

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

LIFE RESQUE ALPYR / LIFE20 NAT/ES/000369 - Restoration of aquatic ecosystems of protected areas from the Alps and Pyrenees (Italy, Spain)

Marc Ventura Oller

High mountain lakes

HICs 3110, 3130, 3150, 3160



LIFE RESQUE ALPYR

HD Species

Pyrenean Desman
Galemys pyrenaicus



Lesser horseshoe bat
Rhinolophus hipposideros



Barbastelle
Barbastella barbastellus



Greater mouse-eared bat
Myotis myotis



Common frog
Rana temporaria



Bechstein's bat
Myotis bechsteinii



Lesser mouse-eared bat
Myotis blythii



Pyrenean newt
Euproctus asper



Midwife toad
Alytes obstetricans



Greater noctule bat
Nyctalus lasiopterus

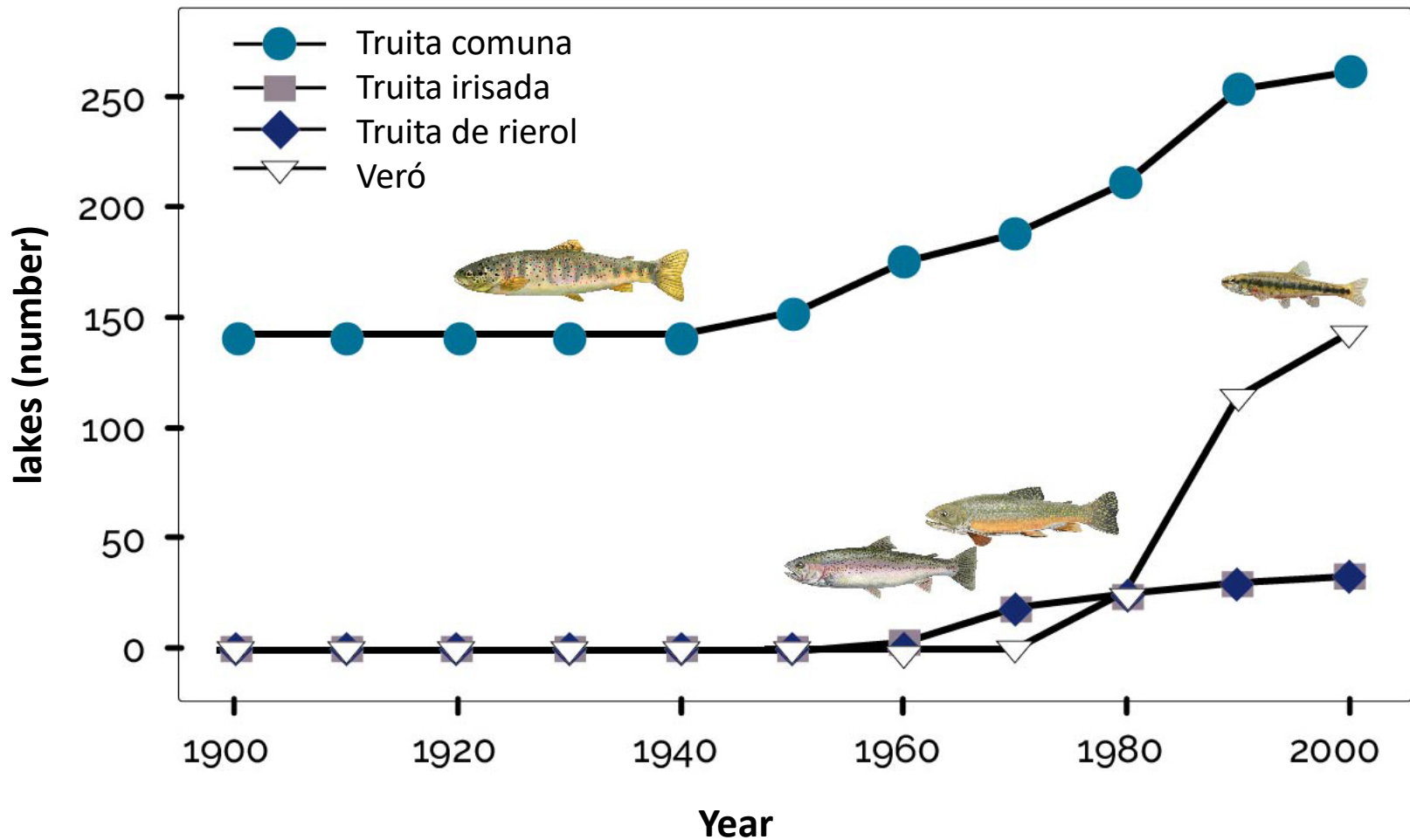


Alpine Long-eared Bat
Plecotus macrobullaris



LIFE LIMNOPIRINEUS

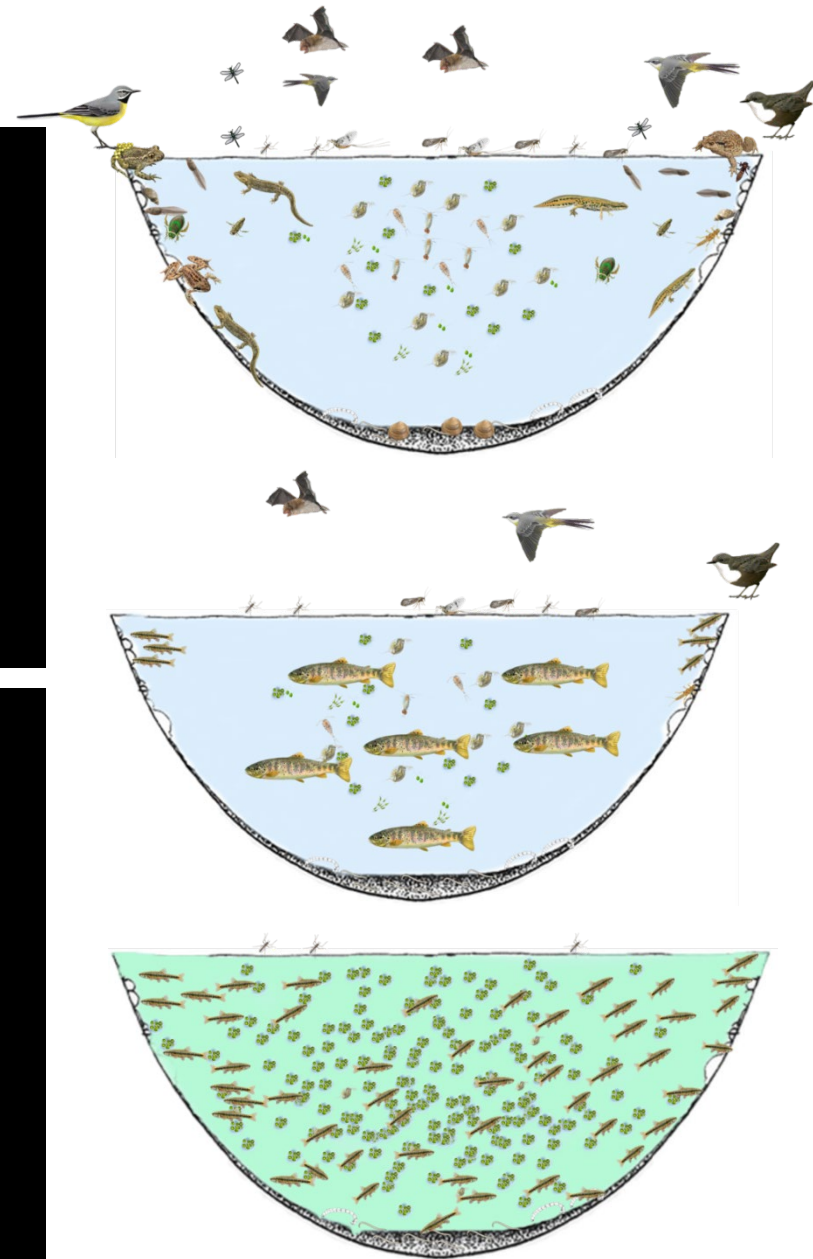
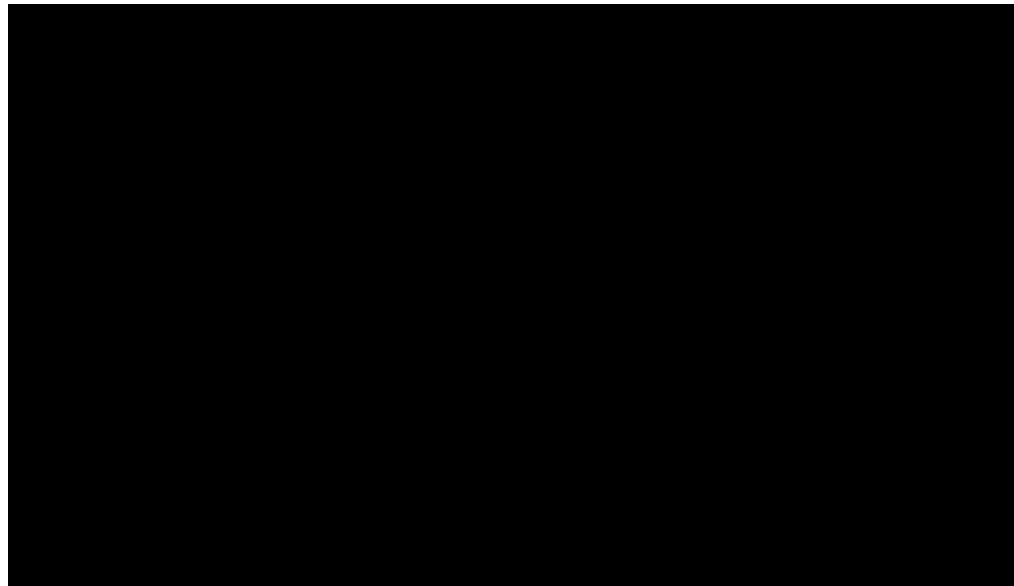
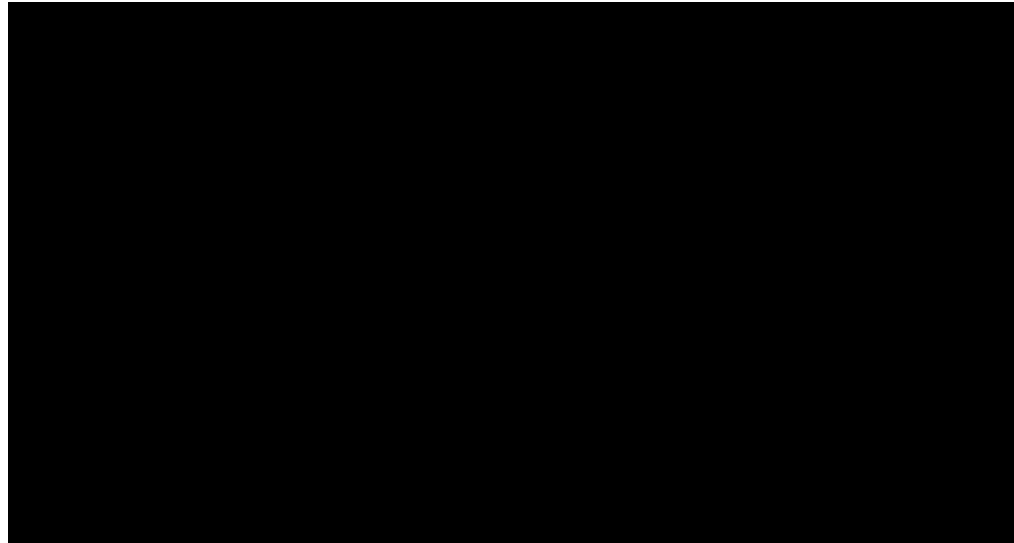
Invasive species – present distribution



