

New Neotropical species of the genus *Meteoridea* Ashmead (Hymenoptera: Braconidae: Meteorideinae)

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Key words: *Meteoridea*; Hymenoptera; Braconidae; Meteorideinae; Neotropical.

Two new species of the genus *Meteoridea* Ashmead, 1900, are described from Brazil and Panama. The species are partly illustrated.

Introduction

The genus *Meteoridea* Ashmead, 1900, of the subfamily Meteorideinae Copek, 1970 (Hymenoptera: Braconidae), is a small and the only genus of the tribe Meteorideini and is known from the Nearctic (two species), East Palaearctic (one species), Oriental (one species), Afrotropical (two species), Australian (one species) regions (van Achterberg, 1990).

The species of *Meteoridea* described here are the first record for the subfamily from the Neotropical Region. Although van Achterberg (1984) has previously stated the Meteorideinae are "restricted to the (sub)tropics", the descriptions of *M. compressiventris* Shenefelt & Muesebeck, 1957, from Wisconsin, USA (Shenefelt & Muesebeck, 1957), and *Pronkia antefurcalis* van Achterberg, 1990, from New Zealand (van Achterberg, 1990), show that the subfamily extends into temperate regions, as noted by Austin & Wharton (1992).

This small subfamily is defined by its biology (gregarious larval-pupal endoparasitoids of Lepidoptera) and highly modified metasoma of the female (Nixon, 1941; van Achterberg, 1993).

In this paper the first two new species of the genus from South America are reported (fig. 1).

For the terminology used in this paper, see van Achterberg (1993). The abbreviation DCBU stands for the Universidade Federal de São Carlos, Departamento de Ecologia e Biologia Evolutiva; UFPR, for the Universidade Federal do Paraná, Departamento de Zoologia, both from Brazil, and RMNH stands for the National Museum of Natural History, Leiden, The Netherlands.

Key to the species of the genus *Meteoridea* Ashmead

1. Discal cell of the fore wing distinctly petiolate (fig. 18); length of first tergite equal to its apical width; head piceous; Nearctic
..... *M. compressiventris* Shenefelt & Muesebeck
- Discal cell of fore wing subsessile (figs 12-17); first tergite longer than apically

