



## LIFE LANDSCAPE FIRE - LIFE LANDSCAPE FIRE PROJECT - New methodologies for forest fire prevention

LIFE18 ENV/PT/000361



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### Project description:

#### Background

Major fires are a permanent reality in southern Europe. The problem in Iberia stems from depopulation of rural areas, homogenisation of the landscape and the emergence of highly fire-prone forests. This has led to bigger and more intense fires, and enabled the growth of invasive species. Portugal and Spain saw their worst ever year for forest fires in 2017, with respectively around 500 000 ha and 178 000 ha affected. The fires marked both an environmental and social tragedy, with a devastating loss of lives and forest.

#### Objectives

LIFE LANDSCAPE FIREs main objective is to develop an effective procedure for fire prevention in Viseu Do Lafes (Portugal) and in Sierra de Gata, Las Hurdes and Sierra de San Pedro (Spain). It will carry out a series of pilot actions, based on a methodology successfully implemented elsewhere (in Andalusia and Catalonia). This methodology combines prescribed fires and grazing techniques to reduce forest fuel, converting fire-prone forests into more resilient areas.

The project will contribute to a range of EU policy and legislation, including: the forest strategy; roadmap to a resource efficient Europe; circular economy action plan; thematic strategy for soil protection; biodiversity strategy; and the Habitats and Birds directives.

## Results

### Expected results:

- improved soil surface on 7 000 ha;
- reduction in greenhouse gas emissions (almost 20 million tonnes/year of carbon dioxide and around 55 000 tonnes/year of methane);
- 7 000 ha of land progressing towards improvement, restored or having favourable conservation status;
- improved or secured status for threatened species, including: up to 50 plant species (300-350 spp.), 10 bee species (40-50 spp.), 20 spider species (100-120 spp.) and four earthworm species (12-16 spp.);
- around 900 ha of grazed fire-breaks, reducing bare ground by 60%, leading to less soil erosion and compaction as well as a significant increase in soil organic carbon; and
- reduction of 120/ha in the maintenance costs for fire-breaks.

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### Environmental issues addressed:

#### Target EU Legislation

- Nature protection and Biodiversity
- COM(2011) 244 final “Our life insurance, our natural capital: an EU biodiversity strategy to 2020 ...
- Directive 79/409 - Conservation of wild birds (02.04.1979)
- Directive 92/43 - Conservation of natural habitats and of wild fauna and flora- Habitats Directiv ...
- Land & Soil
- COM(2013)659 - A new EU Forest Strategy: for forests and the forest-based sector (20.09.2013)
- COM(2006)231 - “Thematic Strategy for Soil Protection” (22.09.2006)
- Climate Change & Energy efficiency
- COM(2011)112 - "A Roadmap for moving to a competitive low carbon economy in 2050" (08.03.2011)
- Waste
- COM(2015)614 - "Closing the loop - An EU action plan for the Circular Economy" (02.12.2015)

#### Natura 2000 sites

Not applicable

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## Beneficiaries:

Coordinator	Comunidade Intermunicipal Viseu Dão Lafões
Partners	UEX(Universidad de Extremadura), Spain MSSP(Mancomunidad Integral Sierra de San Pedro), Spain IPV(Instituto Politécnico de Viseu), Portugal JUNTAEX(DIRECCIÓN GENERAL DE MEDIO AMBIENTE; CONSEJERÍA DE MEDIO AMBIENTE Y RURAL, POLITICAS AGRARIAS Y TERRITORIO; JUNTA DE EXTREMADURA), Spain

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## Administrative data:

Project reference	LIFE18 ENV/PT/000361
Duration	01-JUL-2019 to 30-JUN -2022
Total budget	2,463,468.00 €
EU contribution	1,307,328.00 €
Project location	

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LIFE BEETLES - LIFE BEETLES – Bringing  
Environmental and Ecological Threats Lower  
To Endangered Species

LIFE18 NAT/PT/000864



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#### Project description:

##### Background

Three species of beetle endemic to the Azores, *Tarphius floresensis*, *Pseudanchomenus aptinoides* and *Trechus terrabravensis*, are not protected under the Habitats Directive but were all classed in 2017 as critically endangered on the IUCN Red List. The beetles face similar issues, all being very dependent on good quality habitat, especially native ferns and bryophytes in native woods and shrub lands. This is threatened by reduction and fragmentation of the habitat (due to land cover change, especially to production forests containing *Cryptomeria* and *eucalyptus* sp.), lower quality habitat due to invasive alien species (IAS), and the loss of adequate micro-climatic conditions induced by climate change (i.e. increased droughts).

