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Monograph

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Revision of the Afrotropical *Asobara* Foerster, 1863 (Hymenoptera: Braconidae: Alysiniinae), with the descriptions of twenty five new species

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Abstract. The Afrotropical (including Malagasy Subregion) species of the genus *Asobara* Foerster, 1863, are revised. In addition to the redescribed 15 known species, 25 new species are described and illustrated, viz., *Asobara abyssiniensis* Peris-Felipo, sp. nov., *A. caboverdensis* van Achterberg, sp. nov., *A. carinata* Peris-Felipo, sp. nov., *A. cracentis* van Achterberg, sp. nov., *A. elongitarsis* van Achterberg, sp. nov., *A. fletcheri* Peris-Felipo, sp. nov., *A. harrinmithensis* Peris-Felipo, sp. nov., *A. kawandensis* Peris-Felipo, sp. nov., *A. kibalensis* van Achterberg, sp. nov., *A. laticlypeata* van Achterberg, sp. nov., *A. mediana* van Achterberg, sp. nov., *A. mellicephalata* van Achterberg, sp. nov., *A. natalensis* Peris-Felipo, sp. nov., *A. notleyi* Peris-Felipo, sp. nov., *A. robusta* van Achterberg, sp. nov., *A. sarae* Peris-Felipo, sp. nov., *A. somersetensis* Peris-Felipo, sp. nov., *A. stubbsi* Peris-Felipo, sp. nov., *A. taylori* Peris-Felipo, sp. nov., *A. vanalpheni* van Achterberg, sp. nov., *A. vanharteni* van Achterberg, sp. nov., *A. victoriana* Peris-Felipo, sp. nov., *A. zaprionae* van Achterberg, sp. nov., *A. zimbabweana* Peris-Felipo, sp. nov., *A. zululana* Peris-Felipo, sp. nov. Moreover, the following new combination is suggested: *Asobara pulchricornis* (Szépligeti, 1911) comb. nov. A key to all Afrotropical (including Malagasy) species is provided for the first time.

Keywords. *Asobara*, parasitoids, flies, Afrotropical, Madagascar, new species, key.

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Introduction

The genus *Asobara* Foerster, 1863, can be recognised amongst the genera of the tribe Alysiini by the first flagellar segment usually shorter than 2nd segment, vein M+CU of hind wing distinctly shorter than vein 1-M or vein cu-a absent; the precoxal sulcus at least medially distinctly impressed and with some (micro-) crenulae, vein m-cu of fore wing antefurcal or interstitial and the open first subdiscal cell wide (Wharton 2002; Zhu *et al.* 2017). The known hosts of the species of *Asobara* belong mainly to the dipteran families Drosophilidae and Tephritidae (Yu *et al.* 2016). This genus is distributed worldwide and includes 47 valid species (Yu *et al.* 2016; Guerrieri *et al.* 2016), of which 15 species are known in the Afrotropical Region (Peris-Felipo *et al.* 2014a). In this paper 25 new species of genus *Asobara* from the Afrotropical Region are described, which makes this region the most speciose for this genus; next is the Oriental Region with 18 species, but several undescribed species have also been examined.

The purpose of this work is a complete review of species of *Asobara* from Afrotropical region (including Madagascar and Yemen). The revision includes descriptions of all available type material, illustrations of their main characters, and preparation of a new original key to the Afrotropical species.

Material and methods

For the terminology of morphological features, sculpture and measurements see Peris-Felipo *et al.* (2014b); for wing venation nomenclature see van Achterberg (1993); for measurements of the marginal cell see Peris-Felipo and Belokobylskij (2017).

Material was imaged using a Keyence® VHX-2000 Digital Microscope and Adobe Photoshop® imaging software. The types of described species are deposited in the collection of the Natural History Museum (London, UK; BMNH), Naturalis Biodiversity Center (Leiden, the Netherlands, RMNH), Biologiezentrum (Linz, Austria; OLML), Naturhistorisches Museum Wien (Vienna, Austria; NHMW), Hungarian Natural History Museum (Budapest, Hungary, HNHM), Muséum national d'Histoire naturelle (Paris, France; MNHN), Museum für Naturkunde (Berlin, Germany, NHMB), Musée Royal de l'Afrique centrale (Africa Museum, Tervuren, Belgium; MRAC), Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia; ZISP), Zoologische Staatssammlung München (Munich, Germany; ZSSM) and the F.J. Peris-Felipo Entomological Collection (Basel, Switzerland; PFEC) (Peris-Felipo Entomological Collection).

Results

Taxonomy

Class Insecta Linnaeus, 1758
Order Hymenoptera Linnaeus, 1758
Family Braconidae Nees, 1811
Subfamily Alysiinae Leach, 1815
Tribe Alysiini Leach, 1815

Genus *Asobara* Foerster, 1863

Diagnosis

Mandibles large, simple, tridentate. Upper tooth normally wide; median tooth usually rather narrow and long (sometimes wide and short); lower tooth wide and with small angle ventrodistally. Anterior tentorial pits short, remaining far from edge of eyes. First flagellar segment distinctly shorter than 2nd segment or of similar length. Mesoscutum with mesoscutal pit usually present; notauli usually present only in anterior part of mesoscutum (sometimes reaching mesoscutal pit); precoxal sulcus always present;

propodeum with different types of sculpture and sometimes with areola. In fore wing, vein 3-SR longer than 2-SR; m-cu antefurcal or (sometimes) interstitial; first subdiscal cell open, 2CU subinterstitial, hind wing with m-cu absent, r-m and M+CU much shorter than 1M or cu-a absent. Ovipositor sheath sparsely setose but glabrous basally.

Hosts

Larvae of Drosophilidae and Tephritidae.

Excluded species

According to the key by Fischer (1963) *Phaenocarpa cristata* Szépligeti, 1915 from the Democratic Republic of the Congo should have an open first subdiscal cell of the fore wing and, therefore, should be included in *Asobara* Foerster, 1863. The type series was deposited in the former Naturhistorisches Museum Hamburg (now Biozentrum Grindel und Zoologisches Museum), but could not be found and was most likely lost during the 2nd World War. The too short description (ovipositor sheath about as long as body and body length 5 mm) makes it likely that it concerns a species of *Phaenocarpa* Foerster, 1862, which is excluded from this revision.

Asobara abyssiniensis Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:31D53D63-A69D-465B-8DFE-0049596620C9](https://zoobank.org/urn:lsid:zoobank.org:act:31D53D63-A69D-465B-8DFE-0049596620C9)

Figs 1–2

Etymology

The specific name refers to the old name of Ethiopia, where the species' type locality is situated, 'Abyssinia'.

Material examined

Holotype

ETHIOPIA • ♀; "Abyssinia, 1911"; R.E. Turner leg.; BMNH 459.

Paratype

ETHIOPIA • 1 ♂; same label as holotype; BMNH.

Description.

Female (holotype)

LENGTH. Body 3.0 mm, fore wing 3.4 mm, hind wing 2.4 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal crenulate furrow in middle of vertex. Eye in lateral view 1.2 times as high as wide and as wide as temple medially. POL equal to OD; OOL 3.8 times OD. Face 1.8 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.3 times as wide as high. Anterior tentorial pits long, but not reaching inner border of eye. Mandible 1.5 times as long as its maximum width. Upper tooth round; middle tooth wide and short; lower tooth weakly wider than upper tooth. Antennae more than 24-segmented (apical segments missing). Scape 2.0 times as long as pedicel. First flagellar segment 2.6 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.5 times, 3rd–5th segments 3.8–3.9 times; 6th–7th segments 3.4 times; 8th segment 3.1 times; 9th–20th 2.4–2.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (dorsal view) 0.9 times as long as its maximum width, smooth. Notauli in horizontal surface of mesoscutum mainly absent. Mesoscutal pit present, very elongate reaching mesoscutum halfway. Prescutellar depression smooth, 1.1 times as

long as its maximum width. Precoxal sulcus present, smooth, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate in lower half. Propodeum sculptured, with long medio-longitudinal carina and small areola in posterior half, with apical half densely sculptured. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.8 times its maximum width. Marginal cell ending at apex of wing, 3.2 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 4.2 times as long as vein r, 1.7 times as long as vein 2-SR. Vein SR1 1.6 times as long as vein 3-SR. Hind wing 5.2 times as long as its maximum width.

Legs. Hind femur 5.0 times as long as its maximum width. Hind tibia weakly widened to apex, 8.1 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.4 times as long as 2nd segment.

METASOMA. First tergite widened towards apex, 1.3 times as long as its apical width, weakly striate. Visible part of ovipositor 4.6 times as long as 1st tergite, 1.3 times as long as metasoma, 2.5 times as long as hind femur.

COLOUR. Body, mandible, legs and flagellar segments of antennae and pterostigma brown to dark brown. In dorsal view, head similar colour to mesoscutum. First metasomal tergite similar colour to 2nd and 3rd tergites. Wings almost hyaline.

Male

Length. Body 3.2 mm, fore wing 3.7 mm, hind wing 2.6 mm. Antennae more than 26-segmented (apical segments missing). First flagellar segment 3.3 times as long as its maximum width; 2nd segment 5.5 times and 3rd segment 4.3 times as long as its maximum width. Hind femur 6.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. notleyi* sp. nov. (Kenya), but differs from it in having the eye in lateral view as wide as temple medially (1.6 times in *A. notleyi* sp. nov.), hind femur 5.0 times as long as its maximum width (4.1 times in *A. notleyi* sp. nov.), mandible 1.5 times as long as its maximum width (1.0 times in *A. notleyi* sp. nov.), face 1.8 times as wide as high (1.3 times in *A. notleyi* sp. nov.), vein 3-SR 2.0 times as long as vein 2-SR (2.5 times in *A. notleyi* sp. nov.), and visible part of ovipositor sheath 1.3 times as long as metasoma in lateral view (0.4 times in *A. notleyi* sp. nov.).

Distribution

Ethiopia.

Asobara apicalis Fischer, 2003

Figs 3–4

Asobara apicalis Fischer, 2003: 74.

Asobara apicalis – Fischer, 2007: 859 — Yu *et al.* 2016.

Material examined

Holotype

SOUTH AFRICA • ♀; “Mariepskop, Pilgrim’s Rest dits. Tvl. 10 Apr. 1964, Montane Forest 5000’, at light, E. Haeselbarth”; ZSSM.

Paratypes

SOUTH AFRICA • 2 ♀♀, 5 ♂♂; same locality as for holotype but 4500'; 8–12 Apr. 1964; NHMW.

Other material

SOUTH AFRICA • 1 ♀; Port St. John, Bondoland; 1–17 Mar. 1924; R.E. Turner leg.; BMNH 1924-177 • 5 ♀♀, 2 ♂♂; same locality but Dec. 1923; BMNH 1924-54 • 1 ♂; same locality but Oct. 1923; BMNH 1923-547 • 1 ♂; E. Cape Province, Katberg; 1–10 Feb. 1933; BMNH 1933-139.

Redescription

Female (holotype)

LENGTH. Body 1.5–1.6 mm, fore wing 2.0–2.1 mm, hind wing 1.3–1.4 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.2 times as wide as temple medially. Face 1.2 times as wide as high. Clypeus 2.8 times as wide as high. Mandible 1.6 times as long as its maximum width. Upper tooth longer than lower tooth; middle tooth rather narrow and short; lower tooth wide. Antennae 23-segmented. First flagellar segment 4.3 times as long as its apical width; 2nd segment 6.6 times and 3rd segment 5.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 1.1 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, without lateral carinae, 1.5 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum sculptured with a small pentagonal areola. Propodeal spiracles very small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 5.1 times as long as vein r, 2.3 times as long as 2-SR. Vein SR1 2.8 times as long as vein 3-SR.

LEGS. Hind femur 5.3 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.6 times as long as its apical width. Visible part of ovipositor 3.8 times as long as 1st tergite, 2.5 times as long as metasoma, 1.8 times as long as hind femur.

COLOUR. Body, metasoma and pterostigma brown. Legs, head laterally, mandible, scapus and pedicel light brown. Apical six flagellar segments whitish. Head and mesoscutum in dorsal view similar coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings hyaline.

Male

Length. Body 1.7–1.8 mm, fore wing 2.1 mm, hind wing 1.6 mm. Antennae 25-segmented. First flagellar segment 4.5 times as long as its maximum width. Hind femur 5.5 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This species is similar to *A. citri* (Fischer, 1963), but differs from it in having the clypeus 2.8 times as wide as high (2.4 times in *A. citri*), 1st flagellar segment 4.3 times as long as its maximum width (2.8 times in *A. citri*), 2nd segment 6.6 times (5.5 times in *A. citri*) and 3rd segment 5.0 times as long as their maximum width (4.0 times in *A. citri*), and 1st metasomal tergite 1.6 times as long as its apical width (1.2 times in *A. citri*).

Distribution

South Africa (Yu *et al.* 2016).

Asobara caboverdensis van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:E1866D07-EF1A-4768-A2D0-A97EA08F9DDD](https://zoobank.org/urn:lsid:zoobank.org:act:E1866D07-EF1A-4768-A2D0-A97EA08F9DDD)

Figs 5–6

Etymology

The specific name refers to the type locality of the species ‘Cabo Verde’.

Material examined

Holotype

CABO VERDE • ♀; Santiago, S. Jorge dos Orgaos; Sep. 1988; A. van Harten leg.; RMNH 2024.

Paratypes

CABO VERDE • 12 ♀♀, 3 ♂♂; same data as for holotype; RMNH • 1 ♀, 1 ♂; same data as for holotype; FJPF • 2 ♀♀; same data as for holotype; ZISP • 3 ♂♂; same locality as for holotype but Aug. 1988; RMNH • 1 ♂; same locality as for holotype but Oct. 1989; RMNH 2300.

Description

Female (holotype)

Length. Body 1.7 mm, fore wing 1.8 mm, hind wing 1.2 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.8 times as wide as temple medially. POL 1.2 times OD; OOL 4.4 times OD. Face 1.2 times as wide as high; inner margins of eyes subparallel. Clypeus 2.5 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.6 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and short; lower tooth wide. Antennae 21-segmented, 1.5 times as long as body. Scape 1.2 times as long as pedicel. First flagellar segment 3.0 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 5.4 times, 3rd–6th segments 4.0 times, 7th–11th segments 3.6 times, 12th–13th segments 3.3 times, 14th–20th segments 2.8–3.0 times and 21st segment (apical segment) 2.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.3 times as long as its maximum width. Precoxal sulcus present, smooth, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.8 times its maximum width. Marginal cell ending at apex of wing, 3.6 times as long as its maximum width. Vein r as long as pterostigma width. Vein 3-SR 6.7 times as long as vein r, 2.8 times as long as vein 2-SR. Vein SR1 2.2 times as long as vein 3-SR. Hind wing 6.0 times as long as its maximum width.

LEGS. Hind femur 5.2 times as long as its maximum width. Hind tibia weakly widened posteriorly, 9.5 times as long as its maximum subapical width, 1.1 times as long as hind tarsus. First segment of hind tarsus 1.7 times as long as 2nd segment.

METASOMA. First tergite weakly widened posteriorly, as long as its apical width, weakly striate. Visible part of ovipositor 2.7 times as long as 1st tergite, 0.8 times as long as metasoma, 1.4 times as long as hind femur.

COLOUR. Body, mandible, flagellar segments of antennae and pterostigma brown. Legs yellow. The last six apical segments of antennae whitish. Head and mesoscutum in dorsal view similarly coloured. First–third metasomal tergites similarly coloured. Wings almost hyaline.

VARIATION. Body 1.6–1.8 mm, fore wing 1.8–2.0 mm, hind wing 1.1–1.3 mm. Antennae 18–22-segmented. The last four–seven apical segments paler than preceding segments. First flagellar segment 3.0–3.1 times as long as its maximum width. Second flagellar segment 5.5 times as long as its maximum width. Hind femur 5.0–5.2 times as long as its maximum width.

Male

Length. Body 1.3–1.4 mm, fore wing 1.3–1.4 mm, hind wing 1.1 mm. Antennae 20–21-segmented. First flagellar segment 3.5–3.7 times as long as its maximum width. Second flagellar segment 5.6–6.0 times as long as its maximum width. Third flagellar segment 6.0 times as long as its maximum width. Hind femur 4.8–5.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. taylori* sp. nov., but differs from it in having the clypeus 2.5 times as wide as high (2.0 times in *A. taylori* sp. nov.), 2nd flagellar segment 5.4 times as long as its maximum width (4.9 times in *A. taylori* sp. nov.), 3rd segment 4.8 times (3.7 times in *A. taylori* sp. nov.), 1st metasomal tergite as long as its apical width (1.3 times in *A. taylori* sp. nov.), visible part of ovipositor 2.7 times as long as 1st tergite (same length in *A. taylori* sp. nov.), 0.8 times as long as metasoma (0.4 times in *A. taylori*), and 1.4 times as long as hind femur (0.7 times in *A. taylori* sp. nov.).

Distribution

Cabo Verde.

Asobara carinata Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:5BFB971A-CD87-4085-AC2C-3049081856E2](https://doi.org/10.3896/BI.2022.55BFB971A-CD87-4085-AC2C-3049081856E2)

Figs 7–8

Etymology

The name refers to the presence of a distinct longitudinal furrow in middle of vertex.

Material examined

Holotype

SOUTH AFRICA • ♀; Cape Province, Mossel Bay; Feb. 1922; R.E. Turner leg.; BMNH 1922-97.

Paratype

SOUTH AFRICA • 1 ♀; same label as for holotype; BMNH.

Description

Female (holotype)

LENGTH. Body 2.0 mm, fore wing 2.0 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal furrow in middle of vertex. Eye in lateral view as high as wide and 1.3 times as wide as temple medially. POL 1.4 times OD; OOL 3.3 times OD. Face 1.9 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.9 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 2.0 times longer than its maximum width. Upper tooth wide; middle tooth rather wide and short, directed upwards; lower tooth wide. Antennae 24-segmented, 1.3 times longer than body. Scape 1.2 times as long as pedicel. First flagellar segment 3.1 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.0 times, 3rd–4th segments 3.1–3.3 times, 5th segment 2.7 times, 6th–9th segments 3.3 times, 10th–13th segments 2.3 times, 14th–23rd segments 1.9 times, 24th (apical segment) 2.3 times as long as its maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth, sparsely setose along notauli. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with median and lateral carinae, 2.0 times as long as its maximum width. Precoxal sulcus present, smooth, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow entirely smooth. Propodeum sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparsely rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.8 times its maximum width. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 8.8 times as long as vein r, 1.8 times as long as vein 2-SR. Vein SR1 2.0 times as long as vein 3-SR. Hind wing 6.0 times as long as its maximum width.

LEGS. Hind femur 4.4 times as long as its maximum width. Hind tibia weakly widened to apex, 7.7 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.2 times as long as 2nd segment.

METASOMA. First tergite widened towards apex, about as long as its apical width, weakly striate. Visible part of ovipositor 2.7 times as long as 1st tergite, 0.7 times as long as metasoma, 1.5 times as long as hind femur.

COLOUR. Body, antenna, metasoma and pterostigma brown. Legs, head lateral view, mandible, scapus and pedicel light brown. Head and mesoscutum in dorsal view similarly coloured, as are 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.0 mm, fore wing 2.0–2.1 mm.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. natalensis* sp. nov., but differs from it in having the precoxal sulcus remaining separated from anterior and posterior margins of mesopleuron (reaching in *A. natalensis*

sp. nov.), 1st metasomal tergite as long as its apical width (1.4 times in *A. natalensis* sp. nov.), vein m-cu antefurcal (interstitial in *A. natalensis* sp. nov.), and visible part of ovipositor sheath 0.7 times as long as metasoma in lateral view (equal to in *A. natalensis* sp. nov.).

Distribution

South Africa.

Asobara citri (Fischer, 1963)

Figs 9–10

Phaenocarpa citri Fischer, 1963: 210.

Phaenocarpa citri – Papp 1966: 134. — Shenefelt 1974: 1006.

Asobara citri Fischer, 2007: 860.

Asobara citri – Yu *et al.* 2016.

Material examined

Paratypes

DEMOCRATIC REPUBLIC OF THE CONGO • 9 ♀♀, 3 ♂♂; Eala; Jan. 1935; J. Ghesquière leg.; NHMW.

Other material

CAMEROON • 2 ♀♀; Yaounde; collected in Dec. 1998; reared in lab in May 1999; ex *Drosophila melanogaster*; J. Ellers leg.; RMNH • 1 ♀, 1 ♂; Nkoemvon; 25 Sep.–19 Nov. 1979 and 19–30 Nov. 1979; D. Jackson leg.; BMNH.

NIGERIA • 1 ♀, 1 ♂; 9 Sep. 1987; ex *Drosophila* sp.; J. v. Alphen leg.; RMNH.

TANZANIA • 1 ♀, 1 ♂; 17–28 Nov. 1990; ex *Drosophila* sp.; J. v. Alphen leg.; RMNH.

UGANDA • 1 ♀, 1 ♂, Kibale forest, Kanywara; 20 Jul. 1995; M. Nummelin leg.; RMNH • 2 ♀♀, 3 ♂♂; Kibale; Aug. 1995; F3 in lab; ex *Drosophila* sp.; J. v. Alphen leg.; RMNH • 1 ♀; same collection data as for preceding; FJPF • 1 ♀; same collection data as for preceding; ZISP • 1 ♀; Namwamba Valley; 10100 ft a.s.l.; Dec. 1934 – Jan. 1935; T.H.E. Jackson leg.; BNHM 1935-203 • 1 ♀; Namwamba Valley, Misigo; 8550 ft a.s.l.; 2–3 Aug. 1952; D.S. Fletcher leg.; BNHM 1952-566.

Redescription

Female (paratype)

LENGTH. Body 2.0 mm, fore wing 2.1 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.7 times as wide as temple medially. Face 1.5 times as wide as high, with sparse setae. Clypeus 2.4 times as wide as high. Mandible 1.3 times as long as its maximum width. Upper tooth very wide; middle tooth rather narrow and long; lower tooth wide. Antennae 22-segmented. First flagellar segment 2.8 times as long as its apical width; 2nd segment 5.5 times and 3rd segment 4.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 1.1 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, small, oval. Prescutellar depression smooth, without lateral carinae. Precoxal sulcus present,

crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum sculptured, with pentagonal areola. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 4.2 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 5.0 times as long as vein r, 2.3 times as long as vein 2-SR. Vein SR1 3.1 times as long as vein 3-SR.

LEGS. Hind femur 5.3 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width. Visible part of ovipositor 4.0 times as long as 1st tergite, 2.5 times as long as metasoma, 1.7 times as long as hind femur.

COLOUR. Body, metasoma and pterostigma brown. Legs, head lateral view, mandible, scapus and pedicel light brown. Six apical antennal segments paler than preceding ones. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings hyaline.

VARIATION. Body 1.7–2.2 mm, fore wing 2.0–2.3 mm, hind wing 1.4–1.6 mm. Antennae 20–23-segmented. First flagellar segment 2.7–2.8 times as long as its maximum width. Second flagellar segment 5.3–5.5 times as long as its maximum width. Mandible 1.1–1.3 times as long as its maximum width. Hind femur 5.1–5.3 times as long as its maximum width.

Male

Length. Body 2.0–2.2 mm, fore wing 2.1–2.2 mm, hind wing 1.2–1.4 mm. Antennae 22–24-segmented. First flagellar segment 3.6 times as long as its maximum width; 2nd segment 5.6 times and 3rd segment 5.3 times as long as their maximum width. Mandible 1.3–1.4 times as long as its maximum width. Hind femur 4.7–5.1 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This species is similar to *A. mediana* sp. nov., but differs from it in having the clypeus 2.4 times as wide as high (3.0 times in *A. mediana* sp. nov.), 1st flagellar segment 2.8 times as long as its maximum width (3.2 times in *A. mediana* sp. nov.), hind femur 5.3 times as long as its maximum width (4.6 times in *A. mediana* sp. nov.), visible part of ovipositor sheath 4.0 times as long as 1st tergite (1.5 times in *A. mediana* sp. nov.), 2.5 times as long as metasoma (0.4 times in *A. mediana* sp. nov.), and 1.7 times as long as hind femur (0.7 times in *A. mediana* sp. nov.). On the other hand, *A. citri* is similar to *A. apicalis* Fischer, 2003; the differences between both species are listed under the redescription of latter species.

Distribution

Benin, Cameroon (new record), Democratic Republic of the Congo, Ivory Coast, Nigeria (new record), Tanzania (new record) and Uganda (new record).

Asobara cracentis van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:FADFB042-6C01-475B-A77A-983DE54C34FD](https://doi.org/10.3896/EBL.2019.557.1.1)

Figs 11–12

Etymology

Specific name from the Latin ‘cracentis’, meaning ‘graceful, slender’, and referring to the slender 1st metasomal tergite.

Material examined

Holotype

NIGERIA • ♀; Ibadan, IITA compound; 9–28 Aug. 1991; Malaise trap; A. Polaszek leg.; RMNH.

Paratypes

NIGERIA • 1 ♀; same data as for holotype; RMNH • 1 ♀; same data as for holotype; FJPF.

Description

Female (holotype)

LENGTH. Body 1.9 mm, fore wing 2.1 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.6 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 2.2 times as wide as temple medially. POL 1.3 times OD; OOL 4.0 times OD. Face 1.4 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.3 times as wide as high. Anterior tentorial pits short, far not reaching inner margin of eye. Mandible 1.7 times as long as its maximum width. Upper tooth wide; middle tooth wide and short; lower tooth short. Antennae 25-segmented, 1.6 times as long as body. Scape as long as pedicel. First flagellar segment 3.2 times as long as its apical width, 0.4 times as long as 2nd segment. Second flagellar segment 8.3 times, 3rd–4th segments 4.8 times, 5th–6th segments 4.2 times, 7th–8th segments 4.0 times, 9th–10th segments 3.6 times, 11th 3.4 times, 12th–16th segments 3.2 times, 17th–24th segments 3.0 times and 25th (apical segment) 2.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median crenulae, 0.8 times as long as its maximum width. Precoxal sulcus present, weakly crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow almost smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas rugose, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.6 times its maximum width. Marginal cell ending at apex of wing, 4.1 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 6.6 times as long as vein r, 2.3 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR. Hind wing 6.5 times as long as its maximum width.

LEGS. Hind femur 5.7 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 1.8 times as long as 2nd segment.

METASOMA. First tergite almost parallel-sided, 1.9 times as long as its apical width, rugose-striate. Visible part of ovipositor sheath 4.0 times as long as 1st tergite, 1.3 times as long as metasoma and 1.9 times as long as hind femur.

COLOUR. Body, mandible, flagellar segments of antennae (except apical part), legs and pterostigma brown to dark brown. Coxae, trochanters and the ten apical segments of antennae paler than other segments. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.1 mm, fore wing 2.1–2.2 mm, hind wing 1.4–1.6 mm.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. zululana* sp. nov., but differs from it in having the 1st metasomal tergite 1.9 times as long as its apical width (1.5 times in *A. zululana* sp. nov.), clypeus 2.3 times as wide as high (2.9 times in *A. zululana* sp. nov.), 1st flagellar segment 3.2 times as long as its maximum width (5.4 times in *A. zululana* sp. nov.), 2nd segment 8.3 times (6.7 times in *A. zululana* sp. nov.), and visible part of ovipositor sheath 1.3 times as long as metasoma in lateral view (equal to in *A. zululana* sp. nov.).

Distribution

Nigeria.

Asobara elongitarsis van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:F530459A-4E21-44C3-B22B-45B25169A1B1](https://zoobank.org/urn:lsid:zoobank.org:act:F530459A-4E21-44C3-B22B-45B25169A1B1)

Figs 13–14

Etymology

Specific name from the Latin ‘elongatus’, meaning ‘elongated’, and referring to the very slender hind basitarsus.

Material examined

Holotype

DEMOCRATIC REPUBLIC OF THE CONGO • ♀; Lubumbashi; 9–10 Sep. 1971; light trap; A.B. Stam leg.; RMNH 8234.

Description

Female (holotype)

LENGTH. Body 2.5 mm, fore wing 2.7 mm, hind wing 2.0 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view about as high as wide and 1.6 times as wide as temple medially. POL 1.2 times OD; OOL 3.3 times OD. Face 1.5 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.5 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth wide, longer than lower tooth; middle tooth rather wide, directed upwards; lower tooth short. Antennae more than 21-segmented (apical segments missing). Scape 1.3 times as long as pedicel. First flagellar segment 3.2 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 5.8 times, 3rd–5th segments 4.2 times, 6th segment 4.0 times, 7th–8th segments 3.6 times, 9th–10th segments 3.3 times, 11th–12th segments 3.0 times, 13th–15th segments 2.1 times, 16th–19th segments (apical segments) 2.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.5 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth, sparsely setose. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression sculptured, with median and lateral carinae, 0.8 times as long as its maximum width. Precoxal sulcus present, widely crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum sculptured; basolateral areas with irregular carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.6 times its maximum width. Marginal cell ending at apex of wing, 3.9 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 10.0 times as long as vein r, 2.5 times as long as vein 2-SR. Vein SR1 1.4 times as long as vein 3-SR. Hind wing 6.7 times as long as its maximum width.

LEGS. Hind femur 6.0 times as long as its maximum width and sculptured. Hind tibia weakly widened to apex, 11.3 times as long as its maximum subapical width, 0.9 times as long as hind tarsus. First segment of hind tarsus 1.8 times as long as 2nd segment and very slender.

METASOMA. First tergite weakly widened towards apex, 1.8 times as long as its apical width, striate. Visible part of ovipositor sheath 4.3 times as long as 1st tergite, 1.5 times as long as metasoma, 1.4 times as long as hind femur.

COLOUR. Body, mandible, legs, antennae and pterostigma brown to dark brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. victoriana* sp. nov., but differs from it in having the 1st metasomal tergite 1.8 times as long as its apical width (1.2 times in *A. victoriana* sp. nov.), hind femur 6.0 times as long as its apical width (5.0 times in *A. victoriana* sp. nov.), vein 3-SR 2.5 times as long as vein 2-SR (2.0 times in *A. victoriana* sp. nov.), antennae apically with paler flagellar segments (without in *A. victoriana* sp. nov.), and visible part of ovipositor sheath 1.5 times as long as metasoma in lateral view (0.6 times in *A. victoriana* sp. nov.).

Distribution

Democratic Republic of the Congo.

Asobara epiclypealis Fischer, 2003

Figs 15–16

Asobara epiclypealis Fischer, 2003: 76; 2007: 859.

Asobara epiclypealis – Fischer 2007: 859. — Yu *et al.* 2016.

Material examined

Holotype

SOUTH AFRICA • ♀; ‘Southbroom, Natal’; 3–4 Dec. 1963; E. Haeselbarth leg.; NHMW.

Redescription

Female (holotype)

LENGTH. Body 2.2 mm, fore wing 2.3 mm, hind wing 1.6 mm.

HEAD. In dorsal view, 1.5 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.2 times as wide as temple medially. Face 1.4 times as wide as high. Clypeus 1.6 times as wide as high. Mandible 1.8 times as long as its maximum width. Upper tooth wide; middle tooth rather wide and short; lower tooth shorter than upper tooth. Antennae 25-segmented.

First flagellar segment 3.5 times as long as its apical width; 2nd segment 5.1 times and 3rd segment 4.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with median and lateral carinae, 1.2 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum smooth, with complete longitudinal carinae with short and weakly carinae with smooth patches. Propodeal spiracle small, its diameter 0.3 times as large as distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.8 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 8.3 times as long as vein r, 2.6 times as long as vein 2-SR. Vein SR1 1.6 times as long as vein 3-SR.

LEGS. Hind femur 4.8 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.4 times as long as its apical width. Visible part of ovipositor sheath 2.9 times as long as 1st tergite, 0.8 times as long as metasoma, 1.5 times as long as hind femur.

COLOUR. Body light brown to reddish. Mandible, antennae, legs and pterostigma yellow. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. transversaria* Fischer, 2007, but differs from it in having the body light brown to reddish (dark coloured in *A. transversaria*), mandible 1.8 times as long as its maximum width (1.5 times in *A. transversaria*), 1st flagellar segment 3.5 times as long as its maximum width (3.0 times in *A. transversaria*), 2nd segment 5.1 times (6.0 times in *A. transversaria*), and 3rd segment 4.5 times (3.0 times in *A. transversaria*), and visible part of ovipositor sheath 0.8 times as long as metasoma in lateral view (0.4 times in *A. transversaria*).

Distribution

South Africa (Yu *et al.* 2016).

Asobara fletcheri Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:72E86775-3A47-42A0-A4B8-12467BFE2D05](https://doi.org/10.21203/rs.3.rs-10000000/v1)

Figs 17–18

Etymology

Named in honour of D.S. Fletcher, British entomologist who collected the type specimens.

Material examined

Holotype

UGANDA • ♀; Ruwenzori Range, Bigo 11; 400 ft a.s.l.; 20–22 Jul. 1952; D.S. Fletcher leg.; BMNH 1952-566.

Paratypes

UGANDA • 1 ♂; same locality as for holotype but Misigo; 8550 ft a.s.l.; 2–3 Aug. 1952; BMNH • 1 ♂; same locality as for holotype but Mahoma River; 6700 ft a.s.l.; 13–16 Aug. 1952; BMNH.

Description

Female (holotype)

LENGTH. Body 1.8 mm, fore wing 2.4 mm, hind wing 1.6 mm.

HEAD. In dorsal view, 1.5 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.3 times as high as wide and 1.4 times as wide as temple medially. POL 1.1 times OD; OOL 3.7 times OD. Face 1.3 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.0 times as wide as high. Anterior tentorial pits short, far not reaching inner margin of eye. Mandible almost parallel-sided, 1.8 times as long as its maximum width. Upper tooth wide; middle tooth rather wide and short; lower tooth short. Antennae 24-segmented, 2.0 times as long as body. Scape 0.9 times as long as pedicel. First flagellar segment 4.1 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 6.5 times, 3rd–4th segments 6.0 times, 5th–10th segments 5.0 times, 11th segment 4.5 times, 12th–18th segments 3.8 times, 19th–20th segments 3.3 times, 21st segment 1.4 times and 22th (apical segment) 3.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.1 times as long as high. Mesoscutum (dorsal view) about as long as its maximum width, smooth. Notauli present on horizontal surface of mesoscutum reaching half distance of mesoscutum disk. Mesoscutal pit present, oval. Prescutellar depression smooth, without carinae, as long as its maximum width. Precoxal sulcus present, weakly crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.1 times its maximum width. Marginal cell ending at apex of wing, 4.3 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.4 times as long as vein r, 2.5 times as long as vein 2-SR. Vein SR1 2.9 times as long as vein 3-SR. Hind wing 7.5 times as long as its maximum width.

LEGS. Hind femur 6.0 times as long as its maximum width. Hind tibia weakly widened to apex, 8.5 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.2 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 2.0 times as long as its apical width, weakly rugose. Visible part of ovipositor sheath 2.5 times as long as 1st tergite, 0.8 times as long as metasoma, as long as hind femur.

COLOUR. Body, head and pterostigma brown to dark brown. Mandible, antenna, legs and mesoscutum light brown. In dorsal view, head darker than mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

Male

Length. Body 1.8–2.1 mm, fore wing 2.7–2.8 mm, hind wing 1.8 mm. Antennae 27-segmented. First flagellar segment 3.4 times as long as its maximum width; 2nd segment 7.0 times and 3rd segment 6.3 times as long as their maximum width. Hind femur 5.0–5.5 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. turneri* Peris-Felipo, 2014, but differs from it in having the 1st metasomal tergite paler than 2nd and 3rd tergites (similarly coloured in *A. turneri*), eye in lateral view 1.1 times as wide as temple medially (1.4 times in *A. turneri*), face 1.3 times as wide as high (1.6 times in *A. turneri*), antennae without pale apical flagellar segments (with paler apical segments in *A. turneri*), precoxal sulcus reaching anterior and posterior margins of mesopleuron (not reaching in *A. turneri*), vein 3-SR 2.7 times as long as vein 2-SR (1.9–2.0 times in *A. turneri*), vein m-cu distinctly antefurcal (intestitial in *A. turneri*), and visible part of ovipositor sheath 0.8 times as long as metasoma in lateral view (1.3 times in *A. turneri*).

Distribution

Uganda.

Asobara ghesquierei (Fischer, 1963)

Figs 19–20

Phaenocarpa ghesquierei Fischer, 1963: 211.

Phaenocarpa ghesquierei – Papp 1966: 135. — Shenefelt 1974: 1009.

Asobara ghesquierei Fischer, 2007: 860.

Asobara ghesquierei – Yu *et al.* 2016.

Material examined

Holotype

DEMOCRATIC REPUBLIC OF THE CONGO • ♀; Eala; 14 Sep. 1936; J. Ghesquière leg.; MRAC.

Paratypes

DEMOCRATIC REPUBLIC OF THE CONGO • 6 ♀♀, 2 ♂♂; same data as for holotype; MRAC • 1 ♀, 1 ♂; same data as for holotype; NHMW.

Redescription

Female (holotype)

LENGTH. Body 2.0 mm, fore wing 2.1 mm, hind wing 1.3 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.5 times as wide as temple medially. Face 1.3 times as wide as high. Clypeus 2.1 times as wide as high. Mandible 1.4 times as long as its maximum width. Upper tooth very wide; middle tooth rather wide and short; lower tooth wide. Antennae 24-segmented. First flagellar segment 3.1 times as long as its apical width; 2nd segment 5.5 times and 3rd segment 4.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, without lateral carinae, 1.3 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum sculptured, with pentagonal areola and smooth fields. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 5.5 times as long as vein r, 1.7 times as long as vein 2-SR. Vein SR1 2.7 times as long as vein 3-SR.

METASOMA. First tergite weakly widened towards apex, 1.8 times as long as its apical width. Visible part of ovipositor sheath 2.2 times as long as 1st tergite, 0.6 times as long as metasoma and 1.3 times as long as hind femur.

COLOUR. Body, antennae and pterostigma brown. Mandible and legs light brown. In dorsal view, head similar colour to mesoscutum. First metasomal tergite similar colour to 2nd and 3rd tergites. Wings hyaline.

VARIATION. Body 1.9–2.0 mm, fore wing 2.1–2.3 mm, hind wing 1.3–1.4 mm. Antennae 20–25-segmented.

Male

Length. Body 1.8–1.9 mm, fore wing 1.9–2.0 mm, hind wing 1.2–1.4 mm. Antennae 22-segmented. First flagellar segment 3.5 times and 2nd segment 6.0 times as long as their maximum width. Otherwise similar to female.

Comparative diagnosis

This species is similar to *A. cracentis* sp. nov. and *A. zululana* sp. nov., but differs from them in having the eye in lateral view 2.5 times as wide as temple medially (2.2 and 2.0 times in *A. cracentis* sp. nov. and *A. zululana* sp. nov., respectively), hind femur 4.5 times as long as its maximum width (5.7 and 5.9 times in *A. cracentis* sp. nov. and *A. zululana* sp. nov., respectively), visible part of ovipositor sheath 2.2 times as long as 1st tergite (4.0 and 1.5 times in *A. cracentis* sp. nov. and *A. zululana* sp. nov., respectively), 0.6 times as long as metasoma (1.3 and equal to in *A. cracentis* sp. nov. and *A. zululana* sp. nov., respectively) and 1.3 times as long as hind femur (1.9 and equal to in *A. cracentis* sp. nov. and *A. zululana* sp. nov., respectively); additionally the clypeus 2.1 times as wide as high (2.9 times in *A. zululana* sp. nov.), 1st flagellar segment 3.1 times as long as its maximum width (5.4 times in *A. zululana* sp. nov.) and 1st metasomal tergite 1.8 times as long as its apical width (1.5 times in *A. zululana* sp. nov.).

Distribution

Democratic Republic of the Congo (Yu *et al.* 2016).

Asobara glabrisulcata Fischer, 2003

Figs 21–22

Asobara glabrisulcata Fischer, 2003: 78.

Asobara glabrisulcata – Fischer 2007: 860. — Yu *et al.* 2016.

Material examined

Holotype

SOUTH AFRICA • ♀; Southbroom, Natal; 3–4 Dec. 1963; E. Haeselbarth leg.; NHMW.

Paratype

SOUTH AFRICA • 1 ♂; Mariepskop, Pilgrim's Rest dist.; Transvaal; 12 Apr. 1964; E. Haeselbarth leg.; NHMW.

Redescription

Female (holotype)

LENGTH. Body 2.0 mm, fore wing 2.4 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.8 times as wide as temple medially. Face 1.4 times as wide as high. Clypeus 2.1 times as wide as high. Mandible 1.2 times as long as its maximum width. Upper tooth very wide; middle tooth rather narrow and long; lower tooth wide. Antennae 24-segmented. First flagellar segment 3.2 times as long as its apical width; 2nd segment 5.5 times and 3rd segment 5.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, without lateral carinae, as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum sculptured, with pentagonal areola with smooth fields. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.8 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 7.1 times as long as vein r, 2.2 times as long as vein 2-SR. Vein SR1 2.2 times as long as vein 3-SR.

LEGS. Hind femur 4.6 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 2.1 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 3.1 times as long as 1st tergite, as long as metasoma, 1.5 times as long as hind femur.

COLOUR. Body, antennae and pterostigma brown reddish. Mandible and legs yellow. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Length. Body 1.9 mm, hind wing 1.2 mm. Antennae 23-segmented. Otherwise similar to female.

Comparative diagnosis

This species is similar to *A. malawiana* Fischer, 2007 and *A. nigerrima* Fischer, 2003, but differs from them in having the mesoscutal pit oval (elongate in *A. malawiana* and *A. nigerrima*), eye in lateral view 1.8 times as wide as temple medially (1.0 and 1.2 times in *A. malawiana* and *A. nigerrima*, respectively), 2nd flagellar segment 5.5 times as long as its maximum width (4.0 and 4.5 times in *A. malawiana* and *A. nigerrima*, respectively), hind femur 4.6 times as long as its maximum width (5.0 times in *A. malawiana* and *A. nigerrima*), 1st metasomal tergite 2.1 times as long as its apical width (1.5 times in *A. malawiana* and *A. nigerrima*), and visible part of ovipositor sheath 3.1 times as long as 1st tergite (4.7 and 4.1 times in *A. malawiana* and *A. nigerrima*, respectively).

Distribution

South Africa (Yu *et al.* 2016).

Asobara harrinmithensis Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:D4A048EE-4455-4690-AC79-E8BF61898C80](https://zoobank.org/urn:lsid:zoobank.org:act:D4A048EE-4455-4690-AC79-E8BF61898C80)

Figs 23–24

Etymology

The name is from the geographical area ‘Harrinmith’, the type locality of the species.

Material examined

Holotype

SOUTH AFRICA • ♀; Orange Free State, Harrinsmith; 1–20 Mar. 1927; R.E. Turner leg.; BMNH 1927-147.

Paratype

SOUTH AFRICA • 1 ♀; same data as for holotype; BMNH.

Description

Female (holotype)

LENGTH. Body 1.7 mm, fore wing 1.8 mm, hind wing 1.3 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.6 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view about as high as wide and 2.0 times as wide as temple medially. POL 1.1 times OD; OOL 3.7 times OD. Face 1.4 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.6 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.5 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 21-segmented, 1.4 times as long as body. Scape 1.6 times as long as pedicel. First flagellar segment 3.9 times as long as its apical width, 0.5 times as long as 2nd segment. Second flagellar segment 8.3 times, 3rd segment 5.6 times, 4th–5th segments 5.0 times, 6th–7th segments 4.8 times, 8th–9th segments 4.0 times, 10th–11th segments 3.6 times, 12th–18th segments 3.0 times and 19th (apical segment) 3.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) 1.2 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate-oval. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow weakly crenulate below. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.0 times its maximum width. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.6 times as long as vein r, 2.0 times as long as vein 2-SR. Vein SR1 2.4 times as long as vein 3-SR. Hind wing 6.6 times as long as its maximum width.

LEGS. Hind femur 5.7 times as long as its maximum width. Hind tibia weakly widened to apex, 10.2 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.4 times as long as its apical width, smooth. Visible part of ovipositor sheath 5.7 times as long as 1st tergite, 0.9 times as long as metasoma and 1.9 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma dark brown. Legs light brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. No variation observed.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. subdentata* (Granger, 1949), but differs from it in having the eye in lateral view 2.0 times as wide as temple medially (1.6 times in *A. subdentata*), 1st flagellar segment 3.9 times as long as its maximum width (4.5 times in *A. subdentata*), 2nd segment 8.3 times (5.8 times in *A. subdentata*), and 3rd segment 6.7 times (3.3 times in *A. subdentata*), antennae without pale apical segments (with pale apical segments in *A. subdentata*), 2nd submarginal cell narrowed basally (broadened basally in *A. subdentata*), and visible part of ovipositor sheath as long as metasoma in lateral view (0.3 times in *A. subdentata*).

Distribution

South Africa.

Asobara kapiriensis Fischer, 2007

Figs 25–26

Asobara kapiriensis Fischer, 2007: 860.

Asobara kapiriensis – Peris-Felipo *et al.* 2014a: 701. — Yu *et al.* 2016.

Material examined

Holotype

ZAMBIA • ♀; ca 60 km NW of Kapiri, Mposhi; 8 Dec. 2002; J. Halada leg.; OLML.

Redescription

Female (holotype)

LENGTH. Body 2.3 mm, fore wing 2.6 mm, hind wing 2.0 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.0 times as wide as temple medially. Face 1.4 times as wide as high. Clypeus 2.4 times as wide as high. Mandible 1.2 times as long as its maximum width. Upper tooth very wide and round; middle tooth rather narrow and long; lower tooth short. Antennae more than 14-segmented (apical segments missing). First flagellar segment 3.1 times as long as its apical width; 2nd segment 5.9 times and 3rd segment 4.9 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly present on horizontal surface of mesoscutum nearly reaching mesoscutal pit. Mesoscutal pit present, elongate. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum sculptured, with pentagonal areola and smooth fields. Propodeal spiracles small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 7.0 times as long as vein r, 1.8 times as long as vein 2-SR. Vein SR1 2.1 times as long as vein 3-SR. Hind wing 6.6 times as long as its maximum width.

LEGS. Hind femur 4.5 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width. Visible part of ovipositor sheath 4.6 times as long as 1st tergite, 1.4 times as long as metasoma, 2.0 times as long as hind femur.

COLOUR. Body, antenna, mandible and pterostigma dark brown to black. Legs yellow to light brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. kenyaensis* Peris-Felipo, 2014, but differs from it in having the 1st metasomal tergite paler than 2nd and 3rd tergites (1st metasomal tergite similarly colour as 2nd and 3rd tergites in *A. kenyaensis*), eye in lateral view 2.0 times as wide as temple medially (1.5 times in *A. kenyaensis*), hind femur 4.5 times as long as its maximum width (7.0 times in *A. kenyaensis*), precoxal sulcus not reaching anterior and posterior margins of mesopleuron (reaching anterior and posterior margins in *A. kenyaensis*), vein 3-SR 1.8 times as long as vein 2-SR (2.4 times in *A. kenyaensis*), and propodeum with pentagonal areola (without areola in *A. kenyaensis*).

Distribution

Zambia (Yu *et al.* 2016).

Asobara kawandensis Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:5C91662F-9461-48E5-B9E7-3CB3215A3A51](https://zoobank.org/act:5C91662F-9461-48E5-B9E7-3CB3215A3A51)

Figs 27–28

Etymology

The name is from geographical area ‘Kawanda’, the type locality of the species.

Material examined

Holotype

UGANDA • ♀; Kawanda; Jun. 1943; T.H.C. Taylor leg.; BMNH.

Paratype

UGANDA • 1 ♀; same label as for holotype; BMNH.

Description

Female (holotype)

LENGTH. Body 2.5 mm, fore wing 2.5 mm, hind wing 1.6 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view about as high as wide and 2.5 times as wide as temple medially. POL 1.5 times OD; OOL 3.0 times OD. Face 1.9 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.1 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long, directed upwards; lower tooth wider than upper tooth. Antennae 26-segmented, 1.4 times as long as body. Scape 2.0 times as long as pedicel. First flagellar segment 2.5 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 4.3 times, 3rd segment 4.3 times, 4th segment 4.0 times, 5th–6th segments 3.6 times, 7th–16th segments

3.1 times, 17th–23rd segments 2.5–2.6 times and 24th (apical segment) 3.0 times as long as its maximum width.

MESOSOMA. In lateral view, 1.2 times as long as high. Mesoscutum (in dorsal view) 0.8 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, as long as its maximum width. Precoxal sulcus present, weakly crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum smooth, with short medio-longitudinal carina with short carinae reaching not reaching lateral side of propodeum. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.1 times its maximum width. Marginal cell ending at apex of wing, 4.0 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.3 times as long as vein r, 1.5 times as long as vein 2-SR. Vein SR1 2.6 times as long as vein 3-SR. Hind wing 5.1 times as long as its maximum width.

LEGS. Hind femur 3.6 times as long as its maximum width. Hind tibia weakly widened to apex, 9.1 times as long as its maximum subapical width, 1.2 times as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 1.8 times as long as 1st tergite, 0.5 times as long as metasoma, 1.5 times as long as hind femur.

COLOUR. Body, antennae and pterostigma dark brown. Head, scapus, pedicel, mandible and yellow to light brown. Stemmaticum dark brown. In dorsal view, head paler than mesoscutum, with brown line in middle of head. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. No variation observed between females.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. ugandensis* Fischer, 2007, but differs from it in having the head in dorsal view 1.7 times as wide as long (2.0 times in *A. ugandensis*), eye in lateral view 2.5 times as wide as temple medially (1.1 times in *A. ugandensis*), precoxal sulcus not reaching anterior and posterior margins of propodeum (reaching in *A. ugandensis*), 1st flagellar segment 2.5 times as long as its maximum width (3.6 times in *A. ugandensis*), 2nd segment 4.3 times (6.3 times in *A. ugandensis*), 3rd segment 3.7 times (4.8 times in *A. ugandensis*) and hind femur 3.6 times as long as its maximum width (6.0 times in *A. ugandensis*).

Distribution

Uganda.

Asobara kenyaensis Peris-Felipo, 2014
Figs 29–30

Asobara kenyaensis Peris-Felipo *et al.*, 2014a: 694.

Asobara kenyaensis – Yu *et al.* 2016.

Material examined

Holotype

KENYA • ♀; Kakamega Forest; 20 Dec. 1970; B.M. 1972-211; A.E. Stubbs leg.; BMNH.

Paratypes

KENYA • 6 ♀♀; same label as for holotype; BMNH • 2 ♀♀; same label as for holotype; ZISP.

Description

Female (holotype)

LENGTH. Body 2.6–2.8 mm, fore wing 3.1–3.3 mm, hind wing 2.1 mm.

HEAD. In dorsal view, 1.7–1.8 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as wide as temple medially. Face 1.5 times as wide as high. Clypeus 1.7 times as wide as high. Mandible 1.5 times as long as its maximum width. Upper tooth of mandible longer than lower tooth; middle tooth wide basally and narrowed towards apex, rounded apically; lower tooth rounded apically. Antennae 23–25-segmented. First flagellar segment 3.5 times as long as its apical width; 2nd segment 7.5 times and 3rd segment 6.6 times as long as their maximum width.

MESOSOMA. In lateral view 1.2–1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli complete, crenulate, reaching mesoscutal mid pit. Mesoscutal pit present, elongate. Prescutellar depression sculptured, 1.7 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum sculptured, with long medio-longitudinal carina and small areola in posterior half, with apical half densely sculptured, with lateral tubercles. Propodeal spiracle relatively small.

WINGS. Marginal cell ending at apex of wing, 3.9 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.0 times as long as vein r and 2.5 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR.

LEGS. Hind femur 7.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.7 times as long as its apical width, completely sculptured. Visible part of ovipositor sheath 3.9 times as long as 1st tergite, 1.4 times as long as metasoma, 1.5 times as long as hind femur.

