lives in yet unopened leaves, probably of Areaceae, while all other Gonophorini with known larval stages have mining larvae in leaves of various plant families.

Absence of setigerous pores on the pronotum is rather rare feature among the Old World tribes as only in Bothryonopini, Leptispini and some Cryptonychini are pores entirely missing. Leptispini are different in having mouthparts widely separated from the antennal insertions by a triangular clypeus, a parallel-sided pronotum longer than wide with very narrow margin,

and an exophagous larva possessing an apical furca bearing a fecal shield. Numerous Cryptonychini lack setigerous pores on the pronotum but can be readily separated by a differently formed head with a conspicuous interantennal projection, entirely missing in Bothryonopini.

The structure of the scutellum is also diagnostic. UHMANN (1959) published a study on the morphology of the scutellum in Hispinae, recognizing two types: the scutellum on the same plane as the elytra and pronotum (type 1) or embedded among elytra and pronotum (type 2). Uhmman even pointed out that *Wallacea* is the only genus with type 1 scutellum among type 2 Gonophorini but kept the genus in the latter tribe.

Larval morphology often is a better indicator of affiliation at the tribal level. So far only immature stages of *Wallacea dactyliferae* Maulik, 1919 were described and figured (MAULIK 1919, LEPESME 1947, ZAITSEV 2006a, LEE & CHENG 2010) agreeing in general with the morphology of *Bothryonopa sanguinea* Guérin-Méneville, 1840 (see MAULIK 1949). Larvae of both species share a parabolic apical plate with emargination and more or less projecting caudal processes. This larval morphology, found also in Cryptonychini and Anisoderini (Old World) and Prosopodontini (New World) is typical for species whose immature stages live in unopened fresh leaves of various monocotyledonous host plants. Other Gonophorini are known to have mining larvae. Among other tribes with mining larvae (Chalepini, Hispoleptini, Hispini, Oncocephalini, Promecothecini, Sceloenoplina) exophagous feeding larvae remain unknown. Based on the abovementioned facts I hereby transfer *Wallacea* to Bothryonopini.

UHMANN (1931c) described the genus *Wallacispa* containing a single species, *W. tibialis* Uhmman, 1931 from Philippines and placed it next to *Wallacea* (at that time as *Wallaceana*) because of the short clypeus. UHMANN (1956) classified Gonophorini genera in three groups on the basis of the structure of tarsal claws. He placed *Wallacispa* in the first group together with *Pistosia*, *Wallacea*, and *Downesia* characterized by each leg with a pair of tarsal claws projecting beyond the margin of the penultimate tarsomere. Despite discussing in detail the features uniting and separating *Wallacispa*, *Pistosia*, and *Wallacea* from other Gonophorini, including absence of pronotal setigerous pores in the latter two genera and other affinities to Anisoderini, Uhmman kept all three genera in the Gonophorini. Although I have not examined the type of *W. tibialis*, the description given by UHMANN (1931c, 1956) stating that each corner of the pronotum has a setigerous pore, the scutellum is embedded between elytra and pronotum, and that the elytra are coarsely punctate with three elevated and sharp ribs indicate the genus belongs to Gonophorini.

***Wallacea*, *Pistosia*, and *Neodownesia* – three distinct genera**

WÜRMLI (1975) considered the differences between these taxa as minor and synonymized all three genera. However he completely overlooked the structure of the antennae and mouthparts. *Pistosia* has tubular filiform antennae with individual antennomeres parallel-sided and large mandibles with cutting edge (like *Bothryonopa*) while *Wallacea* and *Neodownesia* have submoniliform antennae with antennomeres distinctly constricted at base and widening apically and smaller mandibles with teeth. For additional information see differential diagnoses under each genus.

***Macrispa* – a valid genus in Bothryonopini**

BALY (1859) described the genus *Macrispa* for a single species, *M. saundersii* Baly, 1859, and differentiated it from *Bothryonopa* by slenderer antennae, larger body size and more convex elytra. UHMANN (1958) listed four species in the genus: *M. bipartita* Pic, 1927, *M. krishnalohita* Maulik, 1915, *M. perakensis* Maulik, 1929, and *M. saundersii*. WÜRMLI (1975) revised the genera of Old World Hispinae, considered the genus valid, stated that it includes four species, and synonymized *Bothryonopa ingenua* Gestro, 1904 with *M. perakensis*. WÜRMLI (1976) revised Bothryonopini and synonymized *Macrispa* with *Bothryonopa* on the basis that *Macrispa* contained only two species and possessed no character that would separate it from the latter. This action was similar to WEISE (1911a) synonymizing *Hispopria* with *Bothryonopa*. KIMOTO (2005) listed *Macrispa* as a valid taxon without comment. More recently BOROWIEC & SEKERKA (2010) listed *Macrispa* as a synonym of *Bothryonopa*.

Würmli's decision was likely based on the enlarged fore legs as he compared the situation to *Hispopria*. However, the fore legs are sexually dimorphic, appearing very large in males and normal in females. *Macrispa* elytra differ distinctly from *Bothryonopa* in being mostly irregularly punctate (only first two rows are more or less regular) and convex, forming a regular arch in cross-section while the latter genus has completely regular punctation and the disc of elytra flattened. Additionally, the antennae of *Macrispa* are slenderer, longer and not tubular as in *Bothryonopa*. Hence I restore the generic status of *Macrispa* and include two species previously classified in *Macrispa*, *M. ingenua* (syn. *M. perakensis*) and *M. saundersii* (syn. *M. krishnalohita*). *Macrispa bipartita* is a typical member of *Bothryonopa* as indicated by WÜRMLI (1976).

Taxonomy

Key to genera of Bothryonopini

- 1 Elytra with scutellar row of punctures. 2
- Elytra without scutellar row of punctures. 3
- 2 Punctuation of elytra regular. ***Bothryonopa*** Guérin-Méneville, 1840
- Punctuation of elytra irregular. ***Macrispa*** Baly, 1859
- 3 At least four basal antennomeres submoniliform, distinctly constricted at base and widening apically. Antennomere III approximately 1.5× as long as II. 4
- Antennae tubular, antennomeres not constricted. Antennomere II very short, III three times longer. ***Pistosia*** Weise, 1905
- 4 Four basal antennomeres sparsely pubescent and shiny. Antennomeres V–X almost as wide as long. ***Wallacea*** Baly, 1859
- Five basal antennomeres sparsely pubescent and shiny. Antennomeres V–X twice as long as wide. ***Neodownesia*** Gressitt, 1953

***Neodownesia* Gressitt, 1953, stat. restit.**

(Figs 1–3)

Neodownesia Gressitt, 1953: 121 (original description); UHMANN (1955): 187 (as syn. of *Wallaceana*); UHMANN (1958): 229 (as syn. of *Wallaceana*, catalogue); GRESSITT & KIMOTO (1963): 906 (distinct genus, Chinese fauna); WÜRMLI (1975): 50 (as syn. of *Pistosia*).

Type species. *Neodownesia rubra* Gressitt, 1953, by original designation.

Other taxa included. *Anisoderopsis mediovitata* Gestro, 1920 and *Wallacea sita* Maulik, 1919.

Differential diagnosis. *Neodownesia* is distinguished by five basal antennomeres shiny, sparsely pubescent and submoniliform and absence of the scutellar row of the punctures on the elytra. *Pistosia*, *Bothryonopa*, and *Macrispa* differ in tubular antennae while the latter two genera possess a scutellar row of punctures. *Wallacea* is most similar to *Neodownesia* but differs in having only four basal antennomeres sparsely pubescent, antennomeres V–X nearly as long as wide while the same are approximately twice as long in *Neodownesia*. Thus *Neodownesia* has distinctly longer antennae with less compact terminal six antennomeres. All three *Neodownesia* species have the apex of the aedeagus truncate while in *Wallacea* species it is acutely pointed. However, I have not studied genitalia of *W. bowringii* the type species of *Wallacea*.

Biology and host plants. Unknown.

Remarks. GRESSITT (1953) compared *Neodownesia* to *Downesia* Baly, 1859 and remarked that it differs from the latter by mouthparts situated close to the antennal insertions instead of being separated by distinct frontal area. UHMANN (1955, 1958) synonymized the genus with *Wallaceana*, but later GRESSITT & KIMOTO (1963) did not accept the synonymy and restored the generic status of *Neodownesia*. WÜRMLI (1975) synonymized both, *Wallaceana* and *Neodownesia*, with *Pistosia*.

Key to species of *Neodownesia*

- 1 At least elytral intervals II, IV, and VI elevated and forming distinct ribs. Punctures on elytra densely arranged in rows, distance between two punctures much narrower than puncture diameter. 2
 - Only interval VI more or less elevated apically. Pronotum sparsely and moderately punctate. Punctures on elytra sparsely arranged in rows, distance between two punctures equal to puncture diameter. Fig. 3. *N. sita* (Maulik, 1919)
- 2 All elytral intervals costate and approximately similarly wide, even slightly higher than odd. Punctuation of pronotum moderate, forming regular stripes of dense punctures and five impunctate stripes. Pronotum slightly narrowing anteriorly and with black medial stripe. Ventral surface and legs black. Fig. 1. *N. mediovitata* (Gestro, 1920)
 - Only even elytral intervals costate, odd intervals very narrow. Punctuation of pronotum coarse and irregular, disc with three more or less defined impunctate stripes. Pronotum widening anteriorly and uniformly yellow. Ventral surface and legs dark brown. Fig. 2. *N. rubra* Gressitt, 1953

***Neodownesia mediovittata* (Gestro, 1920) stat. restit. & comb. nov.**

(Fig. 1)

Anisoderopsis mediovittata Gestro, 1920: 391 (original description); KIMOTO (1999): 67 (as synonym of *W. sita*).
Lasiochila mediovittata: UHMANN (1958): 164 (catalogue).