Miró & Ventura (2013; 2015)

LIFE LIMNOPIRINEUS

Invasive species – effects



LIFE LIMNOPIRINEUS

Partnership

Coordinator

- CEAB (CSIC)

Project budget
2.7M €

Associated beneficiaries

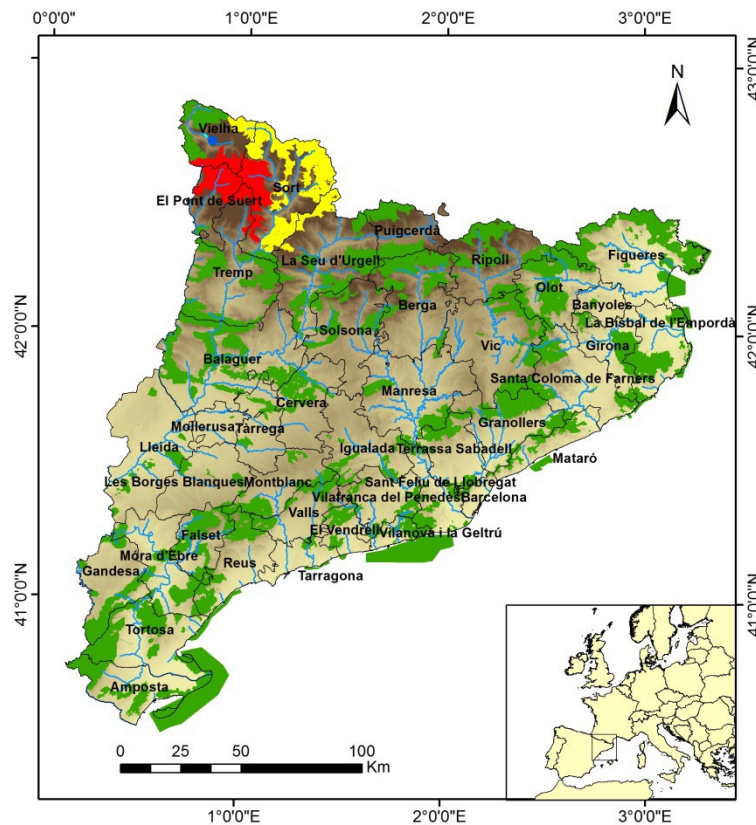
- Sorelló
- Universitat de Barcelona
- Conselh Generau d'Aran
- Generalitat de Catalunya (DAAM)
 - Parc Nacional Aigüestortes i Estany de Sant Maurici
 - Parc de l'Alt Pirineu
 - Servei Biodiversitat
- Forestal Catalana

Cofinancier

- Diputació de Lleida

LIFE LIMNOPIRINEUS

Sites of Community Interest



Sites targeted by the project
LIFE+ LimnoPirineus:

► **SCI Aigüestortes ES0000022**

► **SCI Alt Pallars ES5130003**

► **SCI Estanho de Vielha ES5130006**

CONSERVACIÓN DE HÁBITATS Y ESPECIES ACUÁTICAS DE LA ALTA MONTAÑA DEL PIRINEO

EL PROYECTO

ÁMBITOS DE ACTUACIÓN

ESPECIES OBJETIVO

CONTACTO

BLOG

SEARCH



ESTANYS DE DELLUI

Latitude: 42° 32' 55.284" N
Longitude: 0° 56' 56.364" E



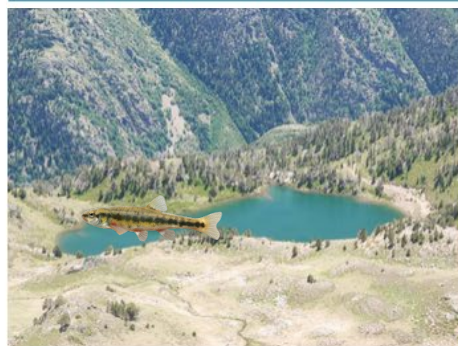
ESTANY CABANA

Latitude: 42° 32' 57.444" N
Longitude: 1° 2' 24.828" E



ESTANY CLOSELL

Latitude: 42° 38' 37.968" N
Longitude: 1° 17' 46.032" E



ESTANY DE NAORTE

Latitude: 42° 41' 27.42" N
Longitude: 1° 18' 3.672" E



ESTANY DE SUBENUIX

Latitude: 42° 34' 19.452" N
Longitude: 0° 59' 14.676" E



ESTANY ROVINETS

Latitude: 42° 40' 3.302" N
Longitude: 1° 20' 4.459" E



Salvelinus fontinalis



Salmo trutta



Oncorhynchus mykiss



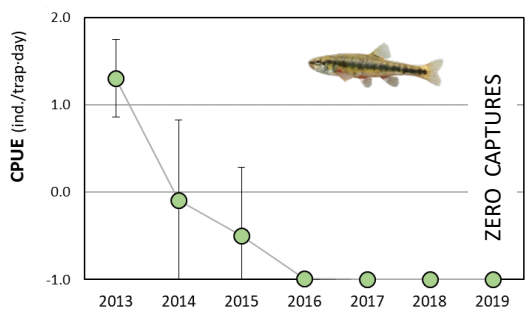
Phoxinus sp.



