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A revision of and keys to the genera of the Mantispinae of the Oriental and Palearctic regions (Neuroptera: Mantispidae)

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Abstract

The Mantispinae (Neuroptera: Mantispidae) genera of the Oriental and Palearctic regions are revised. A morphological key to the genera is generated. *Austroclimaciella*, *Campancella*, *Mantispa*, *Mantispilla*, *Necyla*, *Stenomantispa* and *Tuberonotha* are redescribed. The Ohl (2004) catalogue is updated for the relevant genera. *Sagittalata* (= *Perlamantispa*) is assigned as a synonym of *Mantispilla* which is restored as a valid genus. *Orientispa* is assigned as a synonym of *Necyla*.

Key words: Neuroptera, Mantispidae

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Introduction

Mantispidae are one of the least studied families in Neuroptera. Until recently, due to a lack of comprehensive identification keys and revisory work, it was difficult to identify specimens to genus level in the Afrotropical, Oriental and Palearctic regions (Ohl 2005, 2011). This might in part be due to the complex taxonomic history of the family (Snyman *et al.* 2012) in that many genera and species were described, but lacked well defined boundaries.

The first genus described was the Palearctic *Mantispa* Illiger, 1798. Unfortunately, the description lacked defined generic boundaries which led to the genus becoming cosmopolitan as species descriptions from other regions were published. *Mantispilla* Enderlein, 1910 and *Necyla* Navás, 1913 followed similar routes. The growing number of species assigned to these genera did not necessarily conform to the characteristics of the type species, increasing the difficulty of generic and species identification as well as distortion of distribution patterns (Ohl 2004, Snyman *et al.* 2012). Subsequently, a growing need for large scale, regional revisions developed.

Handschin (1959, 1960, 1961), realised that a large scale, comparative revision was necessary to improve mantispid taxonomy in Africa, Europe and Asia, and erected several genera representing the fauna of these regions. After the revision of the Australian Mantispidae (Lambkin 1986b), it became clear that *Mantispa* is not cosmopolitan and that the traditional classification of the family needed to be reworked. This led to the description of other genera in the Afrotropical, Oriental and Palearctic regions (Poivré 1982a, 1984b). Since the works of Handschin (1959, 1960), few full-scale revisions with accompanying keys were published and some genera were overlooked, which in turn led to the description of new and unnecessary genera. Following the generic classification proposed by Penny (1982), Hoffman (1992, 2002) revised the New World Mantispidae, bringing some stability to the mantispid classification from that region. This laid the foundation for subsequent authors, such as Machado & Raphael (2010) and Ardila-Camacho & García (2015) to improve the taxonomy of New World mantispids. Similarly, based on the research of Handschin (1959, 1960), Snyman *et al.* (2012, 2015) could revise the genera of the Afrotropics.

The Oriental and Palearctic regions unfortunately remained subject to mainly descriptive studies. Mantispid classification was still based on the work of Hoffman (1961) with additions from Poivré (1982a, 1984b), Ohl (2009) and Yang & Liu (2010). Since many genera could not be identified from these isolated studies, a comprehensive generic-level revision and morphological key was needed.

This study aims to advance the taxonomy of the genera of the Oriental and Palearctic regions by generating a morphological key to the genera and redescribing genera from the region that have not been adequately defined. This manuscript can therefore serve as a foundation for revising the genera of the region within a broader context.

Material and methods

Approximately 200 specimens and high-quality photographs were examined in the study. The specimens are housed in the following institutions.

MNHN	Museum National d'Histoire Naturelle, Paris, France
MRAC	Musee Royal de l'Afrique Centrale, Tervuren, Belgium
NHMB	Naturhistorisches Museum, Basel, Switzerland.
PMR	Phyllodrom, Museum und Institut fuer Regenwaldoekologie, Leipzig, Germany
SANC	Agricultural research Council, Biosystematics Institute, Roodeplaat, South Africa
SIW	Smithsonian Institute, National Museum of Natural History, Washington, D.C., USA
ZMB	Museum für Naturkunde, Berlin, Germany

All additional institutions listed in the Appendix are abbreviated as found in Ohl (2004).

Male terminalia were macerated using 10% KOH solution. The entire abdomen was removed and placed in the solution for 30–120 minutes, depending on the size of the abdomen. Preparations already pinned with some of the specimens (most notably by R. Hall) were often overexposed to KOH and had to be stained. Azo-black and Eocin dye was found to stain the structures sufficiently. Eocin is water-soluble, most of the dye can therefore be removed from the abdomen after study. The structures were examined under a light microscope using either glycerine in an excavated slide, or glass beads (0.25-0.5 mm) and alcohol in a small, glass observation block.

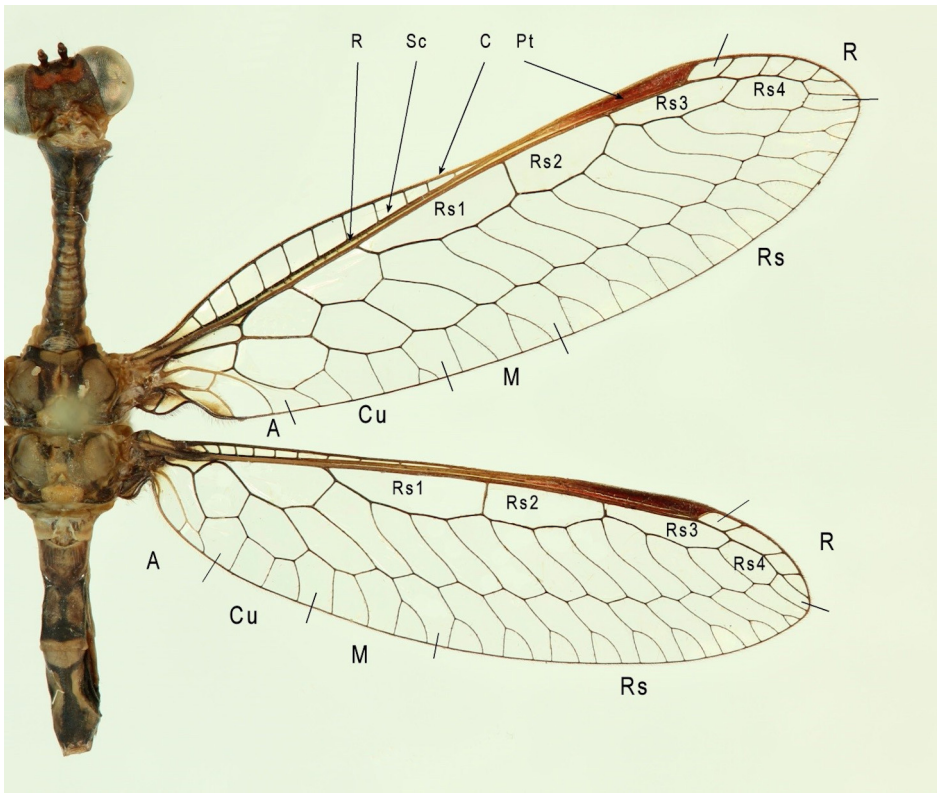

FIGURE 1. Wing morphology of the Mantispinae. (R: radius; Sc: sub-costa; C: costa; Pt: pterostigma; Rs: radial sector; Rs1-4: radial cells; A: anal vein; M: medial veins). (Photo: *Campanacella javanica*)

Specimens were photographed with a Canon 500D equipped with a Canon 120mm macro lens. Z-stacking of the photographs was executed with the software Helicon focus (http://www.heliconsoft.com/heliconsoft-products/helicon-focus/). Small structures of the specimens were photographed using a Leica Z16 A2OA stereoscopic microscope fitted with a Leica DFC 495 camera and a Leica FlexiDome used as a light source. Accompanied software was used for Z-stacking of images.

The morphology follows that of Lambkin (1986a, 1986b) and Snyman *et al.* (2012). Wing morphology mostly follows that of Snyman *et al.* (2012) except for the veins surrounding the hindwing anal vein which was based on Lambkin (1986a). Valid species and synonymic lists in the appendix were adapted from the most recent catalogue (Ohl 2004). Only genera that have not received recent revision were redescribed. The following genera were therefore only partially treated in the study: *Asperala* Lambkin, 1986; *Austromantispa* Esben-Petersen, 1917; *Euclimacia* Enderlein, 1910; *Xaviera* Lambkin, 1986 (Lambkin 1986b); *Nampista* Navás, 1914 (Ohl 2009); *Eumantispa* Okamoto, 1910 (Yang & Liu 2010).

The diagnostic characters of the excluded genera are provided and some additional characters are also noted. All descriptions are based on males. Only a single female specimen of *Mimetispa* Handschin, 1961 could be located for the study, and therefore the genus was not redescribed, but is included in the keys. The Papua New Guinea endemic genus, *Stenomantispa* Stitz, 1913, did not receive attention in Lambkin's 1986 revision of the Australian fauna and therefore was included here even though Papua New Guinea is viewed as an Australasian region (Ohl 2004).

The keys use characters that do not require dissection or maceration of specimens.

Austromantispa, *Necyla* and *Xaviera* (Section II) are treated together because of their morphological similarities, as are *Mantispa* and *Mantispilla* (Section III). The remaining generic treatments follow in alphabetical order and do not reflect evolutionary relationships (Section I).

Generic descriptions: only a single male specimen of both *Asperala erythraea* and *Nampista africana* was studied. The abdomens of both were unfortunately already removed for maceration and the genitalia of *N. africana* was missing from the microvial. The descriptions of the genera are thus incomplete.

The appendix is updated from Ohl (2004). All genera handled in this study are included in the appendix, even

in the absence of a name change. Genera outside of the Palearctic and Oriental regions that were affected are not treated in full; only the affected names are listed. Names newly added to the catalogue are indicated as such. Subspecies and variations included in the previous catalogue (Ohl 2004) are listed under the species. None of the variation leading to these names has subsequently been shown to have taxonomic value and are thus synonymised here.

Results and discussion

Morphological key to the genera of the Palearctic and Oriental regions: all relevant characters are presented in Figure 2.

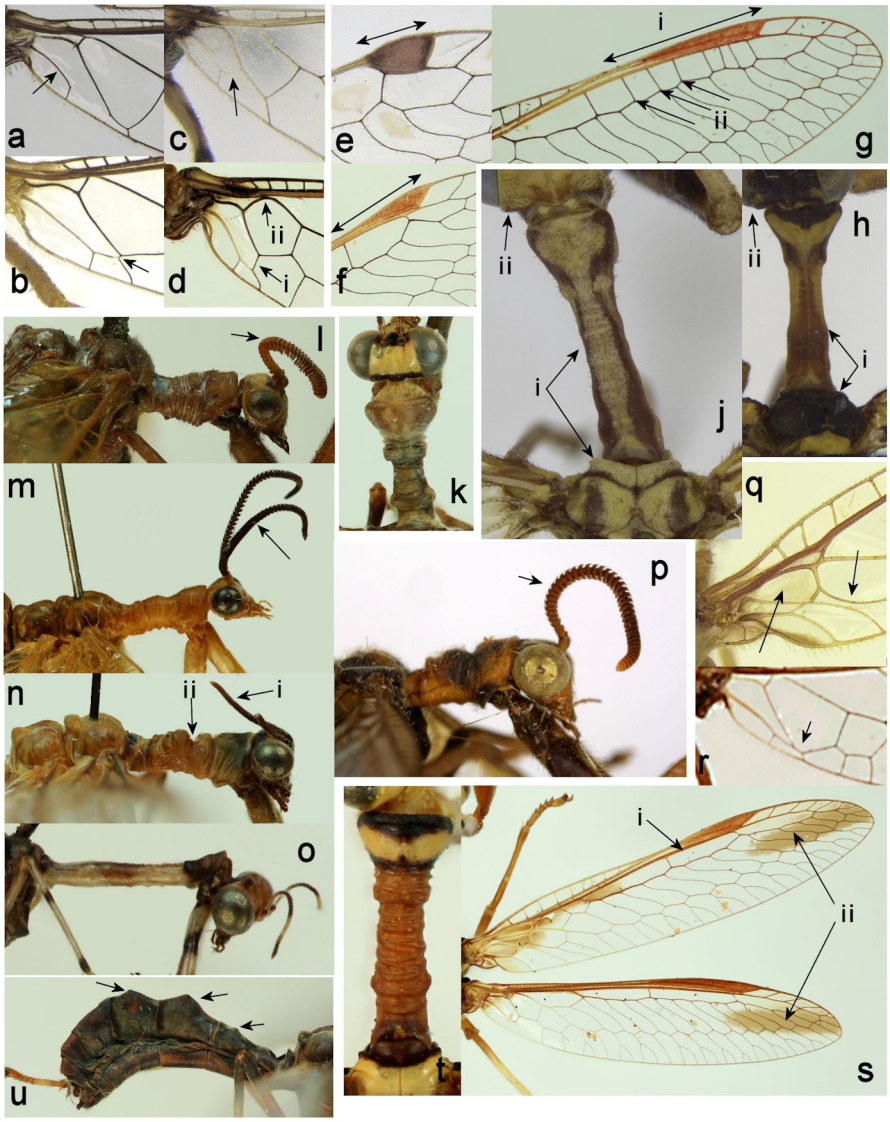

FIGURE 2. a: *Austromantispa* HW basal veins; b. *Xaviera* HW basal veins; c. *Mantispa* HW basal veins; d. *Campanacella* HW basal veins; e. *Xaviera* FW pterostigma; f. *Mantispa* FW pterostigma; g. *Eumantispa* FW pterostigma and radial sector; h. *Mantispilla* prothorax dorsum; j. *Mantispa* prothorax dorsum; k. *Tuberonotha* prothorax dorsum; l. *Nampista* thorax, lateral view; m. *Mimetispa* thorax, lateral view; n. *Tuberonotha* thorax, lateral view; o. *Xaviera* prothorax, lateral view; p. *Euclimacia* thorax, lateral view; q. *Asperala* FW basal region; r. *Necyla* HW basal veins; s. *Austroclimaciella* wings; t. *Austroclimaciella* prothorax dorsum; u. *Stenomantispa* abdomen, lateral view.

1. Hindwing with simple A1 lacking a crossvein to CuP (Fig. 2: a). . . . . *Austromantispa*
- Hindwing with A1 not as described in state 1. 2
2. In the HW simple A1 with CuP and A1 fused for a considerable distance forming a vein similar to a crossvein (Fig. 2: c and r) 3
- In the HW cu-a attenuated or absent, CuP sharply descending (posterior direction) towards A1 (Fig. 2: b). 4
- In the HW cu-a prominent, CuP straight or slightly descending (posterior direction) towards A1 (Fig. 2: d). 5
3. Prothorax glabrous, rarely with fine setae, pterostigma rounded and distally truncated (Fig. 2: o and e) . . . . . *Xaviera*
- Prothorax always bearing setae, pterostigma elongated/simple . . . . . *Necyla*
4. Mesothorax and occiput bearing dark, short, thick setae (Fig. 2: j (i & ii)) . . . . . *Mantispa*
- Mesothorax and occiput smooth or pubescent (velvet appearance) (Fig. 2: h). . . . . *Mantispilla*
5. Antennal flagellomeres perfoliate, prothorax distinctly shorter than pterothorax (Fig. 2: l, m and p), in the FW A1 and A2 not basally fused, A2 always forked, A3 present 6
- Antennal flagellomeres rarely perfoliate. Prothorax longer than pterothorax (Fig. 2: i and o), in the FW A1 and A2 basally fused, A2 simple, A3 absent 7
6. Flagellomeres asymmetrically perfoliate, flagellum similar to prothoracic length, in the FW A1 forked, in the HW cu-a reach A1 proximal to the A1 fork (Fig. 2: l). . . . . *Nampista*
- Flagellomeres symmetrically perfoliate, flagellum similar to prothoracic length, in the FW A1 simple, in the hindwing cu-a reach A1 distal to the A1 fork (Fig. 2: p) . . . . . *Euclimacia*
- Flagellomeres symmetrically perfoliate, flagellum distinctly longer than prothoracic length, in the FW A1 simple, in the HW cu-a reach A1 distal to the A1 fork (Fig. 2: m). . . . . *Mimetispa*[1]
7. Radial cells with more than four radial cells (Fig. 2: g) . . . . . *Eumantispa*
- Always four radial cells (Fig 2.: s (i)) 8
8. In the forewing the ventral surface of Cu cell asperous, CuP distinctly curved proximally, closely approximating A1 just distal to cu-a (Fig. 2: q). . . . . *Asperala*
- Cu cell in forewing never asperous, CuP usually straight, might be slightly curved proximally 9
9. Tergites V, VI and VII distinctly keeled (Fig. 2: u). . . . . *Stenomantispa*
- Tergites V, VI and VII never distinctly keeled 10
10. Hindwing with cu-m fused with M to form a distinct anteriorly directed loop touching R, wings always lacking pigmentation (Fig 2.: d (ii)). . . . . *Campanacella*
- Hindwing with cu-m fused with M, but do not form a distinct anteriorly directed loop touching R, wings with or without pigmentation. 11
11. Prozone of pronotum rounded, almost globose in dorsal view, slight constriction posterior to maculae followed by regular corrugation of midzone of pronotum. In FW two (rarely) or three c-ra crossveins distal to pterostigma, both wings always with pigmentation patterns (Fig. 2: s and t). . . . . *Austroclimaciella*
- Prozone of prothorax more triangularly rounded, distinct constriction posterior to maculae followed by prominent dorsal hump on midzone of pronotum. In FW one or two (rarely) c-ra crossveins distal to pterostigma, both wings always lack pigmentation patterns, sometimes a small pigmentation spot on wing apices (Fig, 2: n (ii)). . . . . *Tuberonotha*

Generic treatments

Section I: *Asperala*, *Austroclimaciella*, *Campanacella*, *Euclimacia*, *Eumantispa*, *Mimetispa*, *Nampista*, *Stenomantispa* and *Tuberonotha*

Genus *Asperala* Lambkin

Asperala Lambkin, 1986b. Type species: *Mantispa erythraea* (Brauer, 1867), by original designation.

Distribution: Oriental and **Australasian**: Indonesia, Australia.

Diagnosis (modified from Lambkin (1986b): Fig. 3): *Asperala* is distinguished from all other Oriental and Palearctic genera by the distinctly asperous ventral surface of the Cu cell of the forewing (Fig. 3c (ii)). This feature along with the shape of CuP in the forewing (distinctly curved proximally, closely approaching A1 just distal to cu-a) (Fig. 3c(i)), are the autapomorphs for the genus. The pores and EEG (Eltringham's extrusible organ) in the abdomen are yet to be described. The specimen used in this study had a peculiar semi-circular sulcus just posterior to the interantennal space.

Biology: Nothing is known of the biology of *Asperala. Asperala* includes two species (see key, Lambkin 1986b).

1. The perfoliate flagellomeres in *Mimetispa* are not as pronounced as the flagellomeres in both *Euclimacia* and *Nampista* and therefore key out twice.

Genus *Austroclimaciella* Handschin

Austroclimaciella Handschin, 1961. Type species: *Mantispa quadrituberculata* (Westwood, 1852) (as *Mantispa 4-tuberculata*), by original designation.

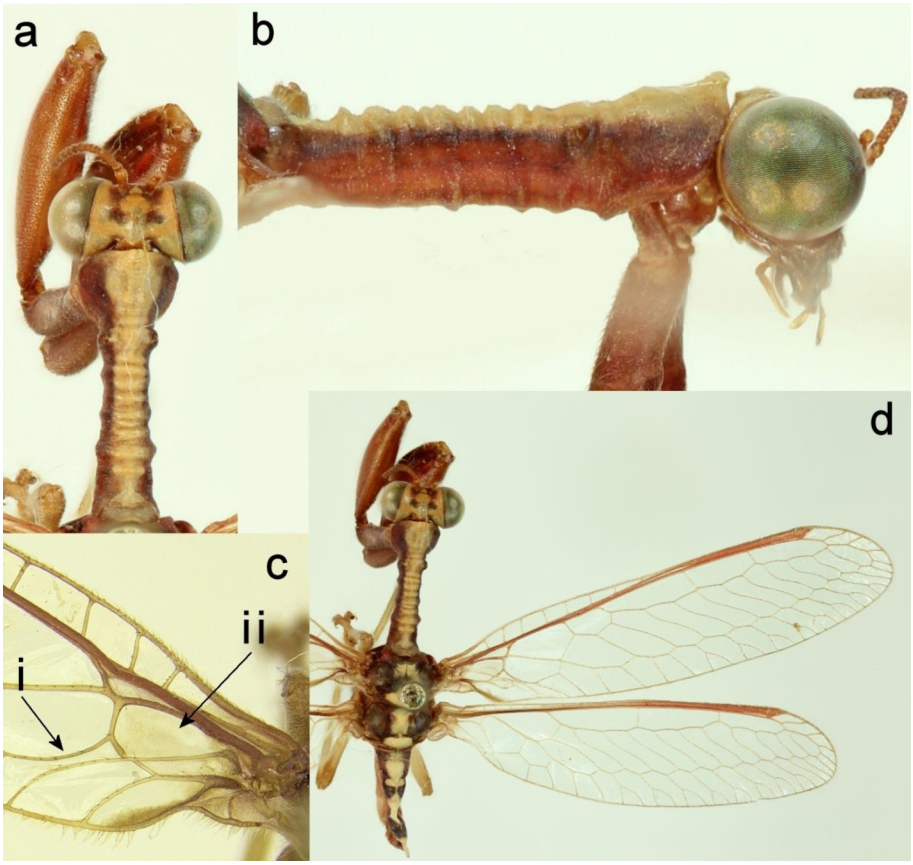

FIGURE 3. *Asperala erythraea* (a) head and prothorax in dorsal view (b) head and thorax in lateral view (c) base of forewing in dorsal view [i. CuP distinctly curved ii. asperous ventral surface of Cu] (d) habitus

Distribution: Palearctic and Oriental: northeastern India to Japan, Philippines, Indonesia.

