

Workshop 2

Poster presentation

Email to Cèsar Blanché [cesarblanche@ub.edu]

Genetic structure and conservation priorities for *Silene sennenii* (Caryophyllaceae), a narrow endemic and critically endangered species of the Iberian Peninsula

Jordi López-Pujol¹, Joan Font², Joan Simon¹ & Cèsar Blanché¹

1. GReB, Laboratori de Botànica, Facultat de Farmàcia, Universitat de Barcelona, Avda. Joan XXIII s/n, E-08028 Barcelona, Catalonia, Spain
2. Grup de Recerca de Flora i Vegetació. Facultat de Ciències, Universitat de Girona. Campus de Montilivi s/n, E-17071 Girona, Catalonia, Spain.

Abstract:

Allozyme electrophoresis was used to evaluate levels and distribution of genetic diversity in the critically endangered (CR) *Silene sennenii* (Caryophyllaceae), a narrow endemic plant species located in northeastern Catalonia (Spain). At present, it only remains in five populations containing no more than 5,000 individuals, and subjected to habitat fragmentation. From the 21 satisfactorily interpreted loci, low levels of genetic variation were detected ($P = 20.9$, $A = 1.31$ and $H_e = 0.071$), which may be related to small population size and isolation of populations. Moderate to high levels of inbreeding were also found, probably as consequence of the population's genetic structuring (biparental inbreeding). Threats to this taxon are mainly anthropogenic (conversion of its habitat into irrigated croplands and expansion of urban and industrial areas). Conservation policies for this unprotected plant should be focused on maintaining population sizes and gene flow in addition to preserving its habitat.