The first known fossil Masoninae (Hymenoptera: Braconidae) from Miocene Dominican amber

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The first fossil species of the genus *Masona* van Achterberg, 1995, of the subfamily Masoninae (Hymenoptera: Braconidae) is described and illustrated. It originates from approximately 15-20 millions years old (= Miocene) Dominican amber.

Introduction

Most of the Dominican amber insect fauna is closely related to present-day fauna, in contrast to species of older amber deposits which are often difficult to place in a recent category (Engel, 1999). Hymenopterous fossils from Dominican amber has been little studied up to now, except for the Hymenoptera-Aculeata. So far only two parasitoids and not belonging to the Aculeata have been described: *Aivalykus dominicanus* Zuparko & Poinar, 1997 (Braconidae; Zuparko & Poinar, 1997) and *Spalangiopelta georgei* Darling, 1997 (Pteromalidae; Darling, 1997). In this paper the third non-aculeate parasitoid and the second braconid species from Dominican amber are described.

The age of Dominican amber is approximately 15-20 million years (about half as old as Baltic amber) and therefore, from the Miocene period (Grimaldi, 1995; Iturralde-Vinent & MacPhee, 1996). Dr L. Masner (Ottawa) recognised among parasitoids present in Dominican amber, two specimens of the recently described and highly aberrant genus *Masona* van Achterberg, 1995 (Hymenoptera: Braconidae: Masoninae). This genus is very rare in collections and mainly known from the Neotropical, southern Nearctic and tropical Australian regions (van Achterberg, 1995). The biology of the genus is unknown.

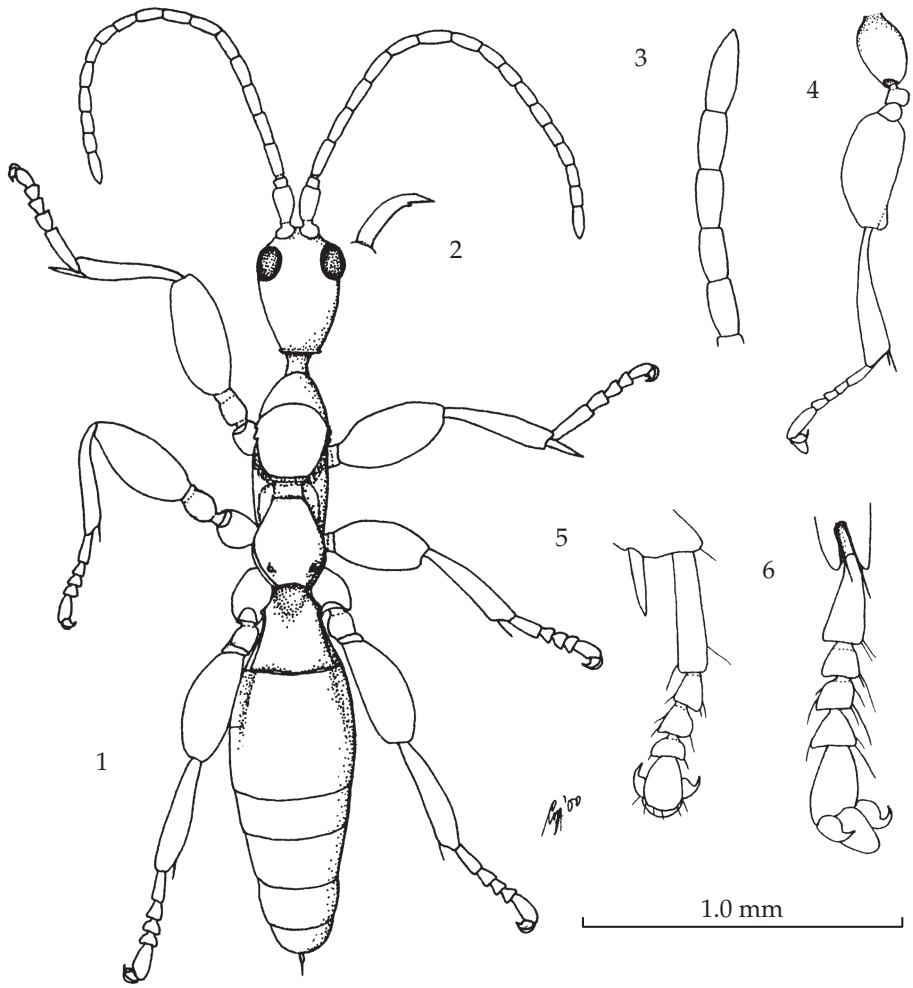
For recognition of the subfamily Masoninae and the genus *Masona* van Achterberg, see van Achterberg (1995, 1997), for keys to the species see van Achterberg (1995), and for the terminology used in this paper, see van Achterberg (1988).

