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New or interesting records to the moss flora of Italy

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Abstract – *Crossidium laxefilamentosum* W. Frey *et* Kürschner, gathered in the Archaeological area of Solunto (north-western Sicily), is reported for the first time from Italy. *Gymnostomum calcareum* Nees *et* Hornsch. var. *lanceolatum* (Cano, Ros *et* Guerra) Sérgio, is new to Sicily. It was found in a steppic grassland in Mount Bonifato (north-western Sicily).

***Crossidium laxefilamentosum* / *Gymnostomum calcareum* var. *lanceolatum* / Pottiaceae / Italy**

INTRODUCTION

In a taxonomic revision of some Sicilian specimens of *Pottiaceae* kept at the *Herbarium Mediterraneum* (PAL) *Crossidium laxefilamentosum* W. Frey *et* Kürschner and *Gymnostomum calcareum* Nees *et* Hornsch. var. *lanceolatum* (Cano, Ros *et* Guerra) Sérgio have been identified. The former is new to Italy, while the latter recorded in few localities in mainland Italy (Aleffi *et al.*, 2004; Sérgio, 2006), is reported for the first time in Sicily.

Crossidium laxefilamentosum, described by Frey & Kürschner (1987) from Saudi Arabia, has recently been recorded for Europe (Spain, Serbia, Hungary and Romania), North Africa (Tunisia) and Central Asia (China) (Pócs *et al.*, 2004; Kürschner & Wagner, 2005). It is a xerophilous *taxon* growing on exposed horizontal soil or near vertical loess cliffs in association with other bryophytes and often with lichens, forming communities that protect the substrate from erosion (Kürschner & Wagner, 2005).

Gymnostomum calcareum var. *lanceolatum* has been described as *G. lanceolatum* by Cano *et al.* (1994) from Spain and recently assigned to the rank of variety (Sérgio, 2006). This moss, living in the crevices of rocks and shaded soil, is only known from Italy, Morocco and Croatia besides Spain (Sérgio, 2006; Sabovljević, 2006). In Italy *G. calcareum* var. *lanceolatum* has been reported from Gargano National Park in Apulia and from Ravello (Naples) in Campania (Aleffi *et al.*, 2004; Sérgio, 2006).

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NEW LOCALITIES

Crossidium laxefilamentosum

ITALY. NORTH-WESTERN SICILY. Archaeological area of Solunto (Palermo), on exposed soil among ruines, 170 m a.s.l., 38°05'35" N, 13°31'53" E, *P. Aiello*, 08 March 2002.

Gymnostomum calcareum var. *lanceolatum*

ITALY. NORTH-WESTERN SICILY. Mount Bonifato (Trapani), on shaded rock in a steppic grassland with *Ampelodesmos mauritanicus* (Poir.) T. Durand & Schinz, 350 m a.s.l., 37°57'53" N, 12°57'02" E, *F. Provenzano*, 09 March 2002.

The specimens are kept at the *Herbarium Mediterraneum* (PAL). The Italian distribution of both *taxa* is illustrated in Fig. 1.

The Archaeological area of Solunto is located in Mount Catalfano, on the Sicilian northern coast. Its climate is typically Mediterranean with wet winter and a very long summer dry period. The annual average temperature is 18 °C, and

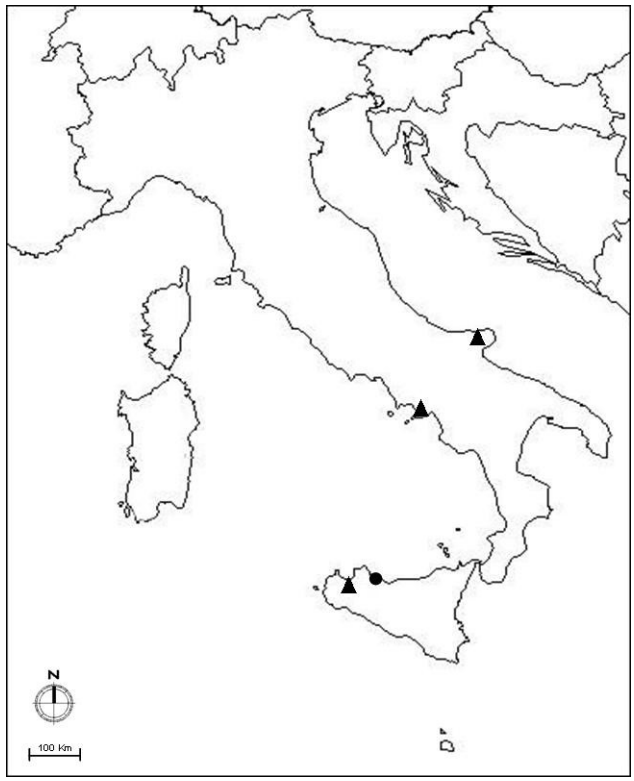

Fig. 1. Italian distribution of *Crossidium laxefilamentosum* W. Frey *et* Kürschner (●) and *Gymnostomum calcareum* var. *lanceolatum* (Cano, Ros *et* Guerra) Sérgio (▲).

the annual average rainfall 584 mm (Brullo *et al.*, 1996). At Solunto *Crossidium laxefilamentosum* grows with other four xerophytic *Pottiaceae* (*Aloina ambigua* (Bruch *et* Schimp.) Limpr., *Didymodon luridus* Hornsch., *Microbryum starckeanum* (Hedw.) R.H. Zander, and *Pseudocrossidium hornschuchianum* (Schultz) R.H. Zander).

The new locality of *Gymnostomum calcareum* var. *lanceolatum,* situated at the foot of Mount Bonifato, is characterized by an annual average temperature of 17 °C and annual average rainfall of 696 mm (Brullo *et al.*, 1996). In this site the *taxon* was associated with the liverworts *Cephaloziella baumgartneri* Schiffn. and *Southbya nigrella* (De Not.) Henriq.

The report of *Crossidium laxefilamentosum* in the central part of the Mediterranean area bridges a gap in the knowledge of its distribution. Moreover, the finding of these two species both in an Archaeological site and a grassy formation confirms the interest of these bryofloristically rich habitats in Sicily (Campisi *et al.*, 2006), in which several interesting taxa such as *Didymodon sicculus* M.J. Cano, Ros, Garcìa-Zamora *et* J. Guerra, *Gygaspermum mouretii* Corb.*, Pseudocrossidium obtusulum* (Lindb.) H.A. Crum *et* L.E. Anderson and *P. replicatum* (Taylor) R.H. Zander (Aiello *et al.*, 2003; Dia *et al.*, 2003; Campisi & Provenzano, 2004; Dia & Campisi, 2006), have been discovered, as well.

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