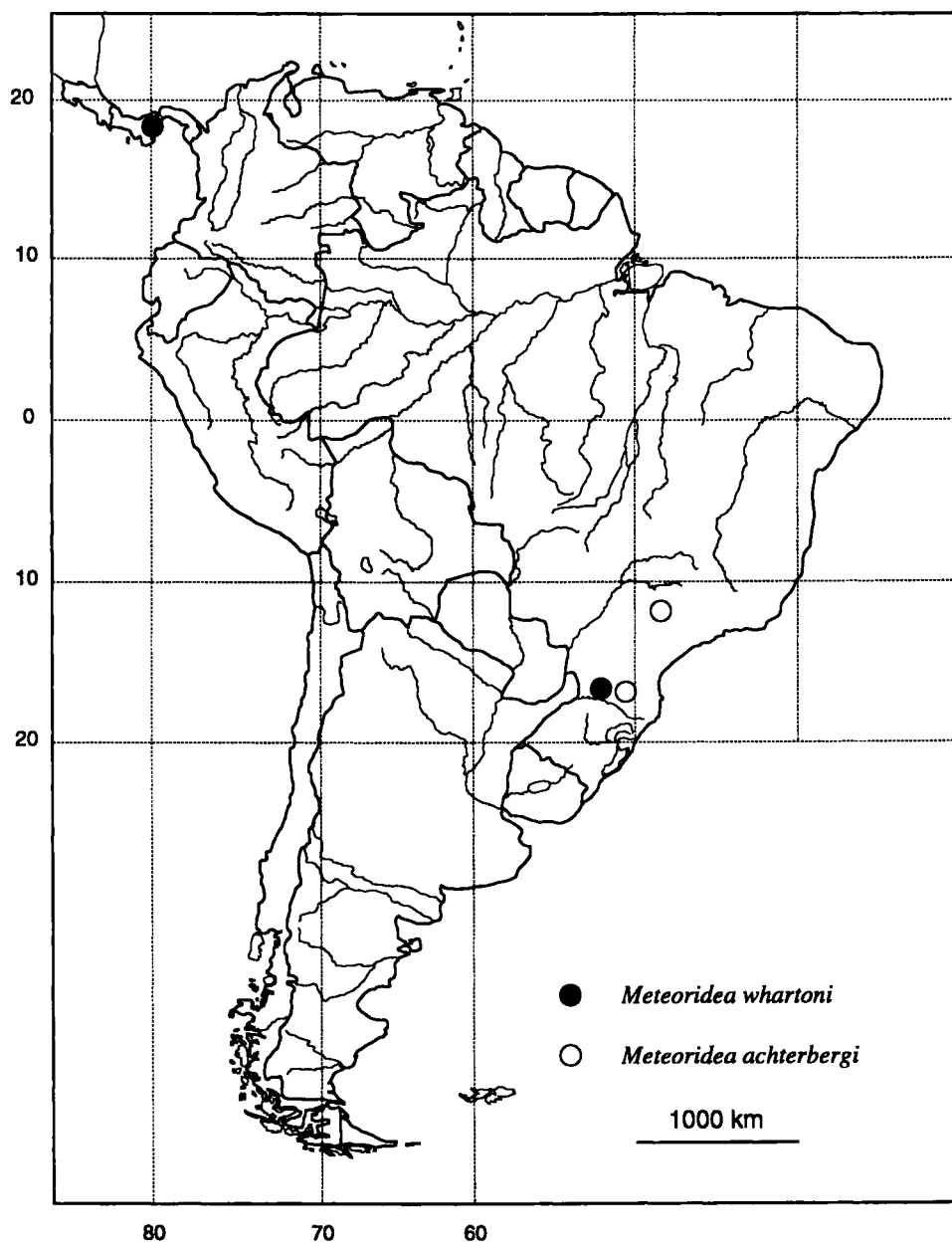


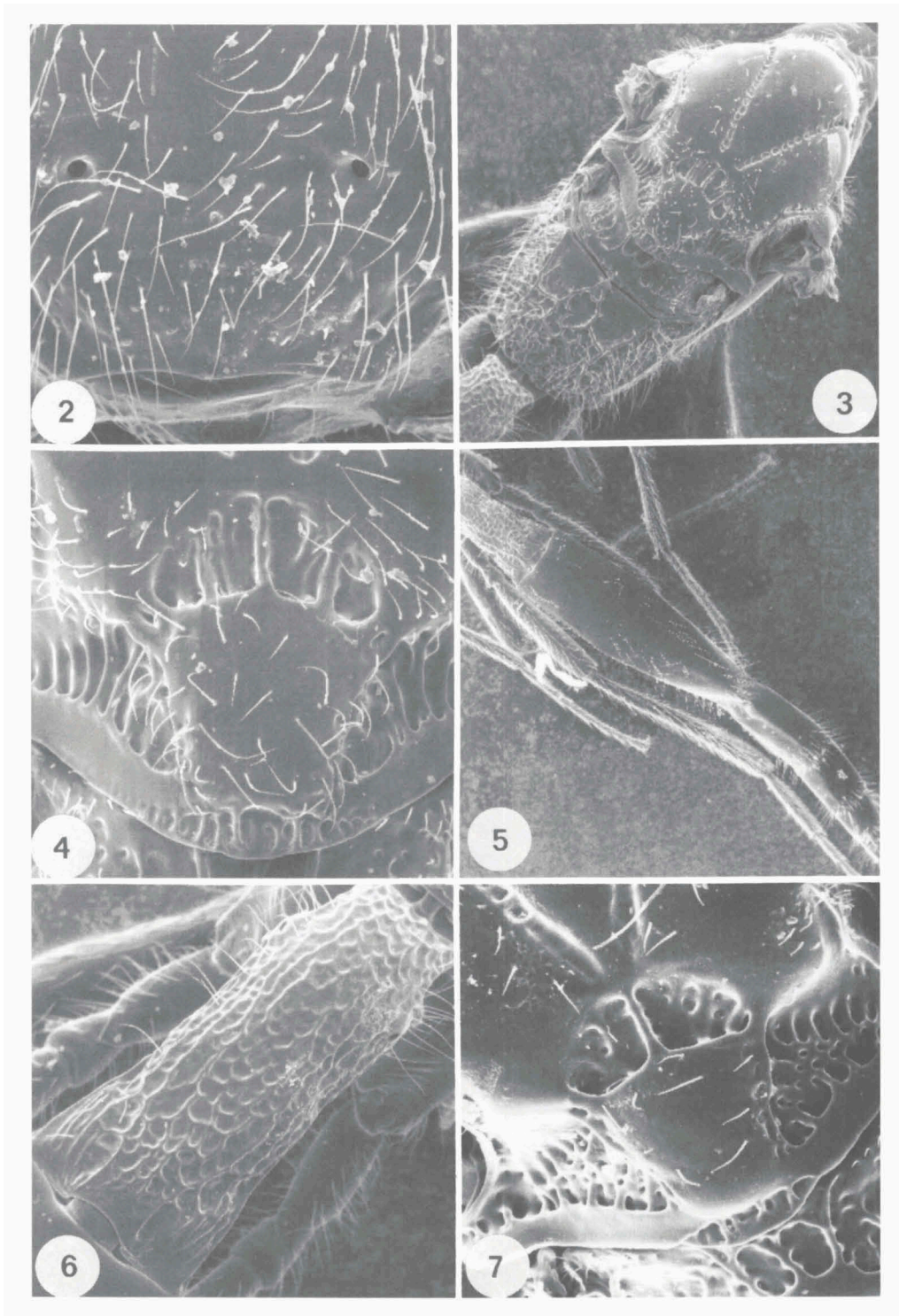
Fig. 1. Map of Brazil with depictions collect localities of *Meteoridea* spp.

