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New record of the Asphodel mining bee, *Andrena sardoa*, from continental France (Hymenoptera: Andrenidae)

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Introduction

Andrena (*Lepidandrena*) *sardoa* LEPELETIER, 1841 is a rather scarce bee species at the European scale (WESTRICH 2008). According to GUSENLEITNER & SCHWARZ (2002) its distribution range is restricted to the western Mediterranean: NW-Africa, Portugal, Spain (including the Balears), France (only Corsica) (DE GAULLE 1908, RASMONT et al. 1995) and Italy (only Sardinia and Sicily). In spring 2008 we found this species in southern France, department Hérault (F-34).

New record in S-France

Late April in S-France can still be rainy and cloudy with only occasional bursts of sunlight. The Summer Asphodel, *Asphodelus aestivus* (Liliaceae) takes full advantage of this climate and was found blooming in the surroundings of the hill called «Pioch de Joffet» (alt. 160 m) close to the village of Cabrières (Figure 1) along stony walking paths, co-flowering with other plant species on April 30, 2008. Information panels along these paths indicate that the landscape used to be very different back in 1900 when there were apparently hardly any flowers in this area due to intensive sheep grazing. Hopefully the situation changed, and it allowed us to marvel at the full flowering display of the countryside in this region.

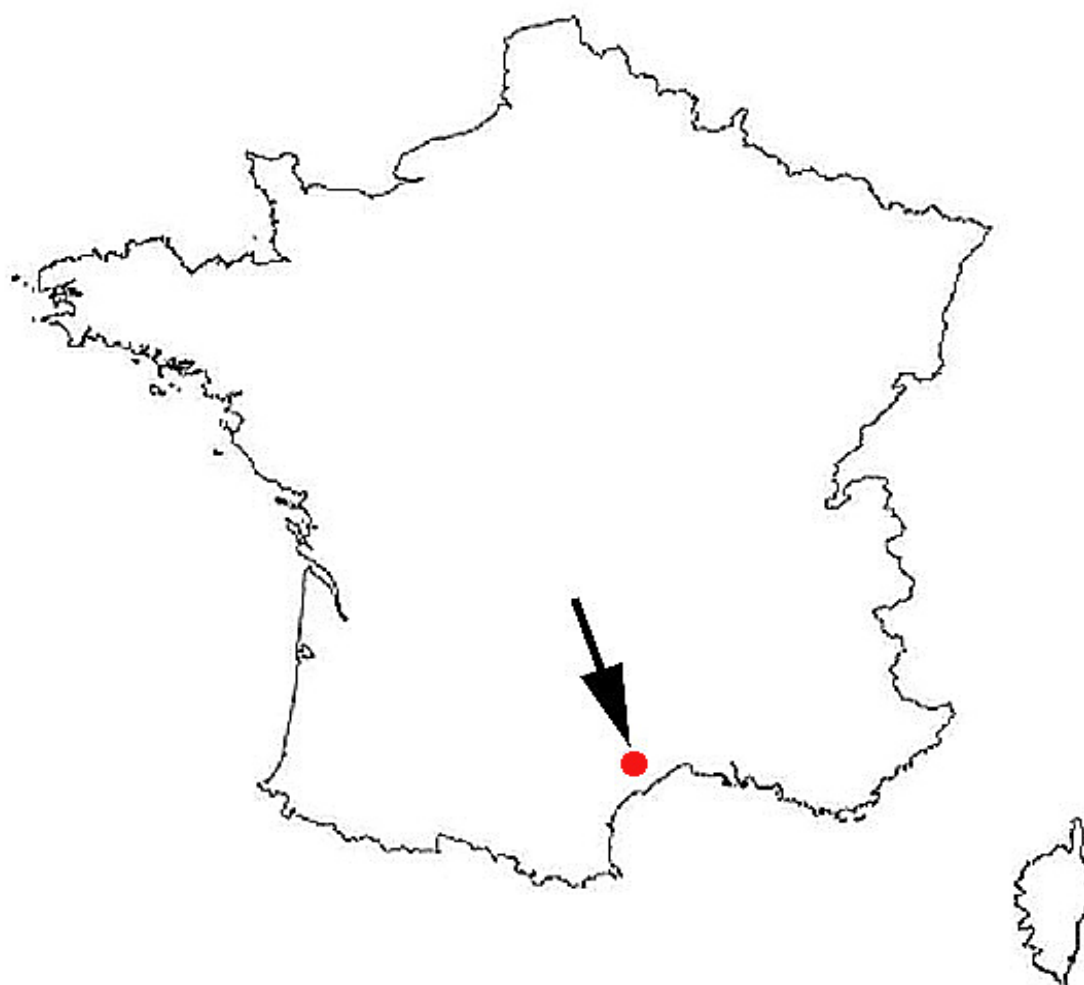


Fig. 1: Locality of Cabrières in the department Hérault, S-France, where the observations have been made.

The largely overcast weather was not ideal to observe wild bees in the area, as bees tend to stand still and hide as soon as the clouds mask the rays of sunlight. One of us (ISW) had the attention drawn by several solitary bees with a red abdomen that were standing motionless at the bottom of *A. aestivus* flowers. A closer examination of these

female bees revealed that they were mining bees of the genus *Andrena*. As soon as the surrounding vegetation was again exposed to the direct sun, the bees became active again. They started to crawl around the stamens and anthers of the *Asphodels*, and other specimens were observed flying around the *A. aestivus* flowers. The total number of specimens observed of this species at this location was well over 20. The specimens collected have been identified as *Andrena (Lepidandrena) sardoa* LEPELETIER (Figure 2). WESTRICH (2008) has shown that this species is oligolectic on *Asphodelus*.



Fig. 2: A female of *Andrena (Lepidandrena) sardoa* LEPELETIER (Hym.: Andrenidae) collecting pollen from *Asphodelus microcarpus* (Liliaceae) at Domusnovas in Sardinia (Italy) (Photo: N. J. VEREECKEN).

Discussion

We have been looking for other locations in the area with lots of flowering *Asphodelus aestivus*. We found them near Neffiès and Liausson. The flowers were visited by several *Bombus* species, *Apis mellifera* and *Xylocopa violacea*, but we did not find *Andrena sardoa* at other locations.

In spring 2006 WESTRICH (2008) found specimens of *A. sardoa* in southern Portugal. He had been looking for this bee at other localities with flowering *A. aestivus*, but he

failed to find more specimens of this bee species. His explanation was that most of the flowers of *A. aestivus* had wilted.

There seems to be another record of *A. sardoa* in S-France in the Provence-Alpes-Côte d'Azur (PACA) region where the report of a survey on the natural areas of ecological, faunistic and floristic interest has listed this species without providing further details on the observations or localities (ANONYMOUS 2004).

At the other two locations we have visited in southern France, the *Asphodelus* plants were flowering in abundance. It remains unclear why the *Andrena* was present at one location (Cabrières) and not at the other two locations. The hill near Cabrières was visited again at the 9th of May. Even then we found some specimens of *Andrena sardoa*, despite the fact that nearly all the flowers of *A. aestivus* at that spot had wilted. This could indicate that this species has a restricted distribution range at the local scale, perhaps limited dispersal capabilities and that it is relatively rare at the continental scale as indicated by the paucity of records (GUSENLEITNER & SCHWARZ 2002).

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