

TZIRKALLI ELLI, George Tsiamis, Costas A. Thanos, Panayotis Dimopoulos,
Kostas Bourtzis
Department of Natural Resources and Environmental Management, University of
Ioannina, 2 Seferi st., Agrinio, 30100, Greece (ET, GT, PD, KB)
(elli_tj@hotmail.com)
Department of Botany, University of Athens, Panepistimiopolis, Athens 15784,
Greece

GENETIC AND ECOLOGICAL ANALYSIS OF PROTECTED, PRIORITY PLANTS (DIRECTIVE 92/43/EEC) IN CRETE

Androcymbium rechingeri, *Bupleurum kakiskalae*, *Nepeta sphaciotica* and *Phoenix theophrasti* are endemic (the latter subendemic) to the island of Crete, Greece. Their limited population size and a number of threats make them critically endangered, and in need of active conservation. Moreover, these plants are of Community priority according to the Directive 92/43/EEC. Genetic surveys using genetic markers *rbcL* and *matK* genes of *cpDNA* and internal transcribed spacers of 18S-26S *nrDNA* were undertaken to investigate genetic diversity within each species to provide genetic data for the conservation programme LIFE-Nature 2004: *A Pilot Network of Plant Micro-Reserves in Western Crete (Chania Prefecture)*. PCR amplified products were used to analyze phylogenetic relationships among the species. No genetic variation was found at intraspecific level based on the *cpDNA* genes. The conservation status of these species has been evaluated and it is recommended that additional surveys using microsatellites loci must be performed in order to further evaluate the genetic diversity of the species.