##### Objectives

The LIFE BEETLES projects main long-term aim is to improve the population size, distribution area and conservation status of wild populations of *T. floresensis*, *P. aptinoides* and *T. terrabravensis*. Its work will focus on increasing the quantity and quality of habitat available for the target species, to try and reverse their population declines.

The project will contribute to implementation of the EU biodiversity strategy, Regulation (EU) No 1143/2014 on invasive alien species and the Habitats Directive, since most of the conservation areas where it will intervene are within Natura 2000 sites. Through measures to increase soil cover and implement

nature-based solutions for avoiding runoff and erosion, the project will also help implement integrated sustainable soil management practices, in line with the Voluntary Guidelines for Soil Sustainable Management, developed within the framework of the Global Soil Partnership.

## Results

### Expected results:

- improved quality and quantity of habitat for wild populations of the three target species;
- better habitat connectivity for one target species, using stepping stones within corridors;
- creation of green infrastructure corridors for one target species on urban/agricultural land;
- best methods identified for converting eucalyptus stands into native Macaronesian habitats;
- identification and increased use of nature-based solutions to foster conservation;
- improved protocols for using native flora species in habitat restoration;
- better control/eradication protocols for IAS flora listed as part of Macaronesias 100 top invaders, especially ginger lily (*Hedychium gardnerianum*) and bigleaf hydrangea (*Hydrangea macrophylla*);
- eradication of existing mature individuals of *H. gardnerianum* and *H. macrophylla* from project conservation areas;
- capability to rapidly detect and control/suppress 100% of new invasions by IAS occurring within the project intervention areas and buffer zones, in close link with the work of LIFE IP AZORES NATURA;
- at least 360 volunteers engaged with conservation work directed at Azorean invertebrates;
- 50% improvement in native fern soil coverage on parcels where volunteer work is undertaken;
- awareness-raising among all local students aged 8-12, to change negative perceptions about beetles through environmental education and use of a beetle game;
- a transfer and replication strategy, with at least one replication of the projects work starting within its lifetime, covering Pico island and another threatened beetle; and
- engagement of at least five private and one public landowner from nearby areas in capacity building and training, aimed at further use of the projects techniques and methods.

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Environmental issues addressed:

Target EU Legislation

- Nature protection and Biodiversity
- Regulation 1143/2014 - Prevention and management of the introduction and spread of invasive alien ...
- COM(2011) 244 final “Our life insurance, our natural capital: an EU biodiversity strategy to 2020 ...
- Directive 92/43 - Conservation of natural habitats and of wild fauna and flora- Habitats Directiv ...

#### Natura 2000 sites

SPA PTZPE0027	Zona Central do Pico - Ilha do Pico
SCI PTFLO0002	Zona Central - Morro Alto - Ilha das Flores
SCI PTPIC0009	Montanha do Pico, Prainha e Caveiro - Ilha do Pico
SCI PTTER0017	Serra Santa Bárbara e Pico Alto - Ilha da Terceira

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#### Beneficiaries:

Coordinator	Direco Regional do Ambiente
Partners	AZORINA(Sociedade de Gestão Ambiental e Conservação da Natureza, AZORINA, S.A.), Portugal

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#### Administrative data:

Project reference	LIFE18 NAT/PT/000864
Duration	01-JAN-2020 to 31-DEC -2024
Total budget	1,772,632.00 €
EU contribution	974,948.00 €
Project location	

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LIFE Ilhas Barreira - Conserving the Barrier Islands in Algarve to protect priority species and habitats

LIFE18 NAT/PT/000927



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#### Project description:

##### Background

In 2008, the Portuguese inventory of marine Important Bird Areas (IBAs), published by SPEA, identified one such area at Ria Formosa. However, the baseline information proved to be insufficient and the IBA never became legally binding. Between 2012 and 2015 Portugal made an important step towards implementing the Natura 2000 network in the marine environment by establishing new marine Special Protection Areas (SPAs), but this process was not aimed at conserving Audouin's gull (*Larus audouinii*). At the time, the breeding information and distribution data for this species in Portugal was considered insufficient. Since then, further work has been carried out and new insights clearly indicate there is now a stable meta-population breeding on the uninhabited Barreta Island, within the Ria Formosa barrier island system. Climate change and the related sea-level rise threaten barrier islands which, as holders of unique ecosystems, need urgent attention. These islands are also threatened by human-related pressures.

##### Objectives

LIFE Ilhas Barreira aims to characterise the local ecological requirements and conservation threats of the target species and habitat types, in order to implement effective conservation actions. The project will represent an important step towards current and future sustainable management of the SPA.