COLOUR. Body dark brown. Legs brown. Wings hyaline. Pterostigma brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. kaipiriensis* Fischer, 2007; the differences between both species are described under the latter species.

Distribution

Kenya (Peris-Felipo *et al.* 2014a).

Asobara kibalensis van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:2A26E1C5-7D45-47EC-A13E-B7277395BE2B](https://doi.org/10.21203/rs.3.rs-2661135/v1)

Figs 31–32

Etymology

The name is from the geographical area ‘Kibale forest’, the type locality of the species.

Material examined

Holotype

UGANDA • ♀; Kibale Forest, Kanywara; 20 Jul. 1995; M. Nummelin leg.; RMNH.

Paratypes

UGANDA • 9 ♀♀, 3 ♂♂; same data as for holotype; RMNH • 1 ♀, 1 ♂; same data as for holotype; ZISP.

Description

Female (holotype)

LENGTH. Body 1.9 mm, fore wing 2.1 mm, hind wing 1.4 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 2.7 times as wide as temple medially. POL 0.8 times OD; OOL 3.1 times OD. Face 1.1 times as wide as high; inner margins of eyes subparallel. Clypeus 3.0 times as wide as high. Anterior tentorial pits short, far from reaching inner border of eye. Mandible 1.7 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 22-segmented, 1.3 times as long as body. Scape 1.2 times as long as pedicel. First flagellar segment 3.8 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 6.0 times, 3rd segment 5.0 times, 4th segment 4.5 times, 5th–7th segment 4.2 times, 8th–10th segments 3.7 times, 11th–21st segment 4.0 times and 22nd (apical segment) 4.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.8 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, as long as its maximum width. Precoxal sulcus present, smooth, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth areas, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.8 times its maximum width. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 6.1 times as long as vein r, 2.5 times as long as vein 2-SR. Vein SR1 2.4 times as long as vein 3-SR. Hind wing 5.7 times as long as its maximum width.

LEGS. Hind femur 5.2 times as long as its maximum width. Hind tibia weakly widened to apex, 7.4 times as long as its maximum subapical width, 1.1 times as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.3 times as long as its apical width, smooth. Visible part of ovipositor sheath 4.2 times as long as first tergite, 1.2 times as long as metasoma, 2.0 times as long as hind femur.

COLOUR. Body, flagellar segments of antennae (except apically) and pterostigma brown to dark brown. Mandible, scapus, pedicel and legs yellow. Coxae, trochanter and last six apical segments of antennae

white. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.1 mm, fore wing 2.0–2.3 mm, hind wing 1.4–1.6 mm. First flagellar segment 3.8–4.0 times and 2nd segment 5.8–6.0 times as long as their maximum width. Hind femur 5.2–5.4 times as long as its maximum width.

Male

Length. Body 1.6–1.8 mm, fore wing 1.9–2.0 mm, hind wing 1.1–1.3 mm. First flagellar segment 5.5–5.6 times as long as its maximum width; 2nd segment 7.5–8.0 times and 3rd segment 6.5–6.8 times as long as their maximum width. Hind femur 5.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. vanharteni* sp. nov., but differs from it in having hind femur 5.2 times as long as its maximum width (4.0 times in *A. vanharteni* sp. nov.), 1st flagellar segment 3.8 times as long as its maximum width in female (2.9 times in *A. vanharteni* sp. nov.), mesoscutal pit oval (round in *A. vanharteni*), prescutellar depression as long as its maximum width (1.5 times in *A. vanharteni* sp. nov.), and visible part of ovipositor sheath 4.2 times as long as 1st metasomal tergite in lateral view (3.2 times in *A. vanharteni* sp. nov.).

Distribution

Uganda.

Asobara kovacsi (Papp, 1966) Figs 33–34

Phaenocarpa kovacsi Papp, 1966: 135.

Phaenocarpa kovacsi – Shenefelt 1974: 1010.

Asobara kovacsi Fischer, 1994: 775.

Asobara kovacsi – Fischer 2007: 860. — Yu *et al.* 2016.

Material examined

Holotype

UGANDA • ♀; “Katona, Mujenje”; Aug. 1913; Hym. Typ. No. 1723; HNHM.

Paratype

ETHIOPIA • 1 ♀; “Abyssinia, Kovacs, Jerrer-völgy”; 10 Jul. 1911; Hym. Typ. No. 1724; HNHM.

Additional Material examined

SOUTH AFRICA • 1 ♀; Natal, Van Reenen Drakensberg; Nov. 1926; R.E. Turner leg.; BMNH 1926-499 • 1 ♂; same locality as preceding; 1–22 Jan. 1927; BMNH 1927-54.

Redescription

Female (holotype)

LENGTH. Body 3.0 mm, fore wing 3.2 mm, hind wing 2.0 mm.

HEAD. In dorsal view, 1.2 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.9 times as wide as temple medially. Face 1.4 times as wide

as high. Clypeus 2.7 times as wide as high. Mandible 1.8 times as long as its maximum width. Upper tooth wide; middle tooth rather wide and long; lower tooth wide. Antennae 29-segmented. First flagellar segment 3.3 times as long as its apical width; 2nd segment 6.6 times and 3rd segment 5.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.5 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval-elongate. Prescutellar depression smooth, without lateral carinae, about as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum smooth, with short medio-longitudinal carina and short transverse carinae reaching or not reaching lateral border of propodeum. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.6 times as long as vein r, 1.4 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR.

LEGS. Hind femur 3.9 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.1 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 3.3 times as long as 1st tergite, about as long as metasoma, 1.4 times as long as hind femur.

COLOUR. Body, antenna, legs and pterostigma light brown to brown. Head dark brown. In dorsal view, head darker than mesoscutum. First–third metasomal tergites similarly coloured. Wings hyaline.

VARIATION. Body 2.9–3.3 mm, fore wing 3.0–3.2 mm, hind wing 2.0–2.1 mm. Antennae 27–29-segmented. Mandible 1.7–1.8 times as long as its maximum width. Second flagellar segment 5.7–6.0 times as long as its maximum width. Vein SR1 1.8–1.9 times as long as vein 3-SR. Hind femur 3.9–4.0 times as long as its maximum width. First tergite 1.1–1.2 times as long as its apical width. Visible part of ovipositor sheath 3.1–3.3 times as long as 1st tergite, 0.8–1.0 times as long as metasoma, 1.4–1.5 times as long as hind femur.

Male

Length. Body 2.8 mm, fore wing 3.0 mm, hind wing 2.0 mm. Antennae more than 15-segmented (apical segments missing). First flagellar segment 4.0 times as long as width; 2nd segment 5.0 times and 3rd segment 6.8 times as long as their maximum width. Hind femur 4.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This species is similar to *A. zimbabweana* sp. nov., but differs from it in having the 1st metasomal tergite as long as its apical width (1.5 times in *A. zimbabweana* sp. nov.), antennae without pale antennal segments apically (with pale apical segments in *A. zimbabweana* sp. nov.), 1st flagellar segment 3.3 times as long as its maximum width (4.0 times in *A. zimbabweana* sp. nov.), and visible part of ovipositor sheath 1.4 times as long as metasoma in lateral view (0.3 times in *A. zimbabweana* sp. nov.).

Distribution

Ethiopia, South Africa (new record), Uganda.

Asobara laticlypeata van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:0D60719B-CB0A-4228-B475-79D6DF80C7D8](https://doi.org/10.3896/abris.2019.19B-CB0A-4228-B475-79D6DF80C7D8)

Figs 35–36

Etymology

Specific name from the Latin ‘latus’, meaning ‘broad’ and ‘clypeus’, referring to the wide clypeus.

Material examined

Holotype

NIGERIA • ♀; Ibadan, IITA compound; 9–28 Aug. 1991; Malaise trap; A. Polaszek leg.; RMNH.

Paratypes

NIGERIA • 2 ♀♀, 1 ♂, same data as for holotype; RMNH • 2 ♀♀, same data as for holotype; FJPF.

Description

Female (holotype)

LENGTH. Body 1.8 mm, fore wing 2.1 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.5 times as wide as long, 1.2 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as high as wide and 3.6 times as wide as temple medially. POL 1.1 times OD; OOL 3.0 times OD. Face 1.2 times as wide as high; inner margins of eyes subparallel. Clypeus 3.1 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.9 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 25-segmented, 2.1 times as long as body. Scape 1.2 times as long as pedicel. First flagellar segment 4.0 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 7.3 times, 3rd–9th segments 5.0 times, 10th–11th segments 4.5 times, 12th–20th segments 5.0 times, 21st segment 4.0 times and 22nd (apical segment) 5.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.5 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.0 times its maximum width. Marginal cell ending at apex of wing, 3.9 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.6 times as long as vein r, 2.2 times as long as vein 2-SR. Vein SR1 2.3 times as long as vein 3-SR. Hind wing 6.5 times as long as its maximum width.

LEGS. Hind femur 4.7 times as long as its maximum width. Hind tibia weakly widened to apex, 9.5 times as long as its maximum subapical width, 0.9 times as long as hind tarsus. First segment of hind tarsus 1.9 times as long as 2nd segment.

METASOMA. First tergite widened towards apex, about as long as its apical width, smooth. Visible part of ovipositor sheath 2.9 times as long as 1st tergite, 0.8 times as long as metasoma, 1.4 times as long as hind femur.

COLOUR. Body, antennal flagellar segments (except apical ones) and pterostigma dark brown. Mandible, legs, scapus and pedicel yellow. The last eight apical segments paler than other segments. In dorsal view, head darker than mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.8–2.0 mm, fore wing 2.1–2.2 mm, hind wing 1.4–1.5 mm. First flagellar segment 4.0–4.2 times and 2nd segment 7.3–7.5 times as long as their maximum width. Hind femur 4.5–4.7 times as long as its maximum width.

Male

Length. Body 1.6 mm, fore wing 1.8 mm, hind wing 1.3 mm. Antennae 23-segmented. First flagellar segment 4.3 times as long as its maximum width; 2nd segment 8.0 times and 3rd segment 7.0 times as long as their maximum width. Hind femur 4.9 times as long as its maximum width.

Comparative diagnosis

This new species is similar to *A. mellicephalata* sp. nov., but differs from it in having the head dorsally and mesoscutum similarly coloured (head paler in *A. mellicephalata* sp. nov.), eye in lateral view 2.3 times as wide as temple medially (3.6 times in *A. mellicephalata* sp. nov.), vein 3-SR 2.4 times as long as vein 2-SR (2.0 times in *A. mellicephalata* sp. nov.), 1st flagellar segment 3.0 times as long as its maximum width (4.0 times in *A. mellicephalata* sp. nov.); 2nd segment 4.2 times (7.3 times in *A. mellicephalata* sp. nov.), and 3rd segment 4.1 times (5.2 times in *A. mellicephalata* sp. nov.).

Distribution

Nigeria.

Asobara malawiana Fischer, 2007

Figs 37–38

Asobara malawiana Fischer, 2007: 862.

Asobara malawiana – Yu *et al.* 2016.

Material examined

Holotype

MALAWI • ♀; “70 km N Liongwe Mponela env.”; 28 Dec. 2001; J. Halada leg.; OLML.

Redescription

Female (holotype)

LENGTH. Body 1.9 mm, fore wing 1.9 mm, hind wing 1.3 mm.

HEAD. In dorsal view, 1.3 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view as wide as temple medially. Face 1.6 times as wide as high. Clypeus 1.4 times as wide as high. Mandible 1.4 times as long as its maximum width. Upper tooth very wide; middle tooth rather narrow and short; lower tooth wide. Antennae more than 9-segmented (apical segments missing). First flagellar segment 3.0 times as long as its apical width; 2nd segment 4.0 times and 3rd segment 3.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, without lateral carinae, 1.2 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum smooth, with short medio-longitudinal carina and

with short transverse carinae not reaching lateral border of propodeum. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.6 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 8.0 times as long as vein r and 2.3 times as long as vein 2-SR. Vein SR1 1.9 times as long as vein 3-SR.

LEGS. Hind femur 5.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.5 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 4.7 times as long as 1st tergite, 0.9 times as long as metasoma, 1.8 times as long as hind femur.

COLOUR. Body, antennae and pterostigma dark brown. Mandible and legs brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. nigerrima* Fischer, 2003, but differs from it in having the head in dorsal view 1.3 times as wide as long (1.8 times in *A. nigerrima*), mandible 1.4 times as long as its maximum width (1.7 times in *A. nigerrima*), clypeus 1.6 times as wide as high (2.0 times in *A. nigerrima*), mesosoma in lateral view as long as high (1.3 times in *A. nigerrima*), and vein 3-SR 2.3 times as long as 2-SR (2.7 times in *A. nigerrima*).

Distribution

Malawi (Yu *et al.* 2016).

Asobara mediana van Achtenberg, sp. nov.

[urn:lsid:zoobank.org:act:3F3FFF65-4263-4A0D-B50D-CB7816A271EC](https://zoobank.org/act:3F3FFF65-4263-4A0D-B50D-CB7816A271EC)

Figs 39–40

Etymology

Specific name from the Latin ‘medianus’, meaning ‘middle’, and referring to the length of the ovipositor is intermediate compared to similar species.

Material examined

Holotype

UGANDA • ♀; Kibale Forest, Kanywara; 20 Jul. 1995; M. Nummelin leg.; RMNH.

Paratypes

UGANDA • 5 ♀♀, 2 ♂♂; same label as for holotype; RMNH • 1 ♀; same label as for holotype; FJPF • 1 ♀; same label as for holotype; ZISP • 1 ♀; same locality as for holotype but 10 Aug.–10 Sep. 1996; Malaise trap; J.J.M. van Alpen leg.; RMNH.

Description

Female (holotype)

LENGTH. Body 1.7 mm, fore wing 2.0 mm, hind wing 1.2 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 2.6 times as wide as temple medially. POL 1.1 times OD; OOL 2.9 times OD. Face 1.3 times as wide as high; inner margins of eyes subparallel. Clypeus 3.0 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.8 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth short. Antennae 22-segmented, 1.5 times as long as body. Scape 1.5 times as long as pedicel. First flagellar segment 3.2 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 5.0 times, 3rd segment 3.7 times, 4th–9th segments 3.3 times, 10th–21st segments 2.5 times, 22nd (apical segment) 3.7 times as long as its maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.8 times as long as its maximum width. Precoxal sulcus present, weakly crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.6 times its maximum width. Marginal cell ending at apex of wing, 4.0 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 7.0 times as long as vein r and 1.5 times as long as vein 2-SR. Vein SR1 3.0 times as long as vein 3-SR. Hind wing 6.2 times as long as its maximum width.

LEGS. Hind femur 4.6 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite widened towards apex, 1.1 times as long as its apical width, smooth. Visible part of ovipositor sheath 1.5 times as long as 1st tergite, 0.4 times as long as metasoma, 0.7 times as long as hind femur.

COLOUR. Body, flagellar segments of antennae (except apical ones) and pterostigma brown to dark brown. Mandible, scapus, pedicel and legs yellow. Coxae, trochanters and last seven apical segments of antennae whitish. In dorsal view, head similar colour to mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.7–2.0 mm, fore wing 1.9–2.2 mm, hind wing 1.1–1.4 mm. Antennae 20–27-segmented. First flagellar segment 3.2–3.5 times and 2nd segment 5.0–5.5 times as long as their apical width. Hind femur 4.6–5.0 times as long as its maximum width.

Male

Length. Body 1.5–1.6 mm, fore wing 1.7–1.8 mm, hind wing 1.2–1.3 mm. First flagellar segment 6.0 times as long as its maximum width; 2nd segment 7.5–8.0 times and 3rd segment 7.0 times as long as their maximum width. Hind femur 5.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. citri* (Fischer, 1963); the differences between both species are described under the latter species.

Distribution

Uganda.

Asobara mellicephalata van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:EFD230E5-0EC8-470C-9333-D61859648060](https://doi.org/10.21203/rs.3.rs-10000000)

Figs 41–42

Etymology

Specific name from the Latin ‘mellis’, meaning ‘honey’, and ‘cephalus’, meaning ‘head’, and referring to the honey coloured head.

Material examined

Holotype

UGANDA • ♀; Kibale Forest, Kanywara; 20 Jul. 1995; M. Nummelin leg.; RMNH.

Paratype

UGANDA • 1 ♀; same data as for holotype; RMNH.

Description

Female (holotype)

LENGTH. Body 2.1 mm, fore wing 2.3 mm, hind wing 1.4 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as high as wide and 2.3 times as wide as temple medially. POL 1.2 times OD; OOL 2.6 times OD. Face 1.3 times as wide as high; inner margins of eyes subparallel. Clypeus 3.0 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.8 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long, directed upwards; lower tooth wide. Antennae 24-segmented, 1.2 times as long as body. Scape 1.1 times as long as pedicel. First flagellar segment 3.0 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.2 times, 3rd segment 4.2 times, 4th–10th segments 3.5 times, 11th–21st segments 3.0 times and 22nd (apical segment) 4.0 times as long as its maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, 1.4 times as long as its maximum width. Precoxal sulcus present, weakly crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth areas, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.7 times its maximum width. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r as long as pterostigma width. Vein 3-SR 5.0 times as long as vein r and 1.8 times as long as vein 2-SR. Vein SR1 2.4 times as long as vein 3-SR. Hind wing 5.2 times as long as its maximum width.

LEGS. Hind femur 4.7 times as long as its maximum width. Hind tibia weakly widened towards apex, 9.5 times as long as its maximum subapical width, 1.2 times as long as hind tarsus. First segment of hind tarsus 1.9 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, as long as its apical width, weakly striate. Visible part of ovipositor sheath 3.4 times as long as 1st tergite, 0.8 times as long as metasoma, 1.7 times as long as hind femur.

COLOUR. Mesosoma, metasoma, antennal segments (except apical ones) and pterostigma brown to dark brown. Head, mandible and legs yellow. The last six apical segments of antennae whitish. In dorsal view, head paler than mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 2.1–2.3 mm, fore wing 2.3–2.6 mm, hind wing 1.4–1.7 mm.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. laticlypeata* sp. nov.; the differences between both species are described under the latter species.

Distribution

Uganda.

Asobara natalensis Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:F05C75C7-87E8-4EB1-BD4A-427D15CF442A](https://zoobank.org/urn:lsid:zoobank.org:act:F05C75C7-87E8-4EB1-BD4A-427D15CF442A)

Figs 43–44

Etymology

The name is derived from the geographical area ‘Natal’, the type locality of the species.

Material examined

Holotype

SOUTH AFRICA • ♀; Natal, Van Reenen Drakensberg; Dec. 1926; R.E. Turner leg.; BMNH 1927-25.

Paratype

SOUTH AFRICA • 1 ♀; same collection data as for holotype but Nov. 1926; BMNH 1926-499.

Description

Female (holotype)

LENGTH. Body 2.1 mm, fore wing 2.3 mm, hind wing 1.7 mm.

HEAD. In dorsal view, 1.4 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal crenulate furrow in middle of vertex. Eye in lateral view 1.1 times as high as wide and 1.5 times as wide as temple medially. POL 1.6 times OD; OOL 4.3 times OD. Face 1.6 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.6 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.5 times as long as its maximum width. Upper tooth wide; middle tooth rather wide and long, directed upwards; lower tooth wide. Antennae 22-segmented, 1.2 times as long as body. Scape 1.3 times as long as pedicel. First flagellar segment 3.0 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.7 times, 3rd segment 4.1 times, 4th segment 3.5 times, 5th segment 3.3 times, 6th–19th segments 3.0–3.1 times and 20th (apical segment) 3.5 times as long as its maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Prescutellar depression smooth, with only median carina, 1.2 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching only anterior margin of mesopleuron. Posterior mesopleural furrow crenulate below. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.0 times its maximum width. Marginal cell ending at apex of wing, 4.0 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.8 times as long as vein r and 1.9 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR. Hind wing 5.7 times as long as its maximum width.

LEGS. Hind femur 4.6 times as long as its maximum width. Hind tibia weakly widened to apex, 9.0 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.4 times as long as its apical width, weakly rugose. Visible part of ovipositor sheath 4.8 times as long as 1st tergite, about as long as metasoma, 2.1 times as long as hind femur.

COLOUR. Body, antenna, mandible and pterostigma dark brown. Legs brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. Body 2.0–2.1 mm, fore wing 2.1–2.3 mm.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. carinata* sp. nov.; the differences between both species are described under the latter species.

Distribution

South Africa.

Asobara nigerrima Fischer, 2003

Fig. 45

Asobara nigerrima Fischer, 2003: 80; Yu *et al.* 2016.

Asobara nigerrima – Yu *et al.* 2016.

Material examined

Holotype

SOUTH AFRICA • ♀; “Coastal Province (CP), Umg. Stellenbosch, Schlüpfalle”; Nov. 1986; Pajor leg.; NHMW.

Redescription

Female (holotype)

LENGTH. Body 1.3 mm, fore wing 1.4 mm, hind wing 1.0 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.8 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as wide as temple medially. Face 1.7 times as wide

as high. Clypeus 2.0 times as wide as high. Mandible 1.7 times as long as its maximum width. Upper tooth wide; middle tooth narrow and long; lower tooth wide. Antennae 21-segmented. First flagellar segment 3.5 times as long as its apical width; 2nd segment 4.5 times and 3rd segment 3.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 1.2 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with lateral carinae, 1.3 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.8 times as long as vein r and 2.7 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR.

LEGS. Hind femur 5.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.5 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 4.1 times as long as 1st tergite, about as long as metasoma, 2.0 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma dark brown to black. Legs yellow. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. malawiana* Fischer, 2007; the differences between both species are described under the latter species.

Distribution

South Africa (Yu *et al.* 2016).

Asobara notleyi Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:44372037-8275-499C-949D-04151E9AF3DD](https://doi.org/urn:lsid:zoobank.org:act:44372037-8275-499C-949D-04151E9AF3DD)

Figs 46–47

Etymology

Named in honour of F.B. Notley, British entomologist, who collected the type specimens.

Material examined

Holotype

KENYA • ♀; Colony Sotik; 1932; F.B. Notley leg.; BMNH.

Paratypes

KENYA • 11 ♀♀, 1 ♂; same label as for holotype; BNHM • 2 ♀♀, 1 ♂; same label as for holotype; ZISP.

Description

Female (holotype)

LENGTH. Body 1.6 mm, fore wing 1.8 mm, hind wing 1.4 mm.

HEAD. In dorsal view, 1.5 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal crenulate furrow in middle of vertex. Eye in lateral view 1.1 times as high as wide and 1.6 times as wide as temple medially. POL 1.4 times OD; OOL 3.4 times OD. Face 1.3 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.0 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.4 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and short; lower tooth short. Antennae more than 9-segmented (apical segments missing). Scape 1.7 times as long as pedicel. First flagellar segment 2.6 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 4.0 times, 3rd segment 3.3 times, 4th–7th segments 2.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 1.1 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with median and lateral carinae, 1.2 times as long as its maximum width. Precoxal sulcus present, smooth, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth areas; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracles small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.4 times its maximum width. Marginal cell ending at apex of wing, 3.5 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.7 times as long as vein r and 2.7 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR. Hind wing 5.7 times as long as its maximum width.

LEGS. Hind femur 4.1 times as long as its maximum width. Hind tibia weakly widened to apex, 8.3 times as long as its maximum subapical width, 1.1 times as long as hind tarsus. First segment of hind tarsus 1.7 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 1.6 times as long as 1st tergite, 0.4 times as long as metasoma, 0.9 times as long as hind femur.

COLOUR. Body, antennae and pterostigma dark brown. Mandible and legs brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. Body 1.4–1.6 mm, fore wing 1.5–1.9 mm, hind wing 1.2–1.4 mm. Antennae more than 11-segmented (apical segments missing). First flagellar segment 2.6–2.7 times as long as its maximum width. Hind femur 4.0–4.1 times as long as its maximum width.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. abyssiniensis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Kenya.

Asobara pulchricornis (Szépligeti, 1911) comb. nov.

Figs 48–49

Phaenocarpa pulchricornis Szépligeti, 1911: 329.

Phaenocarpa pulchricornis – Fischer 1963: 213. — Papp 1966: 134. — Shenefelt 1974: 1013.
— Yu *et al.* 2016.

Material examined

Holotype

UGANDA • ♀; “Nördl.v.Alb. Edw, See Ruwensori Westsente”; 1800 m a.s.l.; 2 Aug [Exped.: Herzog Adolf Friedrich z. Mecklenburg]; NHMB.

Redescription

Female (holotype)

LENGTH. Body 2.2 mm, fore wing 2.6 mm, hind wing 1.7 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.9 times as wide as temple medially. POL 1.0 times OD; OOL 3.5 times OD. Face 1.3 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 4.8 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far from reaching inner border of eye. Mandible 1.9 times as long as its maximum width. Upper tooth wide and obtuse; middle tooth rather narrow and long; lower tooth short. Antennae 24-segmented, 1.6 times as long as body. First flagellar segment 3.1 times as long as its apical width; 2nd segment 5.8 times and 3rd segment 5.3 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.8 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval-elongate. Prescutellar depression smooth, without lateral carinae, about as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum with several smooth patches, with large, thin and mainly smooth pentagonal areola; basolateral areas smooth. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.3 times its maximum width. Marginal cell ending at apex of wing, 4.7 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 9.1 times as long as vein r and 2.8 times as long as vein 2-SR. Vein SR1 2.2 times as long as vein 3-SR. Hind wing 5.9 times as long as its maximum width.

LEGS. Hind femur 5.0 times as long as its maximum width. Hind tibia weakly widened to apex, 11.0 times as long as its maximum subapical width, 1.1 times as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.3 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 2.8 times as long as 1st tergite, 0.8 times as long as metasoma and 1.3 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma brown. Legs yellow. Last seven apical segments of antennae whitish. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. caboverdensis* sp. nov., but differs from it in having the 1st metasomal tergite 1.3 times as long as its apical width (1.0 times in *A. caboverdensis*), mandible 1.9 times as long as its maximum width (1.6 times in *A. caboverdensis*), upper tooth obtuse (curved in *A. caboverdensis*), clypeus 4.8 times as wide as high (2.5 times in *A. caboverdensis*), and mesoscutal pit oval-elongate (round in *A. caboverdensis*).

Distribution

Uganda (Yu *et al.* 2016).

Asobara robusta van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:4D250103-1984-45B0-A26F-1BEF075C5D79](https://zoobank.org/act:4D250103-1984-45B0-A26F-1BEF075C5D79)

Figs 50–51

Etymology

Specific name after the Latin ‘robustus’, meaning ‘hard, strong, robust’, and referring to the comparatively robust hind basitarsus.

Material examined

Holotype

DEMOCRATIC REPUBLIC OF THE CONGO • ♀; Lubumbashi; 16–17 Dec. 1969; light trap; A.B. Stam leg.; RMNH 7597.

Description

Female (holotype)

LENGTH. Body 2.6 mm, fore wing 2.6 mm, hind wing 1.8 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal crenulate furrow in middle of vertex. Eye in lateral view 1.2 times as high as wide and 1.4 times as wide as temple medially. POL 1.5 times OD; OOL 2.8 times OD. Face 1.6 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.7 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth short. Antennae 27-segmented, 1.3 times as long as body. Scape 1.5 times as long as pedicel. First flagellar segment 3.4 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.8 times, 3rd segment 3.7 times, 4th–5th segments 3.3 times, 6th–9th segments 3.0 times, 10th–13th segments 2.5 times, 14th–24th segments 2.2–2.3 times and 25th (apical segment) 3.2 times as long as their maximum width.

MESOSOMA. In lateral view 1.1 times as long as high. Mesoscutum (in dorsal view) 0.8 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with median and lateral carinae, 1.9 times as long as its maximum width. Precoxal sulcus present, smooth, reaching anterior and posterior margins of

mesopleuron. Posterior mesopleural furrow crenulate. Propodeum weakly and sparsely sculptured, with several smooth patches; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.6 times its maximum width. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r as long as pterostigma width. Vein 3-SR 5.3 times as long as vein r and 1.6 times as long as vein 2-SR. Vein SR1 1.9 times as long as vein 3-SR. Hind wing 5.3 times as long as its maximum width.

LEGS. Hind femur 5.0 times as long as its maximum width. Hind tibia weakly widened to apex, 8.7 times as long as its maximum subapical width and 1.2 times as long as hind tarsus. First segment of hind tarsus 1.6 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.1 times as long as its apical width, weakly striate. Visible part of ovipositor sheath as long as 1st tergite, 0.2 times as long as metasoma and 0.4 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma dark brown. Legs brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. somersetensis* sp. nov., but differs from it in having the eye in lateral view 1.4 times as wide as temple medially (0.8 times in *A. somersetensis* sp. nov.), mandible 1.6 times as long as its maximum width (1.3 times in *A. somersetensis* sp. nov.), head in dorsal view with temple not broadened behind eyes (broadened in *A. somersetensis* sp. nov.), precoxal sulcus reaching anterior and posterior margins of mesopleuron (not reaching in *A. somersetensis* sp. nov.), and visible part of ovipositor sheath 0.2 times as long as metasoma in lateral view (equal to metasoma in *A. somersetensis* sp. nov.).

Distribution

Democratic Republic of the Congo.

Asobara rufimalawiana Fischer, 2007
Figs 52–53

Asobara rufimalawiana Fischer, 2007: 864.

Asobara rufimalawiana – Yu *et al.* 2016.

Material examined

Holotype

MALAWI • ♀; 85 km SE of Lilongwe Dedza; 5–12 Jan. 2002; J. Halada leg.; OLML.

Redescription

Female (holotype)

LENGTH. Body 2.2 mm, fore wing 2.4 mm, hind wing 1.4 mm.

HEAD. In dorsal view, 1.2 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view as wide as temple medially. Face 1.8 times as wide as high. Clypeus as wide as high. Mandible 1.3 times as long as its maximum width. Upper tooth very wide with small protuberance looking like a tooth; middle tooth rather narrow and very long; lower tooth short. Antennae more than 15-segmented (apical segments missing). First flagellar segment 3.0 times as long as its apical width; 2nd segment 4.0 times and 3rd segment 3.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with only median carina, 1.5 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth places, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 5.1 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 4.8 times as long as vein r and 2.2 times as long as vein 2-SR. Vein SR1 2.0 times as long as vein 3-SR.

LEGS. Hind femur 5.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.1 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 4.7 times as long as 1st tergite, 1.3 times as long as metasoma and 2.5 times as long as hind femur.

COLOUR. Head, mandible and antennae reddish-brown. Mesosoma, legs and pterostigma light brown. Metasoma dark brown. In dorsal view, head darker than mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. sarae* sp. nov., but differs from it in having head dorsally darker than mesoscutum, 1.2 times as wide as long (paler and 1.7 times in *A. sarae* sp. nov.), eye in lateral view as long as temple medially (1.6 times in *A. sarae* sp. nov.), clypeus as wide as high (2.4 times in *A. sarae* sp. nov.), mandible 1.3 times as long as its maximum width (1.9 times in *A. sarae* sp. nov.), visible part of ovipositor sheath 1.3 times as long as metasoma in lateral view (0.4 times in *A. sarae* sp. nov.) and vein 3-SR 2.0 times as long as vein 2-SR (1.5 times in *A. sarae* sp. nov.).

Distribution

Malawi (Yu *et al.* 2016).

Asobara sarae Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:0200BF26-171C-49F9-B51F-E10E60ADC885](https://doi.org/10.21203/rs.3.rs-1000000/v1)

Figs 54–55

Etymology

Named in honour Sara Martín González for her valuable help to the first author.

Material examined

Holotype

SOUTH AFRICA • ♀; Cape Province, Mossel Bay; Dec. 1921; R.E. Turner leg.; BMNH 1922-25.

Paratypes

SOUTH AFRICA • 1 ♀; Cape Province, Sarnia; 1 Apr. 1927; BMNH 1927-162 • 1 ♂; same collection data as for holotype but May 1930; BMNH 1930-266.

Description

Female (holotype)

LENGTH. Body 2.3 mm, fore wing 2.3 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as high as wide and 1.6 times as wide as temple medially. POL 0.2 times OD; OOL 2.5 times OD. Face 1.9 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.4 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.9 times as long as its maximum width. Upper tooth wider than lower tooth; middle tooth rather narrow and long; lower tooth short. Antennae more than 21-segmented (apical segments missing). Scape 1.5 times as long as pedicel. First flagellar segment 2.5 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 4.0 times, 3rd segment 3.8 times, 4th segment 3.6 times, 5th–11th segments 3.3 times, 12th–17th segments 2.9 times and 18th–19th segments 2.6 times as long as their maximum width, respectively.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, 1.4 times as long as its maximum width. Precoxal sulcus present, smooth, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparsely rugose along carinae. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.5 times its maximum width. Marginal cell ending at apex of wing, 4.1 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 8.2 times as long as vein r and 1.8 times as long as vein 2-SR. Vein SR1 2.1 times as long as vein 3-SR. Hind wing 5.9 times as long as its maximum width.

LEGS. Hind femur 4.7 times as long as its maximum width. Hind tibia weakly widened to apex, 8.3 times as long as its maximum subapical width, 1.1 times as long as hind tarsus. First segment of hind tarsus 1.8 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.3 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 1.7 times as long as 1st tergite, 0.4 times as long as metasoma and as long as hind femur.

COLOUR. Head, mandible and legs light brown. Mesosoma, metasoma, antennae and pterostigma brown to dark brown. In dorsal view, head paler than mesoscutum. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 2.1–2.3 mm, fore wing 2.1–2.3 mm, hind wing 1.4–1.5 mm. Hind femur 4.7–4.8 times as long as its maximum width.

Male

Length. Body 2.0 mm, fore wing 2.4 mm, hind wing 1.9 mm. First flagellar segment 2.8 times as long as its maximum width; 2nd segment 4.4 times and 3rd segment 4.0 times as long as their maximum width. Hind femur 5.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. rufimalawiana* Fischer, 2007; the differences between both species are described under the latter species.

Distribution

South Africa.

Asobara somersetensis Peris-Felipo, sp. nov.

urn:lsid:zoobank.org:act:821BADD1-9A63-49C1-A380-DCB8C629A641

Figs 56–57

Etymology

The name is derived from the geographical area ‘Somerset’, the type locality of the species.

Material examined

Holotype

SOUTH AFRICA • ♀; Cape Province, Somerset East; 10–22 Dec. 1930; R.E. Turner leg.; BMNH 1931-37.

Paratypes

SOUTH AFRICA • 3 ♂♂; same data as for holotype; BMHN • 1 ♂; same data as for holotype; ZISP • 1 ♂; same collection data as for holotype but 1–26 Jan. 1931; BMNH.

Description

Female (holotype)

LENGTH. Body 4.0 mm, fore wing 3.9 mm, hind wing 2.8 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.6 times as wide as mesoscutum, smooth, with temple rounded behind eyes, with distinct longitudinal crenulate furrow in middle of vertex. Eye in lateral view 1.6 times as high as wide and 0.8 times as wide as temple medially. POL 1.4 times OD; OOL 3.8 times OD. Face 1.5 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.3 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.3 times as long as its maximum width. Upper tooth very wide; middle tooth rather wide and short; lower tooth wide. Antennae 31-segmented, 1.2 times as long as body. Scape 1.8 times as long as pedicel. First flagellar segment 3.4 times as long as its apical width, 0.6 times as long as 2nd segment. Second flagellar segment 5.3 times, 3rd–5th segments 4.0 times, 7th–10th segments 3.6 times, 11th–13th segments 3.0 times, 14th–19th segments 2.6 times, 20th–28th segments 2.2 times, and 29th (apical segment) 2.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 1.1 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression sculptured, with only median carina, 1.3 times as long as its maximum width. Precoxal sulcus present, smooth, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum sculptured, with basolateral areas

rugose. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.6 times its maximum width. Marginal cell ending at apex of wing, 3.9 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.1 times as long as vein r and 1.6 times as long as vein 2-SR. Vein SR1 2.0 times as long as vein 3-SR. Hind wing 5.4 times as long as its maximum width.

LEGS. Hind femur 5.3 times as long as its maximum width. Hind tibia weakly widened to apex, 10.3 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 2.2 times as long as 2nd segment.

METASOMA. First tergite widened towards apex, 1.3 times as long as its apical width, mainly smooth. Visible part of ovipositor sheath 4.6 times as long as 1st tergite, 0.9 times as long as metasoma and 1.9 times as long as hind femur.

COLOUR. Body, antennae and pterostigma dark brown. Mandible and legs light brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

Male

Length. Body 3.0–3.2 mm, fore wing 3.2–3.4 mm, hind wing 2.1–2.4 mm. Antennae more than 30-segmented (apical segment(s) missing). First flagellar segment 3.3 times as long as its maximum width; 2nd segment 5.6 times and 3rd segment 4.5 times as long as their maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. robusta* sp. nov.; the differences between both species are described under the latter species.

Distribution

South Africa.

Asobara stubbsi Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:82A96586-F1B0-4EA8-A30D-C0834FC6F7F9](https://zoobank.org/urn:lsid:zoobank.org:act:82A96586-F1B0-4EA8-A30D-C0834FC6F7F9)

Figs 58–59

Etymology

Named in honour of A.E. Stubbs, British entomologist, who collected the type specimens.

Material examined

Holotype

KENYA • ♀; Kakamega Forest; 18 Dec. 1970; A.E. Stubbs leg.; BMNH 1972-211.

Paratypes

KENYA • 1 ♀; same collection data as for holotype; BMNH • 10 ♀♀; same collection data as for holotype but 20 Dec. 1970; BMNH • 2 ♀♀; same collection data as for preceding; ZISP • 1 ♀; Kisumu, Victoria Lake; 17–19 Dec. 1970; BMNH.

Description

Female (holotype)

LENGTH. Body 2.6 mm, fore wing 3.0 mm, hind wing 2.1 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.8 times as wide as temple medially. POL equal to OD; OOL 4.3 times OD. Face 1.8 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 1.8 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth wide; middle tooth rather wide and short; lower tooth wide. Antennae 22-segmented, 1.5 times as long as body. Scape 1.5 times as long as pedicel. First flagellar segment 3.0 times as long as its apical width, 0.5 times as long as 2nd segment. Second flagellar segment 7.2 times, 3rd–4th segments 5.0 times, 5th–6th segments 4.5 times, 7th–9th segments 4.0 times, 10th–13th segments 3.3 times, 14th–19th segments 2.8–3.0 times, 20th (apical) segment 4.0 times as long as its maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with only median carina, 0.8 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum weakly and sparsely sculptured, with several smooth places, with large, narrow and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.3 times its maximum width. Marginal cell ending at apex of wing, 3.8 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.6 times as long as vein r and 3.1 times as long as vein 2-SR. Vein SR1 1.7 times as long as vein 3-SR. Hind wing 5.0 times as long as its maximum width.

LEGS. Hind femur 5.2 times as long as its maximum width. Hind tibia weakly widened to apex, 11.0 times as long as its maximum subapical width and 0.9 times as long as hind tarsus. First segment of hind tarsus 1.8 times as long as 2nd segment.

METASOMA. First tergite parallel-sided, 2.3 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 1.4 times as long as 1st tergite, 1.1 times as long as metasoma and 3.3 times as long as hind femur.

COLOUR. Body, antennae (except apically) and pterostigma dark brown. Mandible and legs light brown. Eleven apical segments paler than preceding segments. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 2.4–2.6 mm, fore wing 2.7–3.0 mm, hind wing 1.9–2.1 mm. Antennae 21–22-segmented. First flagellar segment 3.0–3.1 times as long as its maximum width. Hind femur 5.0–5.2 times as long as its maximum width.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. subdentata* (Granger, 1949) and *A. harrinmithensis* sp. nov., but differs from them in having the face 1.8 times as wide as high (1.2 times in *A. subdentata* and 1.4 times in *A. harrinmithensis* sp. nov.), 1st flagellar segment 3.0 times as long as its maximum width (3.9 and 4.5

times in *A. harrinmithensis* sp. nov. and *A. subdentata*, respectively), 2nd segment 7.2 times (8.3 and 5.8 times in *A. harrinmithensis* sp. nov. and *A. subdentata*, respectively), 3rd segment 5.8 times (6.7 and 3.3 times in *A. harrinmithensis* sp. nov. and *A. subdentata*, respectively), and 1st metasomal tergite 2.3 times as long as its apical width (1.4 and 1.5 times in *A. harrinmithensis* sp. nov. and *A. subdentata*, respectively); additionally mesoscutal pit elongate (oval in *A. subdentata*) and hind femur 5.2 times as long as its maximum width (5.8 times in *A. harrinmithensis* sp. nov.).

Distribution

Kenya.

Asobara subdentata (Granger, 1949)

Figs 60–61

Phaenocarpa subdentata Granger, 1949: 404.

Phaenocarpa subdentata – Fischer 1963: 213. — Papp 1966: 134. — Shenefelt 1974: 1016.

Asobara subdentata Fischer, 2007: 860.

Asobara subdentata – Yu *et al.* 2016.

Material examined

Holotype

MADAGASCAR • ♀; “Tanarive, Dec. 1929”; A. Seyrig leg.; MNHN.

Redescription

Female (holotype)

LENGTH. Body 2.0 mm, fore wing 2.3 mm, hind wing 1.6 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.6 times as wide as temple medially. Face 1.2 times as wide as high. Clypeus 2.5 times as wide as high. Mandible 1.7 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 22-segmented. First flagellar segment 4.5 times as long as its apical width; 2nd segment 5.8 times and 3rd segment 3.3 times as long as their maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) 1.2 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, 1.3 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, narrow and mainly smooth pentagonal areola; basolateral areas smooth, sparsely rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.3 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 7.1 times as long as vein r and 1.8 times as long as vein 2-SR. Vein SR1 1.7 times as long as vein 3-SR.

LEGS. Hind femur 5.0 times as long as its maximum width.

METASOMA. First tergite widened towards apex, 1.5 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 0.9 times as long as 1st tergite, 0.2 times as long as metasoma and 0.5 times as long as hind femur.

COLOUR. Body, antennae (except apically), mandible and pterostigma dark brown. Legs and last seven flagellar segments yellow. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. harrinmithensis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Madagascar (Yu *et al.* 2016).

Asobara taylori Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:E4E7CF2E-F1CF-4C1D-9D4C-D3DF2D7C0CDB](https://zoobank.org/act:E4E7CF2E-F1CF-4C1D-9D4C-D3DF2D7C0CDB)

Figs 62–63

Etymology

Named in honour of T.H.C. Taylor, British entomologist, who collected most of the type specimens.

Material examined

Holotype

UGANDA • ♀; Kawanda; Jun. 1943; T.H.C. Taylor leg.; BMNH.

Paratypes

UGANDA • 2 ♀♀, 1 ♂; same collection data as for holotype but Jun. 1943 and Jul. 1943; BMNH • 1 ♀; same collection data as for preceding; ZISP • 1 ♀; Misigo, Ruwenzori Range; 8550 ft a.s.l.; 2–3 Aug. 1952; D.S. Fletcher leg.; BMNH 1952-566.

Description

Female (holotype)

LENGTH. Body 1.8 mm, fore wing 2.1 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.7 times as wide as temple medially. POL 1.2 times OD; OOL 3.3 times OD. Face 1.5 times as wide as high; inner margins of eyes subparallel. Clypeus 2.0 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.9 times as long as its maximum width. Upper tooth very wide; middle tooth rather narrow and long; lower tooth shorter than upper tooth. Antennae 23-segmented, 1.2 times as long as body. Scape 1.7 times as long as pedicel. First flagellar segment 3.3 times as long as its apical width, 0.5 times as long as 2nd segment. Second flagellar segment 4.9 times, 3rd segment 4.3 times, 4th segment 3.6 times, 5th segment 3.1 times, 6th–7th segments 2.9 times, 8th–9th segments 2.6 times, 10th–20th segments 2.1–2.2 times, 21st (apical segment) 3.5 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow almost smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparsely rugose along carinae. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.7 times its maximum width. Marginal cell ending at apex of wing, 3.3 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.5 times as long as vein r and 1.5 times as long as vein 2-SR. Vein SR1 2.6 times as long as vein 3-SR. Hind wing 6.1 times as long as its maximum width.

LEGS. Hind femur 5.2 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width and 1.1 times as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.3 times as long as its apical width, weakly striate. Visible part of ovipositor sheath about as long as 1st tergite, 0.4 times as long as metasoma and 0.7 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma brown. Legs light brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.1 mm, fore wing 2.1–2.2 mm. Antennae 21–23-segmented. Hind femur 5.0–5.2 times as long as its maximum width.

Male

Length. Body 1.6 mm, fore wing 2.2 mm, hind wing 1.2 mm. First flagellar segment 3.2 times as long as its maximum width; 2nd segment 6.6 times and 3rd segment 4.3 times as long as their maximum width. Hind femur 5.4 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. caboverdensis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Uganda.

Asobara transversaria Fischer, 2007

Figs 64–65

Asobara transversaria Fischer, 2007: 866.

Asobara transversaria – Yu *et al.* 2016.

Material examined

Holotype

MALAWI • ♀; “Viphya Forest Res. Luwana Dam.”; 30 Dec. 2001; J. Halada leg.; OLMML.

Redescription

Female (holotype)

LENGTH. Body 2.1 mm, fore wing 2.7 mm, hind wing 1.9 mm.

HEAD. In dorsal view, 1.4 times as wide as long, 1.5 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 2.3 times as wide as temple medially. Face 1.5 times as wide as high. Clypeus 1.6 times as wide as high. Mandible 1.5 times as long as its maximum width. Upper tooth very wide with small protuberance looking like a tooth; middle tooth rather narrow and very long; lower tooth short. Antennae 27-segmented. First flagellar segment 3.0 times as long as its apical width; 2nd segment 6.0 times and 3rd segment 3.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior margin of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 4.1 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 8.0 times as long as vein r, 2.5 times as long as vein 2-SR. Vein SR1 2.1 times as long as vein 3-SR.

LEGS. Hind femur 5.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.6 times as long as its apical width, smooth. Visible part of ovipositor sheath as long as 1st tergite, 0.4 times as long as metasoma, 0.4 times as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma dark brown. Legs brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. epiclypealis* Fischer, 2003; the differences between both species are described under the latter species.

Distribution

Malawi (Yu *et al.* 2016).

Asobara turneri Peris-Felipo, 2014

Figs 66–67

Asobara turneri Peris-Felipo *et al.*, 2014a: 697.

Asobara turneri – Yu *et al.* 2016.

Material examined

Holotype

SOUTH AFRICA • ♀; E. Cape Prov., Katberg; 4000 ft [= 1220 m a.s.l.]; Dec. 1932; R.E. Turner leg.; BMNH 1933-69.

Paratypes

SOUTH AFRICA • 1 ♀; E. Cape Prov., Katberg; 19–26 Feb. 1933; R.E. Turner leg.; BMNH 1933-175 • 1 ♂; Cape Province, Somerset East; 10–22 Dec. 1930; R.E. Turner leg.; BMNH, 1931-37.

Description

Female (holotype)

LENGTH. Body 3.6–3.8 mm, fore wing 4.6–4.7 mm, hind wing 3.1 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.4 times as wide as temple medially. Face 1.6 times as wide as high. Clypeus 1.6 times as wide as high. Mandible 1.1 times as long as its maximum width. Upper tooth of mandible longer than lower tooth; middle tooth wide basally and narrowed towards apex, pointed apically; lower tooth rounded apically. Antennae 26–31-segmented. First flagellar segment 3.6–3.7 times as long as its apical width; 2nd segment 6.4–6.5 times and 3rd segment 4.8 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 1.1 times as long as its maximum width. Notauli complete, finely crenulate, reaching anteriorly mesoscutal mid pit. Mesoscutal pit present, elongate. Prescutellar depression sculptured, with lateral carinae, 1.3 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow crenulate. Propodeum sculptured, with complete medio-longitudinal carina, completely sculptured in apical half. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 7.0 times as long as vein r and 1.9 times as long as vein 2-SR. Vein SR1 1.7 times as long as vein 3-SR.

LEGS. Hind femur 6.7 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.3 times as long as its apical width, sculptured. Visible part of ovipositor sheath 4.6 times as long as 1st tergite, 1.3 times as long as metasoma and 2.0 times as long as hind femur.

COLOUR. Body dark brown. Legs brown. Wings hyaline. Pterostigma brown. In dorsal view, head darker than mesoscutum. First–third metasomal tergites similarly coloured. Wings hyaline.

Male

Length. Body length 3.7 mm; fore wing length 3.3 mm. Antennae 27-segmented. First flagellar segment 3.5 times as long as its maximum width; 2nd segment 7.6 times as long as its maximum width and 2.2 times as long as 1st segment. Hind femur 5.9 times as long as its maximum width.

Comparative diagnosis

This species is similar to *A. fletcheri* sp. nov.; the differences between both species are described under the latter species.

Distribution

South Africa (Peris-Felipo *et al.* 2014a).

Asobara ugandensis Fischer, 2007

Figs 68–69

Asobara ugandensis Fischer 2007: 867.

Asobara ugandensis – Yu *et al.* 2016.

Material examined

Holotype

UGANDA • ♀; “CW Kasese Kilembe E Ruwenzori”; 23 Nov. 2001; M. Snizek leg.; OLML.

Redescription

Female (holotype)

LENGTH. Body 4.6 mm, fore wing 5.0 mm, hind wing 3.3 mm.

HEAD. In dorsal view, 2.0 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as wide as temple medially. Face 1.6 times as wide as high. Clypeus 2.0 times as wide as high. Mandible 1.5 times as long as its maximum width. Upper tooth wide; middle tooth very wide and rather short; lower tooth wide. Antennae 24-segmented. First flagellar segment 3.5 times as long as its apical width; 2nd segment 6.3 times and 3rd segment 4.8 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 1.3 times as long as its maximum width. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit absent. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum sculptured, with basolateral areas rugose. Propodeal spiracle small, its diameter 0.2 times distance from spiracle to anterior margin of propodeum.

WINGS. Marginal cell ending at apex of wing, 3.8 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 5.0 times as long as vein r and 1.8 times as long as vein 2-SR. Vein SR1 1.6 times as long as vein 3-SR.

LEGS. Hind femur 6.0 times as long as its maximum width.

METASOMA. First tergite weakly widened towards apex, 1.1 times as long as its apical width, smooth. Visible part of ovipositor sheath 2.9 times as long as 1st tergite, 0.9 times as long as metasoma and 1.5 times as long as hind femur.

COLOUR. Body, antennae and pterostigma dark brown. Mandible and legs yellow. In dorsal view, head darker than mesoscutum. First–third metasomal tergites similarly coloured. Wings hyaline.

Male

Unknown.

Comparative diagnosis

This species is similar to *A. kawandensis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Uganda (Yu *et al.* 2016).

Asobara vanalpheni van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:1C92A206-D155-4776-99F4-A9C62BBCCE1D](https://zoobank.org/act:1C92A206-D155-4776-99F4-A9C62BBCCE1D)

Figs 70–71

Etymology

Named in honour of Jacques van Alphen, the well-known Dutch entomologist and researcher of the biology of *Asobara* spp., who collected the specimens.

Material examined

Holotype

TANZANIA • ♀; Nyegezi; 17–28 Nov. 1990; ex *Zaprionus* sp. [Drosophilidae]; J. v. Alphen leg.; RMNH.

Paratypes

TANZANIA • 10 ♀♀, 4 ♂♂; same collection data as for holotype; RMNH • 1 ♀, 1 ♂; same collection data as for holotype; FJPF • 2 ♀♀, 1 ♂; same collection data as for holotype; ZISP.

Description

Female (holotype)

LENGTH. Body 2.1 mm, fore wing 2.1 mm, hind wing 1.5 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.3 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view about as high as wide and 1.6 times as wide as temple medially. POL 1.4 times OD; OOL 2.8 times OD. Face 1.4 times as wide as high; inner margins of eyes subparallel. Clypeus 3.0 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth as long as lower tooth; middle tooth rather narrow and short, directed upwards; lower tooth wide. Antennae 20-segmented, 1.1 times as long as body. Scape 1.8 times as long as pedicel. First flagellar segment 2.5 times as long as its apical width, 1.2 times as long as 2nd segment. Second flagellar segment 3.8 times, 3rd segment 3.2 times, 4th segment 2.9 times, 5th–6th segments 2.4 times, 7th–13th segments 2.3 times, 14th–17th segments 2.0 times and 18th (apical segment) 2.2 times as long as their maximum width.

