

DISTRIBUTION, ECOLOGY AND GENETIC DIVERSITY OF THE CORSICA-SARDINIAN ENDEMIC
MERCURIALIS CORSICA COSSON (EUPHORBIACEAE) AND CONSERVATION IMPLICATIONSJ. MIGLIORE¹, A. BAUMEL¹, K. DIADEMA¹, R. VERLAQUE², L. HUGOT³, F. MÉDAIL¹

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The aims of this study are to examine the distribution and the ecological requirements of *Mercurialis corsica* Cosson (Euphorbiaceae), a dioecious shrub with a restricted distribution in Corsica and Sardinia Islands. In Corsica, our distribution assessment reveals a clear tendency to the rarefaction of *M. corsica*. Indeed, this species encompass currently 20 populations scattered all around Corsica, whereas 70 populations were reported in the past. Field census emphasizes a strong demographic variability among populations, from the point of view of population size or male/female ratios. In spite of a clear decline of its distribution, *M. corsica* occurs along a wide ecological range, like several endemic plants in insular situation. This species is found from the coast (site of Villanova) to 1121 m a.s.l (Calasima), generally within rather thermophilous rocky matorrals, and also in more mesophilous and moist habitats (gravel banks near riparian forests). The presence of a persistent seed bank in the soil probably constitutes an important element for the local persistence of *M. Corsica*, facing some disturbances. Finally, the first results of genetic diversity survey by AFLP markers, rDNA-ITS and non coding cpDNA sequences will be discussed in relation with the geographic distribution and ecological variables.

These first results point out the necessity of an optimal survey and management for this rare plant, including the consequences of human disturbances, overgrazing, competition and fires. Corsica Island possesses many highly differentiated and endangered species ; therefore, land-use practices in space and time represent a crucial issue within these complex and heterogenous landscapes. Thus, a major priority effort to conserve such a rare insular endemic species in patchy populations is to maintain their evolutionary potential, by estimating the level of genetic diversity, the genetic structure and the phylogeographical signal.