



CAP-PHOENIX PROJECT, POST-FIRE RESTORATION OF THE FOREST MASSIF 2018 - 2021

IDENTITY CARD

GEOGRAPHICAL LOCATION

PACA region, Var department, Port-Cros National Park: Cap Lardier, Cap Taillat and Cap Camarat

ADAPTATION ISSUES TARGETED Forest fires

HABITAT(S) CONCERNED Forest

TYPES OF NBAS

- Ecosystem restoration
- Sustainable ecosystem management

PROJECT LEADER AND PARTNERS

Port-Cros National Park



FUNDERS AND BUDGET

- TotalEnergies Foundation (52%)
- Interreg Maritime (28%)
- Conservatoire du littoral coastal protection agency (10%)
- Port-Cros National Park (7%)
- PACA region (3%),

Total budget : 577 150€



PROJECT OBJECTIVES

- For adaptation to climate changes : understand and promote the resilience of natural habitats to fire risk, in the context of climate change and share knowledge and involve people in fire risk awareness.
- For biodiversity : Support the regeneration of degraded natural areas

CONTEXT AND ISSUES

The Cap Lardier site suffered a major wildfire from 24 to 27 July 2017, over more than 500 ha, causing the loss of an extensive Mediterranean forest heritage. Wildfires are a major threat not only to the local population, but also to local biodiversity. In this region of the Mediterranean coastline, climate change is already causing severe stress to Mediterranean vegetation and forest ecosystems, particularly due to increased periods of drought and summer heatwaves. These changes are potentially the cause of the dieback observed in certain deciduous trees, particularly oaks, and are likely to increase the frequency and severity of wildfires in the area.

Before © Lucia Guanaes

REGULATORY CONTEXT

- National park
- Coastal protection agency land

ACTIONS IMPLEMENTED

Actions to prevent the risk of fire have been implemented on the site of Cap Lardier to increase resistance to fire, while encouraging the regeneration of diverse post-fire populations, in particular :

- supporting the natural dynamics of the native species best adapted to the passage of fire (Holm Oak, Cork Oak and other deciduous trees of the maquis) over almost 300 ha, with monitoring of this recovery;
- the development of experimental plots in a 4-hectare area of windfall and completely burnt pinewood to support the transition to oak woodland (more resistant to fire), while reducing the encroachment of pioneer species (mainly conifers, in particular Aleppo Pine and Maritime Pine) and invasive pyrophyte alien species such as mimosa, prickly pear and Japanese honeysuckle, by mechanical clearing or sylvopasture grazing by donkeys, aadapting the grazing pressure according to the target species.

CALENDAR

2018	Completion of emergency works - Setting up habitat monitoring and survival diagnostics (reptile habitats) - « Eco-guards » initiative
2019	Definition of landscape guidelines and establishment of a landscape observatory - Development of an experimental plot to support the transition to oak woodland (soil preparation and seedlings) - Controlling invasive alien species (uprooting/work access scheme - Setting up habitat monitoring protocols (typology, mapping, multi- taxon monitoring, flora) - Workshops with local stakeholders - Information for local communities (panels, videos)
2020	Definition of landscape guidelines/establishment of a landscape observatory - Setting up of an experimental plot - Workshops with local stakeholders - Information for local communities (conferences) - Cap Lardier, a reference site for post-fire Natura2000 site managers (best practice files, webpage, French and EU technical workshops)
2021	Definition of landscape guidelines/establishment of a landscape observatory - Setting up of an experimental plot - Cap Lardier, a reference site for post-fire Natura2000 site managers (best practice files, webpage, French and EU technical workshops)

PROJECT SCHEDULE

GOVERNANCE ADOPTED

Propriétaire du site : Conservatoire du Littoral

Site owner: coastal protection agency

Scientific partners : National Mediterranean Botanical Conservancy of Porquerolles, CEN PACA, CEFE, Aix-Marseille University

Public partners : Municipality of Ramatuelle and La Croix Valmer, Municipality of the Golfe de St Tropez community, Syndicat mixte Porte des Maures, Région SUD, Department of Var, DDTM **Private forst partners :** Association de la Suberaie Varoise, Centre régional de la Propriété Forestière

Corporate sponsorship foundations : Fondation Total

No specific governance structure was set up for this project. The bodies and committees are those of the Port-Cros National Park, in particular its Scientific Council.



BENEFITS AND CONTRIBUTIONS OF THE PROJECT

BENEFITS REGARDING TARGETED ADAPTATION ISSUE

Fires : reduction in the intensity and scale of fires.



ENEFITS FOR BIODIVERSITY

Recolonisation by plant species was observed nine months after the fire. These measures enabled a number of additional plant species (Geranium columbinum, Ranunculus bulbosus, Plantago coronopus, Pinus pinea and Pinus pinaster) to become established. The opening up of the environment is favourable to certain animal species, in particular Hermann's Tortoise and the Ocellated Lizard.



OTHER BENEFITS

Soil erosion : limiting the risk of soil erosion from autumn rainfall in 28 ha of high-risk areas (exposed soils and steep slopes) by laying coconut fibre netting on the ground and creating networks of fascines (using burnt wood from raw materials available on the site) to trap fine sediments and seeds and encourage the recolonisation of plant species.

MONITORING INDICATORS

Adaptation to climate changes

No monitoring as yet on the effect on fire reduction. First results will be visible in 10 years.

Biodiversity

Dendrometry monitoring : setting up 200 permanent sample plots to monitor the dendrometry of the stands, in order to assess the state of the forest stands still in place, regrowth and the accumulation of the various deadwood zones.

Flora monitoring : carrying out an impact study of the various management methods implemented, to monitor enabling the recovery of vegetation in the burnt areas.

Fauna monitoring : multi-taxon monitoring protocols for sample plots, enabling comparison of habitats (reptile populations, invertebrates and vascular flora) before/after the forest fire.



LEVERS FOR SUCCESS

- Scientific and technical expertise : the project brings together a wide range of stakeholders (university, laboratory and research institute) and many disciplines (herpetology, entomology, botany, forestry, etc.).
- Citizen involvement : the participation of local residents in the restoration work, either through financial donations or by taking part in the work on a voluntary basis, has been a driving force behind the project's success.

RECOMMENDATIONS

- The methodology used in this project could be considered for other sites that have been damaged by wildfires.
- **Technical workshops** for French and European Union natural area managers are planned, as well as the publication of decision-support fact files based on the experiments carried out on the various pilot sites.

ANALYSIS ACCORDING TO THE IUCN'S GLOBAL STANDARD FOR NATURE-BASED SOLUTIONS



FOR FURTHER INFORMATION

Press releases on the project's progress were disseminated to local residents and visitors.

PROJECT LEADER

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