- wide (figs 6, 8); head yellow..... 2
2. Vein r of fore wing shorter than vein 3-SR; second submarginal cell parallel-sided (fig. 14); Australian *M. anic* Austin & Wharton
- Vein r of fore wing as long as or longer than vein 3-SR; shape of second submarginal cell of fore wing variable; non-Australian species 3
3. Second metasomal tergite sculptured; vein r of fore wing as long as vein 3-SR (fig. 15) 4
- Second metasomal tergite smooth; vein r of fore wing longer than vein 3-SR (figs 12, 13, 16, 17) 5
4. Second metasomal tergite longitudinally aciculate; clypeus with anterior margin with a blunt projection medially; East Palaearctic
..... *M. japonensis* Shenefelt & Muesebeck
- Second tergite longitudinally striate; clypeus with anterior margin shallowly emarginate; Oriental *M. hutsoni* (Nixon)
5. Head and thorax completely yellow; abdomen reddish-yellow with first and second tergites more or less piceous; vein r of fore wing twice as long as vein 3-SR; Nearctic *M. longiventris* Ashmead
- Head yellow with stemmaticum black; colour of mesosoma and metasoma variable; ratio of veins r and 3-SR of fore wing variable 6
6. Second submarginal cell of fore wing parallel-sided (fig. 16); propodeum, first-third tergites and part of fourth tergite piceous; Afrotropical
..... *M. infuscata* (Granger)
- Second submarginal cell of fore wing narrowed anteriorly (figs 12, 13, 17); colour of mesosoma and metasoma variable 7
7. Vein r of fore wing about 3.0 times length of vein 3-SR (fig. 13); mesosoma and metasoma yellow but apex of scutellum, mesosternum, metasternum, mesopleuron, metapleuron, metanotum, propodeum, and first-third tergites piceous; Neotropical *M. achterbergi* spec. nov.
- Vein r of fore wing less than 2.0 times length of vein 3-SR (figs 12, 17); colour of mesosoma and metasoma variable 8
8. Antennae with 30 segments; vein 2-M of fore wing 1.3 times longer than vein 3-SR (fig. 17); mesosoma and metasoma testaceous; Afrotropical ... *M. testacea* (Granger)
- Antennae with 25 or 26 segments; vein 2-M of fore wing 1.6 times longer than vein 3-SR (fig. 12); mesosoma and metasoma yellow but apex of scutellum, metapleuron, metanotum, propodeum, and first-third tergites piceous; Neotropical
..... *M. whartoni* spec. nov.

