

## *Dinotrema jimenezi* sp. n., a new species of the genus *Dinotrema* (Hymenoptera: Braconidae: Alysiniinae) with only basomedially sculptured propodeum from Spain

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**Abstract:** Description of *Dinotrema jimenezi* sp. n. with only basomedially sculptured propodeum from Spain is suggested. The comparison of new species with the most related *D. caesum* Tobias and *D. vituperatum* (Fischer) is given.

**Key words:** parasitoids; Braconidae; Alysiniinae; *Dinotrema*; new species; Spain

### Introduction

*Dinotrema* Foerster, 1862 is one of the largest and most complicated braconid genera. It comprises many dozens of species described from the Palaearctic Region and mainly from Western Europe (Fischer 1972; Achterberg 1988; Tobias 2003, 2004a, b, 2006), but numerous Palaearctic species remain as yet undescribed. The majority of species of this genus are small size specimens (1.5–2.5 mm) characterised by combinations of the limited number of diagnostic characters, such as condition of mesoscutal pit, sculpture and carination of propodeum, length of ovipositor, size of mandible, etc. Integration of the *Dinotrema* species in the morphological groups was suggested by Fischer (1972) and later, the basis of more diverse material was developed by Tobias (2003, 2004a, 2006).

In Spain, this genus is very poorly studied and only 19 species are known here until now (Fischer et al. 2008). We are working on the revision of all available type material of this genus for the European fauna with the aim of estimating the real composition of *Dinotrema* species. We suggest in this paper the description of the new *Dinotrema* species with only basomedially sculptured propodeum: *D. jimenezi* sp. n., one of the peculiar new Spanish species of the genus *Dinotrema*.

### Material and methods

The specimens for this study were collected by Malaise traps in the Natural Park of La Tinença de Benifassà. This park is located to the north of Castellon Province (Spain) at altitude 491–1184 m and extends over approximately 25,814 ha. Climate conditions are continental humid, with annual aver-

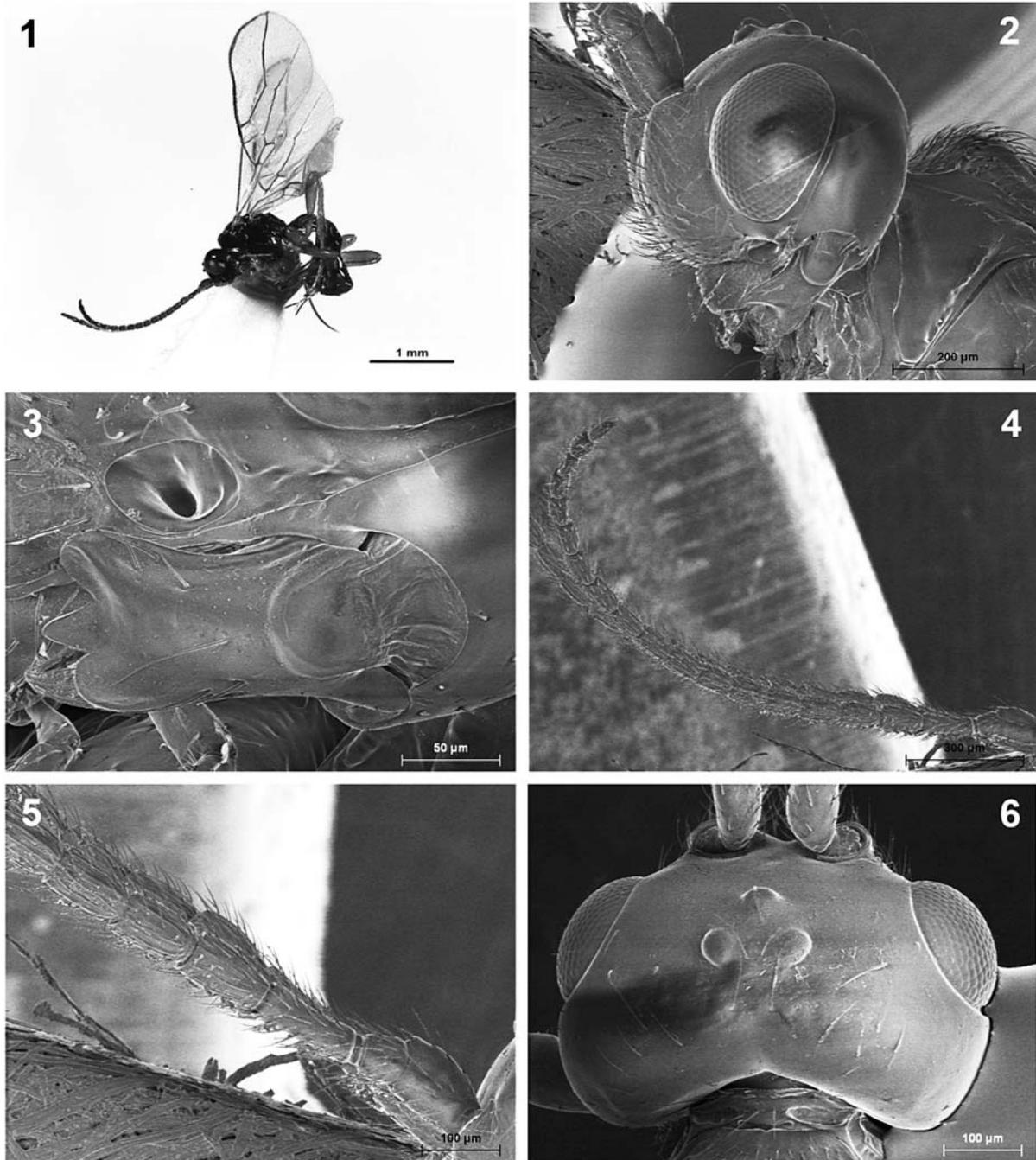
age temperatures below 12°C; freezing conditions are possible throughout most of the year. Rainfall varies in different zones according to topographical features, and the annual precipitation ranges from 600 to 1,000 L m<sup>-2</sup>. The park is contained within the supramediterranean bioclimate (Peris-Felipo & Jiménez-Peydró 2012).