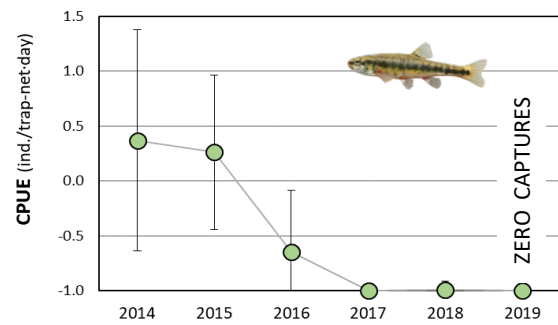
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Invasive species – fish erradicatoin

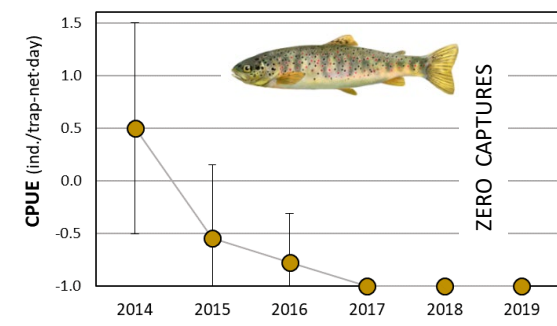
Lake Closell



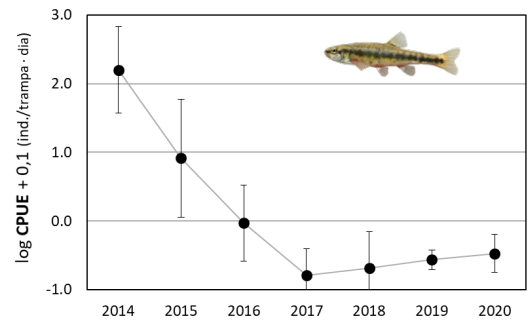
Lake Dellui mig



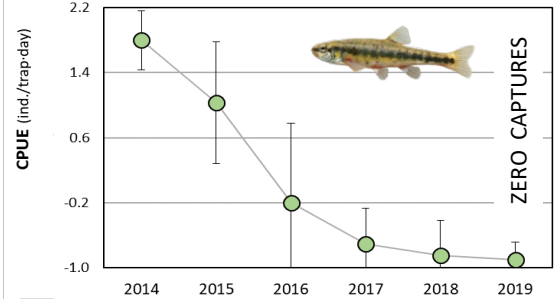
Lake Dellui mig



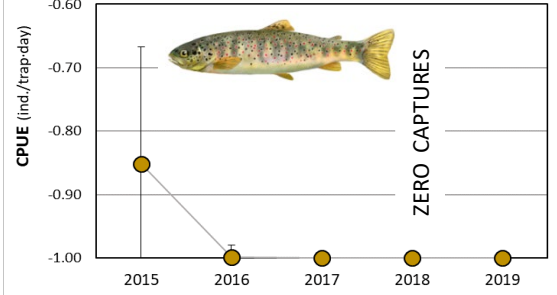
Lake Naorte



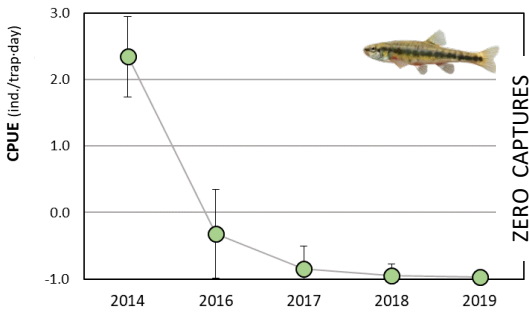
Bassa Nord Dellui



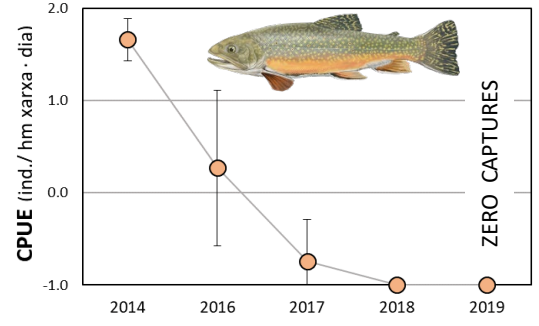
