

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

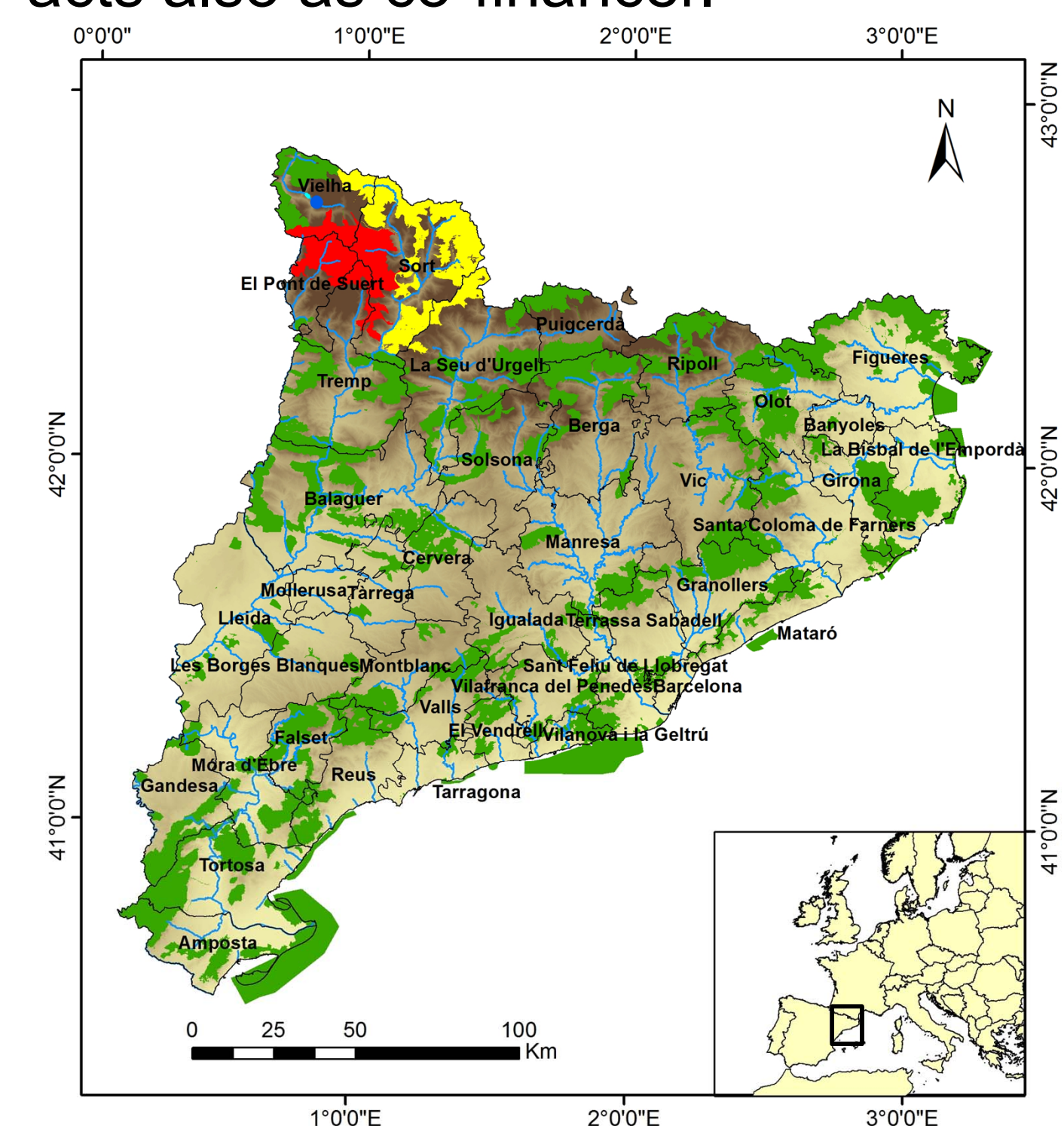


Marc Ventura, Teresa Buchaca, Alexandre Miró, Esperança Gacia, Mariàngeles Puig and Enric Ballesteros (CEAB-CSIC), Quim Pou-Rovira (Sorelló Estudis al Medi Aquàtic), Aaron Pérez-Aase, Empar Carrillo and Josep Maria Ninot (Facultat de Biologia, Universitat de Barcelona), Mercedes Aniz (Parc Nacional d'Aigüestortes i Estany de Sant Maurici), Marc Garriga (Parc Natural de l'Alt Pirineu)

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.