Type locality. ‘Nam Long (Alto Mekong)’ [= Laos, Luang Namtha Prov., Nam Long River valley].

Type material. Not examined.

Additional material examined. **LAOS:** HOUAPHAN PROVINCE: Ban Saulei, Phu Phan Mt., 20°15'N, 104°02'E, 1500–2000 m, 26.iv.–11.v.2001, 1 spec., 20°13'N, 103°59'E, 1300–2000 m, 6.–18.iv.2004, 1 spec., J. Bezděk lgt. (JBCB). **LUANG NAMTHA PROVINCE:** Louang Namtha env., 800–1200 m, v.1997, 2 ♂♂ 1 ♀ (LSPC, NMPC). **LOUANGPHRABANG PROVINCE:** 5 km W of Ban Song Cha, 20°33–34'N, 102°14'E, 1200 m, 24.iv.–16.v.1999, 1 ♂, C. Holzschuh lgt. (LSPC). **THAILAND:** NAN PROVINCE: Doi Phu Kha, 50 km NNE of Nan, 28.vi.–1.vii.1997, 1 ♀, J. Kaláb lgt. (LSPC).

Differential diagnosis. See Table 1.

Distribution. Laos (GESTRO 1920) and Thailand (new record).

Remarks. GESTRO (1920) described *A. mediovittata* based on two specimens from Laos and since then the species was enigmatic. KIMOTO (1999) synonymized *A. mediovittata* and *N. rubra* with *Wallacea sita* without further comments.

I have not had the opportunity to examine types of *A. mediovittata* but abovementioned specimens from Laos perfectly match the primary description and were collected in the valley of the Long River like the types. GESTRO (1920) mentioned a black dorsal stripe on pronotum and elytra (present only on elytra in the other two species), pronotum being slightly wider at base than anteriorly with basal and three lateral impressions (distinctly wider anteriorly and only with a single lateral impression in the other two species), and elytral intervals II, IV and VI being distinctly elevated (not elevated in *W. sita*). The specimen from Thailand differs in slightly less elevated elytral intervals but otherwise it matches specimens from Laos.

***Neodownesia rubra* Gressitt, 1953 stat. restit.**

(Fig. 2)

Neodownesia rubra Gressitt, 1953: 122 (original description); GRESSITT & KIMOTO (1963): 906 (Chinese fauna); KIMOTO (1999): 68 (as synonym of *W. sita*).

Wallaceana rubra: UHMANN (1955): 187 (*W. sita* sensu UHMANN (1940) = *W. rubra*); UHMANN (1958): 231 (catalogue).
Wallacea rubra: BOROWIEC & SEKERKA (2010): 383 (catalogue).

Pistosia rubra: CHEN et al. (1986): 138 (Chinese fauna), 599 (key to species); HUA (2002): 294 (catalogue).

Wallaceana sita [misidentification]: UHMANN (1940): 126 (faunistics); UHMANN (1955): 187 (= *W. rubra*); UHMANN (1958): 231 (ex parte, catalogue).

Pistosia sita [misidentification]: KIMOTO (1999): 67 (ex parte); HUA (2002): 294 (catalogue).

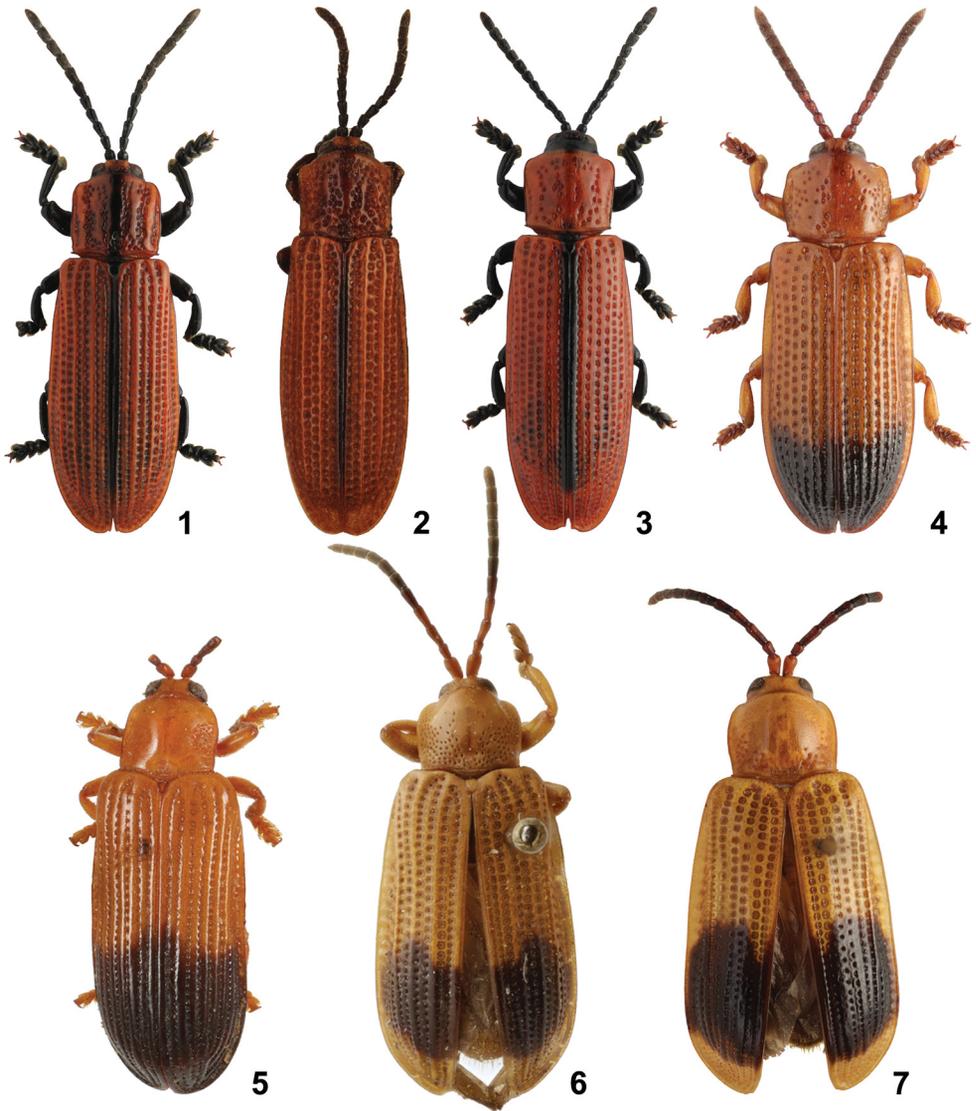
Wallacea sita [misidentification]: BOROWIEC & SEKERKA (2010): 383 (catalogue).

Type locality. ‘Ta-chu-lan, alt. 1,000 met., Shaowu, NW. Fukien Prov., SE. China’ [= China, Fujian Prov., Shaowu Co., Dazhulan, approx. 27°41.7'N, 117°39.0'E, 1000 m a.s.l.].

Type material examined. HOLOTYPE: ♂, glued, ‘Fukien, S. China | ShaoWu, TaChuFung | KwaYinLiao | VI-10-42 [hw] T. C. Maa [w, p, cb] || L-110 [w, typed, cb] || HOLOTYPE | NEODOWNESIA [hw] | MAAI [hw] | J.L.Gressitt [r, p + hw by Gressitt, cb] || NEODOWNESIA | MAAI | GRESS. | J.L.G. Det.1950 [w, hw by Gressitt, cb] || En-289753 | [Data Matrix barcode] SYS [w, p, cb]’ (SYSU).

Differential diagnosis. See Table 1.

Distribution. China: Fujian (UHMANN 1940, GRESSITT 1953).



Figs 1–7. 1 – *Neodownesia mediovitata* (Gestro, 1920) (Laos: Ban Song Cha, ♂, 8.7 mm); 2 – *N. rubra* Gressitt, 1953 (holotype, ♂, 6.5 mm); 3 – *N. sita* (Maulik, 1919) (Thailand: Soppong, ♀, 9.0 mm); 4 – *Wallacea apicalis* Gestro, 1896 (Indonesia: Mentawai Is.: Siberut, 5.3 mm); 5 – *Pistosia terminalis* (Baly, 1869) (holotype, 9.5 mm, © Natural History Museum, London); 6 – *P. maculata* (syntype, 12.0 mm, © Museum für Tierkunde, Berlin); 7 – *P. testacea* (Fabricius, 1801) (Indonesia: Sulawesi: Ahua Creek, 11.1 mm).

Remarks. UHMANN (1940) reported three specimens of *W. sita* from Fujian: ‘Kuatun, 27.4°N, 117.4°E, 2300 m’ also repeated by GRESSITT (1950). The locality name most likely refers to Guadun and surrounding mountains (as mentioned by Uhmann), known as Wuyishan Mts., however, the elevation is confusing as the highest peak, Mt. Huanggangshan, is only 2158 m a.s.l. and is the highest in Fujian. The original coordinates given by Uhmann are too rough and thus not helpful in locating the actual collecting site. Guadun is a small village (approx. 27°44.0’N, 117°38.5’E, 1200 m a.s.l.) with surrounding mountains reaching 1900 m a.s.l.

