

NEWSLETTER N°1 – august 18

A1.1 Action. First preliminary studies of LIFE ALNUS to understand the state of conservation of alder groves.

The project begins at a regional level, which allows us to better understand the current state of conservation of the alluvial alder groves from a geographic point of view. This first preliminary phase consists of two studies.

The first aims to generate a mathematical model of ecological potential in all of Catalonia for the 91E0* habitat, “*Alnus glutinosa* and *Fraxinus excelsior* alluvial forests”. This is a pioneering study, since this is the first model of these characteristics to plan and manage a habitat at a regional scale. Its objective is to rebuild which could have been the original territory occupied by alder groves in the past in river areas in Catalonia; this information is essential to design the conservation strategy of alluvial forests dominated by alders in each of the basins included in the project. Ultimately, the study will determine the ecological aptitude of each river course to accommodate the habitat, based on theoretical models generated by the spatial analysis of multiple environmental variables (orographic, climatic and hydrologic).

Secondly, a map of the current distribution of river alder groves in the Catalan territory is being made. All the cartographic sources available will be merged and structured, and all the existing bibliographic references will be obtained and georeferenced, resulting in the best possible approximation of the habitat's current geography.

Subsequent analyses of both maps (current distribution and potential distribution) will offer an initial image of the surface area of the habitat's geographic recession, an essential diagnosis to understand the causes of this recession in depth, as well as design a strategy to reintroduce and restore alder grove forests moving forward.

Both studies will be carried out by the botany team at MN Consultors en Ciències de la Conservació (Conservation Sciences Consultants) and will last three months.

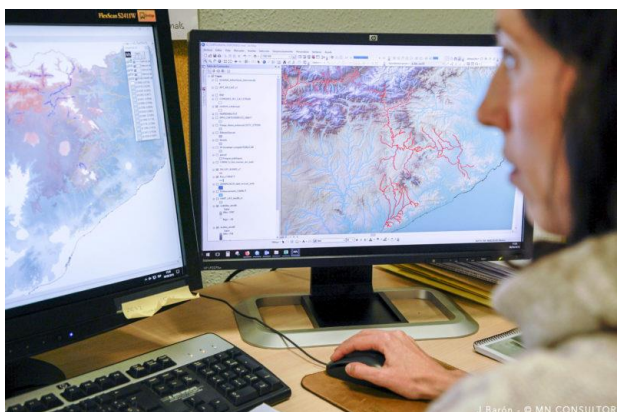


Photo: MN Consultors

A1.2 Action. 1100km studying alder groves.



Life Alnus is a pioneering and demonstration project on a European scale that will implement pilot conservation strategies which answer and attend the organization levels that manage the ecology of the river ecosystems.

This means that the classic conservation strategies based on the conservation of a number of samples, usually isolated with each other, will be set aside. In its place, there will be introduced new approaches that attend and consider the

functional logic of the river, the basins as unities and hierarchical levels of interactions about ecological processes: the basin as the management unity and the restitution of the river as a functional structure.

This strategy will be tried out in the three river zones of the catalan territory (Alt Segre, Ter and Besòs), which leads to understand the current spatial structure of its riparian vegetation. Therefore, members of the Life project team will carry through prospection work and studies of

all the main fluvial system of these river zones during the next five months.

These works are established in order to obtain a cartography of the fluvial system of the pilot basins, through which it can be inventoried the structure and the main ecological features of the riparian zones and its forests.

These works complement the previous works that have been done since the last July. Its finalisation is planned to finish in February of 2018.

Photo: J. Barón. MN Consultors

A1.3 Action. Cartography of pressures on alder groves.

During the field work there has been made a cartography of impacts, such as the presence of flora exotic species. Afterwards, it has been completed with the information coming from different sources. The cartography of pressures is used in systematic planning models and it will be useful for the elaboration of the restoration and conservation plans of alder groves in the three basins of the project: Segre, Ter and Besòs.



Photo: J. Barón. MN Consultors

A2 Action. Escrow agreements with private properties with alder groves.

The Life Alnus project includes signed or ongoing agreements with private owners on the Ter river for the conservation of alder groves and their biodiversity, for an extendible period of 10 years. These agreements must allow the project conservation actions to be performed, and include the owner's authorisation to carry out environmental studies of the property, perform restoration projects of the river banks compatible with other potential uses and monitor the agreement with the owner.



Photo: Colony of ardeids Ter. J. Bas

C1 Action. Increasing the legal protection of alder groves.