MESOSOMA. In lateral view 1.4 times as long as high. Mesoscutum (in dorsal view) 0.8 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, 1.2 times as long as its maximum width. Precoxal sulcus present, smooth, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum smooth with narrow areola. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.6 times its maximum width. Marginal cell ending at apex of wing, 3.2 times as long as its maximum width. Vein r short than pterostigma width. Vein 3-SR 4.7 times as long as vein r and 1.6 times as long as vein 2-SR. Vein SR1 2.5 times as long as vein 3-SR. Hind wing 8.1 times as long as its maximum width.

LEGS. Hind femur 5.0 times as long as its maximum width. Hind tibia weakly widened to apex, 7.5 times as long as its maximum subapical width and 1.2 times as long as hind tarsus. First segment of hind tarsus 2.2 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, as long as its apical width, almost smooth. Visible part of ovipositor sheath 2.7 times as long as 1st tergite, 0.6 times as long as metasoma and 1.1 times as long as hind femur.

COLOUR. Body, antennae (except apically), metasoma and pterostigma brown. Legs, face, mandible, scapus and pedicel light brown. Four apical segments paler than other antennal segments. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.3 mm, fore wing 2.1–2.5 mm, hind wing 1.4–1.7 mm. First flagellar segment 2.5–2.6 times and 2nd segment 3.8–4.0 times as long as their maximum width. Hind femur 4.8–5.0 times as long as its maximum width.

Male

Length. Body 1.9–2.2 mm, fore wing 1.6–1.8 mm, hind wing 1.2–1.3 mm. Antennae 21-segmented. First flagellar segment 3.7–4.0 times as long as its maximum width; 2nd segment 6.0–6.7 times and 3rd segment 5.6–5.8 times as long as their maximum width. Hind femur 4.8–5.0 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. zaprionae* sp. nov., but differs from it in having clypeus 3.0 times as wide as high (2.5 times in *A. zaprionae* sp. nov.), diameter of propodeal spiracles 0.2 times distance from spiracle to anterior margin of propodeum (0.5 times in *A. zaprionae* sp. nov.), precoxal sulcus smooth (crenulate in *A. zaprionae* sp. nov.), and 1st flagellar segment 2.5 times as long as its maximum width in female (1.7 times in female and 4.0 times in male in *A. zaprionae* sp. nov.).

Distribution

Tanzania.

Asobara vanharteni van Achtenberg, sp. nov.

[urn:lsid:zoobank.org:act:7A8F918B-4F2C-4BC7-8CBE-7ADA660C5205](https://zoobank.org/act:7A8F918B-4F2C-4BC7-8CBE-7ADA660C5205)

Figs 72–73

Etymology

Named in honour of Tony van Harten, the well-known Dutch entomologist and collector of the type specimens.

Material examined

Holotype

YEMEN • ♀; Ta'izz; 26–28 Jul. 1999; light trap; A. v. Harten and A. Awad leg.; RMNH.

Paratypes

YEMEN • 2 ♀♀; same collection data as for holotype; RMNH • 1 ♀; same locality as for holotype but Aug. 1999; RMNH • 1 ♀; same locality as for holotype but Sep. 1999; RMNH • 2 ♀♀; same locality as for holotype but Oct. 1999; RMNH • 1 ♀; same locality as for holotype but Oct. 1999; FJPF • 1 ♀; same locality as for holotype but Nov. 1999; RMNH • 1 ♀; same locality as for holotype but Nov. 1999; ZISP • 2 ♀♀; same locality as in holotype but May–Jun. 2000; light trap; RMNH • 1 ♀; same locality as for holotype but Sep.–Oct. 2001; RMNH • 1 ♀; Al Kadan; May 2002; light trap; A. v. Harten and A.R. Al Yarimi leg.; RMNH • 1 ♀; Al Kowd; Oct. 2000; light trap; A. v. Harten and S. Al Haruri leg.; RMNH •

2 ♀♀; Al Lahima; 17 Sep. 2000?–14 Feb. 2001, 14 Nov. 2001–6 Mar. 2002; Malaise trap; A. v. Harten leg.; RMNH.

Description

Female (holotype)

LENGTH. Body 1.6 mm, fore wing 1.8 mm, hind wing 1.1 mm.

HEAD. In dorsal view, 1.6 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as high as wide and 3.0 times as wide as temple medially. POL 0.9 times OD; OOL 3.3 times OD. Face 1.2 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 3.3 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.7 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 19-segmented, 1.5 times as long as body. Scape 1.2 times as long as pedicel. First flagellar segment 2.9 times as long as its apical width, 0.5 times as long as 2nd segment. Second flagellar segment 6.1 times, 3rd segment 5.2 times, 4th–6th segments 4.8 times, 7th–10th segments 4.4 times, 11th–16th segments 4.0 times and 17th (apical segment) 4.4 times as long as their maximum width.

MESOSOMA. In lateral view 1.2 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth, sparsely setose. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.5 times as long as its maximum width. Precoxal sulcus present, weakly crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.8 times its maximum width. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r longer than pterostigma width. Vein 3-SR 4.8 times as long as vein r and 2.4 times as long as vein 2-SR. Vein SR1 2.3 times as long as vein 3-SR. Hind wing 6.5 times as long as its maximum width.

LEGS. Hind femur 4.0 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 1.9 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width, smooth. Visible part of ovipositor sheath 3.2 times as long as 1st tergite, 0.9 times as long as metasoma and 1.6 times as long as hind femur.

COLOUR. Body, antennal flagellar segments (except apically), mandible, and pterostigma brown. Legs light brown. Last six apical segments of antennae paler than other segments. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.5–1.8 mm, fore wing 1.7–2.0 mm, hind wing 1.0–1.3 mm. Antennae 19–20-segmented. First flagellar segment 2.8–3.0 times and 2nd segment 6.0–6.2 times as long as their maximum width. Hind femur 3.9–4.0 times as long as its maximum width.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. kibalensis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Yemen.

Asobara victoriana Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:A9B79B41-CA6B-4173-BDD0-FC49692C82BC](https://doi.org/10.3896/BI.2020.103.1.1)

Figs 74–75

Etymology

The name is derived from the geographical area ‘Victoria Lake’, the type locality of the species.

Material examined

Holotype

KENYA • ♀; NE Kisumu near Lake Victoria; 15 m a.s.l.; Nov. 1979; M.D. Croft leg.; BMNH.

Paratypes

KENYA • 8 ♀♀; same collection data as for holotype; BMNH • 2 ♀♀; same collection data as for holotype; ZISP.

ZIMBABWE • 2 ♀♀; Salisbury, Chishawasha; Feb. 1978; A. Watsham leg.; BMNH • 1 ♀; same locality but Mar. 1978; BMNH.

Description

Female (holotype)

LENGTH. Body 2.6 mm, fore wing 2.7 mm, hind wing 1.9 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.4 times as wide as temple medially. POL equal to OD; OOL 4.6 times OD. Face 1.8 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.5 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.7 times as long as its maximum width. Upper tooth short; middle tooth rather wide and short; lower tooth wide. Antennae 24-segmented, 1.4 times as long as body. Scape 1.1 times as long as pedicel. First flagellar segment 2.8 times as long as its apical width, 0.5 times as long as 2nd segment. Second and 3rd flagellar segments 5.0 times, 4th segment 4.4 times, 5th–6th segments 4.0 times, 7th–9th segments 3.6 times, 10th–18th segments 2.8–3.0 times, 19th–21st segments 2.2 times and 22nd (apical segment) 3.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) about as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, elongate. Prescutellar depression sculptured, with median and lateral carinae, 1.3 times as long as its maximum width. Precoxal sulcus present, crenulate, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow almost smooth. Propodeum sculptured, with basolateral areas rugose. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.3 times its maximum width. Marginal cell ending at apex of wing, 4.2 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 6.4 times as long

as vein r and 2.0 times as long as vein 2-SR. Vein SR1 1.9 times as long as vein 3-SR. Hind wing 6.4 times as long as its maximum width.

LEGS. Hind femur 5.0 times as long as its maximum width. Hind tibia weakly widened to apex, 11.5 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 1.6 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 2.0 times as long as 1st tergite, 0.6 times as long as metasoma and as long as hind femur.

COLOUR. Body, mandible, antennae, legs and pterostigma brown to dark brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. Body 2.4–2.7 mm, fore wing 2.5–2.9 mm, hind wing 1.6–2.0 mm. Antennae 24–25-segmented. First flagellar segment 2.6–2.8 times as long as its maximum width.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. elongitarsis* sp. nov.; the differences between both species are described under the latter species.

Distribution

Kenya, Zimbabwe.

Asobara zaprionae van Achterberg, sp. nov.

[urn:lsid:zoobank.org:act:8F260D75-73E4-4BAF-8FEB-A16447D18356](https://zoobank.org/act:8F260D75-73E4-4BAF-8FEB-A16447D18356)

Figs 76–77

Etymology

The specific name is derived from the host of the reared specimens (*Zaprionus* sp., Drosophilidae).

Material examined

Holotype

TANZANIA • ♀; Nyegezi; 17–28 Nov. 1990; ex *Zaprionus* sp. [Drosophilidae]; J. v. Alphen leg.; RMNH.

Paratypes

TANZANIA • 3 ♀♀, 1 ♂; same collection data as for holotype; RMNH • 1 ♀; same collection data as for holotype; FJPF • 1 ♀, 1 ♂; same collection data as for holotype; ZISP.

Description

Female (holotype)

LENGTH. Body 1.9 mm, fore wing 2.0 mm, hind wing 1.3 mm.

HEAD. In dorsal view, 1.8 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 1.7 times as wide as temple medially. POL 1.3 times OD; OOL 3.3 times OD. Face 1.5 times as wide as high; inner margins of eyes

subparallel. Clypeus 2.5 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.7 times as long as its maximum width. Upper tooth wide; middle tooth rather narrow and long; lower tooth wide. Antennae 20-segmented, 1.2 times as long as body. Scape 1.2 times as long as pedicel. First flagellar segment 2.7 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 3.3 times, 3rd segment 3.1 times, 4th–6th segments 2.8 times, 8th–16th segments 2.3 times, 17th segment 2.0 times, 18th (apical segment) 2.9 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, 1.2 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, narrow and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.5 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.6 times its maximum width. Marginal cell ending at apex of wing, 3.7 times as long as its maximum width. Vein r as long as pterostigma width. Vein 3-SR 4.2 times as long as vein r and 1.8 times as long as vein 2-SR. Vein SR1 2.3 times as long as vein 3-SR. Hind wing 6.2 times as long as its maximum width.

LEGS. Hind femur 4.8 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width and 1.3 times as long as hind tarsus. First segment of hind tarsus 2.0 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.2 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 2.0 times as long as 1st tergite, 0.8 times as long as metasoma, as long as hind femur.

COLOUR. Mesosoma, metasoma, antennae and pterostigma brown to dark brown. Head, mandible and legs light brown. Head and mesoscutum in dorsal view similarly coloured. First metasomal tergite paler than 2nd and 3rd tergites. Wings almost hyaline.

VARIATION. Body 1.9–2.1 mm, fore wing 1.9–2.1 mm, hind wing 1.2–1.3 mm. Antennae 19–20-segmented. First flagellar segment 2.6–2.8 times and 2nd segment 3.3–3.5 times as long as their maximum width. Hind femur 4.8–5.0 times as long as its maximum width.

Male

Length. Body 1.6–1.8 mm, fore wing 1.7–1.9 mm, hind wing 1.4 mm. Antennae 20-segmented. First flagellar segment 3.7 times as long as its maximum width; 2nd segment 4.3 times and 3rd segment 5.2 times as long as their maximum width. Hind femur 4.6 times as long as its maximum width. Otherwise similar to female.

Comparative diagnosis

This new species is similar to *A. vanalpheni* sp. nov.; the differences between both species are described under the latter species.

Distribution

Tanzania.

Asobara zimbabweana Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:B52879EA-8C78-4CC4-9436-D5A1B114A236](https://doi.org/10.3897/ejt.557.146)

Figs 78–79

Etymology

Named after Zimbabwe, the country from where the holotype originated.

Material examined

Holotype

ZIMBABWE • ♀; Harare; Dec. 1980; Watsham leg.; BMNH.

Paratypes

DEMOCRATIC REPUBLIC OF THE CONGO • 1 ♀; Lubumbashi; Sep. 1970; A.B. Stam leg.; RMNH.

GUINEA-BISSAU • 1 ♀; Buba; 9–11 Jun. 1989; light trap n° 25; A. van Harten leg.; RMNH.

KENYA • 1 ♀; Gazi; Aug. 1982; R.J. Barnett leg.; BMNH.

ZIMBABWE • 2 ♀♀; same locality as for holotype but Nov. 1981, Nov. 1982; BMNH.

Description

Female (holotype)

LENGTH. Body 1.7 mm, fore wing 1.9 mm, hind wing 1.2 mm.

HEAD. In dorsal view, 1.3 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.1 times as high as wide and 1.7 times as wide as temple medially. POL 1.8 times OD; OOL 4.0 times OD. Face 1.5 times as wide as high; inner margins of eyes subparallel. Clypeus 2.4 times as wide as high, slightly concave ventrally. Anterior tentorial pits short, far not reaching inner border of eye. Mandible almost parallel-sided, 1.8 times as long as its maximum width. Upper tooth very small; middle tooth rather wide and long; lower tooth short and long. Antennae 23-segmented, 1.5 times as long as body. Scape 1.8 times as long as pedicel. First flagellar segment 4.0 times as long as its apical width, 0.7 times as long as 2nd segment. Second flagellar segment 6.3 times, 3rd segment 6.8 times, 4th–6th segments 5.0 times, 7th–14th segments 4.5 times and 15th–21st (apical segments) 3.8 times as long as their maximum width.

MESOSOMA. In lateral view 1.6 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, oval. Prescutellar depression smooth, with only median carina, 0.9 times as long as its maximum width. Precoxal sulcus present, smooth, reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 3.5 times its maximum width. Marginal cell ending at apex of wing, 4.0 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 9.0 times as long as vein r and 1.4 times as long as vein 2-SR. Vein SR1 2.1 times as long as vein 3-SR. Hind wing 5.3 times as long as its maximum width.

LEGS. Hind femur 4.3 times as long as its maximum width. Hind tibia weakly widened to apex, 10.0 times as long as its maximum subapical width and 0.9 times as long as hind tarsus. First segment of hind tarsus 1.6 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.5 times as long as its apical width, weakly striate. Visible part of ovipositor sheath 1.3 times as long as 1st tergite, 0.3 times as long as metasoma and 0.8 times as long as hind femur.

COLOUR. Body, legs, antennae (except apically) and pterostigma yellow to light brown. Last seven apical segments paler than preceding ones. Head dark brown, in dorsal view darker than mesoscutum. First–third metasomal tergites similarly coloured. Wings almost hyaline.

VARIATION. Body 1.6–1.8 mm, fore wing 1.7–2.0 mm, hind wing 1.1–1.3 mm. Antennae 22–23-segmented. Hind femur 4.3–4.5 times as long as its maximum width.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. kovacsi* (Papp, 1996); the differences between both species are described under the latter species.

Distribution

Democratic Republic of the Congo, Guinea-Bissau, Kenya, Zimbabwe.

Asobara zululana Peris-Felipo, sp. nov.

[urn:lsid:zoobank.org:act:D22A9DD7-A5D8-4BC1-85D2-D7CF7A023308](https://zoobank.org/act:D22A9DD7-A5D8-4BC1-85D2-D7CF7A023308)

Figs 80–81

Etymology

The name is derived from the geographical area ‘Zululand’, the type locality of the species.

Material examined

Holotype

SOUTH AFRICA • ♀; Zululand, Eshowe; Jun. 1926; R.E. Turner leg.; BMNH 1926-277.

Paratype

SOUTH AFRICA • 1 ♀; same collection data as for holotype; BMNH.

Description

Female (holotype)

LENGTH. Body 2.0 mm, fore wing 2.6 mm, hind wing 1.8 mm.

HEAD. In dorsal view, 1.7 times as wide as long, 1.4 times as wide as mesoscutum, smooth, with temple rounded behind eyes. Eye in lateral view 1.2 times as high as wide and 2.0 times as wide as temple medially. POL 1.4 times OD; OOL 4.0 times OD. Face 1.5 times as wide as high, with sparse setae; inner margins of eyes subparallel. Clypeus 2.9 times as wide as high. Anterior tentorial pits short, far not reaching inner border of eye. Mandible 1.6 times as long as its maximum width. Upper tooth wide; middle tooth long, directed upwards; lower tooth wide. Antennae 24-segmented, 1.7 times as long as

body. Scape 1.6 times as long as pedicel. First flagellar segment 5.4 times as long as its apical width, 0.8 times as long as 2nd segment. Second flagellar segment 6.7 times, 3rd–6th segments 5.0 times, 7th–9th segments 4.6 times, 10th–21st segments 4.0 times and 22nd (apical segment) 5.0 times as long as their maximum width.

MESOSOMA. In lateral view 1.3 times as long as high. Mesoscutum (in dorsal view) 0.9 times as long as its maximum width, smooth. Notauli mainly absent on horizontal surface of mesoscutum. Mesoscutal pit present, round. Prescutellar depression smooth, with only median carina, 1.1 times as long as its maximum width. Precoxal sulcus present, crenulate, not reaching anterior and posterior margins of mesopleuron. Posterior mesopleural furrow almost smooth. Propodeum weakly and sparsely sculptured, with several smooth patches, with large, wide and mainly smooth pentagonal areola; basolateral areas smooth, sparse rugose along carinae. Propodeal spiracle small, its diameter 0.3 times distance from spiracle to anterior margin of propodeum.

WINGS. Length of fore wing 2.9 times its maximum width. Marginal cell ending at apex of wing, 4.3 times as long as its maximum width. Vein r shorter than pterostigma width. Vein 3-SR 8.6 times as long as vein r and 2.8 times as long as vein 2-SR. Vein SR1 1.8 times as long as vein 3-SR. Hind wing 6.8 times as long as its maximum width.

LEGS. Hind femur 5.9 times as long as its maximum width. Hind tibia weakly widened towards apex, 11.8 times as long as its maximum subapical width, about as long as hind tarsus. First segment of hind tarsus 1.8 times as long as 2nd segment.

METASOMA. First tergite weakly widened towards apex, 1.5 times as long as its apical width, smooth. Visible part of ovipositor sheath 1.5 times as long as 1st tergite, as long as metasoma and as long as hind femur.

COLOUR. Body, mandible, antennae and pterostigma dark brown. Legs light brown. Head and mesoscutum in dorsal view similarly coloured as 1st–3rd metasomal tergites. Wings almost hyaline.

VARIATION. No variation observed.

Male

Unknown.

Comparative diagnosis

This new species is similar to *A. cracentis* sp. nov.; the differences between both species are described under the latter species.

Distribution

South Africa.

Key to Afrotropical species of the genus *Asobara* Foerster, 1863

1. Notauli present on dorsal surface of mesoscutum2
– Notauli absent on dorsal surface of mesoscutum5
2. Eye in lateral view 2.0 times as wide as temple medially. First flagellar segment 3.1 times and 2nd segment 5.9 times as long as their maximum width respectively. Hind femur 4.5 times as long as its maximum width. Body length 2.3 mm. Zambia *A. kapiensis* Fischer, 2007

- Eye in lateral view 1.4–1.5 times as wide as temple medially. First flagellar segment 3.5–4.1 times and 2nd segment 6.5–7.5 times as long as their maximum width respectively. Hind femur 6.0–7.0 times as long as its maximum width 3
- 3. First metasomal tergite 1.3 times as long as its apical width. Mandible 1.1 times as long as its maximum width. Precoxal sulcus not reaching anterior and posterior margins of mesopleuron. Propodeum only with complete median longitudinal carina, without areola. Body length 3.6–3.8 mm. South Africa *A. turneri* Peris-Felipo, 2014
- First metasomal tergite 1.7–2.0 times as long as its apical width. Mandible 1.5–1.8 times as long as its maximum width. Precoxal sulcus reaching anterior and posterior margins of mesopleuron. Propodeum with narrow areola 4
- 4. First flagellar segment 3.5 times, 2nd segment 7.5 times and 3rd segment 6.6 times as long as their maximum width respectively. Hind femur 7.0 times as long as its maximum width. First metasomal tergite similarly coloured as 2nd and 3rd tergites. Body length 2.6–2.8 mm. Kenya *A. kenyaensis* Peris-Felipo, 2014
- First flagellar segment 4.1 times, 2nd segment 6.5 times and 3rd segment 5.5 times as long as their maximum width respectively. Hind femur 6.0 times as long as its maximum width. First metasomal tergite paler than 2nd and 3rd tergites. Body length 1.8–2.1 mm. Uganda *A. fletcheri* sp. nov.
- 5. Precoxal sulcus reaching anterior or anterior and posterior margins of mesopleuron 6
- Precoxal sulcus not reaching anterior and posterior margins of mesopleuron 17
- 6. Precoxal sulcus reaching only anterior margin of mesopleuron 7
- Precoxal sulcus reaching anterior and posterior margins of mesopleuron 8
- 7. Hind femur 5.0 times as long as its maximum width. First flagellar segment 3.0 times, 2nd segment 6.0 times and 3rd segment 3.0 times as long as their maximum width respectively. First metasomal tergite similarly colour as 2nd and 3rd tergites. Visible part of ovipositor sheath 0.4 times as long as metasoma. Body length 1.7 mm. South Africa *A. harrinmithensis* sp. nov.
- Hind femur 5.8 times as long as its maximum width. First flagellar segment 3.9 times, 2nd segment 8.3 times and 3rd segment 6.7 times as long as their maximum width respectively. First metasomal tergite paler than 2nd and 3rd tergites. Visible part of ovipositor sheath 0.9 times as long as metasoma. Body length 2.1 mm. Malawi *A. transversaria* Fischer, 2007
- 8. Vertex medially (dorsal view) with distinct longitudinal and often crenulate furrow 9
- Vertex medially (dorsal view) without longitudinal furrow 10
- 9. Hind femur 4.6 times as long as its maximum width. First metasomal tergite 1.4 times as long as its apical width and similarly colour as 2nd and 3rd tergites. First flagellar segment 3.0 times as long as its maximum width. Head in dorsal view 1.4 times as wide as long. Propodeum with areola. Visible part of ovipositor sheath as long as metasoma. Body length 2.0–2.1 mm. South Africa *A. natalensis* sp. nov.
- Hind femur 5.0 times as long as its maximum width. First metasomal tergite 1.8 times as long as its apical width, paler than 2nd and 3rd tergites. First flagellar segment 3.4 times as long as its maximum width. Head in dorsal view 1.8 times as wide as long. Propodeum without areola. Visible part of ovipositor sheath 0.2 times as long as metasoma. Body length 2.6 mm. D.R.C. *A. robusta* sp. nov.
- 10. Hind femur 3.9–4.3 times as long as its maximum width 11

- Hind femur 4.8–6.0 times as long as its maximum width12
- 11. First metasomal tergite as long as its apical width. Antennae without pale segments apically. First flagellar segment 3.3 times as long as its maximum width. Visible part of ovipositor sheath 1.4 times as long as metasoma in lateral view. Body length 2.8–3.3 mm. D.R.C., Ethiopia, Madagascar, South Africa, Uganda*A. kovacsi* (Papp, 1966)
- First metasomal tergite 1.5 times as long as its apical width. Antennae with pale segments apically. First flagellar segment 4.0 times as long as its maximum width. Visible part of ovipositor sheath 0.3 times as long as metasoma in lateral view. Body length 1.6–1.8 mm. Kenya, Guinea-Bissau, D.R.C., Zimbabwe*A. zimbabwana* sp. nov
- 12. Propodeum with areola distinctly delineated by carinae13
- Propodeum without areola delineated by carinae14
- 13. First metasomal tergite 1.2 times as long as its apical width, similarly colour as 2nd and 3rd tergites. Second flagellar segment 5.0 times as long as its maximum width. Eye in lateral view 1.4 times as wide as temple medially. Visible part of ovipositor sheath 0.6 times as long as metasoma. Body length 2.4–2.7 mm. Kenya, Zimbabwe*A. victoriana* sp. nov.
- First metasomal tergite 2.3 times as long as its apical width, paler than 2nd and 3rd tergites. Second flagellar segment 7.2 times as long as its maximum width. Eye in lateral view 1.8 times as wide as temple medially. Visible part of ovipositor sheath 1.1 times as long as metasoma. Body length 2.4–2.6 mm. Kenya*A. stubbsi* sp. nov.
- 14. Hind femur 4.8–5.0 times as long as its maximum width15
- Hind femur 6.0 times as long as its maximum width16
- 15. Eye in lateral view 1.6 times as wide as temple medially. First flagellar segment 4.5 times, 2nd segment 5.8 and 3rd segment 3.3 times as long as their maximum width respectively. First metasomal tergite paler than 2nd and 3rd tergites. Visible part of ovipositor sheath 0.2 times as long as metasoma. Body length 2.0 mm. Madagascar*A. subdentata* (Granger, 1949)
- Eye in lateral view 2.2 times as wide as temple medially. First flagellar segment 3.5 times, 2nd segment 5.1 and 3rd segment 4.5 times as long as their maximum width respectively. First metasomal tergite similarly coloured as 2nd and 3rd tergites. Visible part of ovipositor sheath 0.8 times as long as metasoma. Body length 2.2 mm. South Africa*A. epiclypealis* Fischer, 2003
- 16. Eye in lateral view 1.1 times as wide as temple medially. First metasomal tergite 1.1 times as long as its maximum width, similarly colour as 2nd and 3rd tergites. Visible part of ovipositor sheath 0.9 times as long as metasoma. Posterior mesopleural furrow smooth. Body length 4.6 mm. Uganda*A. ugandensis* Fischer, 2007
- Eye in lateral view 1.6 times as wide as temple medially. First metasomal tergite 1.8 times as long as its maximum width, paler than 2nd and 3rd tergites. Visible part of ovipositor sheath 1.5 times as long as metasoma. Posterior mesopleural furrow crenulate. Body length 2.5 mm. D.R.C.*A. elongitarsis* sp. nov.
- 17. Vertex medially (dorsal view) with distinct longitudinal and often crenulate furrow18
- Vertex medially (dorsal view) without longitudinal furrow21
- 18. Eye in lateral view 0.8–1.0 times as wide as temple medially. Hind femur 5.0–5.3 times as long as its maximum width. Second flagellar segment 4.5–5.3 times as long as its maximum width ...19
- Eye in lateral view 1.3–1.6 times as wide as temple medially. Hind femur 4.1–4.4 times as long as its maximum width. Second flagellar segment 4.0 times as long as its maximum width ...20

19. First flagellar segment 2.6 times and 2nd segment 4.5 times as long as their maximum width respectively. First metasomal tergite similarly colour as 2nd and 3rd tergites. Face 1.8 times as wide as high. Body length 3.0–3.2 mm. Ethiopia ...*A. abyssiniensis* sp. nov.
 – First flagellar segment 3.4 times and 2nd segment 5.3 times as long as their maximum width respectively. First metasomal tergite paler than 2nd and 3rd tergites. Face 1.5 times as wide as high. Body length 3.0–4.0 mm. South Africa*A. somersetensis* sp. nov.
20. First flagellar segment 2.6 times as long as its maximum width. Hind femur 4.1 times as long as its maximum width. First metasomal tergite 1.2 times as long as its apical width. Precoxal sulcus reaching anterior and posterior margins of mesopleuron. Visible part of ovipositor sheath 0.4 times as long as metasoma. Body length 1.4–1.6 mm. Kenya ...*A. notleyi* sp. nov.
 – First flagellar segment 3.1 times as long as its maximum width. Hind femur 4.4 times as long as its maximum width. First metasomal tergite as long as its apical width. Precoxal sulcus not reaching anterior and posterior margins of mesopleuron. Visible part of ovipositor sheath 0.7 times as long as metasoma. Body length 1.9–2.0 mm. South Africa ...*A. carinata* sp. nov.
21. Eye in lateral view 1.0–1.2 times as wide as temple medially22
 – Eye in lateral view 1.6–3.6 times as wide as temple medially24
22. First metasomal tergite 1.1 times as long as its apical width and paler than 2nd and 3rd tergites. Clypeus as wide as high. Head darker than mesoscutum. Body length 2.2 mm. Malawi*A. rufimalawiana* Fischer, 2007
 – First metasomal tergite 1.5 times as long as its apical width and similar colour as 2nd and 3rd tergites. Clypeus 1.4–2.0 times as wide as high. Head same colour as mesoscutum ...23
23. Head in dorsal view 1.3 times as wide as long. Mandible 1.4 times as long as its maximum width. Clypeus 1.6 times as wide as high. Mesosoma in lateral view as long as high. Vein 3-SR 2.3 times as long as 2-SR. Body length 2.0 mm. Malawi ...*A. malawiana* Fischer, 2007
 – Head in dorsal view 1.8 times as wide as long. Mandible 1.7 times as long as its maximum width. Clypeus 2.0 times as wide as high. Mesosoma in lateral view 1.3 times as long as high. Vein 3-SR 2.7 times as long as 2-SR. Body length 1.3 mm. South Africa ...*A. nigerrima* Fischer, 2003
24. First flagellar segment 1.7–3.3 times as long as its maximum width25
 – First flagellar segment 3.8–5.4 times as long as its maximum width38
25. First metasomal tergite 1.0–1.3 times as long as its apical width26
 – First metasomal tergite 1.8–2.1 times as long as its apical width36
26. Mandible 1.1 times as long as its maximum width. Visible part of ovipositor sheath 2.5 times as long as metasoma. Body length 1.7–2.2 mm. Benin, Cameroon, D.R. Congo, Ivory Coast, Nigeria, Tanzania, Uganda*A. citri* (Fischer, 1963)
 – Mandible 1.6–1.9 times as long as its maximum width. Visible part of ovipositor sheath 0.4–0.9 times as long as metasoma27
27. Hind femur 3.6–4.0 times as long as its maximum width28
 – Hind femur 4.6–5.0 times as long as its maximum width29
28. Eye in lateral view 2.5 times as wide as temple medially. First flagellar segment 2.5 times and 2nd 4.3 times as long as their maximum width respectively. Face 1.9 times as wide as high. Clypeus 2.1 times as wide as high. Head dorsally paler than mesoscutum. Body length 2.5 mm. Uganda*A. kawandensis* sp. nov.

- Eye in lateral view 3.0 times as wide as temple medially. First flagellar segment 2.9 times and 2nd 6.1 times as long as their maximum width respectively. Face 1.2 times as wide as high. Clypeus 3.3 times as wide as high. Head dorsally and mesoscutum similarly colour. Body length 1.5–1.8 mm. Yemen *A. vanharteni* sp. nov.
- 29. First flagellar segment 1.7–2.5 times as long as its maximum width30
 - First flagellar segment 3.0–3.3 times as long as its maximum width32
- 30. Face (without clypeus) 1.9 times as wide as high. Second flagellar segment 4.0 times as long as its maximum width. Head dorsally paler than mesoscutum. Body length 2.0–2.3 mm. South Africa *A. sarae* sp. nov.
 - Face (without clypeus) 1.4–1.5 times as wide as high. Second flagellar segment 3.3–3.5 times as long as its maximum width. Head dorsally and mesoscutum similarly colour31
- 31. Clypeus 2.5 times as wide as high. Diameter of propodeal spiracle 0.5 times distance from spiracle to anterior margin of propodeum. Precoxal sulcus smooth. Body length 1.6–2.1 mm. Tanzania *A. zaprionae* sp. nov.
 - Clypeus 3.0 times as wide as high. Diameter of propodeal spiracle 0.2 times distance from spiracle to anterior margin of propodeum. Precoxal sulcus crenulate. Body length 1.9–2.3 mm. Tanzania *A. vanalpheni* sp. nov.
- 32. Eye in lateral view 1.7–1.9 times as wide as temple medially33
 - Eye in lateral view 2.3–2.6 times as wide as temple medially35
- 33. Visible part of ovipositor sheath as long as 1st tergite, 0.4 times as long as metasoma and 0.7 times as long as hind femur. Third flagellar segment 3.7 times as long as its maximum width. Vein 3-SR 1.6 times as long as vein 2-SR. Body length 1.6–2.1 mm. Uganda. ... *A. taylori* sp. nov.
 - Visible part of ovipositor sheath 2.7 times as long as 1st tergite, 0.8 times as long as metasoma and 1.3–1.4 times as long as hind femur. Third flagellar segment 4.8–5.3 times as long as its maximum width. Vein 3-SR 2.6–2.8 times as long as vein 2-SR34
- 34. First metasomal tergite as long as its apical width. Clypeus 2.5 times as wide as high. Mandible 1.6 times as long as its maximum width. Mesoscutal pit round. Head in dorsal view 1.5 times as wide as mesoscutum. Body length 1.3–1.8 mm. Cabo Verde ... *A. caboverdensis* sp. nov.
 - First metasomal tergite 1.3 times as long as its apical width. Clypeus 4.8 times as wide as high. Mandible 1.9 times as long as its maximum width. Mesoscutal pit elongate-oval. Head in dorsal view 1.3 times as wide as mesoscutum. Body length 2.2 mm. Uganda *A. pulchricornis* (Szépligeti, 1911) comb. nov.
- 35. Eye in lateral view 2.3 times as wide as temple medially. Second flagellar segment 4.2 times as long as its maximum width. Visible part of ovipositor sheath 0.8 times as long as metasoma. Head dorsally paler than mesoscutum. Body length 2.1–2.3 mm. Uganda *A. mellicephalata* sp. nov.
 - Eye in lateral view 2.6 times as wide as temple medially. Second flagellar segment 5.0 times as long as its maximum width. Visible part of ovipositor sheath 0.4 times as long as metasoma. Head dorsally and mesoscutum similarly colour. Body length 1.5–2.0 mm. Uganda *A. mediana* sp. nov.

36. Propodeum without areola delineated by carinae. Hind femur 6.7 times as long as its maximum width. Second flagellar segment 8.3 times and 3rd segment 6.7 times as long as their maximum width respectively. Visible part of ovipositor sheath as long as metasoma. Body length 1.9–2.1 mm. Nigeria *A. cracentis* sp. nov.
- Propodeum with areola delineated by carinae. Hind femur 4.5–4.6 times as long as its maximum width. Second flagellar segment 5.5 times and 3rd segment 4.5–5.0 times as long as their maximum width respectively. Visible part of ovipositor sheath 0.6–1.0 times as long as metasoma 37
37. Eye in lateral view 1.8 times as wide as temple medially. First metasomal tergite 2.1 times as long as its maximum width. Third flagellar segment 5.0 times as long as its maximum width. Visible part of ovipositor sheath as long as metasoma. Body length 1.9–2.0 mm. South Africa *A. glabrisulcata* Fischer, 2003
- Eye in lateral view 2.5 times as wide as temple medially. First metasomal tergite 1.8 times as long as its maximum width. Third flagellar segment 4.5 times as long as its maximum width. Visible part of ovipositor sheath 0.6 times as long as metasoma. Body length 1.8–2.0 mm. Democratic Republic of the Congo *A. ghesquierei* (Fischer, 1963)
38. Eye in lateral view 3.6 times as wide as temple medially. First metasomal tergite as long as its maximum width. Second flagellar segment 7.3 times as long as its maximum width. Head dorsally darker than mesoscutum. Body length 1.6–2.0 mm. Nigeria ... *A. laticlypeata* sp. nov.
- Eye in lateral view 2.0–2.7 times as wide as temple medially. First metasomal tergite 1.3–1.6 times as long as its maximum width. Second flagellar segment 6.0–6.7 times as long as its maximum width. Head dorsally and mesoscutum similarly colour 39
39. Face 1.5 times as wide as high. First flagellar segment 5.4 times and 3rd segment 5.9 times as long as their maximum width respectively. First metasomal tergite similar colour as 2nd and 3rd tergites. Visible part of ovipositor sheath as long as hind femur. Body length 2.0 mm. South Africa *A. zululana* sp. nov.
- Face 1.1–1.2 times as wide as high. First flagellar segment 3.8–4.3 times and 3rd segment 5.0–5.4 times as long as their maximum width respectively. First metasomal tergite paler than 2nd and 3rd tergites. Visible part of ovipositor sheath 3.8–4.2 times as long as 1st metasomal tergite ... 40
40. Eye in lateral view 2.2 times as wide as temple medially. First metasomal tergite 1.6 times as long as its maximum width. First flagellar segment of female 4.3 times and 2nd segment 6.6 times as long as their maximum width respectively. Body length 1.5–1.8 mm. South Africa *A. apicalis* Fischer, 2003
- Eye in lateral view 2.7 times as wide as temple medially. First metasomal tergite 1.3 times as long as its maximum width. First flagellar segment of female 3.8 times and 2nd segment 6.0 times (in female; in male 6.0 and 6.4 times, respectively) as long as their maximum width respectively. Body length 1.6–2.1 mm. Uganda *A. kibalensis* sp. nov.

Discussion

Members of the genus *Asobara* Foerster, 1863 are morphologically very similar to those of the large and worldwide distributed genus *Phaenocarpa* Foerster, 1863. As a result, numerous species originally described in *Phaenocarpa* actually belong to *Asobara* because of having a widely open subdiscal cell of the fore wing. For instance, the Afrotropical *Phaenocarpa citri* Fischer, 1963, *P. ghesquierei* Fischer, 1963, *P. kovacsi* Papp, 1966, *P. pulchricornis* Szépligeti, 1911 (comb. nov.), and *P. subdentata* Granger, 1949, have already been transferred to *Asobara*. In addition, 14 species of *Phaenocarpa* from the Oriental, Holarctic, Neotropical and Australasian regions are now included in *Asobara* (Yu *et al.* 2016).

Moreover, it is necessary to emphasize that one of the most peculiar characters of Afrotropical *Asobara* is the large number of species having contrastingly pale apical or subapical segments of the female antenna, a common feature among tropical species in general. From 40 known Afrotropical species almost 60% possess this feature and about 25% (mainly specimens known from old type material) have the apical part of antennae missing; most likely they will fit in, at least partly, with the general trend.

In agreement with the taxonomical results for the Afrotropical region (resulting in the description of 25 species new for science), a future revision of Oriental and Australasian *Asobara* will show that the species diversity of this genus is equally high and also includes many taxa new for science. This first revision of all Afrotropical species is a very important step in the recognition of species of *Asobara* worldwide.

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References

- Fischer M. 1963. Neue Zuchtergebnisse von Braconiden. *Zeitschrift für angewandte Zoologie*. 50: 195–214.
- Fischer M. 1994. Beitrag zur Kenntnis der Kieferwespen der Welt (Hymenoptera, Braconidae, Alysiinae: Alysiini). *Linzer biologische Beiträge* 26 (2): 763–806.
- Fischer M. 2003. Südafrikanische Arten der Gattung *Asobara* Foerster (Hymenoptera, Braconidae, Alysiinae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 55 (3–4): 73–84.
- Fischer M. 2007. Neue Arten der Gattung *Asobara* Foerster aus drei verschiedenen Erdteilen (Hymenoptera, Braconidae, Alysiinae, Alysiini). *Linzer biologische Beiträge* 39 (2): 857–875.
- Granger C. 1949. Braconides de Madagascar. *Memoires de l'Institut scientifique de Madagascar*. (A) 2: 1–428.
- Guerrieri E., Giorgini M., Cascone P., Carpenito S. & van Achterberg C. 2016. Species diversity in the parasitoid genus *Asobara* (Hymenoptera: Braconidae) from the native area of the fruit fly pest *Drosophila suzukii* (Diptera: Drosophilidae). *PLoS ONE* 11 (2): 1–28. e0147382. <https://doi.org/10.1371/journal.pone.0147382>
- Papp J. 1966. New *Phaenocarpa* Foerster species from the Ethiopian Region (Hymenoptera, Braconidae). *Acta Zoologica Academiae Scientiarum Hungaricae* 12: 133–144.
- Peris-Felipo F.J., Broad G. & Belokobylskij S.A. 2014a. Two new Afrotropical *Asobara* species (Hymenoptera: Braconidae) with complete notauli. *Acta Entomologica Musei Nationalis Pragae* 54 (2): 693–701.
- Peris-Felipo F.J., Belokobylskij S.A. & Jiménez-Peydró R. 2014b. Revision of the Western Palaearctic species of the genus *Dinotrema* Foerster, 1862 (Hymenoptera, Braconidae, Alysiinae). *Zootaxa* 3885 (1): 1–483. <https://doi.org/10.11646/zootaxa.3885.1.1>

Peris-Felipo F.J. & Belokobylskij S.A. 2017. Revision of the New World species of the genus *Dinotrema* (Hymenoptera: Braconidae: Alysiinae). *Zootaxa* 4382 (1): 1–55.

<https://doi.org/10.11646/zootaxa.4382.1.1>

Shenefelt R.D. 1974. Pars II. Braconidae 7. Alysiinae. In Vecht J. van der & Shenefelt R.D., Hymenopterorum Catalogus (nova editio): 937–1113. The Hague: Dr W. Junk.

van Achterberg C. 1993. Illustrated key to the subfamilies of the Braconidae (Hymenoptera: Ichneumonoidea). *Zoologische Verhandelingen* 283: 1–189.

Wharton R.A. 2002. Revision of the Australian Alysiini (Hymenoptera: Braconidae). *Invertebrate Systematics* 16: 7–105.

Yu D.S., van Achterberg C. & Horstmann K. 2016. Taxapad 2016, Ichneumonoidea 2015. Database on flash-drive. Ottawa, Ontario. [no pages indicated]

Zhu J-C., van Achterberg C. & Chen X-X. 2017. An illustrated key to the genera and subgenera of the Alysiini from China (Hymenoptera, Braconidae, Alysiinae). *ZooKeys* 722: 37–79.

<https://doi.org/10.3897/zookeys.722.14799>

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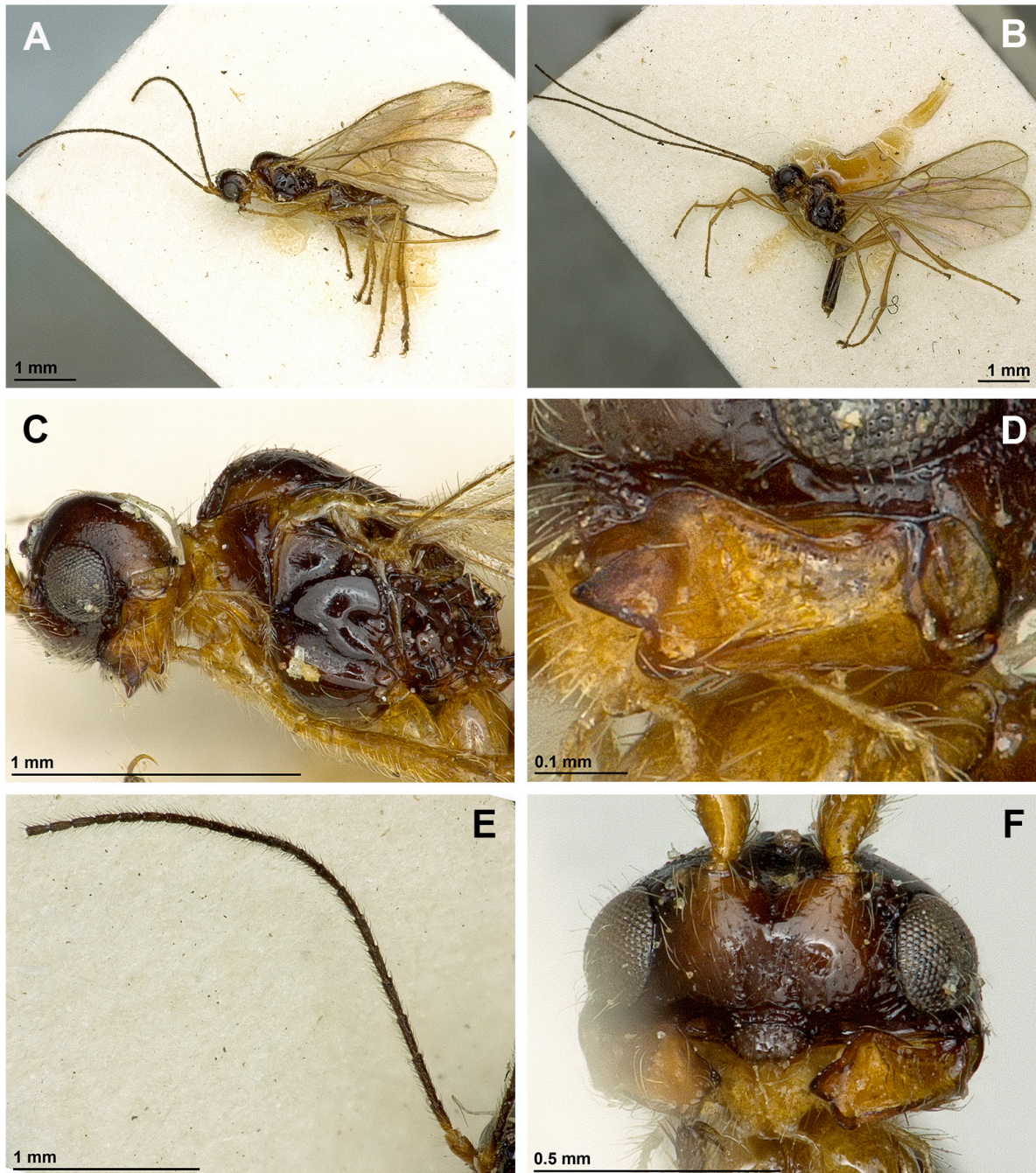


Fig. 1. *Asobara abyssiniaensis* Peris-Felipo, sp. nov. A, C–F: ♀, holotype (BMNH 459); B: ♂ (BMNH). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

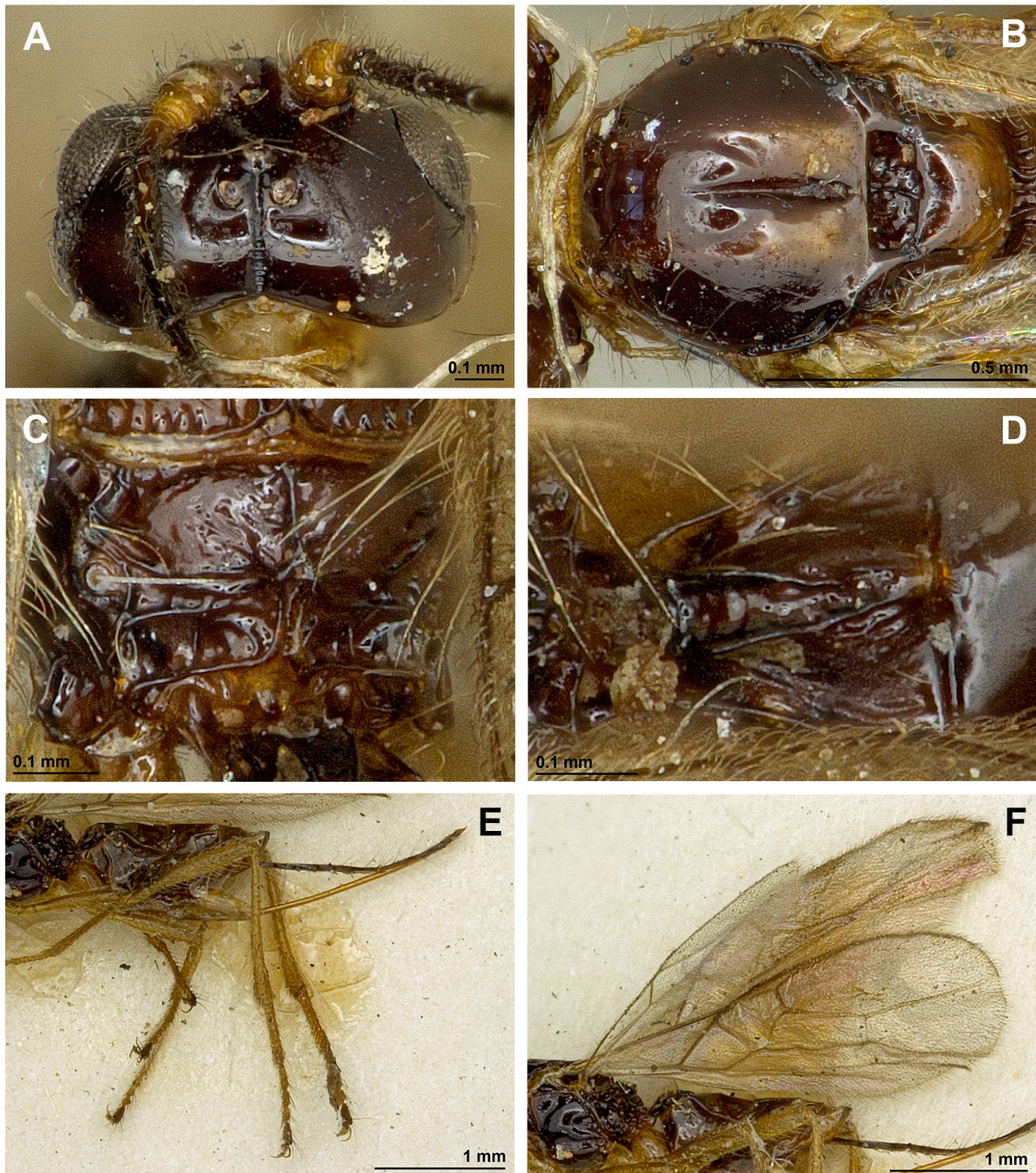


Fig. 2. *Asobara abyssiniaensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 459). **A.** Head, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum, dorsal view. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore and hind wings.