Diagnosis (Fig. 4): *Austroclimaciella* can be distinguished from all other Oriental and Palearctic genera by the well-rounded prozone of the pronotum and tubular midzone that is conspicuously and regularly corrugated, lacking prominent dorsal "hump" on midzone of pronotum present in *Tuberonotha* (Fig. 4a, c). The pterostigma terminates just distal to r-rs2 and the wing apices are always with distinct pigmentation (Fig. 4b). *Austroclimaciella* is the only mantispine genus in the Orient with small pores on the posterior margins of tergites IV, V, VI, VII and VIII (Fig. 4d–f). The colour patterns of these mantispines are always a mixture of brown and yellow with a few black decorative bands.

Head: vertex slightly domed anteromedially, flattening out posteriorly; postocular margin wide with few prominent setae; interocular space at anterior margin of scape as wide or narrower than width of eyes; scape lacks setae; flagellum length shorter than prothorax, lacks pale band in distal third; flagellomeres simple/unmodified, slightly broader than long at midlength, basal flagellomeres (approx. 8–10) with prominent whorl of setae on anterior margin which gradually change towards the apex into fine setae covering entire flagellomeres.

Thorax: anterior margin rounded or with slight dorsally directed cusp; prozone well rounded, almost globose; pronotal shape of mid-section irregularly wrinkled, pronotum in dorsal view irregularly rugose; dorsal surface with setae, lateral and ventral surface pubescent (velvet appearance), setae conspicuous on dorsal prozone; maculae not pigmented, exist only as slight indent on posteriorly directed cusps with acute apices; constriction in pronotum posterior to maculae; posterior to maculae pronotum gradually increases in width up to conspicuous dorsal hump anterior to prescutum; prothorax longer than pterothorax, ventral outline of pronotum in lateral view straight.

Pterothorax: mesothorax with setae; mesoscutal furrows present but inconspicuous, do not meet medially, fade towards medial plane, disappear midway; mesoscutellum anteriorly truncated, less than 1/3 of mesonotum length; metathorax glabrous to pubescent.

Legs: mesotarsus with segment I similar in length than segments II–IV combined; segment IV the shortest; segment V slightly globose anterodorsally; metatarsus with segment I similar in length than segments II–IV combined; segment II–IV similar in size; segment V slightly globose anterodorsally; meso- and metatarsal claw with less than four teeth, usually three; collectively triangular in shape (elongated middle tooth flanked by shorter teeth).

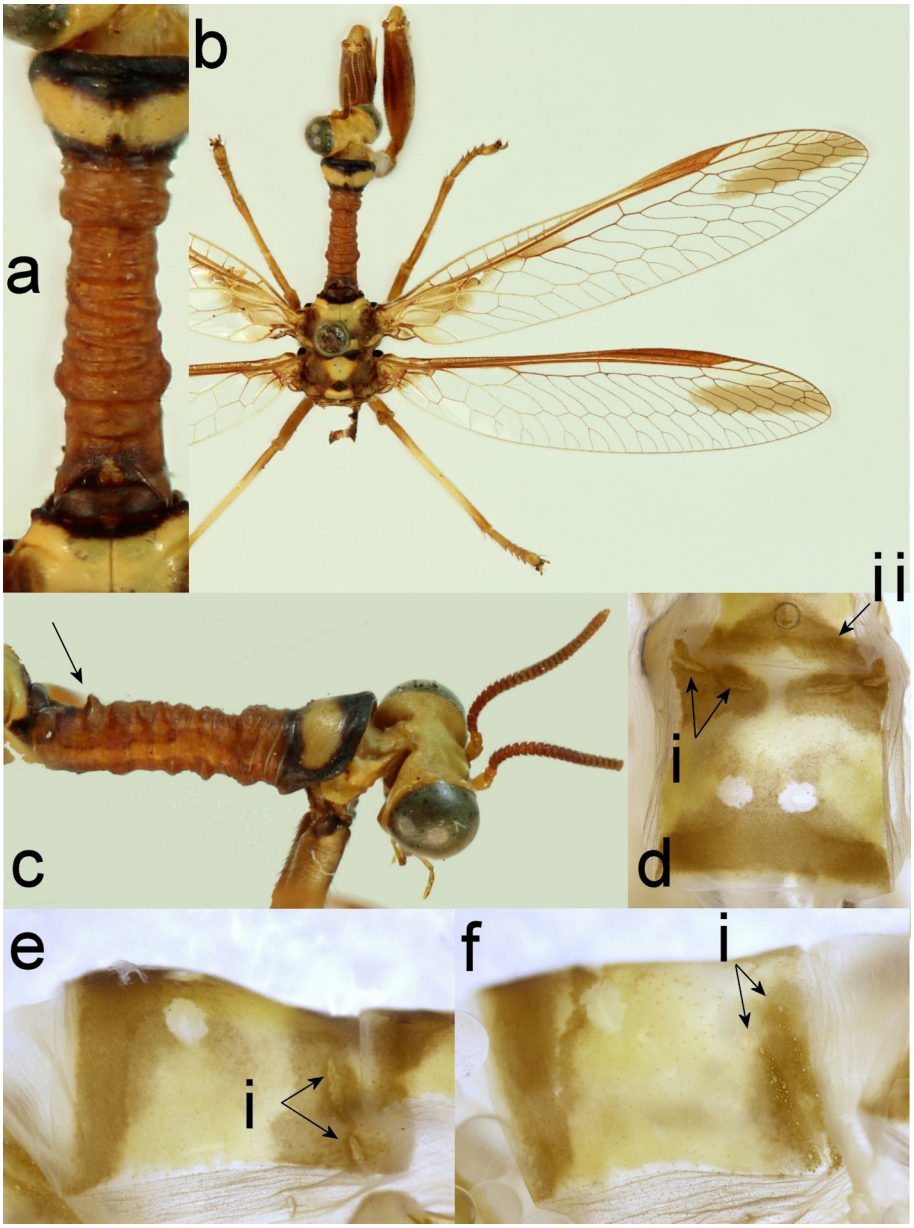

FIGURE 4. *Austroclimaciella habutsuella* (a) dorsal view of prothorax (b) habitus (c) prothorax in lateral view, arrow indicate posterior "hump" on dorsum of pronotum (d) tergite V in dorsal view [i. pores along anterior margin ii. small pores along posterior margin of tergite IV] (e) tergite V [i. pores along anterior margin] (f) tergite VI [i. large pores along anterior margin]

Wings: venation comparatively complex; cells usually pigmented along anterior margin and/or distinct pigmentation on wing apices; radial cells comparatively elongated. Forewing with costal space terminating just basal to r-rs1, pterostigma commencing just distal to r-rs1; pterostigma terminates before midway of RS3; sc-ra crossvein distinctly less than half the length of RS3; two (rarely) or three c-ra crossveins distal to pterostigma; A2

simple, basally fused with A3. Hindwing: CuP straight; CuA slightly bent towards A1; A1 forked; cu-a long, connects to A1 distal to fork.

Male abdomen: length short, not extending past wing apices; tergites V and VI with two transverse rows of pores on anterolateral margin, pores do not extend to dorsum, each row consist of larger pores (5–10) along the centre, surrounded by many smaller pores (> 30), setae present among pores; area between the rows smooth, lacks setae, tergite VI with pores more conspicuous (Fig. Z); small pores on posterior margin of tergites IV, V, VI, VII and VIII; ectoprocts simple, short, do not extend past apex of sternite IX in lateral view, in caudal view ventrolaterally slightly globose, tapering off towards dorsomedial line; ventromedial lobes slightly swollen, ventrocaudally or ventromedially directed; sternite IX with square/angular medial protrusion on apex, directed ventrocaudally in lateral view; pseudopenis acute, similar in length of pseudopenal membrane, pseudopenal membrane broadly triangular, lateral apices with prominent hypomeres; gonocoxites short, distal apices do not reach level of hypomeres, basal apices do not reach basal apex of mediuncus; mediuncus with bifid distal apex and rounded basal apex; gonarcal protrusion shorter than pseudopenis and sub-acute.

Notes: nothing is known about the biology of *Austroclimaciella*. The general size of *Austroclimaciella* is smaller than *Tuberonotha* and *Pseudoclimaciella*, but general colouration of the genus is quite similar to both *Tuberonotha* and *Pseudoclimaciella*, possible mimics of *Polistes* spp. wasps. Photos of live specimens may reveal whether the wings are held in a vespoid manner, similar to other wasp mimics in Mantispidae.

The generic description is based on *A. quadrituberculata*, *A. luzonica*, *A. maculata*, *A. habutsuella*, and *A. weelei*. The boundaries between these species are not well defined. *A. habutsuella* and *A. weelei* lack a broad black band on the posterior margin of the vertex, lack pigmentation in RS2 and RS3 and the cells anterior to Rs in the forewing as well as a short pseudopenis. In turn, *A. quadrituberculata*, *A. luzonica* and *A. maculata* all have a black band on the posterior margin of the vertex, all radial cells as well as the cells anterior to Rs are pigmented, and the pseudopenis is markedly longer than what is found in *A. habutsuella* and *A. weelei*. Handschin, (1961) separated all of these species mainly according to "loose" distribution patterns and slight variation in the pigmentation of the wing apices which has greater variability than proposed by the author. These are thus found not to be adequate characters. Xiushuai (2010), however, kept the species separate in an unpublished thesis. Unfortunately, the thesis could not be translated to verify the characters. It is possible that *A. weelei* is a synonym of *A. habutsuella* and *A. luzonica* and *A. maculata* are both synonyms of *A. quadrituberculata* (see Appendix I). A revision of *Austroclimaciella* should be done as confirmation.

Genus *Campanacella* Handschin

Campanacella Handschin, 1961. Type species: *Mantispa hamiltonella* (Westwood, 1867), by original designation.

Distribution: Oriental: India, Indonesia, Malaysia.

Diagnosis (Fig. 5): *Campanacella* can be distinguished from all other Oriental and Palearctic genera by the peculiar formation of cu-m in the forewing (Fig. 5b). The cu-m is fused with M to form a distinct anteriorly directed loop touching R posterior to the origin of the costal space. The wings are always without pigmentation and the pronotum is at least 1½ times the length of the pterothorax (Fig. 5d).

Head: vertex with slight longitudinal ridge from the interantennal space to the occiput, flattening out laterally towards the ocular margin, postocular margin narrow, interocular space at anterior margin of scape distinctly narrower than width of eyes; scape usually lacks setae but a few may be present, flagellum length shorter than prothorax, flagellomeres simple/unmodified, similar in length than width, squircular in shape, each antennule with multiple whorls of anteriorly directed setae, flagellum lacks pale band in distal third.

Thorax (Fig. 5a and c): anterior margin with dorsoanteriorly directed cusp, pronotal shape of mid-section almost cylindrical, regular corrugation in dorsal view, lateral surfaces with long sparsely distributed setae; maculae pigmented and flattened, dorsolaterally directed (away from medial plane); posterior to maculae pronotum gradually decreases in width up to midway of mesozone, then increases in width; dorsal cusp anterior to prescutum inconspicuous if compared to corrugation on dorsum; prothorax longer than pterothorax; ventral outline of pronotum in lateral view straight; pterothorax: lacks setae but pubescent (velvet appearance), mesoscutal furrows conspicuous, meet at prominent central furrow, central furrow shaped as laterally compressed conical pit; mesoscutellum triangular, terminates just posterior to central furrow.

Legs: meso- and metatarsus with segment I longer in length than segments II–IV combined; segment IV the shortest; metatarsus with segment I similar in length than segments II–IV combined; segment II–IV similar in size; segment V slightly globose anterodorsally; meso- and metatarsal claws consisting of four to six teeth, with a collective rounded shape (middle teeth not distinctly longer, similar in length).

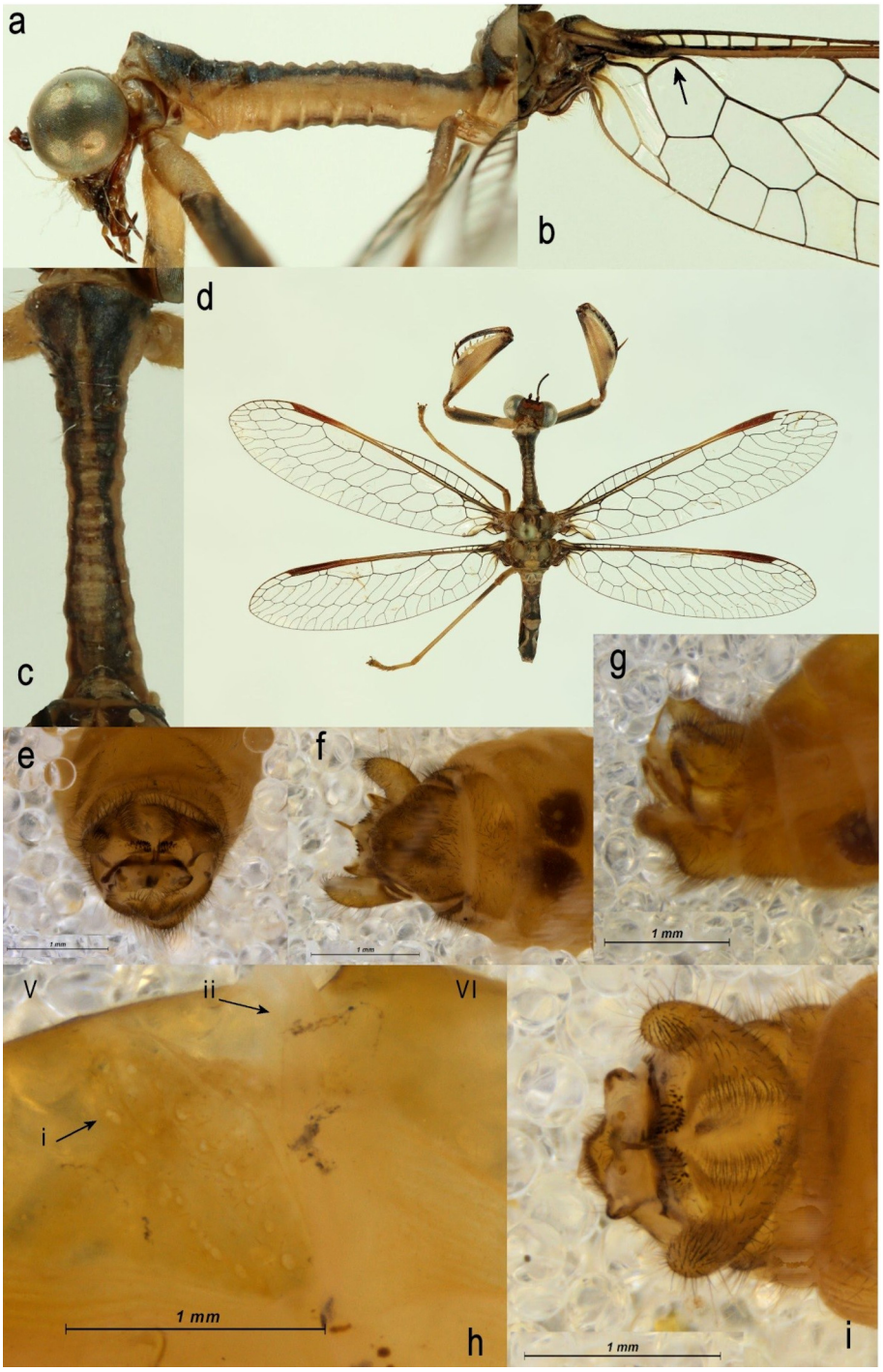

FIGURE 5. *Campanacella javanica* (a) Prothorax and head, lateral view (b) fusion of cu-m and M in hindwing, forms anteriorly directed loop (c) prothorax, dorsal view (d) habitus. Terminalia and abdomen (e) caudal (f) ventral (g) lateral (h) tergite V and VI [i. tergal pores; ii. intertergal membrane] (i) dorsal aspect.

Wings: wings hyaline, unpigmented; pterostigma unmodified. Forewing: costal space terminating just basal to r-rs1; pterostigma commencing midway of RS2, terminates midway of RS3; sc-ra crossvein distinctly less than half the length of RS3, c-ra crossveins distal to pterostigma one, rarely two or three, A3 simple, A1 and A2 fused

basally, CuP slightly curved proximally. Hindwing: cu-m fused with M to form a distinct anteriorly directed loop touching R posterior to costal space origin; A1 forked, A2 present, CuA distinctly bent towards A1, cu-a long, rarely attenuated or absent.

Male abdomen (Fig. 5e–i): length short, not extending past wing apices; tergite VI with two transverse rows of approximately 15–25 pores on anterolateral margin, pores do not extend to dorsum, rows meet prior to dorsum to form collective oval shape (Fig. 5h [i–ii]); setae present among pores; central region flanked by pores lacks setae; ectoprocts posteriorly slightly elongated but do not extend past apex of sternite IX in lateral view, apices not globose; ventromedial lobes prominent, medially directed, majority of spines on ventral surface, sternite IX with prominent central patch of setae, ventrocaudal indentation posterior to setae patch in lateral view, indentation with conspicuously less setae than surrounding areas; pseudopenis longer than pseudopenal membrane; pseudopenal membrane triangular, tapering towards pseudopenis; hypomeres prominent 1/3 from midline to gonocoxites; basal apices of gonocoxites extend past hypomeres, median gonarcal lobe a thin elongated protrusion, ½ the length of pseudopenis, basal apex of mediuncus arrow-shaped, basally elongated, extending well past the basal apices of the gonocoxites.

Notes: The biology of *Campanacella* remains unknown. At rest the wings are held in a roof-like manner over the abdomen, unlike the wasp mimicking genera.

The colouration of *C. hamiltonella* (Westwood, 1867) and *C. radiata* (Navás, 1914b) corresponds well with *C. javanica* (Westwood, 1852). Both the overlapping distributions and similar morphology indicate that a possible synonymy between the and should be investigated.

Genus *Euclimacia* Enderlein

Euclimacia Enderlein, 1910. Type species: *Euclimacia partita* Enderlein, 1910, by original designation.

FIGURE 6. *Mimetispa* sp., undescribed: a. Head and thorax dorsum; c. head and thorax in lateral view; e. habitus. *Euclimacia cottami*: b Head and thorax dorsum; d. head and thorax in lateral view; f. habitus.

Distribution: Palearctic, **Oriental:** Widespread. **Australasian**: northern Australia.

Diagnosis (modified from Lambkin (1986b)) (Fig. 6b, d and f): *Euclimacia* can be distinguished from other Oriental and Palearctic genera by the symmetrical, perfoliate flagellomeres (Fig. 6b and d), the very short, distinctly shaped pronotum (shorter than the pterothorax), and conspicuous wing pigmentation (Fig. 6f). The species are often brightly coloured and metallic; they resemble several wasp species.

Notes: *Euclimacia* is a well-known wasp mimicking genus common throughout the Orient–(Beck 2005, Bhattacharjee *et al.* 2010 and Ohl 2004a, 2011). *Euclimacia* is a large genus comprising at least 31 described species. No key to the species have been published, however, a revision of the genus is ongoing (teste M. Ohl) (see Appendix). A single undescribed species of *Euclimacia* has been reared from a spider nest in Malaysia (Ohl 2011).

Genus *Eumantispa* Okamoto

Eumantispa Okamoto, 1910. Type species: *Mantispa suzukii* Okamoto, 1910 (as "*Mantispa suzukii* Mats. [sic]") (= *Mantispa harmandi* Navás, 1909 ["1908–1909"]), by original designation. *Stenispa* Navás, 1914a. Type species: *Eumantispa hypogastrica* Navás, 1914a, by monotypy. A junior homonym of *Stenispa* Baly, 1858 (Insecta: Coleoptera: Chrysomelidae).

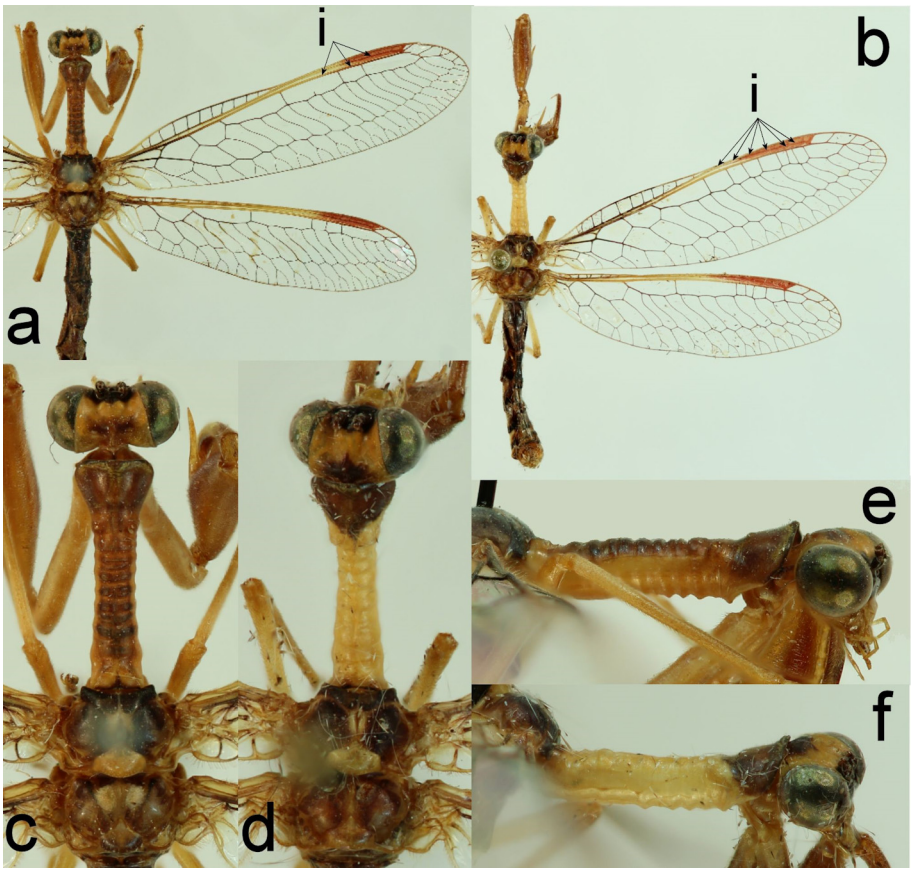

FIGURE 7. *Eumantispa harmandi* (a) habitus [i. subdivided radial cells] (c) prothorax in dorsal view (e) prothorax in lateral view; *Eumantispa fuscata* (b) habitus [i. subdivided radial cells] (d) prothorax in dorsal view (f) prothorax in lateral view.