For the terminology of the morphological features and sculpture, measurements and wing venation nomenclature, see Fischer (1973). The following abbreviations are used in the paper: POL – postocellar line; OOL – ocular-ocellar line; OD – maximum diameter of lateral ocellus. Type specimens are deposited in the Entomological Collection at University of Valencia (Valencia, Spain; ENV).

*Dinotrema jimenezi* Peris-Felipo, sp. n. (Figs 1–12)

### Description. Female.

Head. In dorsal view, 1.80 times as wide as long, 1.35–1.40 times as wide as mesoscutum, smooth, with temples rounded behind eyes. Eye in lateral view 1.40–1.45 times as high as wide and 1.35 times as wide as temple. Malar suture 0.10 times as wide as temple. POL about 3.00 times OD; OOL about 3.00 times OD. Face 1.55 times as wide as high and covered completely by numerous setae; inner margins of eyes subparallel. Clypeus 2.10 times as wide as high, slightly curved ventrally. Paraclypeal fovea reaching middle of distance between clypeus and eye. Mandible weakly widened towards apex, 1.20–1.25 times as long as its maximum width. Upper tooth medium sized, wide, shorter than middle tooth. Middle tooth rather small, weakly longer than upper tooth, wide basally and pointed apically. Lower tooth short, wide, as long as upper tooth, rounded. Antennae thick, 20-segmented, longer than body. Scape