GRESSITT (1953) described *N. rubra* from locality Dazhulan situated just 4 km (in bee-line) south from Guadun and deposited one paratype in Uhmann’s collection (specimen not listed by GAEDIKE & DÖBLER (1971)). UHMANN (1955) stated that his earlier record from Fujian actually belong to Gressitt’s *N. rubra* and synonymized *Neodownesia* with *Wallaceana*. UHMANN (1958) listed his record from Fujian under *W. sita*, omitted the 1955 paper, and listed *W. rubra* separately. Due to confusion because of delays in printing of the catalogue, Uhmann stated that the catalogue was closed on 31st December 1956 and that all new changes will be included in the planned supplement (UHMANN 1964), in which he however, did not correct the distribution and records of *Wallaceana sita* and *W. rubra*. GRESSITT & KIMOTO (1963) listed both *Wallaceana sita* and *Neodownesia rubra*, in the revision of Chinese Chrysomelidae despite noting that the UHMANN’s (1940) record was corrected to *W. rubra*, eliminating *Neodownesia*. They also added: ‘We differ with this [*Wallaceana*] however (see *Neodownesia*), and thus do not know whether *sita* occurs in China or not.’ Under *Neodownesia* they wrote: ‘Uhmann has indicated this as a synonym of *Wallaceana*, but we believe it is a distinct genus because of alternately carinate elytral interstices’. Although the statement that *Neodownesia* is a distinct genus from *Wallaceana* is correct, the information about the questionable presence of *W. sita* in China is confusing and led the following authors to cite *W. sita* from China (CHEN et al. 1986, HUA 2002, BOROWIEC & SEKERKA 2010). But there was no need of that because the record was a simple misidentification and therefore China must be removed from the range of *N. sita*, although its presence in China is quite possible, but so far there is no record.

***Neodownesia sita* (Maulik, 1919) comb. nov.**

(Fig. 3)

Wallacea sita Maulik, 1919: 109 (original description); BOROWIEC & SEKERKA (2010): 383 (catalogue).

Wallaceana sita: UHMANN (1958): 231 (catalogue).

Pistosia sita: KIMOTO (1999): 67 (fauna of SE Asia).

Type locality. ‘Burma: Karen Hills’ [= Myanmar, Karen Hills, approx. 17°30’–20°20’N, 97°02’–98°01’E].

Type material examined. SYNTYPES: ♂, pinned, ‘Type [w, p, s, circular label with red frame] || 64279 [w, hw, s; Fry’s catalogue accession number] || Birmah | Karen Mts [w, hw, s] || Doherty [w, hw, s] || Fry Coll. | 1905.100 [w, p, s; BMHN register number referring to the Alexander Fry collection] || Wallacea sita. M. | Det. Maulik, 1918 [p] | ♂ Type [w, hw by Maulik, s]’ (BMNH); ♀, pinned, ‘Type [w, p, s, circular label with red frame] || Doherty [w, hw, s] || Fry Coll. | 1905.100 [w, p, s; BMHN register number referring to the Alexander Fry collection] || Birmah | Karen Mts [w, hw, s] || Wallacea sita. M. | Det. Maulik, 1918 [p] | ♂ Type [w, hw by Maulik, s]’ (BMNH).

Additional material examined. THAILAND: MAE HONG SON: Kiwlom Pass near Soppong, 19°26.75’N, 98°19.15’E, 1400–1450 m, 7.–12.v.1996, 1 ♂ 1 ♀, S. Bečvář lgt. (LSPC), 23.vi.–2.vii.2002, 1 ♀, R. & H. Fouquè lgt. (LSPC).

Differential diagnosis. See Table 1.

Distribution. Myanmar (MAULIK 1919) and Thailand (new record).

Table 1. Differential diagnoses of the *Neodownesia* species.

	<i>Neodownesia mediovittata</i> (Fig. 1)	<i>Neodownesia rubra</i> (Fig. 2)	<i>Neodownesia sita</i> (Fig. 3)
pronotum	slightly narrowing anteriorly	widening anteriorly	widening anteriorly
punctuation of pronotum	moderately coarse and dense, arranged in stripes; disc with five broad impunctate stripes	coarse, dense and irregular; disc with three more or less defined impunctate stripes	moderate, sparse and irregular; disc only with medial impunctate stripe
black medial stripe on pronotum	present	absent	absent
elytral intervals	all approximate, as wide as half of the puncture diameter; all intervals distinctly costate basally, even more elevated than odd	even intervals approximately half as wide as puncture diameter and costate, odd intervals very narrow and not costate	all equal, as wide as puncture diameter; only 6 th forming low costa on apical half
punctuation of elytra	moderately coarse; punctures within row almost touching each other	coarse and dense; punctures within row touching each other	moderate and sparse; distance between punctures within row as wide as puncture diameter
medial black stripe on elytra	wide, laterally reaching to 1 st row of punctures	narrow, limited to suture	wide, laterally reaching to 1 st row of punctures
colour of legs and underside of body	black	dark brown	black

Remarks. MAULIK (1919) described *W. sita* based on two specimens collected by W. Doherty in Karen Hills. Both specimens are syntypes as Maulik treated both specimens as ‘types’. Karen Hills are south-western projection of the Shan Hills and are situated between the Sittaung Valley and the Salween River in Myanmar. However, the exact location where the two specimens were collected is unknown. ELVES (1891) published an account on butterflies collected by W. Doherty in south-east Asia, including Karen Hills, and also included an itinerary to principal places visited by Doherty according to his letters, thus indicating the specimens were quite likely collected in one of the mentioned sites.

KIMOTO (1999) synonymized *N. rubra* and *N. mediovittata* with *N. sita* and increased its distribution to both Laos and Vietnam additional to China and Myanmar (as Burma). He most likely added these two countries because types of *N. mediovittata* were collected in ‘Nam Long (Alto Mekong)’ and he was not sure whether the locality is either in Vietnam or Laos. Therefore the two latter countries must be removed from distribution of *N. sita*. Moreover, Vietnam is removed from the distribution of *N. mediovittata* as the type specimens were collected in Laos and thus far there are no records of its occurrence in Vietnam.

***Pistosia* Weise, 1905, stat. restit.**

(Figs 5–7)

Pistosia Weise, 1905: 93 (original description); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue, re-description); UHMANN (1956): 167 (comparative notes, key to Gonophorini genera); GRESSITT (1957): 301 (South Pacific fauna); UHMANN (1958): 229 (catalogue); UHMANN (1964): 461 (catalogue); WÜRMLI (1975): 50 (synonymy with *Wallacea* and *Neodownesia*).

Estigmene [misidentification]: GRESSITT (1957): 210 (South Pacific fauna).

Type species. *Pistosia maculata* Weise, 1905, by monotypy.

Other species included. *Alurnus testaceus* Fabricius, 1801 and *Estigmene terminalis* Baly, 1869.

Differential diagnosis. *Pistosia* can be readily distinguished from other genera by combination of tubular antennae and absence of the scutellar row of punctures. *Neodownesia* and *Wallacea* differ in submoniliform basal antennomeres, antennomere III approximately 1.5× as long as II (three times longer in *Pistosia*), mandibulae with teeth (with cutting edge in *Pistosia*), normally sized labrum (very small in *Pistosia*), disc of pronotum flattened and coarsely punctate (convex and only basally punctate in *Pistosia*), vertex strongly convex and coarsely punctate (sparsely punctate and flat in *Pistosia*). *Bothryonopa* and *Macrispa* have tubular antennomeres, mandibles with cutting edge and small labrum like *Pistosia* but differ in presence of the scutellar row of punctures (absent in *Pistosia*), glabrous elytral epipleura (pubescent in *Pistosia*), and convex and moderately to coarsely punctate vertex (flat and very finely punctate in *Pistosia*). *Macrispa* also differs in completely irregular punctuation of the elytra while *Pistosia* has regular punctuation of elytra.

Biology and host plants. The host plants of *Pistosia* are unknown, however, it is likely that the genus is associated with Arecaceae like *Bothryonopa* and *Wallacea* species. There is some support for this idea as all three collectors, LABILLARDIÈRE (1802), WALLACE (1869) and SARASIN & SARASIN (1905), mentioned in their reports seeing extensive stands of palms. Labillardière even collected some as herbarium vouchers, and Wallace obtained insects from them.

Remarks. WEISE (1905) proposed the genus for a single species from Sulawesi. Latter on, UHMANN (1957) transferred a second species to *Pistosia*. WÜRMLI (1975) synonymized *Wallaceana* with *Pistosia* and confirmed synonymy of *Neodownesia* with *Wallaceana* ignoring all morphological features and WEISE's (1905, 1911b) comparative notes pointing to the strong difference in formation of antennae. Since then *Pistosia* was applied to all species previously classified in *Wallaceana* and no reference truly refers to *Pistosia* in the sense of the type species.

Key to species of *Pistosia*

- 1 Pronotum distinctly transverse 1.1–1.3× as wide as long, without lateral impressions. Elytra 1.7–1.8× as long as wide, explanate margin broad and distinctly widened in the middle. Body yellow with preapical black spot reaching approximately midlength of the elytra, explanate margin apically yellow. 2
- Pronotum 0.9× as wide as long, with deep lateral impression on each side. Elytra 2.4× as long as wide, parallel-sided and with narrow explanate margin. Body yellow, apical half of elytra black including explanate margin. North Sulawesi. Fig. 5.
..... *P. terminalis* Baly, 1869

- 2 Elytral intervals II, IV and VI costate. Pronotum densely and coarsely punctate laterally and basally, punctation laterally reaching anterior corners thus leaving convex apical half of the disc impunctate. Central Sulawesi. Fig. 6. *P. maculata* Weise, 1905
- Only elytral interval VI weakly costate. Pronotum coarsely but sparsely punctate only along base and with several punctures projecting anteriorly laterally but not reaching anterior corners thus disc of pronotum appears mostly impunctate. South East Sulawesi. Fig. 7. *P. testacea* (Fabricius, 1801)

Pistosia maculata Weise, 1905

(Fig. 6)

Pistosia maculata Weise, 1905: 95 (original description); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue, colour Fig.); HELLER (1916): 116 (faunistics [misidentification = *P. testacea*]); GRESSITT (1957): 301 (South Pacific fauna); UHMANN (1958): 229 (catalogue); UHMANN (1960): 23 (noted); KIMOTO (2000): 144 (catalogue).