Distribution: Palearctic, **Oriental**, and **Australasian**: Far eastern USSR, Japan, northeastern India to New Guinea.

Diagnosis (Fig. 7): *Eumantispa* can be distinguished from all other Oriental and Palearctic genera by the subdivision of the radial cells (Fig. 7a and b). To our knowledge this feature is not found in any other mantispine genus.

Notes: The *Eumantispa* of China were reviewed by Yang & Liu (2010). A new species, *E. pseudoharmandi*,

was described. The figures of the newly described species erroneously refer to *E. paraharmandi* and was corrected in a subsequent publication (Yang & Liu 2011). *E. pseudoharmandi* is regarded as the correct name. The species resembles quite a number of unidentified specimens found in the collections from the various museums from outside China. It is therefore possible that *E. pseudoharmandi* is a synonym of a species already described and should be investigated (see Appendix). *Eumantispa harmandi* has been associated with several species of Agelenidae spiders and one Sparassidae species (Hirata & Ishii 1995). The first instar larvae are known to board spiders; they attach to the carapace of the spider (Hirata & Ishii 1995; Hirata 1999).

Genus *Mimetispa* Handschin

Mimetispa Handschin, 1961. Type species: *Mantispa simulatrix* (McLachlan, 1900), by original designation.

Distribution: Oriental: Borneo, Indonesia.

Diagnosis (Fig. 6a, c and e): *Mimetispa* can be distinguished from all other Oriental and Palearctic genera by the symmetrical perfoliate flagellomeres, the short pronotum (similar or slightly longer than the pterothorax) and conspicuously long flagellum. The diagnosis is based on a single female and are thus incomplete.

Notes: Handschin (1961) separated *Mimetispa* from *Euclimacia* because of the following characters (paraphrased):

"The bifurcation of A1, Cu1 and Cu2 in the FW, the proportions of CuZ 1 [sic] and CuZ 2 [sic] and the flagellum length and width. The CuZ 2 in *Euclimacia* is simple and the first cubital cell is always smaller than the second. In *Mimetispa* the first cubital cell is considerably larger than the second. The prothorax is smooth and almost hairless with the inconspicuous maculae on the sides. In *Euclimacia*, the maculae are very prominent. The constriction posterior to the maculae is also not as prominent as in *Euclimacia*. The antennae in *Mimetispa* are also long and thin."

Only one female *M. simulatrix* specimen, identified by Handschin, could be obtained for this study. In addition, an undescribed species, female, also with exceptionally long antennae was obtained. All the differences he noted in his revision are not apparent in the *M. simulatrix* specimen studied and even less apparent in the undescribed species. However, the first cubital cell is larger than the second in both specimens and the antennal flagellum is considerably longer than the prothorax and somewhat thinner than the average *Euclimacia* flagellum. The prothorax in *Mimetispa* is also longer than the pterothorax, unlike the short prothorax in *Euclimacia*. The undescribed specimen, however, had characters similar to *Euclimacia* and *Mimetispa*. It is possible that *Mimetispa* is an unusual *Euclimacia* species or that it may well be a separate genus. Before more *Mimetispa* specimens are obtained, and the male abdomen is described and compared to that of *Euclimacia*, the relationship between the taxa will remain unresolved (see Appendix).

It has been suggested that *Mimetispa* is a possible mimic of Braconidae. Kees van Achterberg, an eminent braconid expert, confirmed that there are a number of Braconidae species in south-eastern Asia which are similarly sized and have similar colour patterns as found in *Mimetispa*. Nothing else is known about the biology of *Mimetispa*.

Genus *Nampista* Navás

Nampista Navás, 1914. Type species: *Nampista speciosa* Navás, 1914 (= *Mantispa auriventris* Guerin-Meneville), by monotypy.

Forciada Kozhanchikov, 1949. Type species: *Forciada relicta* Kozhanchikov, 1949 (= *Mantispa auriventris* (Guérin-Ménéville, 1838), by monotypy. Synonymised with *Nampista* by Aspöck *et al.* (1980).

Diagnosis (modified from Ohl 2009) (Fig. 8): *Nampista* can be distinguished from all other Oriental and Palearctic genera by the unique asymmetrically lamellate or asymmetrically perfoliate flagellomeres (Fig. 8a; b; e) and the membranous intersegmental area at the base of tergum II, which is large and yellow in this genus (Fig. 8c). The pronotum is also very short, similar in shape to that of *Euclimacia* (Fig. 8c). Some form of wing pigmentation is always present. The eyes are comparatively reduced/small (Fig. 8e). In the hindwing, the cu-a crossvein reaches A1

proximal to the fork. A single lateral pore is present on tergite VI and VII in *N. africana* (Fig. 8d). It is not known if this is a generic character (see *Nampista* in Material and Methods section).

Notes: Nothing is known about the biology of *Nampista*. There are currently three species included in the genus with a key to the species published in the revision by Ohl (2009) (see Appendix I).

Genus *Stenomantispa* Stitz

Stenomantispa Stitz, 1913. Type species: *Mantispa* (*Stenomantispa*) *ilsae* Stitz, 1913, by monotypy.

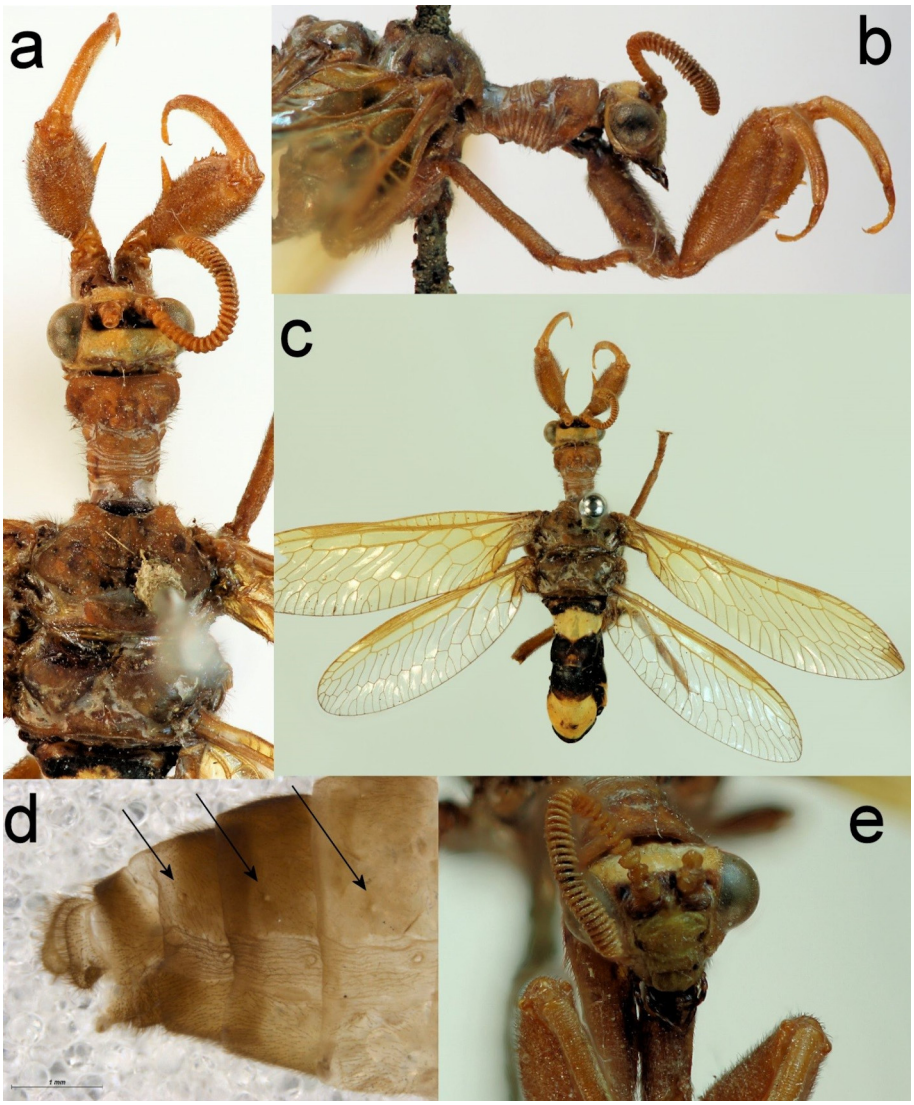

FIGURE 8. *Nampista auriventris* (a) thorax in dorsal view (b) thorax in lateral view (c) habitus (e) head in frontal view; *Nampista africana* (d) terminalia in lateral view, arrows indicate single lateral pore tergite VI, VII and VIII.

Distribution: Australasian: Papua New Guinea.

Diagnosis (Fig. 9): *Stenomantispa* can be distinguished from other Oriental and Palearctic genera by the combination of the conspicuously keeled tergites (Fig. 9c), wing pigmentation always surrounding the r-rs crossveins (Fig. 9b and e), and the endemic distribution limited to Papua New Guinea.

Head: vertex slightly domed anteromedially, flattening out laterally and posteriorly except for slight longitudinal ridge connecting dome with occiput; postocular margin broad, covered in setae; interocular space at anterior margin of scape as wide or narrower than width of eyes; scape with few setae; flagellum slender, length 2/3 of prothorax, lacks pale band in distal third; flagellomeres simple/unmodified, basal flagellomeres (approx. 8–10)

with prominent whorl of setae on anterior margin which gradually change towards the apex into fine setae covering entire flagellomeres.

Thorax: pronotum shape of mid-section irregularly wrinkled, pronotum in dorsal view irregularly rugose with prominent central hump posterior to slight constriction posterior to maculae; with sparsely distributed setae, usually restricted to lateroventral anterior, the surface pubescent (velvet appearance); maculae conspicuous, slight flattened and pigmented dorsum, maculae posterodorsally directed; prothorax longer than pterothorax, ventral outline of pronotum in lateral view slightly bent dorsad anterior to maculae. Mesoscutal furrows obsolete, pterothorax pubescent, sometimes with sparsely distributed setae, mesoscutellum length 1/3 of mesothorax.

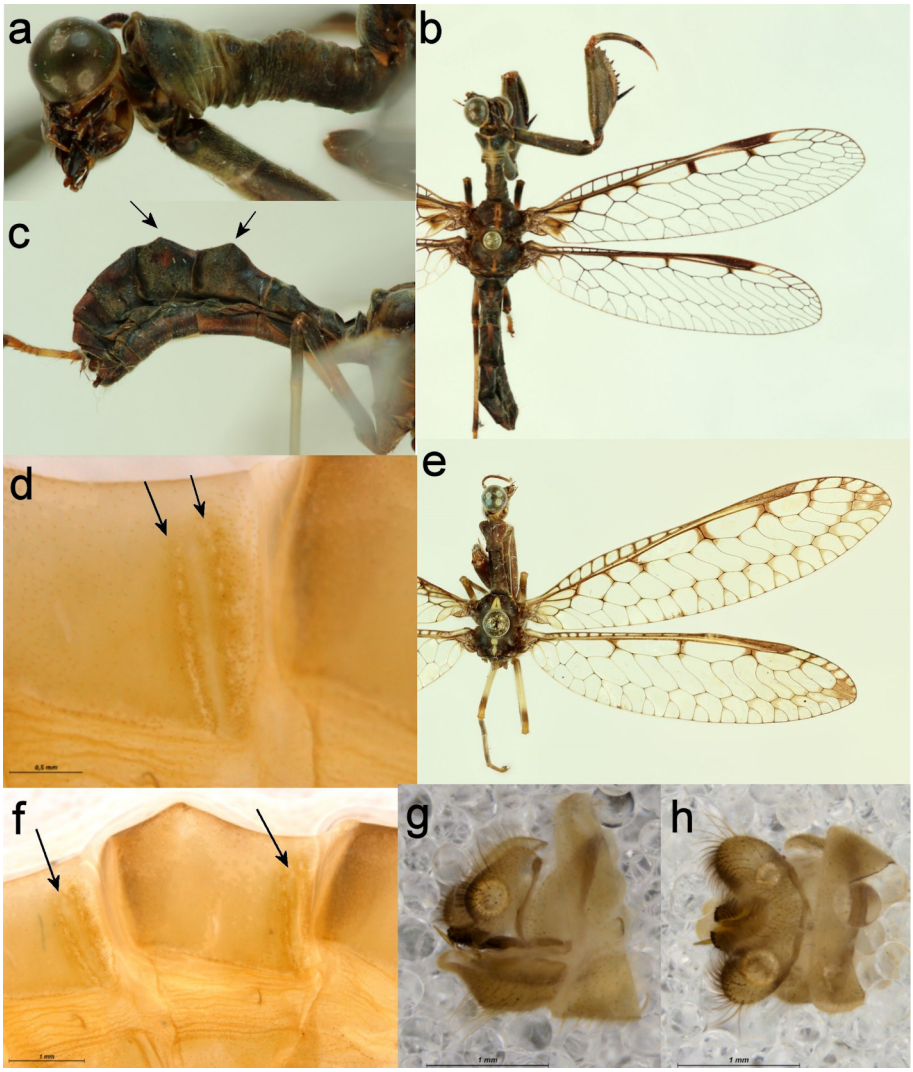

FIGURE 9. *Stenomantispa reinhardi* (a) prothorax in lateral view (b) habitus (c) abdomen in lateral view, arrows indicate keeled tergites (d) tergite VI, arrows indicate two rows of pores (f) tergites V and VI, arrows indicate pores on anterior margin of tergites (g) terminalia in lateral view (h) terminalia in dorsal view; *Stenomantispa ilsae* (e) habitus.

Legs: mesotarsus with segment I similar in length than segments II–IV combined; segment IV the shortest; segment V slightly globose anterodorsally; metatarsus with segment I similar in length than segments II–IV combined; segment II–IV similar in size; segment V slightly globose anterodorsally; meso- and metatarsal teeth consisting of five to seven, with a collective rounded shape (middle teeth similar in length).

Wings: pigmentation of the cell regions flanking Rs origin and r-rs crossveins always present, more prevalent in *S. ilsae*; radial cells comparatively unmodified. Forewing: costal space terminates at r-rs1; pterostigma unmodified, commencing mid-way of RS2, terminates mid-way of RS3, sc-ra crossvein distinctly less than half the length of RS3, zero or one (*S. ilsae*) or two or three (*S. reinhardi*) c-ra crossveins distal to pterostigma, A1 and A2 simple, A2 and A3 fused basally, CuP straight, sometimes slightly curved proximally to approach A1. Hindwing

with A1 forked, A2 present but attenuated, easily interpreted as absent, CuA bent towards A1, cu-a long connects to A1 distal to fork.

Male abdomen (Fig. 9d, f, g, h): length short, not extending past wing apices, tergites III–VI conspicuously keeled, tergites V and VI with two transverse rows of pores on anterolateral margin, pores do not extend to dorsum, each row consists of five to 12 pores, setae present among pores; area between the rows smooth, lacks setae; ectoprocts simple, short, do not extend past apex of sternite IX in lateral view, in caudal view ventrolaterally slightly globose, tapering off towards dorsomedial line; ventromedial lobes prominent, posteriorly enlarged, ventrocaudally or ventromedially directed; sternite IX with globose scoop-like medial protrusion on apex, protrusion bifid after maceration, directed posteriorly in lateral view; pseudopenis short to medium in length, similar or slightly longer than length of pseudopenal membrane; pseudopenal membrane triangular with hypomeres situated laterally (*S. ilsae*) or laterodorsally (*S. reinhardi*), gonocoxites short, 2/3 of mediuncus length, non-parallel, approach distal apex of mediuncus, never reaching level of hypomeres; mediuncus distal apex bifid, basal apex oval to spear shaped; gonarcal lobe similar in length to pseudopenis, apex acutely produced (*S. ilsae*) or sub-acute to rounded (*S. reinhardi*).

Biology: nothing is known about the biology of *Stenomantispa*. There are only two species included in the genus (see Appendix).

Genus *Tuberonotha* Handschin

Tuberonotha Handschin, 1961. Type species: *Mantispa strenua* (Gerstaecker, 1888), by original designation.

Distribution: Palearctic, **Oriental**, and **Australasia**: Japan, India to Australia.

Diagnosis (Fig. 10): *Tuberonotha* can be distinguished from other Oriental and Palearctic genera by the conspicuous irregularly rugose pronotum, distinct constriction posterior to maculae followed by prominent dorsal hump on midzone (Fig. 10 a–b) of pronotum, the lack of pigmentation in the wings, and the body colouration. These mantispines are always predominantly brown (yellow-brown in *T. regia*) with the posterior margin of the tergites yellow except for the terminal tergites which are completely yellow (all species except *T. regia*)

Head: vertex flat; postocular margin broad, bearing setae; interocular space at anterior margin of scape as wide as width of eyes; scape bearing setae, flagellum length shorter than prothorax, lacking pale band in distal third, often ending in few pale apical flagellomeres; flagellomeres simple/unmodified, three times broader than long at midlength, each antennule with a single whorl of prominent setae.

Pronotum shape of mid-section irregularly wrinkled, pronotum in dorsal view irregularly rugose, surface bearing setae, anterior dorsum pubescent, maculae enlarged and prominent, unpigmented, directed posteriorly; sharp constriction posterior to maculae, followed by prominent dorsal hump, followed by lateral humps; prothorax similar in length or slightly longer than pterothorax, ventral outline of pronotum in lateral view bent ventrad at midlength. Mesothorax bears setae, metathorax pubescent; mesoscutal furrows obsolete, central furrow comparatively under-developed.

Legs: meso- and metatarsus with segment I slightly longer in length than segments II–IV combined; segment IV the shortest; segment V anterodorsally flattened; meso- and metatarsal claws consisting of four to six teeth, usually five, rarely less than five, with a collective rounded shape (mid teeth similar in length); metatibia mid-section always yellow, flanked by darker regions at basal and distal joints.

Wings: cells in costal space pigmented; radial cells comparatively elongated; forewing with costal space terminating at r-rs1, pterostigma commencing just after at 1/3 to midway of RS2; sc-ra crossvein distinctly less than half the length of RS3, two or three c-ra crossveins distal to pterostigma, rarely one; A2 simple, A2 and A3 fused basally, curious vestigial vein in jugal lobe, CuP straight distal to cu-a1 crossvein. Hindwing with A1 forked, A2 absent (present in *T. regia*), CuA slightly bent towards A1, can be interpreted as straight; cu-a long, connects with A1 distal to fork.

Male abdomen (Fig. e–j): length short, not extending past wing apices; tergites V and VI with two parallel transverse rows of pores on anterolateral margin, pores do not extend to dorsum, each row consist of larger pores (8–15) along the centre, surrounded by many smaller pores (> 30), short stout setae present among pores; area between the rows smooth, lacks setae; ectoprocts simple, short, do not extend past apex of sternite IX in lateral view, in caudal view ventrolaterally slightly globose, tapering off towards dorsomedial line; ventromedial lobes

prominent, slightly dorsoventrally compressed, posteriorly directed; sternite IX with medial projection rounded, bifid in ventral view; gonocoxites non-parallel, approach anterior apex of mediuncus, anterior apex of gonocoxites just short or reaching level of hypomeres; mediuncus distal apex bifid, basal apex with lateral flanges, flanges well produced, curved caudally; gonarcal lobe well developed, apex rounded to subacute, similar in length to pseudopenis.

Notes: when at rest, the wings are held in a vespoid manner. The overall brown colouration with posterior margin of tergites yellow (not *T. regia*) is very similar to the colouration of some *Polistes*. It is therefore thought to be a wasp mimic (Beck 2005). *T. regia* has a generally different colouration to the rest of the *Tuberonotha* species. It is a much lighter brown, almost yellow. It also lacks the yellow tergal margins with the addition of a black anterior pronotal margin. It might be that the species mimics a different group/species of wasps.

This genus is very similar to the Afrotropical genus, *Pseudoclimaciella*. The main morphological difference is the absence of pigmentation on the wing apices that is present in *Pseudoclimaciella*. There are currently five *Tuberonotha* species awaiting revision.