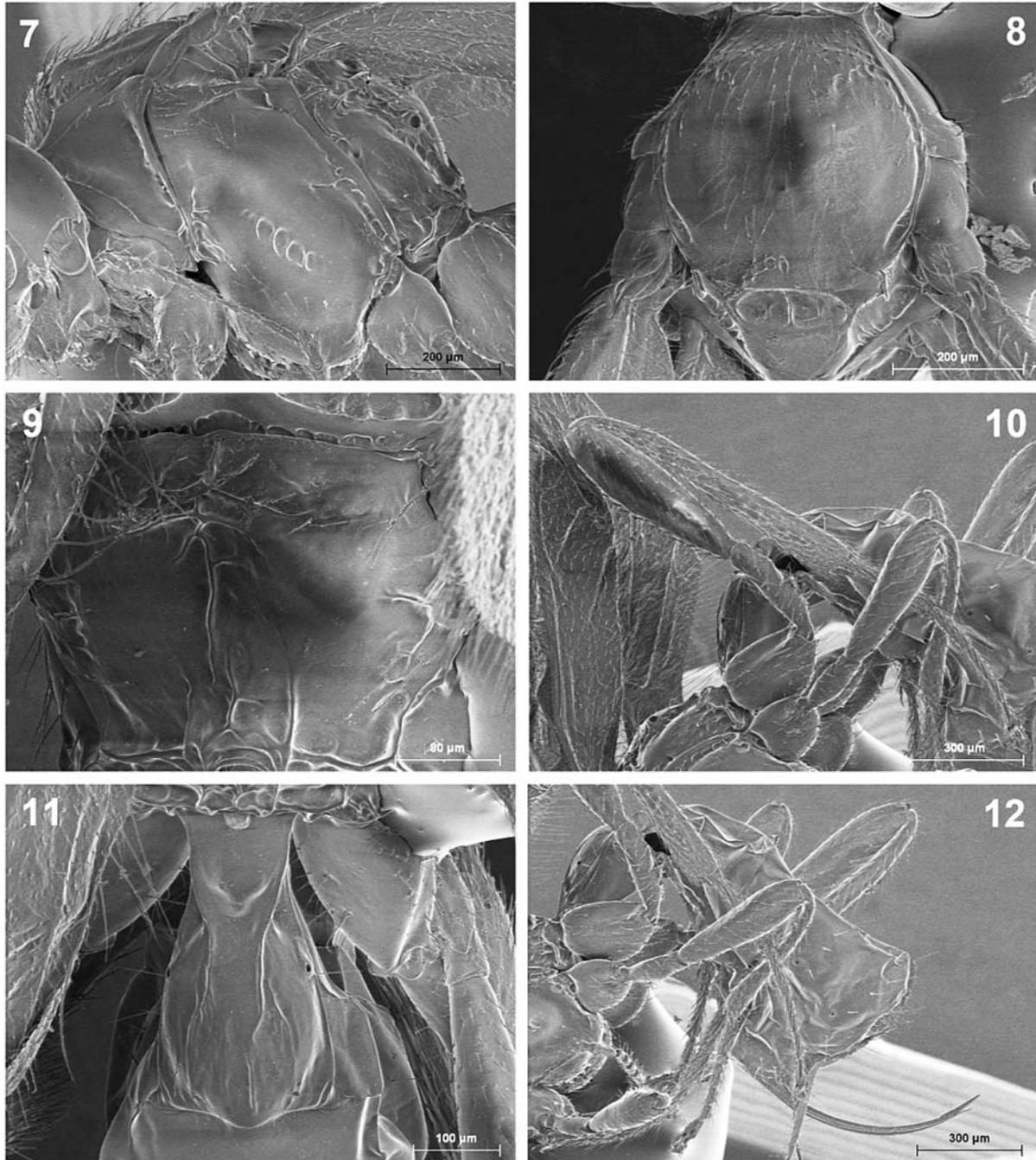
Figs 1–6. *Dinotrema jimenezi* sp. n. (female): 1 – Habitus, lateral view; 2 – Head, lateral view; 3 – Mandible; 4 – Antenna; 5 – Basal segments of antenna; 6 – Head, dorsal view.

1.90–1.95 times as long as pedicel. First flagellar segment 2.60 times as long as its apical width, 1.15–1.20 times as long as second segment; second segment 1.60–1.65 times as long as its maximum width. Third to twelfth flagellar segments about 1.80 times, thirteenth to seventeenth segments about 1.50, and eighteenth segment 2.00 times as long as their width.

Mesosoma. In lateral view, 1.25–1.30 times as long as high. Mesoscutum (dorsal view) nearly as long as maximum width, with two rows of setae located on middle part of mesoscutum. Notauli mainly absent. Mesoscutal pit present and oval. Prescutellar depres-

sion smooth, with coarse median and fine lateral carinae. Sternaulus (precoxal suture) present, not reaching anterior and posterior parts of mesopleuron. Posterior mesopleural furrow finely crenulate in lower half. Propodeum mainly smooth, with complete longitudinal carina crossing from anterior to posterior margins, with subtransverse carinae in basal one-third emerging from longitudinal carina but far not reaching propodeum lateral edge. Propodeal spiracles small.

Legs. Hind femur 3.60–3.70 times as long as its maximum width. Hind tibia weakly widened to apex, 7.00–7.10 times as long as its maximum subapical



Figs 7–12. *Dinotrema jimenezi* sp. n. (female): 7 – Mesosoma, lateral view; 8 – Mesonotum, dorsal view; 9 – Propodeum, dorsal view; 10 – Hind leg; 11 – First metasomal tergite; 12 – Metasoma and ovipositor, lateral view.

width, 1.05–1.10 times as long as hind tarsus. First segment of hind tarsus about twice as long as second segment.

