



Article

A new diploid species of *Leucanthemum* (Asteraceae, Anthemideae) from Liguria (northwestern Italy)

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Abstract

A new diploid ($2n = 18$) species, *Leucanthemum ligusticum*, is described from siliceous outcrops in eastern Liguria (northwestern Italy). This species differs from *L. pluriflorum*—endemic to northwestern Spain, Galicia and Asturias—and *L. monspeliense*—endemic to northeastern Spain and central and southern France—mainly by longer petioles of basal and lower cauline leaves, shorter teeth of lower cauline leaves, and narrower ligulate florets and involucre bracts. This new species has western European affinities. Because *L. ligusticum* is diploid, it is one of the "basic units" of *Leucanthemum* and therefore a key species for inferring evolutionary relationships in this genus.

Key words: endemic, Italian flora, karyology, taxonomy

Introduction

The genus *Leucanthemum* Miller (1754: 759) (Asteraceae, subfam. Asteroideae, tribe Anthemideae) is composed of ca. 70 taxa (Vogt 1991), of which 55 occur in Europe and 19 in Italy (Greuter 2006–2009, Greuter 2009). About half of them belong to the "*Leucanthemum vulgare* aggregate" (a group of related species with similar morphology), which is characterized by dark involucre bracts, entire or sub-entire basal leaves and a lack of pappus on the disk cypselae (Heywood 1976, Pignatti 1982). *Leucanthemum* is well known for its exceptionally variable karyology. The genus contains a few diploid ($2n = 18$) taxa and many polyploids which range from $3x$ to $22x$ (Favarger 1959, 1975, Favarger & Villard 1965, Mircović 1966, Villard 1970, Bazzichelli 1972, Marchi 1972, Marchi & Illuminati 1974, Papeš 1975, Wilcox 1982, Marchi *et al.* 1983, Marchi 1984, Vogt 1991, Konowalik *et al.* 2011). Widespread polyploid species, such as *L. ircutianum* De Candolle (1838: 47) and *L. adustum* (Koch 1837: 378) Grelli (1898: 272), were recently shown to be of allopolyploid origin (Oberprieler *et al.* 2011). Hence, diploid species are particularly relevant as "basic units" for inferring evolutionary relationships in the genus (Greiner *et al.* 2011) and for exploring the evolution of polyploidy (Konowalik *et al.* 2011, Greiner *et al.* 2012). Most diploids, except the widespread *Leucanthemum vulgare* (Vaillant 1754: 539) Lamarck (1779: 137), are stenochorous or narrow endemics (Greuter 2009).

The Liguria region is located in northwestern Italy, between the Alps and the Ligurian Sea. According to a recent estimate (Pierini *et al.* 2009), Liguria ranks second of the 20 Italian regions in terms of floristic richness, with 3131 specific and subspecific taxa in a relatively small area (5421 km²). Large portions of this region are poorly explored and studied (Barberis *et al.* 2005).