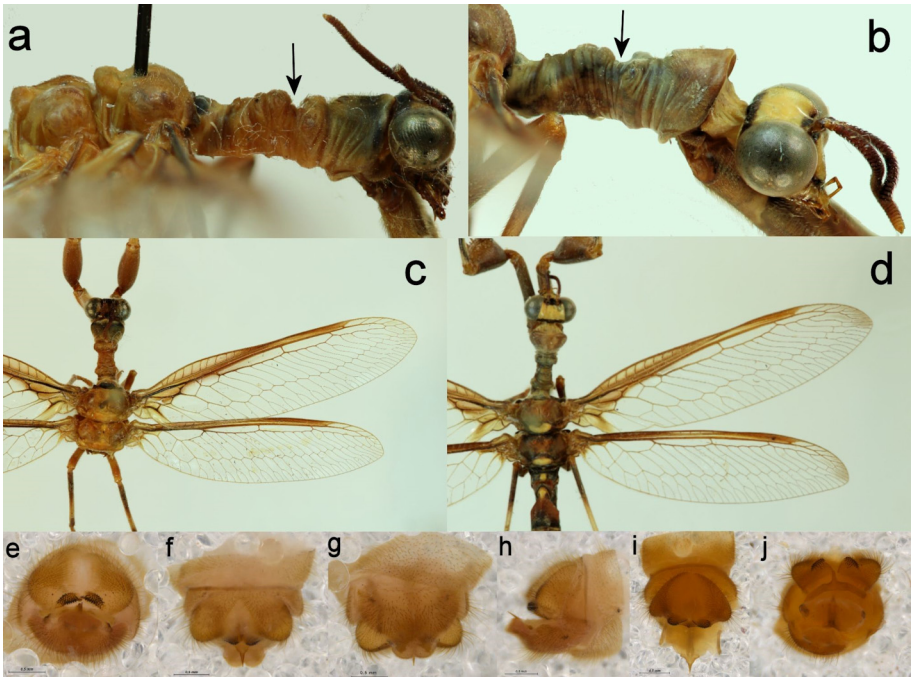

FIGURE 10. *Tuberonotha regia*: a. Thorax in lateral view; c. habitus. *Tuberonotha* sp. undescribed: b. Thorax in lateral view; d. habitus; e. terminalia in caudal view; f. terminalia in dorsal view; g. terminalia in ventral view; h. terminalia in lateral view. *Tuberonotha strennua*: i. terminalia in dorsal view; j. terminalia in caudal view.

TABLE 1. Characters separating *Austromantispa, Necyla* and *Xaviera*. The filled circles represent the presence of the character state.

Character	State	Austromantispa	Necyla	Xaviera
Pronotal surface	Glabrous			●
	Granulated	●	●?[a]	
	Setae	●	●	
A1 in HW	Forked		●	
	Simple	●		●
Pseudopenis	Male only	short, acutely produced	prominent, acutely produced	short, apex rounded
Apex of sternite IX	Male only	with spines	rounded, spines absent	finger-like process
Gonarcal protrusion	Male only	rounded	acutely produced	rounded

[a]It is possible to interpret some *Necyla* pronotal surfaces as granulated because of the setae found on the pronotum; however, the surface is never as distinctly granulated as found in *Austromantispa*.

Section II: *Austromantispa*, *Necyla* (=*Orientispa*) and *Xaviera*

Monophyly: These are delicate mantispines with compact wings and simple wing venation. The prothorax is always thin and cylindrical, usually lacking transverse corrugation/ridges and is either glabrous or granulated and covered in setae. The Sc is fused with the costal margin for a considerable distance proximal to the pterostigma, and there is an apparent loss of the distal longitudinal piece of CuA (between point of forking, and entry of 3m-cu), in the hindwing (Lambkin 1986a). A1 and CuA in the hindwing are always peculiarly modified (Fig. 11d-f, h). These peculiar vein formations and/or the prothorax also separate the genera (Table 1).

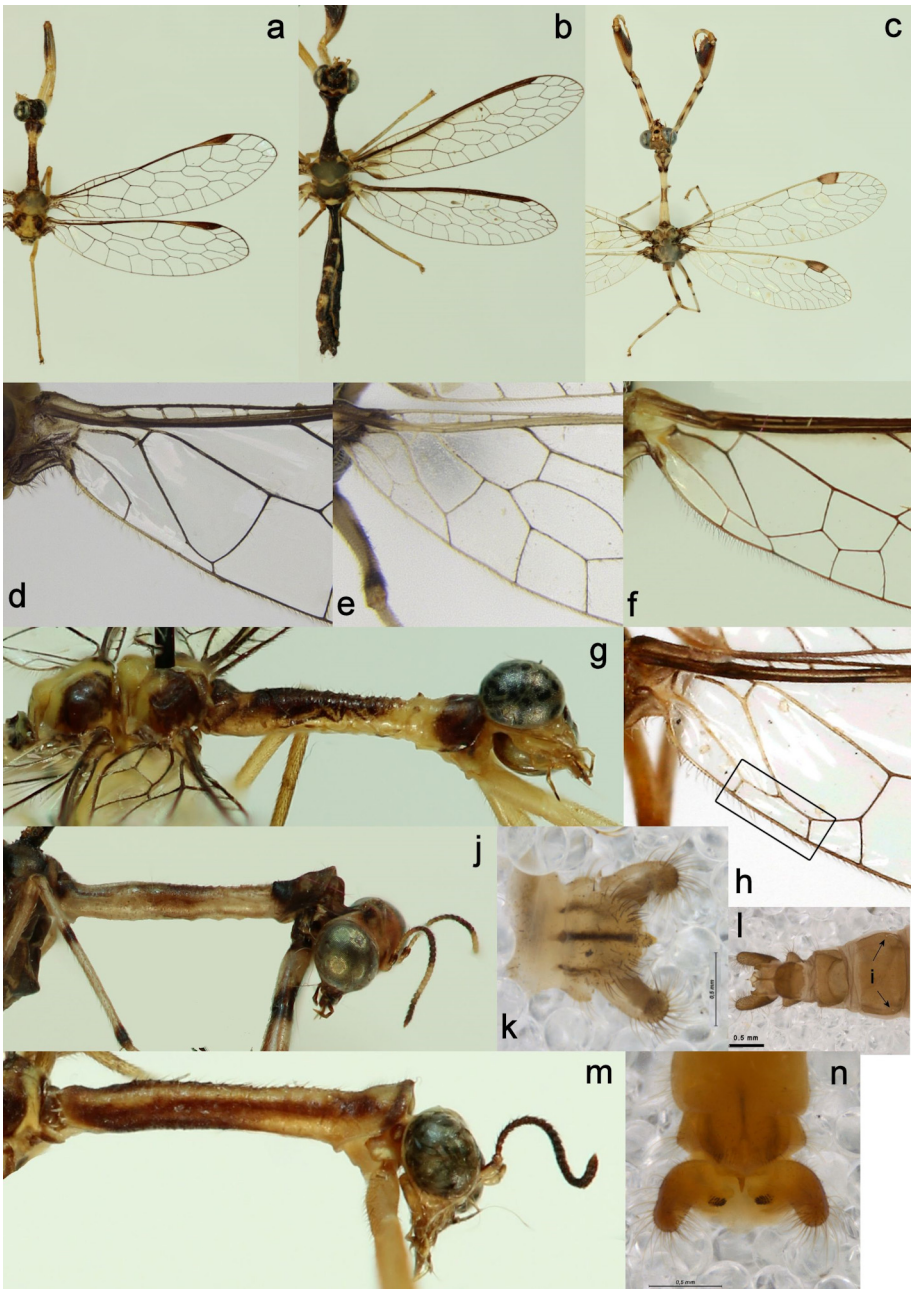

FIGURE 11. *Austromantispa*: a. Habitus; d. HW, basal veins; g. thorax, lateral view. *Necyla*: b. Habitus; f. HW, basal veins; *N. luzonensis*, position of sternal pores; m. thorax in lateral view; n. *N. formosana*, terminalia in ventral view. *Xaviera manca*: c. Habitus; e. HW, basal veins; j. prothorax in lateral view; k. terminalia in ventral view. *Cercomantispa keiseri*: h. HW basal veins, fusion between A1 and CuP

The cua-a1 crossvein in *Xaviera*: Lambkin interpreted the A1 in the hindwing as being simple and connected to the CuA by a peculiar crossvein (Fig. 11e). This might be true, however, the peculiar formation of the same veins

in the Afrotropical *Cercomantispa* Handschin, 1959 begs the question whether the crossvein might not be a modified cua+a vein (Fig. 11h). The fusion between these veins can be seen in other mantispine genera as well. The Nearctic *Buyda* Navás, 1926 as well as the Australasian genus *Toolida* Lambkin, 1986b have partly fused veins and form a definitive cline from unfused A1 and CuA to the completely fused cua+a found in *Cercomantispa* (Fig. 11h).

Genus *Austromantispa* Esben-Petersen

Austromantispa Esben-Petersen, 1917 (as a subgenus of *Mantispa*). Type species: *Mantispa imbecilla*, Gerstaecker, 1885 by original designation.

Distribution: Oriental and **Australasian**: Australia, Indonesia, Papua New Guinea.

Diagnosis (Modified from Lambkin 1986b): *Austromantispa* is distinguished from other Oriental and Palearctic genera by the combination of a simple A1 in the hindwing, the presence of short thick setae on the dorsum of a granulated pronotum, and a simple or unmodified pterostigma.

Genus *Necyla* Navás

Necyla Navás, 1913a, [incorrect original spelling as *Nicyla*]. Type species: *Necyla exigua* Navás, 1913a [as *Nicyla* [sic] *exigua*], by monotypy.

Orientispa Poivré, 1984a. Type species: *Cercomantispa shirozui* Nakahara, 1961 (as "*Orientispa shirozui* (Nakahara, 1961)"), by original designation. (New synonym)

Distribution: Palearctic and **Oriental**: widespread

Diagnosis. *Necyla* is distinguished from all other Oriental and Palearctic genera by the combination of a pronotum bearing setae (sometimes inconspicuously granulated). The A1 in the hindwing is forked and fused with CuA for a significant distance distal to the fork, and a simple or unmodified pterostigma (See Table 1).

Head: glabrous anteromedial dome directly posterior to interantennal space, flattening out posteriorly; interocular space at anterior margin of scape as wide or narrower than width of eyes; scape smooth, usually lacks setae, rarely with few setae; flagellum slender, significantly shorter than prothorax, lacks pale band in distal third; flagellomeres simple/unmodified, similar in length than width, squircular in shape, each antennule with multiple whorls of anteriorly directed setae.

Thorax: Anterior margin with anterodorsally directed cusp; pronotal mid-section cylindrical, pronotum in dorsal view lacks transverse ridges, surface granulated, sometimes faintly corrugated, sometimes inconspicuously so; setae always present both dorsally and laterally, surface often pubescent, maculae inconspicuous dorsolateral cusps, never pigmented and thus similar colour to surrounding areas, dorsolaterally directed; prothorax conspicuously longer than pterothorax, ventral outline of pronotum in lateral view straight. Pterothorax: lacks setae but pubescent, mesoscutal furrows conspicuous, meet at prominent central furrow, central furrow shaped as conical pit, pit slightly anteriorly directed; mesoscutellum triangular, terminates just posterior to central furrow.

Legs: Mesofemur usually with dark longitudinal band/line; Meso- and metatarsus with segment I more than double in length than segments II–IV combined; segment IV the shortest; segment V flat anterodorsally; meso- and metatarsal claws comprising three to five teeth, with a collective triangular shape (elongated middle teeth flanked by shorter teeth).

Wings: venation comparatively simple; cells hyaline; radial cells comparatively compressed into box-like shapes. Forewing costal space terminates just distal to commencement of Rs; pterostigma unmodified, commencing at r-rs1, sc-ra crossvein approximately half the length of RS3, one c-ra crossvein distal to pterostigma, A2 simple, A2 and A3 fused basally, CuP straight distal to cup-a1. Hindwing with A1 forked, A2 strongly attenuated, often interpreted as absent, complete fusion between CuA and A1 for significant length distal to A1 fork, cu-a thus absent and should be interpreted as cu+a.

Male abdomen: length short, not extending past wing apices. EEG between tergite V and VI well developed; ectoprocts elongated, surpass the posterior apex of sternite IX, slightly globose apex, directed posteriorly, ventromedial lobes prominent, directed ventrally to ventromedially in caudal view; sternite IX with rounded,

unsclerotised medial projection in ventral view, directed posteriorly in lateral view; pseudopenis conspicuous, shorter or similar to the length of the pseudopenal membrane; pseudopenal membrane slightly sclerotised with rough ventral surface; hypomeres prominent; distal apex of gonocoxites strongly curved dorsally, sometimes with additional inward projection, distal apex reach the level of the hypomeres, never surpass the distal apex of the pseudopenal membrane; medial gonarcal protrusion sclerotised and thorn-like, acute apex, slightly shorter than pseudopenis, conspicuously curved dorsally in lateral view; distal apex of mediuncus usually deeply bifid in ventral view, proximal apex of mediuncus variable in shape, oval to rounded arrow-like in shape, apex surpass or is level with proximal apex of gonocoxites.

Biology: The biology of *Necyla* is still unknown. The wings are held in a roof-like manner over the abdomen. Sexual dimorphism is present in the seemingly closely related Afrotropical genus *Cercomantispa. Cercomantispa* also has the characteristics listed for *Austromantispa*, *Necyla* and *Xaviera*. All males of *Cercomantispa* usually have specific colour patterns on the inner surface of the profemur that are absent in the females. Some males of *Necyla* species have similar patterns on both the inner- and outer surface of the profemur. It is therefore possible that a similar phenomenon is present in all of *Necyla*. As with *Cercomantispa*, the females might have been described as separate species and be the cause of an increased number of synonyms.

Notes: *Necyla* has largely been ignored since the 1930's. This might be due to the bad condition of the type specimens, as well as vague and inconclusive descriptions of species belonging to the genus. Tjeder (1963) raised concerns about the validity of *Cercomantispa* and suggested that *Cercomantispa* might be a synonym of the previously described *Necyla*. The male genitalia and the anal veins in the hindwings (Fig. 11h), however, support the separation (Snyman *et al.* 2012). Tjeder's paper went largely unnoticed and consequently left an opening for description of the genus *Orientispa* Poivré, 1984a, which includes delicate mantispine species found in the Palearctic and Oriental region. In support of the new genus, Poivré (1984a) compared the morphology to that of Afrotropical *Mantispa* (now *Afromantispa*), *Mantispa* and *Cercomantispa*. Like *Orientispa*, *Necyla* is also a predominantly Palearctic and Oriental genus, (unlike *Afromantispa* and *Cercomantispa*) but never received the attention of subsequent authors. Following the description of *Orientispa*, Yang (1999) described nine new species and assigned them to *Orientispa* that only had two species at that stage. It is quite plausible to suspect that some of the species described by Yang (1999) are synonyms of *Necyla* species already described. Since the types of Yang's species were not available at the time of study, and his publication could not be translated, uncertainty about the validity of the species persists. The sketches in Yang's (1999) publication, however, were sufficient to assure us that *Orientispa* is indeed a synonym of *Necyla*.

Unfortunately, *Necyla pupa* Navás, 1927 was not studied, and the description is not adequate. However, the type locality, Somalia, places doubt on whether this species is indeed part of *Necyla*. *Afromantispa nana* (Erichson, 1839), a small species is common in the drier parts of Africa and the surrounding Arabian Peninsula and commonly mistaken for *Necyla, e.g. Necyla arabica* and *Necyla bonhourei* which have already been identified as synonyms of *A. nana*.

N. luzonensis seems to be an interesting species and it remains doubtful whether this species belongs in *Necyla*. The species has a single pore on each side of the anterolateral margin of sternite VII (Fig. 11l). It is the only species, to my knowledge, with sternal pores. Subsequent investigation might lead to the description of a new genus.

Genus *Xaviera* Lambkin

Xaviera Lambkin, 1986b. Type species: *Mantispa manca* Gerstaecker, 1885, by original designation.

Distribution: Oriental and **Australasia**: Indonesia to Australia.

Diagnosis (modified from Lambkin 1986b): *Xaviera* can be distinguished from other Oriental and Palearctic genera by the combination of a glabrous pronotum (sometimes bearing a few fine setae on the dorsum) and a hindwing with a forked A1 that is fused for a significant distance with CuA distal to the fork. The pterostigma is rounded and distally truncate.

Section III: *Mantispa* and *Mantispilla* (= *Sagittalata* + *Perlamantispa*)

Aspöck *et al.* (1980) synonymised *Perlamantispa* with *Mantispa* which was mostly rejected by the scientific community (Ohl 2004: note 107, pp. 256). However, this was the first indication of the complexity of the generic boundaries of *Mantispa*, *Mantispilla*, *Perlamantispa* and *Sagittalata*. Later, Penny (1982) synonymised *Mantispilla* with *Mantispa* because both are characterized by a single radial vein, but also rejected the *Perlamantispa* synonymy proposed by Aspöck *et al.* (1980). The presence of a single radial vein is quite variable and certainly not an autapomorphy or generic boundary for any of the genera. Hoffman (1992) subsequently suggested to restore *Mantispilla* as a genus in his PhD thesis, but he never published the findings, which are as follows:

"[*Mantispilla*] has an unsettled history, mostly because of all the decisions on the validity of *Mantispilla* was based on diagnostic characters proposed by Enderlein and Banks, namely wing venation, hairiness of pronotum, and not on a more thorough examination of the type species *M. indica*. After examining specimens of the type species, I hereby recognise *Mantispilla* as a valid genus with its distribution restricted for the present to that of its type species in India and SE Asia."

He used the following characters as support for his finding:

Posterior margin of male sternite IX truncate.

Male pseudopenis bulb-like, distinctly narrowed at the base in posterior view, and apically tapered to a point. The bulb-like shape with a basally-narrowed pseudopenis is unique among mantispines.

Male hypandrium internum nearly as long as sternite IX, anterior margin deeply concave to one fourth length, posterior apex abruptly curved and at a 90-degree angle to remainder.

Female bursa with entrance entirely heavily sclerotised (as opposed to others with either anterior sclerotization or lightly sclerotized).

Unfortunately, these characters also correspond with *Sagittalata hilaris* (Navás, 1925), the type species of the genus *Sagittalata* Handschin, 1959. Snyman *et al.* (2012) synonymised *Perlamantispa* (Handschin, 1960b) with *Sagittalata* because of similarities in the terminalia, and the presence of a longitudinal line on the dorsum or inner lateral side of the procoxa. These characteristics occur in the genus *Mantispilla* as well. Other similarities include a mesothorax lacking setae (different from *Mantispa*), inwardly enlarged flanges on the distal half of the gonocoxites, and relatively consistent body colouration.

Species of this genus are usually yellow accompanied by either black/dark brown (predominantly in the Palearctic and Oriental) or dark reddish (oxblood) (predominantly in the Afrotropics). *Mantispa* on the other hand is usually predominantly yellow, lacking bright colour patterns. This is however not consistent enough to delineate generic boundaries.

The pterostigma is also usually elongated and dark reddish in colour. The size of the ectoprocts seem to range from prominent or slightly elongated as found in *Mantispa styriaca* (Poda, 1761) to relatively small and inconspicuous as in *S. hilaris*. The *Mantispa* pseudopenis and pseudopenal membrane is also quite varied. It ranges from distinctly narrowed at the base, and apically tapered to a point as described by Hoffman (1992) (*S. hilaris and M. indica* (Westwood, 1852)), to being basally broad in posterior view, and apically tapered to a point (*S. delamarei* Poivré, 1982b and *P. perla* (Pallas, 1772)). These characters do not show congruity with one another and therefore may not be indicative of generic boundaries.

Sagittalata hilaris is superficially quite different from most other *Mantispilla* (incl. *Perlamantispa* and *Sagittalata*) species, especially with regards to the relative slender and glabrous pronotum and compact terminalia, also noted by Snyman *et al.* (2012). However, beyond the "superficial differences", no diagnostic characters are available. The flexible morphological clines of the pronota and terminalia in other species indicate that the "superficial difference" of *S. hilaris* might not be diagnostic. This then leaves no option to synonymise the genus with that of *Mantispilla*.

The distribution of *Mantispilla* and *Sagittalata* (+ *Perlamantispa*) is quite large, ranging from SE Asia, throughout the Palearctic, into Africa (Snyman *et al.* 2012). Even though *Perlamantispa* had the same distribution, it might still be suggestive of more than one genus. The distribution range is, however, a common one and found in other Neuroptera genera such as *Myrmeleon* (Mansell 1988).

TABLE 2. Characters and states separating *Mantispa* from *Mantispilla*. The filled circles represent the presence of the character state.

Character	state	Mantispa	Mantispilla
Pronotal setae	present	●	●
	absent		●
Mesonotal setae	present	●	
	absent		●
Longitudinal line on dorsum or inner lateral side of forecoxae	present		●
	absent	●	
Dorsodistal half of gonocoxites with inwardly enlarged flanges	present		●
	absent	●	

This study resurrects the genus name *Mantispilla* and assigns both *Perlamantispa* and *Sagittalata* as synonyms of *Mantispilla*. Consequently, *Mantispilla* will be comparatively speciose, similar to *Mantispa*. However, many synonyms will be among the species names and needs to be identified. The possibility of new genera is also suspected. It might probable that the differences seen by previous authors hold some validity, but did not convey the differences well and assigned erroneous type species for the genera. The type species of the newly synonymised genera are convincingly members of one genus.

Genus *Mantispa* Illiger in Kugelann

Mantispa Illiger in Kugelann, 1798. Type species: *Mantis pagana* (Fabricius, 1775) (= *Raphidia styriaca* Poda, 1761), by monotypy.

Amycla Rafinesque, 1815. Unjustified emendation of *Mantispa* Illiger in Kugelann, 1798. *Amycla* was considered an emendation of *Mantispa* Illiger in Kugelann, 1798, by Neave, 1939.

Distribution: Palearctic: widespread, western Europe to China. (Doubtful records make it unclear, possibly some areas of the Orient and the Afrotropics).

Diagnosis (Fig. 12): *Mantispa* can be distinguished from other Oriental and Palearctic genera by the presence of short, stout setae on the occiput, the pronotum and mesothorax combined with an attenuated or absent crossvein between A1 and CuP.