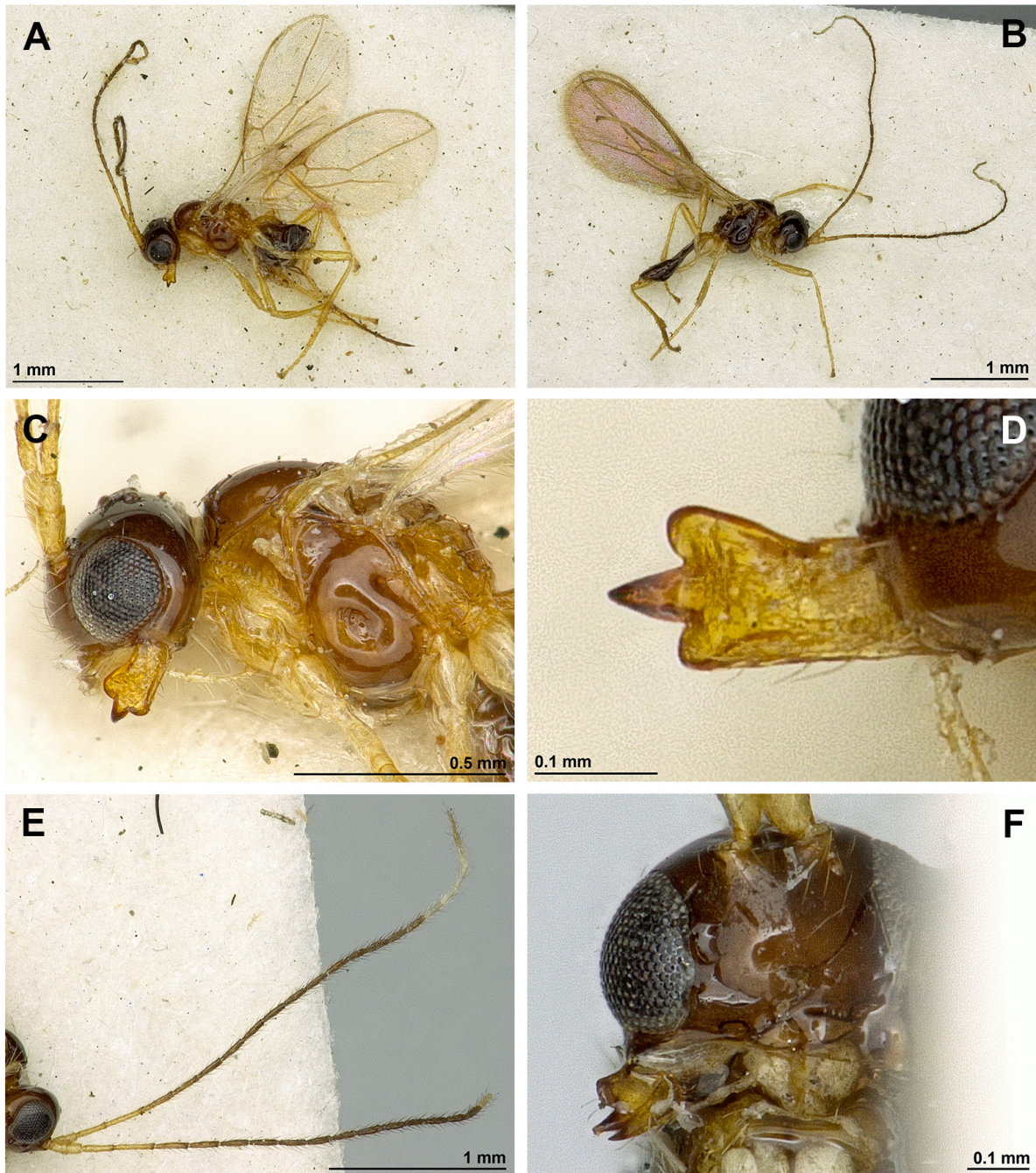


Fig. 3. *Asobara apicalis* Fischer, 2003, A, C–F: ♀, holotype (ZSSM); B: ♂ (NHMW). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

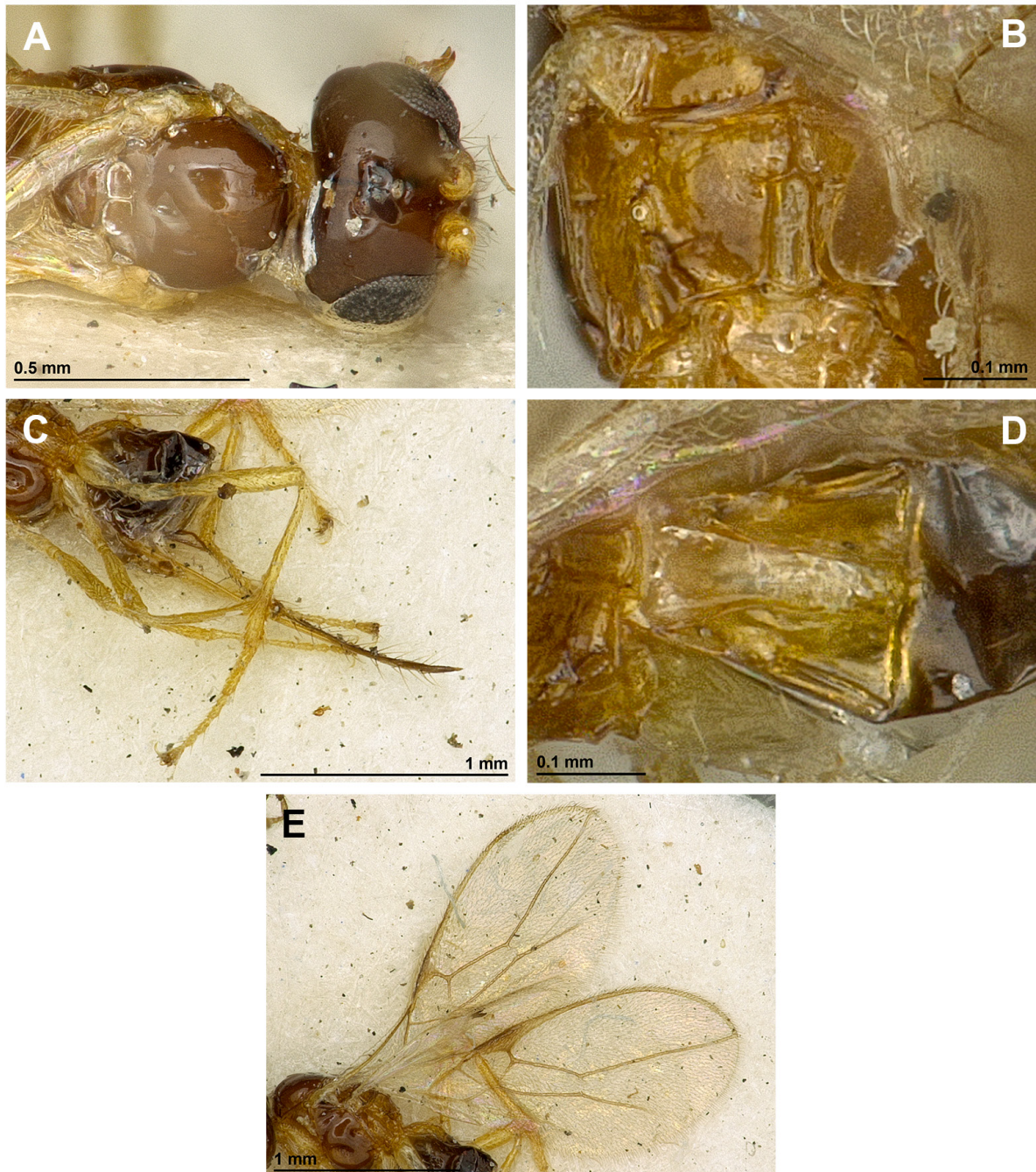


Fig. 4. *Asobara apicalis* Fischer, 2003, ♀, holotype (ZSSM). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** First metasomal tergite, dorsal view. **E.** Fore and hind wings.

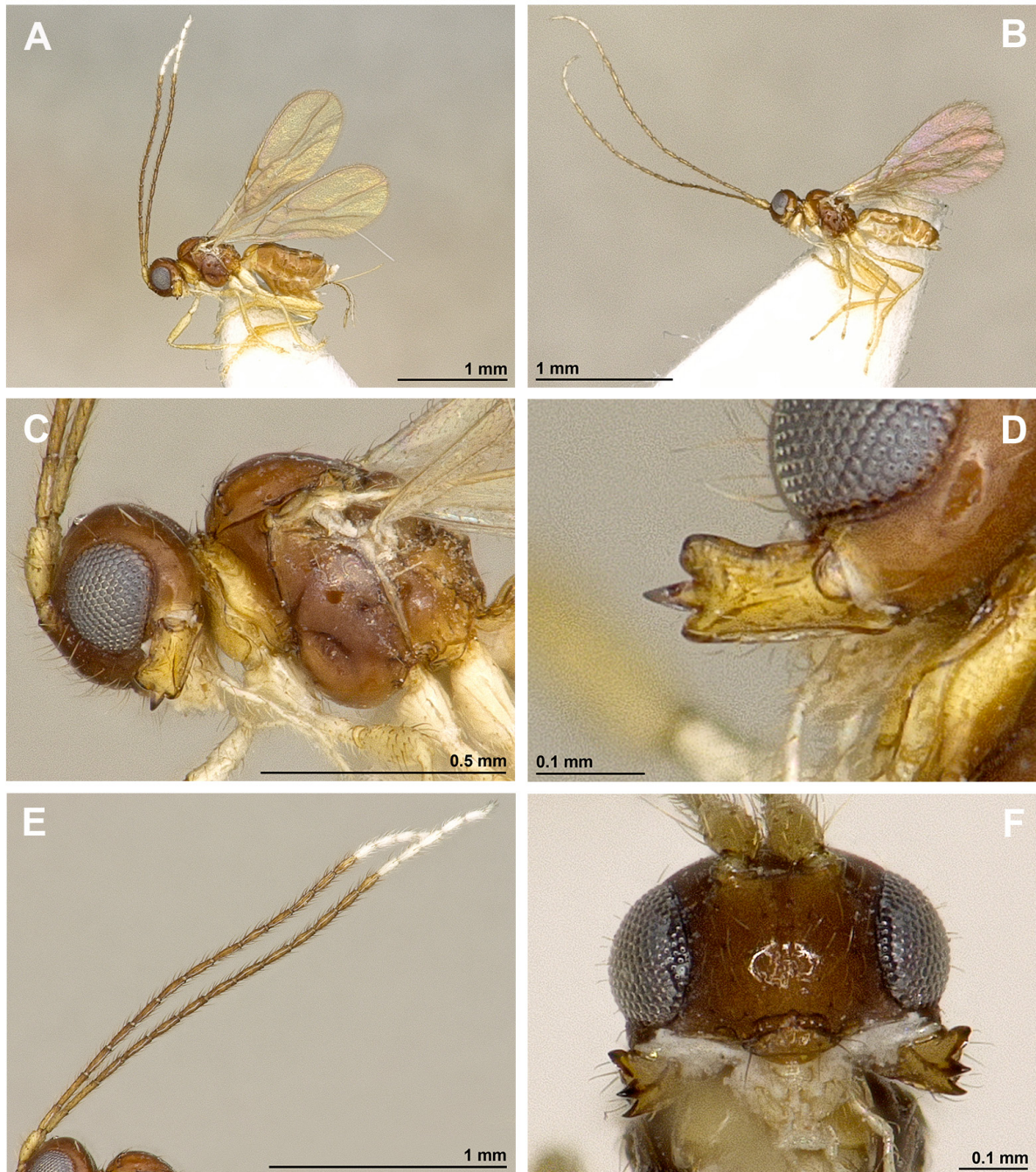


Fig. 5. *Asobara caboverdensis* van Achterberg, sp. nov., A, C–F: ♀, holotype (RMNH); B: ♂. (RMNH) A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

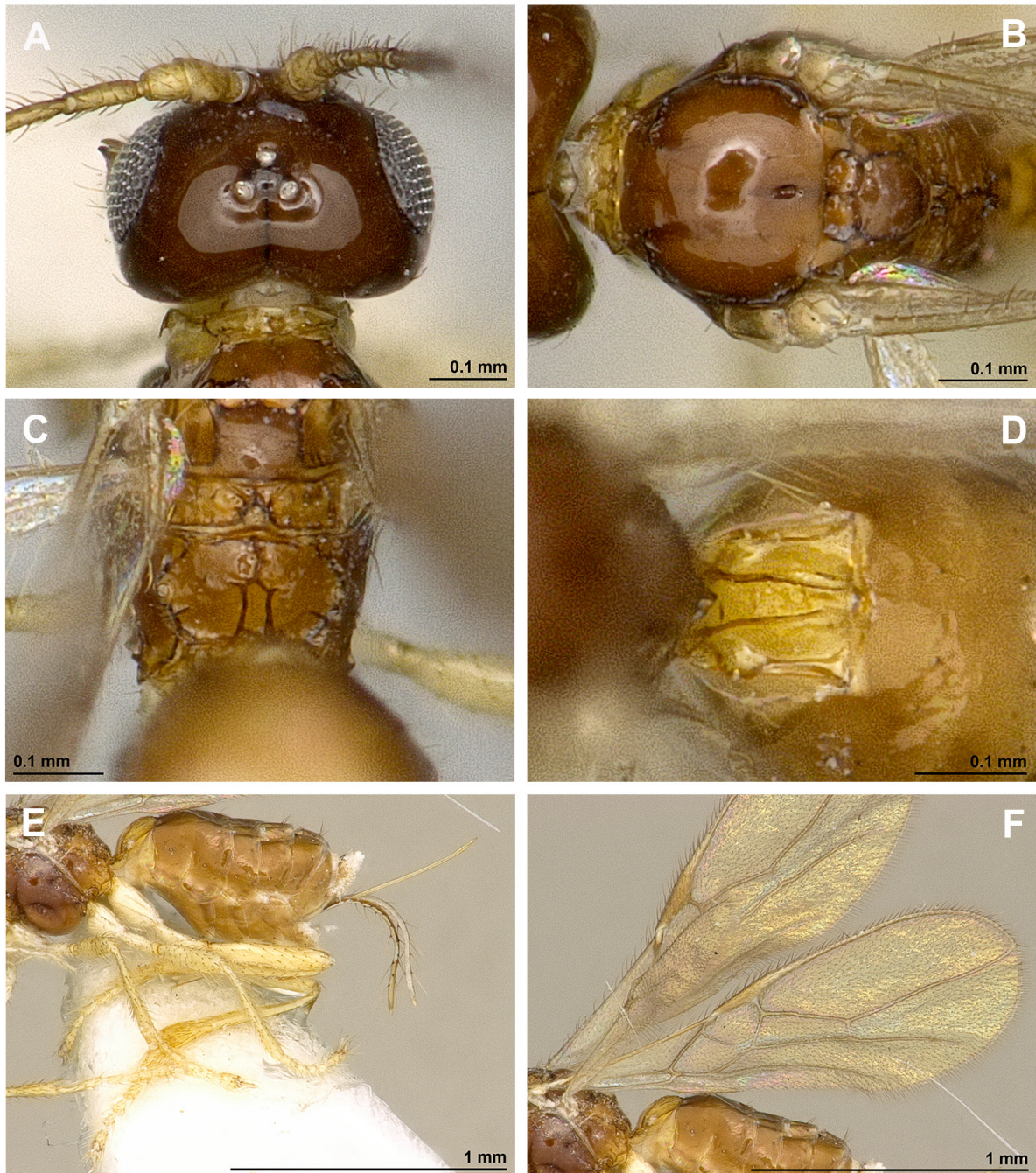


Fig. 6. *Asobara caboverdensis* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Head, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum, dorsal view. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore and hind wings.



Fig. 7. *Asobara carinata* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1922-97). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.



Fig. 8. *Asobara carinata* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1922-97). **A.** Propodeum, dorsal view. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

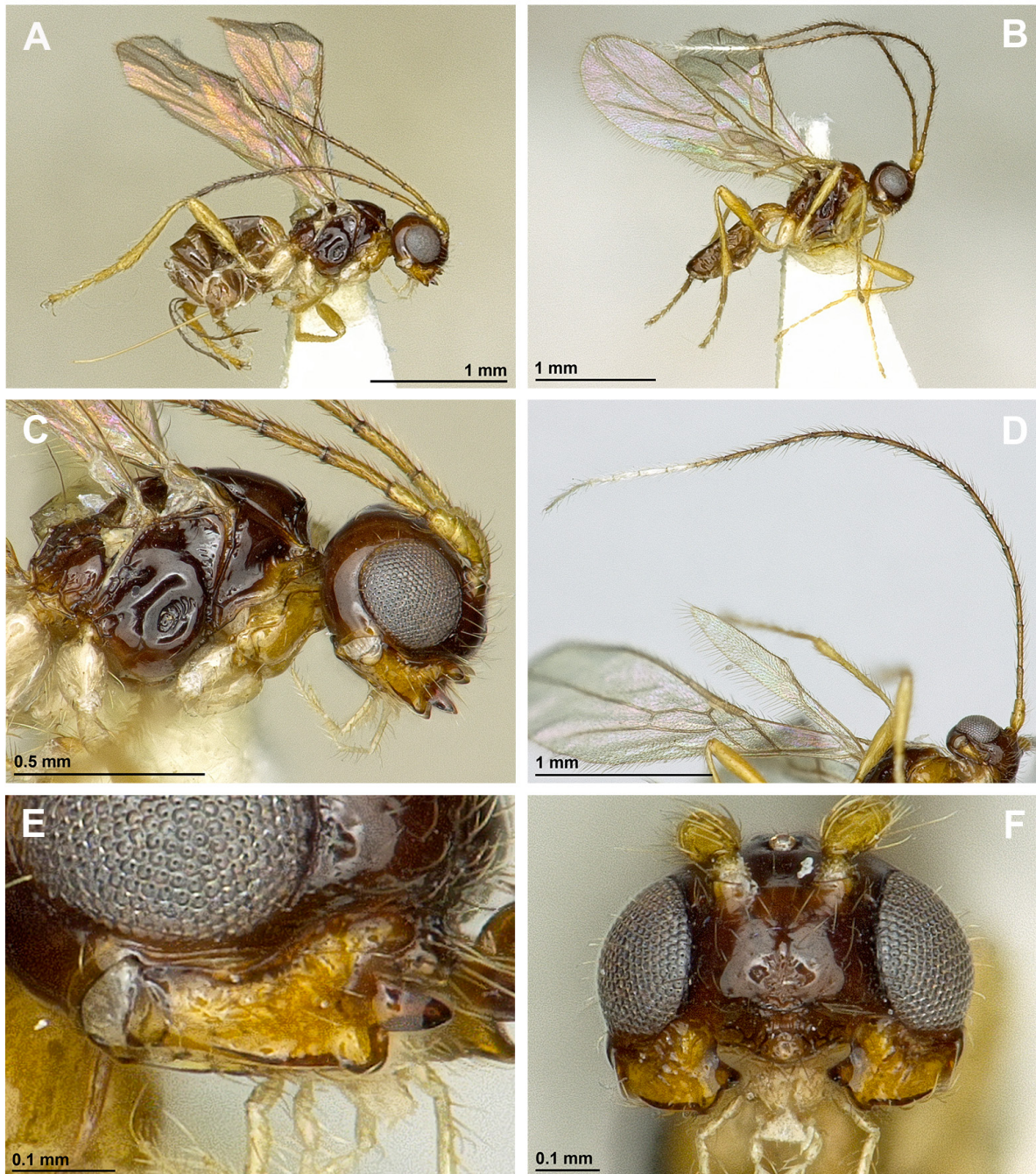


Fig. 9. *Asobara citri* (Fischer, 1963), A, C–F: ♀, holotype (NHMW); B: ♂ (NHMW). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Antenna. E. Mandible. F. Head, front view.

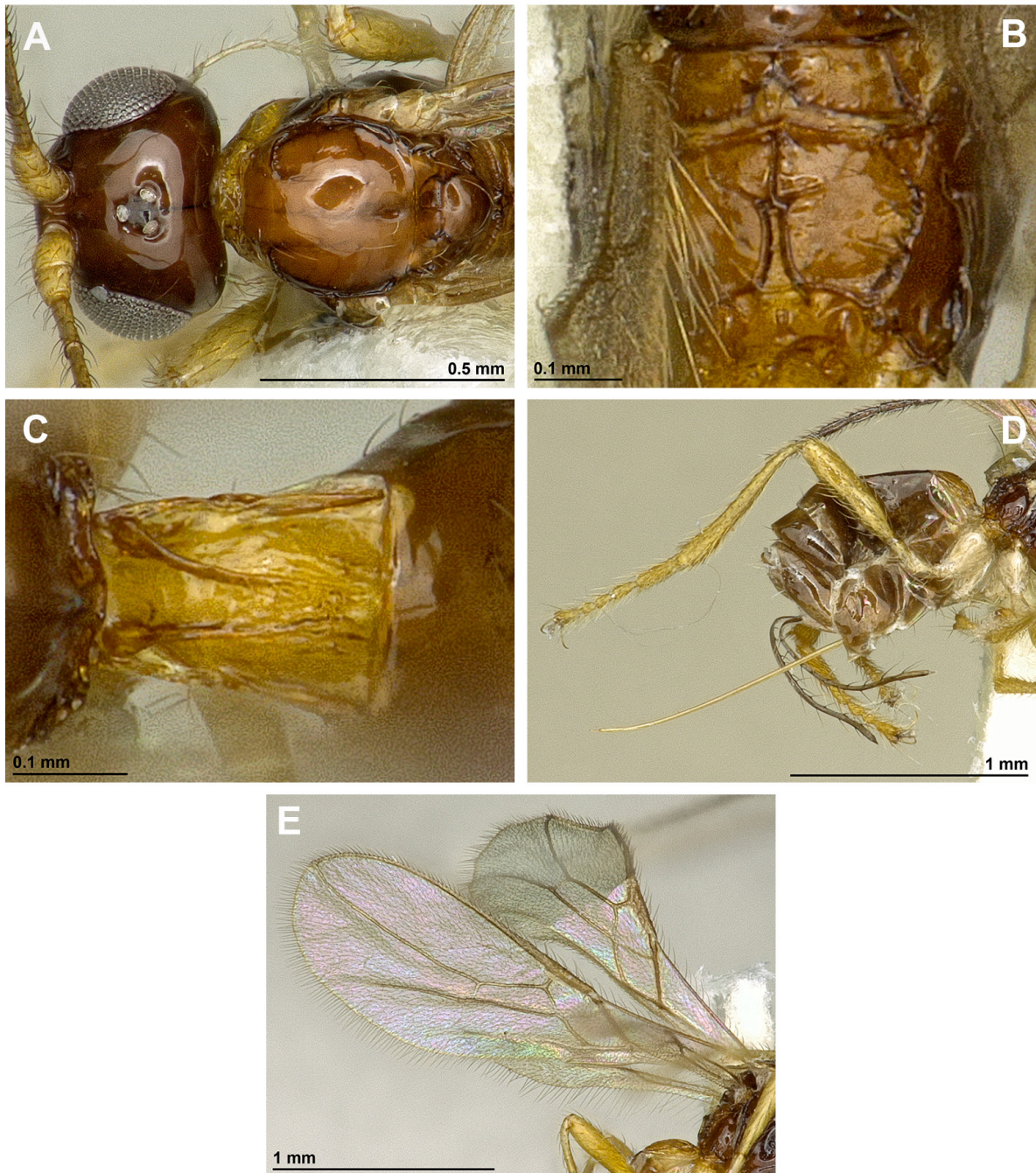


Fig. 10. *Asobara citri* (Fischer, 1963), ♀, holotype (NHMW). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

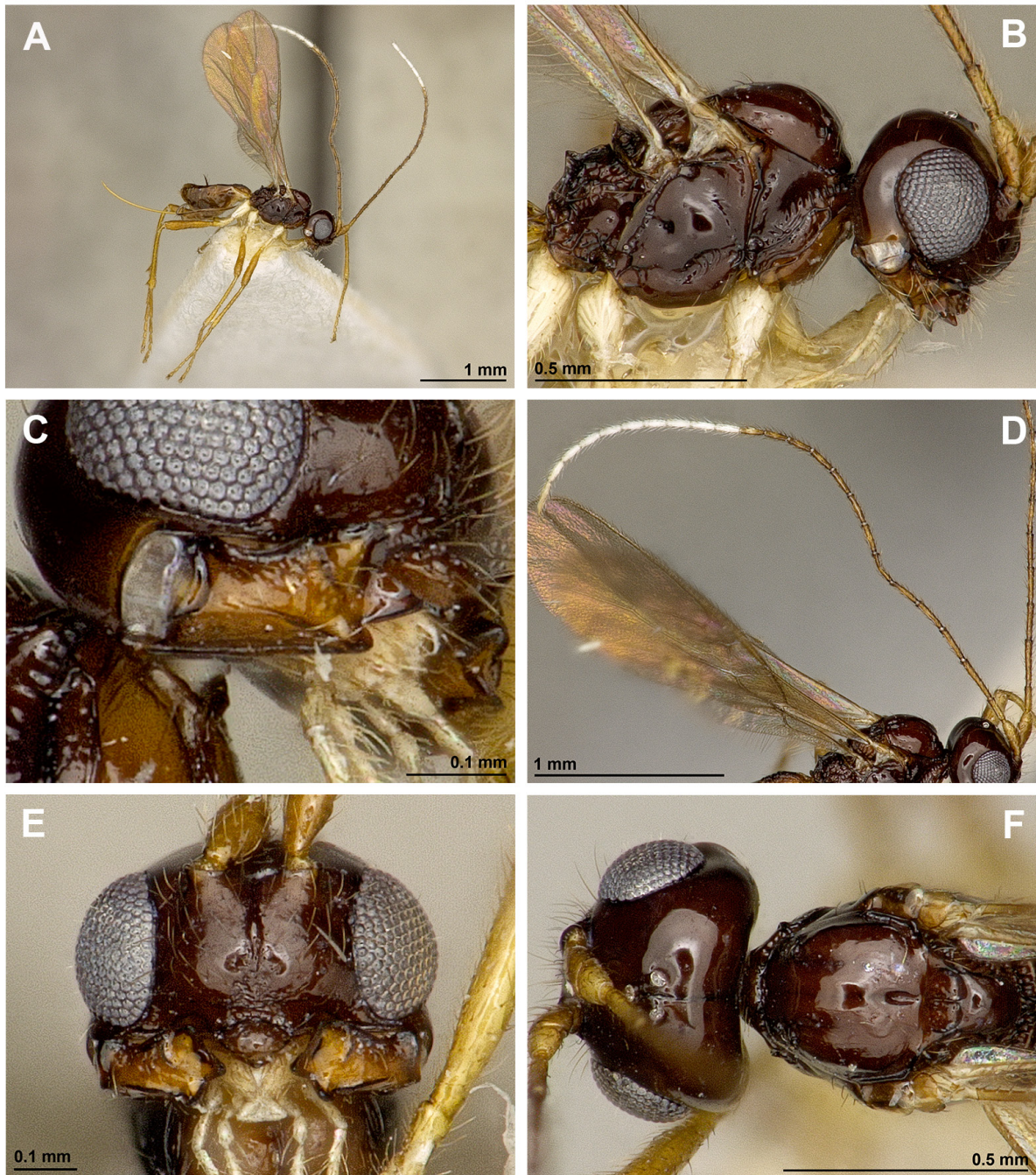


Fig. 11. *Asobara cracentis* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.

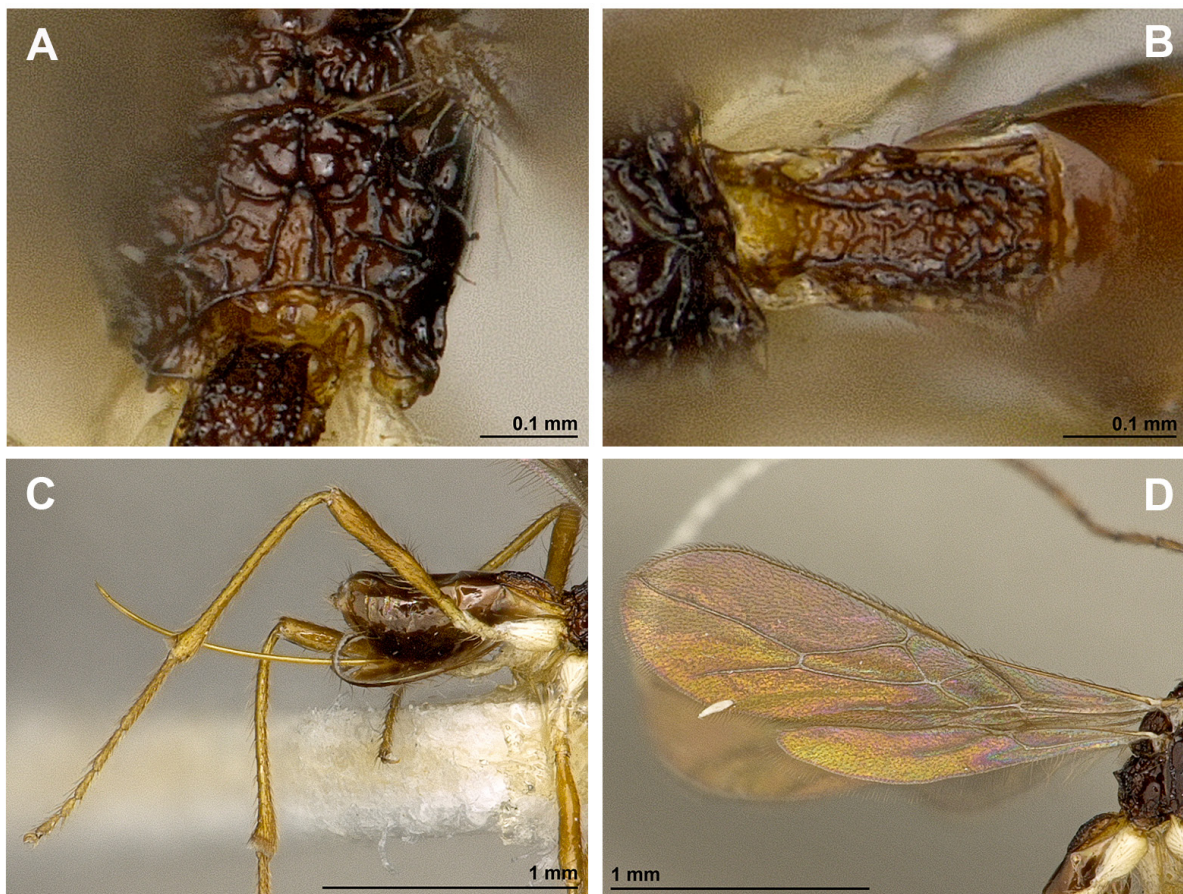


Fig. 12. *Asobara cracentis* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Propodeum, dorsal view. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

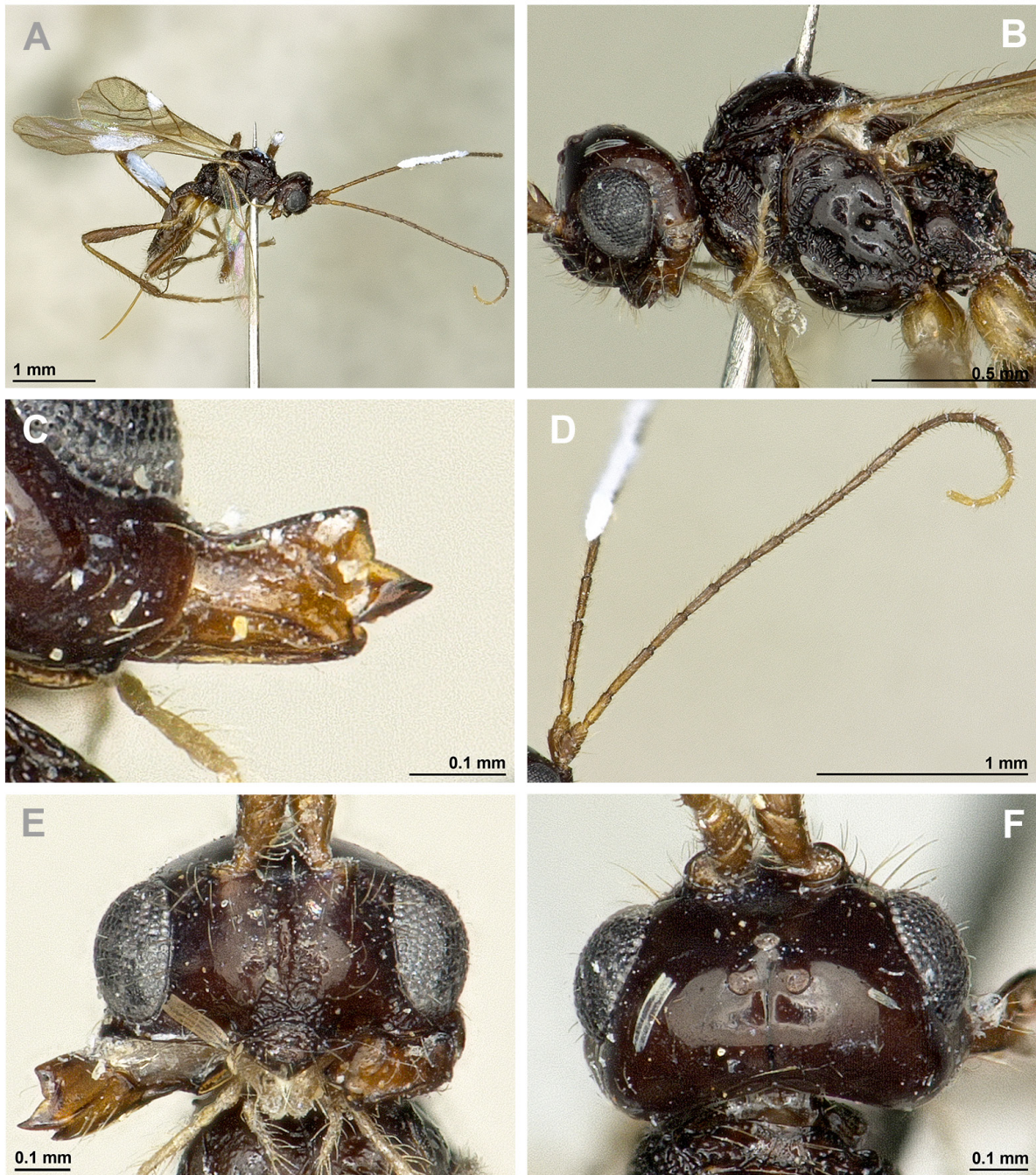


Fig. 13. *Asobara elongitarsis* van Achterberg, sp. nov., ♀, holotype (RMNH 8234). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

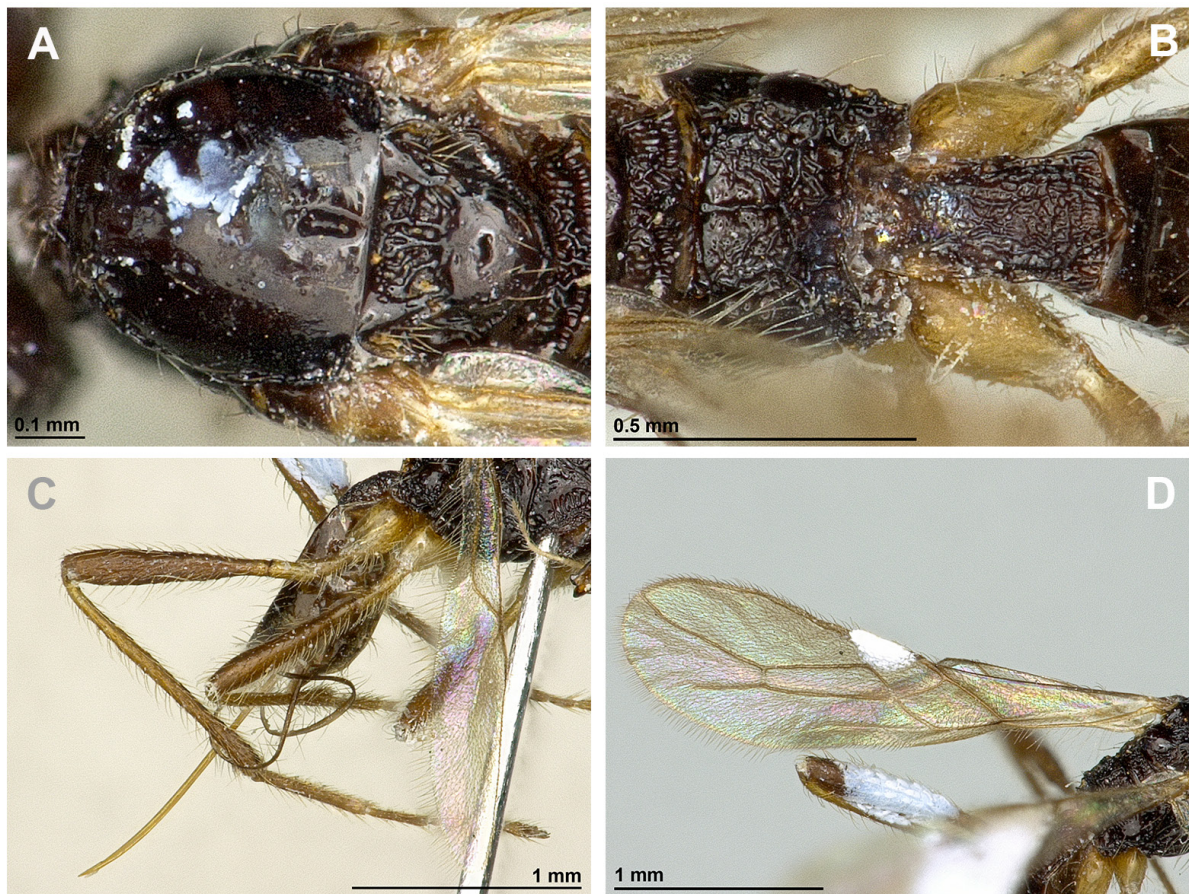


Fig. 14. *Asobara elongitarsis* van Achterberg, sp. nov., ♀, holotype (RMNH 8234). **A.** Mesoscutum, dorsal view. **B.** Propodeum and first metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

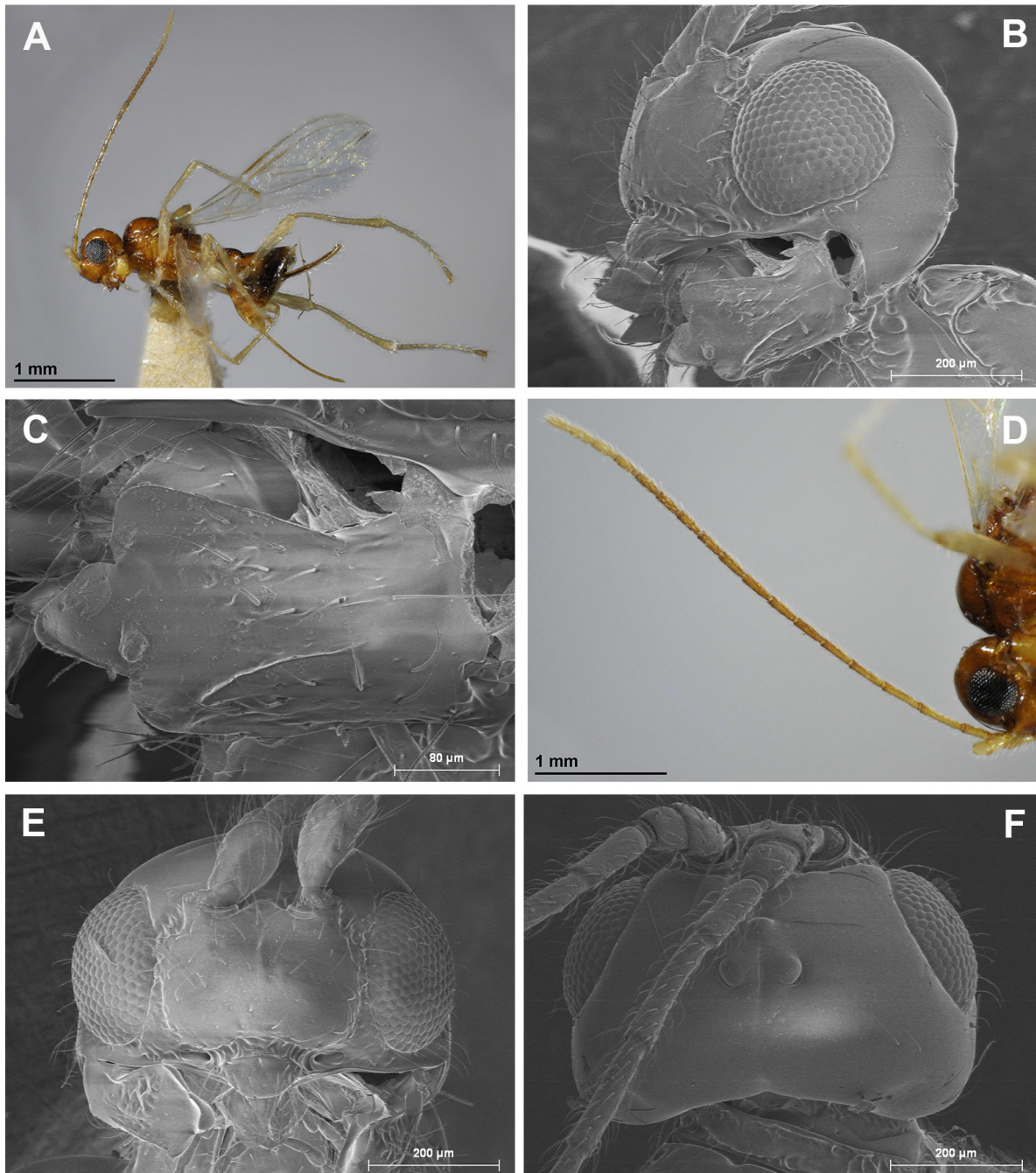


Fig. 15. *Asobara epiclypealis* Fischer, 2003, ♀, holotype (NHMW). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

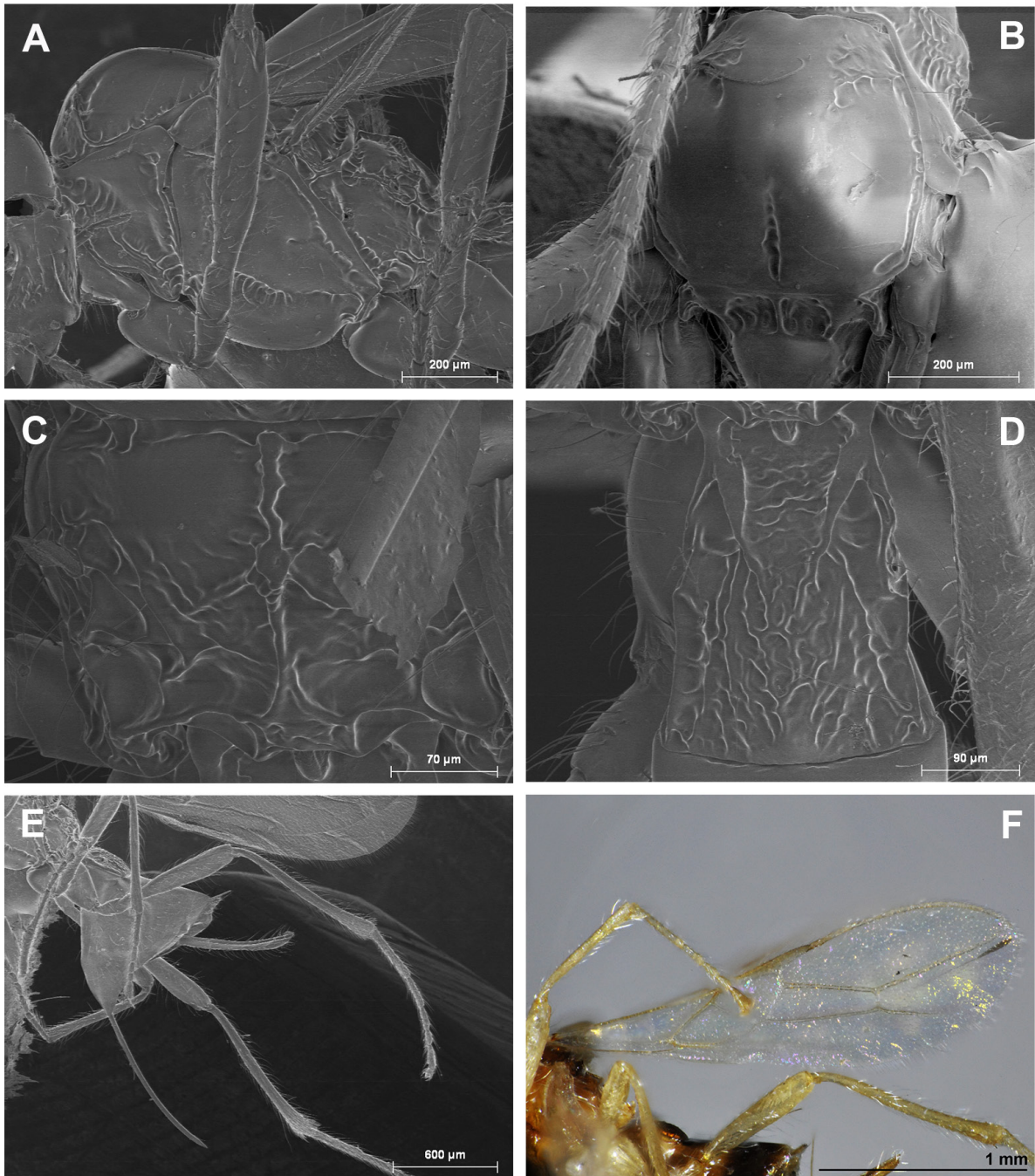


Fig. 16. *Asobara epiclypealis* Fischer, 2003, ♀, holotype (NHMW). **A.** Mesosoma, lateral view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

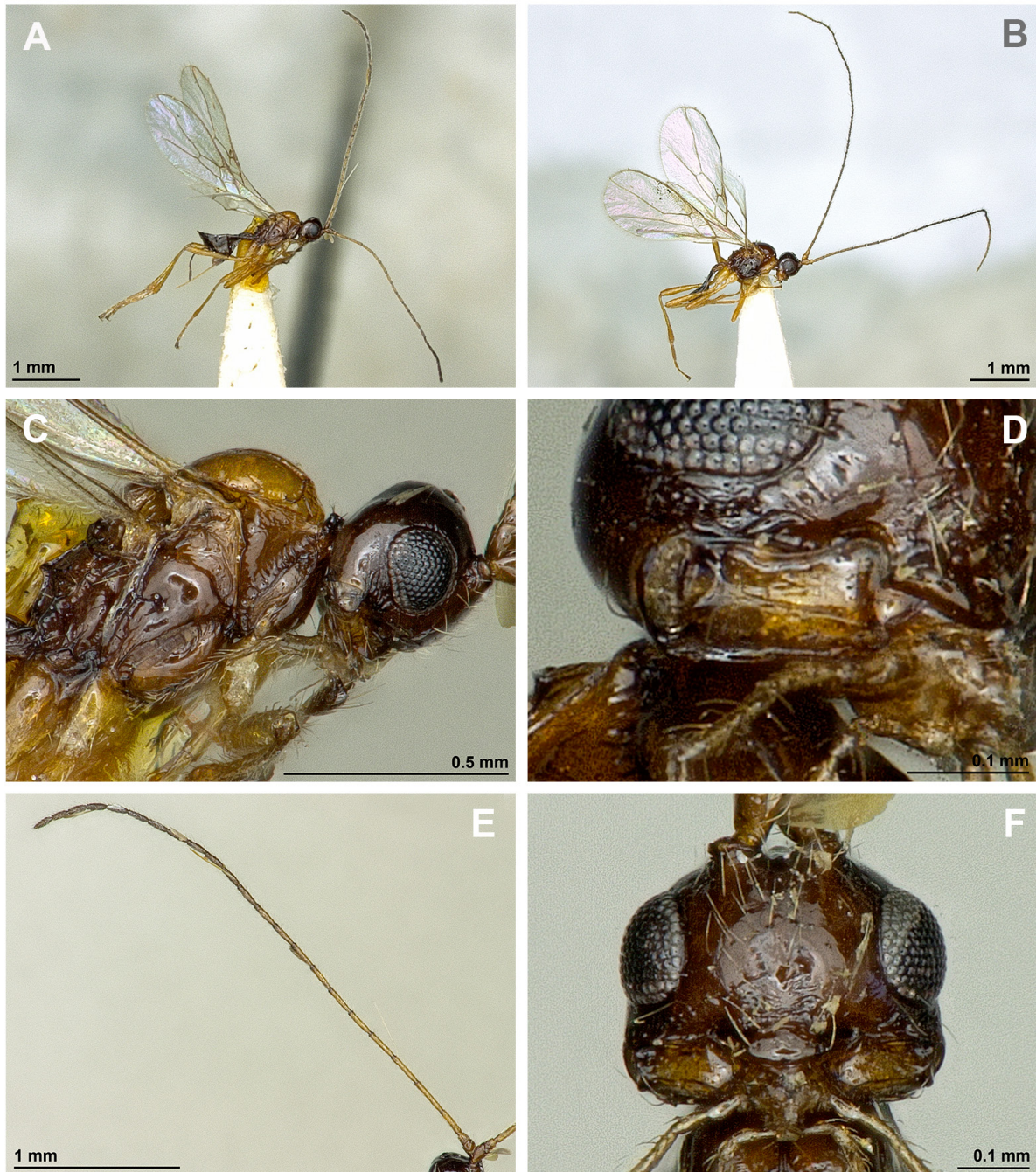


Fig. 17. *Asobara fletcheri* Peris-Felipo, sp. nov., A, C–F: ♀, holotype (BMNH 1952-566); B: ♂ (BMNH). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.



Fig. 18. *Asobara fletcheri* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1952-566). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum and first metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

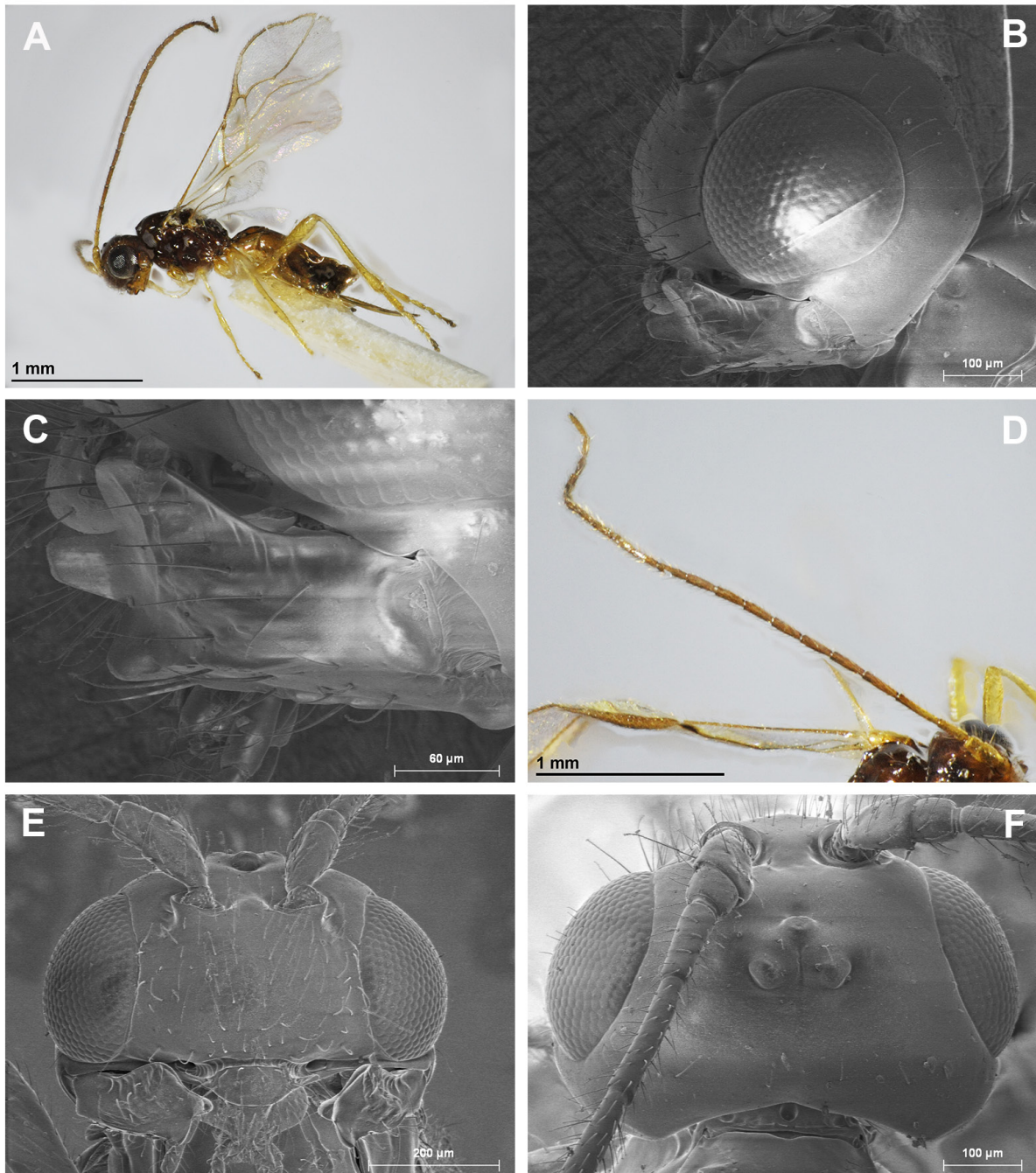


Fig. 19. *Asobara ghesquierei* (Fischer, 1963), ♀, holotype (MRAC). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

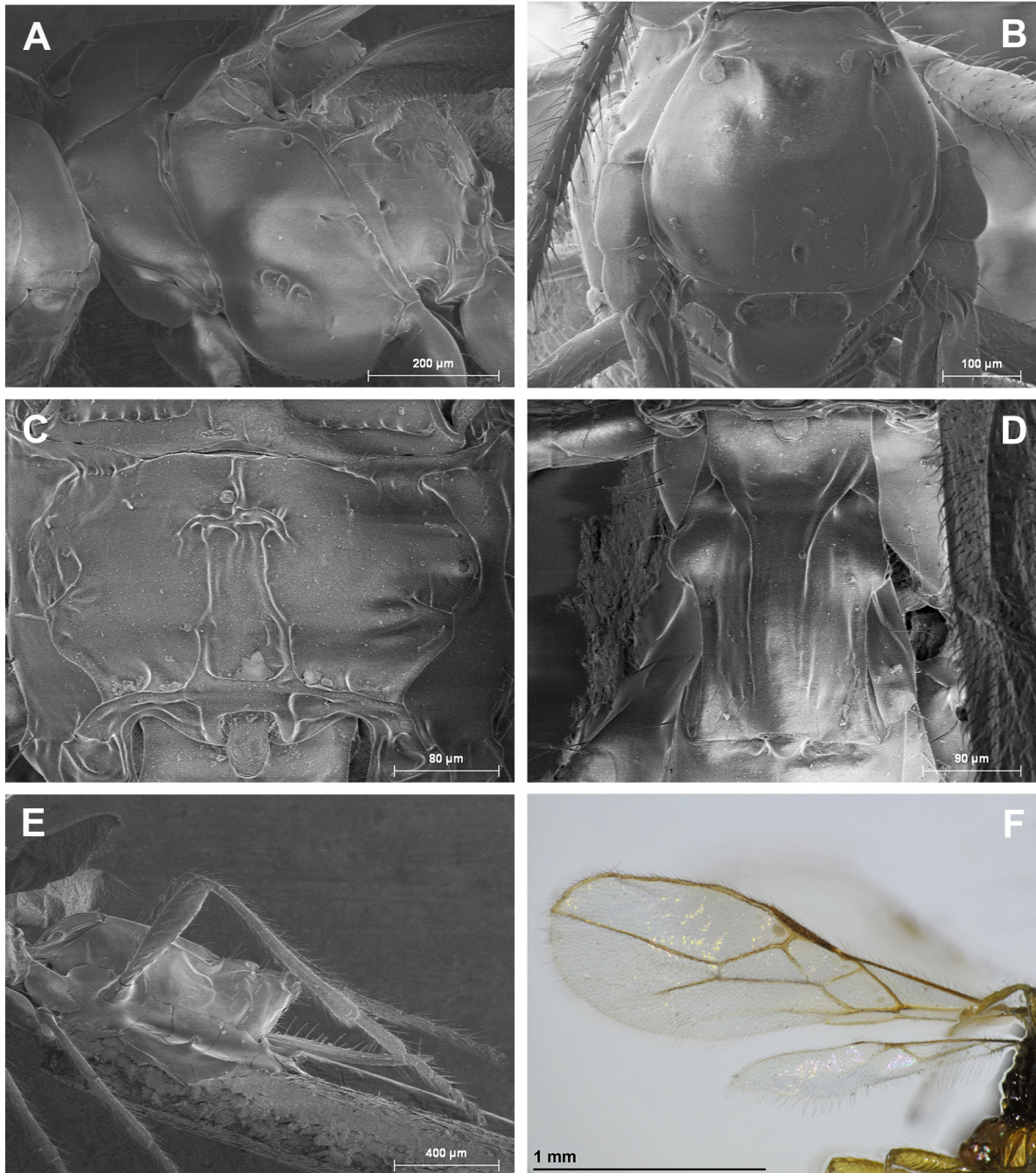


Fig. 20. *Asobara ghesquierei* (Fischer, 1963), ♀, holotype (MRAC). **A.** Mesosoma, lateral view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore and hind wings.