Meteoridea whartoni spec. nov.
(figs 2-6, 12)

Material.— Holotype, ♀ (DCBU), Brazil, São Paulo, Luís Antônio, Reserva Ecológica do Jataí, light trap, 27.iii.1987, L.A. Joaquim. Paratypes (5 ♀♀ + 2 ♂♂): 2 ♀ (DCBU), same data as holotype; 1 ♀, 2 ♂ (DCBU), 18.ii.1988; 1 ♀ (DCBU), Brazil, São Paulo, São Carlos, Fazenda Canchim, light trap, 8.ii.1984, A.S. Soares; 1 ♀ (UFPR), Brazil, Santa Catarina, Seara (Nova Teutônia), ix.1972, F. Plaumann.

Holotype ♀, length about 5 mm. Head honey yellow; stemmaticum black; antenna yellow basally, darkened apically; apical third of mandible piceous; thorax



Figs 2-6. *Meteoridea whartoni* spec. nov.; 2, clypeus; 3, mesonotum; 4, scutellar sulcus; 5, metasoma; 6, first tergite. Fig. 7. *M. achterbergi* spec. nov.; scutellar sulcus.

concolorous with head, apex of scutellum, metanotum, metapleuron, and propodeum piceous; legs entirely yellow; abdomen yellow with first and second tergites piceous, third tergite paler apically; wing membrane hyaline, veins brownish; stigma yellow; tegula yellow.

Head wider than mesosoma (1.25 ×), smooth and shiny; eyes large; malar space less than half as long as clypeus; clypeus two times as wide as deep, its apical margin nearly straight but with a weak projection centrally (fig. 2); antenna nearly half as long as the body, 26-segmented in holotype and 25-segmented in one of the paratypes; pedicel two thirds as long as scape; first flagellar segment as long as the scape and pedicel combined; gena, temple, mandible, labrum, clypeus, vertex and face with yellowish setae, which are absent on a shining depressed area above antennae; occipital carina incomplete, interrupted medially.

Mesonotum shiny, smooth except for small, scattered pits of setae; notauli deep, complete, but not meeting posteriorly, foveolate; scutellar sulcus two thirds as long as disc of scutellum (fig. 3), divided into 4 by carinae (fig. 4); disc of scutellum convex, virtually smooth; propodeum largely covered with irregular reticulation but with two large, nearly semicircular, basal areas smooth and polished (fig. 3); mesopleuron largely smooth; mesopleural furrow foveolate; legs slender; spurs of hind tibia too small to be distinguished from setae; fore wing (fig. 12) with vein r emerging slightly beyond middle of stigma; vein r of fore wing always 1.2 times the length of vein 3-SR and shorter than vein 2-SR; second submarginal cell (2b) narrower above than below; first discal cell (3a) sessile; vein m-cu entering first submarginal cell, vein cu-a postfurcal by about its length; hind wing (fig. 12) with vein cu-a slightly angled below middle; lower abscissa of vein 1-M less than one third as long as vein M+CU.

Metasoma very narrow (fig. 5), strongly compressed apically; first tergite (fig. 6) longitudinally rugulose, its length 2.1 times its apical width and apically one-half times wider than basally, and with deep dorsope; its spiracles small and situated far in front of the middle, second and following tergites smooth and polished.