Head: vertex with slight longitudinal ridge from the well-developed dome posterior to the interantennal space to the occiput, slight indentation halfway, flattening out laterally towards the ocular margin, postocular margin broad, covered in short stout setae, interocular space at anterior margin of scape broader than or similar to width of eyes; scape bearing few setae, flagellum length significantly shorter than prothorax, flagellomeres simple/ unmodified, similar in length and width, squircular in shape, basal half of flagellomeres with prominent whorl of setae on anterior margin which gradually changes towards the apex into fine setae covering entire flagellomeres.

Thorax: anterior margin with dorsoanteriorly directed cusp bearing short stout setae, pronotal shape of mid-section almost cylindrical sometimes with slight corrugations in dorsal view, dorsum with dark short stout setae, few setae may be present anterolaterally or posterolaterally; maculae inconspicuous acute cusps, dorsolaterally directed (away from medial plane), posterior to maculae pronotum gradually increases in width; prothorax longer than pterothorax; ventral outline of pronotum in lateral view straight; pterothorax: mesothorax with dark short stout setae, mesoscutal furrows conspicuous, meet at prominent central furrow, central furrow shaped as laterally compressed conical pit; mesoscutellum triangular, terminates just posterior to central furrow; metathorax lacks stout setae, may be pubescent (velvet appearance).

Legs: meso- and metatarsus with segment I longer in length than segments II–IV combined; segment IV the shortest; metatarsus with segment I similar in length than segments II–IV combined; segment II–IV similar in size; segment V slightly globose anterodorsally; meso- and metatarsal claws consisting of four to six teeth, with a collective triangular shape (middle teeth distinctly longer in length than lateral teeth).

Wings: wings hyaline, unpigmented; pterostigma unmodified. Forewing: costal space terminating midway of RS1; pterostigma commencing at r-rs1 or just distal of r-rs1, terminates midway of RS3; sc-ra crossvein distinctly less than half the length of RS3, c-ra crossveins distal to pterostigma one; A2 simple, A2 and A3 fused basally, CuP straight. Hindwing: cu-m straight; A1 forked, 2A present, CuA distinctly bent towards A1, cu-a attenuated or absent, CuA and A1 never completely fused.

Male abdomen: length short, not extending past wing apices; all tergites lack pores, intertergal membrane between V-VI with pores, also bears setae on anterior half of membrane; ectoprocts well developed in dorsal view, may extend past apex of sternite IX in lateral view (*M. styriaca*) or do not extend past apex of sternite IX (*M. aphavexelte*), apices not globose; ventromedial lobes prominent, posteroventrally directed, majority of spines on ventral surface; sternite IX with broad rounded medial protrusion, protrusion lacks setae; pseudopenis prominent and acute, longer or similar in length than pseudopenal membrane; pseudopenal membrane broadly triangular, tapering towards pseudopenis; hypomeres prominent on lateral apices of pseudopenal membrane; distal apices of gonocoxites level with or just short of distal apex of mediuncus; gonocoxites thin and parallel; median gonarcal lobe a sub-acute protrusion, shorter or similar in length than the length of pseudopenis; distal apex of mediuncus bifid, proximal apex of mediuncus broadly arrow shaped, ending level with basal apices of the gonocoxites.

Biology: Brauer (1852, 1855, 1869, 1887) studied the biology of *M. styriaca* well and used the species to describe the hypermetamorphic ontogeny characteristic of Mantispidae. So far, several species from Gnaphosidae and Lycosidae are known to be hosts of *Mantispa* larvae. Of all the species and specimens used in this study, only *M. aphavexelte* Aspöck *et al.,* 1980 and *M. styriaca* clearly belonged to *Mantispa.* Unlike what is suggested by the long list of names belonging to *Mantispa*, it is probable that *Mantispa* is a small genus comprising few species.

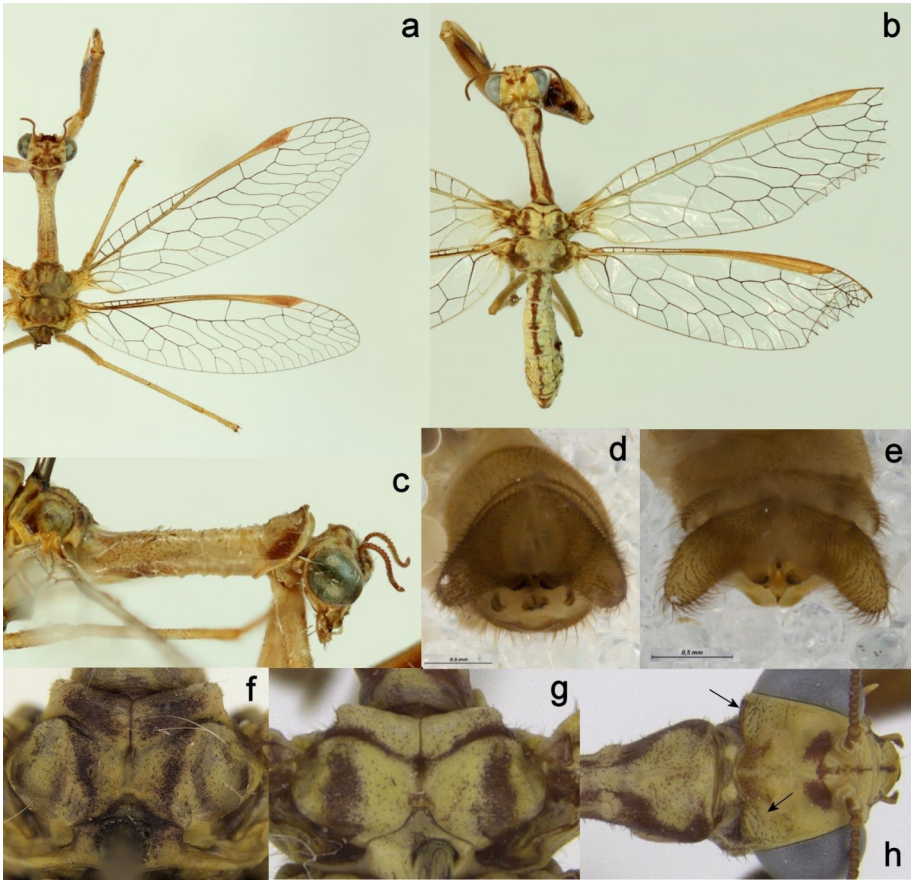

FIGURE 12. *Mantispa styriaca*: a. Habitus; c. prothorax, lateral view; f. mesothoracic dorsum. *Mantispa aphavexelte*: b. Habitus; d. terminalia, caudal view; e. terminalia, dorsal view; g. mesothoracic dorsum; h. prothoracic prozone and occiput in dorsal view, arrows indicate presence of short stout setae.

Genus *Mantispilla* Enderlein

Mantispilla Enderlein, 1910 (as subgenus of *Mantispa* Illiger in Kugelann, 1798). Type species: *Mantispa indica* Westwood, 1852, by original designation.
Synonymised with *Mantispa* by Penny (1982). (Restored here)
Sagittalata Handschin, 1959a. Type species: *Mantispilla hilaris* Navás, 1925 (as "*Sagittalata hilaris* (Navás 1924 [sic])"), by original designation. (New synonym)
Perlamantispa Handschin, 1960a. Type species: *Mantis perla* Pallas, 1772 (as "*Mantispa perla*"), by original designation. Synonymised with *Sagittalata* by Snyman *et al.* (2012).

Distribution: Afrotropical, Oriental and **Palearctic**: widespread across all areas.

Diagnosis (Fig. 13): *Mantispilla* is most easily identified by excluding the other genera found in the regions, however, the following features characterize a cohesive generic group. *Mantispilla* can be distinguished from other Oriental and Palearctic genera by the forecoxae with longitudinal pigmentation (line) on the anterior or inner lateral sides, pronotum lacks short stout setae, but may have a few sparsely distributed setae, mesothorax either glabrous or pubescent (velvet appearance), the gonocoxites always with a well-developed inward directed flange on distal apex. These characteristics combined with an attenuated or absent crossvein between A1 and CuP distinguish *Mantispilla* from all other genera. The general colour of *Mantispilla* is yellow accompanied by black, brown or dark red (oxblood).

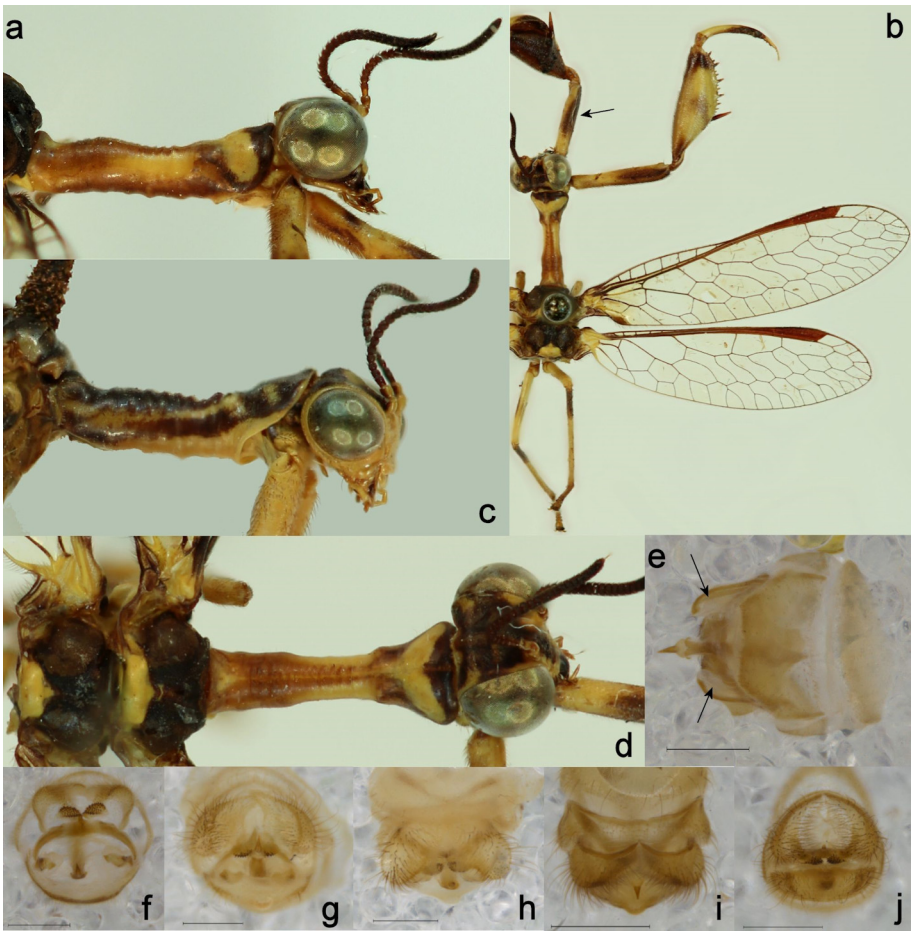

FIGURE 13. *Mantispilla* sp. undescribed: a. Prothorax, lateral view; b. habitus; d. prothoracic dorsum; e. terminalia, ventral view, arrows indicating inner flanges; f, terminalia caudal. *Mantispilla perla*: c. Prothorax, lateral view; g. terminalia, caudal view; h. terminalia, dorsal view. *Mantispilla hilaris*: i. terminalia, dorsal view; j. terminalia, caudal view.

Head: vertex with slight longitudinal ridge from the well-developed dome posterior to the interantennal space to the occiput, slight indentation halfway sometimes present, flattening out laterally towards the ocular margin,

postocular margin broad, bearing setae, interocular space at anterior margin of scape broader than or similar to width of eyes; scape bearing few setae, flagellum length significantly shorter than prothorax, flagellomeres simple/unmodified, similar in length than width, squircular in shape, basal half of flagellomeres with prominent whorl of setae on anterior margin which gradually changes towards the apex into fine setae covering entire flagellomeres.

Thorax: anterior margin with slight dorsoanteriorly directed cusp, cusp lacks short stout setae, pronotal shape of mid-section almost cylindrical, usually with regular corrugations in dorsal view, dorsum lacks setae or with sparsely distributed setae; maculae inconspicuous acute cusps, dorsolaterally directed (away from medial plane), posterior to maculae pronotum gradually increases in width; prothorax longer than pterothorax; ventral outline of pronotum in lateral view straight; pterothorax: mesothorax lacks setae, glabrous or pubescent (velvet appearance), mesoscutal furrows conspicuous, meet at prominent central furrow or abruptly end right before meeting, central furrow shaped as laterally compressed conical pit; mesoscutellum triangular, terminates just posterior to central furrow, metathorax smooth, lacks setae, may be pubescent (velvet appearance).

Legs: meso- and metatarsus with segment I longer in length than segments II–IV combined; segment IV the shortest; metatarsus with segment I similar in length than segments II–IV combined; segment II–IV similar in size; segment V slightly globose anterodorsally; meso- and metatarsal claws consisting of four to six teeth, with a collective triangular shape (middle teeth distinctly longer in length than lateral teeth).

Wings: wings hyaline, unpigmented; pterostigma unmodified. Forewing: costal space terminating midway of RS1; pterostigma commencing at r-rs1 or just distal of r-rs1, terminates midway of RS3; sc-ra crossvein distinctly less than half the length of RS3, c-ra crossveins distal to pterostigma one; A2 simple, A2 and A3 fused basally, CuP straight. Hindwing: cu-m straight; A1 forked, A2 present, CuA distinctly bent towards A1, cu-a attenuated or absent, CuA and A1 never completely fused.

Male abdomen: length short, not extending past wing apices; all tergites lack pores, intertergal membrane between V–VI; ectoprocts simple in dorsal view, do not extend past apex of sternite IX in lateral, in caudal view usually ventrolaterally slightly globose, tapering off towards dorsomedial line (teardrop shaped); ventromedial lobes prominent, posteroventrally or posteriorly directed; sternite IX variable, may be truncated, rounded or with apical protrusion; pseudopenis prominent and acute, longer or similar in length than pseudopenal membrane; pseudopenal membrane variable but always triangular, tapering towards pseudopenis; hypomeres prominent on lateral apices of pseudopenal membrane; distal apices of gonocoxites level with or just short of distal apex of mediuncus; gonocoxites, always with well-developed inward directed flange on distal apex of gonocoxite; median gonarcal lobe an acute or sub-acute protrusion, shorter or similar in length than the length of pseudopenis; distal apex of mediuncus bifid, proximal apex of mediuncus variable, usually arrow shaped, usually extends past proximal apices of the gonocoxites.

Biology: The biology of *Mantispilla japonica* was studied by Hirata & Ishii (1995). Several species of spiders from the Clubionidae, Philodromidae, Salticidae and Thomisidae are reported as hosts of *M. japonica*. The first instar is known to board spiders and prefer the spider pedicel as attachment position.

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APPENDIX. A revision of and keys to the Mantispinae genera of the Oriental and Palearctic regions (Neuroptera: Mantispidae)

Amendments to the Ohl catalogue (2004)

All institutions are abbreviated as in Ohl (2004). Many specimens from these collections, including types, were studied by Ragner Hall during the 1980's. Mr. Hall never published his findings, but he was responsible for most of the abdominal processing and maceration. Some of his notes left on museum specimens are included here in the "End Notes" section, but his work cannot be referenced in the reference list. All valid names are listed alphabetically sorted into genera. The amendments to the Ohl (2004) catalogues published by Tauber *et al.* (2017) are also incorporated.

Two new generic synonyms: *Orientispa* (=*Necyla*), *Sagittalata* (=*Mantispilla*)

One new addition to the catalogue: *Eumantispa pseudoharmandi*

51 new generic combinations (in alphabetical order): *Austromantispa melanocera* (Navás), *Austromantispa pasteuri* (Navás), *Buyda neotropica* (Navás), *Campanacella javanica* (Westwood), *Campanacella radiata* (Navás), *Cercomantispa haugi* (Navás), *Cercomantispa pygmaea* (Stitz), *Cercomantispa flavonotata* (Tjeder), *Dicromantispa flavicauda* (Navás), *Dicromantispa frontalis* (Navás), *Dicromantispa venulosa* (Navás), *Mantispilla asiatica* (C.-k. Yang), *Mantispilla ata* (C.-k. Yang), *Mantispilla austroafrica* (Poivre), *Mantispilla bitschi* (Poivre), *Mantispilla bequaerti* (Navás), *Mantispilla delamarei* (Poivre), *Mantispilla diminuta* (Matsumura), *Mantispilla dorsalis* (Erichson), *Mantispilla girardi* (Poivre), *Mantispilla griveaudi* (Poivre), *Mantispilla japonica* (McLachlan), *Mantispilla lineolata* (Westwood), *Mantispilla orientalis* (Esben-Petersen), *Mantispilla pallescens* (Stitz), *Mantispilla paraguayana* (Ohl), *Mantispilla perla* (Pallas), *Mantispilla pusilla* (Pallas), *Mantispilla royi* (Poivre), *Mantispilla semeriai* (Poivre), *Mantispilla spilonota* (Banks), *Mantispilla vassei* (Navás), *Mantispilla yuata* (C.-k. Yang and Peng), *Necyla bicolor* (Poivre), *Necyla coronata* (C.-k. Yang), *Necyla flavacoxa* (C.-k. Yang), *Necyla fujiana* (C.-k. Yang), *Necyla longyana* (C.-k. Yang), *Necyla luzonensis* (Navás), *Necyla nigricoxa* (C.-k. Yang), *Necyla ophryuta* (C.-k. Yang), *Necyla pusilla* (C.-k. Yang), *Necyla semifurva* (C.-k. Yang), *Necyla shirozui* (Nakahara), *Necyla xuthoraca* (C.-k. Yang), *Pseudoclimaciella guttula* (Thompson), *Pseudoclimaciella negusa* (Navás), *Zeugomantispa chlorodes* (Navás), *Zeugomantispa chlorotica* (Navás), *Zeugomantispa femoralis* (Navás).

25 restored names: *Mantispilla agapeta* Navás, *Mantispilla ambonensis* Ohl, *Mantispilla azihuna* Stitz, *Mantispilla basalis* Navás, *Mantispilla bicolor* Stitz, *Mantispilla ceylanica* Stitz, *Mantispilla coomani* Navás, *Mantispilla cordieri* Navás, *Mantispilla deliciosa* Navás, *Mantispilla gillavryna* Navás, *Mantispilla hilaris* Navás, *Mantispilla immaculata* Stitz, *Mantispilla indica* Westwood, *Mantispilla* jucunda Navás, *Mantispilla loveni* Navás, *Mantispilla lugubris* Navás, *Mantispilla militaris* Navás, *Mantispilla obscurata* Navás, *Mantispilla radialis* Navás, *Mantispilla salana* Navás, *Mantispilla similata* Navás, *Mantispilla taina* Alayo, *Mantispilla tincta* Navás, *Mantispilla transversa* Stitz, *Mantispilla zayasi* Alayo.

Section I: *Asperala*, *Austroclimaciella*, *Campanacella*, *Euclimacia*, *Eumantispa*, *Mimetispa*, *Nampista*, *Stenomantispa* and *Tuberonotha*

Genus *Asperala* Lambkin

Asperala Lambkin, 1986. Type species: *Mantispa erythraea* Brauer, 1867 by original designation.
Distribution: **Oriental** and **Australasian**: Indonesia, Australia.

***Asperala erythraea* (Brauer)**
Mantispa erythraea Brauer, 1867. Syntypes: sex unknown, Australia, Queensland (ZMUH).
Distribution: **Australasian**: Australia (Queensland, New South Wales, Northern Territory, Western Australia). **Oriental**: Indonesia.

***Asperala hemichroa* (Navás)**
Mantispa hemichroa Navás, 1914. Holotype: female [according to New, 1996], Australia (BMNH).
Distribution: **Australasian**: Australia (Northern Territory, Queensland, Western Australia.

Genus *Austroclimaciella* Handschin

Austroclimaciella Handschin, 1961. Type species: *Mantispa quadrituberculata* Westwood, 1852 (as *Mantispa 4-tuberculata*), by original designation.

Distribution: **Palearctic** and **Oriental**: northeastern India to Japan, Philippines, Indonesia.

***Austroclimaciella brianti* (Navás)**
Climaciella brianti Navás, 1914a [as *Climiaciella* [sic] *Brianti* [sic], incorrect original spelling. Holotype (or syntypes): sex unknown, India, Sikkim (BMNH).
Distribution: **Oriental**: India.

***Austroclimaciella habutsuella* (Okamoto)**
Climaciella habutsuella Okamoto, 1910. Holotype: male, Okinawa (EIHU). Incorrectly cited as a new species in Okamoto, 1911, which is a German translation of Okamoto, 1910.
Distribution: **Oriental**: China, Taiwan. **Palearctic**: China, Japan.

***Austroclimaciella lacolombierei* (Navás)**
Climaciella lacolombierei Navás, 1931 [as *Lacolombierei* [sic]]. Holotype (or syntypes): female, China, Jiangsu (IZAS).
Distribution: **Palearctic**: China (Jiangsu).

***Austroclimaciella leopoldi* (Lestage)**
Climaciella leopoldi Lestage, 1934 [as *Leopoldi* [sic]. Holotype: male, Vietnam (ISNB).
Distribution: **Oriental**: Vietnam.

***Austroclimaciella luzonica* (van der Weele)[2]**
Mantispa quadrituberculata luzonica Van der Weele, 1909, male. Holotype: male, Philippines (ETH).
Climaciella habutsuella var. *fasciata* Stitz, 1913, male, female. Syntypes: male, female, Philippines (ZMB). Synonymized with *Austroclimaciella luzonica* van der Weele by Handschin, 1961.
Mantispa taylori Navás, 1927, female [as Taylori [sic]. Holotype: female, Philippines (CN). Synonymized with *Austroclimaciella luzonica* van der Weele by Handschin, 1961.
Subspecies: *Austroclimaciella luzonica maculata* (Stitz).
Distribution: **Oriental:** Philippines.

