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# New Sphecidae from South Spain (Hymenoptera, Sphecidae)

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#### Abstract

Didineis hispanicus sp.nov., Cerceris lorcai sp.nov., and Psenulus hidalgo sp.nov. are described from Spain.

# Zusammenfassung

Aus Spanien werden folgende Arten beschrieben: Didineis hispanicus sp.nov., Cerceris lorcai sp.nov. und Psenulus hidalgo sp.nov.

Following the investigations of S.F. GAYUBO, southern Spain seems to be about the last area in Europe where there are striking discoveries to be made in the aculeate fauna. For some years I have known of an undescribed *Didineis* from Algerias as well as a puzzling *Psenulus* from further north. On a recent visit to Linz I was surprised to find a series of a splendid new Spanish *Cerceris* in the collection of Maximilian SCHWARZ and the

special interest of this last discovery prompts me to publish the following account which includes all three.

Didineis hispanicus sp.nov.

Holotype: J. Spain: Algerias, 17.-30.V.1974, K.M. GUI-CHARD (in British Museum Nat.Hist., London).

Paratypes: 5 dd, as holotype (in Brit.Mus. and coll.GUI-CHARD).

Holotype of: Whole insect black except following parts ferruginous: Palpi, central part of mandibles, tegulae and legs, apical tarsal segments darker. Wings with apical darkening as Didineis lunicornis FABRICIUS,1798. Head rather shining with close fine punctation but interocellar area almost impunctate and vertex with slight glaucous bloom. Antennae (fig.1) with all the segments much shorter than those of lunicornis. AS3 only twice as long as wide, not three times as in lunicornis, apical segment pointed and expanded basally. Clypeus with apical margin simple and not toothed and feebly sinuate, slightly bulged finely and closely punctate like lunicornis. Terga moderately shining with punctation finer and denser than lunicornis. Length 5.5 mm.

Female unknown.

D. hispanicus sp.nov. is at once distinguished from D. lunicornis by the very different last antennal segment which in lunicornis is apically truncate; the black abdomen and the much shorter antennal segments are additional characters. From D. crassicornis HANDLIRSCH, 1888, and the North African D. nigricans MORICE, 1911, it may be separated by the lack of teeth on the apical margin of the clypeus. The Algerian D. barbieri BEAUMONT, 1968, also black with red legs and with a simple apical margin to the clypeus appears to be the most closely related species. However, the antennal segments are different: in hispanicus the third and fouth segments are clearly longer than wide - the fourth beeing twice as long as wide while the antennal hook in profile is a little sinuate just before the tip. In barbieri, according to BE-AUMONT's description (1968), the upper parts of the mesopleurae (dessus du sillon) are brilliant with scattered punctures; in hispanicus that area although more shining than the rest is densely and confusedly punctate with a tendency to striation.

Variation: One paratype has a yellowish line on the underside of the scape; another has a ferruginous tinge on the centre of the first tergite.

The locality labels of the six specimens bear the legend 'near Hotel Solimar'. This place is now a burnt-out shell a few kilometres to the east of Algeciras. The area where these males were taken was a gravel pit which included a slope with cracks in the soil over which they were coursing. I have noted that in England, France and North Africa Didineis was always found in similar fissured habitats.

### Cerceris lorcai sp.nov.

Holotype: Q. Spain: Granada, Yegen NE Orgiva, Sr.Nevada, 25.VI.1988, Max SCHWARZ (in coll.SCHWARZ, Ansfelden). Paratypes: 499 666, as holotype (in coll.SCHWARZ, Brit. Museum, and coll. GUICHARD).

Holotype 9: Black with the following parts white to cream: Base of clypeus, narrow orbital lines, transverse lateral marks on pronotum, spot on tegulae, lateral spots on scutellum, a spot on the mesopleurae and on sides of propodeum, transverse lateral marks on T1-5 (fig.3a). Following parts ferruginous: Mandibles except tips, apex of scape and underside of antennae, lower area of tegulae, front tibiae except darker line internally, middle and hind tibiae partly and most of tarsi, veins of wing bases. Wings slightly infuscate with darker tips.

Haed wide with orbits diverging to mandibles which are internally sinuate with a single basal tooth (fig.2). Clypeus confusedly punctate and in profile bulged before the platform margin which is apically truncate with a small central notch. Scape shining. AS3 distinctly longer than AS4; AS12 gently curved and a little longer than AS11. Top of head strongly and unevenly punctate with punctures of different sizes, less densely so behind the ocelli. Pronotum laterally rounded. Mesonotum rather shining with coarse but unevenly distributed punctation

and with a well defined central impression and lateral furrows. Mesopleurae without points and with three different areas of sculpture, the lower one with conspicuous but rather confused striae. Scutellum and metanotum more shining with sparse punctation. Propodeum with enclosed area rather shining with weak diagonal striae and a well defined central impression, the rest of propodeum duller and closely punctate-striate. Prosternum shining with scattered punctation. Terga rather dull and densely and finely punctate. Pygidium dull, nearly parallel-sided and apically more or less truncate. Legs stout, the tibiae strongly spined. Hind femora apically a little expanded and sharply carinate beneath; hind coxae without carinae. Length 13 mm.

