LIFE BIORGEST 2018-2023

INNOVATIVE FOREST MANAGEMENT STRATEGIES TO ENHANCE BIODIVERSITY IN MEDITERRANEAN FORESTS. INCENTIVES & MANAGEMENT TOOLS

MAIN OBJECTIVE

To improve the biodiversity of the Mediterranean forests through the integration of innovative practices into forest management, making its environmental and socioeconomic values compatible and guaranteeing their adaptation to climate change.

WHERE DOES THE PROJECT OPERATE?

Location of demonstration stands "Can Calopa" (red) and the rest of the project stands (grey) within the Natura 2000 Network.

YOU ARE HERE
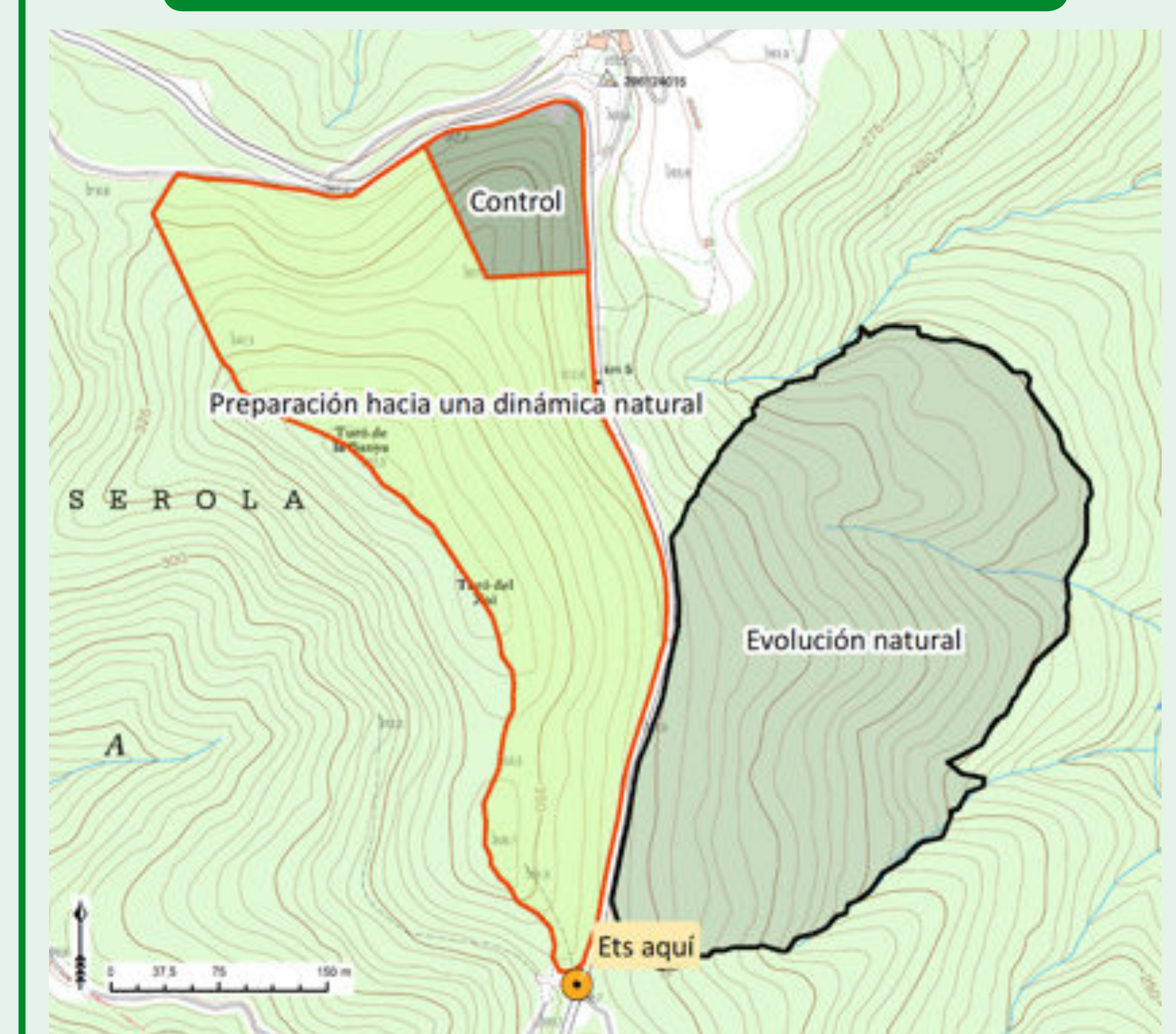
BRIEF DESCRIPTION OF THE STANDS

Management model	Forest type	Actions
Preparation to natural dynamics	Aleppo pine *(Pinus halepensis)* and holm oak *(Quercus ilex)* mixed stand	- Selective thinning with reservation of high valuable trees - Deadwood generation - Retention of key elements
Natural evolution	Aleppo pine *(Pinus halepensis)* and holm oak *(Quercus ilex)* mixed stand	- No interventions

These stands belong to a public estate with a management plan.

WHAT IS BEING DONE IN THIS AREA?

Preparation to natural dynamics (active approach)

Management is focused on restoring the maturity attributes of a forest. Through carefully planned actions, management is carried out to accelerate the development of mature forest structure (large trees, standing and fallen dead trees of large dimensions, openings in the forest canopy, several sizes and present species). This forest management provides the opportunity to mimic low-intensity natural disturbances, increasing tree growth and accelerating the emergence of elements associated with advanced stages of the forest. Active management can restore certain maturity characteristics more quickly than a passive approach (no interventions) to natural dynamics.

Natural evolution management (passive approach)

This management model involves letting nature take its course without any direct human intervention and waiting for natural dynamics, together with low-intensity spontaneous disturbances, to form the forest structure. Since there is no timber extraction, this type of management will eventually produce the appearance of a primary forest. However, it can take more than 100 years to achieve these characteristics under the climatic conditions of Mediterranean forests.

Although passive management means that there is no human intervention, the decision to stop acting must be made in an argument and applied in rolls with certain characteristics of mature forest that may serve as a reference for research and management.

POTENTIAL BIODIVERSITY DIAGNOSIS IN THE STAND

We use the Potential Biodiversity Index (IBP) to facilitate the application of forest management techniques that favour biodiversity conservation in the stand.

With IBP we diagnose the state of valuable elements for the biodiversity of a stand, with the evaluation of 10 factors that influence the capacity to host species (animal, plant and fungi), which are assigned a score from 0 to 5. Within the factors that make up the index, 7 can be modified by forest management, so that according to the score assigned to each of them, a specific action design is carried out to favour the elements that are scarce and to conserve the most abundant ones.

This graph shows the result of the diagnosis in this stand, with the weight of each factor. The final objective of the implemented treatments in the stand is to ensure that the managed stand has the greatest possible diversity of habitats, guaranteeing continuity in space and time.

Rocky habitats

Native species diversity

Vertical vegetation structure

Aquatic habitats

Large standing deadwood

Temporal continuity of the forest

Large aboveground deadwood

Open areas with flowers

Large living trees

Living trees with dendromicrohabitats

Dendrocopos major

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