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***Centaurea diluta* Aiton, new to the Italian flora**

Abstract

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The discovery of *Centaurea diluta* in the Abruzzo region (central Italy) is reported. This species is native to Spain and N.W. Africa and is naturalized or occurs as a casual in some countries of Europe (Great Britain, Germany and Switzerland). The species probably arrived in Italy through grain imports from Spain.

Centaurea diluta Aiton is a species of the S.W. Mediterranean which grows spontaneously in S.W. and N.E. Spain and in N.W. Africa (Dostál 1976, Talavera 1987); in other places it grows by chance (Dostál 1987). It has been reported as adventitious for Great Britain (Stace 1991, Clement & Foster 1994) and central Europe (Burgfelden im Elsass, Ruchfeld bei Basel, Altona) (Wagenitz 1987).

Recently it was found in the Grotta Imposta-Piane Vicenne locality of the municipalities of Casoli and Gessopalena (Chieti province, Abruzzo region, central Italy), between 300 and 450 m (30/05/1995, legit A. Manzi).

The locality, which lies at about 42°5'N and 14°16'E, hosts a population of several hundred and covers about 40 hectares. *Centaurea diluta* was also observed and collected here during 1996 (10/06/1996, legit F. Conti & A. Manzi).

The species is mostly found on a wide slope with southern exposure, on secondary herbaceous formations, attributable to the *Agropyretalia intermedii-repentis* Oberd., Th. Müll. et Görs 1967 order, which is subjected to intense sheep grazing. It is also found in cultivated fields of *Triticum durum* Desf., where its growth is more vigorous. The substrate is composed of gray-green, violet and red Oligocene clays, which are noted as "argille scagliose della colata gravitativa del Sangro-Aventino". They often are eroded and marked by the presence of "badlands", the particular vegetation of which has been the object of study (Biondi & al. 1990).

The area in which *Centaurea diluta* was found is characterized (in comparison with the region) by its moderately low annual rainfall.

Annual precipitation, recorded in Gessopalena (654 m) totals 721 mm (data for 1951-1985).



Fig. 1. *Centaurea diluta* Aiton.

These particular climatic and edaphic conditions explain the presence here of native *Juniperus oxycedrus* L. subsp. *macrocarpa* (Sibth. & Sm.) Ball formations (Biondi & al. 1988), as well as the occurrence of many species with a steno-mediterranean distribution or which are rare for the Abruzzo region, such as *Silene bellidifolia* Juss. ex Jacq., *Lathyrus odoratus* L., *Peucedanum officinale* L., *Mantisalca duriaei* (Spach) Briq. & Cavill., *Catananche lutea* L. subsp. *lutea* (Conti & Manzi 1996). *Centaurea diluta*'s occurrence beyond its native distribution is due mainly to anthropogenic causes. Stace (1991) states that it was introduced into Great Britain as seeds inside bird food. For this new site in Italy, it may have arrived as a contaminant with the importation of *Triticum durum* Desf. varieties (in particular "Grazia" and "Simeto" cultivars) which were selected and produced in Spain by Italian firms. These have been introduced and cultivated extensively in this area by an agricultural cooperative specialized in the cultivation of grain and in sheep rearing.

Herbarium specimens have been deposited in the herbarium of the Department of Botany and Ecology of the University of Camerino (CAME).

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