Subfamily Masoninae van Achterberg, 1995

Masona van Achterberg, 1995

Masona pyriceps spec. nov.
(figs 1-8)

Material.— Holotype, ♀ (AMNH), "**Dominican Republic**, Amber: Oligo-Miocene, AMNH no. DR-14-894, locality: [unknown]", "*Masonia* sp. (Braconidae), det. L. Masner, 1997". Paratype, ♀ (AMNH), same labels, but no. DR-14-921.



Figs 1-6, *Masona pyriceps* spec. nov., ♀, holotype. 1, habitus, dorsal aspect (partly reconstructed); 2, mandible, dorsal aspect; 3, apex of antenna; 4, hind leg; 5, fore tarsus, dorsal aspect; 6, hind tarsus ventral aspect 1, 4: 1 × scale-line; 2, 3, 5, 6: 2.5 ×.

Holotype, ♀, wingless, length of body 2.5 mm.

Head.— Head strongly prognathous, slender and distinctly narrowed posteriorly (figs 1, 7); antenna distinctly longer than combined length of head and mesosoma (fig. 1), with 18 segments, third segment 1.2 times as long as fourth segment and of equal width, length of third, fourth and penultimate segments 3.0, 2.5 and 1.4 times their width, respectively (figs 1, 3); length of maxillary palp 0.7 times height of head; occipital carina strong dorsally and absent ventrally; ocelli absent; eye in dorsal view 0.5 times as long as temple (fig. 1), temples narrowed behind eyes (figs 1, 7); vertex smooth; malar suture long; malar space about as long as basal width of mandible;

Fig. 7, *Masona pyriceps* spec. nov., habitus, dorsal aspect, ♀, holotype.

mandible slender and with very small second tooth (fig. 2).

Mesosoma.— Length of mesosoma 2.5 times its height; mesosoma largely smooth; precoxal sulcus absent; mesopleuron with crenulate groove anteriorly; mesoscutum large (fig. 1); scutellum present but comparatively narrow (figs 1, 7); scutellar sulcus largely absent.

Legs.— Fore and middle trochantelli hardly differentiated and trochanters petiolate (figs 1, 4, 7); fore basitarsus moderately robust (fig. 5); femora rather swollen (figs 1, 4, 7); hind tarsus widened in ventral view (fig. 6); length of femur, tibia and basitarsus of hind leg 2.1, 4.6, and 3.0 times their width, respectively; outer and inner hind tibial spurs 0.35 and 0.45 times hind basitarsus, respectively.

Metasoma.— First tergite as long as its apical width (fig. 1), its surface largely smooth, and distinctly concave basally; second tergite smooth; length of ovipositor sheath 0.4 times hind tibia and 0.07 times body.

Colour.— Yellowish-brown; head, third-eight antennal segments, femora and tibiae partly, mesosoma partly laterally, metasoma (except first tergite largely) more or less dark brown (fig. 7).

Variation.— Paratype: very similar to holotype; antennal segments 18; third and fourth antennal segments 2.0 and 1.7 times their width, respectively and nearly completely dark brown, only palpi and tarsi largely yellowish-brown and first tergite somewhat paler than remainder of metasoma.

Notes.— Remarkably similar to extant species as *Masona infuscata* van Achterberg,

Fig. 8, *Masona pyriceps* spec. nov., habitus, dorsal aspect, ♀, paratype.

1995, from Australia (Queensland). The new species differs by the more slender antenna with 18 segments, the much more reduced scutellum, the long fore tibial spur, the more slender first metasomal tergite and fore basitarsus, and by its larger size.

Acknowledgements and abbreviations

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AMNH stands for the American Museum of Natural History, New York.

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