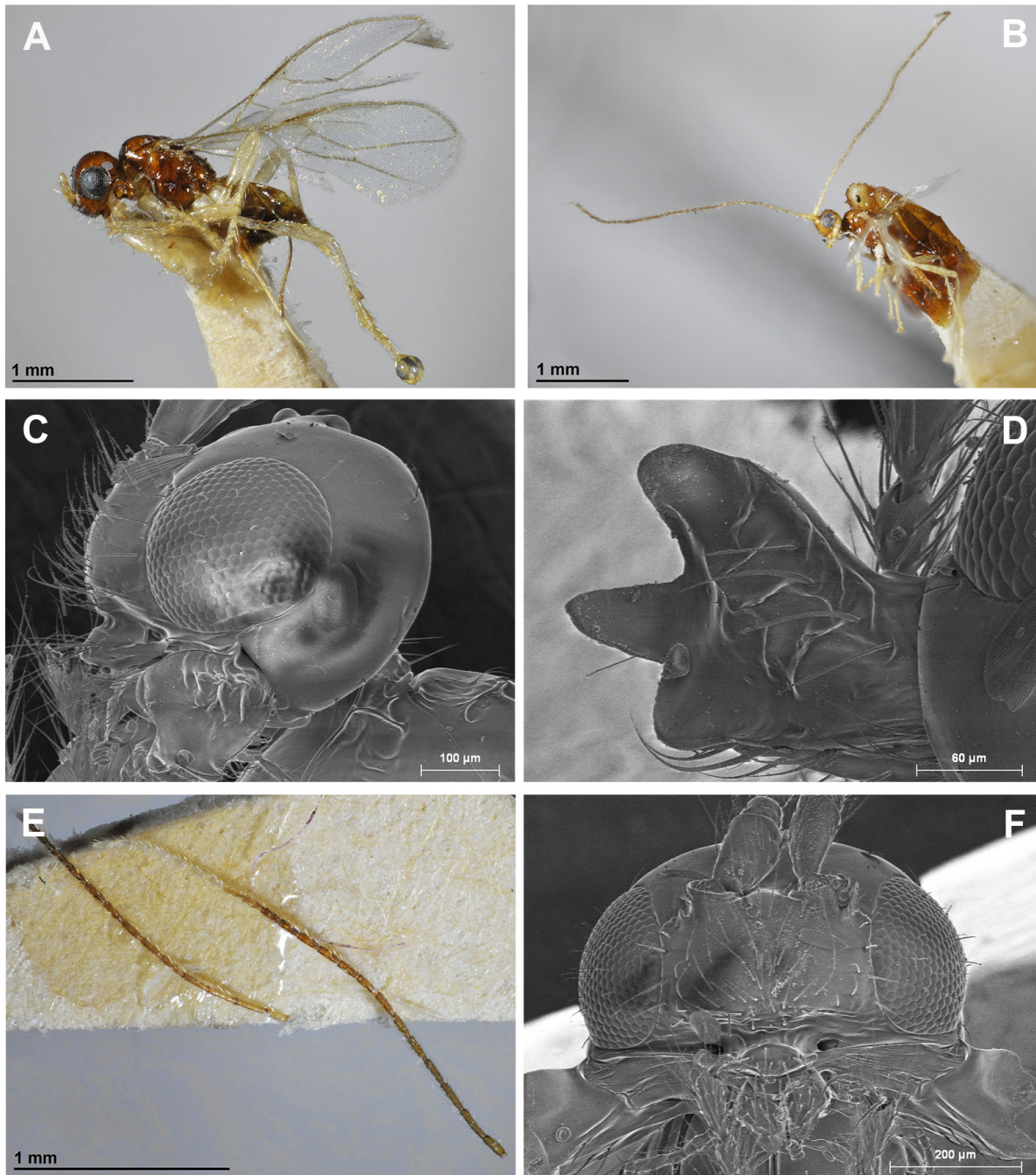


Fig. 21. *Asobara glabrisulcata* Fischer, 2003, A, C–F: ♀, holotype (NHMW); B: ♂ (NHMW). A–B. Habitus, lateral view. C. Head, lateral view. D. Mandible. E. Antenna. F. Head, front view.

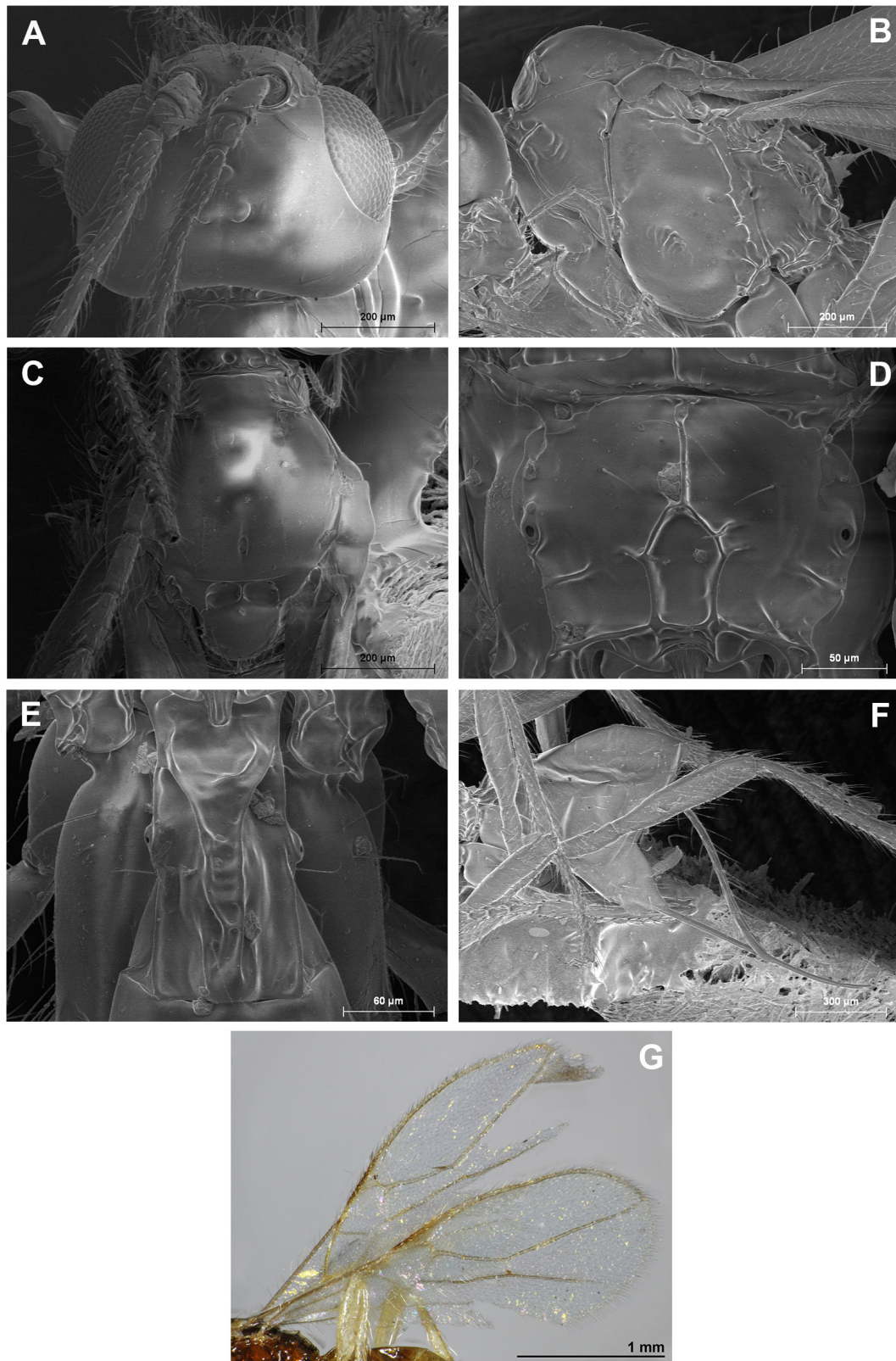


Fig. 22. *Asobara glabrisulcata* Fischer, 2003, ♀, holotype (NHMW). **A.** Head, dorsal view. **B.** Mesosoma, lateral view. **C.** Mesoscutum, dorsal view. **D.** Propodeum. **E.** First metasomal tergite, dorsal view. **F.** Hind leg, metasoma and ovipositor, lateral view. **G.** Fore and hind wings.

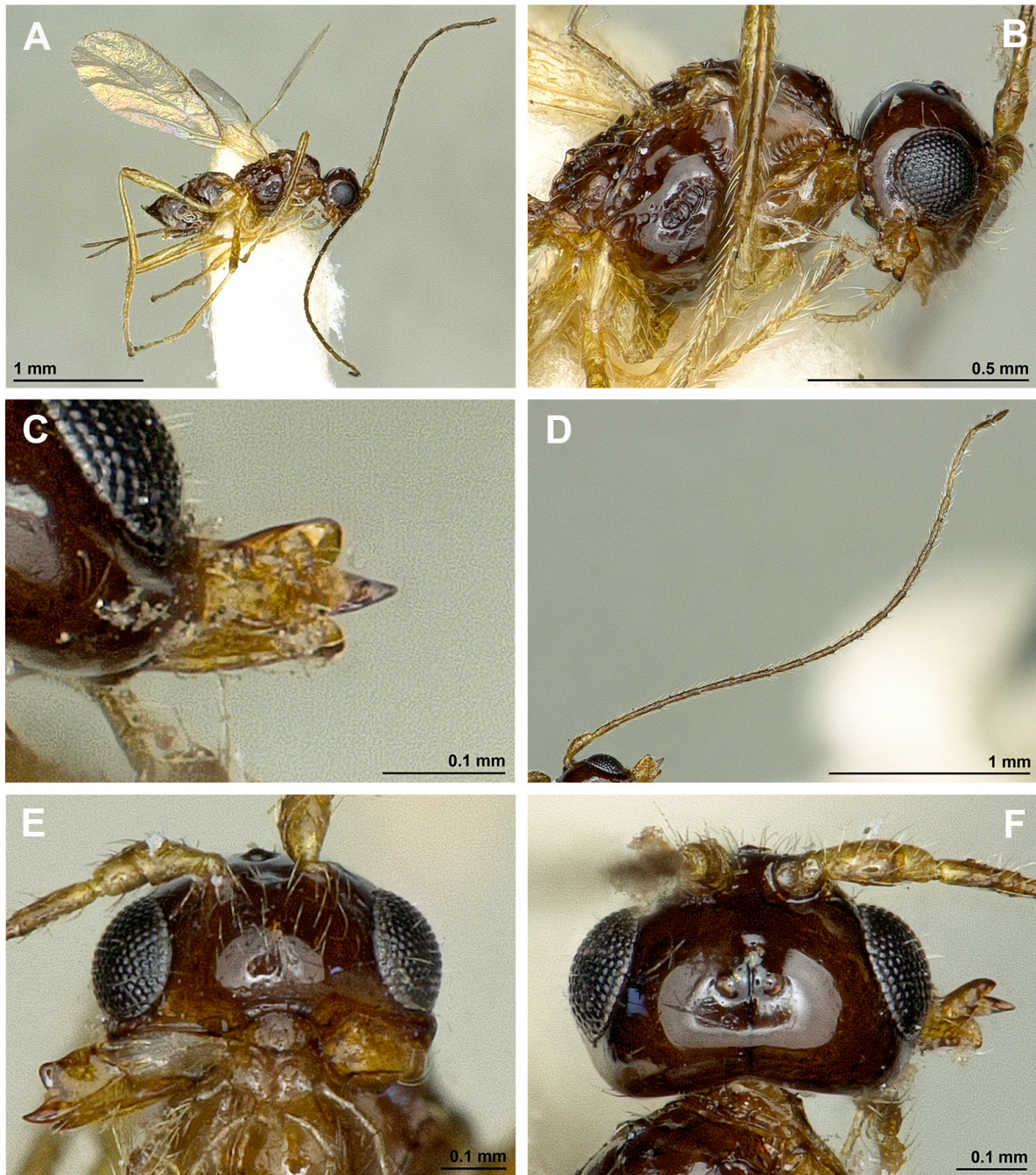


Fig. 23. *Asobara harrinmithensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1927-147). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

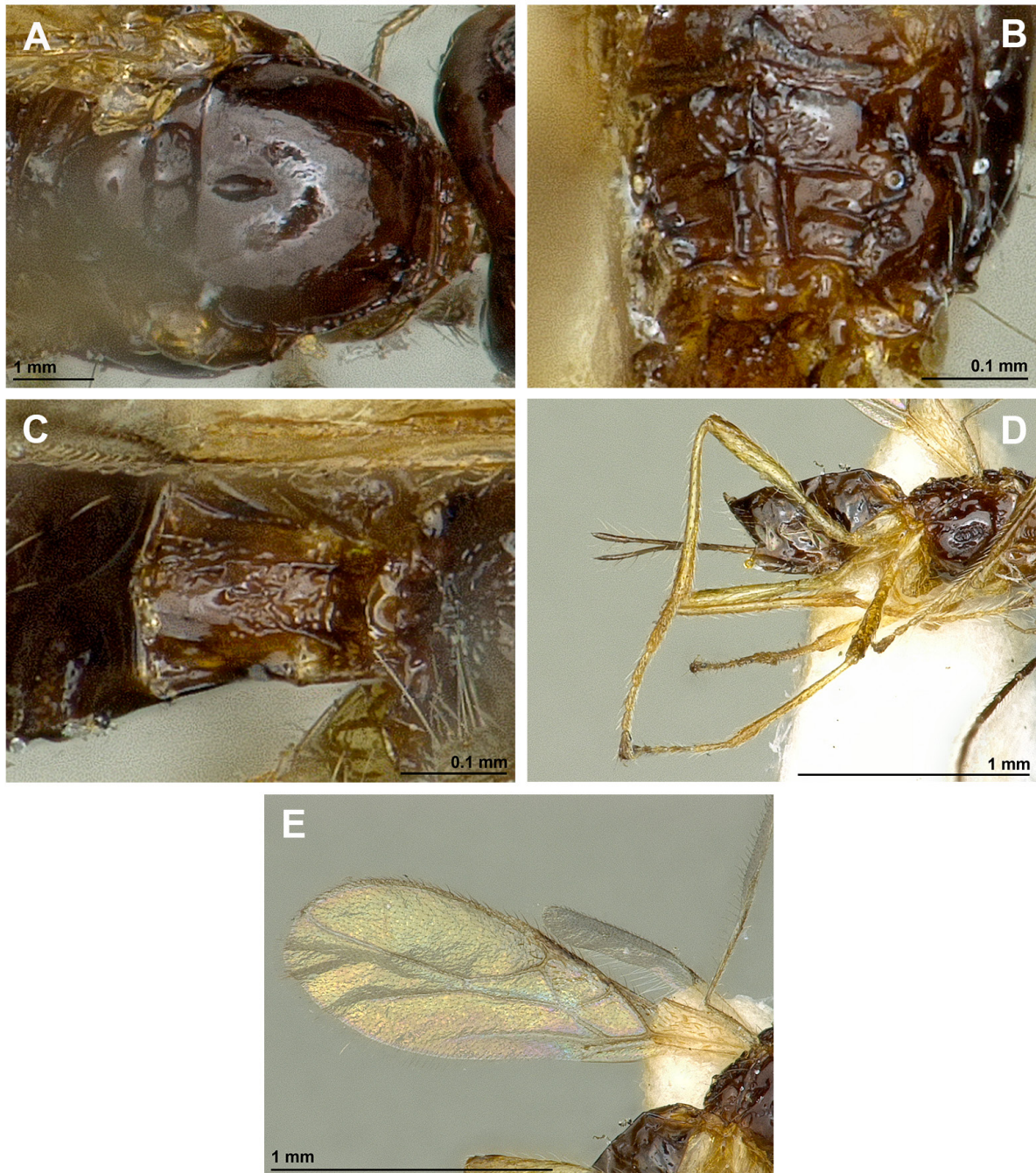


Fig. 24. *Asobara harrinmithensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1927-147). **A.** Mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

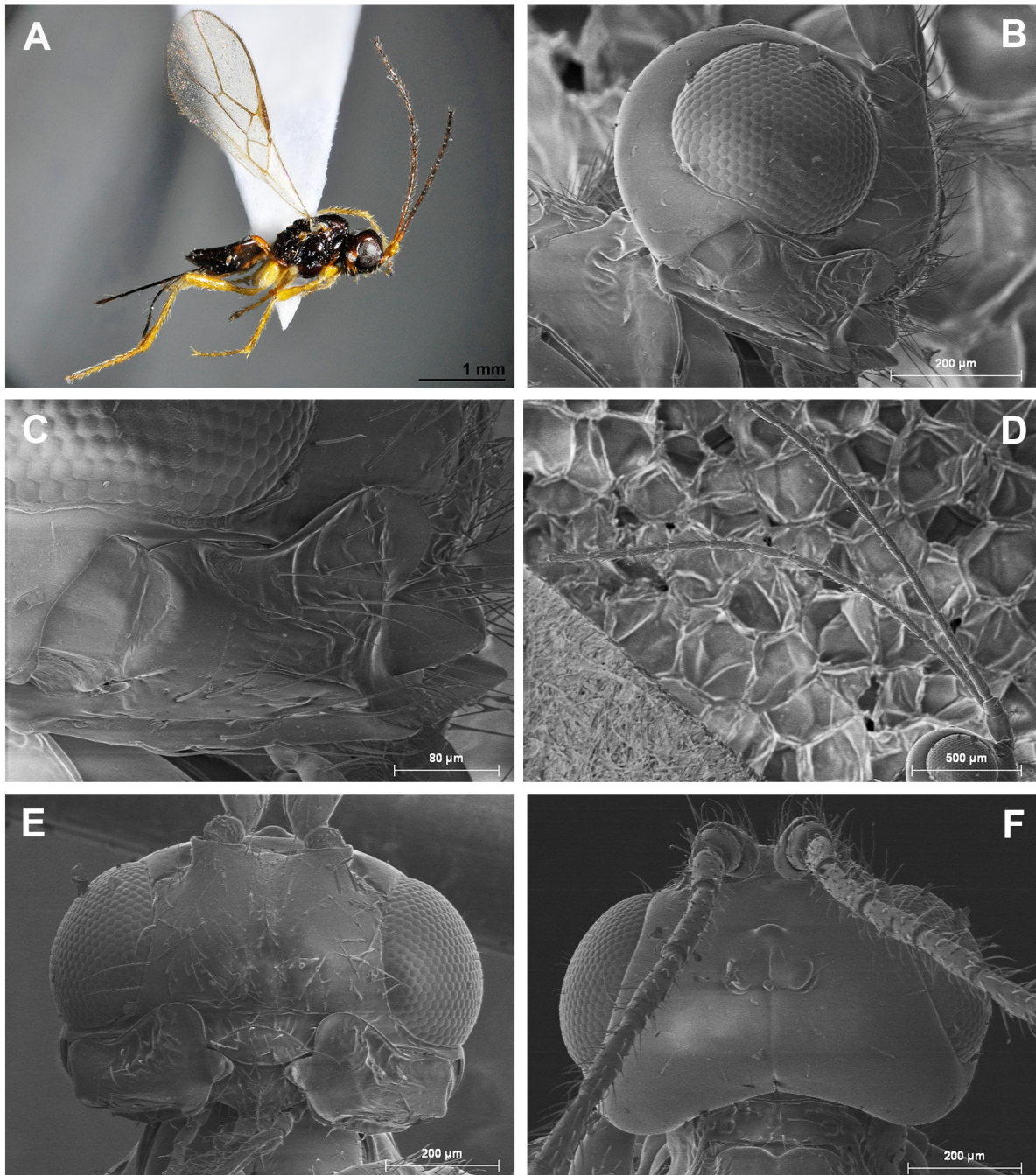


Fig. 25. *Asobara kapiensis* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

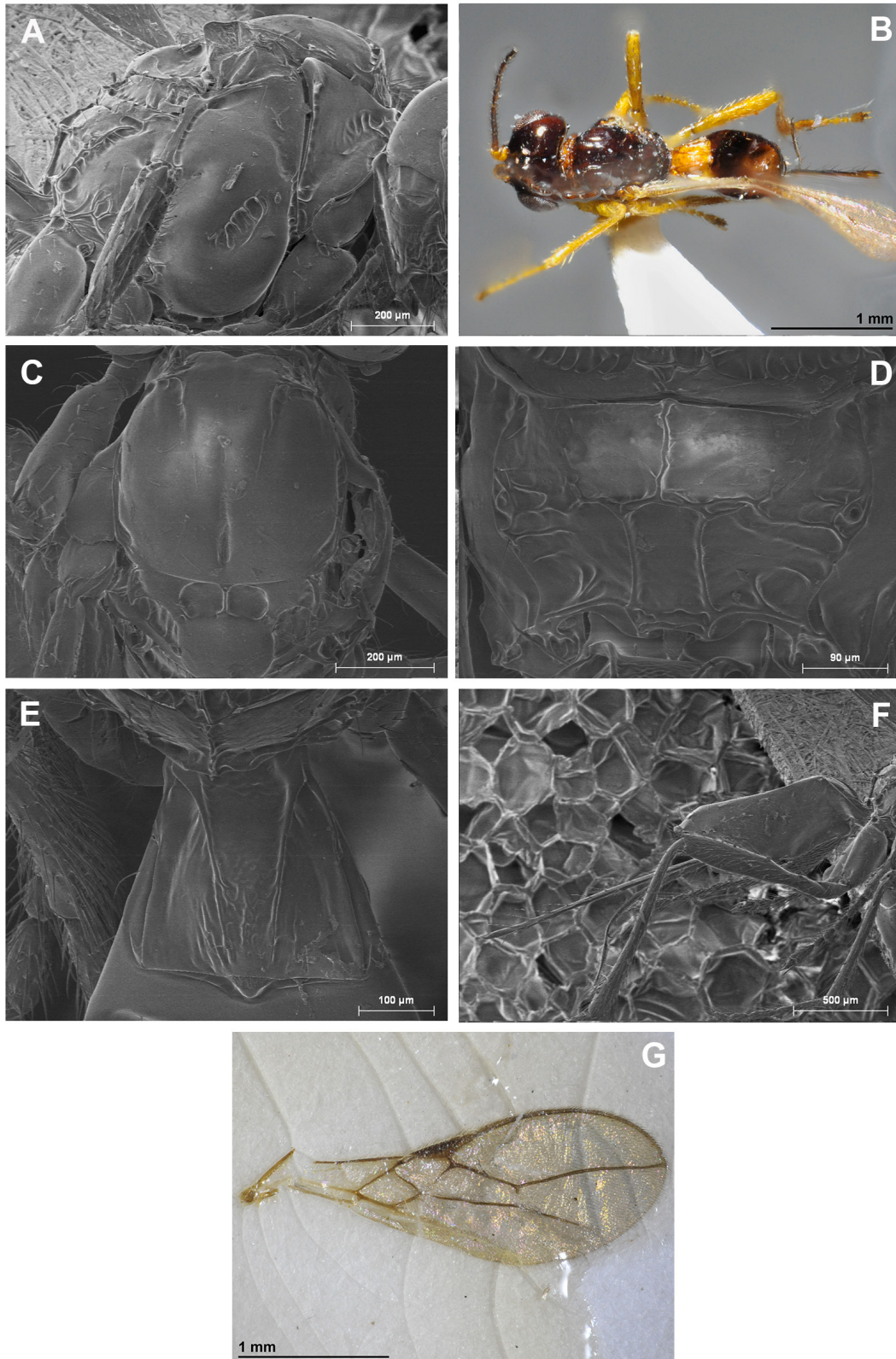


Fig. 26. *Asobara kapiensis* Fischer, 2007, ♀, holotype (OLML). **A.** Mesosoma, lateral view. **B.** Habitus, dorsal view. **C.** Mesoscutum, dorsal view. **D.** Propodeum. **E.** First metasomal tergite, dorsal view. **F.** Hind leg, metasoma and ovipositor, lateral view. **G.** Fore and hind wings.

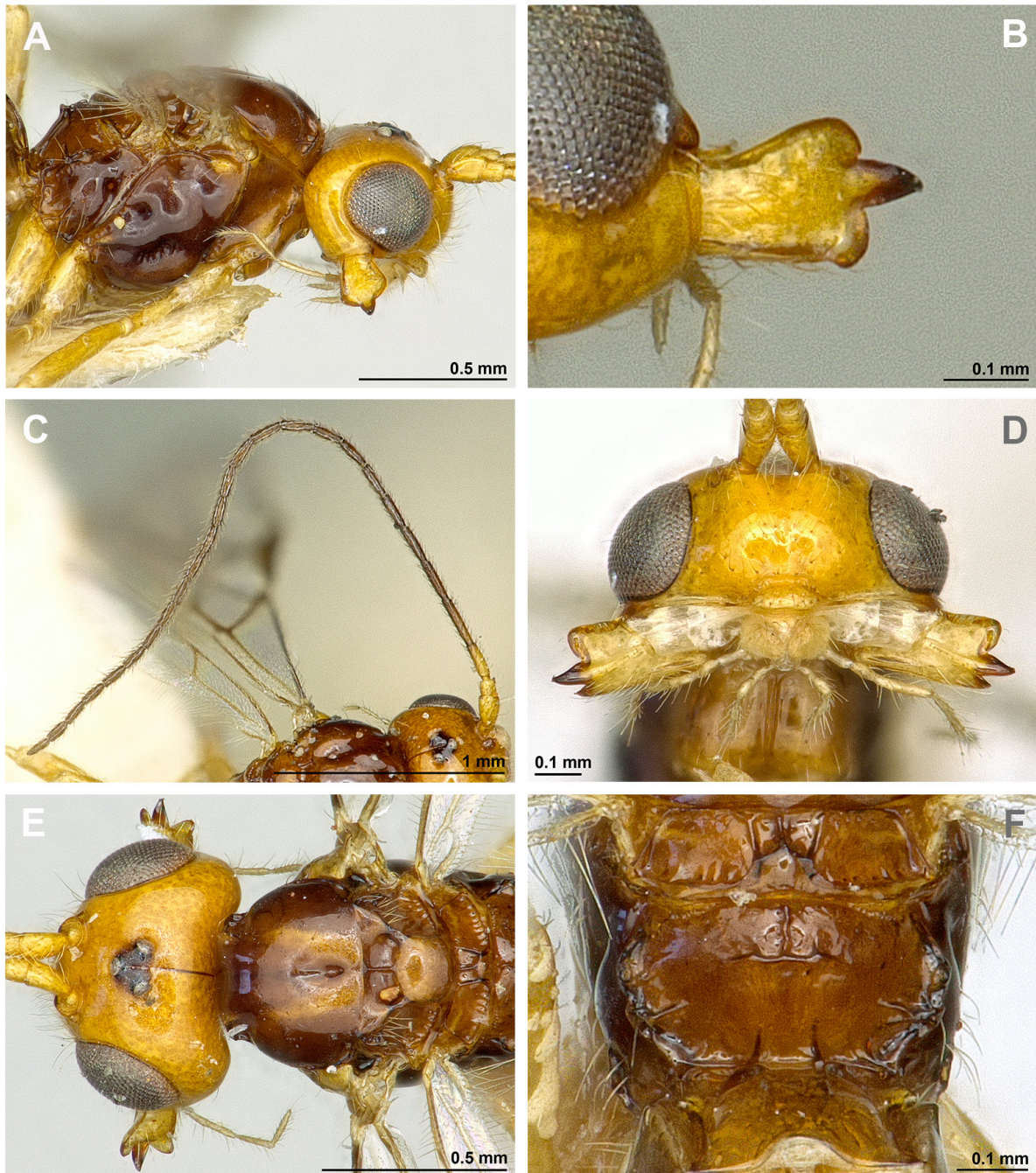


Fig. 27. *Asobara kawandensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Head and mesosoma, lateral view. **B.** Mandible. **C.** Antenna. **D.** Head, front view. **E.** Head and mesoscutum, dorsal view. **F.** Propodeum.

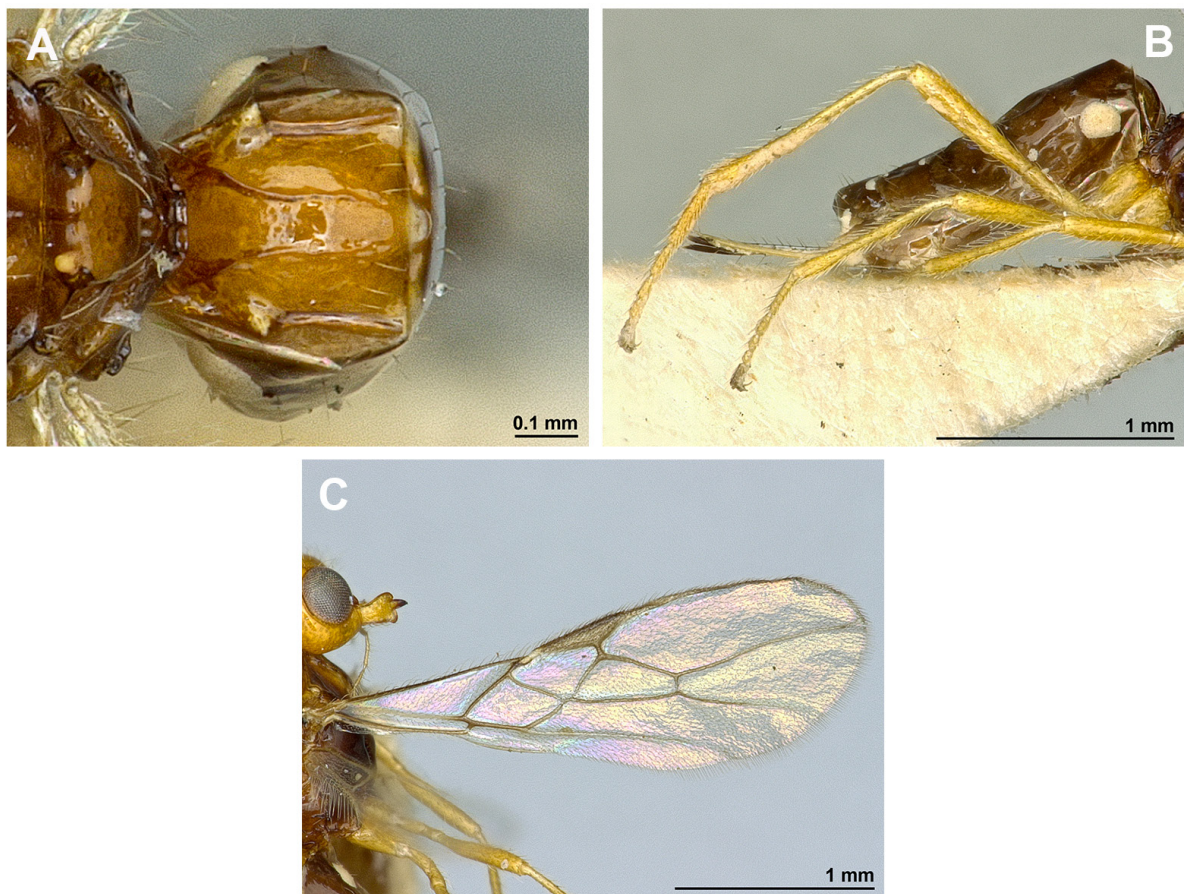


Fig. 28. *Asobara kawandensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** First metasomal tergite, dorsal view. **B.** Hind leg, metasoma and ovipositor, lateral view. **C.** Fore wing.



Fig. 29. *Asobara kenyaensis* Peris-Felipo, 2014, ♀, holotype (BMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Antenna. **D.** Mandible. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.



Fig. 30. *Asobara kenyaensis* Peris-Felipo, 2014, ♀, holotype (BMNH). **A.** Propodeum. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

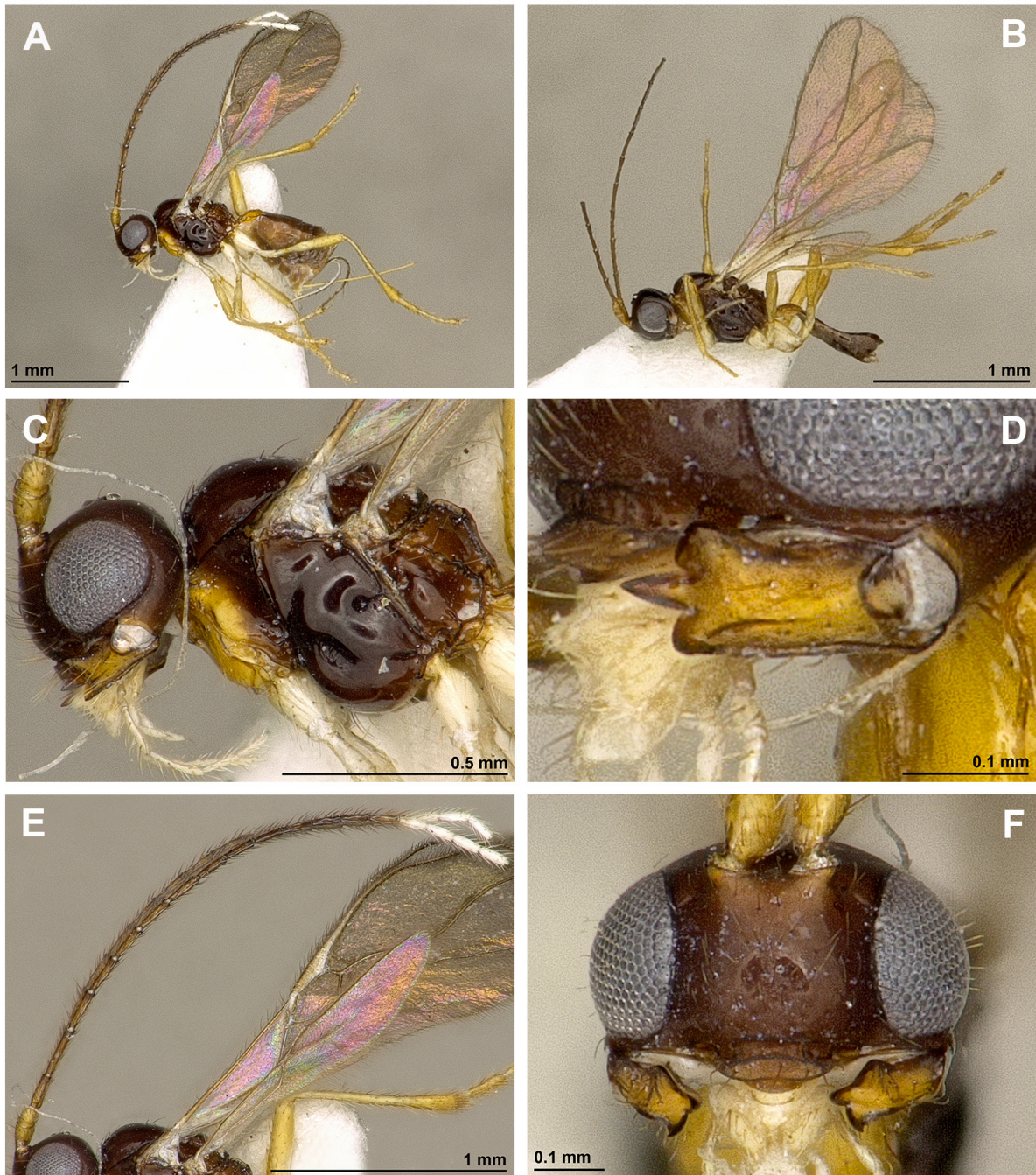


Fig. 31. *Asobara kibalensis* van Achterberg, sp. nov., A, C–F: ♀, holotype (RMNH); B: ♂ (RMNH). A–B. Habitus, lateral view. C. Head, lateral view. D. Mandible. E. Antenna. F. Head, front view.

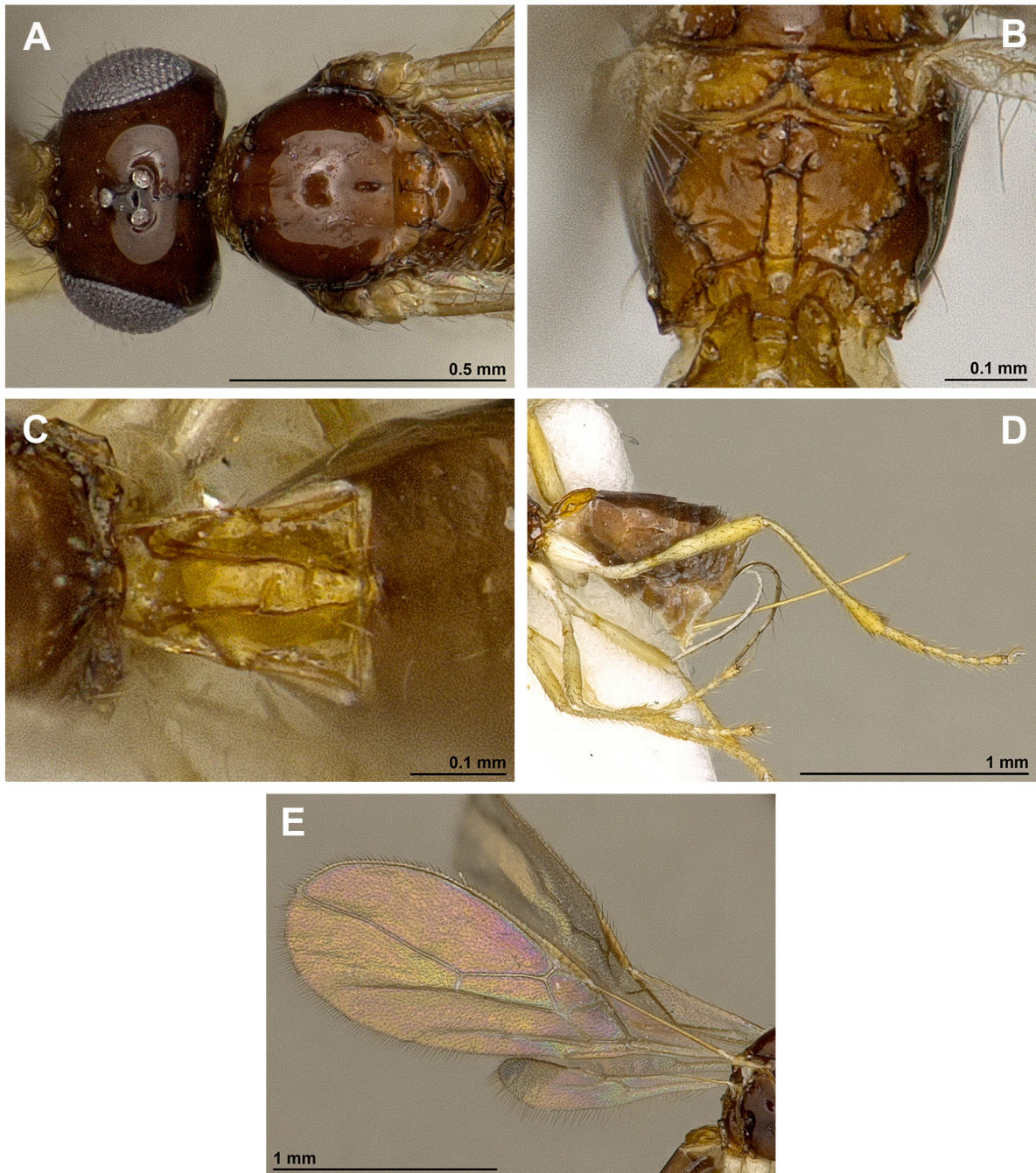


Fig. 32. *Asobara kibalensis* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

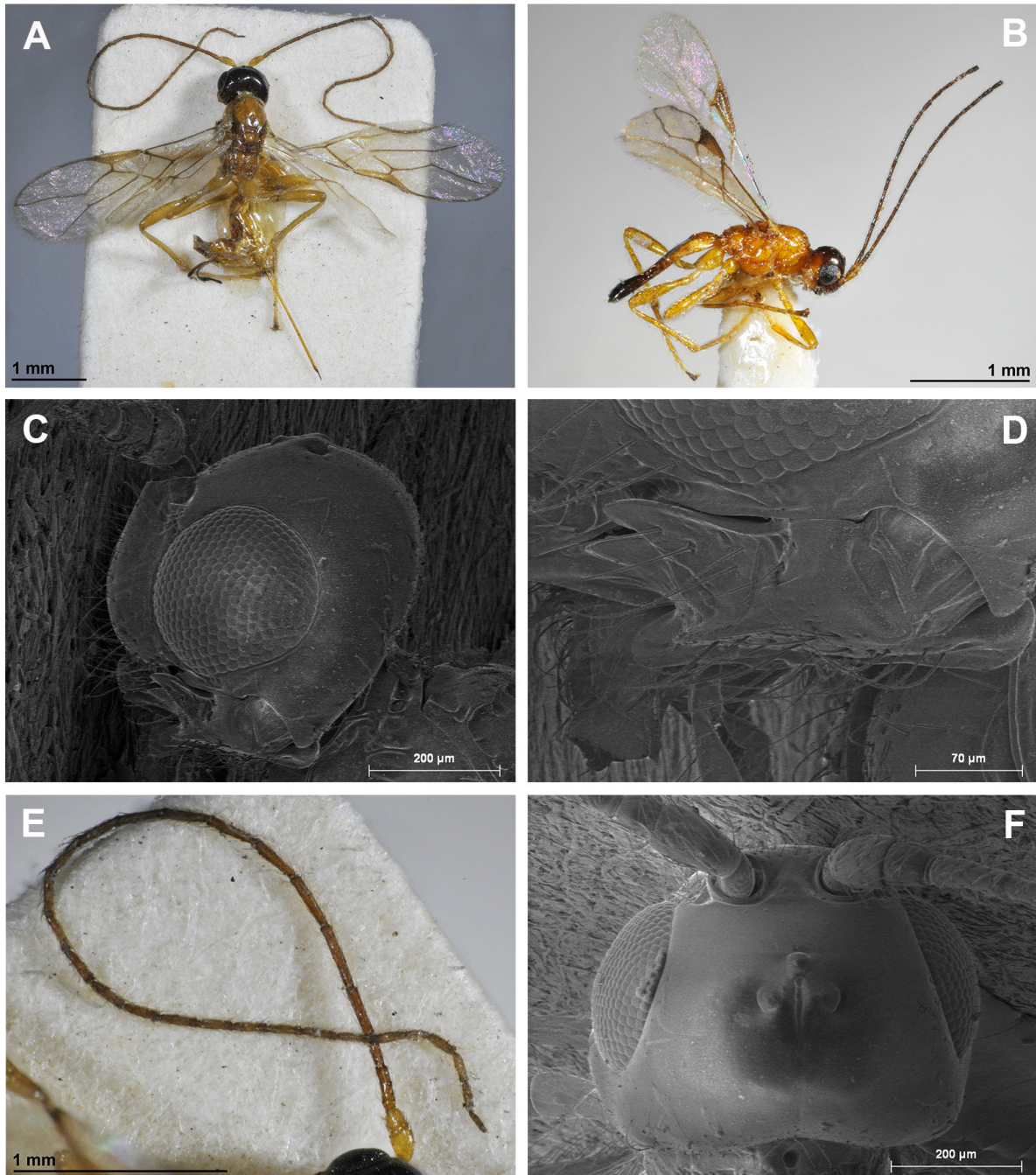


Fig. 33. *Asobara kobacsi* (Papp, 1966), A, C–F: ♀, holotype (HNHM); B: ♂ (BMNH 1927-54). A–B. Habitus, lateral view. C. Head, lateral view. D. Mandible. E. Antenna. F. Head, front view.

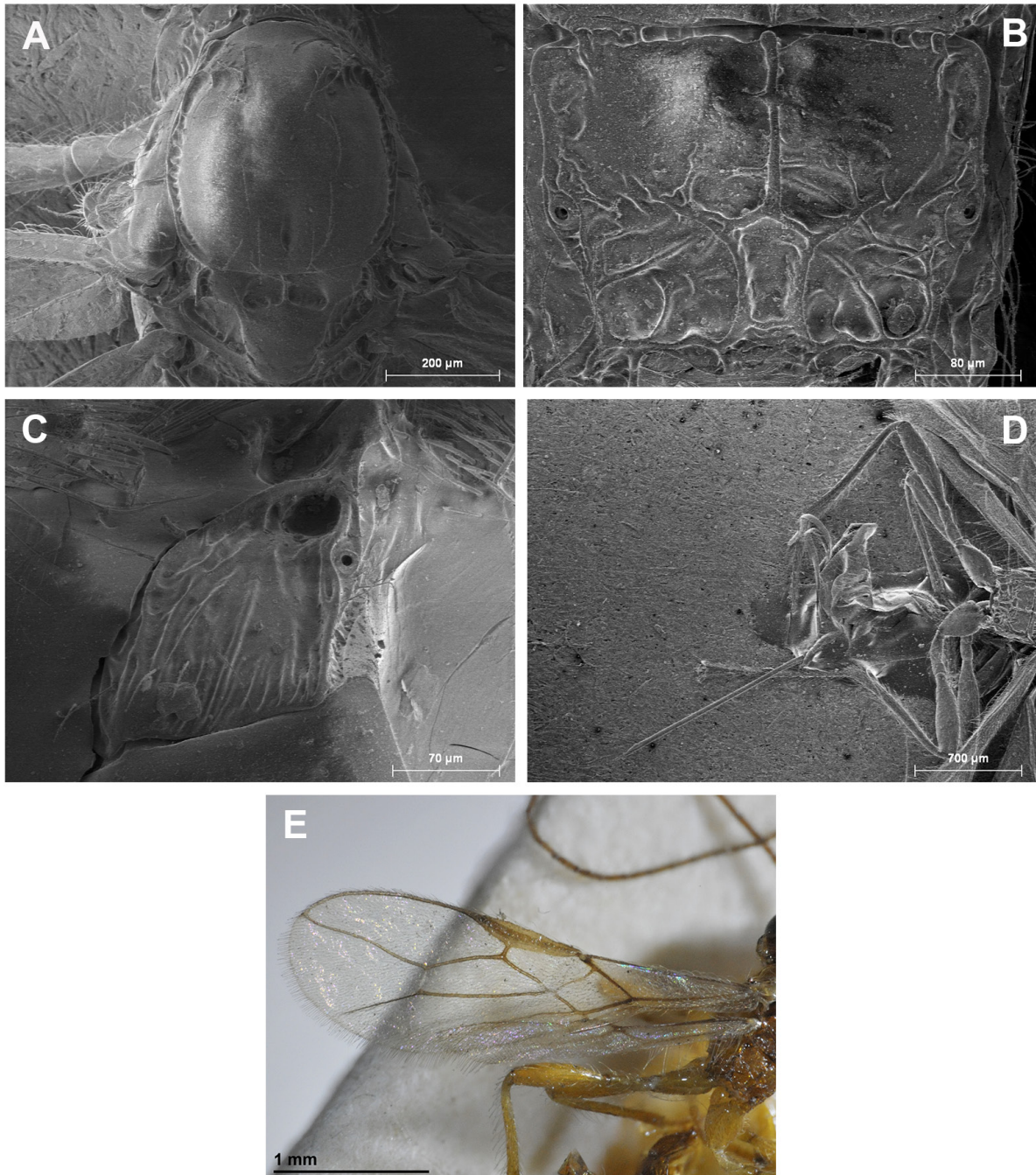


Fig. 34. *Asobara kovacsi* (Papp, 1966), ♀, holotype (HNHM). **A.** Mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore wing.

