

CYTOGENETIC CHARACTERIZATION OF CULTIVATED AND WILD SPECIES OF SUBFAMILY CICHORIOIDEAE (ASTERACEAE)

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The subfamily Cichorioideae (Asteraceae) comprises several important genera which are widely represented in the cultivated and wild state. Among these *Lactuca* and *Cichorium* are economically important members since they contain many different varieties which are cultivated all around the world. Along with the cultivated forms there are a number of wild edible species which, since ancient times, have constituted an important popular food eaten fresh and boiled. Some of these species constitute the wild relatives or the direct ancestors of the cultivated forms. For this reason such large natural patrimony is regarded as an important source of genes to be used for the creation of improved new varieties. The present study has been carried out to increase the knowledge of *Lactuca* and *Cichorium* gene pools by means of a comparative cytogenetic analysis of cultivated and wild forms. To this end the karyomorphological analysis and the FISH mapping of ribosomal genes have been carried out.

In the last years particular attention has been directed to wild edible plants because of their remarkable content of nutrients and nutraceutical components. This is the case of *Chondrilla juncea*, a perennial plant with a distribution comprising Southern and Central Europe, North Africa, South Russia and Southwest Asia. In several countries, including Italy, it is an appreciated food used as salad separately or in combination with other wild greens. *C. juncea* is an obligate apomictic species in which diplosporous embryo sacs of the *Taraxacum* type are found. Presumably it is a triploid, its chromosome number is $2n=15$. Owing to these features it represents an interesting case of study. Cytogenetic investigations were extended also to this species to verify the ploidy level and to observe the chromosome behaviour during microsporogenesis.