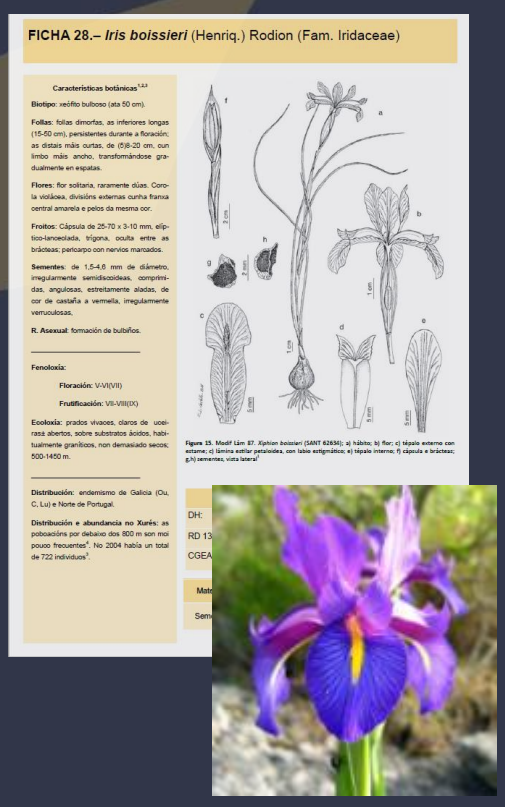
Germplasm bank

A germplasm bank was created to preserve natural park species genetic diversity and to restore its ecosystems to an original state after fire.

Explanation

Increasing forest fire events put under threat the biodiversity of Baixa Limia-Serra Do Xurés Natural Park. Fires, triggered by droughts and rising temperatures, increase ecosystem degradation and species loss. Germplasm banks are a tool designed to create endangered species and species varieties stocks.

Germplasm bank allows to restore ecosystems meanwhile local native plants are saved from extinction.


FICHA 28.– *Iris boissieri* (Henriq.) Rodion (Fam. Iridaceae)

Características botánicas[1,2,3]

Biotipo: xeófito bulboso (ata 50 cm).

Follas: follas dimorfas, as inferiores longas (15-50 cm), persistentes durante a floración; as distais máis curtas, de (5)8-20 cm, cun limbo máis ancho, transformándose gradualmente en espatas.

Flores: flor solitaria, raramente dúas. Corola violácea, divisións externas cunha franxa central amarela e pelos da mesma cor.

Froitos: Cápsula de 25-70 x 3-10 mm, elíptico-lanceolada, trígona, oculta entre as brácteas; pericarpo con nervios marcados.

Sementes: de 1,5-4,6 mm de diámetro, irregularmente semidiscoideas, comprimidas, angulosas, estreitamente aladas, de cor de castaña a vermella, irregularmente verruculosas.

R. Asexual: formación de bulbiños.

Fenoloxía:

Floración: V-VI(VII)

Frutificación: VII-VIII(IX)

Ecoloxía: prados vivaces, claros de ucelrasa abertos, sobre substratos ácidos, habitualmente graníticos, non demasiado secos; 500-1450 m.

Distribución: endemismo de Galicia (Ou, C, Lu) e Norte de Portugal.

Distribución e abundancia no Xurés: as poboacións por debaixo dos 800 m son moi pouco frecuentes[3]. No 2004 había un total de 722 individuos[3].

Figure 15. Modif Lám 87. *Xiphion boissieri* (SANT 62634); a) hábito; b) flor; c) tépalo externo con estame; d) lámina estilar petaloidea, con labio estigmático; e) tépalo interno; f) cápsula e brácteas; g,h) sementes, vista lateral[3]

Result

A Germplasm bank was desgined at the legal and technical level. Its key objectives are biodiversity conservation and natural park restoration.

Nearly sixty species with bank housing interest were identified on field and incorporated on the protocol. This included sampling both endangered species or species with international conservation interest of the Natural Park, that are valuable to preserve, and common species, that compose the Park main habitats.

Herbarium specimen description files were elaborated for these species. Its taxonomic characteristics, phenology, ecological characteristics, habitat distribution and presence in the Natural Park were detailed.

A particular protocol was elaborated for every species on that catalogue. Information included in the protocol necessary for preserving and introducing species back to the field. :

Time of collection of seeds or propagules	Number of seeds	Storage conditions
Treatments and germination conditions	Development of seedlings and seeds viability	Other relevant information

The creation of the germplasm bank would allow the effective introduction of species adapted to the conditions of the area and therefore more resilient to climate change and its associated risks, for the restoration of ecosystems after fires.