

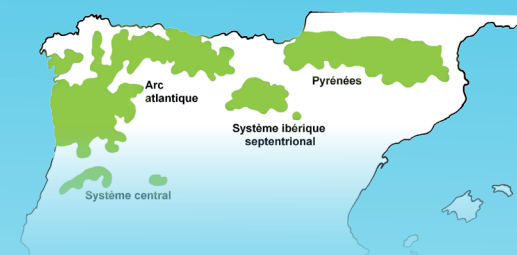


The Pyrenean DESMAN

The ins and outs of an unusual and fragile mammal living in our streams

For more information :
www.desman-life.fr
 Or contact your local adviser :

And follow the programme on social networks :
www.facebook.com/desmanlife
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My global range³
 is very limited. I live in only four countries: in the South of France (Pyrenees), in Andorra, in the North-West of Spain and in the North of Portugal. This range has become smaller and fragmented⁴ since the late twentieth century. In France, the biggest number of desmans can be found in the East of the Pyrenees.

3 - Range
 The geographical area within which a species can be found (covering its entire population).

4 - Fragmented
 Broken down into many small isolated pieces.

5 - Predator
 An animal which captures living prey in order to feed itself or its young.

My next-door neighbour is a trout

In France, I hang out in the same habitat as trouts: mountain streams, torrents and lakes. You can spot me as low as 80 metres above sea level, but I prefer to settle between 450 and 2700 metres. I love a wet climate and seek undeveloped rivers. I am particularly fond of a river when its bed is made up of different things (stones, rocks...) and when its currents and natural banks are varied (see photo c).



I am hyperactive all year long, unlike some other mammals like bats or hedgehogs who hibernate. And although I mainly hunt at night, I regularly go out in daytime to find my lunch.

The same diet every day of the year !

Although I am very small, I eat like a horse: just try and eat between one third and half your body weight every day! I adore insects, especially the larvae of caddisflies (photo d), stoneflies and mayflies (photo e) but, from time to time, I also eat crustaceans such as gammarids.



And who feeds on me?

Predators⁵ such as river otters have me on their menu, but it is also the case for a few introduced species -like American minks- or domestic ones, such as cats and dogs.

Like a Desman in water!

Once in water, this little fur ball turns into a real torpedo.

What tiny eyes !

If not blind as a bat, the Desman is probably short-sighted !

An invisible hearing system

Apparently the Desman cannot hear much. When it dives, a membrane obstructs its ears and nostrils.

An adult Desman weighs 60 grams on average.



25 cm long (over half of which is the tail alone)

Small front paws

Folded under the Desman's torso while swimming. Sturdy claws help the mammal hook onto stones as it looks for prey on the stream bed.



In France, one of its nicknames is « trumpet rat » which is hardly surprising !

This very flexible trunk enables the Desman to search through stones looking for insect larvae and to grab its prey in order to eat it. It is equipped with a lot of hair and sensory organs (vibrissae and Eimer's organs). Now we know its hunting secret !

A long tail

It is flat at the end, laterally, and acts as a rudder or helps with balance when the desman walks or runs.

Very large back paws

They are webbed with sturdy claws. They help to keep the desman under water by gently pushing against stones and rocks, but they also turn out to be powerful oars.

A dense fur coat

Consisting of two layers of hair which trap an insulating air layer, this coat protects the Desman from water and cold weather.

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I am a small mammal living by mountain streams. Scientists call me *Galemys pyrenaicus*. Although one glance is enough to identify me, I was only discovered in 1811. It is because I can be very shy, with my semi-aquatic¹ mainly nocturnal lifestyle.

A secret life in a small territory

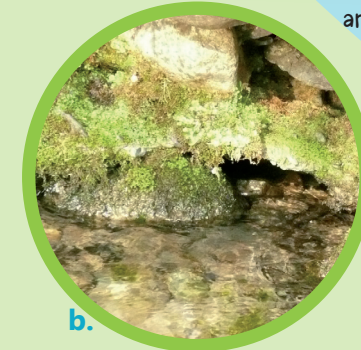
1 - Semi-aquatic
 Living partly in water.

2 - Life expectancy
 Lifetime.

I usually live alone, but the female of the species looks after their young for at least a few weeks. As adults, our paths cross when it is time to reproduce but our social life may well be more complicated than has been observed so far... Although I am small, my range is hundreds of metres along a stream. You can find me by spotting the droppings I leave on rocks sticking out of the water: twist-shaped excrement which is very pungent when fresh (photo a).



My home is a simple affair: either a cavity dug out by another species on the banks of a river or a crevice in between roots or stones (photo b).



Focus on my private life

My private life is... PRIVATE! Human beings know little about it: I give birth between the end of February and July, but nobody knows how many offsprings I have each year. As for my life expectancy², after studying my teeth, they reckon it could be two or three years on average, but who knows ?