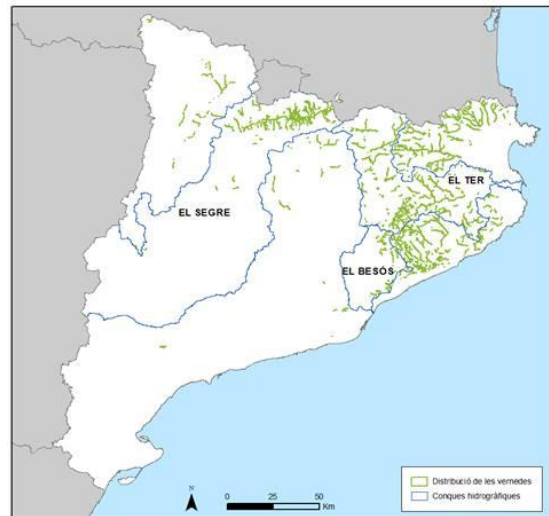
During spring, we have held meetings and work groups with the Confederación Hidrográfica del Ebro (CHE) [Ebro Hydrographic Confederation] and the Directorate General of Water of the Ministry of Agriculture, Fisheries and Food who, together with the Ministry of Territory and Sustainability of the Government of Catalonia, make up the work group of the hydraulic and environmental administrations for the legal improvement of alluvial forests. The aim of this work group is to improve habitat protection through the legal resources available, such as the Habitats Directive and the river reserves that emanate from the Water Law.



Photo: LIFE ALNUS

A3 Action. Alder grove restoration action plan

Statistical models that will allow decision-making for conservation actions to be optimised are being finalised. These models are based on an innovative multifactorial modelling methodology (systematic planning), led by Dr Virgilio Hermoso's team (CTFC). These models select the most optimal responses to previously posed questions, such as where is the eradication of invasive species, habitat defragmentation or the implementation of new alder groves more effective, for example. They are based on all the cartography and continuous data made and collected in action A1 by MN Consultors, with support from the project's other partners.



The systematic planning models are a preliminary step to write the alder grove conservation and restoration plans for the project's three basins: Segre, Ter and Besòs.

The image shows the distribution map of the alder groves in Catalonia made by Life Alnus; unpublished information has been the basis of the models.

Photo: MN Consultors

C3 Action. Habitat improvement in highly hydrologically-regulated river sections.

The Management plan for the river basin district of Catalonia stipulates that surface collection points located in some river sections must respect a maintenance flow (or ecological flow) regime. Life Alnus, through the Catalan Water Agency, a partner of the project, is working on reaching an agreement with the company Estabanell Energia to implement ecological flows in two hydroelectric power plants: Mariner (Sant Pau de Seguries) and Gallifa (les Masies de Voltregà). Life Alnus will make an ecological monitoring about the effects of this flow release on aquatic communities and river bank vegetation. We expect the flow release along the river to



improve the availability of water during the most critical periods of the year, which will allow for better vegetation conditions for alders and improve how the ecosystem functions.

Photo: Ter lock and Meeting with Estebanell Energia. J. Bas

D4 and F1 action. Expert committee meeting

On June 19, at CERM headquarters, in Manlleu, the second project meeting and the first coordination meeting with the project supervisor were held, and the project was presented to the Expert Advisory Council (CAE). The CAE's goal is to help the project to achieve its objectives with the maximum quality guarantees. The meeting was followed by an on-site visit of the #LifeAlnuscoordination committee and its Expert Advisory Council.



Foto: LIFE ALNUS

E1 Action. Project website.

The first version of the project website (www.lifealnus.eu) was published in May. It is a dynamic website which gives the project visibility, as well as showing the project's latest news and the progress of different actions included, and all the related information that is and will be generated during the 4 years LIFEALNUS will last.

The info@lifealnus.eu email address has also been created to respond to questions related to the project. The website is available in Catalan, Spanish and English.

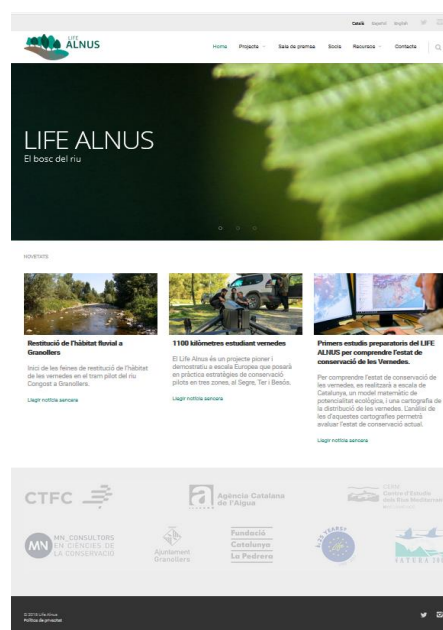


Photo: LIFE ALNUS website

D3 Action. Monitoring the environmental status and biodiversity.

The environmental monitoring of LIFE ALNUS has begun, and flora, vegetation, land and river habitat samples are being taken from different areas of the Congost river in Granollers, the Ter river in Ripollès and the Ter river in Osona. The monitoring objectives are, on the one hand, to compare the effects of the conservation and restoration actions on bioindicator organisms and the structure and functionality of the habitat. On the other hand, monitoring also helps us to improve our knowledge of habitat dynamics and the distribution of bioindicators in different states of conservation of alluvial forests and in different human scenarios: forest, agricultural and urban.

It is important to note that Mediterranean barbel, Catalan chub and eel have been found in the Congost river, which denotes the enviable state of health of its fish community, free from large barriers that hinder their movement.

Bird censuses demonstrate a high ornithological diversity in alluvial plains and islands, which keep a riverbank forest in good environmental condition.

Photo: Electric fishing in Ter and Congost rivers. CERM



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