Type locality. ‘Celebes orientalis: Tombugu’ [= Indonesia, Central Sulawesi Province, Morowali Regency, Tombuku [or Sakita], approx. 02°33’S, 121°58’E].

Type material studied. SYNTYPE: pinned, ‘Ost - Celebes | Tombugu | Kühn - Ribbe [orange, hw by J. Weise, cb] || Ost-Celebes | Tombugu | H. Kühn 1885. [w, p, cb] || 40. [w, hw, cb] || 106046 [w, p, cb] || *Pistosia | maculata* | m [w, hw by J. Weise, cb] || Holo- [hw] | Typus [red, p, cb] || J. Weise det. [w, p, cb] || [QR Code] | <http://coll.mfn-berlin.de/u/18dbe9> [w, p, cb]’ (ZMHB).

Differential diagnosis. *Pistosia maculata* can be easily separated from the two congeners by strongly costate elytral intervals II, IV and VI. From *P. terminalis* it also differs by stouter body and pronotum distinctly wider than long. *Pistosia testacea* differs, except for costae, in sparsely punctate pronotum.

Distribution. Indonesia: Central Sulawesi (WEISE 1905).

Remarks. WEISE (1905) proposed the genus *Pistosia* for a single species *P. maculata* Weise, 1905 collected in Tombugu [= Tombuku or Sakita], eastern Sulawesi by H. Kühn and C. Ribbe. HELLER (1916) reported additional specimens from southern Sulawesi, however, these belong to *P. testacea* (see remarks under that species) thus *P. maculata* is so far known only from a single type specimen. WEISE (1905) did not specify number of specimens used for description, however, he gave only a single length measurement and the description itself does not indicate that he had more specimens thus it is likely the species description was based on only a single specimen.

Pistosia terminalis (Baly, 1869) comb. nov.

Estigmaena terminalis Baly, 1869: 376 (original description); GEMMINGER & HAROLD (1876): 3606 (catalogue); DONCKIER DE DONCEEL (1899): 559 (catalogue); WEISE (1911a): 40 (catalogue); WEISE (1911b): 58 (catalogue); GRESSITT (1957): 210 (South Pacific fauna); UHMANN (1958): 161 (catalogue); UHMANN (1964): 437 (catalogue); STAINES & STAINES (1999): 525 (Baly’s taxa list).

Type locality. ‘Tondano’ [= Indonesia, North Sulawesi Province, Minahasa Regency, Tondano].

Type material examined. HOLOTYPE: glued, ‘Type | H. T. [w, p, cb, circular label with red frame] || Tind. | 32. [w, hw, cb, circular label referring to Wallace’s diaries] || Baly Coll. [w, p, cb] || *Estigmaena | terminalis* | Baly | Tondano [green, hw by Baly, cb] || [barcode] | NHMUK010210042 [w, p, cb]’ (BMNH).

Differential diagnosis. *Pistosia terminalis* can be readily distinguished by narrow and elongate body with pronotum distinctly longer than wide and elytra 2.4× as long as wide (1.8× in the

other two species). Additionally it has pronotum with a lateral impression on each side but absent in *P. maculata* and *P. testacea*.

Distribution. Indonesia: North Sulawesi (BALY 1869).

Remarks. BALY (1869) placed the species in *Estigmena* Hope, 1840 without any specific notes besides the description and since then the species was only listed in catalogues. During my stay in BMNH I had opportunity to study the only existing specimen and found that it lacks setigerous pores on the pronotum and scutellar row of punctures which are present in *Estigmena*. The specimen has partly broken antennae so only two basal antennomeres of the left antenna and four of the right were preserved but still antennomeres III–IV are tubular like those of *Pistosia* and not submoniliform as in *Wallacea* and *Neodownesia* hence I transfer the species to *Pistosia*.

BALY (1869) stated that the species was collected by A. R. Wallace at 'Tondano' but did not specify the number of specimens he had at his disposal. However, quite likely it was described from only a single specimen as Baly indicated just a single length measurement and other parts of the description also do not suggest that he had more than one. This is also supported by WALLACE's (1858–1866) diary where he stated on page 245 (Insects, page 19 according to Wallace's numbering) following: 'Hispidia.. n. s. on leaf near water' therefore the specimen is considered as holotype by monotypy. Unfortunately the diary is not particularly clear about the exact locality where the specimen was collected. The list starts on page 246 as beetles collected in 'N.E. Celebes (Menado)' and Wallace also gave locality 'Rurukan, 3500 ft.' all written in ink, however, in the same column several rows below he additionally handwrote in pencil 'Panghu, 1500 ft. ?'. On the next page with entry about hispine is no mention of any locality except of various elevations mentioned in other entries on that page.

According to WALLACE (1869) Tondano refers to the area around the Lake Tondano in northern Sulawesi and there are two possible places where the specimen was collected. Wallace left Menado on 22nd June 1859 and the day after settled for a fortnight at the village Rurukan (approx. 01°20.3'S, 124°52.8'E, ca. 1000 m a.s.l.). From here he made various smaller trips including the village of Tondano (approx. 01°17.9'S, 124°54.4'E, ca. 700 m a.s.l.) and nearby waterfalls. Then Wallace crossed the Tondano Lake on a boat and reached Kakas from where he continued to Panghu (nowadays Pangu, approx. 01°05.7'S, 124°48.9'E, ca. 600 m a.s.l.) where he stayed three weeks and then headed back by the same route. According to the report, Rurukan and Panghu fit best as the likely collecting sites, both mentioned in his diary. Other places, such as villages Tondano, Karas, Langowen (nowadays Langoan) Wallace visited only briefly spending his time mostly with meetings, acquiring provisions and sitting out weather conditions which prevented him from collecting. Wallace mentioned seeing nice growths of palms around Rurukan but regarding Panghu he was more specific and stated: 'The natives brought me daily a few insects obtained at the Sagueir palms.' The latter palm refers to *Arenga pinnata* (Wurmb) Merr. an important species in Sulawesi for production of alcoholic beverage called sagueir (SIEBERT 1999). Therefore it seems quite likely the type of *P. terminalis* came from Panghu as palm-associated hispines are very seldom collected unless somebody is truly searching for them. As *A. pinnata* is widely used by the locals it is probable that they collected the hispine among other insects. On the other hand, the other locality is also possible and the specimen might have been collected somewhere between villages of Rurukan and Tondano.

***Pistosia testacea* (Fabricius, 1801)**

Alurnus testaceus Fabricius, 1801: 25 (original description); SCHÖNHERR (1808): 342 (catalogue); Baly (1859): 162 (noted, incertae sedis supposedly belonging to *Oxycephala*); ZIMSEN (1964): 118 (type).

Oxycephala testacea: GEMMINGER & HAROLD (1876): 3604 (catalogue); DONCKIER DE DONCEEL (1899): 556 (catalogue); WEISE (1905): 96 (noted, misidentification); GESTRO (1905): 457 (noted); WEISE (1911a): 47 (catalogue); WEISE (1911b): 70 (catalogue); Mjöberg (1917): 18 (noted); UHMANN (1952b): 73 (noted).

Pistosia testacea: UHMANN (1957): 108 (type, transfer, comparative notes); GRESSITT (1957): 302 (South Pacific fauna, transfer); UHMANN (1958): 229 (catalogue); UHMANN (1964): 461 (catalogue); MARIAU (1999): 233 (noted); MARIAU (2001): 131 (noted).

Pistosia maculata [misidentification]: HELLER (1916): 116 (faunisticts).

Type locality. Original type locality: ‘Nova Cambria’ [= New South Wales], here corrected to: Indonesia, SE Sulawesi Province, Muna Island.

Type material examined. SYNTYPE: pinned (both antennae missing): ‘testaceus [w, hw by Fabricius, s] || *Pistosia* [hw] | testacea (♂) [hw] | E. Uhm ann det., 195[p]6[hw] | rev. [hw] [w, p, cb, hw parts by Uhm ann]’ (ZMUK, currently at ZMUC).

Additional material examined. INDONESIA: SOUTH-EAST SULAWESI: Kolaka Regency, Ahua Creek, 1 spec., Drs. Sarasin lgt. (MTD).

Differential diagnosis. *Pistosia testacea* has stout body with pronotum distinctly wider than long like *P. maculata* but the latter differs in elytral intervals II, IV and VI costate, and densely punctate pronotum along sides from base to anterior corners, while *P. testacea* has at most the interval VI slightly costate, remaining ones flat and pronotum sparsely punctate with punctures not reaching anterior corners laterally. Both species also differ in punctuation of elytra: *P. maculata* it is coarser and more densely arranged thus distance between two punctures within a row is less than the puncture diameter while *P. testacea* has punctuation distinctly sparser with distance between two punctures equal or slightly larger than puncture diameter.

Distribution. Indonesia: South East Sulawesi (present paper).

