

LIFE+ LimnoPirineus

Restoration of lentic habitats and aquatic species of Community interest in high mountains of the Pyrenees - LIFE13 NAT/ES/001210



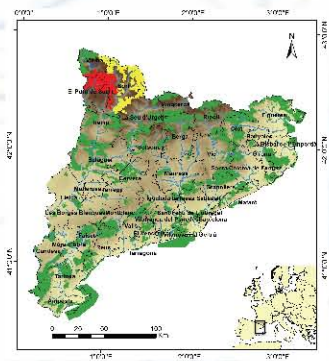
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The main objective of Life+ Nature "LimnoPirineus" is the improvement of the conservation status of habitats like peat bogs, tufa-forming springs, streams and high mountain lakes of the Pyrenees. The targeted species include the floating water plantain (*Luronium natans*), the European bullhead (*Cottus gobio*), an endemic fish from Central Pyrenees, some amphibians like the common brown frog (*Rana temporaria*), the common midwife toad (*Alytes obstetricans*) and the Pyrenean brook salamander (*Euproctus asper*), and some mammals that feed on aquatic habitats like the Pyrenean desman (*Galemys pyrenaicus*), the European otter (*Lutra lutra*), the lesser horseshoe bat (*Rhinolophus hipposideros*), and the alpine long-eared bat (*Plecotus macrobullaris*).

The project budget is 2.6 million, more than half funded by the European Commission through the LIFE programme, and will be conducted between 2014 and 2019.

The project is coordinated by Centre d'Estudis Avançats de Blanes (CEAB-CSIC) with the participation of associated beneficiaries Conselh Generau d'Aran, Forestal Catalana S.A., Departament d'Agricultura, Ramaderia, Pesca, Alimentació i Medi Natural (Generalitat de Catalunya), Sorelló Estudis al Medi Aquàtic S.L. and University of Barcelona. Diputació de Lleida acts also as co-financer.



The area targeted by the project includes three sites of Natura 2000 network (SCI) in the Pyrenees within the National Park of Aigüestortes i Estany de Sant Maurici (■), the Natural Park of Alt Pirineu (■) and Estanho de Vielha (●).

The main threats to species and habitat types targeted by the project include:

- Invasive species of fish (salmonids and cyprinids).
- Hydrological changes in the water table.
- Overgrazing.
- Tourism intensification in certain areas near walking paths.
- Fragmentation and high degree of isolation of populations (*Luronium natans* or *Cottus gobio*).

The main project actions are:

1. Removal and control of invasive fish species (salmonids and *Phoxinus* sp.).
2. Population improvements through translocations of individuals with source populations from each SCI or drainage basin (*R. temporaria*, *A. obstetricans*, *E. asper* and *C. gobio*).
3. Improved conservation status of peat bogs, tufa-forming springs, natural eutrophic lakes, and the floating water plantain *Luronium natans*.
4. Peat bog regeneration by replanting *Sphagnum* mats and engineering species.
5. Monitoring of targeted species and habitats with specific methodologies and standardized protocols.
6. Public awareness and dissemination of results.

The expected results are:

- Restoration of a few selected lakes from each targeted area to the naturally fishless condition.
- Recovery of structural quality and ecological functioning of targeted lakes.
- Establishment of new populations of *R. temporaria*, *A. obstetricans* and *E. asper* in the lakes where fish have been removed.
- Improvement of conservation status of *Galemys pyrenaicus*, *Lutra lutra*, *Rhinolophus hipposideros* and *Plecotus macrobullaris* in the targeted areas.
- Population improvement of *Cottus gobio*.
- Reversion of peat bog degradation in the areas with localized touristic pressure.
- Elimination of livestock pressure at the tufa-forming targeted areas.
- Recovery of the characteristic watering regime in targeted peat bogs with hydraulic restoration.
- Production of conservation plans and protocols for targeted species and habitats.