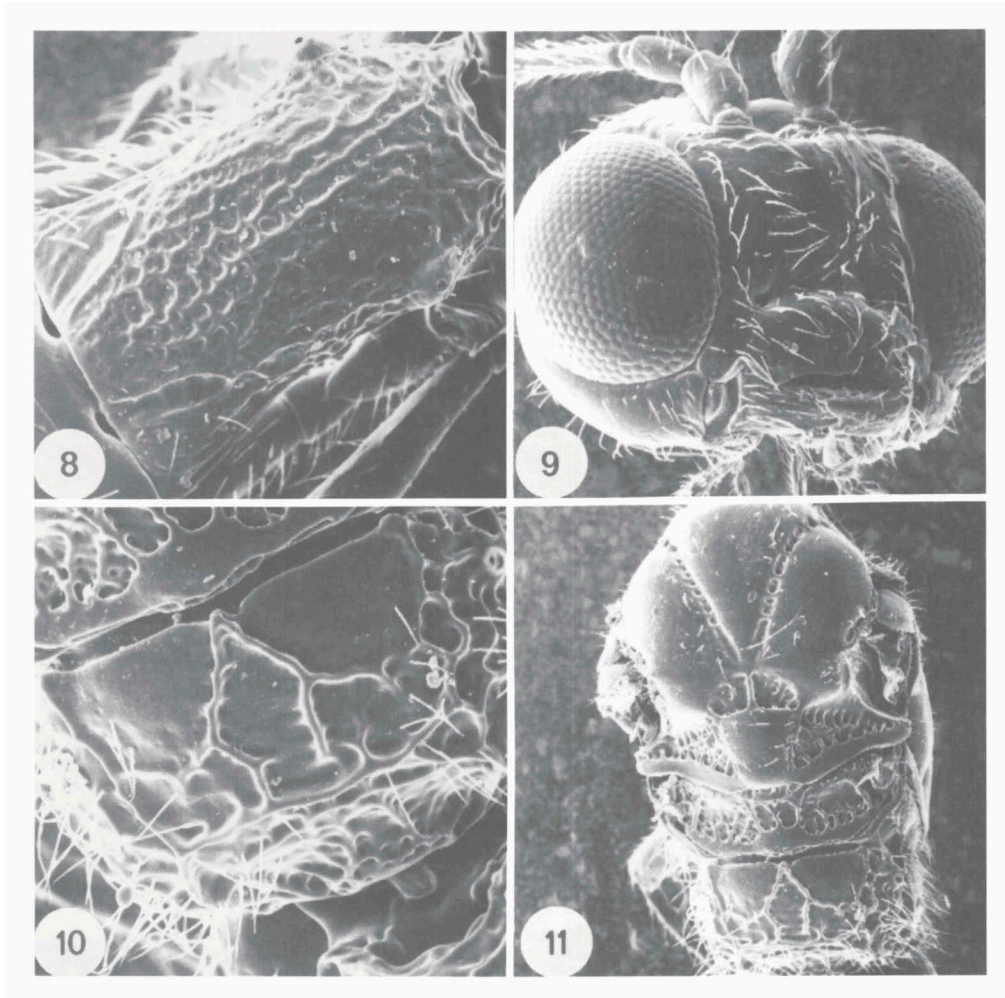
Male.— Similar to female except for the secondary sexual characters and in the following characters: metasoma not compressed, length of second tergite about equal to its apical width, third tergite as long as second.

Etymology.— Named for Robert A. Wharton (Texas A&M University, USA) the hymenopterist who is dedicated to the study of Braconidae.

Meteoridea achterbergi spec. nov.
(figs 7-11, 13)

Material.— Holotype, ♀ (UFPR), Brazil, Santa Catarina, Seara, (Nova Teutônia), viii.1972, F. Plauermann. Paratypes (2 ♀♀): 1 ♀, UFPR, 1 ♀, DCBU, with same data as holotype, 11 ♀♀, (RMNH), Panama, Barro Colorado Island, 99°30'N-79°51'W: 13-19.iv.1977 (1 ♀); 20-26.iv.1977 (1 ♀), 4-10.v.1977 (3 ♀♀), 8-14.vi.1977 (1 ♀.), 13-19.vii.1977 (2 ♀♀), 29.vi-5.vii.1977 (2 ♀♀); 3-9.viii.1977 (1 ♀) at light, H. Wolda; 6 ♂♂ (RMNH), Panama, Barro Colorado Island, 99°30'N-79°51'W: 29.vi-5.vii.1977 (2 ♂♂), 13-19.vii.1977 (2 ♂♂) and 4-10.v.1977 (2 ♂♂).

Holotype, ♀, length 3.0 mm; mesopleuron and mesosternum yellow; antenna nearly as long as the body and 24-segmented; scutelar sulcus (fig. 7) divided in 2



