

A NEW SPECIES OF *HARPACTUS* (HYMENOPTERA: SPHECIDAE) FROM SPAIN^{1,2}

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ABSTRACT: *Harpactus alvaroi*, a new species from Spain, is described and compared with similar species of the genus.

Harpactus Shuckard, 1837 is still little known; many species are undescribed and many forms of doubtful status cannot be clearly defined. In earlier literature most of the species were placed in the genus *Gorytes* Latreille, in subgenera *Harpactus* Shuckard, *Harpactes* Dahlbom, or *Arpactus* Jurine and more recently *Dienoplus* W.Fox. This last subgenus was raised to full generic status in Bohart & Menke (1976). Currently the valid name is *Harpactus* Shuckard (Pulawski, 1985).

Species of *Harpactus* Shuckard occur in the Holarctic, Afrotropical and Oriental zoogeographic Regions, but the Palearctic Region is particularly rich, and several undescribed species are known to exist there. One of them, from Spain, is described below.

I use the terminology of Bohart & Menke (1976).

Harpactus alvaroi, Gayubo, new species

Figs. 1-4

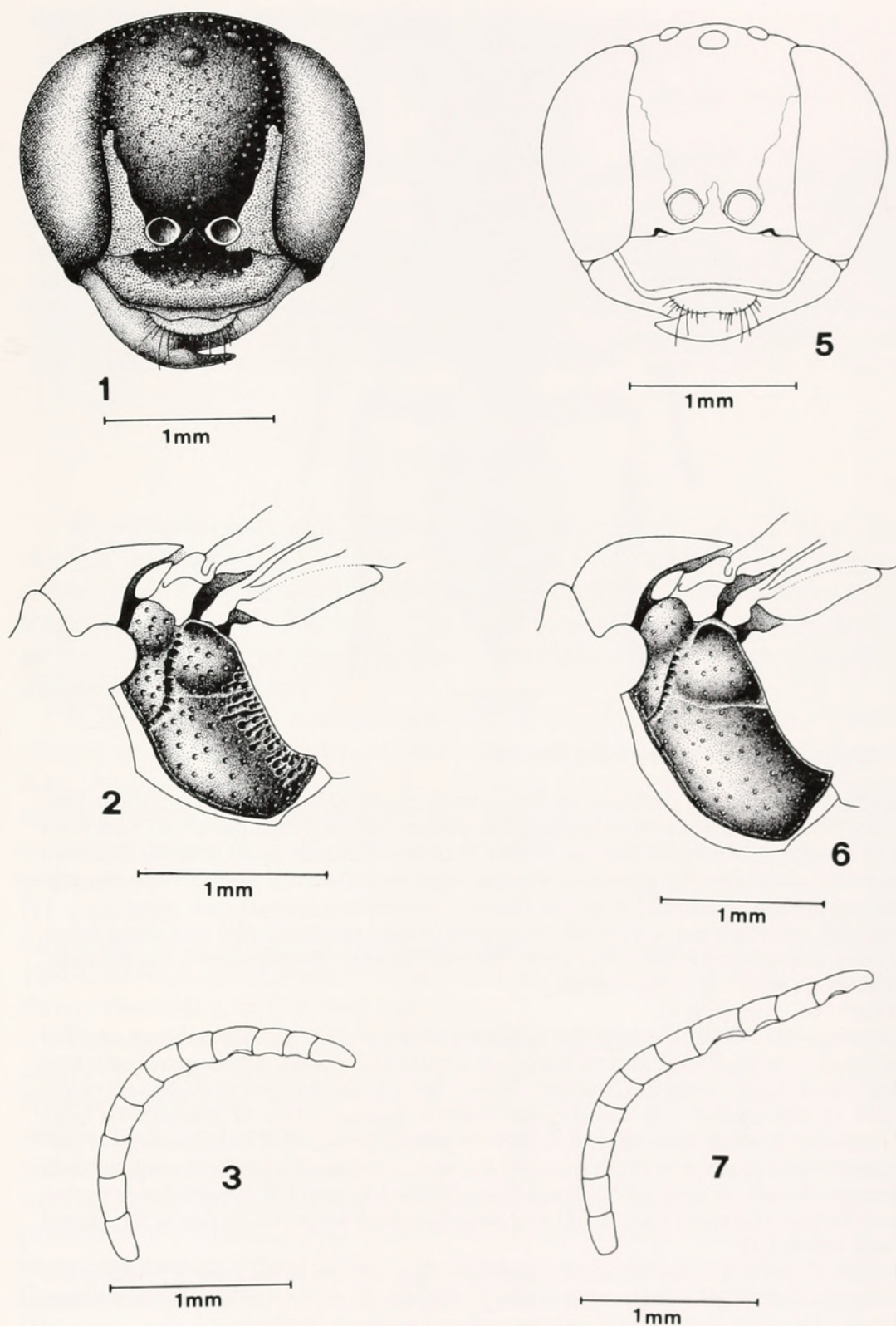
Diagnosis. *Harpactus alvaroi* sp.n. differs from similar species of the genus by the following features: clypeal free margin with an obtuse emargination (Fig. 1); frons with well-defined punctures, some of which are more than one diameter apart (Fig. 1); mesopleuron with deep punctures, some of which are more than two diameters apart, their posterior margin being particularly carinate (Fig. 2).

