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First record of *Anacolia webbii* (*Bartramiaceae*, *Musci*) in Italian peninsula

Abstract

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Anacolia webbii, till now unknown in the Italian peninsula, has been found in Calabria. It is a rare species in Europe, elsewhere known in Canary Islands, Madeira, North Africa and eastern Asia.

During VIII Iter Mediterraneum of OPTIMA (Organization for the Phyto-Taxonomic Investigation of the Mediterranean Area) held in Calabria in 1997, *Anacolia webbii* was found. It is a mediterranean-oceanic-montane species (Düll 1984-1985), threatened in Europe (ECCB, 1995) and reported by Cortini Pedrotti & Aleffi (1992) as "rare" in Italy, where it only occurs in Sardinia and Sicily.

Besides Italy *A. webbii* is known in the Iberian peninsula, Corsica, Turkey, Cyprus, Canary Islands, Madeira, North Africa, eastern Asia and Iraq (Düll 1984-1985, 1992; Hebrard 1984). However the detailed distribution of this taxon remains to be verified because some Spanish and Cypriot specimens have been recently revised by García-Zamora & al. (1998) and attributed to the morphologically close species *Anacolia menziesii* (Turner) Paris. Therefore, since this species also occurs in the Mediterranean area, it seems possible that any misidentification could have happened elsewhere in this region.

In Italy *A. webbii* has previously been recorded from some Sardinian and Sicilian localities. Figure 1 shows their localization and the new Calabrian one.

In the Iberian peninsula and in the Macaronesian region it lives on siliceous rocks or stony embankments (Casas & al. 1985). Its ecology has been studied in detail by Hébrard (1984) in Corsica. Here it has been observed in north and east facing localities, situated between 300 and 900 m a.s.l. These sites are in areas characterized by high rainfall and an average annual temperature of between 10,07 °C and 13,13 °C, where *A. webbii* grows on igneous rocks or schists most of which are acid. The pH of sediments on cracks can be acid or neutral. Many species are associated and they include both termophylous such as *Scorpiurium circinatum* (Brid.) M. Fleisch. & Loeske and *Bartramia stricta* Brid. and