Remarks. WEISE (1905) considered *Oxycephala cornigera* Guérin-Méneville, 1833 a colour form of *O. testacea* and this opinion was followed until UHMANN (1957) who studied the type of *A. testaceus*. UHMANN (1957) [1.xii.1957] and GRESSITT (1957) [20.xii.1957] both independently transferred *Alurnus testaceus* Fabricius, 1801 to *Pistosia*. UHMANN (1957) certainly studied the type specimen from the ZMUK collection as he published its photograph accompanied by detailed notes and comparison to *P. maculata* and concluded that both are distinct species. The basis of GRESSITT’s (1957) decision is unknown as he gave only a brief comment. UHMANN (1957) considered both *Pistosia* species valid and stated that *P. maculata* differs in elytral intervals more elevated, apex of the elytra emarginate while *P. testacea* has a distinct denticle on the apex of suture.

HELLER (1916) reported specimens of *P. maculata* from ‘AhuaBach’ in southern Sulawesi collected by brothers Sarasins. According to their travel report (SARASIN & SARASIN 1905) they walked along the Ahua Creek (approximately 04°02.4’S, 121°54.5’E, 50–60 m a.s.l.) through rich stands of the sago palm on 26th February 1903 after Nangéu on trip to Raterate. HELLER (1916) stated that these specimens differ from the type, according to the figure published in Genera Insectorum (WEISE 1911b), in the apical black spot on elytra not concavely delimited anteriorly but rather composed of two oval spots, one on each elytron, and considerably extending to explanate margin. I have examined one specimen from MTD (Fig. 7) and it has dorsal colouration very similar to the syntype of *P. maculata* (Fig. 6) except black colour

expanding more laterally on explanate margins of elytra. However it does not have prominent costae on elytra like *P. maculata* and is in fact nearly identical to the syntype of *P. testacea*.

FABRICIUS (1801) described *A. testaceus* from the material collected by Jacques-Julien Houtou de Labillardière (1755–1834) and stated ‘Nova Cambria’ [= New South Wales] as the type locality. The depository of Labillardière’s insect collection is unknown, nor is it known whether the material he collected was retained by Fabricius or the specimen present in his collection came from somewhere else. Despite findings that many Fabrician specimens in his collection actually do not represent true types (see SEKERKA & BARCLAY 2014), I consider the specimen a syntype as it agrees with the primary description. However, the type locality must be erroneous because no other specimen nor any other species of Bothryonopini was collected in Australia. Assuming the specimen was collected by Labillardière during his voyage ‘à la Recherche de la Pérouse’ and taking in account the fact that so far all *Pistosia* specimens came from Sulawesi there is only one possibility where the specimen was collected. According to the itinerary of the voyage (LABILLARDIÈRE 1802) they passed Sulawesi only once, on the way back to France. The other possibility could be also Buru Island where they stopped before travelling towards Sulawesi; other places are too distant from Sulawesi and thus it is unlikely the species occurred there. Below the travel from the Waigeo Island to Java is summarized.

They sailed on 28th August 1792 from Waygiou [= Waigeo Is.] and on 4th September reached northern coast of Bourou [= Buru Is.]. The boat anchored in the Kayeli Bay where they stayed for several days around village Cayelle [= Kayeli]. Labillardière mentioned seeing extensive plantations of the sago palm among other trees and plants. On 16th September they sailed towards Straits of Bouton [= Buton Is.] which they reached on 22nd. The straits proved difficult to pass and they sailed through as late as on 7th October and anchored north of village of Buton [= Bau-Bau]. Labillardière mentioned going on the shore of Pangesani Island [= Muna Is.] and he noted that he gathered various species of rattans (*Calamus* spp.) and also stated: ‘In the Island of Pangesani, I several times traveled thick forests of the palm, known by the name of *Corypha umbraculifera*...’. Labillardière continues that on 8th October they visited the village Buton to see the Sultan and on 9th afternoon they sailed to Salayer [= Selayar Is.] which they passed and continued toward Java. Therefore it seems most probable that the specimen was collected in Pangesani Island, nowadays known as Muna Island. This is supported by the fact that the material published by HELLER (1916) as *P. maculata* is in fact conspecific with the syntype of *P. testacea*.

MARIAU (1999, 2001) wrongly assigned *P. testacea* to Cryptonychini and listed it as palmivorous without giving a reference.

***Wallacea* Baly, 1859**

(Fig. 4)

Wallacea Baly, 1859: 97 (original description); CHAPUIS (1875): 282 (redescription); GEMMINGER & HAROLD (1876): 3602 (catalogue); GESTRO (1897): 42 (Sumatran fauna); DONCKIER DE DONCEEL (1899): 552 (catalogue); GAHAN (1900): 438 (stridulation); GESTRO (1900): 434 (correction of Donckier’s catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (diagnostic description, catalogue); GESTRO (1913): 45 (catalogue); GESTRO (1917): 49 (Philippine fauna); MAULIK (1919): 106 (redescription, Indian fauna); WEISE (1922): 71 (noted); WÜRMLI (1975): 50 (as syn. of *Pistosia*); STAINES & STAINES (1999): 527 (Baly’s taxa list); WOODLEY (2001): 410 (nomenclature); BOROWIEC & SEKERKA (2010): 383 (catalogue).

Wallaceana Maulik, 1928: 159 (new substitute name for *Wallacea* Baly nec Doleschall); LEPESME (1947): 563 (host plants, biology); GRESSITT (1950): 92 (Chinese fauna); UHMANN (1956): 230 (key to genera), 233 (comparative notes); GRESSITT (1957): 302 (South Pacific fauna); UHMANN (1958): 229 (catalogue); UHMANN (1959): 5 (scutellum morphology); GRESSITT & KIMOTO (1963): 905 (Chinese fauna); UHMANN (1964): 461 (catalogue); HOWARD & ABAD (2001): 99 (noted).

Pistosia: WÜRMLI (1975): 50 (diagnostic description); SEENO & WILCOX (1982): 164 (catalogue); CHEN et al. (1986): 134 (Chinese fauna), 599 (key to species); JOLIVET (1989): 311 (host plants); JOLIVET & HAWKESWOOD (1995): 154 (host plants); KIMOTO & CHU (1996): 128 (catalogue, Taiwan); KIMOTO (1999): 66 (key to species, SE Asia); KIMOTO (2000): 142 (catalogue); STEINER (2001a): 159 (morphospecies, Malaysia, host plants); STEINER (2001b): annex 1 (morphospecies, host plants); MOHAMEDSAID (2004): 169 (Malaysian fauna).

Pistocia [sic!]: MEDVEDEV & SPRECHER-UEBERSAX (2005): 333 (Nepal fauna); KIMOTO (2005): 105 (catalogue).

Type species. *Wallacea bowringii* Baly, 1859, by original designation.

Differential diagnosis. *Wallacea* is readily distinguished by four submoniliform and sparsely pubescent basal antennomeres and absence of the scutellar row of punctures. *Pistosia*, *Bothryonopa*, and *Macrispa* differs in having tubular antennae and in the latter two a scutellar row of punctures. *Neodownesia* has five shiny basal antennomeres and antennomeres V–X approximately twice as long as broad while *Wallacea* had antennomeres V–X compact, nearly as long as wide.

Biology and host plants. Thus far, biology is known for only a few species, all associating the genus with Arecaceae (see catalogue below). The published biological information is mostly limited only to host plants with exception of *W. apicalis* Gestro, 1896 (with synonym *W. palmarum* Gestro, 1913) and *W. dactyliferae* Maulik, 1919, which have been more intensively studied as they were recognized as pests of some economically important palms, such as *Cocos nucifera* L., *Areca catechu* L., *Metroxylon* spp., and *Phoenix* spp. Larvae as well as adults are feeding among new unopened leaves, occasionally causing extensive damage. SANTIAGO-BLAY (2004) erroneously listed *Wallacea* species as supposedly having leafmining larva, probably because the genus was at that time assigned to Gonophorini which have mining larvae. Although only larva of *W. dactyliferae* was described and figured I believe that also other *Wallacea* species will have similar larval type. STEINER (2001a,b) during his study of insects associated with rattans also collected numerous specimens of several *Wallacea* species including larvae and stated that the larvae live in young, unopened leaves eating epidermis.

Remarks. The genus name was substituted with name *Wallaceana* due to supposed homonymy (MAULIK 1928), however, it turned out that the replacement name was unnecessary as *Wallacea* Baly was published earlier than *Wallacea* Doleschall, 1859 (WOODLEY 2001).

Wallacea abscisa (Uhmann, 1939)

Wallaceana abscisa Uhmann, 1939a: 4 (original description); UHMANN (1948a): 1 (invalid lectotype designation); UHMANN (1958): 229 (catalogue); GAEDIKE & DÖBLER (1971): 364 (types); STAINES (1997): 419 (Uhmann's taxa list).

Pistosia abscisa: CHEN et al. (1986): 135 (Chinese fauna), 599 (key to species); HUA (2002): 294 (catalogue).

Wallacea abscisa: BOROWIEC & SEKERKA (2010): 383 (catalogue).

Type locality. 'Kambaiti' [= Myanmar, Kachin State, Kambaiti, approx. 25°31.59'N, 98°08.86'E, 2700 m a.s.l.].

Distribution. China: Yunnan (CHEN et al. 1986), Myanmar: Kachin (UHMANN 1939a).

Remarks. UHMANN (1939a) described the species from a series of 22 specimens without selecting a holotype, therefore all specimens became syntypes, while in many other species described in the same paper he fixed holotype and paratypes. UHMANN (1948a) published a short note about taxa described by him from NHRS and pointed out that he omitted to select holotypes in several, among those was *W. abscisa*. He added that the holotypes of all such taxa are preserved in NHRS. However, he did not provide any specific information besides the list of species therefore this act is an invalid lectotype designation and all specimens are syntypes despite GAEDIKE & DÖBLER (1971) considering the designation valid.