Description. Head subrounded, inner orbits slightly convergent towards the vertex; labrum semicircular, with inconspicuous mesal emargination; frons with well-defined punctures, which are less than one diameter apart on the upper central part and about one diameter apart elsewhere (Fig. 1). Pronotal collar narrow. Many scutal punctures more than one diameter apart, others (forming irregular groups) less than one diameter apart. Scutellum: anterior margin crenulate, most punctures along anterior and posterior margins. Metanotal punctures compressed along anterior and posterior margins. Mesopleural punctures deep, more than one diameter apart in the center, less than one diameter at the top; punctures confluent posteriorly, forming posterior carinate margin (Fig. 2). Metapleuron shiny, with some punctures at the top. Propodeum coarsely sculptured, except the zone anterior to spiracular groove which is smooth and shiny; enclosure

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Figs. 1-3—*Harpactus alvaroi* sp.n.: (1) Head in front view (female); (2) Mesopleuron; (3) Antenna (male).

Figs. 5-7—*Harpactus tumidus* (Panzer): (5) Head in front view (female); (6) Mesopleuron; (7) Antenna (male)

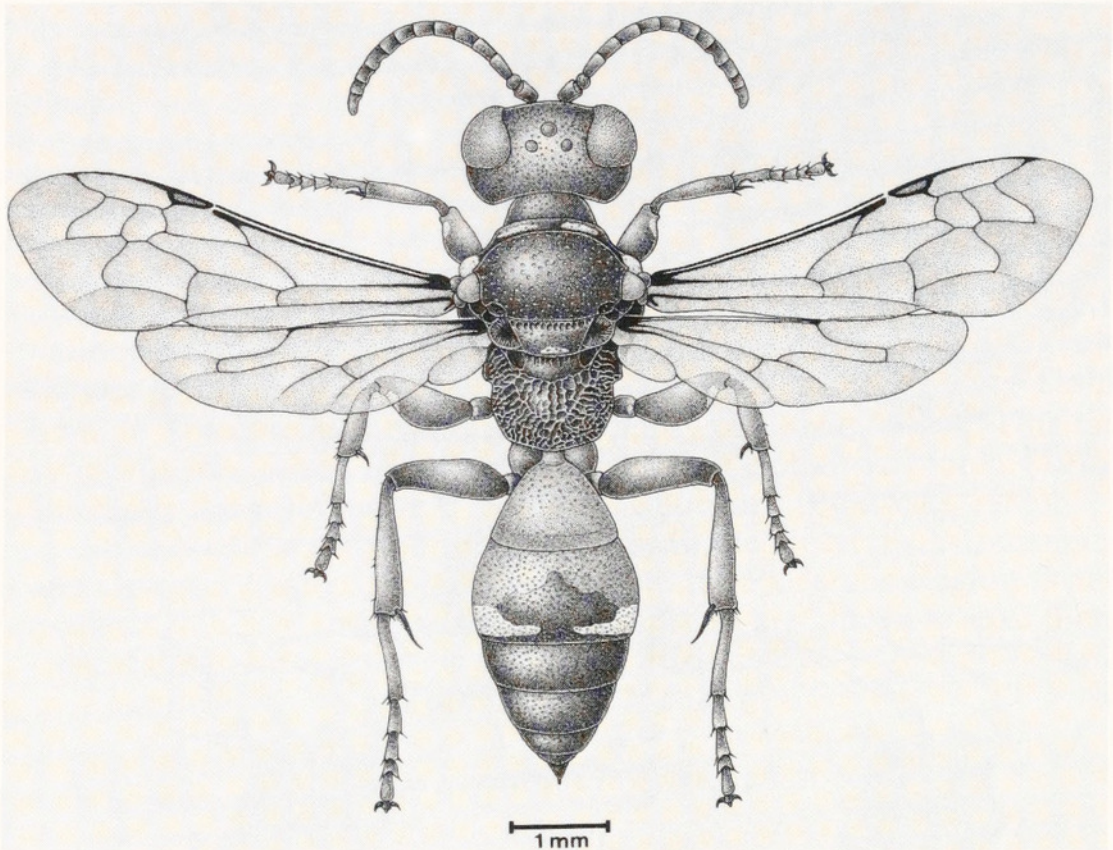


Fig. 4—*Harpactus alvaroi* sp.n., male nototype.

irregularly, longitudinally carinate; surface outside enclosure with oblique carinae; posterior face with transverse carinae arising from median carina. Tergal punctures finer than those on thorax; punctures of tergum II more than one diameter apart mesally, less than one diameter apart laterally; punctures of other terga more than one diameter apart except near apical margin of terga III-V where they are compressed against each other.