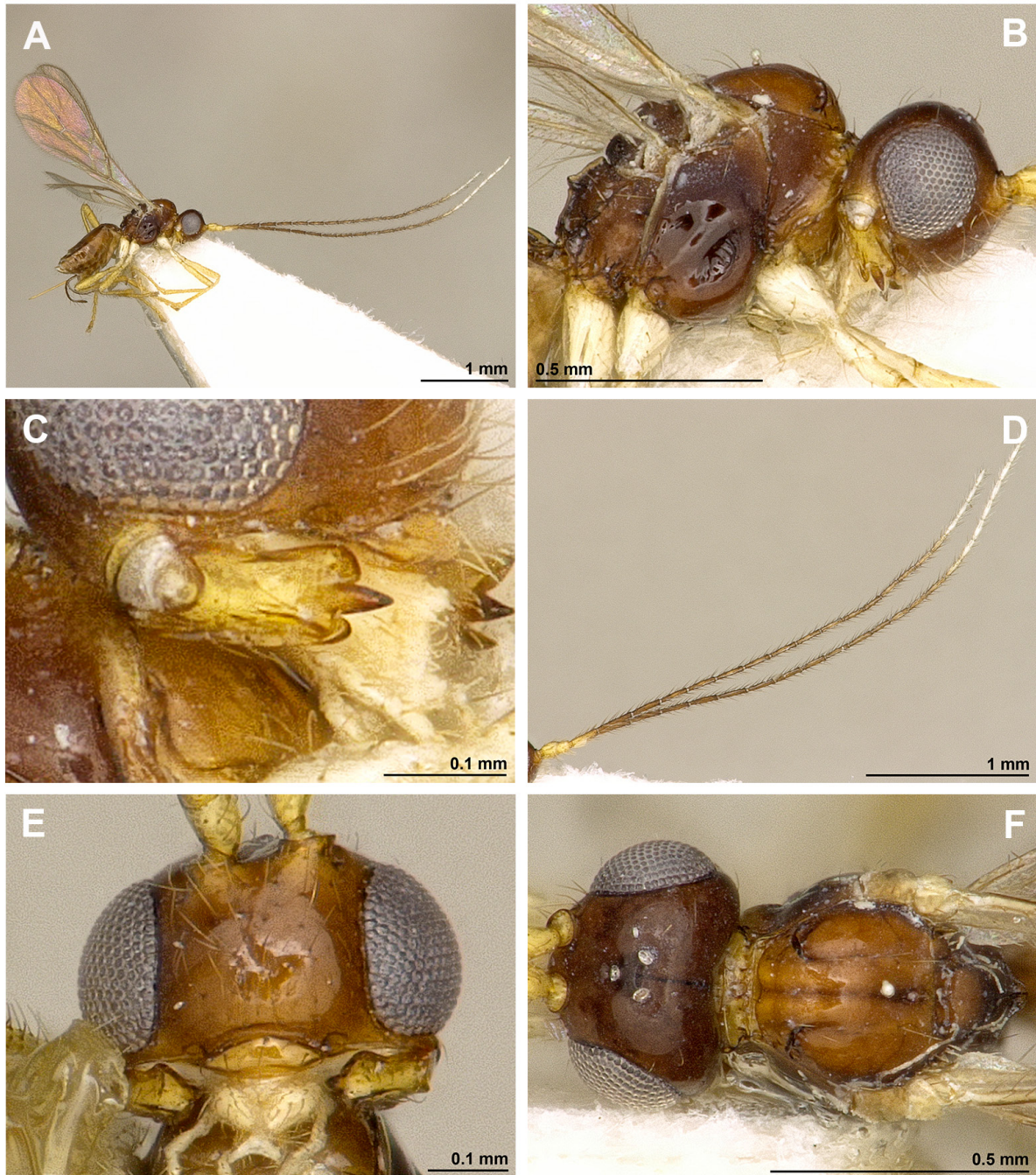


Fig. 35. *Asobara laticlypeata* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.



Fig. 36. *Asobara laticlypeata* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Propodeum. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.

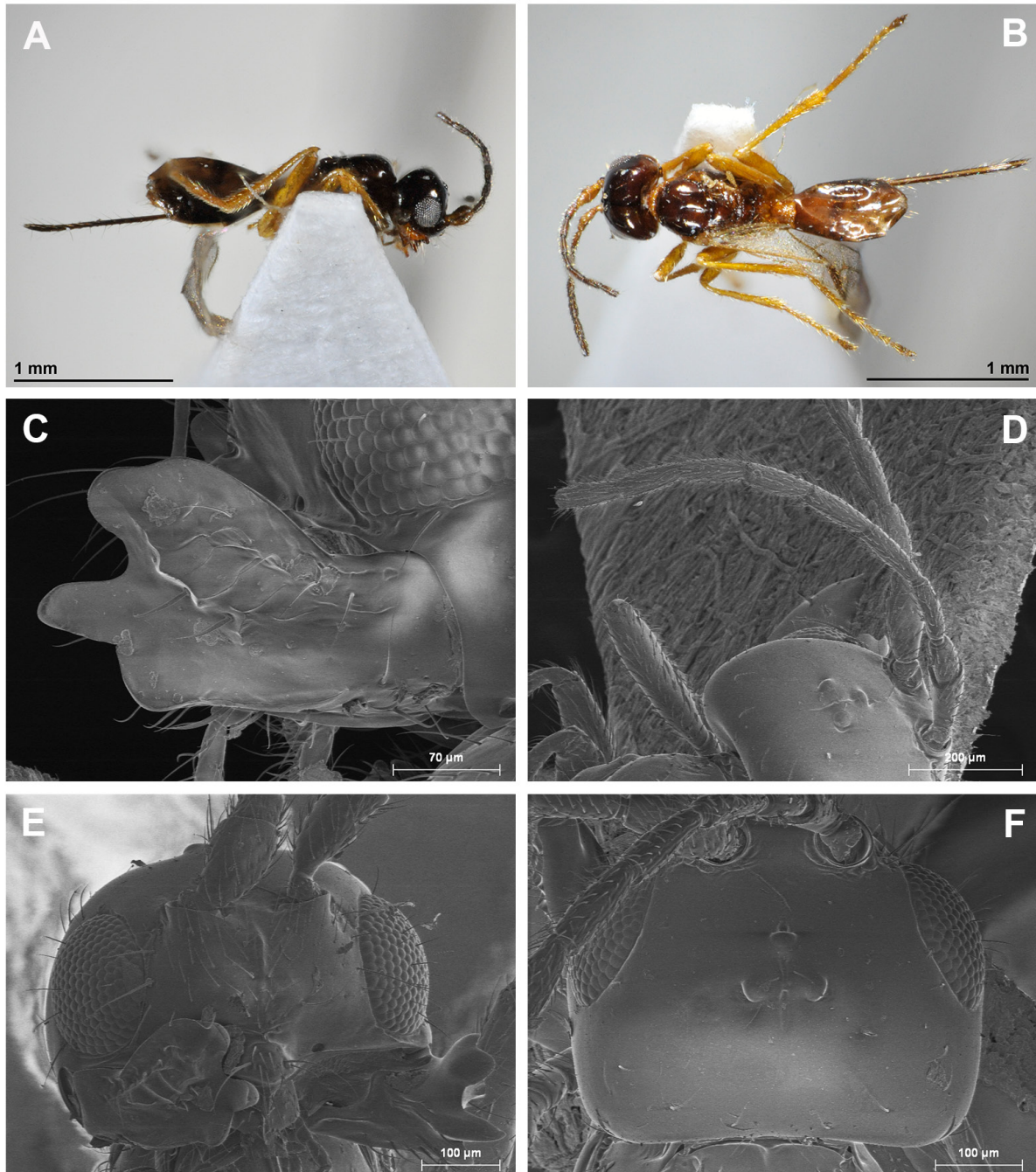


Fig. 37. *Asobara malawiana* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, lateral view. **B.** Habitus, dorsal view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

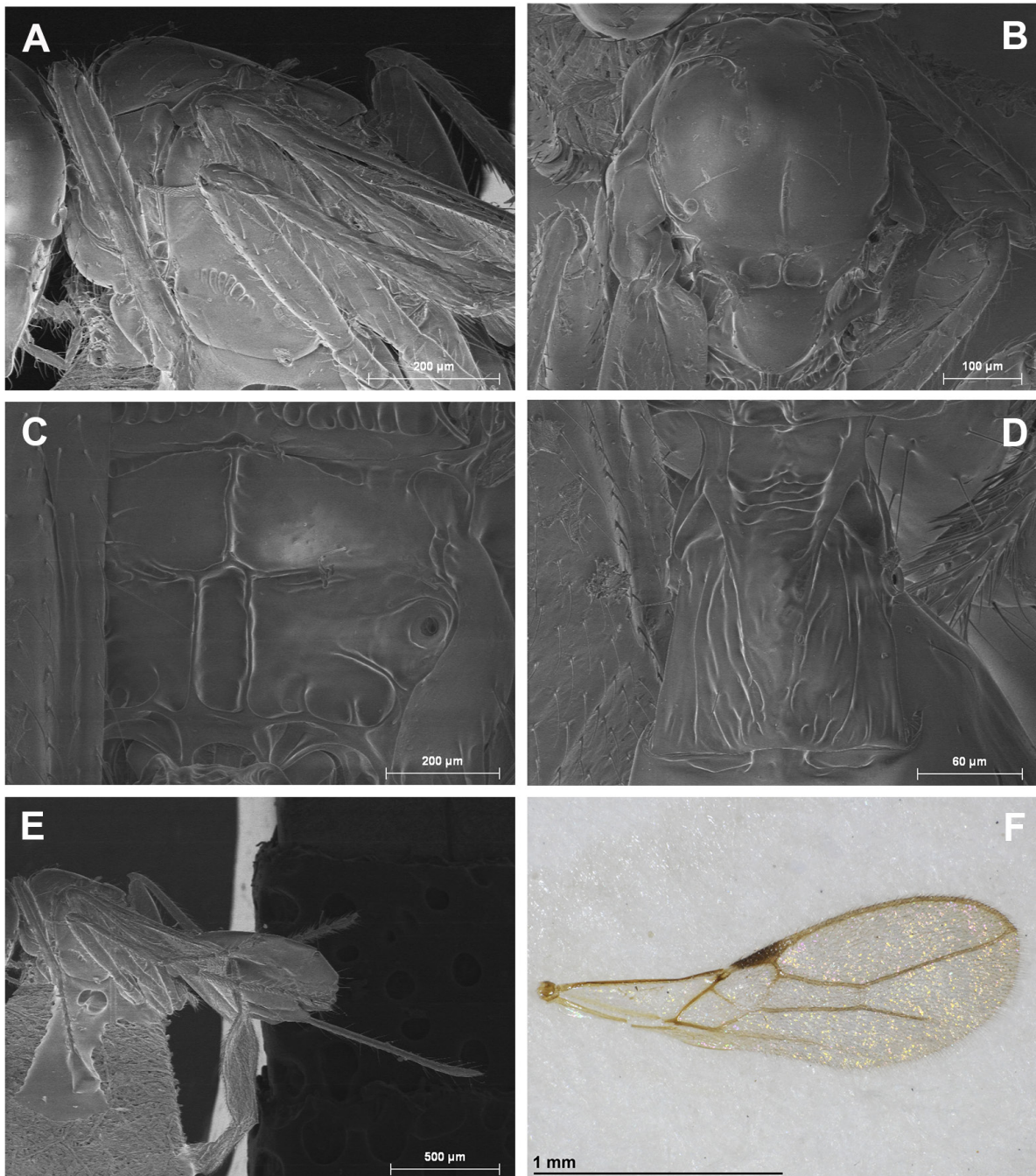


Fig. 38. *Asobara malawiiana* Fischer, 2007, ♀, holotype (OLML). **A.** Mesosoma, lateral view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

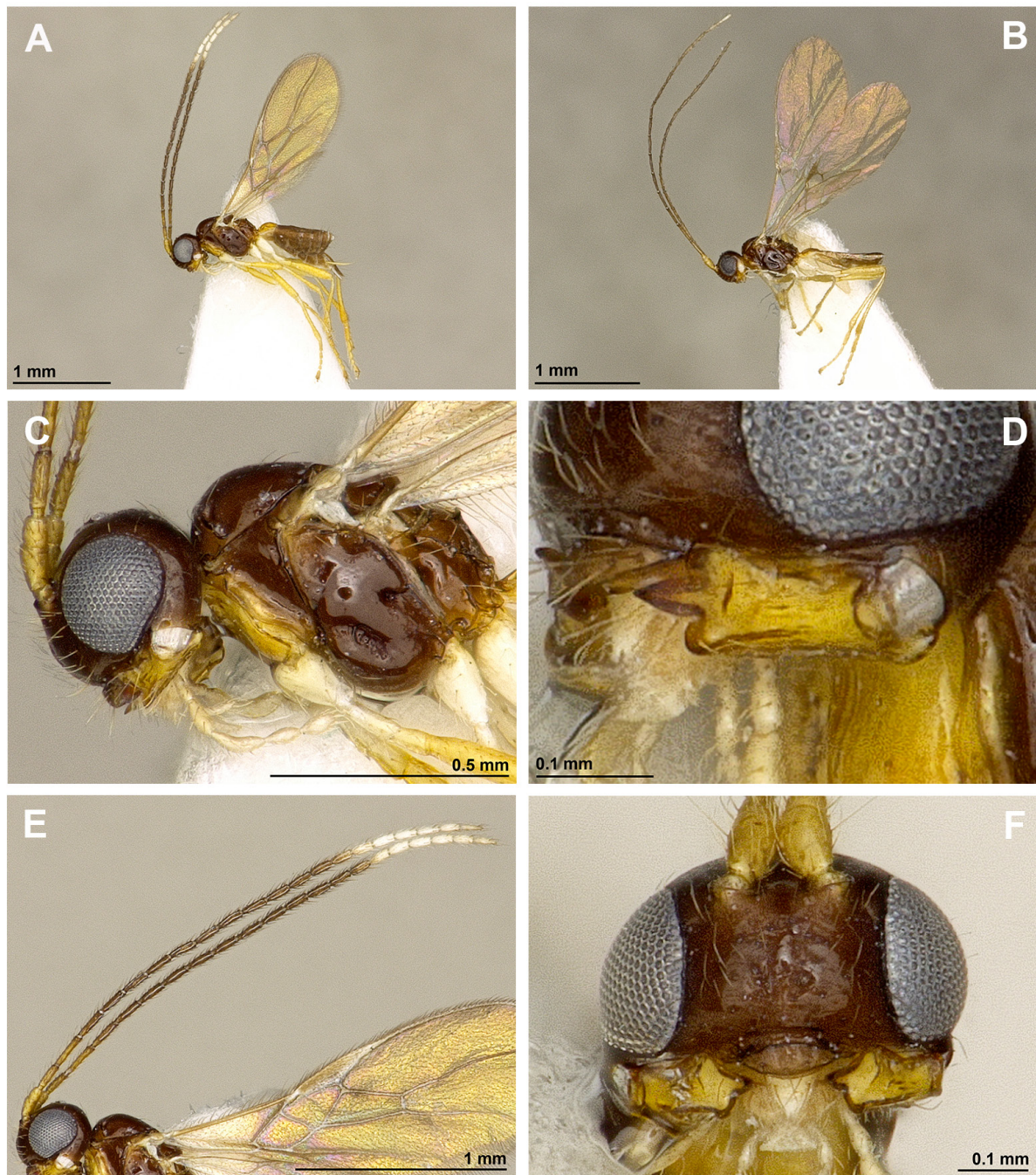


Fig. 39. *Asobara mediana* van Achterberg, sp. nov., A, C–F: ♀, holotype (RMNH); B: ♂ (RMNH). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

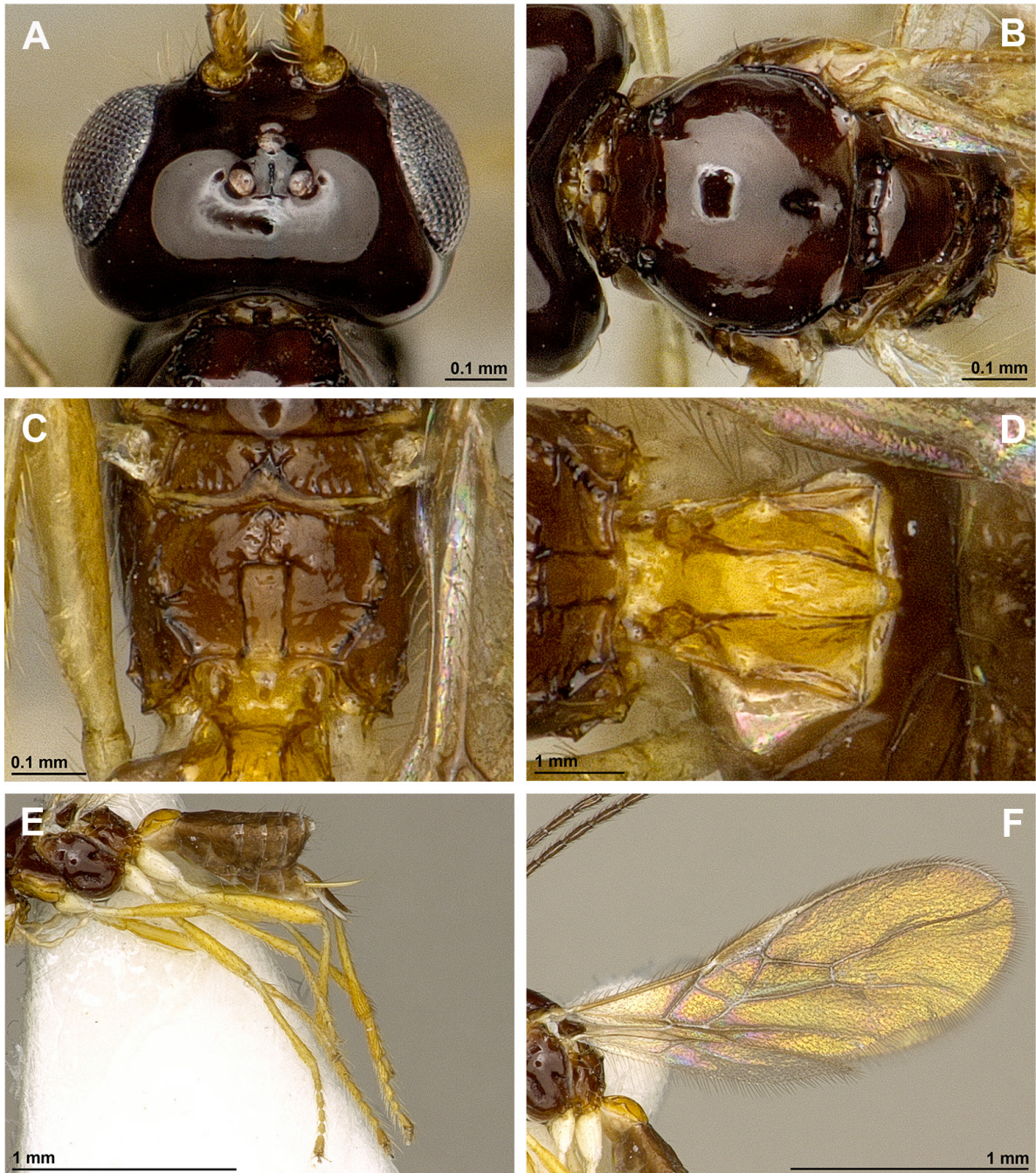


Fig. 40. *Asobara mediana* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Head, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

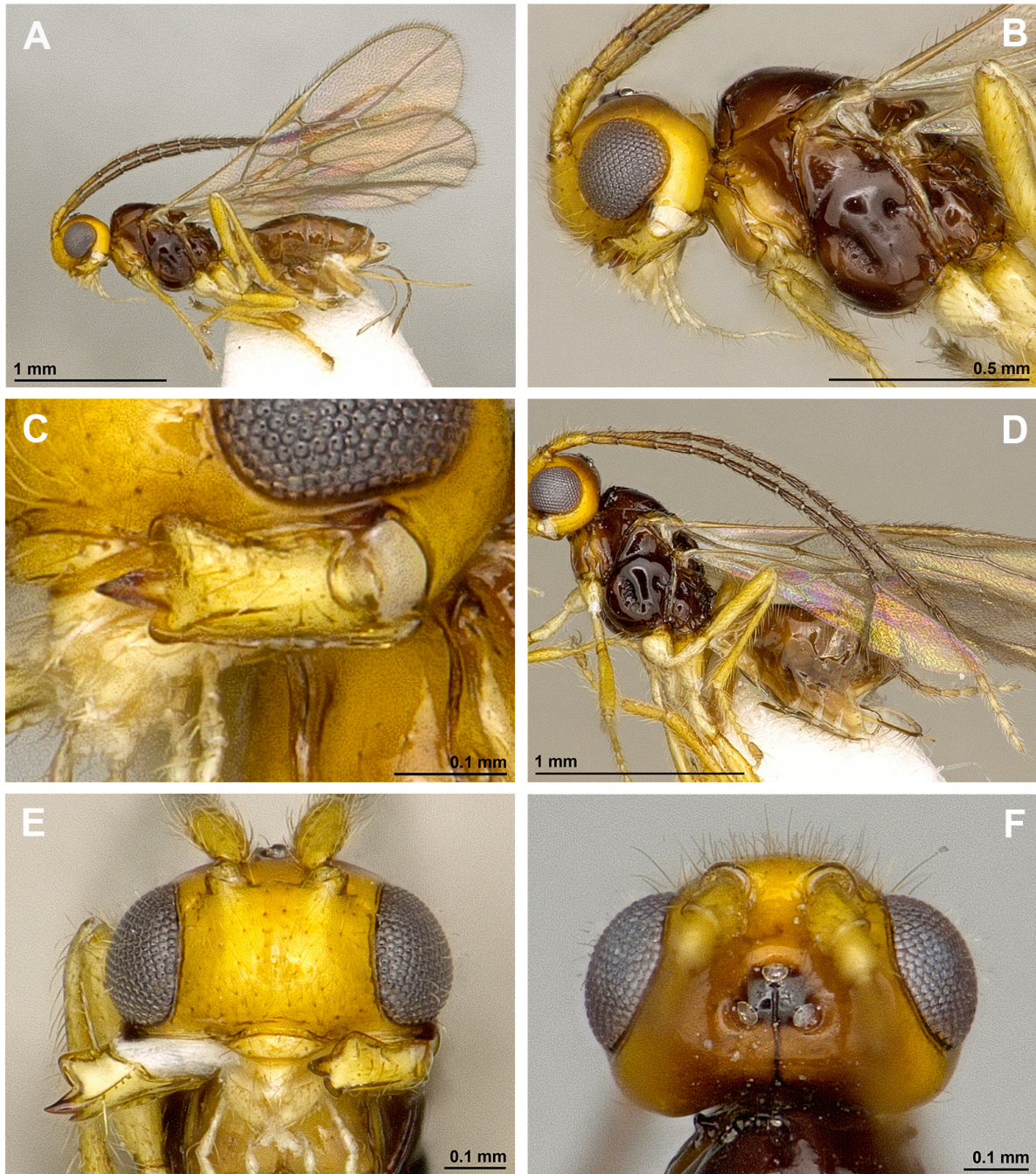


Fig. 41. *Asobara mellicephalata* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

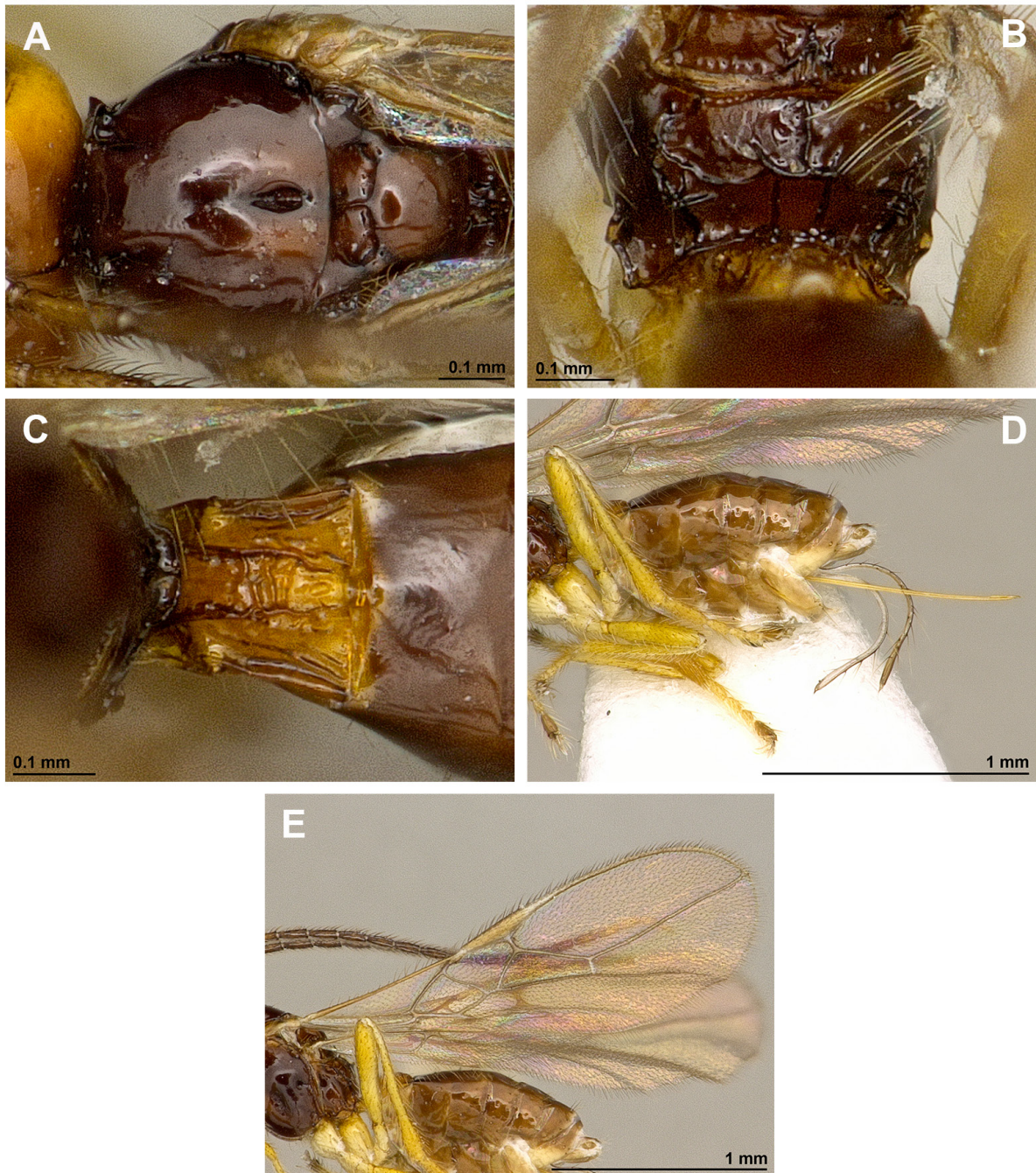


Fig. 42. *Asobara mellicephalata* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore wing.

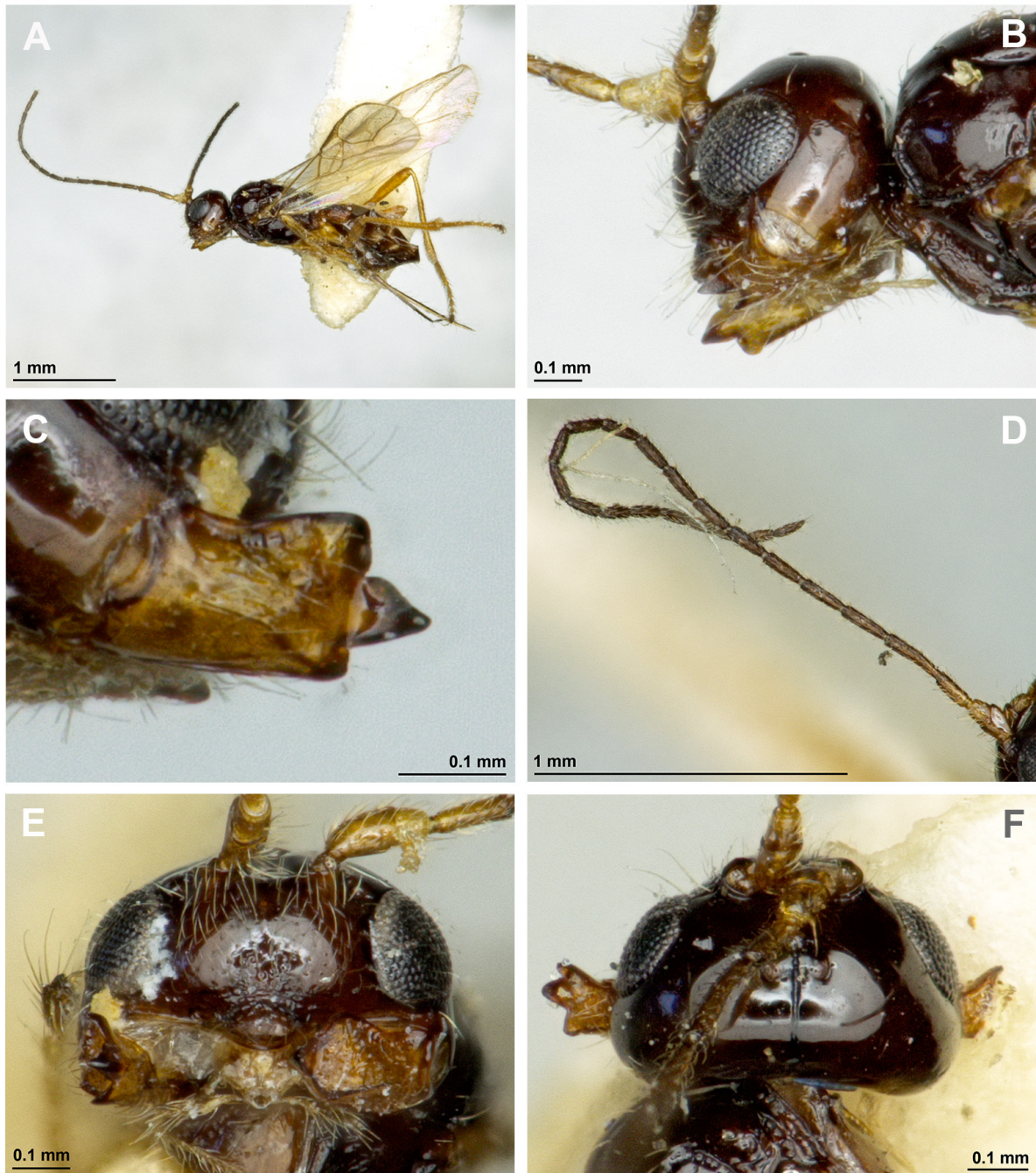


Fig. 43. *Asobara natalensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1927-25). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

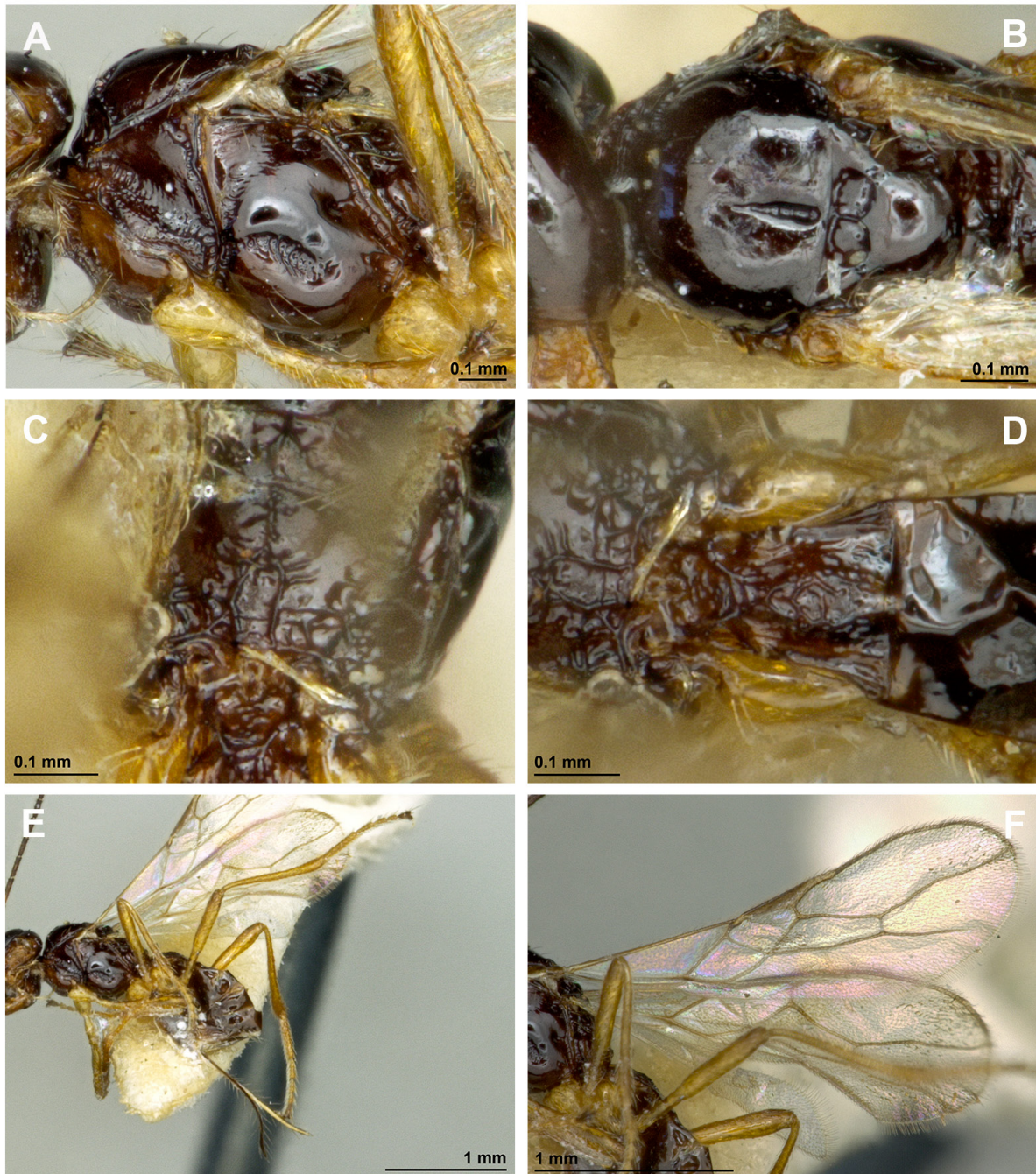


Fig. 44. *Asobara natalensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1927-25). **A.** Mesosoma, lateral view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

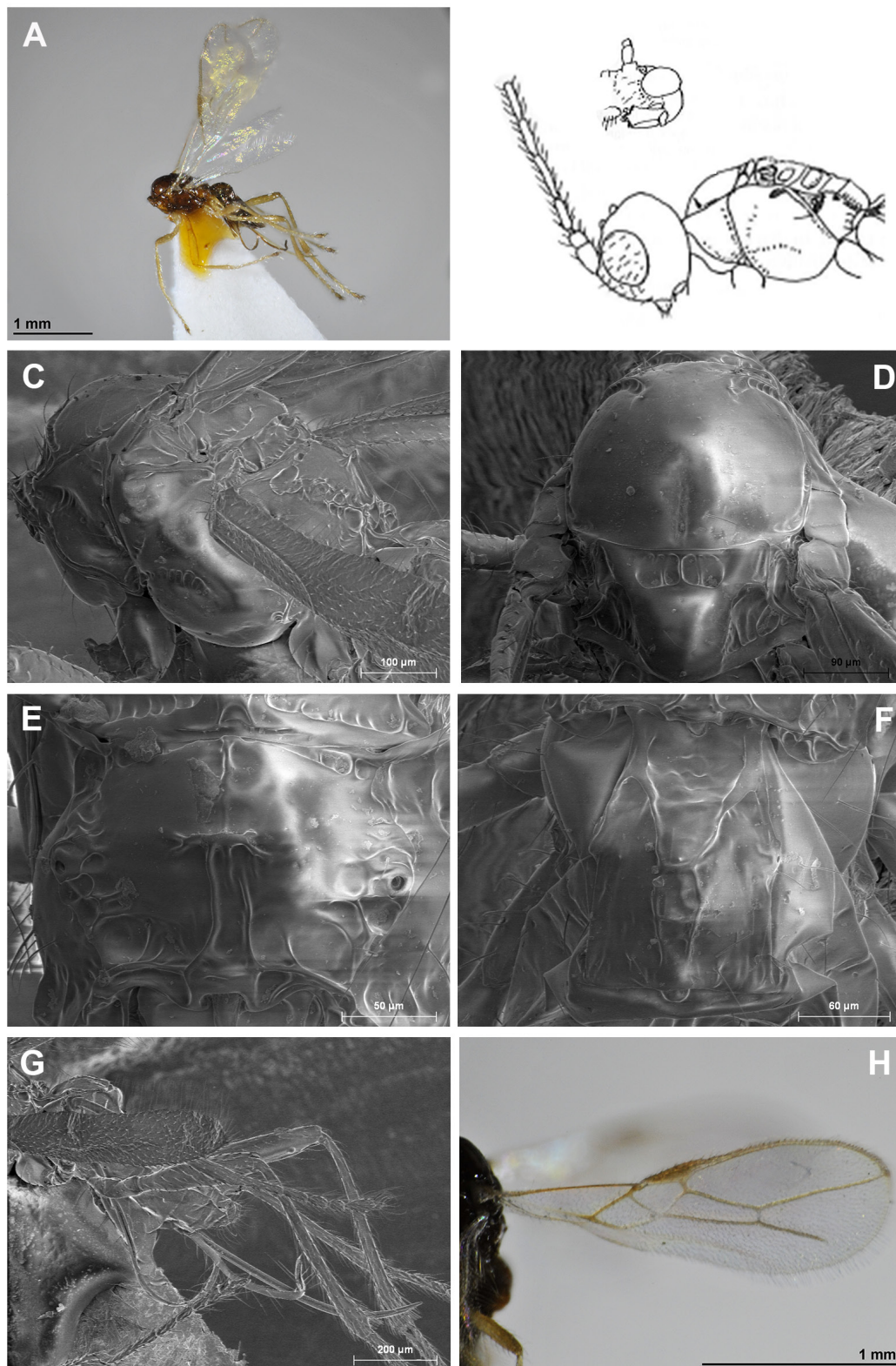


Fig. 45. *Asobara nigerrima* Fischer, 2003, ♀, holotype (NHMW). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view (redrawn after Fischer 2003). **C.** Mesosoma, lateral view. **D.** Mesoscutum, dorsal view. **E.** Propodeum. **F.** First metasomal tergite, dorsal view. **G.** Hind leg, metasoma and ovipositor, lateral view. **H.** Fore wing.

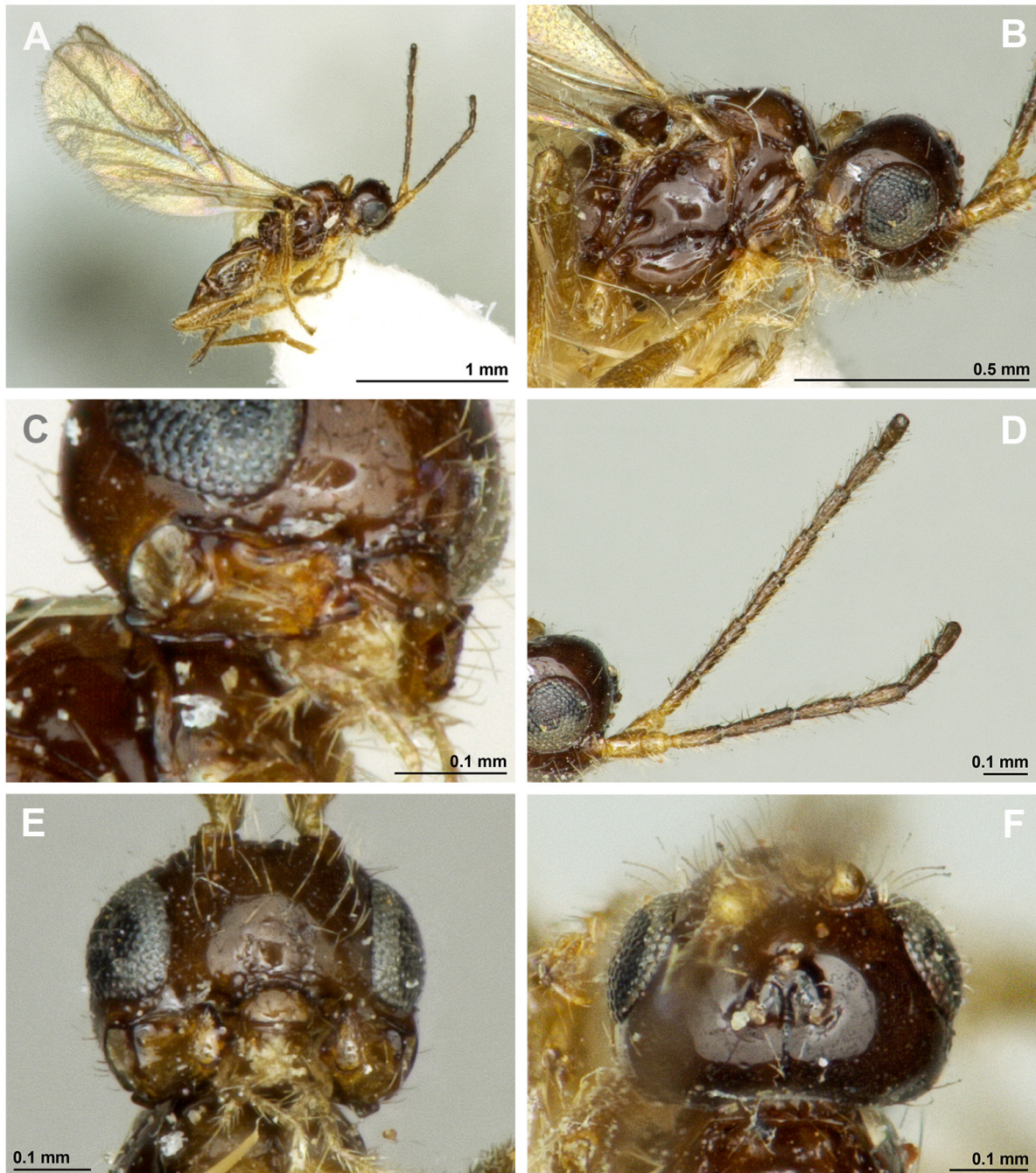


Fig. 46. *Asobara notleyi* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

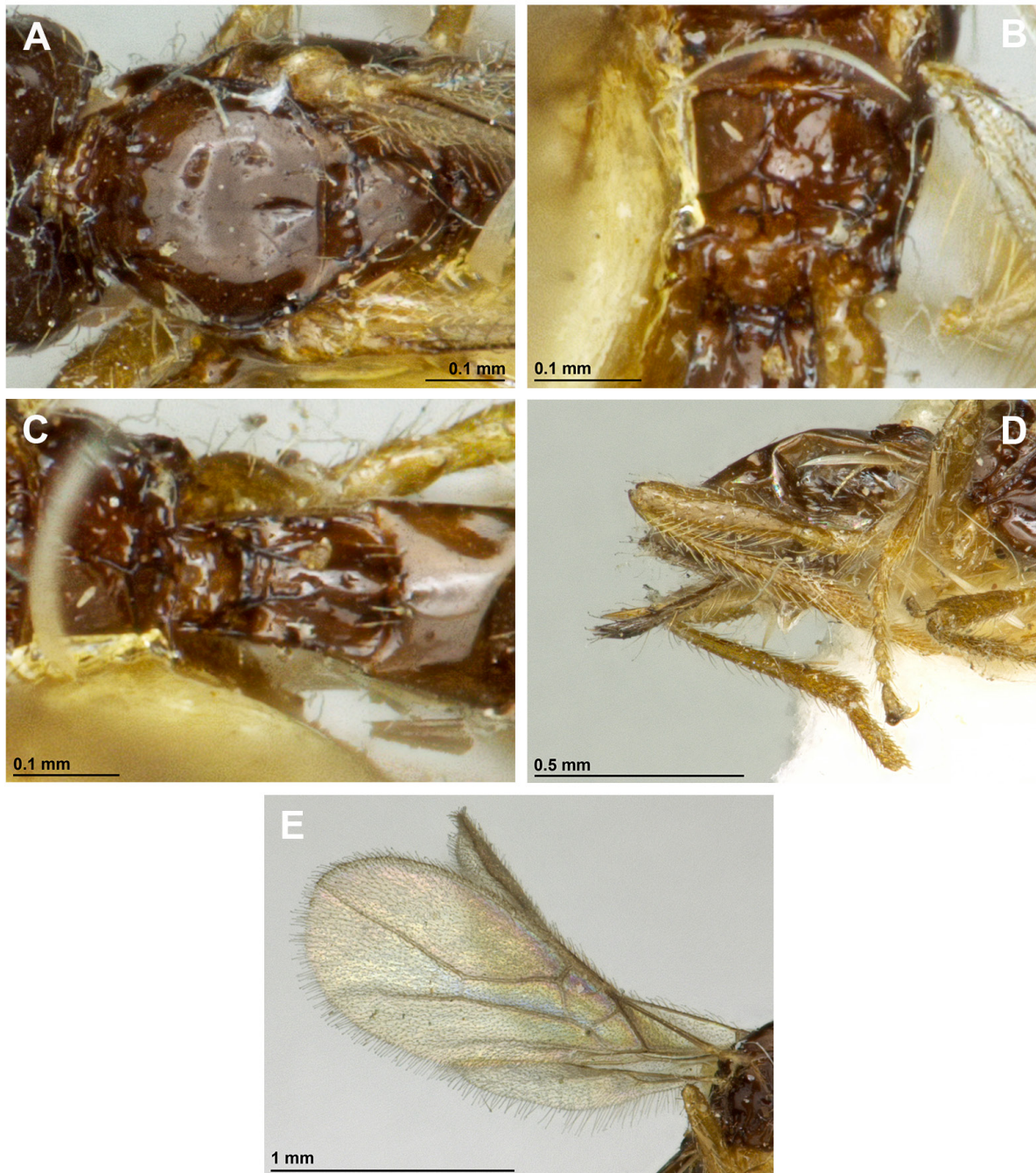


Fig. 47. *Asobara notleyi* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

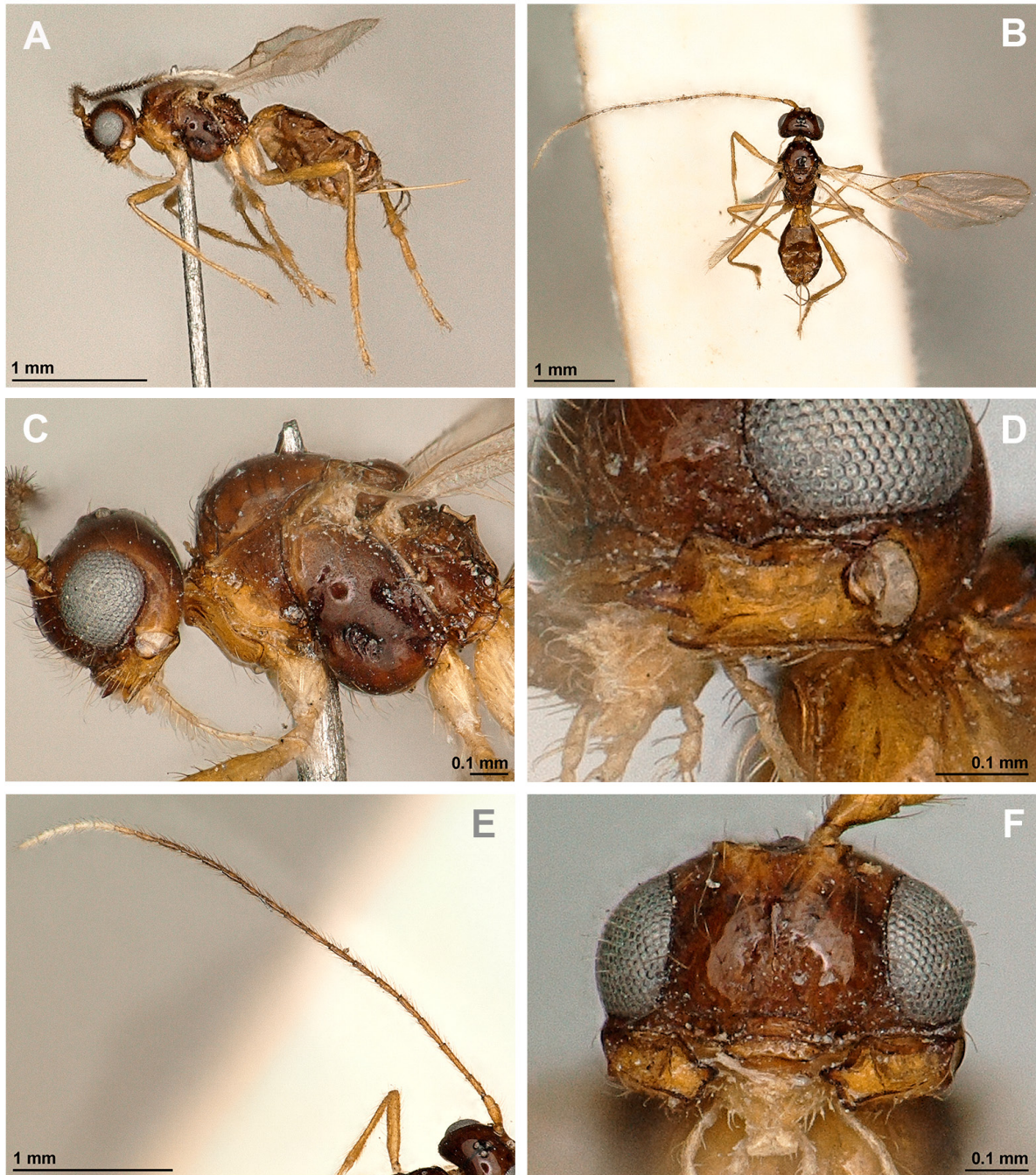


Fig. 48. *Asobara pulchricornis* (Szépligeti, 1911), ♀, holotype (NHMB). **A.** Habitus, lateral view. **B.** Habitus, dorsal view. **C.** Head and mesosoma, lateral view. **D.** Mandible. **E.** Antenna. **F.** Head, front view.

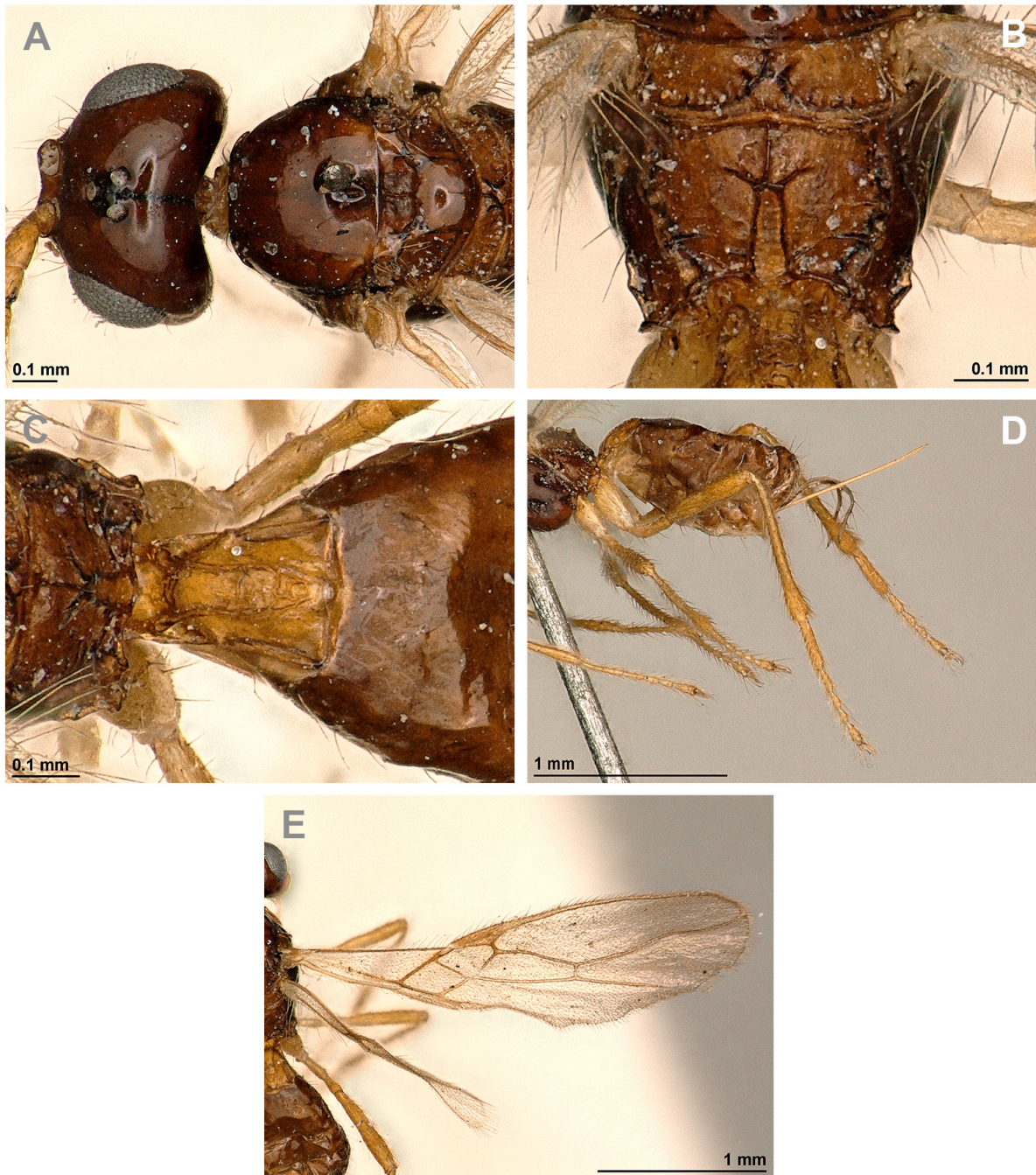


Fig. 49. *Asobara pulchricornis* (Szépligeti, 1911), ♀, holotype (NHMB). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.