Wallacea angulicollis Gestro, 1911

Wallacea angulicollis Gestro, 1911: 129 (original description); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana angulicollis: UHMANN (1958): 229 (catalogue).

Pistosia angulicollis: KIMOTO (2000): 142 (catalogue); MOHAMEDSAID (2004): 169 (catalogue).

Type locality. 'Borneo'.

Distribution. Malaysia: Sarawak (GESTRO 1913).

Remarks. Gestro published the description in *Bullettino della Società Entomologica Italiana* for year 1909, however the publication appeared as late as 28th February 1911 (POGGI 2008).

Wallacea apicalis Gestro, 1896

Wallacea apicalis Gestro, 1896: 329 (original description); GESTRO (1897): 42 (faunistics); DONCKIER DE DONCEEL (1899): 552 (catalogue); GESTRO (1900): 435 (correction of Donckier's catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana apicalis: UHMANN (1935): 145 (faunistics); UHMANN (1938): 425 (faunistics); UHMANN (1939b): 40 (host plant, variability); KALSHOVEN (1951): 755 (biology); KALSHOVEN (1957): 10 (noted); UHMANN (1958): 229 (catalogue); UHMANN (1964): 461 (catalogue); UHMANN (1965): 242 (presence in Philippines doubtful); KALSHOVEN (1981): 453 (host plants); SANTIAGO-BLAY (2004): 82 (noted).

Pistosia apicalis: KIMOTO (2000): 142 (catalogue); MOHAMEDSAID (2004): 169 (catalogue).

Wallacea palmarum Gestro, 1913: 43 (original description); GESTRO (1917): 409 (faunistics, Philippines; misidentification = *W. impicta* (see UHMANN 1931c)); GESTRO (1919): 343 (host plant); WEISE (1924): 81 (faunistics, host plant); UHMANN (1928): 61 (faunistics); CORBETT (1929): 267 (host plants, pest status); DAMMERMAN (1929): 91 (host plants, pest status); CORBETT (1932): 21 (noted); MILLER (1932): 18 (noted); SPEYER (1954): 372 (noted).

Wallaceana palmarum: UHMANN (1931b): 2 (faunistics); UHMANN (1935): 145 (synonymy); MAULIK (1937a): 150 (noted); LEPESME (1947): 563 (noted); LANGE (1950): 155 (host plants, parasites); UHMANN (1958): 229 (catalogue); UHMANN (1964): 461 (catalogue, *W. palmarum* = *W. apicalis*); FONG (1990): 102 (noted); HOWARD & ABAD (2001): 99 (noted).

Pistosia palmarum: KIMOTO (2000): 144 (catalogue); KIMOTO (2003): 43 (faunistics); MOHAMEDSAID (2004): 170 (catalogue); MOHAMEDSAID (2009): 99 (faunistics).

Type localities. *Wallacea apicalis*: 'Si-Oban e a Sereinu (Sipora)' [= Indonesia, Mentawai, Sipora Is., Sioban and Sereinu villages]; *W. palmarum*: 'Singapore'.

Host plants. Arecaceae: *Areca triandra* Roxb. ex Buch.-Ham. (GESTRO 1913); *Cocos nucifera* L. (WEISE 1924); *Areca catechu* L. (CORBETT 1929, MOHAMEDSAID 2009); *Areca* spp. (UHMANN 1939b); *Cocos nucifera* L., *Metroxylon* sp. (KALSHOVEN 1957); *Nipa fruticans* (Wurmb) Thunb. (DAMMERMAN 1929); *Nipa fruticans* (Wurmb) Thunb., *Areca catechu* L., *Eugeissona tristis*

Griff., *Metroxylon sagu* Rottb. (LANGE 1950); *Phoenix roebelenii* O'Brien (KALSHOVEN 1981).

Distribution. Indonesia: Java (UHMANN 1928, 1935, 1939b; KALSHOVEN 1957), Lombok (MOHAMEDSAID 2009), Mentawai (GESTRO 1896), Sumatra (GESTRO 1897, WEISE 1924, KALSHOVEN 1957), Sumba (MOHAMEDSAID 2009); Malaysia: Penang (UHMANN 1938); Singapore (GESTRO 1913); Sri Lanka (KIMOTO 2003).

Remarks. UHMANN (1935) synonymized *W. palmarum* with *W. apicalis* but omitted the synonymy in the catalogue (UHMANN 1958) causing later authors to treat the species name as valid, despite the fact that he subsequently corrected the mistake in the supplement to the catalogue (UHMANN 1964).

GESTRO (1917) published *W. palmarum* as new to Philippines, however UHMANN (1931c) stated that the specimen actually belongs to *W. impicta*; therefore Philippines are hereby removed from the distribution of *W. apicalis*. UHMANN (1965) considered the presence of *W. apicalis* in Philippines as doubtful.

Wallacea bakeri Gestro, 1919

Wallacea bakeri Gestro, 1919: 344 (original description).

Wallaceana bakeri: UHMANN (1958): 230 (catalogue).

Pistosia bakeri: KIMOTO (2000): 142 (catalogue); MOHAMEDSAID (2004): 170 (catalogue).

Type locality. 'Singapore'.

Distribution. Singapore (GESTRO 1919).

Wallacea biseriata (Uhmann, 1931) comb. nov.

Wallaceana biseriata Uhmann, 1931c: 43 (original description); UHMANN (1958): 230 (catalogue); UHMANN (1965): 255 (Philippine fauna); GAEDIKE & DOBLER (1971): 366 (holotype).

Wallacispa [sic!] *biseriata*: STAINES (1997): 419 (Uhmann's taxa list).

Pistosia biseriata: KIMOTO (2000): 142 (catalogue).

Type locality. '[Philippines,] N. Mindanao, Surigao'.

Distribution. Philippines: Mindanao (UHMANN 1931c).

Wallacea bowringii Baly, 1859

Wallacea bowringii Baly, 1859: 99 (original description); GEMMINGER & HAROLD (1876): 3602 (catalogue); DONCKIER DE DONCEEL (1899): 552 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue); WEISE (1922): 71 (noted); STAINES & STAINES (1999): 527 (Baly's taxa list).

Wallaceana bowringii: UHMANN (1958): 230 (catalogue).

Pistosia bowringi: KIMOTO (2000): 142 (catalogue).

Type locality. 'Java'.

Type material examined. HOLOTYPE: 'Type [green, circular, hw] || 67.56 [w, p, s; BMHN register number referring to the Hamlet Clark collection] || Wallacea | bowringii | Baly | Java [green, hw by Baly, cb] || HOLO | TYPE [w, p, s, circular label with red frame]' (BMNH).

Distribution. Indonesia: Java (BALY 1859).

***Wallacea collaris* Baly, 1859**

Wallacea collaris Baly, 1859: 98 (original description); GEMMINGER & HAROLD (1876): 3602 (catalogue); DONCKIER DE DONCEEL (1899): 552 (catalogue); GESTRO (1903): 135 (catalogue); GESTRO (1911): 142 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue); STAINES & STAINES (1999): 527 (Baly's taxa list).

Wallaceana collaris: UHMANN (1958): 230 (catalogue).

Pistosia collaris: KIMOTO (2000): 143 (catalogue); MOHAMEDSAID (2004): 170 (catalogue).

Type locality. 'Borneo (Sarawak)'.

Distribution. Malaysia: Sarawak (BALY 1859).

***Wallacea compta* Gestro, 1913**

Wallacea compta Gestro, 1913: 41 (original description).

Pistosia compta: KIMOTO (2000): 143 (catalogue); MOHAMEDSAID (2004): 170 (catalogue).

Wallaceana compta: UHMANN (1958): 230 (catalogue).

Type locality. 'R. Limbang' [= Malaysia, Sarawak, Limbang River].

Distribution. Malaysia: Sarawak (GESTRO 1913).

***Wallacea conspicua* Gestro, 1899**

Wallacea conspicua Gestro, 1899: 317 (original description); DONCKIER DE DONCEEL (1899): 552 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana conspicua: UHMANN (1958): 230 (catalogue).

Pistosia conspicua: KIMOTO (2000): 143 (catalogue).

Type locality. Indonesia, West Sumatra, Painan, approx. 1°21'S, 100°35'E [according to the title of the publication].

Distribution. Indonesia: Sumatra (GESTRO 1899).

***Wallacea costata* (Uhmann, 1939) comb. nov.**

Wallaceana costata Uhmann, 1939b: 39 (original description); UHMANN (1952a): 238 (invalid lectotype designation); UHMANN (1958): 230 (catalogue); GAEDIKE & DÖBLER (1971): 369 (syntype); STAINES (1997): 419 (Uhmann's taxa list).

Pistosia costata: KIMOTO (2000): 143 (catalogue).

Type locality. 'Batoerraden, Goenoeng Slamet, 800–1000 m' [= Indonesia, Central Java, Baturaden, Gunung Slamet, ca. 7°18'N, 109°13'E].

Distribution. Indonesia: Java (UHMANN 1939b).

Remarks. UHMANN (1939b) described the species from a series of syntypes without selecting a holotype. Later, he noticed this and published a short overview of his taxa without fixing a holotype and additionally stated that the holotype was in his collection (UHMANN 1952a). However, this act was an invalid lectotype designation as Uhmann did not provide any specific information besides the species name.

***Wallacea costipennis* (Uhmann, 1931), comb. nov.**

Wallaceana costipennis Uhmann, 1931c: 44 (original description); UHMANN (1958): 230 (catalogue); UHMANN (1965): 255 (Philippine fauna).

Pistosia costipennis: KIMOTO (2000): 143 (catalogue).