Bassa Nord Dellui



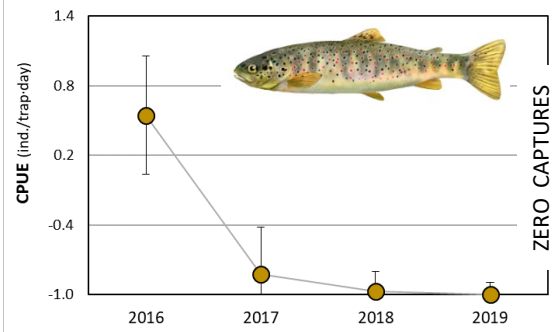
Lake Rovinets



Lake Subenuix

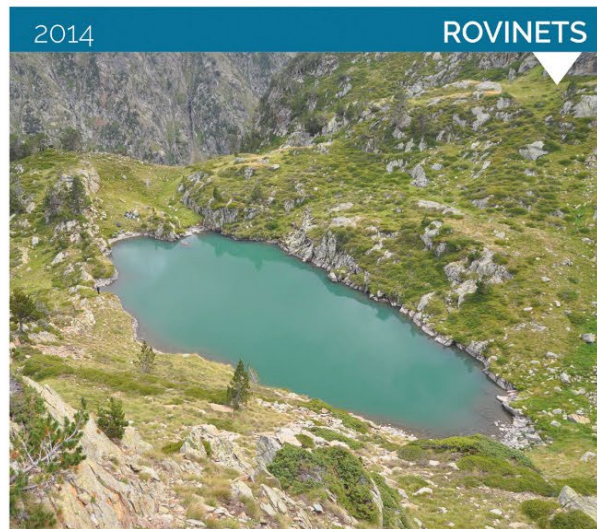
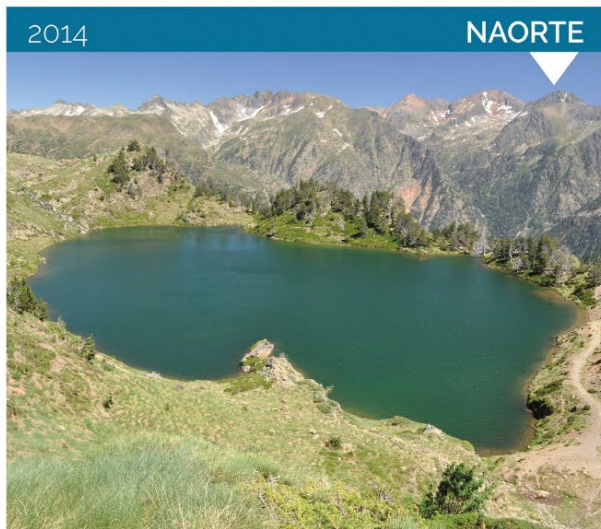


Lake Cap del Port



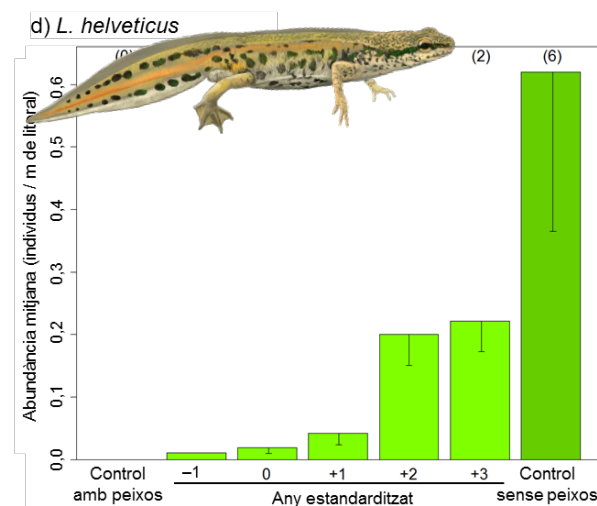
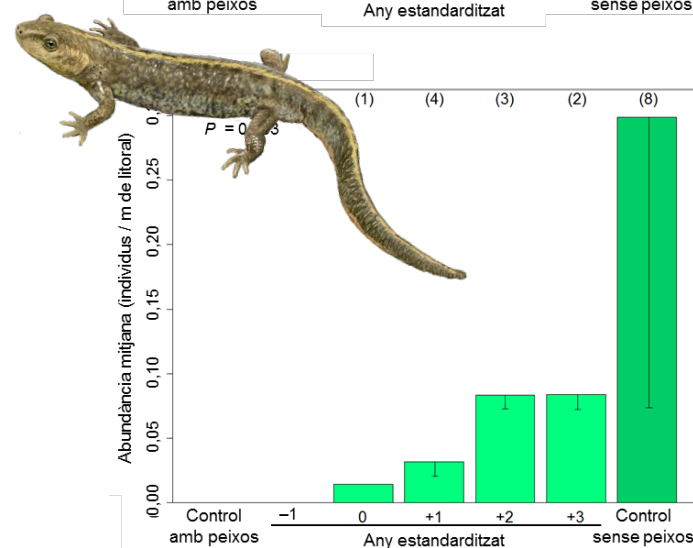
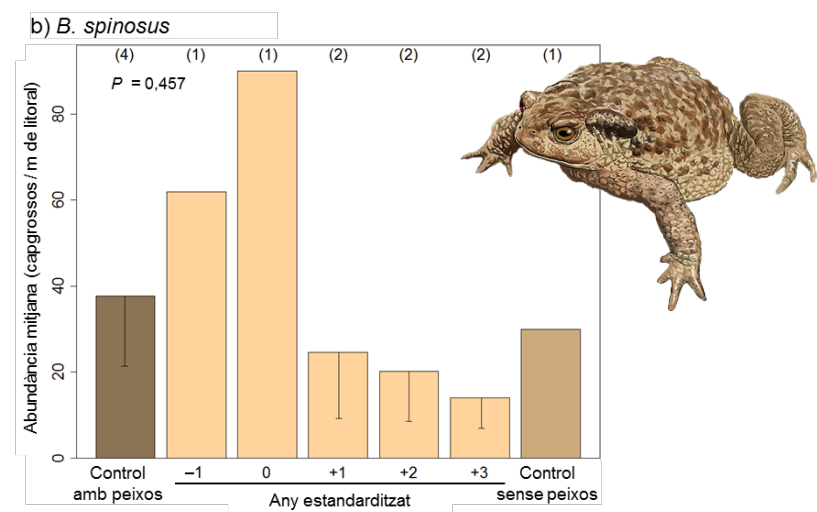
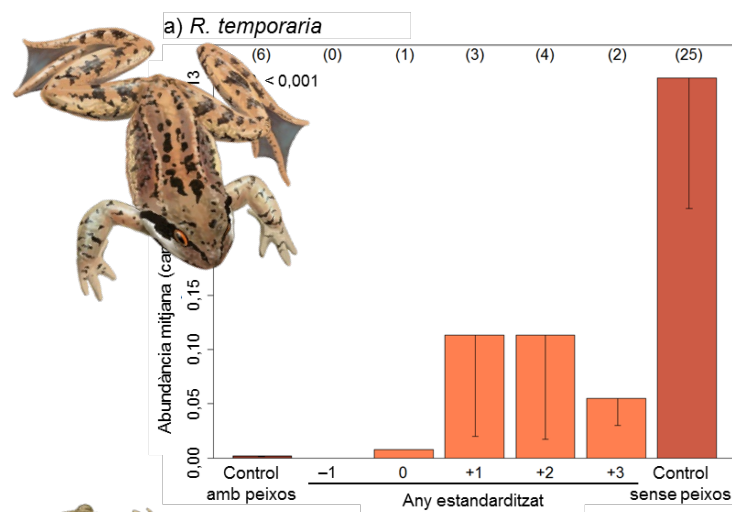
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Ecosystem restoration