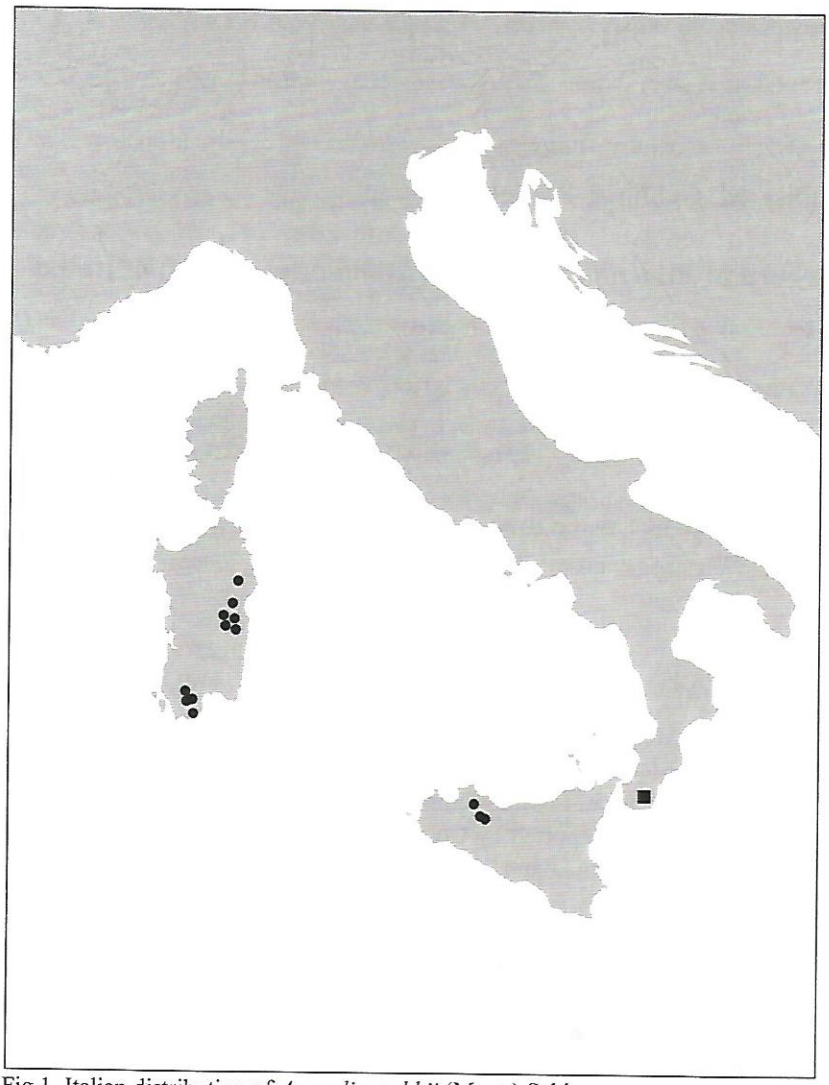

Fig.1. Italian distribution of *Anacolia webbii* (Mont.) Schimp.
●: localities previously known; ■ : new locality.

orophytes such as *Amphidium mougeotii* (Bruch & Schimp.) Schimp. and *Rhytidiadelphus triquetrus* (Hedw.) Warnst. In Sardinia *A. webbii* has been found on dripping siliceous rocks and rocky embankments from 300 to 1500 m a.s.l. (Cogoni & al. 1999). In Sicilian localities it grows from 1000 to 1200 m a.s.l. on both basic and soaked acid cliffs and rarely on calcareous boulders. It is mainly associated with *Metaneckera menziesii* (Drumm.) Steere, *Homalothecium sericeum* (Hedw.) Bruch & al., *Ditrichum flexicaule* (Schwaegr.) Hampe, *Rhytidiadelphus triquetrus* (Hedw.) Warnst, *Racomitrium aciculare* (Hedw.) Brid. and *Pterogonium gracile* (Hedw.) Sm. (Dia 1991; Lo Giudice & al. 1992).

As regards the Calabrian locality, *A. webbii* has been collected from Bova Superiore in

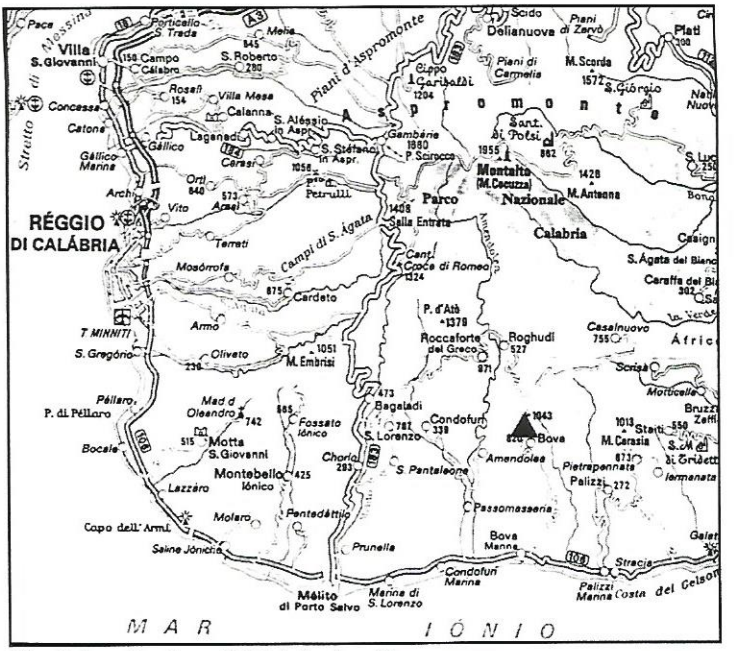

Fig. 2. Localization of Calabrian locality.

Aspromonte (Fig. 2) at 1000 m a.s.l., where this species grows on granitic rock in garigue with *Phlomis fruticosa* L. Calabrian plants are rather small (2-3 cm) in comparison with other Italian ones.

Voucher specimens are kept in the Herbarium Mediterraneum (PAL).

Considering the rarity of *A. webbii* in Europe, its finding in Calabria is interesting and encourages further investigations on this species in Italy. Such investigations should be mainly devoted to southern Italy being a territory not still completely known from the bryological point of view. However, we can not exclude that this species has recently widespread its distributional range to Calabria. We take into account this possibility because in some Sicilian populations of this species, considered sterile in Italy (Cortini Pedrotti 2001), we have found some plants with sporophytes .

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