**Wings.** Length of fore wing 2.50–2.55 times its maximum width. Vein r1 present and sclerotised. Radial cell reaching apex of wing, 3.90–3.95 times as long as its maximum width. Nervulus distinctly postfurcal. Brachial cell closed distally, 3.80 times as long as its maximum width. Hind wing 7.80 times as long as its maximum width.

**Metasoma.** Distinctly compressed. First tergite weakly widened towards apex, 1.80 times as long as

its apical width, almost entirely smooth, but finely or very finely and sparsely striate in apical half, with two distinct dorsal carinae. Ovipositor 1.70–1.75 times as long as first tergite, shorter than metasoma, nearly as long as hind femur.

**Colour.** Body and legs brown to dark brown. Wings hyaline. Pterostigma brown.

**Length.** Body 2.10–2.20 mm; fore wing 2.55–2.60 mm.

**Male.** Unknown.

**Type material.** Holotype: female, Spain, Castellon Pro-

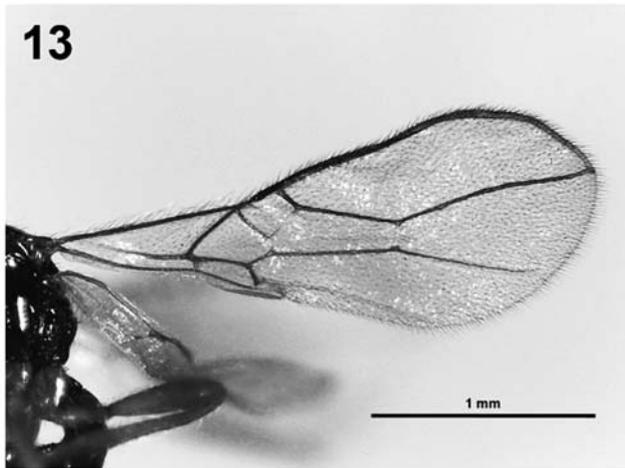


Fig. 13. *Dinotrema jimenezi* sp. n. (female): Fore wing.

vince, Pobra de Benifassà, Natural Park of Tinença de Benifassà, 25.09.2006 (F.J. Peris-Felipo leg.) (ENV). Paratype: 1 female, same label as in holotype, but 30.10.2006 (ENV).

**Etymology.** Named in honor Prof. Ricardo Jiménez Peydró, well-known Spanish entomologist.

**Diagnosis.** This new species is similar to *Dinotrema caesum* Tobias, 2006, *D. sauricum* Tobias, 2003, *D. stigmaticum* (Tobias, 1992) and *D. vituperatum* (Fischer, 1974) both from the morphological group with only partly sculptured propodeum and presence of mesoscutal pit. *Dinotrema jimenezi* differs from *D. caesum* in having the first flagellar segment 2.60 times as long as wide (5.00 times in *D. caesum*), hind femur 3.60 times as long as its maximum width (4.00 times in *D. caesum*) and first metasomal tergite 1.80 times as long as its apical width (1.50 times in *D. caesum*). On the other hand, *D. jimenezi* sp. nov. differs from *D. sauricum* in having the first flagellar segment 2.60 times as long as wide (3.00 times in *D. sauricum*), mandible 1.20–1.25 times longer than wide (1.50 times in *D. sauricum*), first metasomal tergite 1.80 times longer than apical width (1.50 times in *D. sauricum*), and ovipositor distinctly shorter than metasoma (longer than metasoma in *D. sauricum*). Furthermore, new species differs from *D. stigmaticum* in having the mandible 1.20–1.25 times longer than wide (1.50 times in *D. stigmaticum*), propodeum with numerous subtransverse carinae in basal one-third of the complete median longitudinal carina (without subtransverse carinae in basal one-third of the complete median longitudinal carina in *D. stigmaticum*). Finally, *D. jimenezi* differs from *D. vituperatum* in having the first flagellar segment 2.60 times as long as wide (3.60 times in *D. vituperatum*), middle flagellar segments 1.80 times as long as wide (2.50 times in *D. vituperatum*), hind femur 3.60 times as long as its maximum width (4.00 times in *D. vituperatum*), and first metasomal tergite 1.80 times as long as its apical width (2.00 times in *D. vituperatum*).

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