***Austroclimaciella luzonica maculata* (Stitz)**
Climaciella habutsuella var. *maculata* Stitz, 1913, male [incorrectly listed as female by Stitz, 1913]. Syntypes: male, Philippines (ZMB). A subspecies of *Austroclimaciella luzonica* van der Weele.
Distribution: Oriental: Philippines.

***Austroclimaciella quadrituberculata* (Westwood)**
Mantispa quadrituberculata Westwood, 1852 [as 4-*tuberculata* [sic], incorrect original spelling]. Holotype (or syntypes): sex unknown, India (OUM).
Mantispa quadrituberculata luzonica van der Weele, 1909. Holotype: male, Philippines (ETH).
Climaciella habutsuella var. *fasciata* Stitz, 1913. Syntypes: male, Philippines (ZMB). Synonymised with *Austroclimaciella luzonica* van der Weele by Handschin, 1961.
Climaciella miyakei Okamoto, 1910 [as *Miyakei* [sic]. Holotype: male, Japan (EIHU). Synonymised with *Climaciella quadrituberculata* by Kuwayama, 1962. Incorrectly cited as a new species in Okamoto, 1911, which is a German translation of Okamoto, 1910.
Mantispa taylori Navás, 1927 [as *Taylori* [sic]. Holotype: female, Philippines (CN). Synonymised with *Austroclimaciella luzonica* van der Weele by Handschin, 1961.
Climaciella satsumensis Yazaki, 1927. Syntypes: male, Japan (depository not indicated; EIHU?) Synonymised with *Climaciella quadrituberculata* by Kuwayama, 1962.
Climaciella tanegashimensis Yazaki, 1927. Syntypes: female, Japan (depository not indicated; EIHU?). Synonymised with *Climaciella quadrituberculata* by Kuwayama, 1925.
Distribution: **Oriental**: China, India, Indonesia (Java), Taiwan. **Palearctic**: China, Japan.

***Austroclimaciella subfusca* (Nakahara)**
Climaciella subfusca Nakahara, 1912, [as *Subfusca* [sic]. Holotype: female, Japan (depository not indicated). Incorrectly cited as a new species in Nakahara, 1913, which is an English translation of Nakahara, 1912.
Climaciella subflava Nakahara, 1912. A nomen nudum.

2. *Austroclimaciella luzonica* and *A. maculata* are possibly both synonyms of *A. quadrituberculata. A. maculata* was originally described as a variation of *A. luzonica* which was later elevated to subspecies rank. Handschin (1961) separated all of these mainly according to "loose" distribution patterns and slight variation in the pigmentation of the wing apices which has greater variability than proposed by the author. These are not thought of as adequate characters.

Distribution: **Palearctic**: Japan.

***Austroclimaciella weelei* Handschin**[3]
Austroclimaciella weelei Handschin, 1961, sex not indicated. Holotype: sex unknown, Indonesia (RMNH).
Distribution: **Oriental:** Indonesia (Sumba).

Genus *Campanacella* Handschin

Campanacella Handschin, 1961. Type species: *Mantispa hamiltonella* Westwood, 1867, by original designation.
Distribution: **Oriental**: India, Indonesia, Malaysia.

***Campanacella javanica* (Westwood)**[4]**, new combination**
Mantispa javanica Westwood, 1852 [as *Javanica* [sic]. Holotype (or syntypes): Indonesia, Java (BMNH).
Oriental: Indonesia (Java)

***Campanacella hamiltonella* Westwood**
Mantispa hamiltonella Westwood, 1867 [as *Hamiltonella* [sic]. Holotype (or syntypes): sex unknown, India (OUM).
Distribution: **Oriental**: India, Indonesia (Java), Malaysia

***Campanacella radiata* (Navás)**[5]**, new combination**
Mantispilla radiata Navás, 1914b. Holotype (or syntypes): sex unknown, New Guinea (BMNH).
Distribution: **Australasia**: New Guinea. **Oriental**: India, Indonesia (Java), Malaysia.

Genus *Euclimacia* Enderlein

Euclimacia Enderlein, 1910. Type species: *Euclimacia partita* Enderlein, 1910, by original designation.
Distribution: **Palearctic**, **Oriental**, and **Australasian**: northeastern India to northern Australia.

***Euclimacia badia* Okamoto**
Euclimacia badia Okamoto, 1910. Holotype: male, Taiwan (EIHU). Incorrectly cited as a new species in Okamoto, 1911, which is a German translation of Okamoto, 1910.
Euclimacia sauteri Navás, 1927a [as *Sauteri* [sic]. Holotype: female, Taiwan (DEI). Synonymised with *Euclimacia badia* by Ohl (2004).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Euclimacia basiflava* Handschin**
Euclimacia basiflava Handschin, 1961. Holotype: sex unknown, Malaysia (NHMW).
Distribution: **Oriental**: Malaysia.

***Euclimacia burmanella* (Westwood)**
Mantispa burmanella Westwood, 1867 [as *Burmanella* [sic]. Holotype (or syntypes): sex unknown, Myanmar (BMNH).
Distribution: **Oriental**: Myanmar.

***Euclimacia celebica* Handschin**
Euclimacia celebica Handschin, 1961. Holotype: male, Indonesia, Sulawesi (NHMW).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Euclimacia cottami* Navás**
Euclimacia cottami Navás, 1914a. [as *Cottami* [sic]. Holotype (or syntypes): sex unknown, India, Sikkim (BMNH).
Distribution: **Oriental**: India (Sikkim).

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3. *Austroclimaciella weelei* is possibly a synonym of *A. habutsuella*. The boundaries between these species are not well defined. *A. habutsuella* and *A weelei* lack a broad black band on the posterior margin of the vertex, lacks pigmentation in RS2 and RS3 and the cells anterior to Rs in the FW as well as a short pseudopenis.
4. The two syntypes of *Campanacella javanica* bear no significant differences to *C. hamiltonella* and the latter is probably a synonym.
5. The type specimen of *Campanacella radiata* is in a very bad condition and partly destroyed. The description of the species itself bear no significant differences to *C. hamiltonella* and is probably a synonym.

***Euclimacia flavicauda* Esben-Petersen**
Euclimacia flavicauda Esben-Petersen, 1917. Holotype: sex unknown, Indonesia, Sumatra (ZMUH).
Distribution: **Oriental**: Indonesia (Sumatra).

***Euclimacia flavocincta* Stitz**
Euclimacia flavocincta Stitz, 1913. Holotype: female, Solomon Islands (ZMB).
Distribution: **Australasian**: Solomon Islands.

***Euclimacia fusca* Stitz**
Euclimacia fusca Stitz, 1913 [incorrectly listed as female by Stitz, 1913]. Holotype: male, Taiwan (ZMB).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Euclimacia gerstaeckeri* Banks**
Euclimacia gerstaeckeri Banks, 1920. Holotype (or syntypes): sex unknown, Singapore (MCZ).
Distribution: **Oriental**: Singapore.

***Euclimacia grandis* (Guérin-Ménéville in Duperrey)**
Mantispa grandis Guérin-Ménéville in Duperrey, 1831 ["1830"]. Holotype (or syntypes): sex unknown, Indonesia, Ambon (depository unknown).
Mantispa guerinii Westwood, 1852 [as *Guerinii* [sic].
Unnecessary replacement name for *Mantispa grandis* Guérin-Ménéville.
Distribution: **Oriental**: Indonesia (Ambon, Moluccas).

***Euclimacia horstaspoecki* Ohl**
Euclimacia horstaspoecki Ohl, 2004. Holotype: male, Thailand (ZMB).
Distribution: **Oriental**: Thailand.

***Euclimacia jacobsoni* Handschin**
Euclimacia jacobsoni Handschin, 1961. Holotype: sex unknown, Indonesia, Sumatra (ZMAN).
Distribution: **Oriental**: Indonesia (Sumatra).

***Euclimacia metallica* Esben-Petersen**
Euclimacia metallica Esben-Petersen, 1917. Holotype: female, Indonesia, Sulawesi (ZMUH).
Distribution: **Oriental**: Indonesia (Sulawesi, Sumatra).

***Euclimacia morosa* (Gerstaecker)**
Mantispa morosa Gerstaecker, 1888 ["1887"]. Holotype (or syntypes): female, Philippines, Palawan (EMAU).
Distribution: **Oriental**: Borneo, Philippines (Palawan).

***Euclimacia nelsoni* Navás**
Euclimacia nelsoni Navás, 1914a [as *Nelsoni* [sic]. Holotype (or syntypes): sex unknown, Sri Lanka (BMNH).
Distribution: **Oriental**: Sri Lanka.

***Euclimacia nigra* Handschin**
Euclimacia nigra Handschin, 1961. Holotype: sex unknown, Indonesia, Java (RMNH).
Distribution: **Oriental**: Indonesia (Java).

***Euclimacia nodosa* (Westwood)**
Mantispa nodosa Westwood, 1847 ["1848"]. Holotype (or syntypes): sex unknown, India, Assam (OUM).
Distribution: **Oriental**: India.

***Euclimacia nuchalis* (Gerstaecker)**
Mantispa nuchalis Gerstaecker, 1885 ["1884"]. Lectotype: male, Australia, Queensland (EMAU and ZMUH according to Esben-Petersen (1917b)). Designated by Lambkin, 1986b.
Euclimacia flavicostata Esben-Petersen, (1917b). Holotype: male, Australia, Queensland (BMNH). Synonymised with *Euclimacia nuchalis* by Lambkin (1986b).
Distribution: **Australasian**: Australia (New South Wales, Northern Territory, Queensland).

***Euclimacia partita* Enderlein**
Euclimacia partita Enderlein, 1910. Syntypes: female, Indonesia, Sulawesi (MZPW).

Distribution: **Oriental**: Indonesia (Sulawesi).

***Euclimacia regina* Esben-Petersen**
Euclimacia regina Esben-Petersen, 1917. Holotype: female [locality not indicated, probably Indonesia, Sunda Islands] (NHRS).
Distribution: **Oriental**: Indonesia (Java, Sunda Islands), Singapore.

***Euclimacia rhombica* Navás**
Euclimacia rhombica Navás, 1914a. Holotype (or syntypes): sex unknown, Myanmar (BMNH).
Distribution: **Oriental**: Myanmar.

***Euclimacia rufa* Esben-Petersen**
Euclimacia rufa Esben-Petersen, 1928. Holotype: sex unknown, Indonesia: no specific locality (MBBJ).
Distribution: **Oriental**: Indonesia.

***Euclimacia ruficauda* Enderlein**
Euclimacia ruficauda Enderlein, 1910. Holotype: female, Indonesia, Sulawesi (MZPW).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Euclimacia rufocincta* Handschin**
Euclimacia rufocincta Handschin, 1961. Holotype: sex unknown, Borneo (RMNH).
Distribution: **Oriental**: Borneo.

***Euclimacia superba* Lambkin**
Euclimacia superba (Lambkin, 1987). Holotype: male, Australia, Queensland (ANIC).
Distribution: **Australasian**: Australia (Queensland).

***Euclimacia tagalensis* Banks**
Euclimacia tagalensis Banks, 1914 ["1913"]. Holotype (or syntypes): Philippines, Luzon (MCZ).
Distribution: **Palearctic**: Japan. **Oriental**: Philippines (Luzon).

***Euclimacia torquata* Navás**
Euclimacia torquata Navás, 1914a. Holotype: sex unknown, Australia, Queensland (BMNH).
Distribution: **Australasian**: Australia (New South Wales, Queensland), New Guinea.

***Euclimacia triangularis* Handschin**
Euclimacia triangularis Handschin, 1961. Holotype: sex unknown, Philippines (ZMUC).
Distribution: **Oriental**: Philippines.

***Euclimacia vespiformis* Okamoto**
Euclimacia vespiformis Okamoto, 1910. Holotype: male, Taiwan (EIHU). Incorrectly cited as a new species in Okamoto (1911), which is a German translation of Okamoto (1910).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Euclimacia woodhousei* Navás**
Euclimacia woodhousei Navás, 1914a [as *Woodhousei* [sic]. Holotype (or syntypes): sex unknown, India, Sikkim (BMNH).
Distribution: **Oriental**: India (Sikkim).

***Euclimacia zonalis* Navás**
Euclimacia zonalis Navás, 1914a. Holotype (or syntypes): sex unknown, Indonesia, Sulawesi (BMNH).
Distribution: **Oriental**: Indonesia (Sulawesi).

Genus *Eumantispa* Okamoto

Eumantispa Okamoto, 1910. Type species: *Mantispa suzukii* Okamoto, 1910 (as "*Mantispa suzukii* Mats. [sic]") (= *Mantispa harmandi* Navás 1909a ["1908–1909"]), by original designation. Incorrect type species designation by Kuwayama (1962), of *Mantispa harmandi* Navás. Incorrectly cited as a new taxon in Okamoto (1911), which is a German translation of Okamoto (1910).

Stenispa Navás, 1914a. Type species: *Eumantispa hypogastrica* Navás, 1914a, by monotypy. A junior homonym of *Stenispa* Baly, 1858 (Insecta: Coleoptera: Chrysomelidae). Synonymised with *Eumantispa* Okamoto, 1910 by Ohl (2004).

Distribution: **Palearctic**, **Oriental**, and **Australasian**: Far eastern USSR, Japan, northeastern India to New Guinea.

***Eumantispa araucariae* Handschin**
Eumantispa araucariae Handschin, 1961. Syntypes: sex unknown, New Guinea (RMNH).
Distribution: **Australasian**: New Guinea.

***Eumantispa ferruginea* Stitz**[6]
Eumantispa harmandi var. *ferruginea* Stitz, 1913 male. Holotype: male, Indonesia, Sulawesi (ZMB). Status elevated to species by Ohl 2004 as *Eumantispa ferruginea* Stitz, 1913.
Distribution: **Oriental:** Indonesia (Sulawesi).

***Eumantispa fuscata* Navás**
Eumantispa fuscata Navás, 1914a. Holotype (or syntypes): sex unknown, Indonesia, Sulawesi (BMNH).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Eumantispa fuscicolla* C.-k. Yang**
Eumantispa fuscicolla Yang, 1992. Holotype: male, China, Yunnan (IZAS).
Distribution: **Oriental**: China (Yunnan).

***Eumantispa harmandi* (Navás)**
Mantispa harmandi Navás, 1909 ["1908–1909"], [as *Harmandi* [sic]. Lectotype: male, paralectotype: female, Japan (MNHN).
Mantispa nawae Miyake, 1910 [as *Nawae* [sic]. Holotype: female, Japan (NELG). Synonymised with *Eumantispa harmandi* by Kuwayama (1925 ["1924–1925"]).
Mantispa sasakii Miyake, 1910 [as *Sasakii* [sic] Syntypes: female, Japan (ACIU, CMY). Synonymised with *Eumantispa harmandi* by Nakahara, 1912.
Eumantispa suzukii Okamoto, 1910. Lectotype: female, Japan (EIHU). Designated by Kuwayama, 1966. Synonymised with *Eumantispa harmandi* by Nakahara (1912). Incorrectly cited as a new species in Okamoto (1911), which is a German translation of Okamoto (1910).
Subspecies: *Eumantispa harmandi taeniata* Stitz
Distribution: **Palearctic**: Far Eastern USSR, Japan, Sibiria. **Oriental**: Taiwan, widespread in SE Asia.

***Eumantispa hypogastrica* Navás, revised status**
Eumantispa hypogastrica Navás, 1914a. Holotype (or syntypes): sex unknown, Indonesia, Sulawesi (BMNH).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Eumantispa lombokensis* Handschin**
Eumantispa lombokensis Handschin, 1961. Holotype: sex unknown, Indonesia, Lombok (NHMW).
Distribution: **Oriental**: Indonesia (Lombok).

***Eumantispa moluccensis* Handschin**
Eumantispa moluccensis Handschin, 1961. Holotype: sex unknown, Moluccas (RMNH).
Distribution: **Oriental**: Moluccas.

***Eumantispa pseudoharmandi* Yang & Liu** (new addition to catalogue)
Eumantispa pseudoharmandi Yang and Liu, 2010. Holotype male, Fujian, China. Paratypes, one male, two females, all Fujian, China. (Entomological Museum of the China Agricultural University, Beijing, China). Erroneous name in publication as *Eumantispa paraharmandi*. *E. paraharmandi* was disregarded in a subsequent publication by Yang and Liu (2011).
Distribution: **Palearctic**: Fujian, China.

***Eumantispa rugicollis* (Navás)**
Mantispa rugicollis Navás, 1905. Holotype (or syntypes): sex unknown, India, Bengal (NMPC?).
Distribution: **Oriental**: India.

***Eumantispa harmandi taeniata* Stitz**
Eumantispa taeniata Stitz, 1913. Holotype: female, Papua New Guinea (ZMB). Original designation as *Eumantispa harmandi*

6. *Eumantispa harmandi* var. *ferruginea* was elevated to species level in Ohl (2004), however, *Eumantispa harmandi* var. *taeniata* remained a subspecies of *E. harmandi*. No explanation was given and should be investigated. It is possible that the reasoning is behind the distribution of *E. h. taeniata*, Papua New Guinea. Papua New Guinea is remote and known for its unique biodiversity and/or high level of endemism.

var. *taeniata* Stitz, 1913. A subspecies of *Eumantispa harmandi.*
Distribution: **Australasian**: Papua New Guinea.

***Eumantispa taiwanensis* Kuwayama**
Eumantispa taiwanensis Kuwayama, 1925. Holotype: male, Taiwan (TARI).
Distribution: **Palearctic:** Japan. **Oriental**: Taiwan.

***Eumantispa tibetana* C.-k. Yang**
Eumantispa tibetana C.-k. Yang in Huang *et al*., 1988. Holotype: male, China (Xizang) (IZAS).
Distribution: **Palearctic**: China (Xizang).

Genus *Mimetispa* Handschin

Mimetispa Handschin, 1961. Type species: *Mantispa simulatrix* McLachlan, 1900, by original designation.
Distribution: **Oriental**: Borneo, Indonesia.

***Mimetispa simulatrix* (McLachlan)**
Mantispa simulatrix McLachlan, 1900. Holotype: female, Borneo (OUM).
Mantispa mimetica Sharp, 1901 ["1900"] [authorship incorrectly attributed to McLachlan, 1900]. A nomen nudum.
Euclimacia ferdinandi Navás, 1928 [as *Ferdinandi* [sic]. Holotype (or syntypes): male, Borneo (ZMUH). Synonymised with *Mimetispa simulatrix* by Handschin (1961).
Distribution: **Oriental**: Borneo, Indonesia (Java).

Genus *Nampista* Navás

Nampista Navás, 1914a. Type species: *Nampista speciosa* Navás, 1914a (= *Mantispa auriventris* Guerin-Meneville), by monotypy.
Forciada Kozhanchikov, 1949. Type species: *Forciada relicta* Kozhanchikov, 1949 (= *Mantispa auriventris* Guerin-Meneville, 1838), by monotypy. Synonymised with *Nampista* by H. Aspöck et al. (1980).
Bucharispa; Martynov, 1936. An unavailable name.
Distribution: **Afrotropical**: Eritrea. **Palearctic**: Greece to Tajikistan.

***Nampista auriventris* (Guérin-Ménéville)**
Mantispa auriventris Guérin-Ménéville, 1838. Holotype (or syntypes): sex unknown, Egypt (depository unknown).
Mantispa apicalis Loew, 1843. Holotype (or syntype): sex unknown, Greece (MCZ). Synonymised with *Mantispa auriventris* by Hagen (1859).
Nampista speciosa Navás, 1914a. Holotype (or syntypes): sex unknown, Greece (BMNH). Synonymised with *Euclimacia auriventris* by Esben-Petersen (1917).
Forciada relicta Kozhanchikov, 1949. Lectotype: male, Tadzhikistan (ZIL). Designated by Krivokhatsky (1995). Synonymised with *Nampista auriventris* by Handschin (1960).
Distribution: **Palearctic**: Greece, Egypt, Oman, Uzbekistan, Tajikistan.

***Nampista africana* (Esben-Petersen)**
Euclimacia africana Esben-Petersen, 1927. Holotype: sex unknown, Eritrea: Moncullo (FMNH). As *Pseudoclimaciella africana* in Ohl (2004). Transferred to *Nampista* in Ohl (2009).
Distribution: **Afrotropical**: Eritrea.

***Nampista ragazziana* (Navás)**
Euclimacia africana ragazziana Navás, 1929 [as *Euclimacia africana* var. *ragazziana*]. Lectotype: female, Eritrea: Massawa (MCSN). As *Pseudoclimaciella africana ragazziana* in Ohl (2004). Transferred to *Nampista* in Ohl (2009).
Distribution: **Afrotropical**: Eritrea. **Palearctic**: Arabian Peninsula.

Genus *Tuberonotha* Handschin

Tuberonotha Handschin, 1961. Type species: *Mantispa strenua* Gerstaecker, 1888 ["1887"], by original designation.
Distribution: **Palearctic**, **Oriental**, and **Australasian**: Japan, India to Australia.

***Tuberonotha bouchardi* (Navás)**

Mantispa bouchardi Navás, 1909a ["1908-1909"] [as *Bouchardi* [sic]. Lectotype: female, Sumatra; paralectotype: male, Manila (MNHN), syntype: Indonesia, sex unknown (MZBS).
Distribution: **Oriental**: Indonesia (Sumatra).