LIFE LIMNOPIRINEUS

Species restoration





**Restoration of aquatic ecosystems of protected
areas from the Alps and Pyrenees (Italy, Spain)**

www.liferesquealpyr.eu
liferesquealpyr@ceab.csic.es





LIFE RESQUE ALPYR

BUDGET INFO:

Total amount: **4,776,469 €**
% EC Co-funding: **60 %**

DURATION: **Start: 01/01/22**
End: 31/12/26



PROJECT'S IMPLEMENTORS:

Coordinating Beneficiary: **Spanish National Research Council (CSIC)**

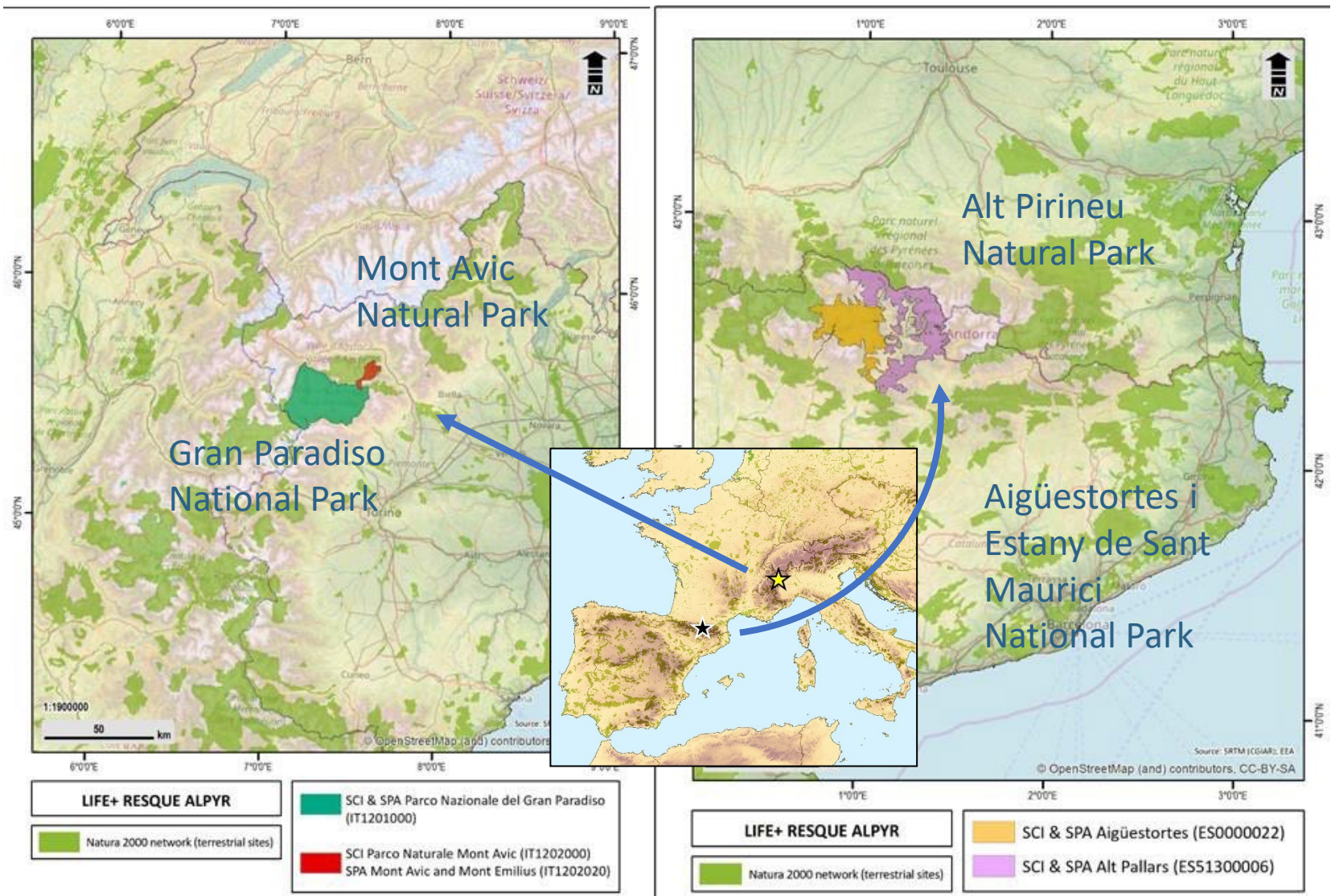
Associated Beneficiaries: **Conselh Generau d'Aran, Forestal Catalana, Generalitat de Catalunya, Istituto per la Ricerca Sulle Acque (IRSA), Parco Naturale Mont Avic, University of Calabria, La Sorellona, Sorello, University of Barcelona, University of Pavia**