LIFE+ Desman : a European conservation programme



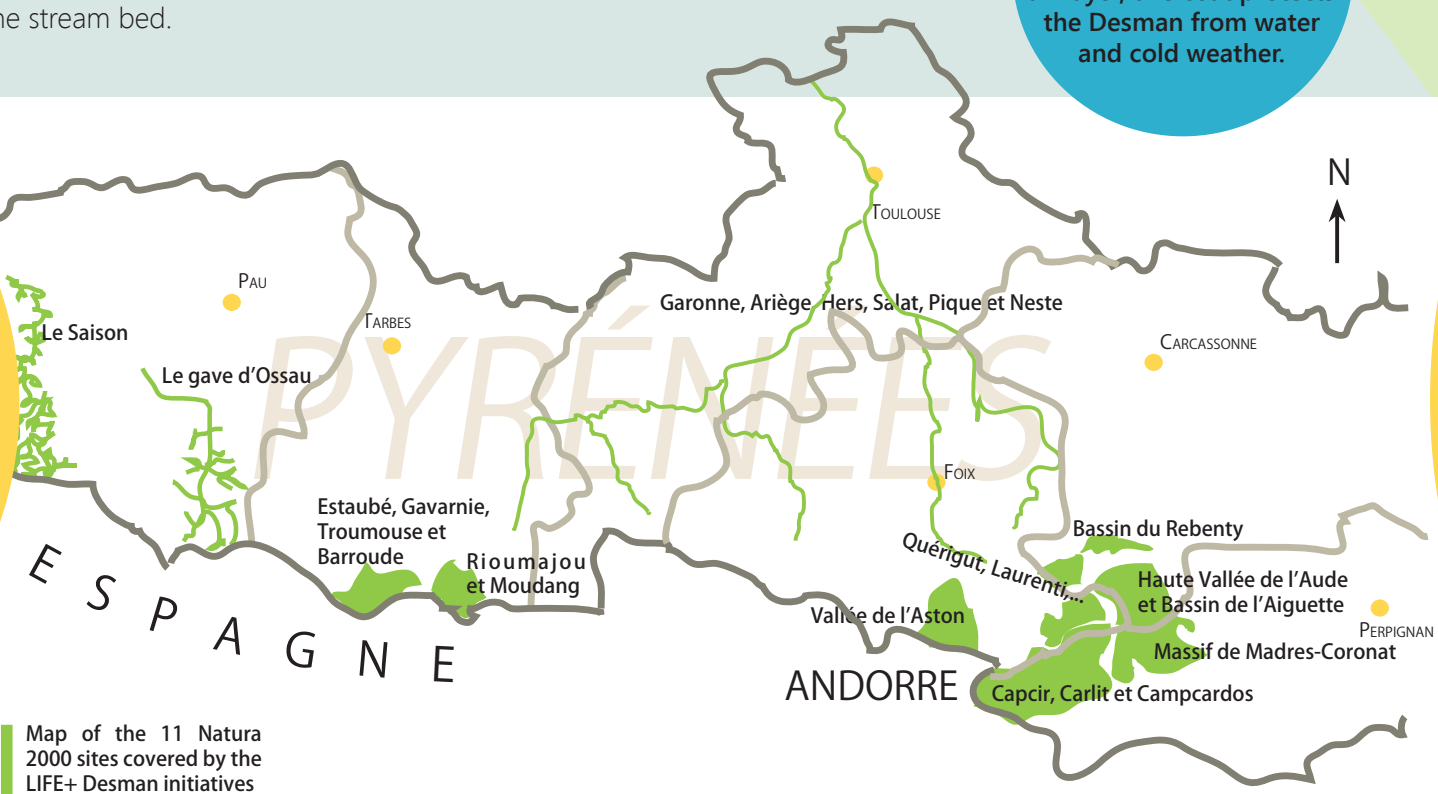
A few years ago, a real dynamic emerged around the conservation of this small mammal. The Pyrenean desman, as well as its resting and reproduction sites, is protected in France and in the rest of Europe. The LIFE+ Desman project (LIFE13NAT/FR/000092) proposes to enhance its conservation status in the long term and in a hands-on way across **11 Natura 2000 sites** (see the map to the left) and then throughout the Pyrenees over a longer period of time utilising the methods and tools that were developed. It has set four main goals for the period 2014-2019 :

- to reconcile the conservation of the desman with human activities,
- to systematically take the species into account when managing or developing aquatic environments in the Pyrenees,
- to propose measures for managing the desman's habitats,
- to raise awareness among local populations and the general public with regard to its conservation. These goals break down into **29 action points**.



An endangered species

Experts are unanimous : A part of our natural heritage, the desman's future is not bright due to the degradation of its habitat. Many human activities (destruction or alteration of river banks, hydroelectric plants, pollution...), combined with other factors such as global warming and invasive species threaten the survival of its populations. It is urgent to set up operational initiatives for the conservation of the desman and its habitat.



Map of the 11 Natura 2000 sites covered by the LIFE+ Desman initiatives



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The CEN Midi-Pyrénées manages the LIFE+ Desman project with the support of :



The LIFE+ project brings together many technical partners :



The project also receives the scientific backup of several laboratories, such as the university of Liège (Belgium) and the EcoLab, the university Paul Sabatier and the INRA CEFS in Toulouse (France).

2015 - Illustrations : Yannick G / Scories dans la Brume Photography ; Yannick Bielle (dose up of the trunk on the flip side), Frédéric Blanc, François-Olivier Chabot, Lysa Laviolette, Bruno Le Roux - Mélanie Nemoz. Printed on paper certified from forests managed in accordance with sustainable development and using vegetable-based inks. - **Production :** CEN Midi-Pyrénées.

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