Fig. 50. *Asobara robusta* van Achterberg, sp. nov., ♀, holotype (RMNH 7597). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

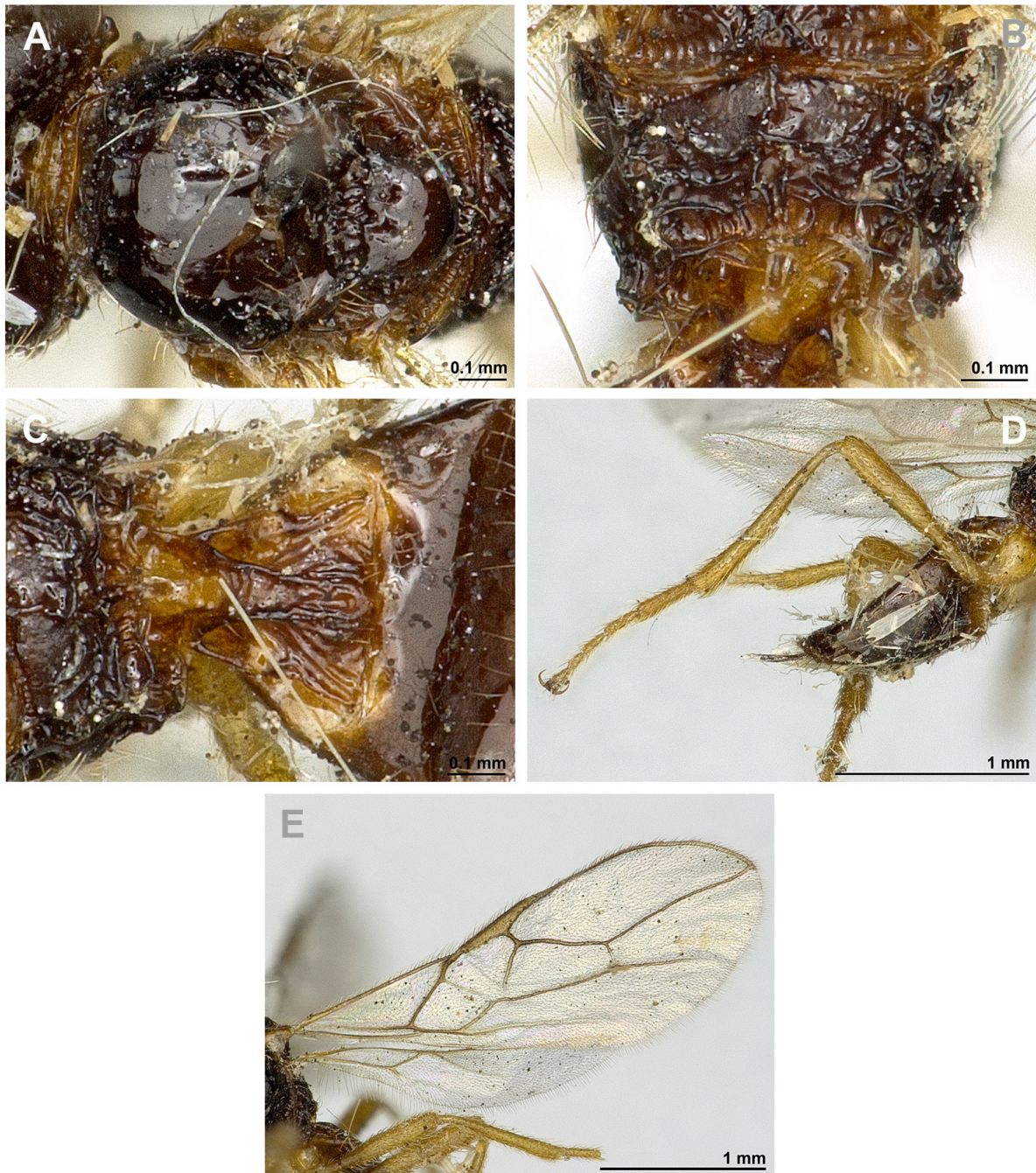


Fig. 51. *Asobara robusta* van Achterberg, sp. nov., ♀, holotype (RMNH 7597). **A.** Head and mesoscutum, dorsal view. **B.** Propodeum, dorsal view. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

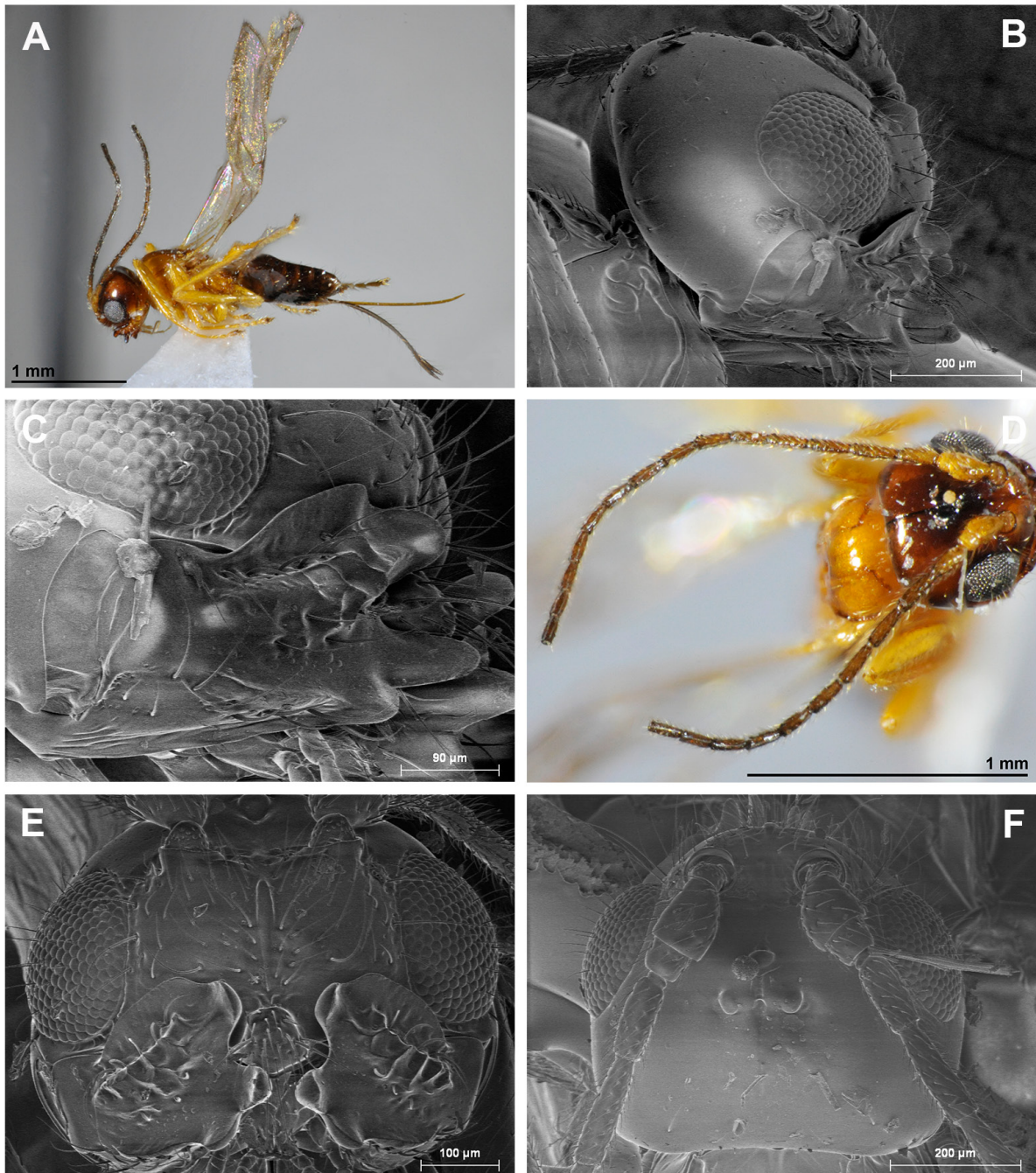


Fig. 52. *Asobara rufimalawiana* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Antenna. **D.** Mandible. **E.** Head, front view. **F.** Head, dorsal view.

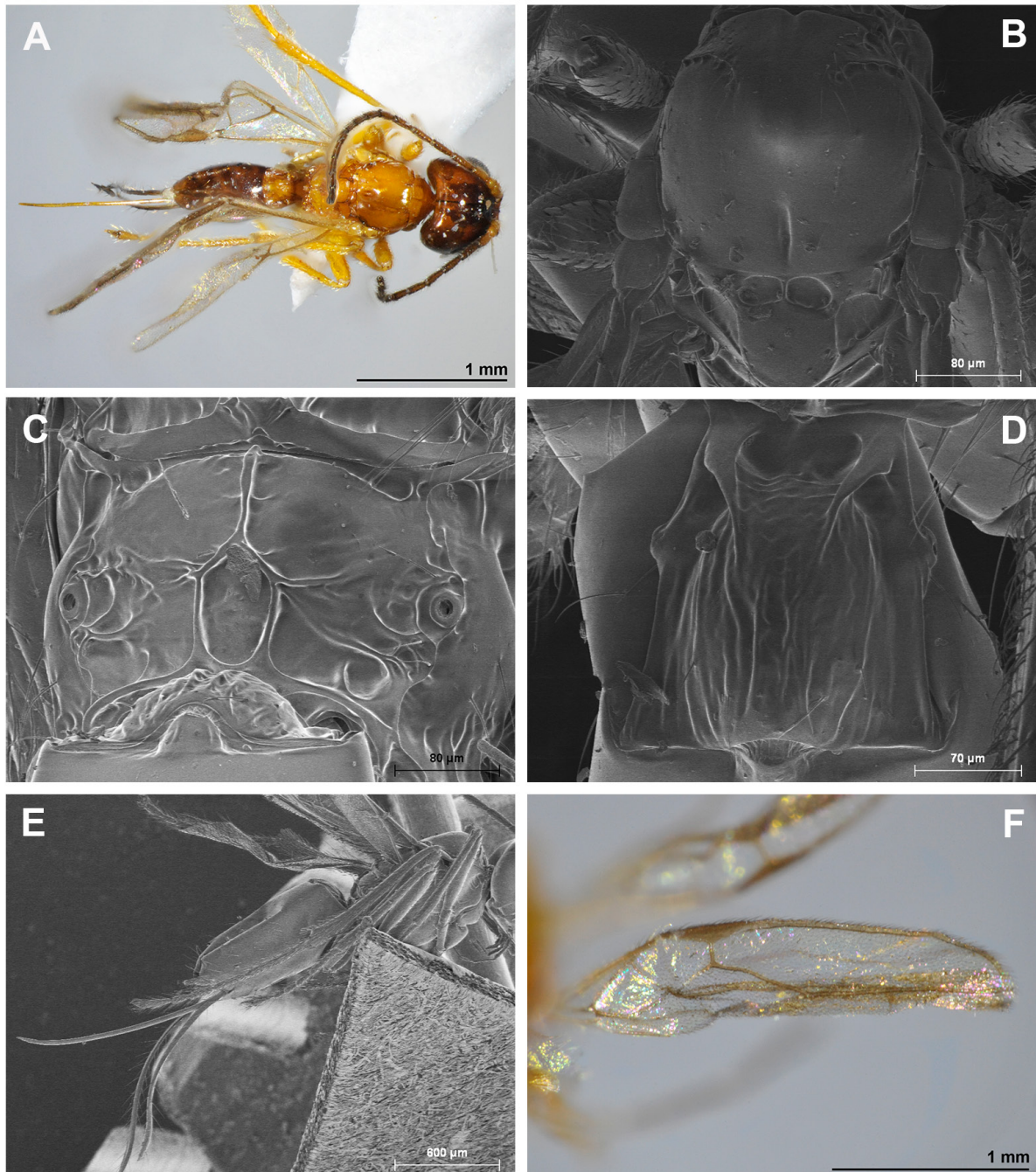


Fig. 53. *Asobara rufimalawiana* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum, dorsal view. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

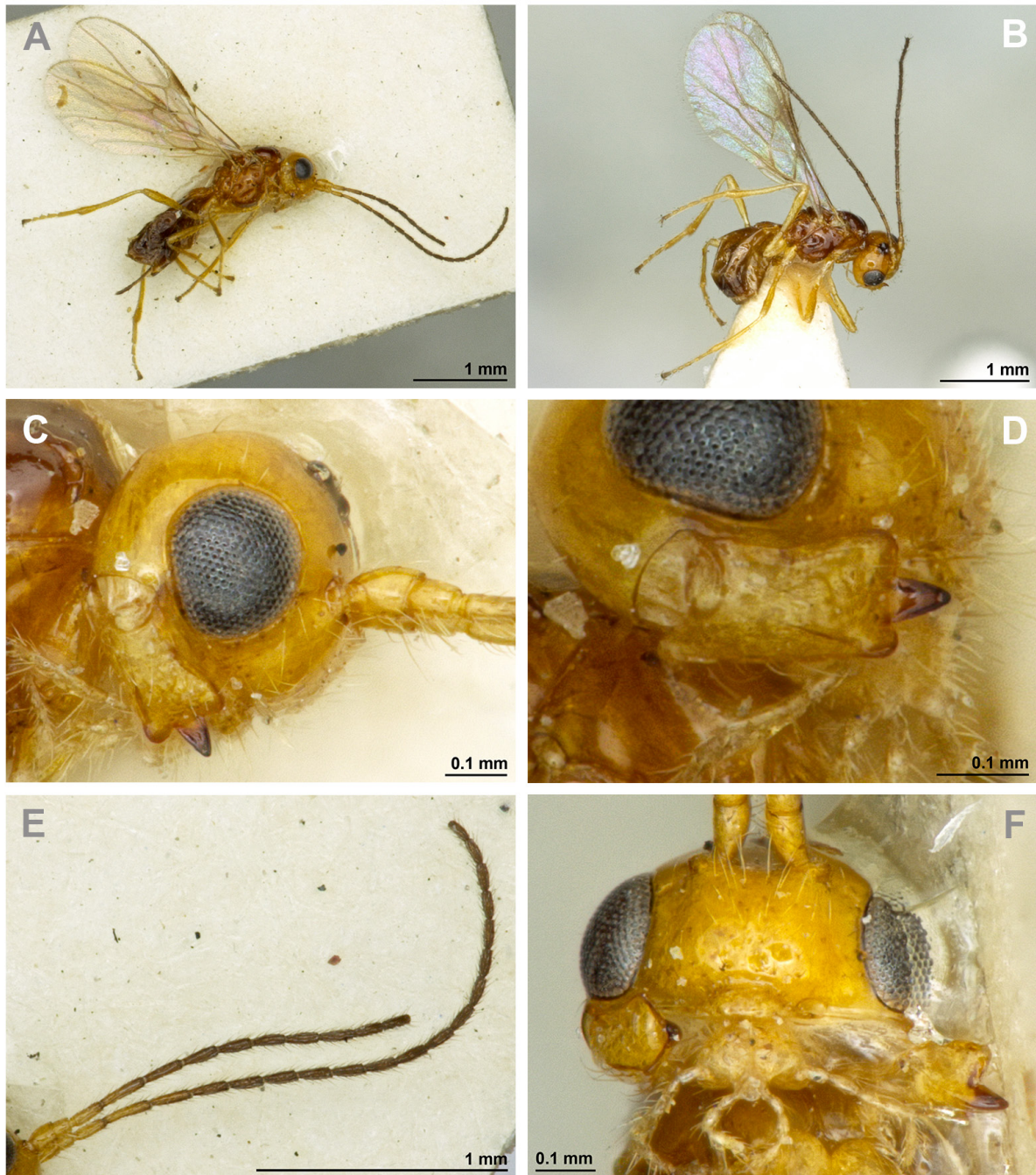


Fig. 54. *Asobara sarae* Peris-Felipo, sp. nov., A, C–F: ♀, holotype (BMNH 1922-25); B: ♂ (BMNH 1930-266). A–B. Habitus, lateral view. C. Head, lateral view. D. Mandible. E. Antenna. F. Head, front view.

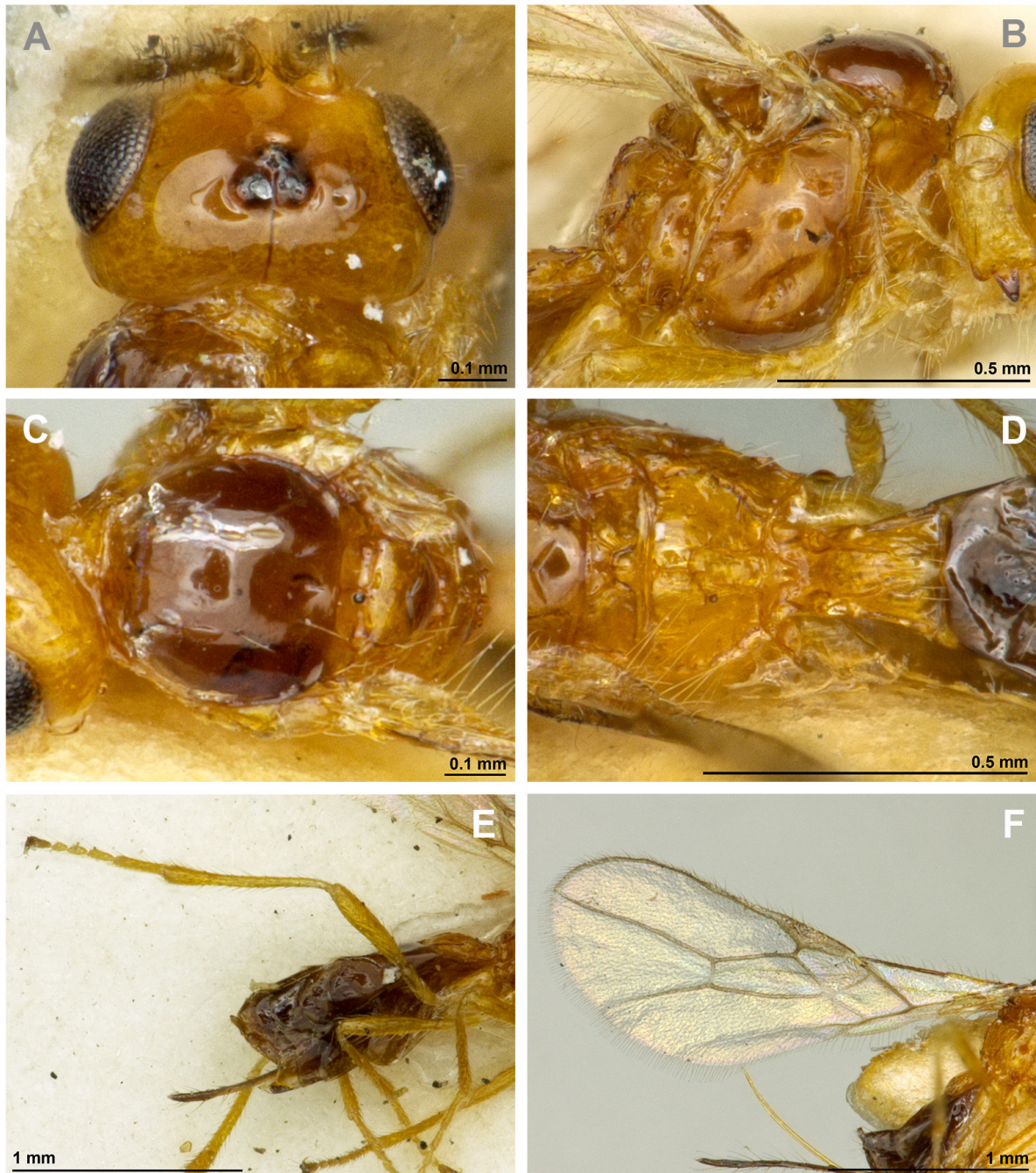


Fig. 55. *Asobara sarae* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1922-25). **A.** Head, dorsal view. **B.** Mesosoma, lateral view. **C.** Mesoscutum, dorsal view. **D.** Propodeum and first metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

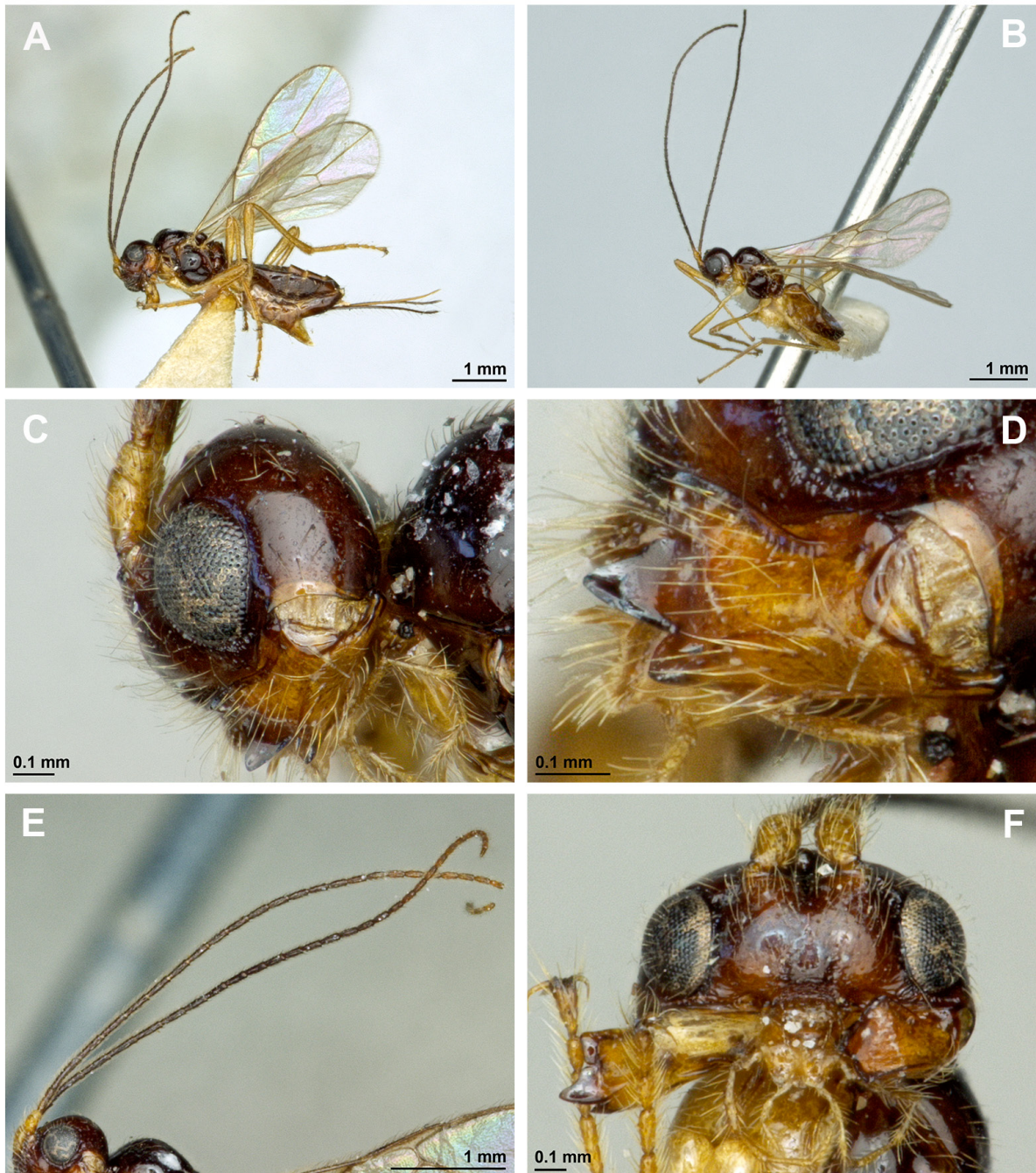


Fig. 56. *Asobara somertensis* Peris-Felipo, sp. nov., A, C–F: ♀, holotype (BMNH 1931-37); B: ♂ (BMHN). A–B. Habitus, lateral view. C. Head, lateral view. D. Mandible. E. Antenna. F. Head, front view.



Fig. 57. *Asobara somertensis* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1931-37). **A.** Head, dorsal view. **B.** Mesosoma, lateral view. **C.** Mesoscutum, dorsal view. **D.** Propodeum, dorsal view. **E.** First metasomal tergite, dorsal view. **F.** Hind leg, metasoma and ovipositor, lateral view. **G.** Fore and hind wings.



Fig. 58. *Asobara stubbsi* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1972-211). A. Habitus, lateral view. B. Head, lateral view. C. Antenna. D. Mandible. E. Head, front view. F. Head, dorsal view.

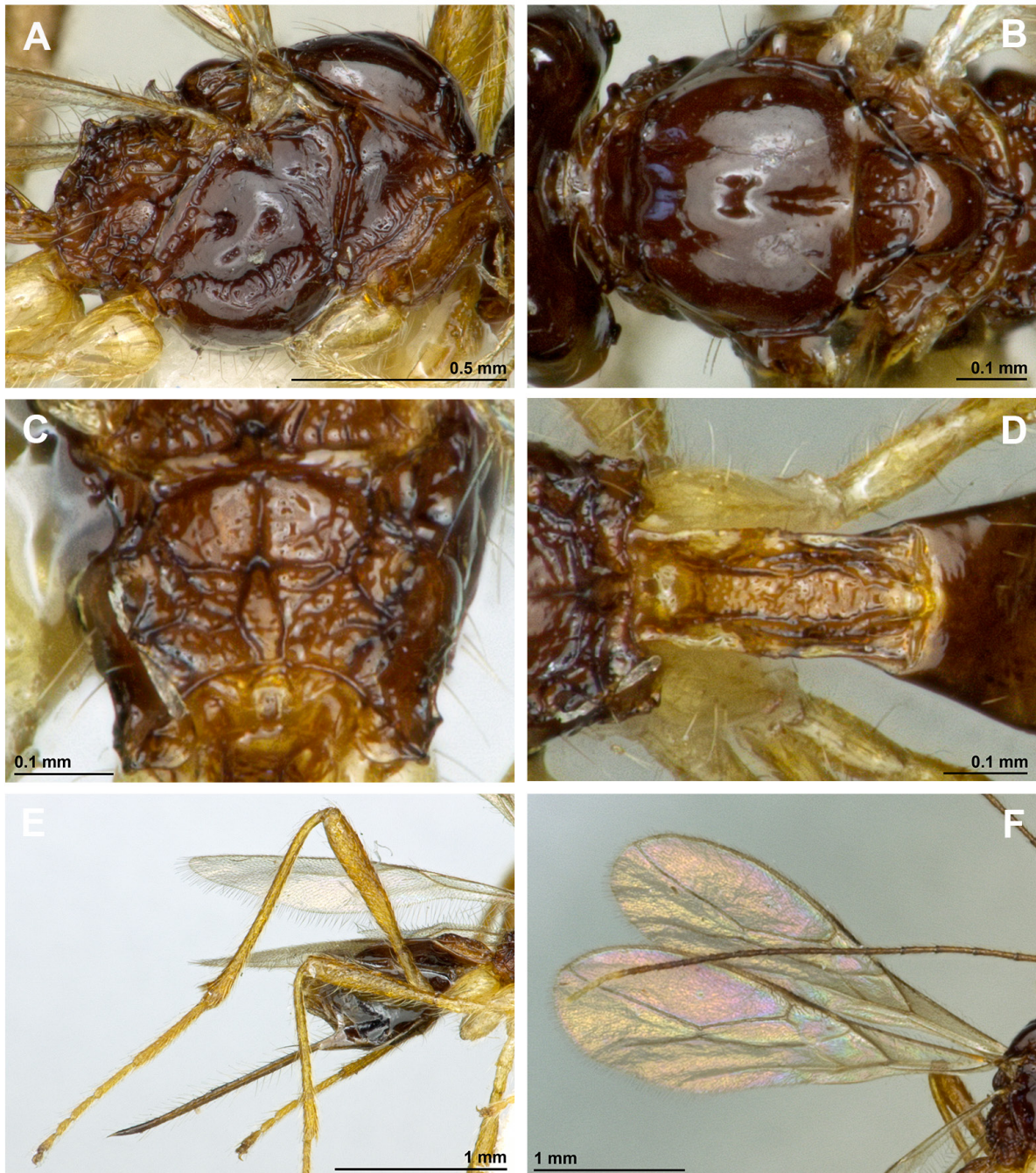


Fig. 59. *Asobara stubbsi* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1972-211). **A.** Mesosoma, lateral view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

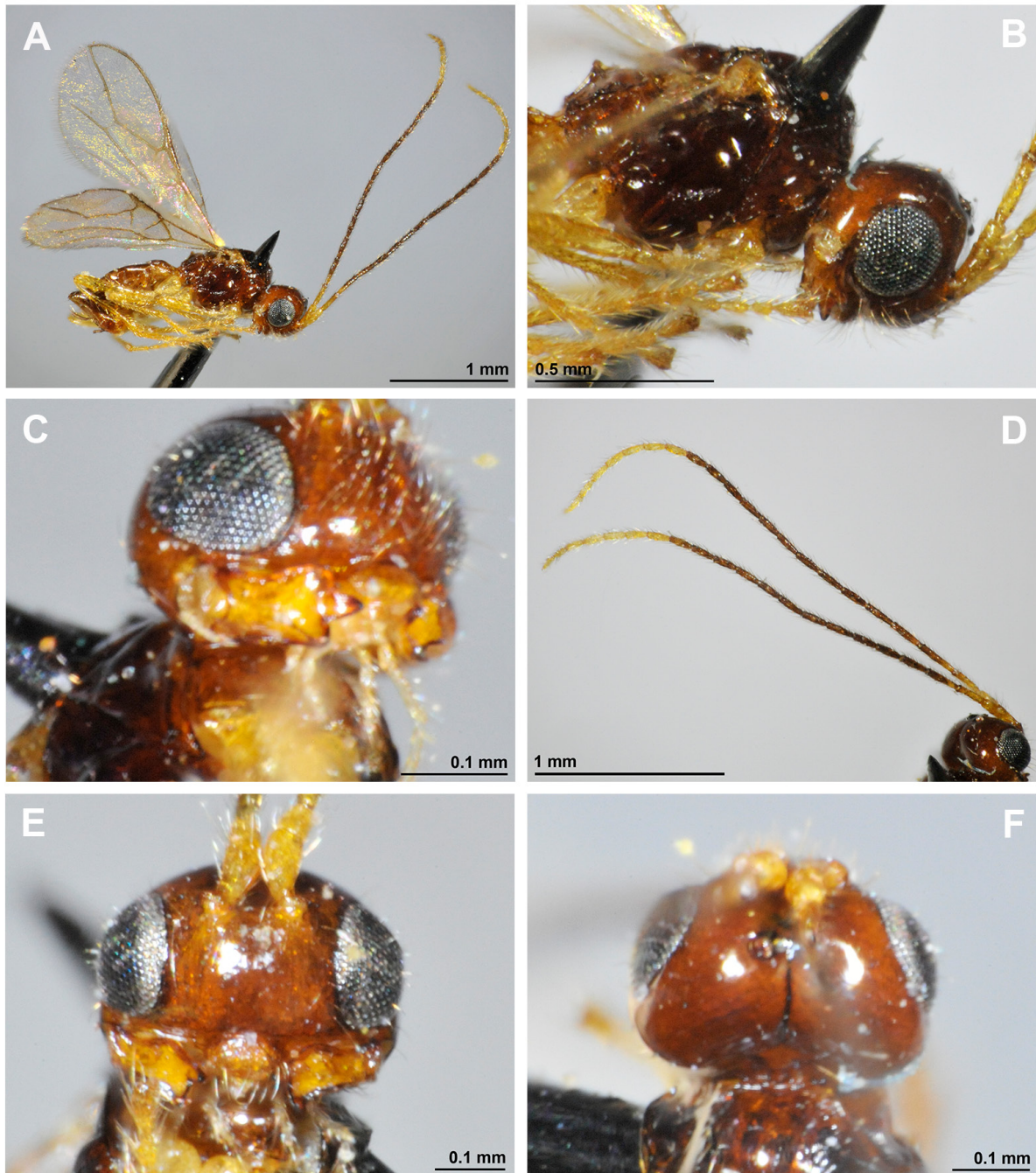


Fig. 60. *Asobara subdentata* (Granger, 1949), ♀, holotype (MNHN). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

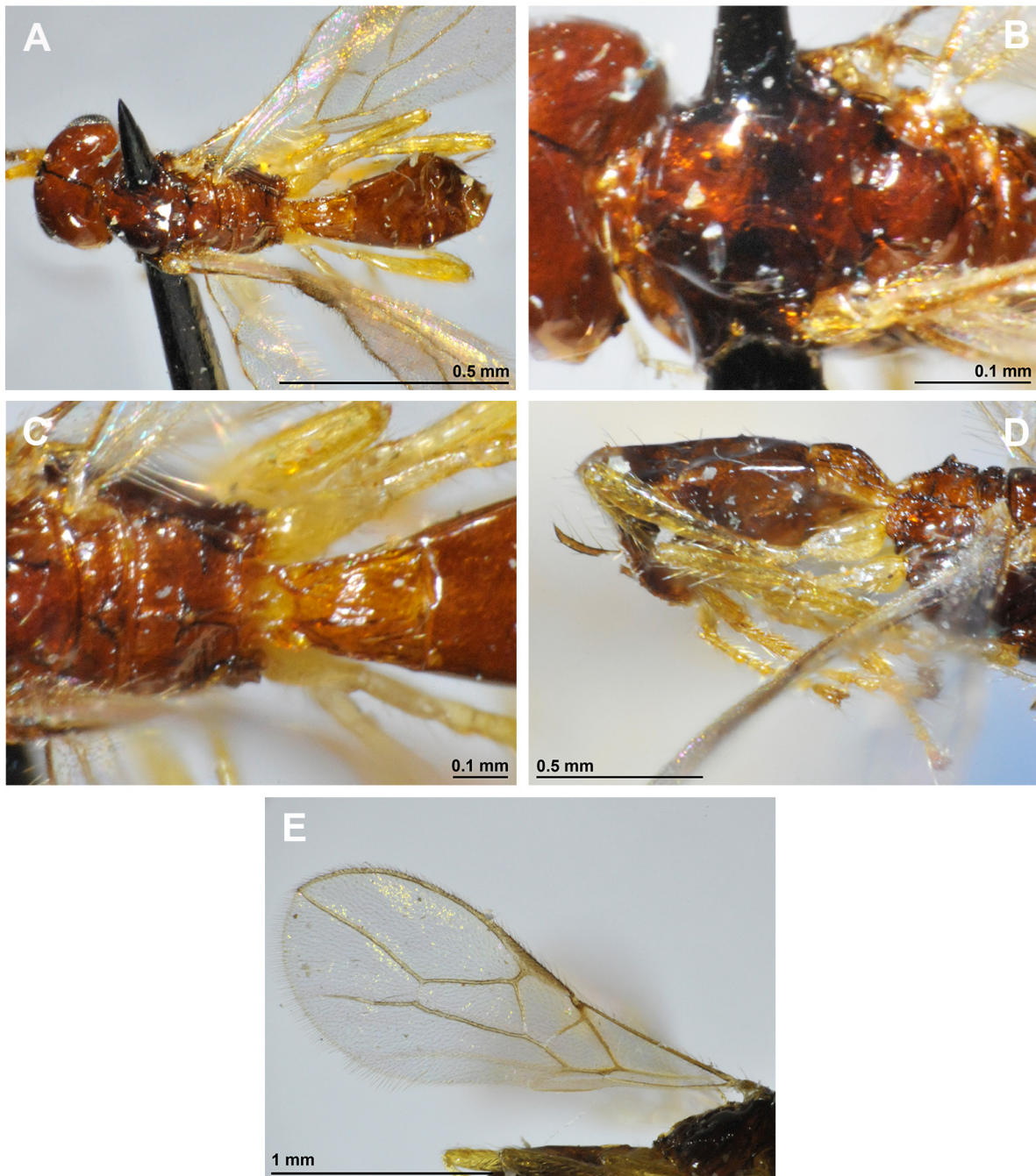


Fig. 61. *Asobara subdentata* (Granger, 1949), ♀, holotype (MNHN). **A.** Habitus, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum and first metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore wing.

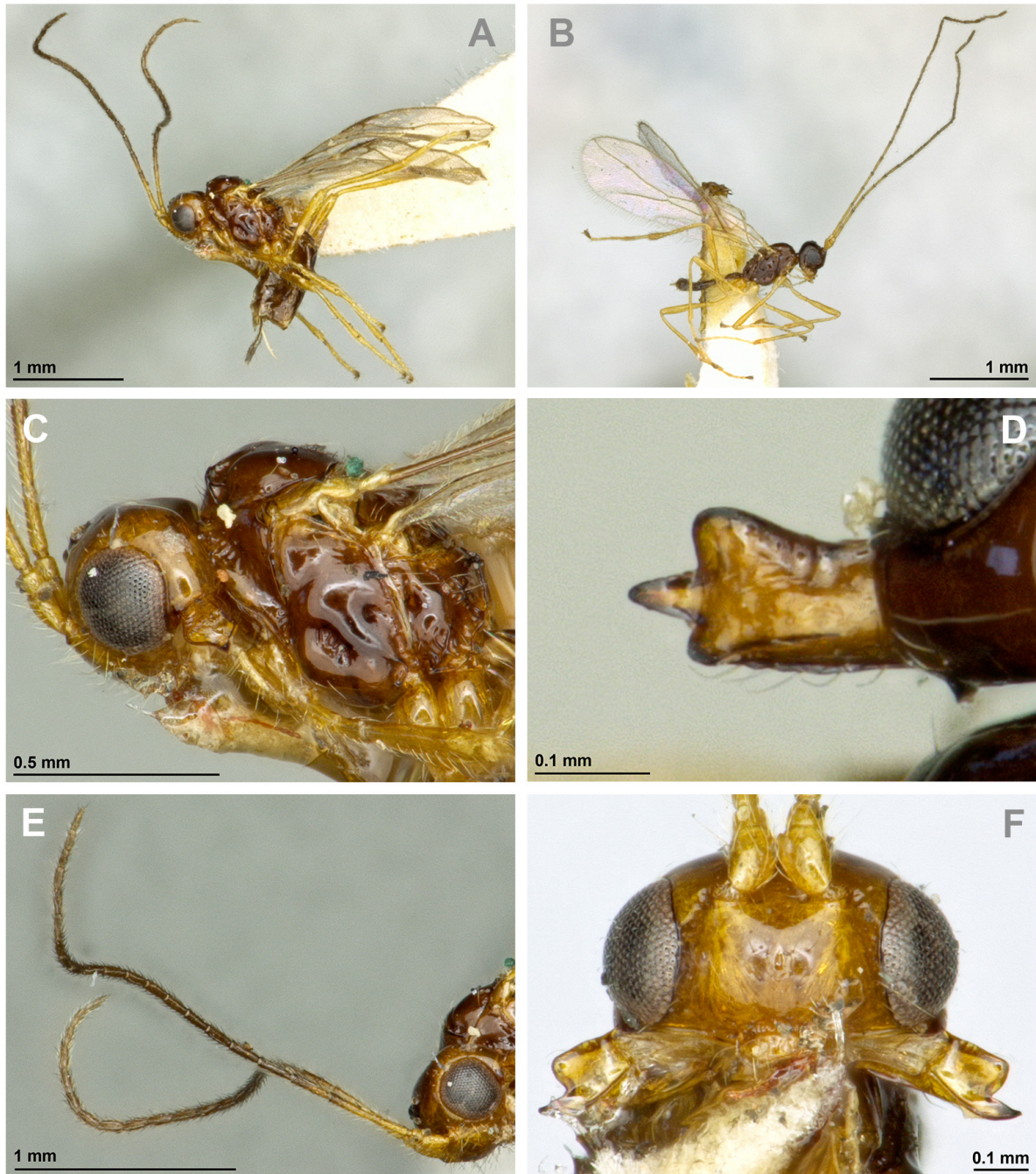


Fig. 62. *Asobara taylori* Peris-Felipo, sp. nov., A, C–F: ♀, holotype (BMNH); B: ♂ (BMNH). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

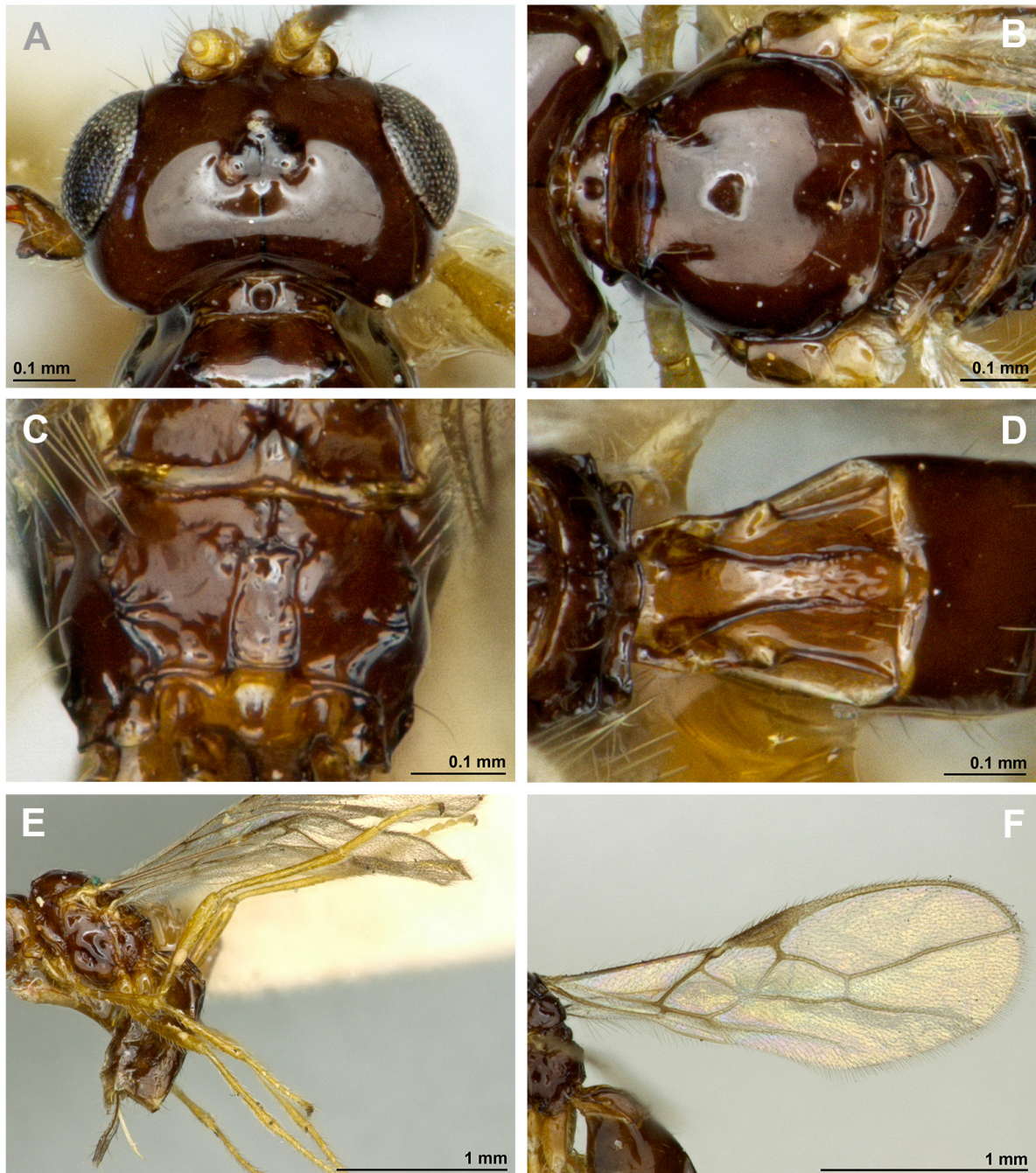


Fig. 63. *Asobara taylori* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Head, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

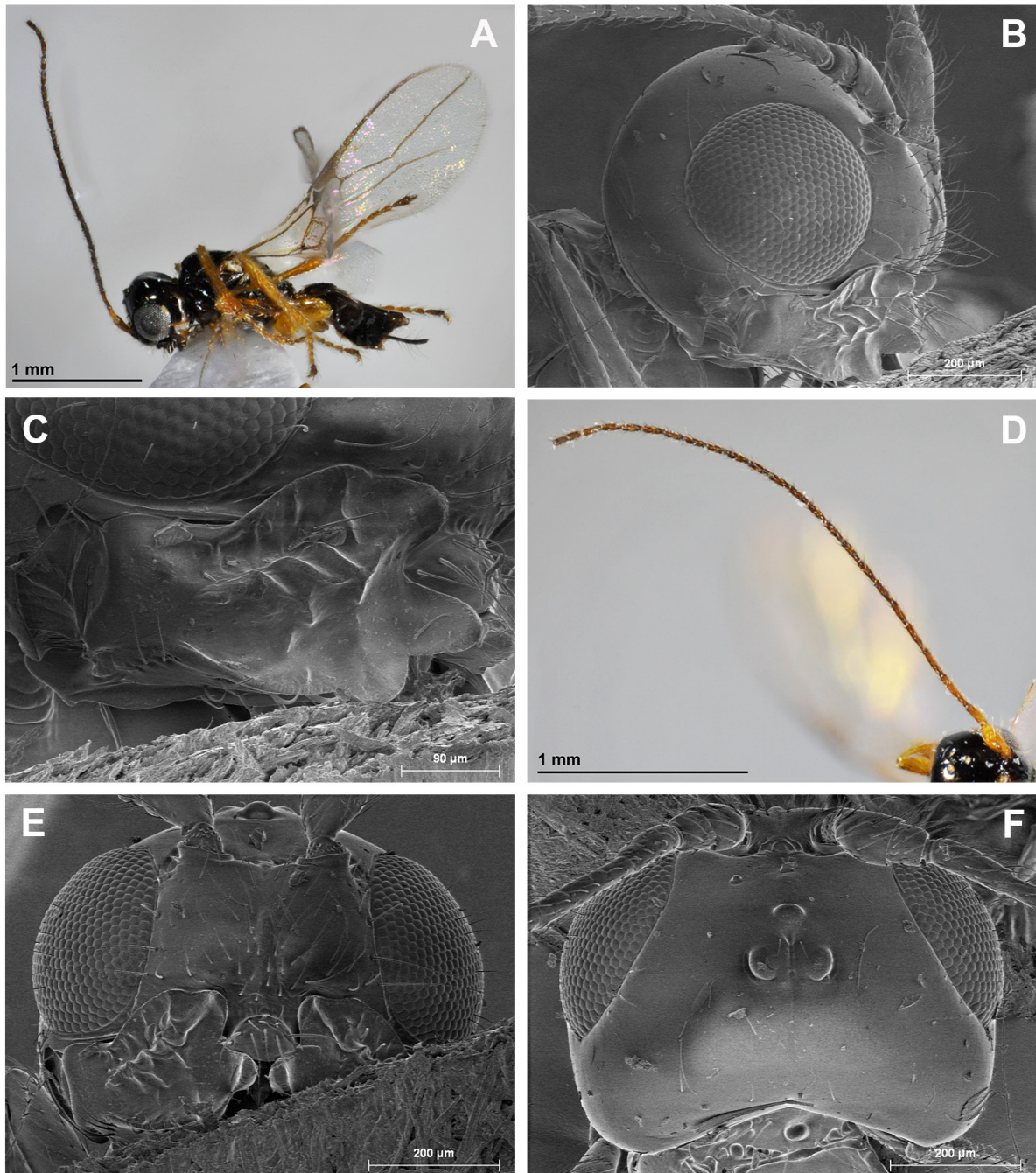


Fig. 64. *Asobara transversaria* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

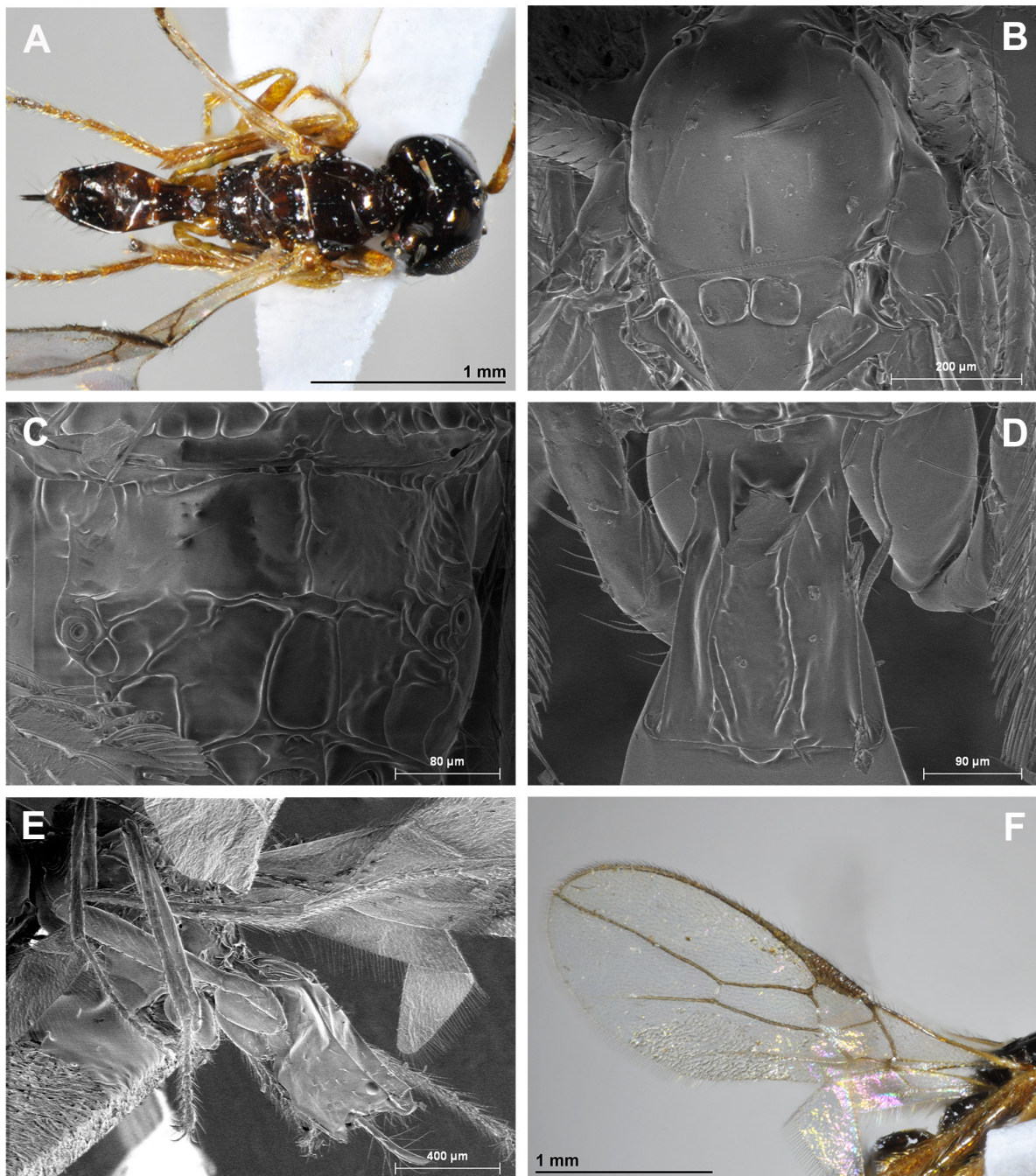


Fig. 65. *Asobara transversaria* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.