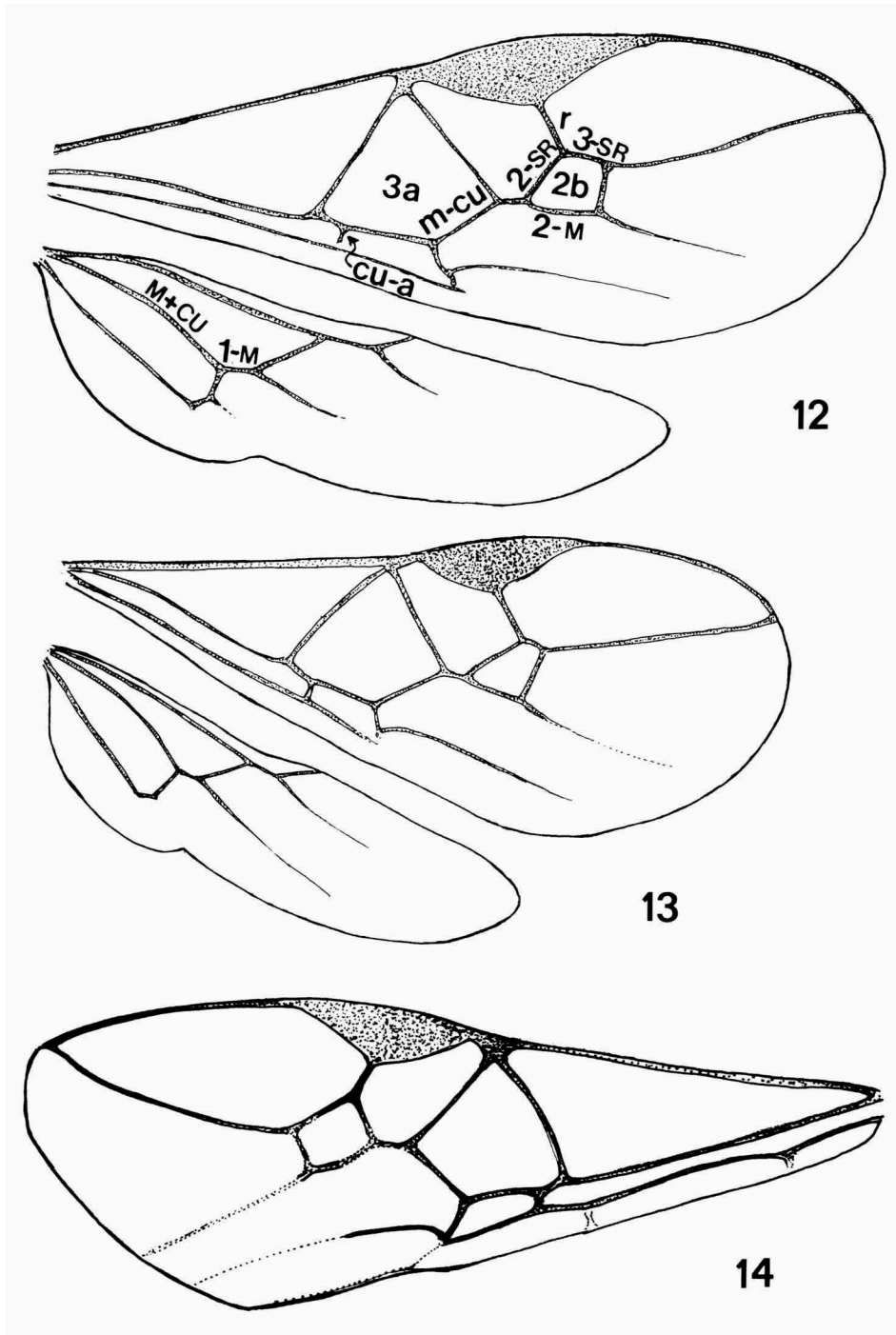
Figs 8-11. *Meteoridea achterbergi* spec. nov.; 8, first tergite; 9, head; 10, propodeum; 11, mesosoma (dorsal view).

parts by a median carina; fore wing (fig. 13) with vein r 3 times as long as vein 3-SR and shorter than vein 2-SR.