Vestiture. Setae silvery, appressed on clypeus (except apicomesally) and along inner orbits; erect, scattered on interocellar area. Other body setae inconspicuous, not concealing integument, which is easily visible.

Length: 6-7 mm. (Fig. 4).

Coloring—Body: black, except the following which are ivory-white: labrum, clypeus (except black basomedially), and bands along ventral 2/3 of inner orbits; pronotal lobes; pronotal collar (band complete or mesally interrupted); posterior spot on scutellum; coxae I-II more or less spotted; one small apical spot on posterior face of femora I-II; large patches (nearly meeting each other mesally) on gastral tergum II. The following are reddish: mandibles mesally; two small spots behind vertex, adjacent to orbit, one behind each eye; antennal flagellum ventrally; anterior face of tibiae I-II; tarsi I-II; longitudinal patches on inner surface at apex of femora I-II and large longitudinal patch on femur III; gastral terga and sterna I-II.

Female: Clypeal free margin more prominent (Fig. 1) than in the male. Pygidial plate subtriangular, laterally carinate, with larger punctures on an area of micropunctuation. One ivory-white spot on tergum V (largely reduced in some specimens).

Male: Flagellomeres VIII-XI with notches (Fig. 3). In one male examined there was one ivory-white patch on each posterior corner of tergum I. Anterior margin of tergum and ster-

num II black (only tergum I and sternum I red in one specimen).

Name derivation: This species is dedicated to my son Alvaro.

Habitat: The specimens were collected in sandy areas.

Material examined: Holotype: ♂, SPAIN: Salamanca Province: Béjar, 8-VIII-1978, S. F. Gayubo leg.

Paratypes—Alicante Province: Tibi, 21-VII-1988, 1♀ (S. F. Gayubo leg). Avila Province: Candeleda, 21-IX-1989, 1♂ (J. J. Pedrero leg). Cáceres Province: Gargantilla, 21-VII-1978, 1♀ (S. F. Gayubo leg); Madrigal de la Vera, 21-IX-1989, 1♂, 4♀ (J. J. Pedrero leg); Piornal, 18-VIII-1988, 1♀ (F. Sanza leg). Salamanca Province: Sotoserrano, 31-VIII-1989, 1♀ (J. J. Pedrero leg). Soria Province: Alcubilla del Marqués, 16-VIII-1989, 2♀ (J. García leg); Almazán, 26-VII-1989, 1♀ (J. García leg); Zamora Province: Villardiegua de la Ribera, 3-IX-1989, 1♀ (C. Heras leg). Zaragoza Province: Pina de Ebro, 12-VIII-1990, 2♂; 28-VIII-1990, 2♀; 3-IX-1990, 1♀ (J. Blasco leg). All material is deposited in the Gayubo Collection, Universidad de Salamanca except a female in the California Academy of Sciences.

DISCUSSION

There are some similar Palearctic species like *H. affinis* (Spinola), *H. elegans* Lepeletier, *H. exiguus* (Handlirsch), *H. lunatus* (Dahlbom), *H. mundus* (de Beaumont) and *H. pyrrhobasis* (Morice), which can be distinguished from *H. alvaroi* n.sp. by their clypeal free margin being more or less concave, posterior margin of mesopleuron without carinae and different color pattern.

H. consanguineus Handlirsch and *H. quadrisignatus* Palma have an obtuse emargination on clypeal free margin similar to that of *H. alvaroi* n.sp.; but in *H. consanguineus* Handlirsch the mesopleuron on posterior margin shows superficial carinae only on the upper part, and ill-defined punctuation on the rest of the mesopleuron; moreover, the gastral color pattern is different with a white band on the posterior margin of tergum III and a spot on tergum V; this color characteristic of having white markings on the gaster is important in grouping related species (Bohart, 1980). In *H. quadrisignatus* Palma the sculpture of all the body is very different from that of the new species.

Finally, it must be noted that the specimens of *H. alvaroi* n.sp. could easily be confused with those specimens of *H. tumidus* (Panzer) from the Iberian Peninsula, which have coarser sculpture (the punctuation on the whole body and well-defined propodeal carinae) than those from central Europe. Both species differ particularly in the clypeal free margin, and sculpture of mesopleuron (compare Figs. 1 and 5; 2 and 6), and the presence of a small apical spot on the posterior face of femora I-II in the new species and not in *H. tumidus* (Panzer). In addition, notches of male flagellomeres VIII-XI are shallower in *H. alvaroi* n.sp. than in *H. tumidus* (Panzer) (compare Figs. 3 and 7)

ACKNOWLEDGMENTS

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