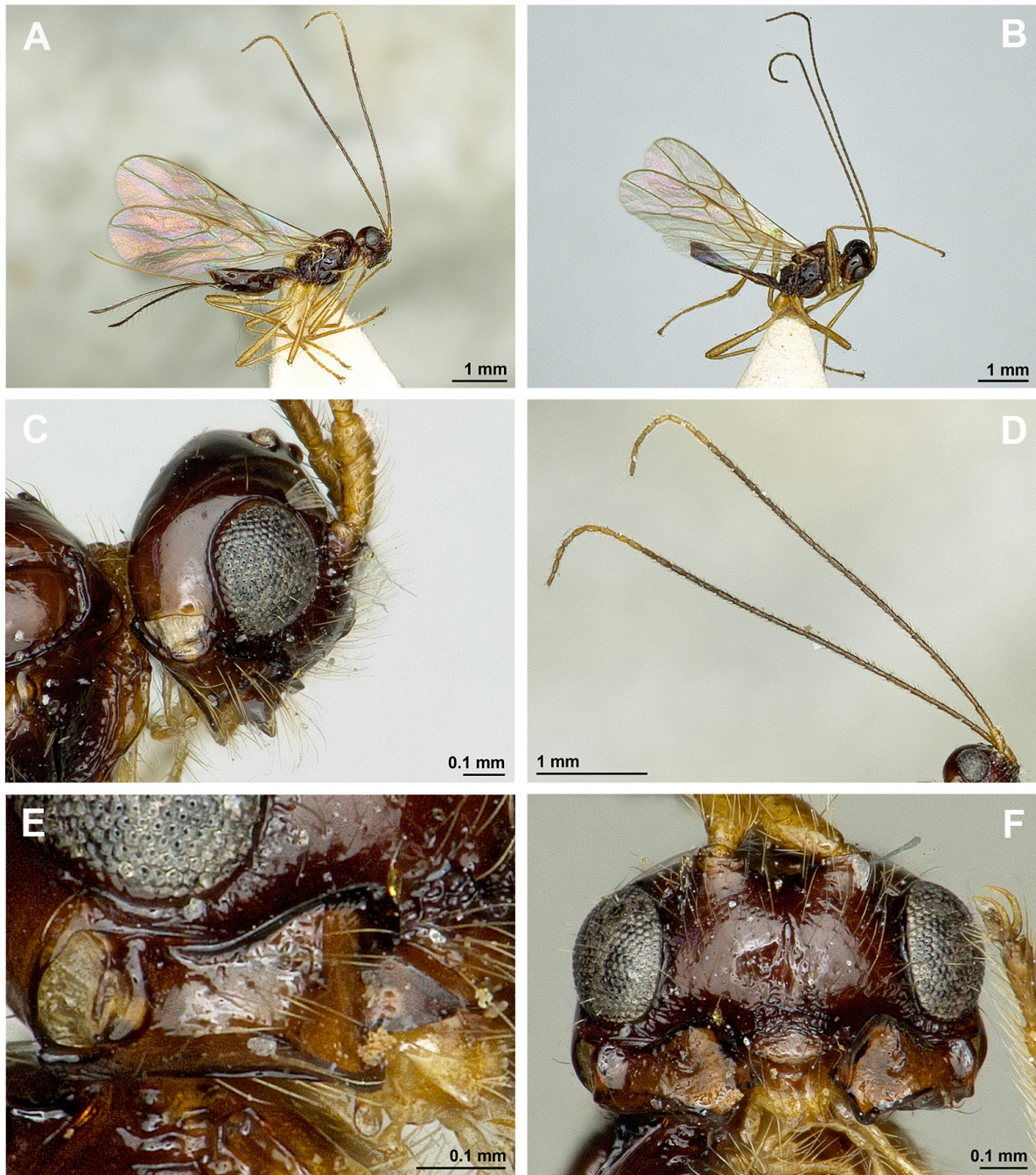


Fig. 66. *Asobara turneri* Peris-Felipo, 2014, A, C–F: ♀, holotype (BMNH); B: ♂ (BMNH). A–B. Habitus, lateral view. C. Head, lateral view. D. Antenna. E. Mandible. F. Head, front view.

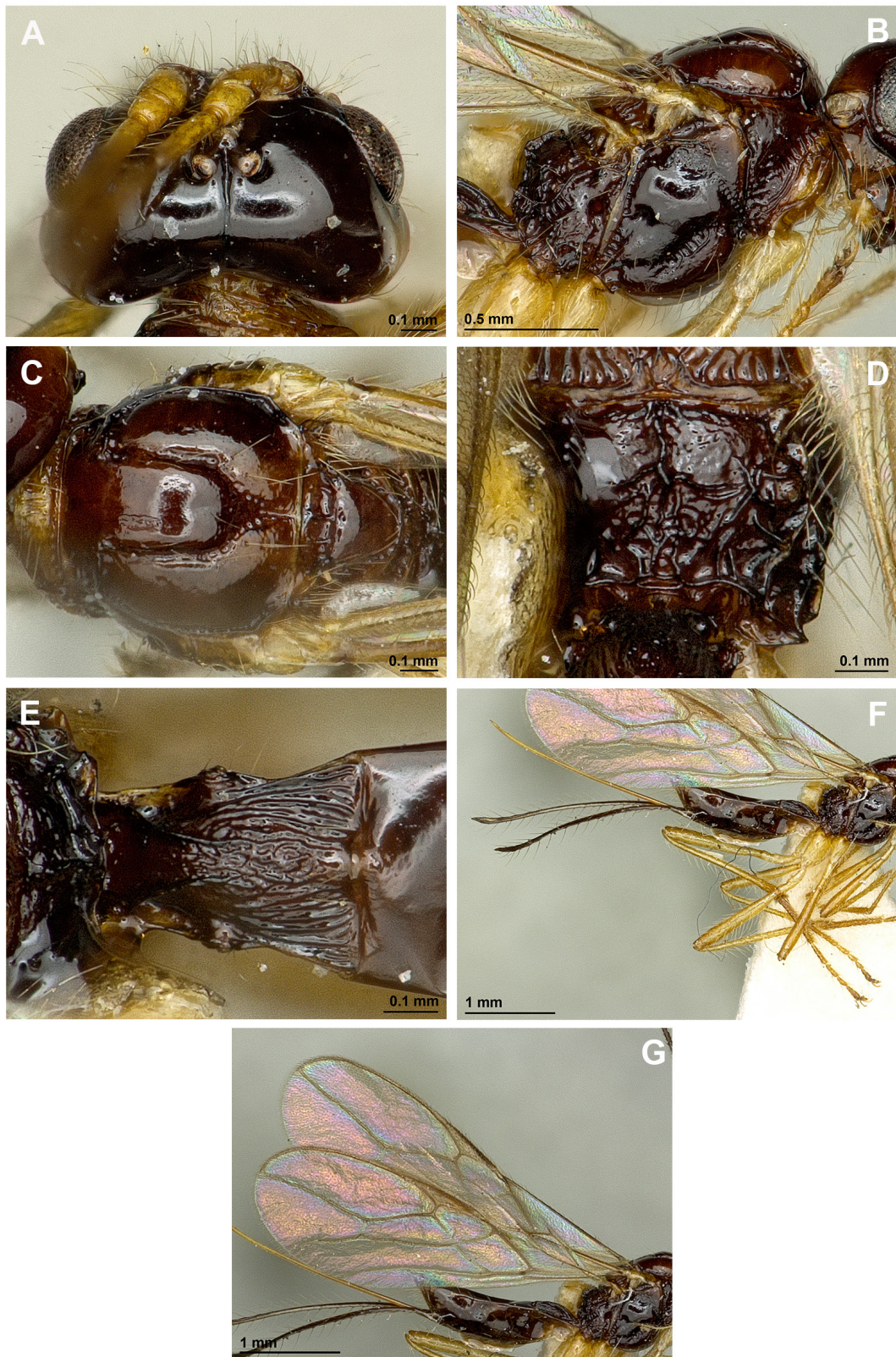


Fig. 67. *Asobara turneri* Peris-Felipo, 2014, ♀, holotype (BMNH). **A.** Head, dorsal view. **B.** Mesosoma, lateral view. **C.** Mesoscutum, dorsal view. **D.** Propodeum, dorsal view. **E.** First metasomal tergite, dorsal view. **F.** Hind leg, metasoma and ovipositor, lateral view. **G.** Fore and hind wings.

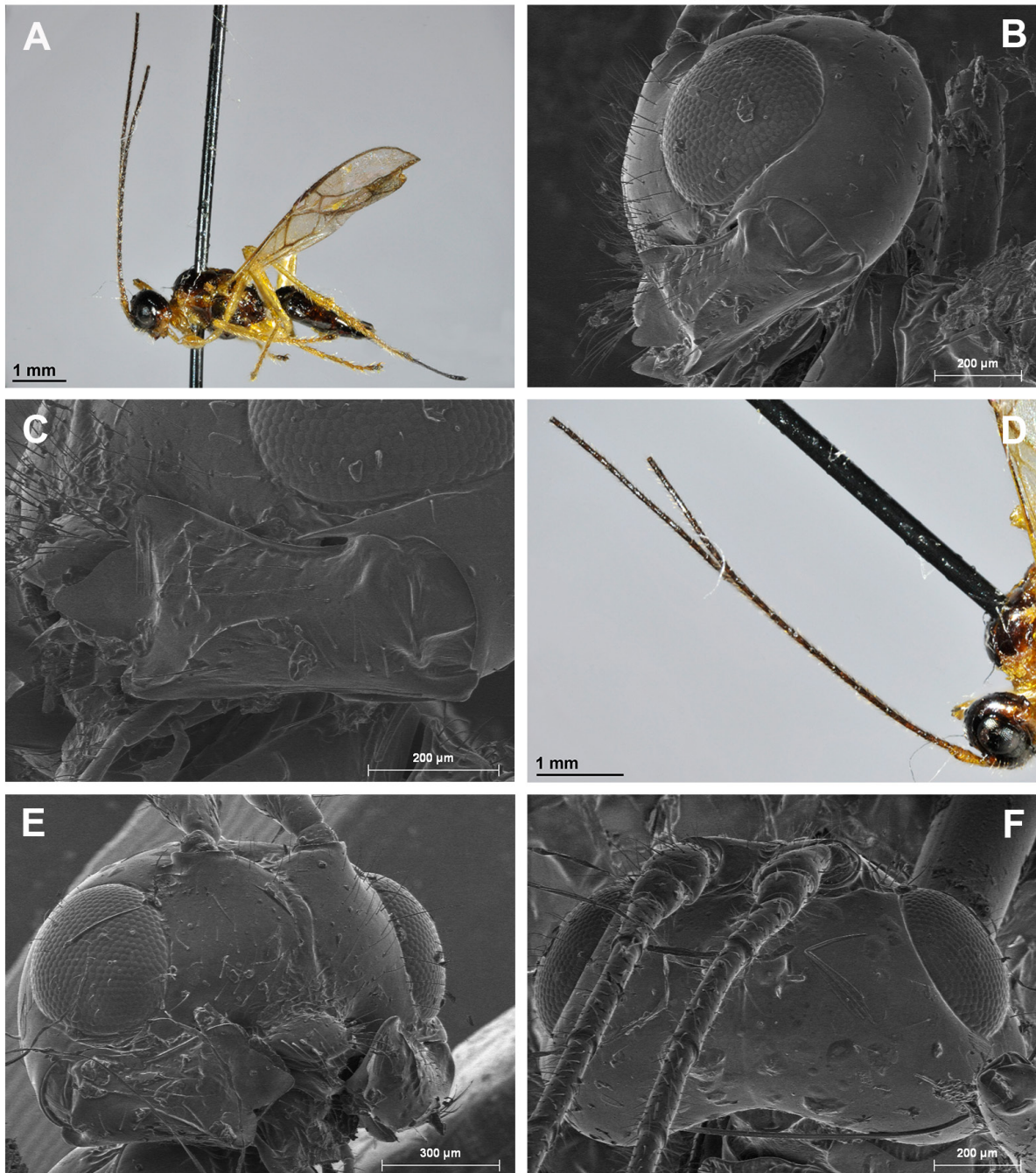


Fig. 68. *Asobara ugandensis* Fischer, 2007, ♀, holotype (OLML). **A.** Habitus, lateral view. **B.** Head, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

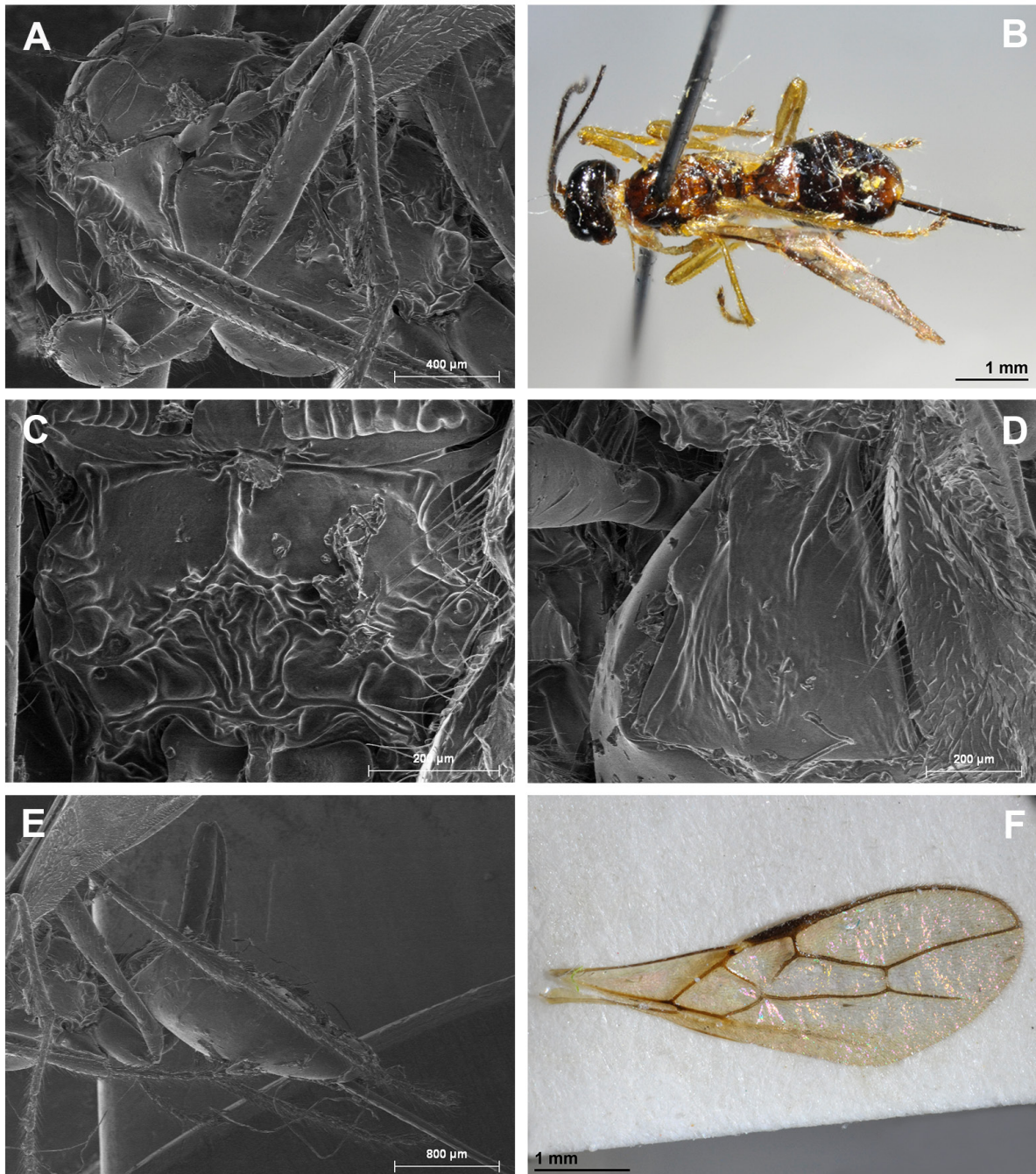


Fig. 69. *Asobara ugandensis* Fischer, 2007, ♀, holotype (OLML). **A.** Mesosoma, lateral view. **B.** Habitus, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore wing.



Fig. 70. *Asobara vanalpheni* van Achterberg, sp. nov., A, C–F: ♀, holotype (RMNH); B: ♂ (RMNH, FJPF, ZISP). A–B. Habitus, lateral view. C. Head and mesosoma, lateral view. D. Mandible. E. Antenna. F. Head, front view.

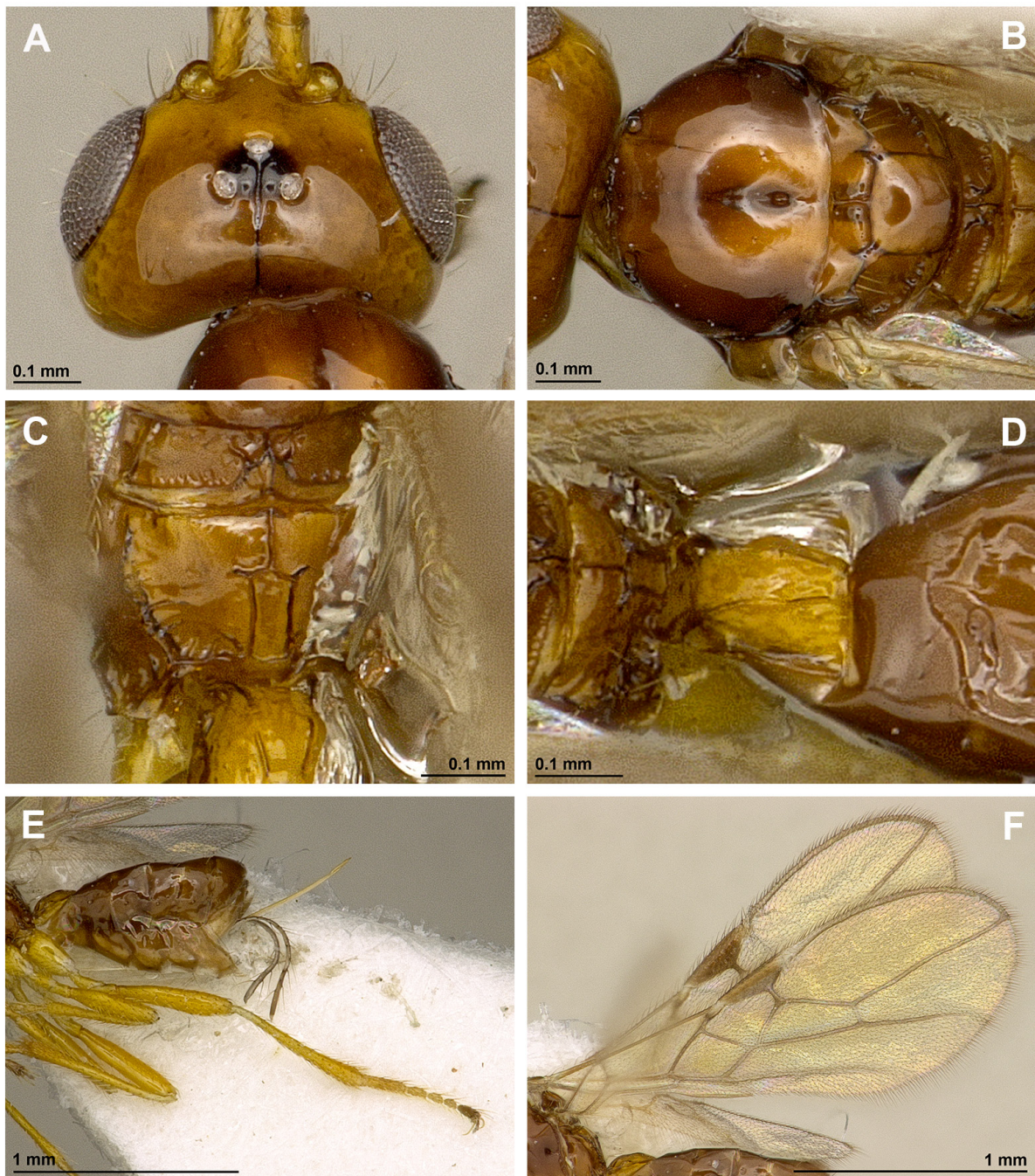


Fig. 71. *Asobara vanalpheni* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Head, dorsal view. **B.** Mesoscutum, dorsal view. **C.** Propodeum. **D.** First metasomal tergite, dorsal view. **E.** Hind leg, metasoma and ovipositor, lateral view. **F.** Fore and hind wings.

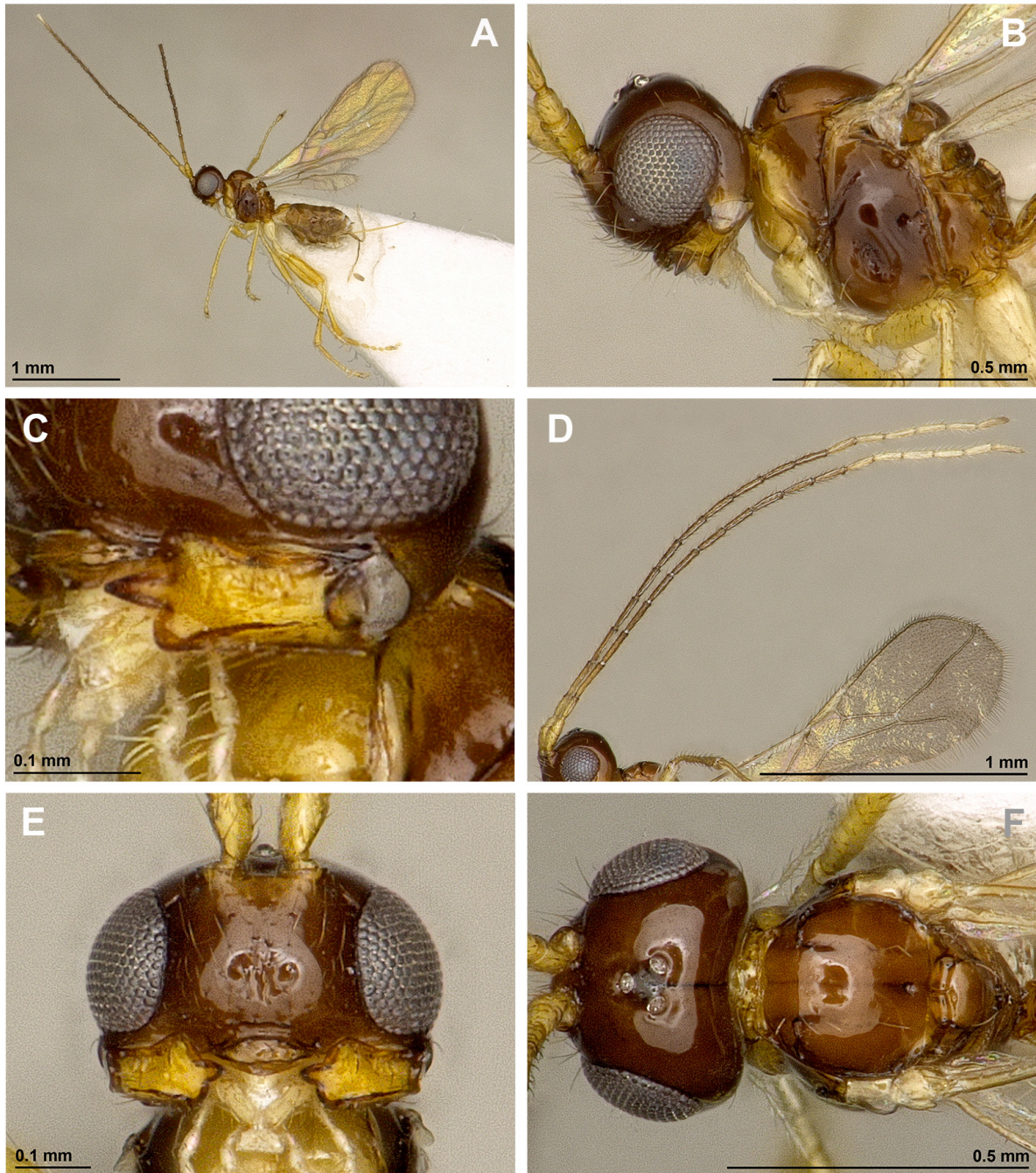


Fig. 72. *Asobara vanharteni* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.



Fig. 73. *Asobara vanharteni* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Propodeum. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore wing.

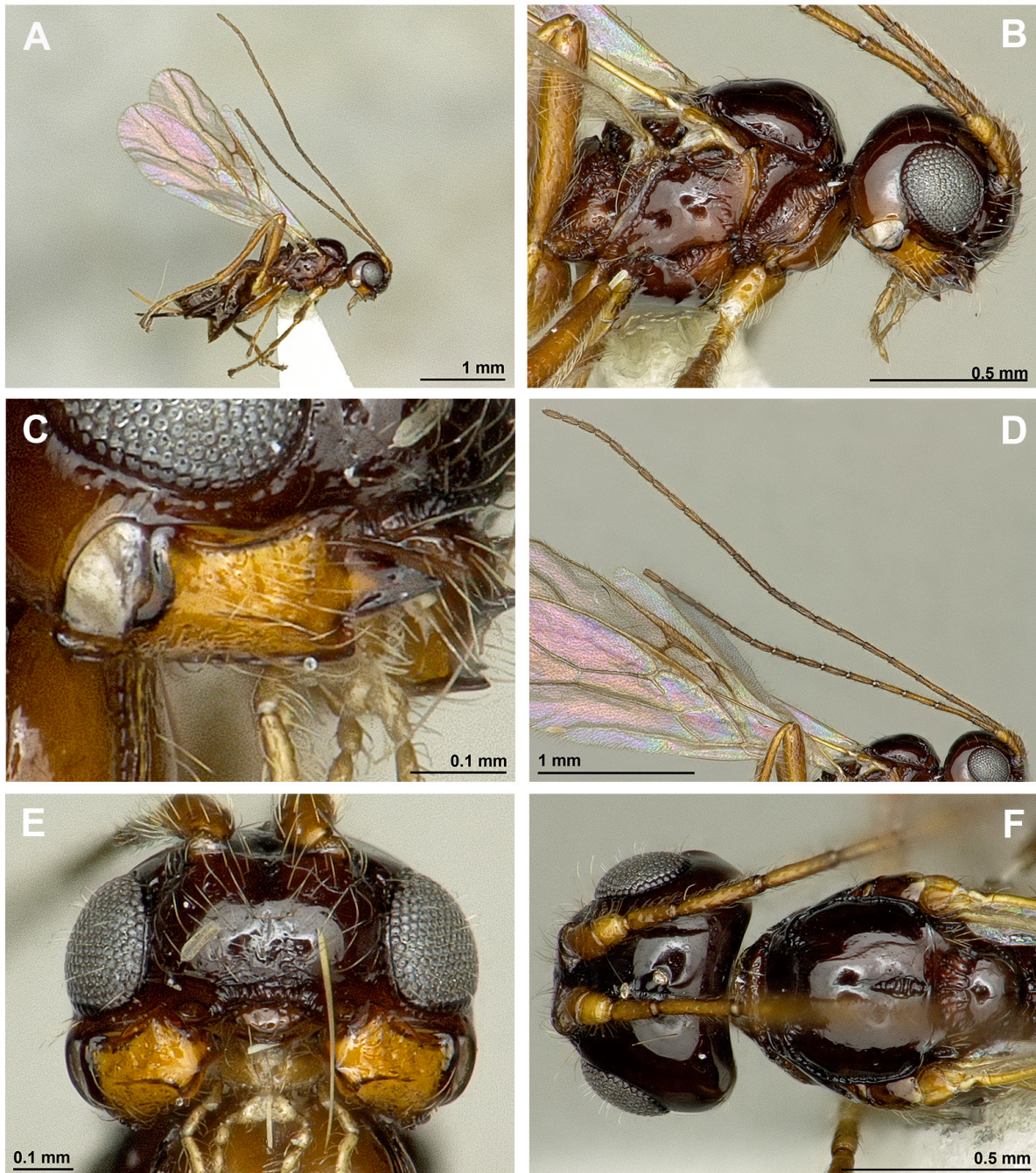


Fig. 74. *Asobara victoriana* Peris-Felipo, sp. nov., ♀, holotype (BMNH). A. Habitus, lateral view. B. Head and mesosoma, lateral view. C. Mandible. D. Antenna. E. Head, front view. F. Head and mesoscutum, dorsal view.

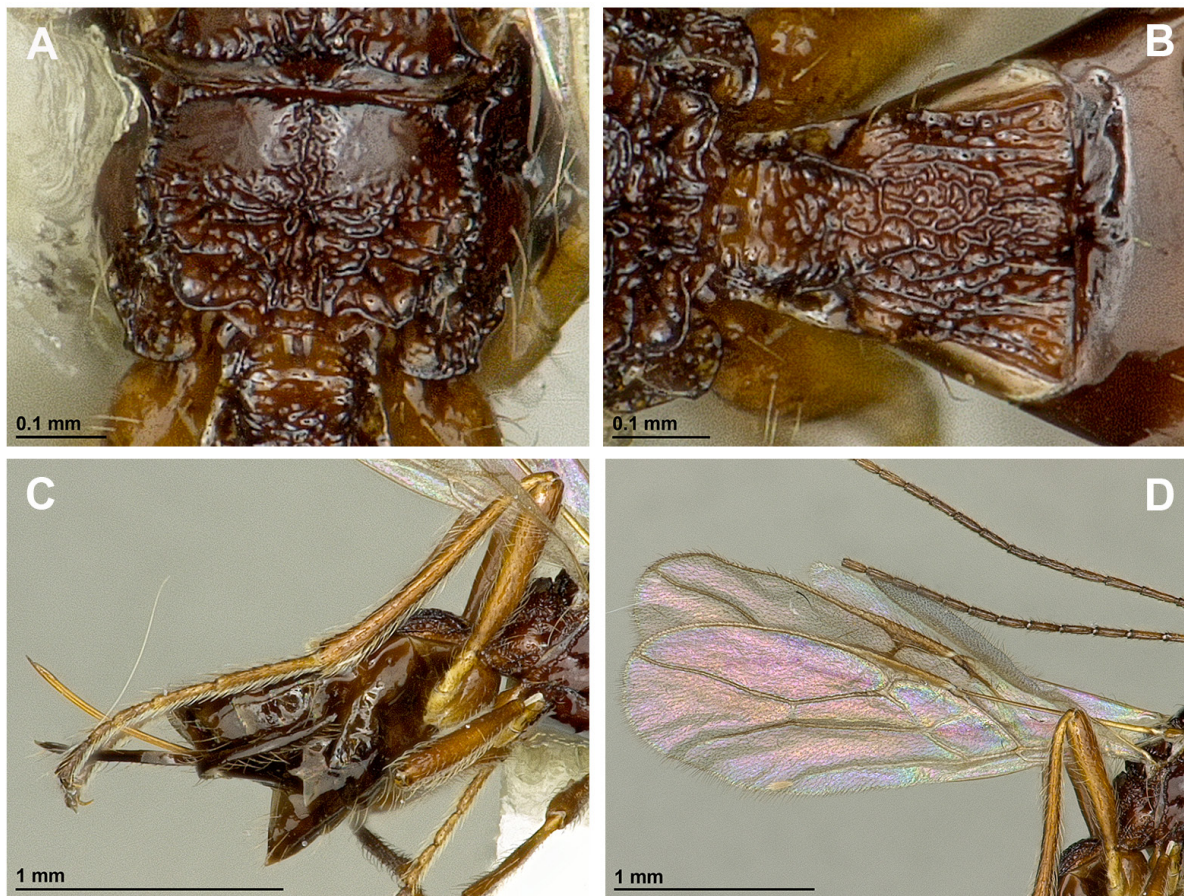


Fig. 75. *Asobara victoriana* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Propodeum. **B.** First metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore wing.

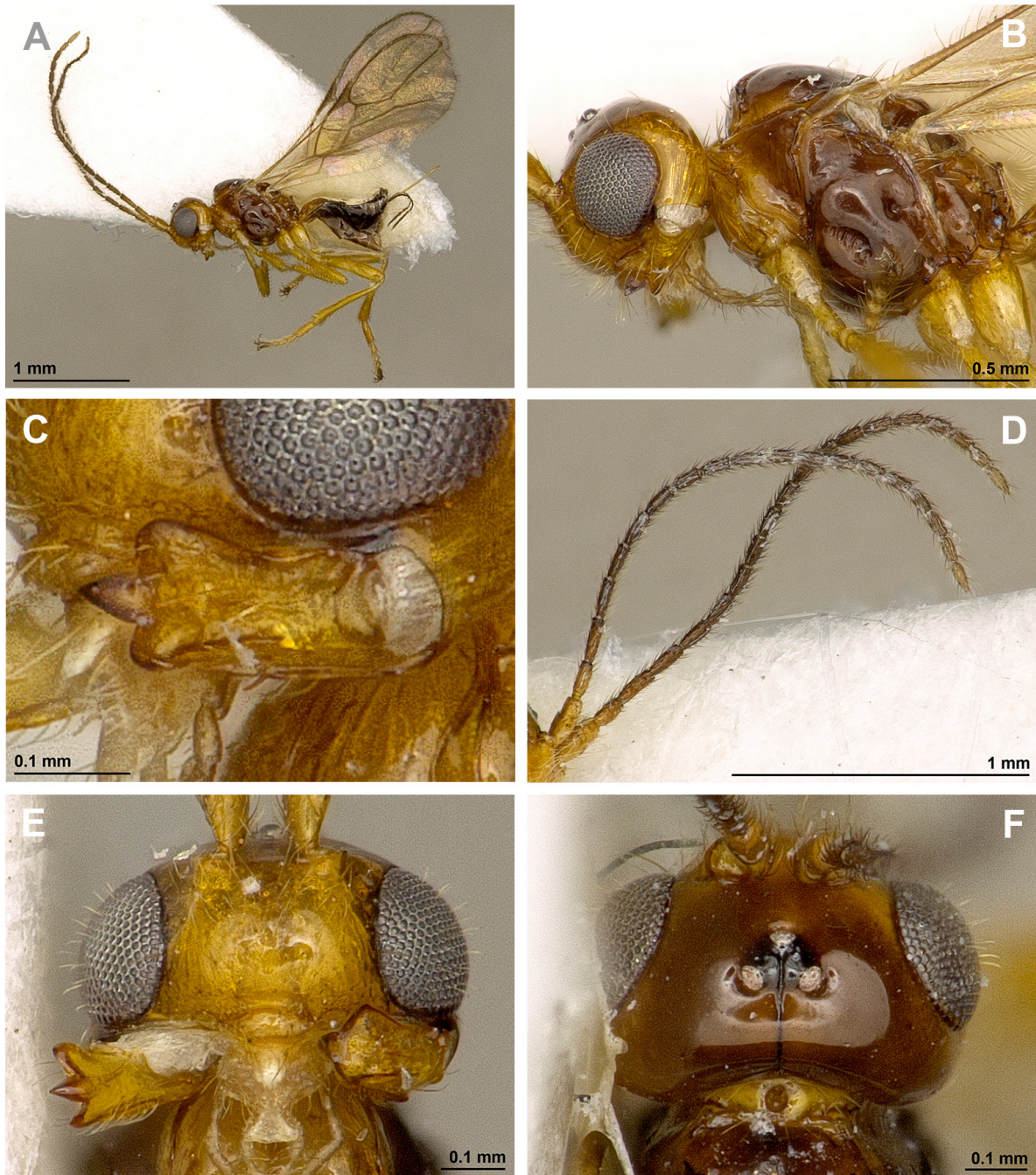


Fig. 76. *Asobara zaprionae* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

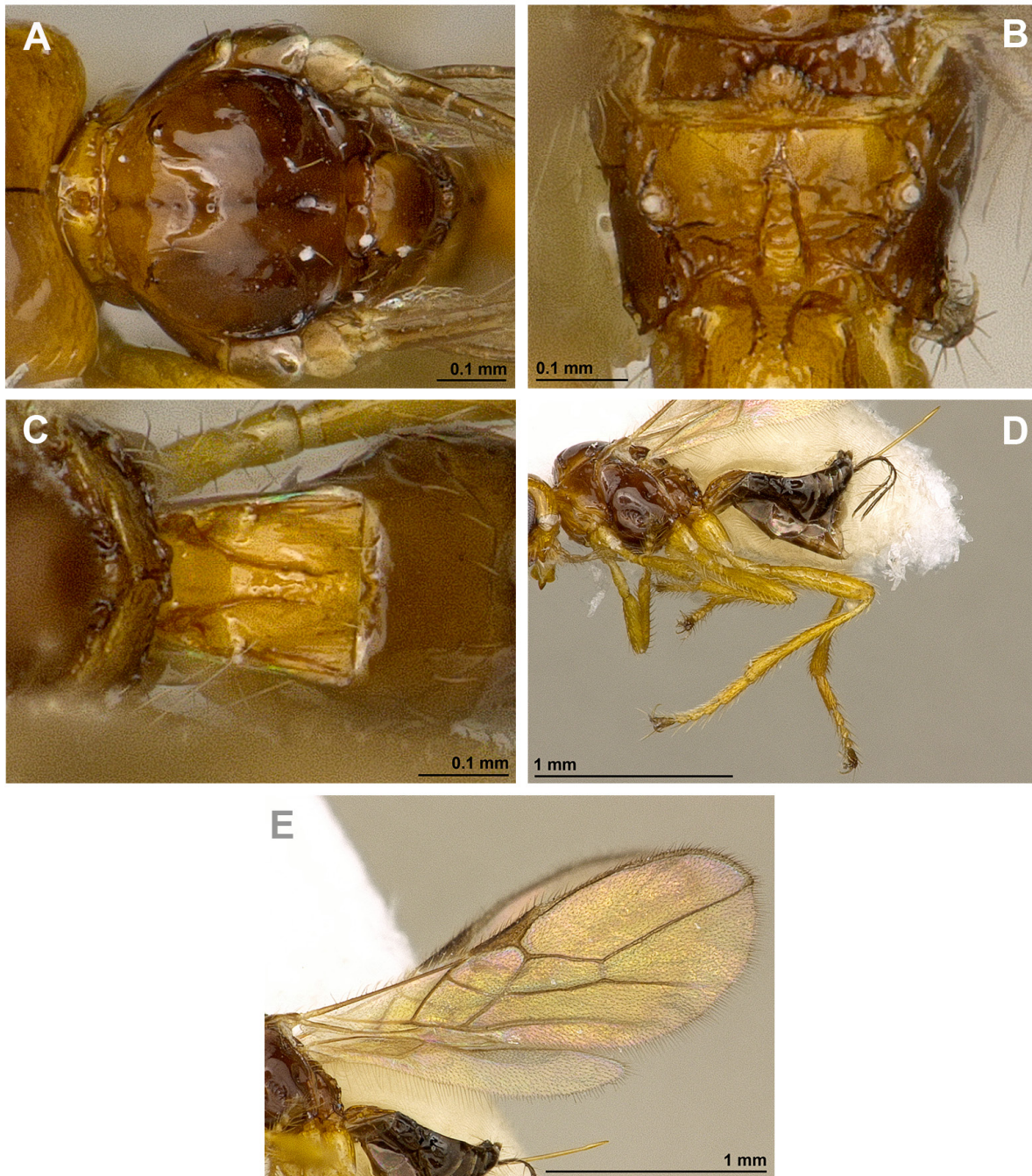


Fig. 77. *Asobara zaprionae* van Achterberg, sp. nov., ♀, holotype (RMNH). **A.** Mesoscutum, dorsal view. **B.** Propodeum. **C.** First metasomal tergite, dorsal view. **D.** Hind leg, metasoma and ovipositor, lateral view. **E.** Fore and hind wings.

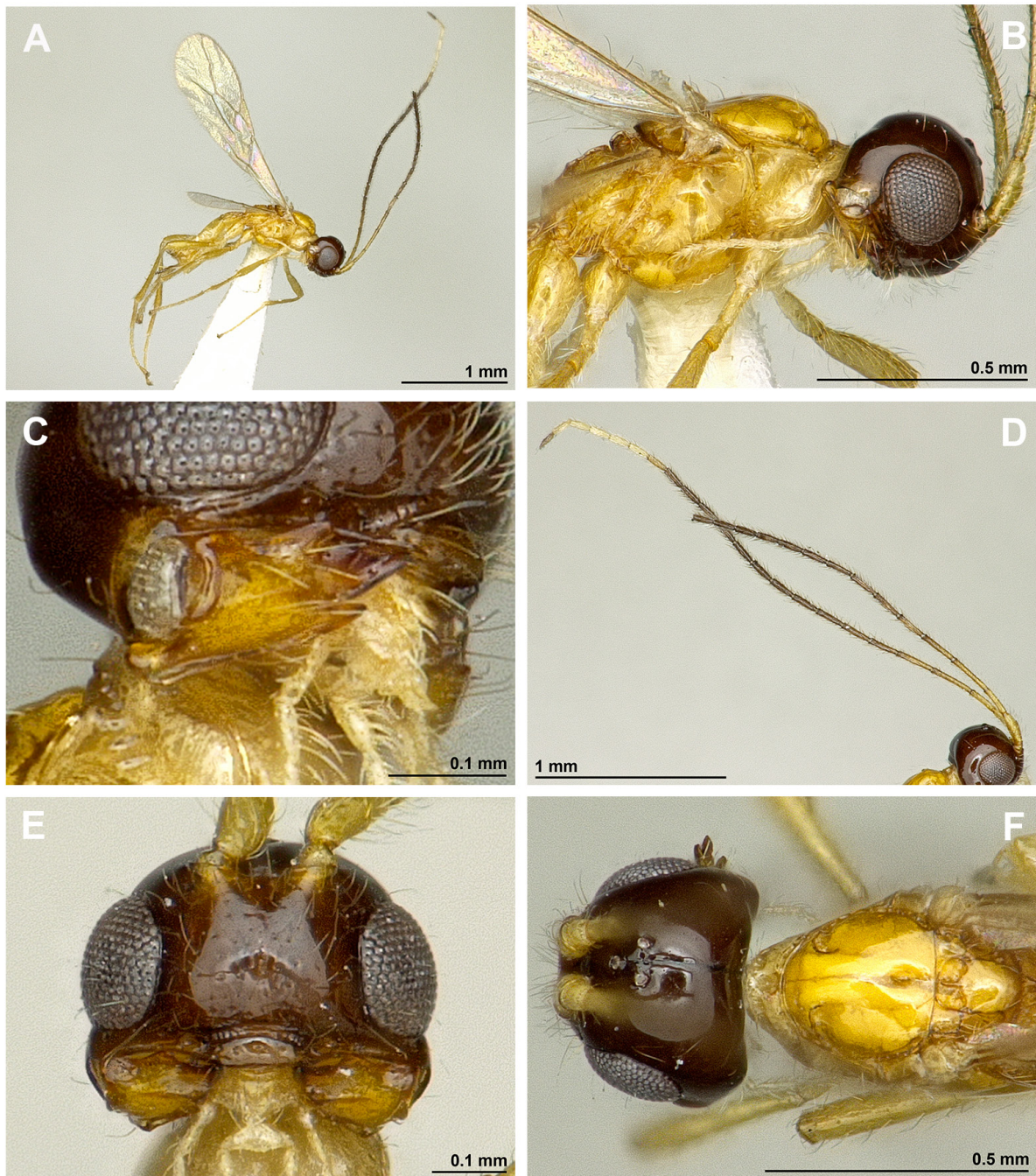


Fig. 78. *Asobara zimbabweana* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head and mesoscutum, dorsal view.

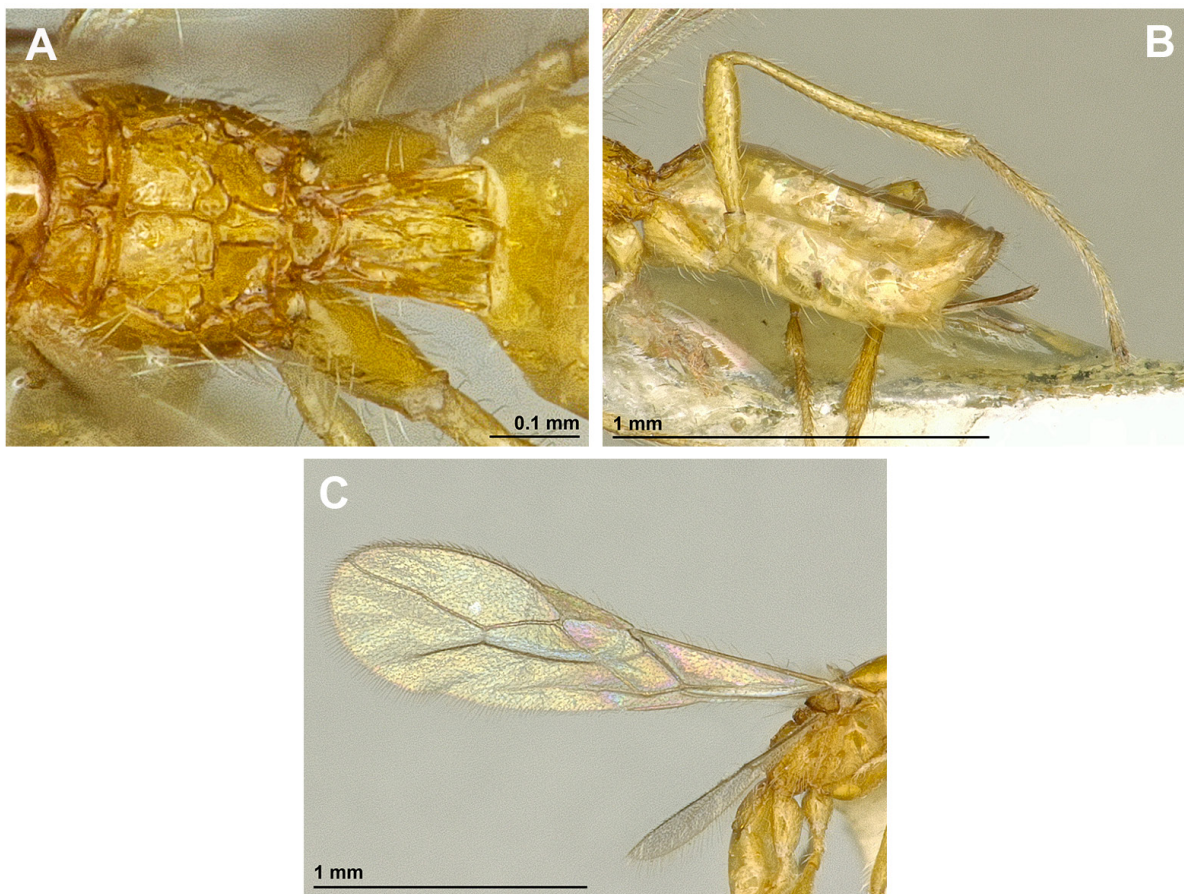


Fig. 79. *Asobara zimbabweana* Peris-Felipo, sp. nov., ♀, holotype (BMNH). **A.** Propodeum and first metasomal tergite, dorsal view. **B.** Hind leg, metasoma and ovipositor, lateral view. **C.** Fore and hind wings.



Fig. 80. *Asobara zululana* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1926-277). **A.** Habitus, lateral view. **B.** Head and mesosoma, lateral view. **C.** Mandible. **D.** Antenna. **E.** Head, front view. **F.** Head, dorsal view.

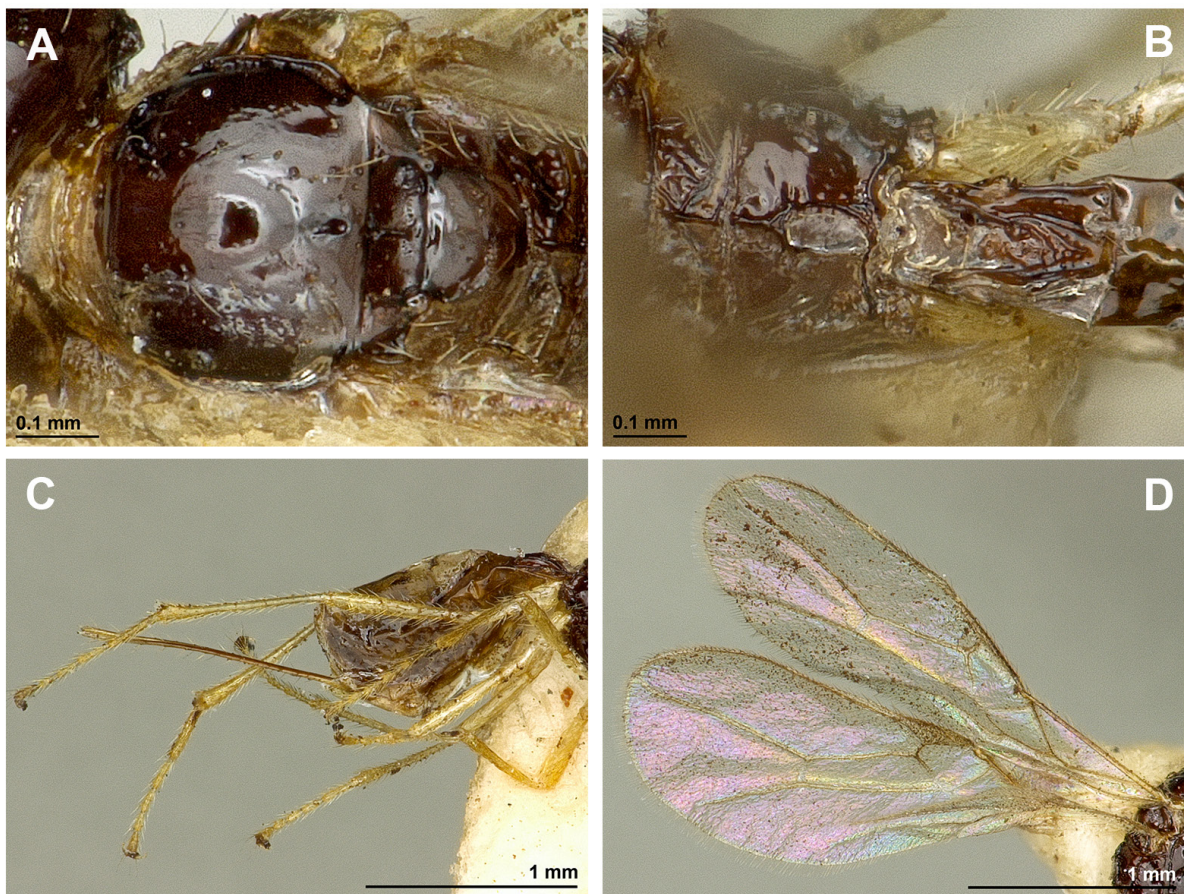


Fig. 81. *Asobara zululana* Peris-Felipo, sp. nov., ♀, holotype (BMNH 1926-277). **A.** Mesoscutum, dorsal view. **B.** Propodeum and first metasomal tergite, dorsal view. **C.** Hind leg, metasoma and ovipositor, lateral view. **D.** Fore and hind wings.