Wallacispa [sic!] *costipennis*: STAINES (1997): 419 (Uhmann's taxa list).

Type locality. '[Philippines,] Mindanao, Surigao'.

Distribution. Philippines: Mindanao (UHMANN 1931c).

***Wallacea dactyliferae* Maulik, 1919**

Wallacea dactyliferae Maulik 1919: 107 (original description, larva, host plant); GESTRO (1919): 343 (host plants); ABDULLAH & QURESHI (1969): 95 (faunistics); BOROWIEC & SEKERKA (2010): 383 (catalogue).

Wallaceana dactyliferae: MAULIK (1937a): 150 (noted); BEESON (1941): 230 (noted); LEPESME (1947): 564 (noted); KALSHOVEN (1957): 10 (noted); UHMANN (1958): 230 (catalogue); MONRÓS (1960): 31 (illustration, faunistics, host plant); CHEN et al. (1962): 120 (faunistics); UHMANN (1964): 461 (catalogue); KIMOTO (1976): 9 (faunistics); ANAND (1989): 10 (faunistics); HOWARD & ABAD (2001): 99 (noted); SANTIAGO-BLAY (2004): 82 (noted).

Pistosia dactyliferae: CHEN et al. (1986): 136 (Chinese fauna), 599 (key to species); KIMOTO & CHU (1996): 128 (catalogue); BASU (1999): 166 (faunistics); KIMOTO (1999): 67 (faunistics); HUA (2002): 294 (catalogue); DRESCHER & MARTINEZ (2005): 34 (introduction to France, host plants, biology, pest status); BEENEN & ROQUES (2010): 289 (noted, several times mentioned in text as *P. dactylifera* [sic!]); LEE & CHENG (2010): 162 (Taiwanese fauna, immature stages, host plant).

Pystosia [sic!] *dactyliferae*: ZAITZEV (2006a): 1031 (immature stages, faunistics); ZAITZEV (2006b): 607 (immature stages, faunistics).

Type locality. '[India], Madras: Chingleput, Vamambady; Bengal: Pusa'.

Host plants. Arecaceae: *Phoenix* sp. (MAULIK 1919); *Borassus flabellifer* L. (MONRÓS 1960); *Calamus* sp. (ZAITZEV 2006a,b); *Arenga tremula* (Blanco) Becc. (LEE & CHENG 2010); *Phoenix canariensis* H. Wildpret, *Chamaerops humilis* L., *Washingtonia filifera* (Rafarin) H. Wendl. ex de Bary (DRESCHER & MARTINEZ 2005).

Distribution. Bangladesh (ABDULLAH & QURESHI 1969); China: Yunnan (CHEN et al. 1962); India: Bihar, Tamil Nadu (MAULIK 1919), Karnataka (MONRÓS 1960); Taiwan (KIMOTO 1976, LEE & CHENG 2010); Thailand: Nakhon Si Thammarat (KIMOTO 1999); Vietnam (ZAITZEV 2006a,b). Introduced and established in France (DRESCHER & MARTINEZ 2005).

Remarks. ABDULLAH & QURESHI (1969) reported the species in a summary table of hispine species of economic importance and stated its distribution was Pakistan and India. However, they did not place the species in either key to hispines of West or East Pakistan. Based on the distribution of *W. dactyliferae* it more likely occurs in Bangladesh, formerly known as East Pakistan.

MONRÓS (1960) published a drawing of the adult specimen provided with locality data and noted that the specimen was collected on palmyra palm. The vernacular name refers to the genus *Borassus* and there is only one species in India, *Borassus flabellifer* L. (HENDERSON 2009), which is hence listed among host plants of *W. dactyliferae*.

***Wallacea distinguenda* Baly, 1859**

Wallacea distinguenda Baly, 1859: 99 (original description); GEMMINGER & HAROLD (1876): 3602 (catalogue); DONCKIER DE DONCEEL (1899): 552 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue); STAINES & STAINES (1999): 527 (Baly's taxa list).

Wallaceana distinguenda: GRESSITT (1957): 302 (South Pacific fauna); UHMANN (1958): 230 (catalogue); UHMANN (1960): 23 (noted).

Pistosia distinguenda: KIMOTO (2000): 143 (catalogue).

Type locality. 'Celebes'.

Distribution. Indonesia: Sulawesi (BALY 1859).

***Wallacea drescheri* (Uhmman, 1935) comb. nov.**

Wallaceana drescheri Uhmman, 1935: 145 (original description); UHMANN (1958): 230 (catalogue); GAEDIKE & DÖBLER (1971): 371 (holotype); STAINES (1997): 419 (Uhmman's taxa list).

Pistosia drescheri: KIMOTO (2000): 143 (catalogue).

Type locality. 'Batoerraden, Goenoeng Slamet, 800–1000 m' [= Indonesia, Central Java, Baturaden, Gunung Slamet, ca. 7°18'N, 109°13'E].

Distribution. Indonesia: Java (UHMANN 1935).

***Wallacea fasciata* (Uhmman, 1948) comb. nov.**

Wallaceana fasciata Uhmman, 1948b: 20 (original description); UHMANN (1958): 230 (catalogue); GAEDIKE & DÖBLER (1971): 372 (paratype); STAINES (1997): 419 (Uhmman's taxa list).

Pistosia fasciata: KIMOTO (1999): 67 (SE Asian fauna).

Type locality. 'Indo-China: Annam-Vinh' [= former French protectorate encompassing central and southern Vietnam].

Distribution. Vietnam (UHMANN 1948b).

***Wallacea gorbunovi* (Medvedev, 1997)**

Pistocia [sic!] *gorbunovi* Medvedev, 1997: 264 (original description); MEDVEDEV & SPRECHER-UEBERSAX (1999): 347 (catalogue); MEDVEDEV & SPRECHER-UEBERSAX (2005): 333 (Nepal fauna); KIMOTO (2005): 105 (catalogue).

Wallacea gorbunovi: BOROWIEC & SEKERKA (2010): 383 (catalogue); SPRECHER-UEBERSAX (2011): 493 (catalogue).

Type locality. 'Nepal, Gendaki [Zone], 2 km N of Pokhara'.

Distribution. Nepal: Gendaki (MEDVEDEV 1997).

***Wallacea impicta* (Uhmman, 1931) comb. nov.**

Wallaceana impicta Uhmman, 1931c: 42 (original description); UHMANN (1933): 67 (faunistics); UHMANN (1958): 230 (catalogue); UHMANN (1965): 256 (Philippine fauna); DESCARPENTRIES & VILLIERS (1959): 502 (paratype); GAEDIKE & DÖBLER (1971): 376 (holotype, paratypes).

Wallacispa [sic!] *impicta*: STAINES (1997): 419 (Uhmman's taxa list).

Pistosia impicta: KIMOTO (2000): 144 (catalogue).

Wallacea palmarum [misidentification]: GESTRO (1917): 409 (faunistics); UHMANN (1931c): 43 (corrected as *W. impicta*).

Type locality. '[Philippines,] N. Mindanao'.

Distribution. Philippines: Luzon (UHMANN 1933), Masbate (UHMANN 1933), Mindanao (GESTRO 1917; UHMANN 1931c, 1933).

***Wallacea inornata* Gestro, 1892**

Wallacea inornata Gestro, 1892: 792 (original description); GESTRO (1897): 42 (noted); DONCKIER DE DONCEEL (1899): 552 (catalogue); GESTRO (1900): 434 (correction of Donckier's catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 83 (catalogue); GESTRO (1913): 45 (catalogue); UHMANN (1931a): 174 (faunistics).

Wallaceana inornata: UHMANN (1929): 147 (faunistics); KALSHOVEN (1957): 10 (host plant); UHMANN (1958): 230 (catalogue); UHMANN (1964): 461 (catalogue); DESCARPENTRIES & VILLIERS (1959): 502 (paratype).

Pistosia inornata: KIMOTO (2000): 144 (catalogue); STEINER (2001a): 161 (host plants, faunistics); STEINER (2001b): annex 1 (host plants); MOHAMEDSAID (2004): 170 (catalogue).

Type locality. 'Indonesia, Enggano Is.,] Bua Bua'.

Distribution. Indonesia: Enggano (GESTRO 1892), Java (UHMANN 1929, 1931a), Sumatra (WEISE 1911a); Malaysia: Selangor (STEINER 2001a,b).

Host plants. Areaceae (KALSHOVEN 1957); *Calamus ornatus* Blume in J. J. Roemer & J.A.S-chultes, *Eugeissona tristis* Griff., *Iguanura wallichiana* (Mart.) Benth. & Hook. f. ex Becc., *Oncosperma horridum* (Griff.) Scheff., *Salacca* sp. (STEINER 2001a,b).

Remarks. WEISE (1911a) gave the distribution of this species as 'Malacca, Sumatra, Amboina'. However, it is unknown why he listed these as there was no published record of above-mentioned places prior to his catalogue. The species was recently published from Malaysia (STEINER 2001a,b) and the record for Sumatra was probably generalized and in fact refers to the type locality, Enggano Island situated about 100 km southwest of the Sumatran coast. However, I leave Sumatra in the distribution as it is very likely found there and it might be that Weise actually studied some specimens collected on the Sumatran mainland. On the other hand, I do not adopt the record from Ambon because, if it was based on collected material, it was probably misidentified or erroneously labelled.

The occurrence in Java is also uncertain according to Uhmann's unpublished notes in his separata as he additionally handwrote there that the record supposedly belongs either to *W. palmarum* or *W. drescheri* (see the original copy of UHMANN (1929) deposited in SDEI).

