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First record of *Syntrichia papillosissima* (Pottiaceae, Musci) in Sicily

Abstract

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Syntrichia papillosissima (Copp.) Loeske, here reported from Sicily, has been re-found for the first time in Italy since 1892.

Introduction

Syntrichia papillosissima (Copp.) Loeske is a Mediterranean–montane species (Düll, 1984-85) of the *Syntrichia ruralis* complex. It can be easily distinguished from the others taxa of this complex by the presence of a single pedicellate and star-shaped papilla per cell in middle part of leaves (Fig. 1).

Described by Venturi (1890) as *Barbula ruralis* var. *hirsuta* it has been reported in infra-specific ranks by several authors (Podpěra, 1954; Kramer, 1980; Düll, 1984-85, 1992; Zander, 1993; Cortini Pedrotti, 2001a). It has been considered a good species by Coppey (1908), Brothrus (1924-1925) and recently by Gallego & al. (2002), which have carried out a survey on the *Syntrichia ruralis* complex in the Mediterranean region.

Syntrichia papillosissima is here recorded for the first time from Sicily.

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

Ecology

Syntrichia papillosissima is a heliophilous, microtherm, xerophilous and calcicole species (Düll, 1991; Bizot, 1954). In Italy lives on soil and shaded rocks on montane belt (Cortini Pedrotti, 2001). It has been found with sporophytes in both Lombardia and Sardegna (Farneti, 1892; Bizot, 1956).

In Sicily it has been collected at the foot of the Rocca Busambra (Fig. 2), at 1100 m a.s.l., where it grows on exposed basic rocks inside a wood of *Quercus ilex* L. and species of *Quercus pubescens* complex. It is associated with *S. ruralis* (Hedw.) F. Weber & D. Mohr., *Pleurochaete squarrosa* (Brid.) Lindb. and *Homalothecium aureum* (Lag.) H. Rob.

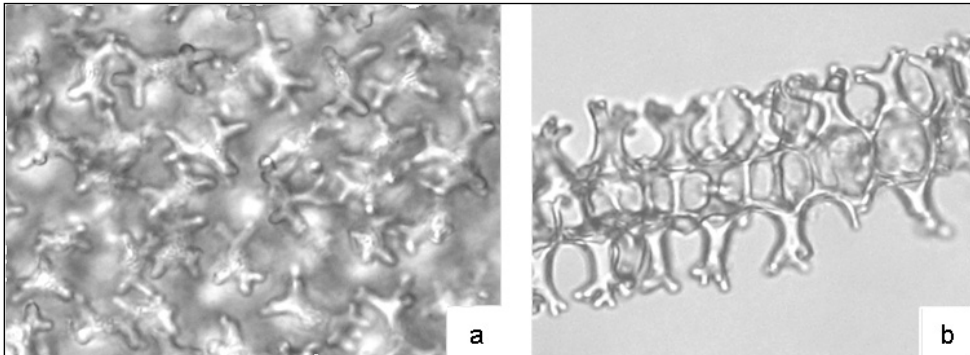


Fig. 1. Papillae in middle part of leaf of *Syntrichia papillosissima* (Copp.) Loeske (from a Sicilian specimen). a: in frontal view ($\times 9,5 \cdot 10^2$); b: in transverse section ($\times 8,3 \cdot 10^2$).

According to the Rivas Martinez (1995) method the climate of Rocca Busambra is of meso-Mediterranean type with upper subhumid ombrotype.

Sicilian specimens are sterile.

Morphology of Sicilian plants

From morphological point of view Sicilian plants agrees to description of *Syntrichia papillosissima* reported in Gallego & al. (2002), except for smaller hyaline basal cells of leaves ($45\text{-}90 \times 7,5\text{-}10 \mu$ instead of $75\text{-}100 \times 12,5\text{-}17,5 \mu$). This, however, is not considered a taxonomically important character.

Distribution

In Europe it is known in Russia, Greece, Spain, Portugal, Crete and Italy (Düll, 1984-85; Gallego & al., 2002). Moreover it is dubitatively reported for Czechoslovakia (Düll 1992).

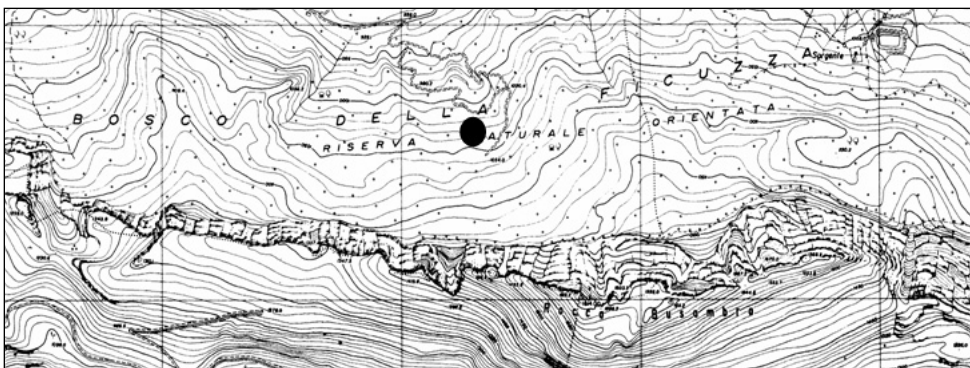


Fig. 2. Location of finding site of *Syntrichia papillosissima* on Rocca Busambra.



Fig. 3. Distribution of *Syntrichia papillosissima* (Copp.) Loeske in Italy. ● literature data, ▲ new locality.

Beside Europe it is distributed in North Africa, North America, north-east, central and south-western Asia (Düll, 1984-85).

In Italy it is known from two localities localised in Lombardia and Sardegna (Venturi, 1890; Farneti, 1892) (Fig. 3).

The finding of *Syntrichia papillosissima* in Sicily permits to confirm the presence of this taxon in Italy after more one century.

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