Cofinancing partners : **Fundació Andrena, Gran Paradiso National Park, Ajuntament de Lladorre and Ajuntament d'Espot**



LIFE RESQUE ALPYR

Action area





LIFE RESQUE ALPYR

Habitats: Mires, meadows, heaths

HCIs 3130, 4020*, 6230*, 6410,
6520, 7110*, 7140, 7230, 91DO*,
HCI 7110*





LIFE RESQUE ALPYR

Habitats: Petrifying springs

7220*





LIFE RESQUE ALPYR

Habitats: High mountain lakes

HCIs 3110
3130





LIFE RESQUE ALPYR

Species

Pyrenean Desman
Galemys pyrenaicus



Lesser horseshoe bat
Rhinolophus hipposideros



Barbastelle
Barbastella barbastellus



Greater mouse-eared bat
Myotis myotis



Common frog
Rana temporaria



Bechstein's bat
Myotis bechsteinii



Lesser mouse-eared bat
Myotis blythii



Pyrenean newt
Euproctus asper



Midwife toad
Alytes obstetricans



Greater noctule bat
Nyctalus lasiopterus

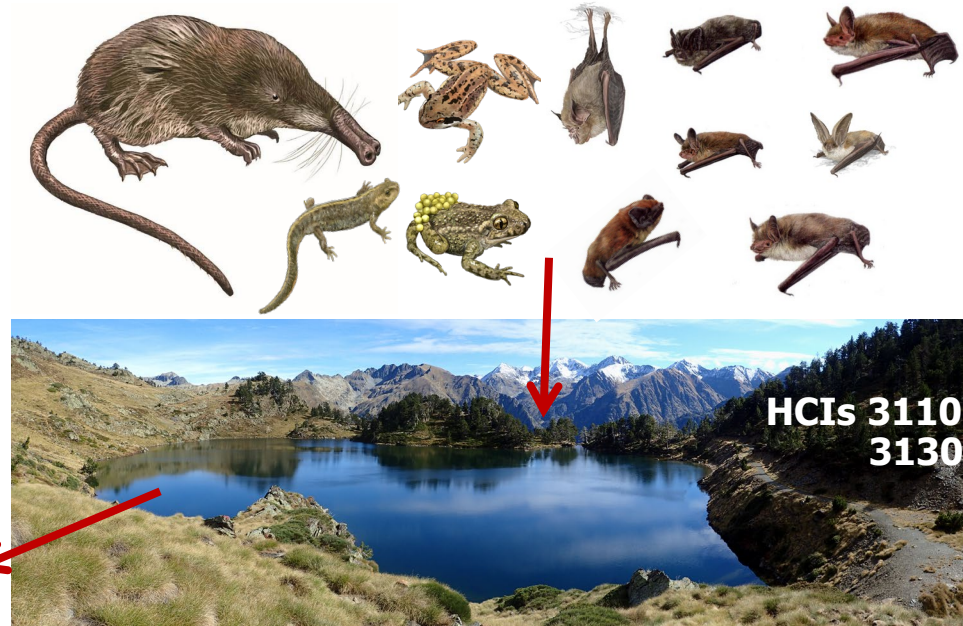


Alpine Long-eared Bat
Plecotus macrobullaris



OBJECTIVES & SCOPE

- Restoration of **22** high mountain lakes, **3** amphibian and **7** bat species and *G. pyrenaicus*



1. Alien fish eradication <- Gill and fyke nets, electrofishing, rotenone



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Ojectius

- Restauració de **21** estanys d'alta muntanya (Pirineus i Alps)
- Noves poblacions de **3** amfibis
- Millora conservació de l'almesquera i **7** muixirecs





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Erradicació de peixos

7 estanys





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Eliminació del veró – piscicides orgànics



Verbascum sp.

Troca o croca...
“entrotocar les aigües”

“Habría abundante pesca en estos ríos si no tuviesen la desgracia de que algunos individuos echan cal viva, croca y otros ingredientes que matan a las crías...”

Zamora (1788-90)

Miró (2011)

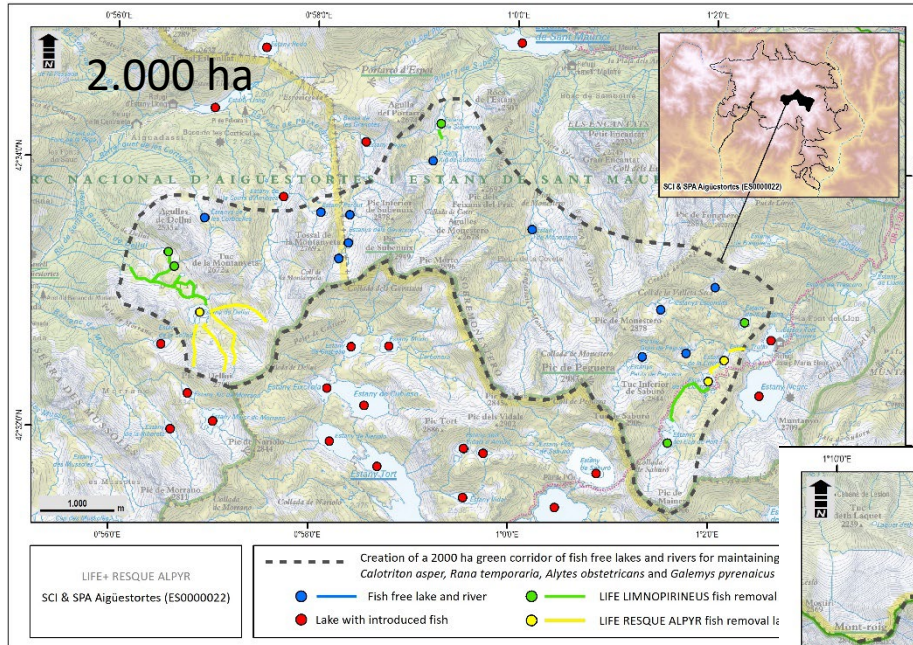


Rotenona... el piscicida més eficient
Biodegradable (dies)