***Wallacea insolita* Gestro, 1899**

Wallacea insolita Gestro, 1899: 318 (original description); DONCKIER DE DONCEEL (1899): 552 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 83 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana insolita: UHMANN (1958): 230 (catalogue).

Pistosia insolita: KIMOTO (2000): 144 (catalogue, SE Asian fauna).

Type locality. Indonesia, West Sumatra, Painan, approx. 1°21'100°35'E [according to the title of the publication].

Distribution. Indonesia: Sumatra (GESTRO 1899).

***Wallacea limbata* Gestro, 1906**

Wallacea limbata Gestro, 1906: 468 (original description); WEISE (1911a): 54 (catalogue); WEISE (1911b): 83 (catalogue); GESTRO (1913): 45 (catalogue); GESTRO (1919): 343 (host plant); MAULIK (1919): 107 (Indian fauna).

Wallaceana limbata: UHMANN (1958): 230 (catalogue).

Type locality. 'India, Madras' [= India, Tamil Nadu, Chennai].

Distribution. India: Tamil Nadu (GESTRO 1906).

Host plant. Areaceae (GESTRO 1919).

***Wallacea marginata* Gestro, 1896**

Wallacea marginata Gestro, 1896: 330 (original description); GESTRO (1897): 42 (noted); DONCKIER DE DONCEEL (1899): 552 (catalogue); GESTRO (1900): 434 (correction of Donckier's catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 83 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana marginata: UHMANN (1935): 146 (faunistics); UHMANN (1939b): 40 (variability, faunistics); UHMANN (1953): 91 (faunistics); KALSHOVEN (1957): 10 (faunistics, host plant); UHMANN (1958): 231 (catalogue); UHMANN (1964): 461 (catalogue); REID (1998): 302 (faunistics, host plant).

Pistosia marginata: KIMOTO (2000): 144 (catalogue).

Wallaceana chunia Maulik, 1937b: 238 (original description); UHMANN (1939b): 40 (type, synonymy).

Type locality. *Wallacea marginata*: 'Sereinu (Sipora)' [= Indonesia, Mentawai, Sipora Is., Sereinu]; *W. chunia*: 'Java, Bandung' [= Indonesia, West Java, Banjar, 7°22.5'S, 108°32.5'S].

Distribution. Indonesia: Java (UHMANN 1935, 1953; KALSHOVEN 1957; REID 1998), Mentawai (GESTRO 1896).

Host plant. Arecaceae: *Plectocomia* sp. (KALSHOVEN 1957).

Remarks. REID (1998) published a record of this species from Zingiberaceae, however, it may be that the specimen was only an occasional visitor of those plants and that the true host plant would be a palm as indicated by KALSHOVEN (1957). Therefore Reid's record is not cited as host plant.

***Wallacea neglecta* Gestro, 1903**

Wallacea neglecta Gestro, 1903: 135 (original description); GESTRO (1911): 142 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana neglecta: UHMANN (1958): 231 (catalogue).

Pistosia neglecta: KIMOTO (2000): 145 (catalogue); MOHAMEDSAID (2004): 169 (catalogue).

Type locality. 'Penrissen' [= Malaysia, Sarawak, Gunung Penrissen, approx. 1°07'S, 110°13'E].

Distribution. Malaysia: Sarawak (GESTRO 1903).

***Wallacea nigra* (Chen & Sun, 1964) comb. nov.**

Wallaceana nigra Chen & Sun, 1964 in CHEN et al. (1964): 107 (original description), 117 (English translation); GRESSITT & KIMOTO (1965): 805 (noted); YANG et al. (1991): 58 (type).

Pistosia nigra: CHEN et al. (1986): 137 (Chinese fauna), 599 (key to species); KIMOTO (1999): 67 (SE Asian fauna).

Type locality. 'N. Vietnam'.

Distribution. Vietnam.

***Wallacea phoenicia* (Maulik, 1930) comb. nov.**

Wallaceana phoenicia Maulik, 1930: 54 (original description); CORBETT (1932): 21 (host plants); MILLER (1932): 18 (host plants); MAULIK (1937a): 151 (noted); LEPESME (1947): 564 (noted); KALSHOVEN (1951): 756 (host plants); KALSHOVEN (1957): 10 (noted); KALSHOVEN (1981): 453 (noted); UHMANN (1958): 231 (catalogue); SANTIAGO-BLAY (2004): 82 (noted).

Pistosia phoenicia: KIMOTO (2000): 145 (catalogue); MOHAMEDSAID (2004): 171 (catalogue).

Type locality. '[Malaysia, Selangor,] Carey Island'.

Distribution. Malaysia: Selangor (MAULIK 1930).

Host plants. *Eleiodoxa conferta* (Griff.) Burret, *Oncosperma tigillarum* (Jack) Ridl. (MAULIK 1930, CORBETT 1932); *Phoenix* sp. (LEPESME 1947); *Arenga* sp., *Salacca* sp. (KALSHOVEN 1951).

***Wallacea raapii* Gestro, 1898**

Wallacea Raapii Gestro, 1898: 218 (original description); GESTRO (1900): 435 (noted); WEISE (1911a): 54 (catalogue);

WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana raapii: UHMANN (1958): 231 (catalogue).

Pistosia raapii: KIMOTO (2000): 145 (catalogue).

Type locality. Indonesia, Nias Is. [according to the title of the publication].

Distribution. Indonesia: Nias (GESTRO 1898).

***Wallacea sparsepunctata* Pic, 1939**

Wallacea sparsepunctata Pic, 1939: 17 (original description).

Wallaceana sparsepunctata: UHMANN (1958): 231 (catalogue); UHMANN (1964): 461 (catalogue); DESCARPENTRIES & VILLIERS (1959): 502 (holotype).

Pistosia sparsepunctata: KIMOTO (1999): 68 (SE Asian fauna).

Type locality. 'Vietnam, Tam Dao'.

Distribution. Vietnam: Tam Dao (PIC 1939).

***Wallacea spectabilis* Gestro, 1897**

Wallacea spectabilis Gestro, 1897: 43 (original description); DONCKIER DE DONCEEL (1899): 552 (catalogue); WEISE (1911a): 54 (catalogue); WEISE (1911b): 82 (catalogue); GESTRO (1913): 45 (catalogue).

Wallaceana spectabilis: UHMANN (1958): 231 (catalogue).

Pistosia spectabilis: KIMOTO (2000): 145 (catalogue).

Type locality. 'Si-Rambé' [= Indonesia, Sumatra, Sirambe, 02°16'N, 99°08'E, 1430 m a.s.l.].

Distribution. Indonesia: Sumatra (GESTRO 1897).

***Wallacea terminalis* Gestro, 1917**

Wallacea terminalis Gestro, 1917: 410 (original description); GESTRO (1922): 102 (Philippine fauna).

Wallaceana terminalis: UHMANN (1958): 231 (catalogue); UHMANN (1965): 242 (Philippine fauna).

Pistosia terminalis: KIMOTO (2000): 145 (catalogue).

Type locality. '[Philippines,] Tabayas: Malinao'.

Distribution. Philippines: Tabayas (GESTRO 1917).

***Wallacea vittata* Gestro, 1919**

Wallacea vittata Gestro, 1919: 347 (original description); GESTRO (1922): 102 (Philippine fauna).

Wallaceana vittata: UHMANN (1933c): 45 (faunistics); UHMANN (1933): 67 (faunistics); UHMANN (1958): 231 (catalogue); UHMANN (1965): 242 (Philippine fauna).

Pistosia vittata: KIMOTO (2000): 145 (catalogue).

Type locality. 'Baguio, Benguet' [= Philippines, Luzon, Benguet Province, Baguio].

Distribution. Philippines: Luzon (GESTRO 1919, UHMANN 1933).

***Wallacea* spp. indet.**

Pistosia sp. 1: STEINER (2001a): 161 (Malaysia: Pahang, Selangor; host plants); STEINER (2001b): annex 1 (host plants).

Pistosia sp. 2: STEINER (2001a): 161 (Malaysia: Pahang, Selangor; host plants); STEINER (2001b): annex 1 (host plants).

Pistosia sp. 4: STEINER (2001a): 161 (Malaysia: Selangor; host plants); STEINER (2001b): annex 1 (host plants).

- Pistosia* sp. indet.: STEINER (2001a): 161 (Malaysia: Pahang, Selangor; host plants); STEINER (2001b): annex 1 (host plants).
Wallacea sp.: PRATHAPAN & SHAMEEM (2015): 162 (India: Andaman and Nicobar Is.; biology, host plant).
Wallaceana sp.: BALLENTES et al. (2006): 53 (Philippines, Mindanao incl. colour photo).

Acknowledgements

I would like to thank Max Barclay and Michael Geiser (BMNH) for support and help with the specimens under their care; George Beccaloni (BMNH) for help with numbering of Wallace's specimen; David Pryce (BMNH) for taking photo of *Estigmena terminalis*; Joachim Willers (ZMHB) for providing photo of *Pistosia maculata*; Feng-Long Jia (SYSU) for loan of *Neodownesia rubra*; and Olaf Jaeger (MTD) for loan of additional specimen of *Pistosia maculata*; and Jan Bezděk (Brno, Czech Republic) and Don Windsor (Smithsonian Tropical Research Institute, Panama) for valuable reviews of the paper and corrections of English. The BMNH material was examined during a visit supported by a Natural History Museum 'Special Funds' grant awarded to M. V. L. Barclay. Examination of *Alurnus testaceus* housed in ZMUC was supported by the Synthesys programme of the European Union no. DK-TAF-2164. Work was partly financed by the Ministry of Culture of the Czech Republic (DKRVO 2015/14, National Museum, 00023272).

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