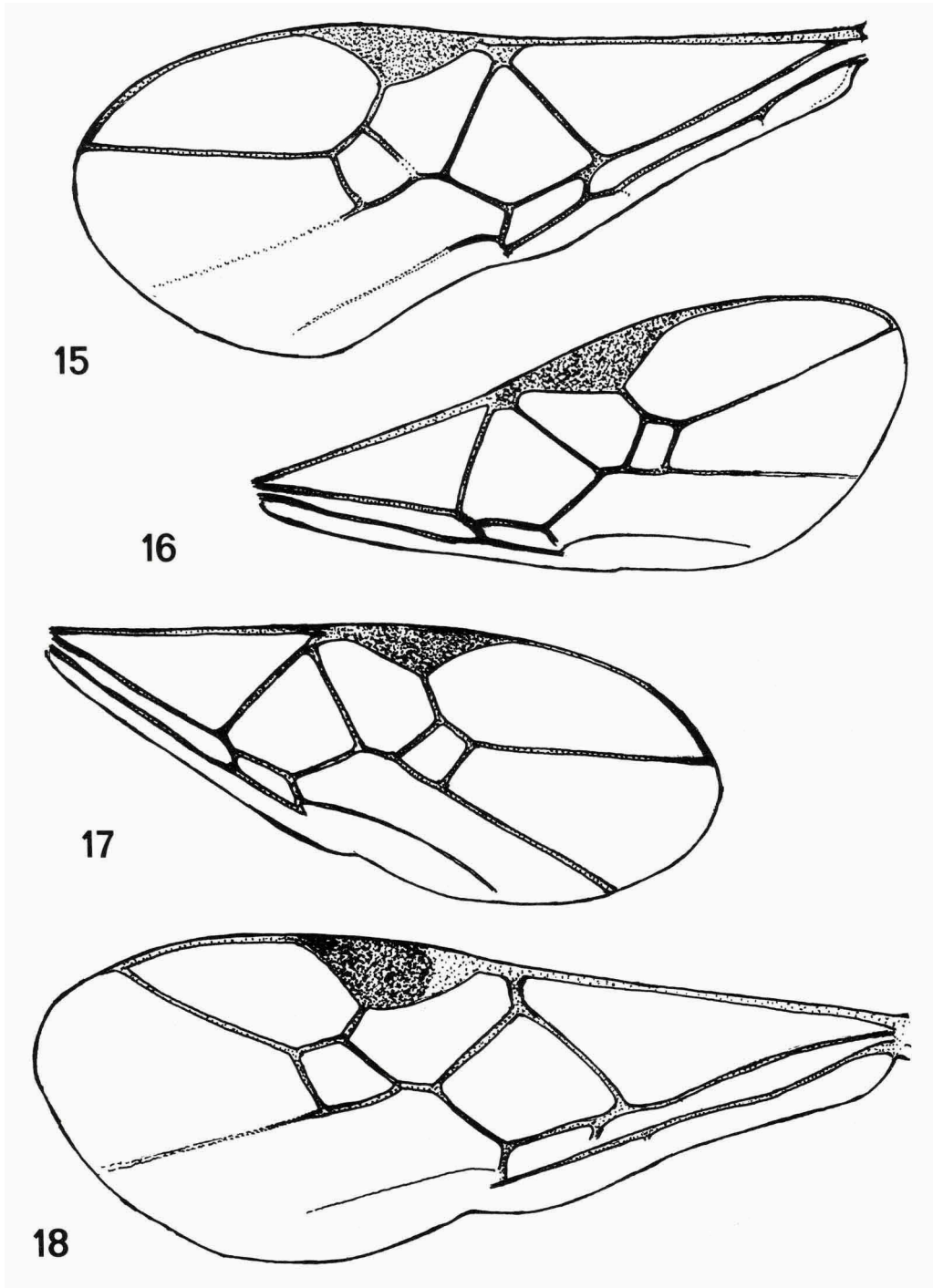
Length of first tergite (fig. 8) 1.5 times its apical width and apically 2.2 times wider than basally (but the length of the first tergite is variable in the paratypes). In other aspects (figs 9-11) similar to *Meteoridea whartoni*.

Etymology.— Named for C. van Achterberg (Natural History Museum, Leiden, The Netherlands) who dedicated a major part of his studies to the Braconidae.

Both species here described differ from other species in having the discal cell of fore wing sessile, length of first tergite more than its apical width, second submarginal cell of fore wing narrower above than below, second tergite smooth and the head yellow with the stemmaticum black.



Figs 12-14. Fore wings; 12, *Meteoridea whartoni* spec. nov.; 13, *Meteoridea achterbergi* spec. nov.; 14, *Meteoridea anic* (from Austin & Wharton, 1992).



Figs 15-18. Fore wings; 15, *Meteoridea hutsoni* (from van Achterberg, 1990); 16, *Meteoridea infuscata* (from Granger, 1949); 17, *Meteoridea testacea* (from Granger, 1949); 18, *Meteoridea compressiventris* (from Shenefelt & Muesebeck, 1957).

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