6: Black with the following parts bright yellow: Labrum, mandibles except tips, clypeus (with pale brown apical margin), underside of antennae, most of front of face to the level of front ocellus, large dot behind eyes, pronotum, tegulae, most of scutellum, entire metanotum, sides of propodeum, most of basal area of terga (fig.3b), and most of sterna with yellow lateral dots on S2 (sometimes coalescing), all the legs except apices of tibiae and femora.

Clypeus rather shining, punctate and apically tridentate. Rest of head dull with very dense confused small punctation. AS3 clearly longer than AS4; AS13 about as long as AS12 and rounded apically. Whole thorax more densely punctate than female. Punctation of terga as female. T7 dull and impunctate. S3-4 with dense short apical fringes of pale hairs across entire segment, remaining sterna with copious erect pale hairing. Length 13 mm, but one specimen half the size.

Cerceris lorcai sp.nov. is one of the larger and most striking Spanish members of the genus and it is strange that such a fine wasp has so long escaped detection. Among a host of European Cerceris in the SCHWARZ collection at Ansfelden it stood out like a beacon.

De BEAUMONT (1951) defined the various groups of *Cerceris* which occur in Europe and North Africa. *Cerceris lorcai* sp.nov. fits into none of them. In sculpture it somewhat resembles the *doderleini* group but there the

resemblance ends. The female *lorcai* is unusual in the peculiar shape of the clypeus (fig.2), the great length of the basal lobe of the hindwing, the strong spinulation of the tibiae and the sharp carina on the underside of the hind femora. The male is not less aberrant in lacking those often diagnostic 'side whiskers' on the clypeus and in the presence of the hair fringes across S3-4 as well as the impunctate T7. It can only be regarded as belonging to a group of its own: the *lorcai* group.

In one obvious respect it is certainly entitled to bear the name of its discoverer, but as it was found in the Granada area, the birthplace of the most distinguished Spanish poet and as it is surely a pure Spanish endemic, I have chosen otherwise. The prowess of Max SCHWARZ as a collector needs no advertising.

## Psenulus hidalgo sp.nov.

Holotype: 3. Spain: Teruel 870m, 19.VII.1979, K.M. GUI-CHARD, swept from Salix (in British Museum Nat.Hist. London).

Allied to *Psenulus schencki* (TOURNIER, 1889) and sharing with it the size, the striate-punctate area of the frons and the absence of a shallow depression at the base of S2 but clearly differing in the following particulars:

P.schencki (TOURNIER, 1889)& P.hidalgo sp.nov. &

AS3-4 short (fig.5), less than twice length of the apical width of segment. All segments shorter. AS13 short, at most hardly twice as long as basal width.

Tyloids on AS4-11 or 12 short and more or less rounded.

Mesonotum and to lesser degree mesopleurae with glaucous bloom and scatAS3-4 long (fig.4), more than twice length of apical width. All segments longer and bead-like.

AS13 long, clearly longer than twice the basal width.

Tyloids on AS4-10 long and narrow, occupying much of segment.

Mesonotum and mesopleurae without glaucous bloom and with strong and fairly

tered small inconspicuous punctures. (fig.7).
Mesosternal furrow with short oblique carinae.

Small punctation of terga weaker, not or scacely visible at 12 magnification.

dense punctation. (fig.6).

Mesosternal furrow with longer carinae at right angles.

Small punctation of terga stronger, clearly visible at 12 magnification.

Slight differences from schencki in the petiole and the size of the impression on the frontal prominence are also present but not stressed in view of only a single specimen for comparison. The only record of *P. schencki* from Spain is that of GAYUBO (1980) from the Sierra de Bejar.

# Figures (p.279)

Fig.1: Didineis hispanicus sp.nov. d. Last antennal seg-ment.

Fig. 2: Cerceris lorcai sp.nov. 9. Clypeus and mandibles.

Fig. 3a: Cerceris lorcai sp.nov. 9.

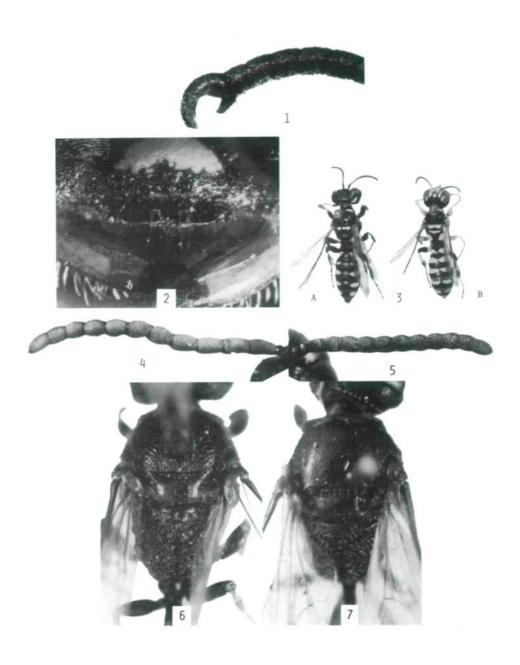
Fig. 3b: Cerceris lorcai sp.nov. d.

Fig.4: Psenulus hidalgo sp.nov. d. Antenna.

Fig. 5: Psenulus schencki (TOURNIER, 1889) d. Antenna.

Fig.6: Psenulus hidalgo sp.nov. d. Thorax to show punctation.

Fig.7: Psenulus schencki (TOURNIER, 1889) &. Thorax to show punctation.



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