***Tuberonotha campioni* (Navás)**
Climaciella campioni Navás, 1914a [as *Campioni* [sic]. Holotype (or syntypes): sex unknown, Singapore (BMNH).
Subspecies: *Tuberonotha campioni insignis* Navás 1914a
Distribution: **Oriental**: India?, Singapore.

***Tuberonotha ferrosa* (Navás), new combination**
Climaciella ferrosa Navás, 1914b. Holotype (or syntypes): sex unknown, Malaysia (BMNH).
Distribution: **Oriental**: Malaysia.

***Tuberonotha campioni insignis* (Navás)**
Climaciella campioni var. insignis Navás, 1914a, sex not indicated. Holotype (or syntypes): sex unknown, Thailand (BMNH). A subspecies of *Tuberonotha campioni* (Navás).
Distribution: **Oriental**: Thailand.
***Tuberonotha regia* (Navás)**
Climaciella regia Navás, 1930. Holotype (or syntypes): female, Borneo (ZMUH).
Distribution: **Oriental**: India, Indonesia (Sumatra), Malaysia, Borneo.

***Tuberonotha strenua* (Gerstaecker)**
Mantispa strenua Gerstaecker 1888 ["1887"]. Holotype (or syntypes): female, Indonesia, Java (EMAU).
Mantispa magna Miyake, 1910. Syntypes: female, Japan (ACIU, NELG). Synonymised with *Tuberonotha strenua* by Handschin, 1961.
Distribution: **Australasian**: Australia (Queensland), New Guinea. **Oriental**: Indonesia (Java), Philippines. **Palearctic**: Japan.

Genus *Stenomantispa* Stitz

Stenomantispa Stitz, 1913. Type species: *Mantispa* (*Stenomantispa*) *ilsae* Stitz, 1913, by monotypy.
Distribution: **Australasian**: Papua New Guinea.

***Stenomantispa ilsae* (Stitz)**
Mantispa (*Stenomantispa*) *ilsae* Stitz, 1913. Holotype: female, Papua New Guinea (ZMB).
Distribution: **Australasian**: Papua New Guinea.

***Stenomantispa reinhardi* (Stitz)**
Mantispa reinhardi Stitz, 1913. Holotype: female, Papua New Guinea (ZMB).
Distribution: **Australasian**: Papua New Guinea.

Section II: *Austromantispa*, *Necyla* and *Xaviera*

Genus *Austromantispa* Esben-Petersen

Austromantispa Esben-Petersen, 1917 (as a subgenus of *Mantispa*). Type species: *Mantispa imbecilla* Gerstaecker, 1885 ["1884"], by original designation.
Distribution: **Oriental** and **Australasian**: Indonesia, Papua New Guinea, Australia.

***Austromantispa imbecilla* (Gerstaecker)**
Mantispa imbecilla Gerstaecker, 1885 ["1884"]. Holotype: female, Queensland (EMAU).
Mantispa pullula Banks, 1910 (Navás 1913b). Holotype: male [according to Lambkin (1986b)], Australia (ANIC ex MCZ). Synonymised with *Mantispa imbecilla* (now in *Austromantispa*) by Esben-Petersen (1918).
Necyla doddi Navás, 1914b [as *Doddi* [sic]. Holotype: male [according to Lambkin (1986b)], Australia (BMNH). Synonymised with *Mantispa imbecilla* by Esben-Petersen (1918).
Distribution: **Oriental**: Indonesia (Flores, Sumba, Timor). **Australasian**: Australia (New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria, Western Australia); Papua New Guinea.

***Austromantispa melanocera* (Navás)[7], new combination**
Mantispilla melanocera Navás, 1913. Holotype (or syntypes): male, Papua New Guinea (BMNH CUMZ?).

Distribution: **Australasian:** Papua New Guinea.

***Austromantispa pasteuri* (Navás)[8], new combination**
Mantispa pasteuri Navás, 1909 [as *Pasteuri* [sic]. Lectotype: male, New Guinea (MNHN).
Distribution: **Australasian**: New Guinea.

***Austromantispa trevori* Lambkin**
Austromantispa trevori Lambkin, 1986b. Holotype: male, Australia (QM).
Distribution: **Australasian**: Australia (New South Wales, Northern Territory, Queensland, South Australia, Western Australia).

Genus *Necyla* Navás

Necyla Navás, 1913a [incorrect original spelling as *Nicyla*]. Type species: *Necyla exigua* Navás, 1913a [as *Nicyla* [sic] *exigua*], by monotypy.
Orientispa Poivre, 1984a. Type species: *Cercomantispa shirozui* Nakahara, 1961 (as "*Orientispa shirozui* (Nakahara, 1961)"), by original designation, new synonym.
Distribution: **Palearctic** and **Oriental**: widespread.

***Necyla bicolor* (Poivre), new combination**
Orientispa bicolor Poivre, 1984. Holotype: male, Sri Lanka (ISNB).
Distribution: **Oriental**: Sri Lanka.

***Necyla formosana chiaiensis* Ohl**
Mantispa formosana var. *bella* Kuwayama, 1925. Holotype: female, Taiwan (ITLJ?). A junior primary homonym of *Mantispa* (*Trichoscelia*) *bella* Westwood, 1867 (now in *Anchieta*). A subspecies of *Necyla formosana* (Okamoto).
Necyla formosana chiaiensis Ohl. Replacement name by Ohl (2004) for *Mantispa formosana bella* Kuwayama, 1925 (now in *Necyla*), a junior primary homonym of *Mantispa* (*Trichoscelia*) *bella* Westwood, 1867 (now in *Anchieta*).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Necyla coronata* (C.-k. Yang), new combination**
Orientispa coronata C-k Yang, 1999. Holotype: female, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla exigua* Navás**
Necyla exigua Navás, 1913a [as *Nicyla* [sic] *exigua*]. Holotype (or syntypes): sex unknown, Sri Lanka (ZSMC).
Distribution: **Oriental**: Sri Lanka.

***Necyla extrema* Navás**
Necyla extrema Navás 1914b male. Holotype: male, New Guinea (BMNH).
Distribution: **Australasian**: New Guinea.

***Necyla flavacoxa* (C.-k. Yang), new combination**
Orientispa flavacoxa C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla formosana* (Okamoto)**
Mantispa (*Mantispilla*) *formosana* Okamoto, 1910 [authorship incorrectly attributed to Matsumura]. Lectotype: male, Formosa, Tainan (EIHU). Designated by Kuwayama (1966). Incorrectly cited as a new species in Okamoto (1911), which is a German translation of Okamoto (1910).
Mantispilla formosana var. *major* Stitz, 1913. Syntypes: male, Taiwan (ZMB). Synonymised with *Mantispa formosana* by Kuwayama (1925).
Subspecies: *Necyla formosana chiaiensis* Ohl, *Necyla formosana minor* (Stitz), *Necyla formosana sumatrana* (Stitz).
Distribution: **Oriental**: Indonesia (Sulawesi), Taiwan. **Palearctic**: Japan.

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7. R. Hall (1990) identified the *Austromantispa melanocera* Navás holotype as *A. imbecilla*. The specimen is certainly a member of *Austromantispa* and resemble *A. imbecilla.* It might well be a synonym of *A. imbecilla* and should be investigated.
8. R. Hall (1985) identified the Navás holotype as *Austromantispa pasteuri.* The holotype is certainly a member of *Austromantispa*.

***Necyla fujiana* (C.-k. Yang), new combination**
Orientispa fujiana C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla jucunda* Navás**
Necyla jucunda Navás, 1914a male. Holotype (or syntypes): male, Sri Lanka (BMNH CUMZ?).
Distribution: **Oriental**: Sri Lanka.

***Necyla leopoldi* Navás**
Necyla leopoldi Navás, 1931a. Holotype: sex unknown, New Guinea (ISNB).
Distribution: **Australasian**: New Guinea.

***Necyla longyana* (C.-k. Yang), new combination**
Orientispa longyana C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla luzonensis* (Navás), new combination**
Mantispa luzonica Navás, 1909a (April) ["1908–1909"]. Lectotype: female, Philippines, Luzon (MNHN). A junior primary homonym of *Mantispa quadrituberculata luzonica* van der Weele, 1909 (25 January) (now in *Austroclimaciella*).
Mantispa luzonensis Navás, 1909b. Replacement name for *Mantispa luzonica* Navás, 1909a ["1908–1909"], a junior primary homonym of *Mantispa quadrituberculata luzonica* van der Weele, 1909 (now in *Austroclimaciella*).
Distribution: **Oriental**: Philippines (Luzon), Indonesia (Sumatra).

***Necyla formosana minor* Stitz**
Mantispilla formosana var. *minor* Stitz, 1913. Syntypes: Taiwan (ZMB). A subspecies of *Necyla formosana* (Okamoto).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Necyla nigricoxa* (C.-k. Yang), new combination**
Orientispa nigricoxa C.-k. Yang, 1999. Holotype: female, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla ophryuta* (C.-k. Yang), new combination**
Orientispa ophryuta C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla pupa* Navás**
Necyla pupa Navás, 1927a. Holotype (or syntypes): female, Somalia (MCSN).
Distribution: **Afrotropical**: Somalia.

***Necyla pusilla* (C.-k. Yang), new combination**
Orientispa pusilla C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla sacra* Navás**
Necyla sacra Navás, 1914a. Holotype (or syntypes): male, Israel (OUM).
Distribution: **Palearctic**: Israel.

***Necyla semifurva* (C.-k. Yang), new combination**
Orientispa semifurva C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Necyla shirozui* (Nakahara), new combination**
Cercomantispa shirozui Nakahara, 1961. Holotype: male, Japan (KUZC).
Distribution: **Oriental**: Indonesia, Sri Lanka. **Palearctic**: Japan.

***Necyla formosana sumatrana* Stitz**
Mantispilla formosana var. *sumatrana* Stitz, 1913. Syntypes: female, Indonesia, Sumatra (ZMB). A subspecies of *Necyla formosana* (Okamoto).
Distribution: **Oriental**: Indonesia (Sumatra).

***Necyla trilineata* Navás**
Necyla trilineata Navás, 1929. Holotype, sex unknown, Java (ZMUH).
Distribution: **Oriental**: Indonesia (Java).

***Necyla xuthoraca* (C.-k. Yang), new combination**
Orientispa xuthoraca C.-k. Yang, 1999. Holotype: female, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

Genus *Xaviera* Lambkin

Xaviera Lambkin, 1986b. Type species: *Mantispa manca* Gerstaecker, 1885a ["1884"], by original designation.
Distribution: **Oriental** and **Australasian**: Indonesia to Australia.

***Xaviera manca* (Gerstaecker)**
Mantispa manca Gerstaecker, 1885a ["1884"]. Holotype: female, Indonesia, Ambon (EMAU).
Mantispilla manca var. *annulata* Stitz, 1913. Holotype: female, New Guinea (ZMB). Synonymised with *Mantispa manca* by Esben-Petersen (1923).
Mantispa manca papuana van der Weele, 1909. Holotype: male, New Guinea (RMNH). Synonymised with *Mantispa manca* by Esben-Petersen (1923).
Distribution: **Australasian**: Australia (Northern Territory, Queensland), New Guinea. **Oriental**: Indonesia (Ambon).
Section III: *Mantispa* and *Mantispilla*

Genus *Mantispilla* Enderlein

Mantispilla Enderlein, 1910 (as subgenus of *Mantispa* Illiger in Kugelann, 1798). Type species: *Mantispa indica* Westwood, 1852, by original designation. Synonymised with *Mantispa* by Penny (1982), restored here.
Sagittalata Handschin, 1959. Type species: *Mantispilla hilaris* Navás, 1925 (as "*Sagittalata hilaris* (Navás 1924 [sic])"), by original designation, new synonym.
Perlamantispa Handschin, 1960. Type species: *Mantis perla* Pallas, 1772 (as "*Mantispa perla*"), by original designation. Synonymised with *Sagittalata* Handschin, 1959 by Snyman *et al*. (2012).
Distribution: **Afrotropical, Oriental and Palearctic**: widespread.

***Mantispilla agapeta* Navás, restored**
Mantispilla agapeta Navás, 1914c. Holotype: sex unknown, Sri Lanka (BMNH).
Distribution: **Oriental**: Sri Lanka.

***Mantispilla ambonensis* Ohl, restored**
Mantispilla basalis Navás, 1929b. Holotype (or syntypes): female, Indonesia, Ambon (MCSN). A junior primary and junior secondary homonym of *Mantispilla basalis* Navás, 1927c.
Mantispa ambonensis Ohl. Replacement name for *Mantispilla basalis* Navás, 1929b, a junior primary and junior secondary homonym of *Mantispilla basalis* Navás, 1927c.
Distribution: **Oriental**: Indonesia (Ambon).

***Mantispilla asiatica* (C.-k. Yang), new combination**
Sagittalata asiatica C.-k. Yang, 1999. Holotype: male, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Mantispilla ata* (C.-k. Yang), new combination**
Sagittalata ata C.-k. Yang, 1999. Holotype: female, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Mantispilla austroafrica* (Poivre), new combination**
Perlamantispa austroafrica Poivre, 1984. Holotype: female, "Afrique méridionale", no specific locality (MHNG).
Distribution: **Afrotropical**: "Afrique méridionale"
.
***Mantispilla azihuna* Stitz, restored**
Mantispilla azihuna Stitz, 1913. Holotype: female, Taiwan (ZMB).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Mantispilla bicolor* Stitz, restored**
Mantispilla bicolor Stitz, 1913. Syntypes: female, Vietnam (ZMB).
Subspecies: *Mantispilla bicolor immaculata* (Stitz).
Distribution: **Oriental**: Vietnam.

***Mantispilla bitschi* (Poivre), new combination**
Sagittalata bitschi Poivre, 1982a ["1981"]. Holotype: male, Ivory Coast (MHNG).
Distribution: **Afrotropical**: Ivory Coast.

***Mantispilla bequaerti* (Navás), new combination**
Mantispilla bequaerti Navás, 1932 [as *Bequaerti* [sic]. Holotype (or syntypes): female, DR Congo (MRAC).
Mantispilla bequaerti var. *decolor* Navás, 1932. Syntypes: sex unknown, DR Congo (MZBS, MRAC). Synonymised with *Perlamantispa bequaerti* (Navás) by Handschin (1960).
Mantispilla kibumbana Navás, 1936. Holotype (or syntypes): sex unknown, DR Congo (MRAC). Synonymised with *Perlamantispa bequaerti* (Navás) by Handschin (1960).
Distribution: **Afrotropical**: DR Congo, South Africa, Tanzania.

***Mantispilla indica ceylanica* Stitz, restored**
Mantispilla indica var. *ceylanica* Stitz, 1913, female [as *ceylanica* [sic], incorrect original spelling]. Syntypes: female, Sri Lanka (ZMB). A subspecies of *Mantispa indica* Westwood.
Distribution: **Oriental:** Sri Lanka.

***Mantispilla coomani* Navás, restored**
Mantispilla coomani Navás, 1930b [as *Coomani* [sic]. Lectotype: female, Vietnam (MNHN).
Distribution: **Oriental**: Vietnam.

***Mantispilla cordieri* Navás, restored**
Mantispilla cordieri Navás, 1933 [as *Cordieri* [sic]. Lectotype: female, Indonesia, Java (MNHN).
Distribution: **Oriental**: Indonesia (Java).

***Mantispilla delamarei* (Poivre), new combination**
Sagittalata delamarei Poivre, 1982a ["1981"]. Holotype: male, Ivory Coast (MNHN). Incorrectly cited as new species by Poivre (1982).
Distribution: **Afrotropical**: Ivory Coast.

***Mantispilla deliciosa* Navás, restored**
Mantispilla deliciosa Navás, 1927c ["1927–1928"]. Holotype: female, China, Kiangsu (NHRS).
Distribution: **Oriental**: China (Kiangsu).

***Mantispilla japonica diminuta* (Matsumura), new combination**[9]
Mantispa diminuta Matsumura, 1907. Holotype: male, Tokyo (EIHU). A subspecies of *Mantispa japonica* McLachlan.
Mantispa dimidiata Matsumura, 1908. Lapsus calami.
Distribution: **Palearctic**: Japan.

***Mantispilla dorsalis* (Erichson), new combination**
Mantispa dorsalis Erichson, 1839. Syntypes: female, South Africa (ZMB MCZ).
Mantispilla hemichroa Navás, 1931a. Holotype (or syntypes): female, DR Congo (MRAC). Incorrectly considered a junior primary homonym of *Mantispa hemichroa* Navás, 1914b by Navás, 1932, and unnecessarily replaced by *Mantispilla hypophoea* Navás, 1932b. *Mantispilla hypophoea* Navás, 1932. An unnecessary replacement name for *Mantispilla hemichroa* Navás, 1931a, which is incorrectly considered a junior homonym of *Mantispa hemichroa* Navás, 1914c by Navás, 1932. Synonymised with *Perlamantispa dorsalis* by Handschin (1960).
Distribution: **Afrotropical**: DR Congo, South Africa.

***Mantispilla girardi* (Poivre), new combination**
Perlamantispa girardi Poivre, 1982a ["1981"]. Holotype: male, Ivory Coast (IFAN?).
Distribution: **Afrotropical**: Cameroon, Ivory Coast.

***Mantispilla griveaudi* (Poivre), new combination**
Sagittalata griveaudi Poivre, 1982a ["1981"]. Holotype: female, Ivory Coast (MNHN). Incorrectly cited as new species by

9. Described as *Mantispa* but transferred to *Mantispilla* because of the subspecies status.

Poivre (1982b).
Distribution: **Afrotropical**: Ivory Coast.

***Mantispilla hilaris* Navás, restored**
Mantispilla hilaris Navás, 1925. Holotype (or syntypes): female, DR Congo (MRAC).
Distribution: **Afrotropical**: DR Congo, Ivory Coast, Uganda.

***Mantispilla bicolor immaculata* Stitz, restored**
Mantispa bicolor var. *immaculata* Stitz, 1913. Holotype: sex unknown, Vietnam (ZMB). A subspecies of *Mantispa bicolor* (Stitz).
Distribution: **Oriental:** Vietnam

***Mantispilla indica* Westwood, restored**
Mantispa indica Westwood, 1852 [as *Indica* [sic]. Syntypes: sex unknown, "in India orientali, Calcutta, Nepalia" (BMNH OUM).
Mantispa torquilla Hagen, 1858b. A nomen nudum.
Subspecies: *Mantispa indica ceylanica* (Stitz), *Mantispa indica spilonota* Banks
Distribution: **Oriental**: China (Kiangsu, Shanghai), Nepal, Sri Lanka, Taiwan.

***Mantispilla japonica* (McLachlan), new combination**
Mantispa japonica McLachlan, 1875. Holotype: male, Japan (BMNH NMWC?).
Subspecies: *Mantispa japonica diminuta* (Matsumura).
Distribution: **Palearctic**: Japan, Korea, "Far Eastern USSR".

***Mantispilla jucunda* Navás, restored**[10]
Mantispilla jucunda Navás, 1932, male. Holotype: male, DR Congo (MRAC).
Distribution: Afrotropical: Cameroon, DR Congo.

***Mantispilla lineolata* (Westwood), new combination**
Mantispa lineolata Westwood, 1852. Holotype (or syntypes): sex unknown, Nepal (BMNH).
Distribution: **Oriental**: Indonesia (Java), Nepal, India.

***Mantispilla loveni* Navás, restored**
Mantispilla loveni Navás, 1928a [as *Loveni* [sic]. Syntypes: sex unknown, "British East Africa" (NHRS).
Distribution: **Afrotropical**: Tanzania, Kenya, or Uganda; Guinea-Bissau.

***Mantispilla lugubris* Navás, restored**
Mantispilla lugubris Navás, 1926. Holotype (or syntypes): sex unknown, DR Congo (MRAC).
Distribution: **Afrotropical**: Cameroon, DR Congo.

***Mantispilla militaris* Navás, restored**
Mantispilla militaris Navás, 1914a. Holotype (or syntypes): sex unknown, Sri Lanka (BMNH CUMZ?).
Distribution: **Oriental**: Sri Lanka.

***Mantispilla obscurata* Navás, restored**
Mantispilla obscurata Navás, 1914a. Syntypes: sex unknown, Sri Lanka (BMNH CUMZ?).
Distribution: **Oriental**: Sri Lanka.

***Mantispilla orientalis* (Esben-Petersen), new combination**
Mantispa orientalis Esben-Petersen, 1913. Holotype: male, Japan (DEI).
Mantispilla nigra Stitz, 1913. Holotype: female, Taiwan (ZMB). Synonymised with *Mantispa orientalis* by Esben-Petersen (1917).
Distribution: **Palearctic**: Japan. **Oriental**: Taiwan.

***Mantispilla pallescens* (Stitz), new combination**
Mantispa pallescens Stitz, 1913. Holotype: female, Borneo (ZMB).
Distribution: **Oriental**: Borneo.

***Mantispilla perla* (Pallas), new combination**

10. Possibly a synonym of *Mantispilla lugubris* according to a label on the specimen attached by Ragner Hall (1984).

Mantis perla Pallas, 1772. Holotype (or syntypes): sex unknown, not indicated (SMFD?).
Mantispa christiana Charpentier, 1825. Syntypes: male, "in Russia Europaea" (ZMB). Synonymised with *Mantispa perla* by Erichson (1839).
Mantispa flaveola Erichson, 1839. Holotype: female [Brazil, Para; obviously mislabelled] (ZMB). Synonymised with *Mantispa perla* Pallas, 1772 by Ohl (2004).
Mantispa icterica Pictet, 1865. Holotype: female, Spain (MCZ). Originally as *Mantispa perla* var. *icterica* Pictet, 1865. Status changed to species by Ohl (2004) and subsequently synonymised with *Mantispa perla* by Monserrat (2014) which erroneously referenced the name as *Mantispa perla* variedad *icterica* [sic].
Mantispa victorii Guérin-Méneville, 1844 ["1829–1838"] [as *Victorii* [sic]. Holotype (or syntypes): sex unknown, Caucasus (MCZ). Synonymised with *Mantispa perla* by Hagen (1858).
Mantispa brunnea Navás, 1906. Holotype: sex not indicated, Italy (CN?). Originally as *Mantispa perla* var. *brunnea* Navás, 1906. Synonymised with *Mantispa perla* Pallas, 1772 by Ohl (2004).
Distribution: **Palearctic**: Southern Europe, Turkey, Caucasus area, Kazakhstan, Turkmenistan.