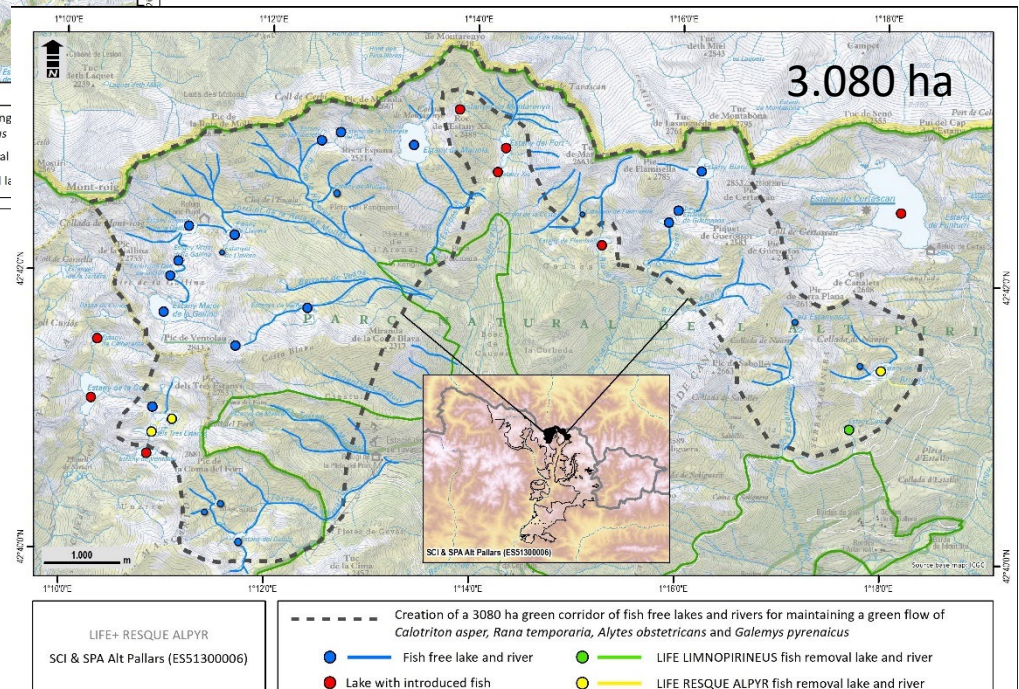


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Green corridors



Creation of two green corridors
(without fish)





EXPECTED IMPACTS

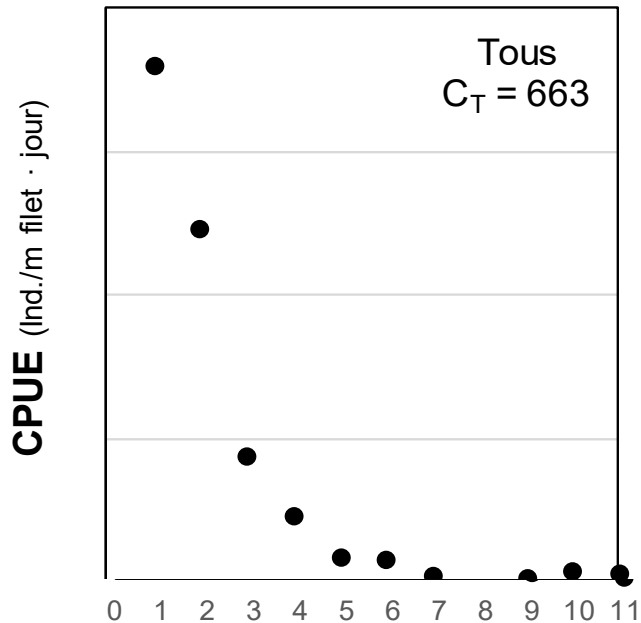
1. Complete eradication with mechanical methods : **invasive minnows** (9 lakes) and **invasive salmonids** (10 lakes)
2. Complete eradication with chemical methods: **invasive minnows** (3 lakes)
3. **Natural biodiversity recovery** (21 lakes), **new populations** (3 amphibians) and conservation improvement (*Galemys pyrenaicus* and **7 bats**)
4. **Re-oligotrophication** (10 lakes) impacted by nutrient input from livestock or minnow-induced trophic alterations
5. **Dissemination** among **society** and **stakeholders** to increase their awareness.
6. **Specific transferability actions** to the of the achieved results to other high mountain areas of Europe



Transfer and replication

Herbier: control of livestock and trout eradication

1. French Pyrenees (Camporells)



Campagnes de capture successives





Transfer and replication

1. French Pyrenees (Camporells)
2. Slovenia (Julian Alps)
3. Tirol, Austria (National Park Gesäuse; Austrian Alps)
4. French Alps (Mercantour National Park)



Outreach

First of 12 videos...
on instagram



Thank you very much!

www.liferesquealpyr.eu
liferesquealpyr@ceab.csic.es

Coordination:

Beneficiary partners:

Cofinancing partners:

