



Parcs de Catalunya Xarxa de Parcs Naturals



Parc del Castell
de Montesquiu

Espai Natural de les
Guàrdies-Savassona

PROVÍNCIA DE BARCELONA

Parc Natural
de Sant Llorenç
del Munt i l'Obac

Parc Natural
del Montseny

Parc del Montnegre
i el Corredor

Parc de la
Serralada Litoral

Parc Natural de la
Serra de Collserola

Parc de la
Serralada de Marina

Parc
d'Olèrdola

Parc del
Garraf

Parc Agrari
del Baix Llobregat

Parc
del Foix

Espais
Delta de l'Ebre

Barcelona Metropolitan

Area is one of the areas most
populated, urbanized and with
high economical activity, within
Europe

CATALONIA

31.89 km² - 7.5 million inhabitants

Density: 234 people / Km²

Parc Natural i Reserva de la Biosfera del Montseny

30.120 ha

51.000 ha

1.700 m

Altitude

200 m



W: 700 l/m²/year
E: 1000 l/m²/year



X: 22°C - 5°C



1.000.000 visitors/year



Residents:

In Biosphere Reserve : 51.100 pax.

In Natural Park: 1.350 pax.

CONSERVATION PLAN of Montseny

<http://parcs.diba.cat/web/montseny/pladeconservaci>

- ✓ Montseny has a high biodiversity:
 - 164 habitats CORINE
 - > 8.500 taxons
- ✓ 11% habitats & 1.4% species with high conservation interest.



Forest tracks cause erosion
and are ecological barriers.

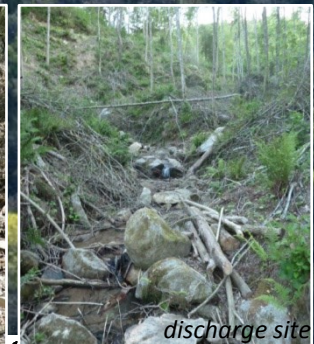


Good environmental practices are
NOT applied in forestry management.



> 100 water abstractions not in
compliance with current regulations

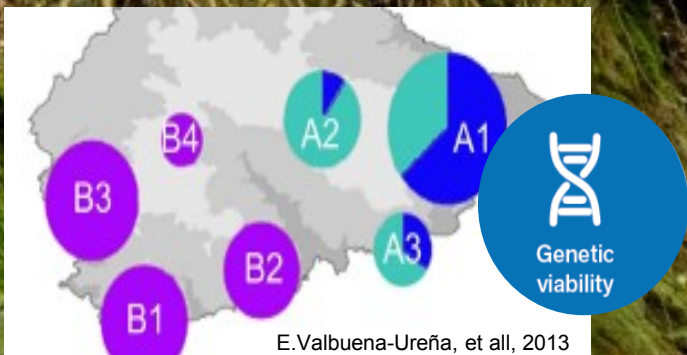
(Art.38 del Decret 1/2017)



discharge place

discharge site

Calotriton arnoldi (Montseny newt)



- ✓ Endemic of Montseny mountain)
- ✓ Discovered in 2006, there is still a great lack of knowledge about its biology and ecology.
- ✓ There is not conservation plan.
- ✓ Its distribution area is not strictly protected, and ~ 80% is within a private estate.



<1,500

adults

in a 5 km
stretch of stream

total area
8 km²

7
different
populations

4
W
3 E



Infectious
diseases



The IUCN Red List of Threatened Species™ 2017-3 Login | FAQ | Contact

RED LIST
Guiding Conservation for 50 Years

Enter Red List search term(s) GO OTHER SEARCH OPTIONS Discover more

ANIMALIA - AMPHIBIA GLOBAL, EUROPE

Calotriton arnoldi

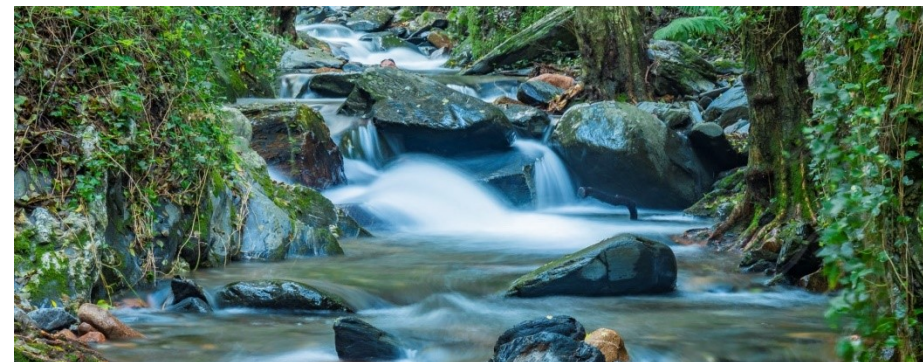
Decreasing

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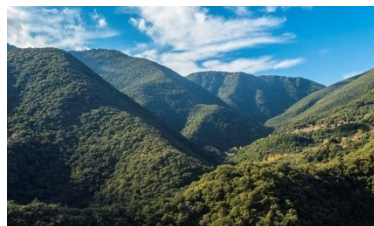
OBJECTIVES

To conserve the Montseny newt
(endemical and critically endangered)

To improve river habitat
(in regression with anthropogenic threats)



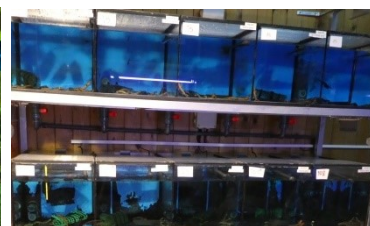
OPERATIONAL TARGET



Protection



Dissemination
& Education



Conservation
(in-situ & ex-situ)



Research
& Monitoring



Habitat
management

METHOD

- > 120 people involved in multidisciplinary teams
- 6 Areas of work, with 49 different actions



2.971.276 € (60 % EU)

In reality is x 2



Oct. 2016 / Des. 2022



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Conservació
(in-situ i ex-situ)



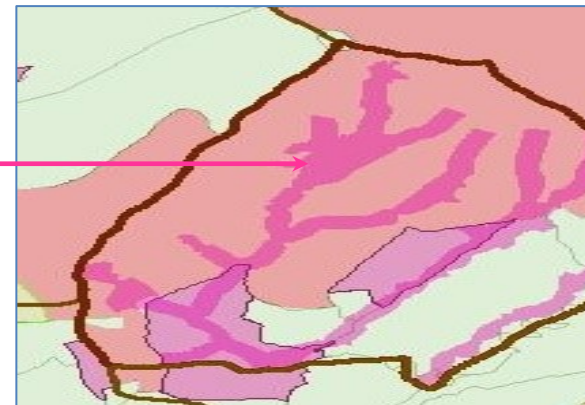
Research &
Monitoring



Habitat
management



- **Conservation Plan** for *Calotriton arnoldi* have been written, and approval is in the administrative process.
- ~ 300 ha of Supervised riparian habitat management has been established in private land
- Private forest de has been **acquired** (~80 ha) or has been **swapped** , to protect newt habitat.
- **Land Stewardship Agreements** have been signed with private owners, to collaborate in the habitat restoration





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Habitat
management



- **Press, Radio & TV** (> 70 news published)
- **Published articles** publicats (20 tècnicians & 6 scientists)
- **Web** (17.606 visitors, 6 quarterly newsletters)
- **Social media** (15.000 Wikipedia, 530 Twitter, 1.400 YouTube)
- **Promotional Material** (16.500 leaflets, 8 information panel, 3.000 educational netbooks, 3.000 children's book, 3D newt Video)
- **Networking** (TRivers, LimnoPirineus, PirOs, Hydrology, Freshabit, Wet FlyAmphibia, Alnus, RedBosques)
- **Travelling exhibition** (> 7.500 visites / 16 pobles)
- **Short Documentary** (6 videos)
- **Environmental education for children schools**
- **Dissemination days** (43 talks)
- **Education in breeding centres** (> 125.000 visitors)
- **Information to owners** (> 70 meetings / 13 owners of land)





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Research &
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Habitat
management



<https://lifetritomontseny.eu/en/life-trito-montseny>

Videos: <https://www.youtube.com/channel/UCNeR6L7JnNLD4WA07nRqWdw>

SHORT THEMATIC VIDEOS :

- 1 - An amphibian endemic to Montseny
- 2 - The captive breeding of the Montseny brook newt
- 3 - Releasing new individuals
- 4 - The Montseny brook newt, from knowledge to conservation
- 5 - Habitat improvement for the Montseny brook newt
- 6 - Diseases affecting amphibians: prevention and environmental dissemination
- 7 - Environmental education, a fundamental part of “Life Tritó Montseny”
- 8 - A collective challenge for the preservation of a unique species
- Video of Photo exhibición

News

Channel Youtube



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Research &
Monitoring

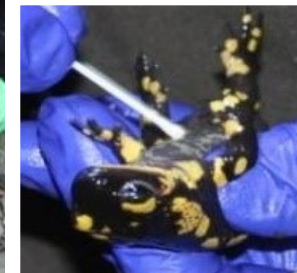
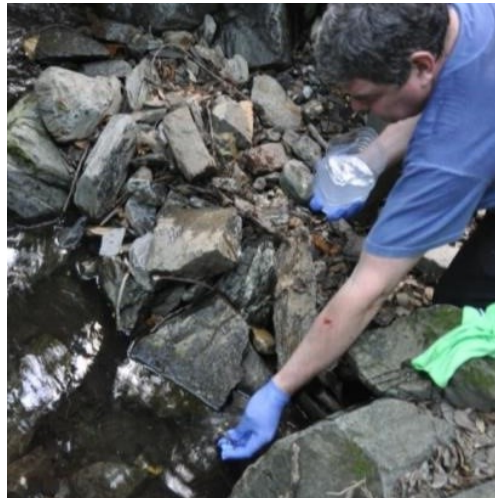
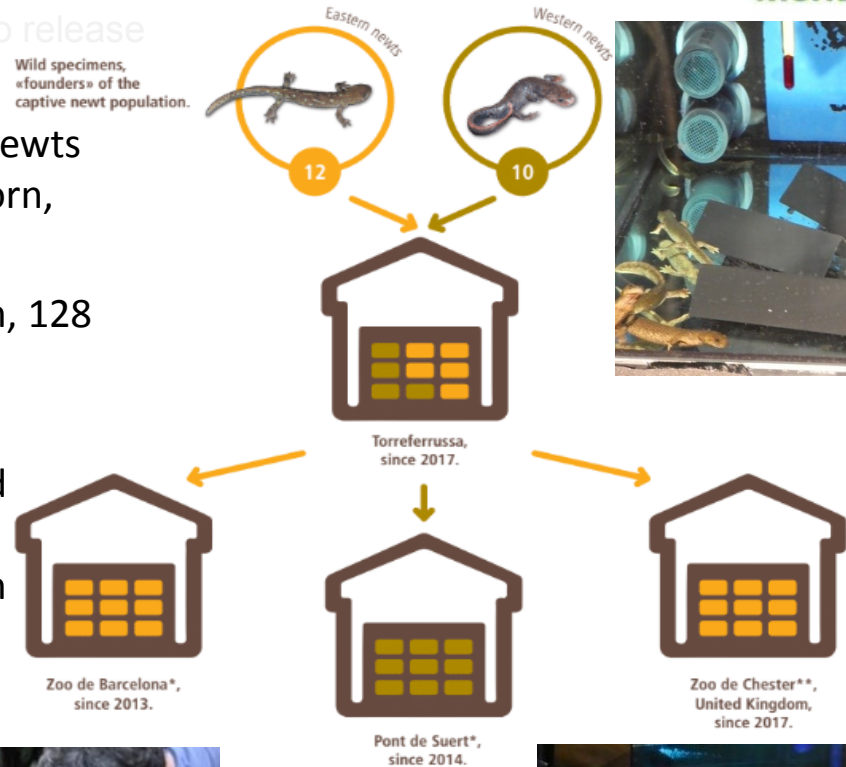


Habitat
management



Breeding program : genetic reserve & production to release

- **4 Breeding centres and gene pool.** 1814 newts (1235 Western, 578 Eastern) have been born, until 2020..
- **Reintroductions.** :371 newts (243 Western, 128 Eastern) have been released in 5 different locations (survival > 19 %).
- **Biosafety protocols (*ex situ* & *in situ*) and sanitary analysis** . To date, no amphibian infections (Bsal, Bd, Ranavirus) have been detected





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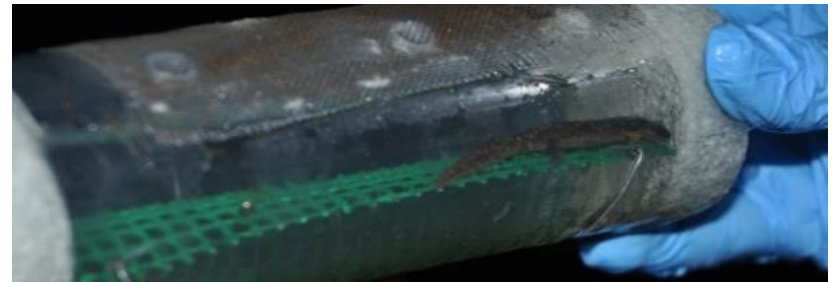
Research &
Monitoring



Habitat
management



- **Commission of experts** (> 100 technician and scientific, are implicated in projects or consultancy)
- **Abiotic monitoring stations** (15 meteorology, 40 hydrology, 2 erosion)
- **Monitoring of newt populations** (10 stations, 3 field teams)
- **12 Research programmes** (diet, thermopreference, metabolism, demography, habitat modelling, habitat geology, hydrology, genetics, environmental DNA, ...)





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Research &
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Habitat
management



The Montseny brook newt

Video3D_Biologia TritoMontseny_OMasana

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0:02:14



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Research &
Monitoring

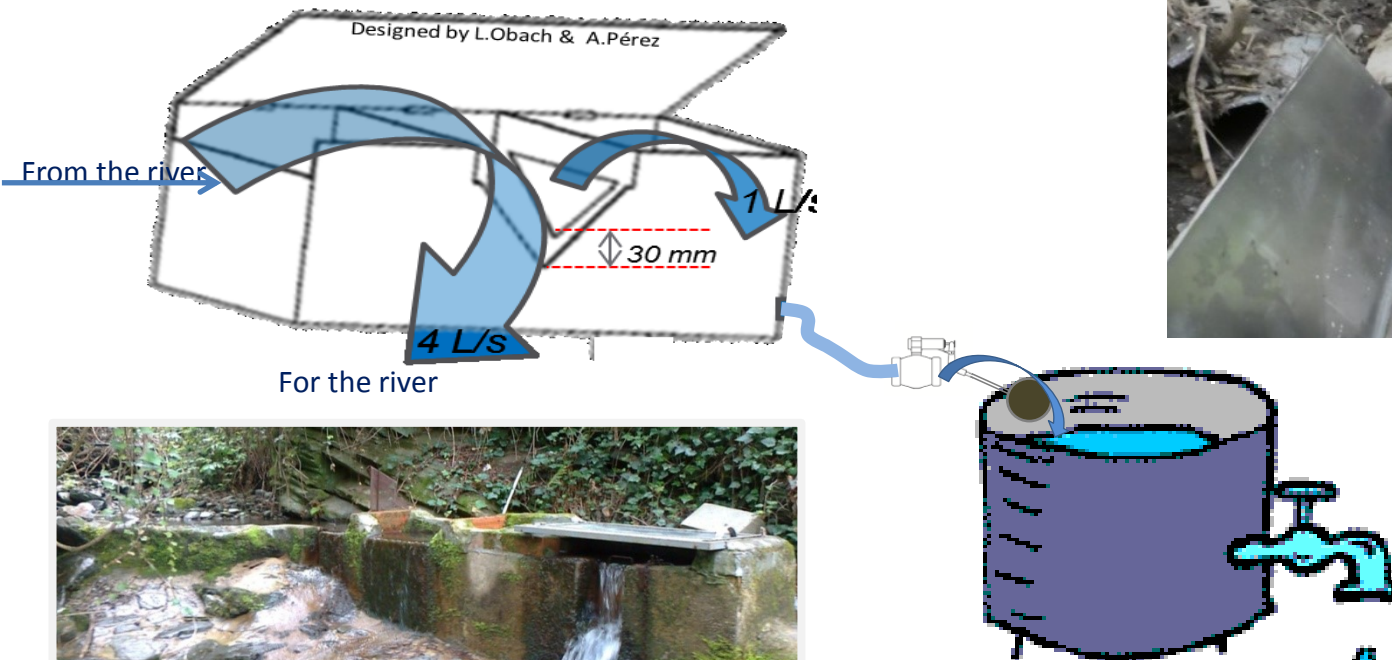


Habitat
management



- 34 Redevelopment of water catchments (9 finished, 25 pending)
- Adaptation of legal catchments to ensure an ecological flow (cost $\bar{X}$: ~ 3.500 €)
- Dismantling of illegal catchments (in collaboration with Catalan Water Agency)
- Installation of water storage tanks, with closing buoys

C4- Water catchments





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Conservació
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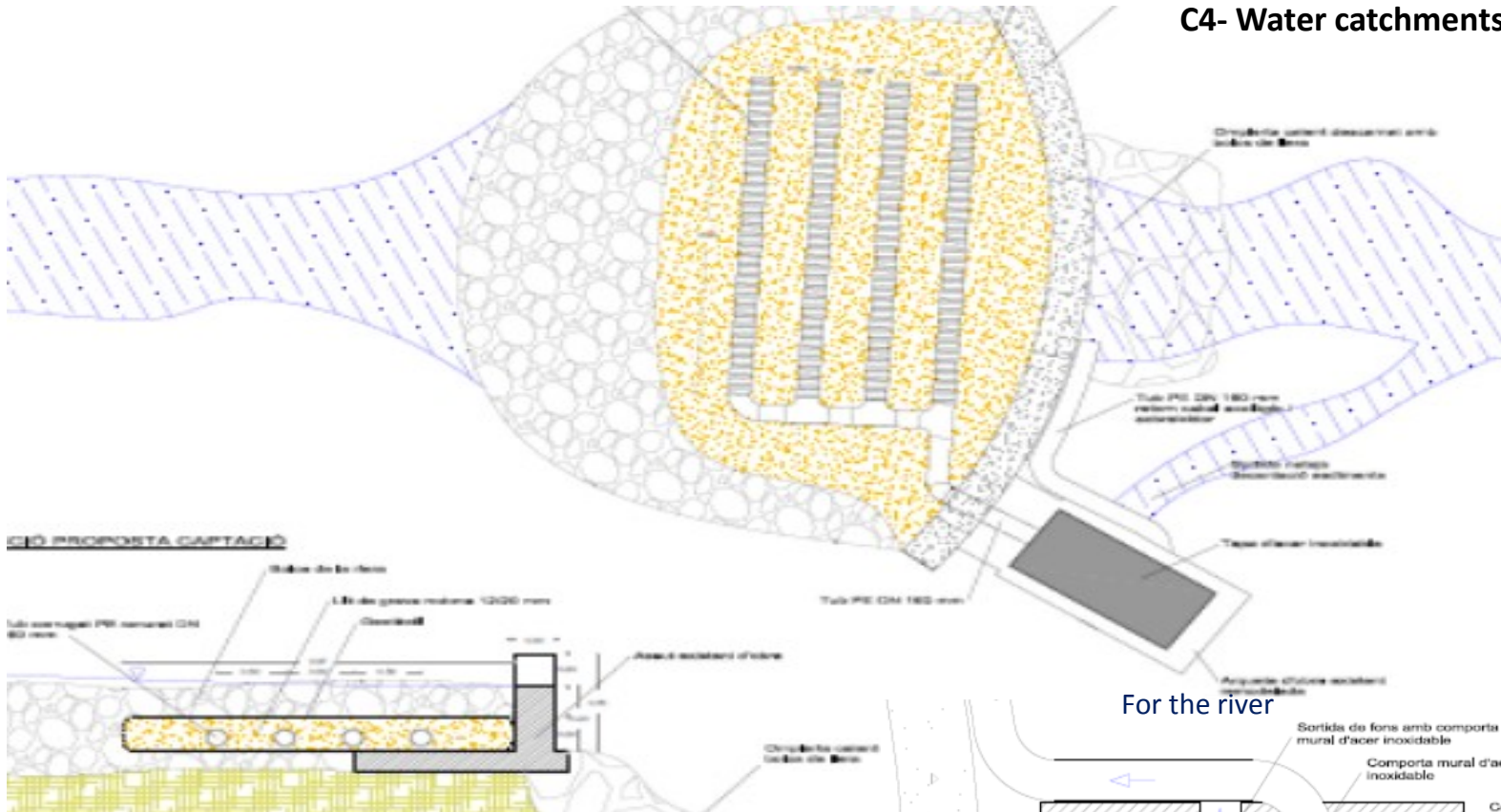
Research &
Monitoring



Habitat
management

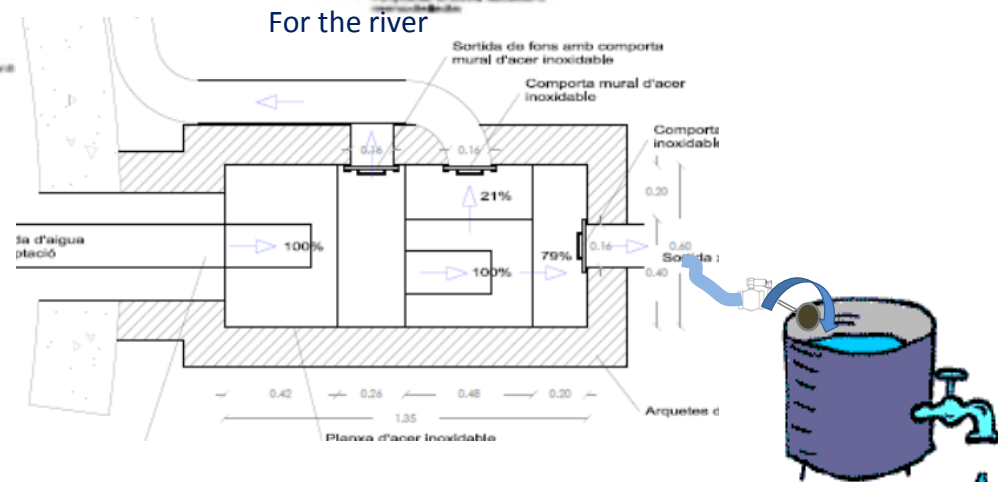


C4- Water catchments



For the river

From the river





Protection



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Conservació
(in-situ i ex-situ)



Research &
Monitoring



Habitat
management



C5- Stormwater

- River catchments can be reduced by 50% to 90% , if there is a good **rainwater collection** and storage system in place
- Installation of rainwater drainage, storage tanks and pumping station (13 actions planed, 2 finished, 11 pending) (cost $\bar{X}$: ~ 3.000 € for single family house, to >20.000 € for agricultural, livestock or tourist exploitations)





Protection



Dissemination
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Conservació
(in-situ i ex-situ)



Research &
Monitoring



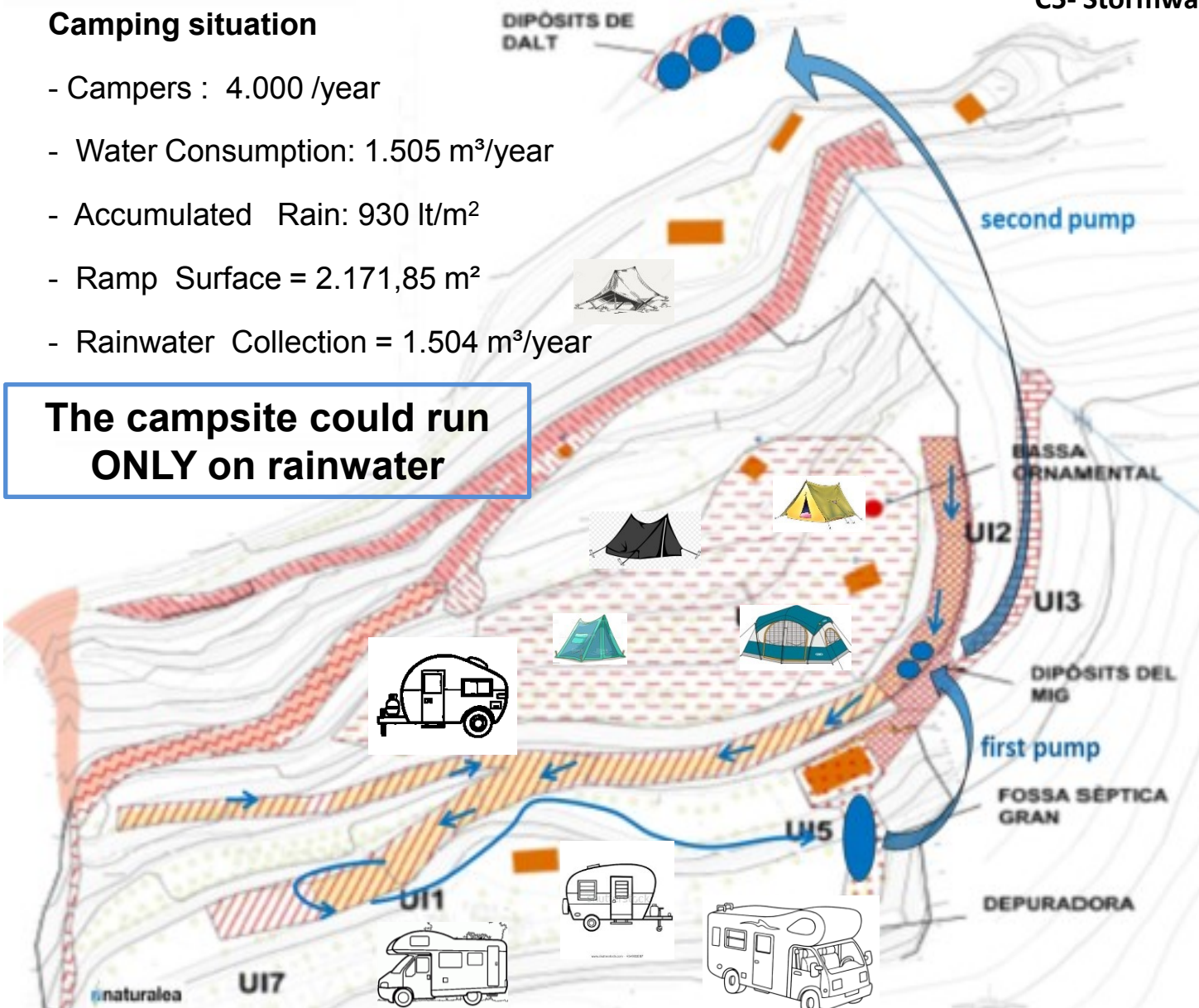
Habitat
management

Camping situation

- Campers : 4.000 /year
- Water Consumption: 1.505 m³/year
- Accumulated Rain: 930 lt/m²
- Ramp Surface = 2.171,85 m²
- Rainwater Collection = 1.504 m³/year

**The campsite could run
ONLY on rainwater**

C5- Stormwater





Protection



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Conservació
(in-situ i ex-situ)



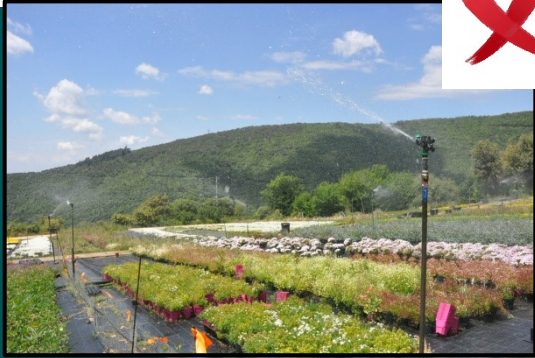
Research &
Monitoring



Habitat
management



C5- Stormwater



Sistema de reg gota a gota
Sistema de riego por goteo
Drip irrigation system



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Conservació
(in-situ i ex-situ)



Research &
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Habitat
management



C6- Waste water treatment

Wastewater Treatment Plant of Fontmartina Camping



- One green filter has been built in the only equipment that could affect a newt population (cost: ~15.000 €)





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Research &
Monitoring

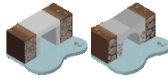


Habitat
management



C7 River connectivity

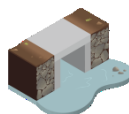
- 27 Improvements in the Ecological Connectivity (22 finished, 5 pending)
- 4 Types of intervencions have been tested
 - 13 Removal of the logging road (cost: ~2.000 €)
 - 7 Concrete bridges (cost: ~20.000 €)
 - 3 Filter rock (cost: ~5.000 €)



7 Concrete bridges (cost: ~20.000 €)



3 Filter rock (cost: ~5.000 €)





Protection



Dissemination
& Education



Conservació
(in-situ i ex-situ)



Research &
Monitoring



Habitat
management



C7 R  tivity





Protection



Dissemination
& Education



Conservació
(in-situ i ex-situ)



Research &
Monitoring

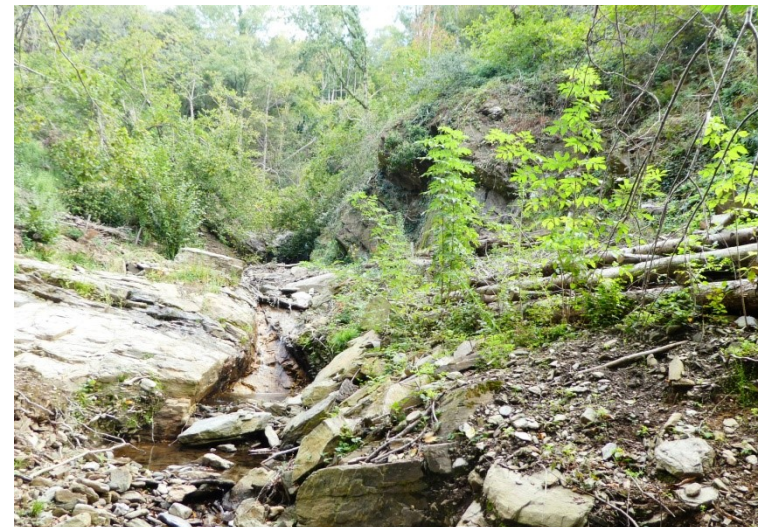


Habitat
management



C8 Riverside habitat

- 24 Waterfront habitat improvements (12 finished, 12 pending)
- Construcció of terraces with bio-engineering and *Alnus*, *Fraxinus*, *Corylus* and *Sambucus* plantations
- 12 Removal of exotic conifer stands (*Pseudotsuga*, *Cedrus*)
(4 finished, 8 pending)





Protection



Dissemination
& Education



Conservació
(in-situ i ex-situ)



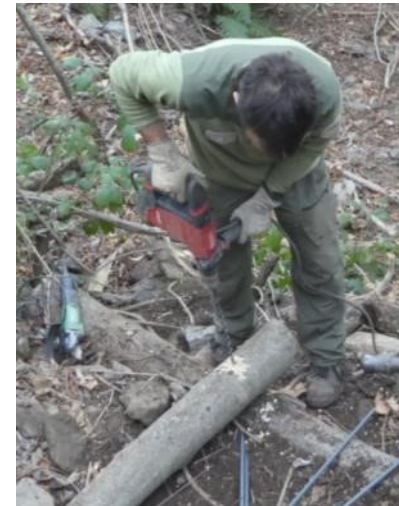
Research &
Monitoring



Habitat
management



C8 Riverside habitat





<http://lifetritomontseny.eu>



Moltes gràcies!



Life Tritó Montseny



12-Video resum projecte-Musica_2min

0:00:09



0:02:17