***Mantispilla pusilla* (Pallas), new combination**
Mantis pusilla Pallas, 1772. Holotype (or syntypes): sex unknown, South Africa (depository unknown).
Mantis brevicornis De Geer, 1778. Holotype (or syntypes): sex unknown, locality not indicated (NHRS?). Synonymised with *Mantispa pusilla* by Burmeister (1839).
Distribution: **Afrotropical**: Uganda, South Africa.

***Mantispilla radialis* Navás, restored**
Mantispilla radialis Navás, 1929a. Holotype: female, China, Shanghai (CN).
Distribution: **Oriental**: China (Shanghai).

***Mantispilla royi* (Poivre), new combination**
Perlamantispa royi Poivre, 1982a ["1981"] (paratype sex not indicated). Holotype: male, Ivory Coast (IFAN).
Distribution: **Afrotropical**: Ivory Coast.

***Mantispilla salana* Navás, restored**
Mantispilla salana Navás, 1931a ["1930"]. Lectotype: female, India, Maharashtra (MNHN).
Distribution: **Oriental**: India (Maharashtra).

***Mantispilla semeriai* (Poivre), new combination**
Sagittalata semeriai Poivre, 1981. Holotype: female, Cameroon (MHNG).
Distribution: **Afrotropical**: Cameroon.

***Mantispilla similata* Navás, restored**
Mantispilla similata Navás, 1922. Lectotypes: male, South Africa (MNHN).
Distribution: **Afrotropical**: South Africa.

***Mantispilla indica spilonota* (Banks), new combination**
Mantispa indica var. *spilonota* Banks, 1913, male. Holotype: male, Sri Lanka (MCZ). A subspecies of *Mantispa indica* Westwood.
Distribution: **Oriental**: Sri Lanka, Taiwan.

***Mantispilla tincta* Navás, restored**
Mantispilla tincta Navás, 1929b. Holotype (or syntype): sex not indicated, DR Congo (MRAC).
Distribution: **Afrotropical**: DR Congo.

Mantispilla transversa Stitz, restored
Mantispilla transversa Stitz, 1913. Holotype: female, Taiwan (ZMB).
Distribution: **Oriental** Japan (Ryukyu Islands), Taiwan.

***Mantispilla vassei* (Navás), new combination**
Mantispa vassei Navás, 1909 [as *Vassei* [sic]. Holotype: male, Mozambique (MNHN).
Mantispa (*Mantispilla*) *lineatifrons* Enderlein, 1910. Holotype: female, Eritrea (MZPW). Synonymised with *Perlamantispa vassei* by Handschin (1960).
Mantispilla sankitana Navás, 1922. Lectotype: female, Congo (MNHN). Synonymised with *Perlamantispa vassei* by Handschin (1960).
Mantispilla burgeoni Navás, 1923 [as *Burgeoni* [sic]. Lectotype: male, DR Congo (MNHN). Probable synonym of *Perlamantispa vassei* according to Handschin, 1960. Synonymised by Ohl (2004).

Distribution: **Afrotropical**: DR Congo, Gabon, Ivory Coast, Mozambique, South Africa.

***Mantispilla yuata* (C.-k. Yang and Peng), new combination**
Sagittalata yuata C-k Yang and Peng, 1998. Holotype: female, China, Henan (IZAS).
Distribution: **Palearctic**: China (Henan).
Mantispilla from the New World awaiting revision:

***Mantispilla basalis* Navás, restored**
Mantispilla basalis Navás, 1927d. Holotype (or syntypes): female, Bolivia (CN).
Distribution: **Neotropical**: Bolivia.

***Mantispilla gillavryna* Navás, restored**
Mantispilla gillavryna Navás, 1926a. Holotype: female, Surinam (CN).
Distribution: **Neotropical**: Surinam.

***Mantispilla paraguayana* (Ohl), new combination**
Mantispilla nana Navás, 1912a. Holotype (or syntypes): sex unknown, Paraguay (ZSMC). A junior secondary homonym of *Mantispa nana* Erichson, 1839.
Mantispa paraguayana Ohl. A replacement name for *Mantispilla nana* Navás, 1912a (now in *Mantispa*) by Ohl (2004), a junior secondary homonym of *Mantispa nana* Erichson, 1839.
Distribution: **Neotropical**: Paraguay.

***Mantispilla taina* Alayo, restored**
Mantispilla taina Alayo, 1968. Syntypes: sex unknown, Cuba (CZC).
Distribution: **Neotropical**: Cuba.

***Mantispilla zayasi* Alayo, restored**
Mantispilla zayasi Alayo, 1968. Syntypes: sex unknown, Cuba (CZC).
Distribution: **Neotropical**: Cuba.

Genus *Mantispa* Illiger in Kugelann

Mantispa Illiger in Kugelann, 1798. Type species: *Mantis pagana* Fabricius, 1775 (= *Raphidia styriaca* Poda, 1761), by monotypy. Incorrect type species designation by Kuwayama, 1962, of *Raphidia styriaca* Poda, 1761 (as "*Mantispa styriaca* Poda").
Amycla Rafinesque, 1815. Unjustified emendation of *Mantispa* Illiger in Kugelann, 1798. *Amycla* was considered an emendation of *Mantispa* Illiger in Kugelann, 1798, by Neave (1939).
Distribution: **Palearctic:** Unclear, many doubtful records. Probably widespread. Possibly some areas of the Orient and the Afrotropics.

***Mantispa adelungi* Navás**
Mantispa adelungi Navás, 1912b. Lectotype: male, Caucasus area (ZIL). Designated by Krivokhatsky (1995).
Distribution: **Palearctic**: Caucasus area.

***Mantispa alicante* Banks**
Mantispa alicante Banks, 1913. Holotype: male, India (MCZ).
Distribution: **Oriental**: India.

***Mantispa amabilis* Gerstaecker**
Mantispa amabilis Gerstaecker, 1894. Syntypes: females, Indonesia, Java (EMAU).
Distribution: **Oriental**: Indonesia (Flores, Java, Sumatra).

***Mantispa aphavexelte* U. Aspöck & H. Aspöck**
Mantispa aphavexelte Aspöck and Aspöck, 1994. Holotype: male, Greece (HUAC).
Distribution: **Palearctic**: southern Europe, Turkey, Caucasus area, Kazakhstan, Mongolia, China?.

***Mantispa brevistigma* C.-k. Yang**
Mantispa brevistigma C.-k. Yang, 1999. Holotype: female, China, Fujian (IZAS).
Distribution: **Oriental**: China (Fujian).

***Mantispa celebensis* Enderlein**
Mantispa (*Mantispilla*) *celebensis* Enderlein, 1910. Holotype: female, Indonesia, Sulawesi (MZPW).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Mantispa completa* Banks**
Mantispa completa Banks, 1920. Holotype (or syntypes), sex unknown, Philippines, Luzon (MCZ).
Distribution: **Oriental**: Philippines (Luzon).

***Mantispa coorgensis* Ohl**
Mantispa femoralis Banks, 1933. Syntypes: sex unknown, India (MCZ). A junior primary homonym of *Mantispa femoralis* Navás, 1914f.
Mantispa coorgensis Ohl: a replacement name for *Mantispa femoralis* Banks by Ohl (2004), a junior primary homonym of *Mantispa femoralis* Navás, 1914f.
Distribution: **Oriental**: India.

***Mantispa cora* Newman**
Mantispa cora Newman, 1838. Holotype (or syntypes): sex unknown, India (BMNH).
Distribution: **Oriental**: India.

***Mantispa crenata* Navás**
Mantispa crenata Navás, 1914a. Holotype (or syntypes): sex unknown, Sri Lanka (BMNH CUMZ?).
Distribution: **Oriental**: Sri Lanka.

***Mantispa decepta* Banks**
Mantispa decepta Banks, 1920. Holotype (or syntypes): sex unknown, Philippines, Mindanao (MCZ).
Distribution: **Oriental**: Indonesia (Sulawesi), Philippines (Mindanao).

***Mantispa decumana* Hagen**
Mantispa decumana Hagen, 1866 [authorship incorrectly attributed to Erichson]. A *nomen nudum*.
Mantispa enderleini Banks
Mantispa enderleini Banks, 1914 ["1913"]. Holotype (or syntypes): sex unknown, Philippines, Luzon (MCZ).
Distribution: **Oriental**: Philippines (Luzon).

***Mantispa fenestralis* Navás**
Mantispa fenestralis Navás, 1914a. Holotype (or syntypes): sex unknown, Sri Lanka (CUMZ).
Distribution: **Oriental**: Sri Lanka.

***Mantispa finoti* Navás**
Mantispa finoti Navás, 1909 [as *Finoti* [sic]. Holotype (or syntypes): sex unknown, Madagascar (CN).
Distribution: **Afrotropical**: Madagascar.

***Mantispa flavinota* Handschin**
Mantispa flavinota Handschin, 1963. Holotype: sex unknown, Madagascar (NHMB).
Distribution: **Afrotropical**: Madagascar.

***Mantispa fuliginosa* Loew**
Mantispa fuliginosa Loew in Hagen, 1859. Holotype (or syntypes): sex unknown, Sudan (SMFD).
Distribution: **Afrotropical**: Sudan.

***Mantispa greeni* Banks**
Mantispa greeni Banks, 1913. Holotype: female, Sri Lanka (MCZ).
Distribution: **Oriental**: Sri Lanka.

***Mantispa lobata* Navás**
Mantispa perla var. *lobata* Navás, 1912b. Lectotype: female, Transcaspia (ZIL). Designated by Krivokhatsky (1995).
Distribution: **Palearctic**: Central Asia.

***Mantispa lurida* Walker**
Mantispa lurida Walker, 1860. Holotype (or syntypes): sex unknown, no locality indicated (BMNH).
Distribution: unknown.

***Mantispa maindroni* Navás**
Mantispa maindroni Navás, 1909 [as *Maindroni* [sic]. Lectotype: female, India (MNHN).
Distribution: **Oriental**: India.

***Mantispa mandarina* Navás**
Mantispa mandarina Navás, 1914d. Holotype: female [according to information in U. Aspöck and H. Aspöck (1994)], northern China (BMNH).
Distribution: **Palearctic**: northern China.

***Mantispa moluccensis* Banks**
Mantispa moluccensis Banks, 1913. Holotype: male, Indonesia, Ambon (MCZ).
Distribution: **Oriental**: Indonesia (Ambon).

***Mantispa neptunica* Navás**
Mantispa neptunica Navás, 1914d. Holotype (or syntypes): sex unknown, Malaysia (BMNH).
Distribution: **Oriental**: Malaysia.

***Mantispa newmani* Banks**
Mantispa newmani Banks, 1920. Holotype (or syntypes), sex unknown, Borneo (MCZ).
Distribution: **Oriental**: Borneo.

***Mantispa plicicollis* Handschin**
Mantispa plicicollis Handschin, 1935. Holotype: sex unknown, Indonesia, Timor (NHMB).
Distribution: **Oriental**: Indonesia (Timor).

***Mantispa simplex* Stitz**
Mantispa simplex Stitz, 1913. Holotype: male, Indonesia, Sulawesi (ZMB).
Distribution: **Oriental**: Indonesia (Sulawesi).

***Mantispa styriaca* (Poda)**
Raphidia styriaca Poda, 1761 [as *Styriaca* [sic]. Holotype (or syntypes): sex unknown, Austria (depository unknown).
Raphidia mantispa Scopoli, 1763 [as *Raphidia Mantispa* [sic]. Holotype (or syntypes): sex unknown, "Carniolia". Synonymised with *Mantis pagana* Fabricius (now in *Mantispa*) by Olivier (1792).
Mantis pagana Fabricius, 1775. Holotype (or syntypes): sex unknown, France (depository unknown). Synonymised with *Mantispa styriaca* by H. Aspöck *et al*. (1980).
Mantispa hauseri Poivre, 1982b. Holotype: female, Croatia (MHNG). Synonymised by U. Aspöck & H. Aspöck (1994).
Mantispa kononenkoi Makarkin, 1985. Holotype: male, Russia (ZIL). Synonymised with *Mantispa styriaca* by Makarkin (1990).
Distribution: **Palearctic**: widespread in Eurasia south of 50°N, Morocco.

***Mantispa tonkinensis* Navás**
Mantispa tonkinensis Navás, 1930b. Lectotype: male, Vietnam (MNHN).
Distribution: **Oriental**: Vietnam.

***Mantispa* species from the Afrotropical region awaiting revision**

***Mantispa basilei* (Navás)**
Mantispilla basilei Navás, 1930c [as *Basilei* [sic]. Holotype: female, Ethiopia (MCSN).
Distribution: **Afrotropical**: Ethiopia.

***Mantispa castaneipennis* Esben-Petersen**
Mantispa (*Mantispilla*) *castaneipennis* Esben-Petersen, 1917. Holotype: female, South Africa (ZMUH).
Distribution: **Afrotropical**: South Africa.

***Mantispa centenaria* Esben-Petersen**
Mantispa (*Mantispilla*) *centenaria* Esben-Petersen, 1917. Holotype: male, South Africa (ZMUC).
Distribution: **Afrotropical**: South Africa.

***Mantispa delicata* (Navás)**
Mantispilla delicata Navás, 1914c. Holotype (or syntypes): sex unknown, South Africa (BMNH).
Distribution: **Afrotropical**: South Africa.

***Mantispa ellenbergeri* (Navás)**
Mantispilla ellenbergeri Navás, 1927d female [as *Ellenbergeri* [sic]. Lectotype: female, South Africa (MNHN).
Distribution: **Afrotropical**: South Africa.

***Mantispa elpidica* (Navás)**
Mantispilla elpidica Navás, 1914b. Holotype (or syntypes): sex unknown, South Africa (BMNH).
Distribution: **Afrotropical**: South Africa.

***Mantispa fuscipennis* Erichson**
Mantispa fuscipennis Erichson, 1839. Holotype: male, South Africa (ZMB).
Distribution: **Afrotropical**: South Africa, Tanzania.

***Mantispa haematina* (Navás)**
Mantispilla haematina Navás, 1914a. Holotype: female, Zimbabwe (OUM).
Distribution: **Afrotropical**: Zimbabwe.

***Mantispa lutea* (Stitz)**
Mantispilla lutea Stitz, 1913. Holotype: female, Ethiopia (ZMB).
Distribution: **Afrotropical**: Ethiopia.

***Mantispa marshalli* (Navás)**
Mantispilla marshalli Navás, 1914d [as *Marshalli* [sic]. Holotype (or syntypes): sex unknown, Zimbabwe (BMNH).
Distribution: **Afrotropical**: Zimbabwe.

***Mantispa nanyukina* Navás**
Mantispilla nanyukina Navás, 1933b. Lectotype: female, Kenya (MNHN).
Distribution: **Afrotropical**: Kenya.

***Mantispa nubila* (Stitz)**
Mantispilla nubila Stitz, 1913. Holotype: female, Cameroon (ZMB).
Distribution: **Afrotropical**: Cameroon.

***Mantispa phaeonota* Navás**
Mantispa phaeonota Navás, 1933b. Syntypes: male, Kenya [probably erroneous, Madagascar] (MNHN); sex unknown, Kenya [probably erroneous, Madagascar] (MZBS).
Distribution: **Afrotropical**: Madagascar (see annotation above).

***Mantispa tessmanni* (Stitz)**
Mantispilla tessmanni Stitz, 1913. Holotype: male, Equatorial Guinea (ZMB).
Distribution: **Afrotropical**: DR Congo, Equatorial Guinea.

***Mantispa umbripennis* Walker**
Mantispa umbripennis Walker, 1860. Holotype (or syntypes): sex unknown, South Africa (BMNH).
Distribution: **Afrotropical**: South Africa, Tanzania.

Other generic combinations as a result of the study:

***Cercomantispa haugi* (Navás), new combination**
Mantispa haugi Navás, 1909 [as *Haugi* [sic]. Lectotype: female, Congo (MNHN).
Distribution: **Afrotropical**: Congo.

***Cercomantispa pygmaea* (Stitz), new combination**
Mantispilla pygmaea Stitz, 1913. Holotype: sex unknown [abdomen lacking], Tanzania (ZMB).
Distribution: **Afrotropical**: Tanzania.

***Cercomantispa flavonotata* (Tjeder), new combination**
Necyla flavonotata Tjeder, 1963. Holotype: male, Uganda (MZLU).
Distribution: **Afrotropical**: Uganda.

***Pseudoclimaciella guttula* (Thompson), new combination**
Mantispa guttula Fairmaire in Thomson, 1858[11]. Holotype (or syntypes): sex unknown, Gabon (depository unknown).
Distribution: **Afrotropical**: Gabon.

***Pseudoclimaciella negusa* (Navás), new combination**
Mantispa negusa Navás, 1914d[12]. Holotype: sex unknown, Ethiopia (BMNH).
Distribution: **Afrotropical**: Ethiopia.

***Zeugomantispa chlorodes* (Navás), new combination**
Mantispilla chlorodes Navás, 1914e. Holotype (or syntypes): sex unknown, Panama (BMNH).
Distribution: **Neotropical**: Panama.

***Zeugomantispa chlorotica* (Navás), new combination**
Mantispilla chlorotica Navás, 1912. Holotype (or syntypes): sex unknown, Paraguay (ZSMC).
Distribution: **Neotropical**: Paraguay.

***Zeugomantispa femoralis* Navás[13], new combination**
Mantispa femoralis Navás, 1914g. Holotype (or syntypes): sex unknown, Mexico, Orizaba (BMNH).
Distribution: **Nearctic**: Mexico (Orizaba).

***Buyda neotropica* Navás, new combination**
Mantispa neotropica Navás, 1933b. Lectotype: male, French Guiana (MNHN).
Distribution: **Neotropical**: French Guiana.

***Dicromantispa flavicauda* (Navás), new combination**
Mantispilla flavicauda Navás, 1914a. Holotype (or syntypes): male, Mexico, Guerrero (BMNH).
Distribution: **Nearctic**: Mexico (Guerrero).

***Dicromantispa frontalis* (Navás), new combination**
Mantispilla frontalis Navás, 1914e. Holotype (or syntypes): male, Paraguay (ZSMC).
Distribution: **Neotropical**: Paraguay.

***Dicromantispa venulosa* Navás, new combination**
Mantispilla venulosa Navás, 1914a. Holotype (or syntypes): sex not indicated, Central America (BMNH).
Distribution: **Neotropical**: Central America.

***Mantispa* species from the Nearctic or Neotropical regions awaiting revision**

***Mantispa floridana* Banks**
Mantispa floridana Banks, 1897. Holotype: sex unknown, USA, Florida (MCZ).
Distribution: **Nearctic**: USA (Florida).

***Mantispa gradata* (Navás)**
Mantispilla gradata Navás, 1926b. Holotype (or syntypes): female, Brazil (CN).
Distribution: **Neotropical**: Brazil.

Mantispa iridipennis Guérin-Méneville[14]
Mantispa iridipennis Guérin-Méneville, 1844 ["1829–1838"]. Holotype (or syntypes): sex unknown, Colombia (current depository unknown). Questionable synonym of *Mantispa gracilis* Rambur by Westwood (1852).
Distribution: **Neotropical**: Colombia.

***Mantispa luederwaldti* Enderlein**

11. High resolution photos of *Pseudoclimaciella guttula* were studied and this species is most likely a synonym of *Pseudoclimaciella tropica*.
12. High resolution photos of *Pseudoclimaciella negusa* were studied and this species is most likely a synonym of *Pseudoclimaciella tropica*.
13. High resolution photos of *Zeugomantispa femoralis* were studied and this species is most likely a synonym of *Z. minuta* (Fabricius).
14. Ardila-Camacho and García (2015) classified this species as *incertae sedis* because the holotype could not be located. Possibly a synonym of *Dicromantispa gracilis*.

Mantispa (*Mantispilla*) *luederwaldti* Enderlein, 1910 [as *Lüderwaldti* [sic] and German Umlaut]. Holotype: male, Brazil (MZPW).
Distribution: **Neotropical**: Brazil.

***Mantispa latifrons* Enderlein**
Mantispa (Mantispa) latifrons Enderlein, 1910. Holotype: male, Brazil (MZPW).
Distribution: **Neotropical**: Brazil, Mexico.

***Mantispa moesta* Hagen**
Mantispa moesta Hagen, 1861. Holotype (or syntypes): female, USA, Tennessee (MHNG?).
Distribution: **Nearctic**: USA (Tennessee).

***Mantispa pehlkei* Enderlein**
Mantispa (*Mantispilla*) *pehlkei* Enderlein, 1910, unknown sex [as *Pehlkei* [sic]. Syntypes: female, unknown sex, Colombia (probably lost).
Distribution: **Neotropical**: Colombia.
***Mantispa rimata* (Navás)**
Mantispilla rimata Navás, 1929e. Holotype (or syntypes): sex unknown, Brazil (ZMUH).
Distribution: **Neotropical**: Brazil.

***Mantispa subcostalis* Navás**
Mantispa subcostalis Navás, 1929d. Holotype: female, Brazil (DEI).
Distribution: **Neotropical**: Brazil.

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