It will also help implement a range of EU legislation and policy, such as the biodiversity strategy, Regulation (EU) No 1143/2014 on invasive alien species, and the action plan for reducing incidental catches of seabirds in fishing gear. On top of that, it will contribute to climate change mitigation and adaptation. Barrier islands are exposed to many threats and hazards, such as storm induced erosion and sea level rise. The protection and restoration of grey dunes on the islands will help enhance the systems natural dynamics and conserve this fragile ecosystem.

The projects specific objectives are to:

- understand the main threats to the target species and habitats, both on land and at sea;
- recover the grey dunes habitat and assess the effect of gullson this habitat;
- promote the sustainable use of the Ria Formosa barrier islands and marine area, focusing on fisheries and tourism;
- evaluate the effects of climate change and other drivers of change on the eco-morphology of the barrier islands system;
- understand the breeding ecology, foraging behaviour and spatial distribution of *L. audouinii* and the little tern (*Sternula Albifrons*);
- evaluate and mitigate bycatch impacts on seabirds and assess the future effect of the EUs discard ban on the *L. audouinii* local population, engaging the local fishing community;
- evaluate possible competitive interactions and predation by the yellow-legged gull (*Larus michahellis*) towards the target species;
- protect breeding areas for *L. audouinii* and *S. albifrons* (by restricting tourist access, controlling predators, increasing surveillance and implementing environmental awareness campaigns); and
- review the marine IBA limits and update the marine area of the SPA.

## Results

Expected results:

- native plants mapped and monitored on Barreta Island, including impacts of alien plant species;
- distribution of the three most aggressive invasive plant species in the barrier islands assessed and eradication methods tested;
- 100% control of invasive alien plants on Barreta Island and over 600 m<sup>2</sup> on Culatra Island;
- at least 75% of grey dunes habitat managed;
- assessment of *L. michahellis* population status and trend, impacts on other seabirds and grey dunes habitat, and identification of measures to minimize impacts;
- *L. audouinii*, *S. albifrons* and *L. michahellis* seabird populations assessed on land and at sea (i.e. their breeding populations, spatial distribution, foraging areas, fisheries interactions, inter-specific interactions and predation);
- individual tracking, metal ringing and colour ringing of target species. At least 40 *L. audouinii* and 30 *S. albifrons* tracked each year. A total of 2 000 birds ringed;
- alien mammal predator control and test of best biosecurity measures from year two of the project;



- 20% increase in the success of seabird recovery at the Ria Formosa wildlife recovery and research centre;
- *L. audouinii* and *S. albifrons* breeding success increased by 30%;
- monitoring of at least 20% of the fishing fleet operating within the marine IBA to assess bycatch levels and characterise seabirds interactions (focusing on *L. audouinii* and the Balearic shearwater);
- seabird bycatch rate reduced by at least 80% on boats using mitigation measures;
- best-practice guidelines for fishermen, tourists and residents;
- improved network of walkways;
- local environmental awareness actions reaching over 21 000 people; and
- involvement of all schools in Ria Formosa municipalities in an environmental education plan targeting 20 000 students.

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Environmental issues addressed:

Target EU Legislation

- Nature protection and Biodiversity
- Regulation 1143/2014 - Prevention and management of the introduction and spread of invasive alien ...
- COM(2011) 244 final “Our life insurance, our natural capital: an EU biodiversity strategy to 2020 ...

Natura 2000 sites

Not applicable

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Beneficiaries:

Coordinator	Sociedade Portuguesa para o Estudo das Aves
Partners	ALDEIA(Associação Acção, Liberdade, Desenvolvimento, Educação, Investigação, Ambiente), Portugal UALG(Universidade do Algarve), Portugal ICNF(Instituto da Conservação da Natureza e das Florestas, I. P.), Portugal Animaris(Animaris Animação Turística Unipessoal LDA), Portugal UC(Universidade de Coimbra), Portugal

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Administrative data:

Project reference	LIFE18 NAT/PT/000927
Duration	01-SEP-2019 to 31-DEC -2023
Total budget	2,278,736.00 €
EU contribution	1,681,939.00 €
Project location	

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LIFE LUNGS - Towards a more resilient Lisbon  
Urban Green InfraStructure as an adaptation  
to climate change

LIFE18 CCA/PT/001170



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#### Project description:

##### Background

Lisbon, the biggest city in Portugal, faces growing threats linked to climate change because of its geographical location and climate. Annual average rainfall is decreasing, although the city experiences more winter rainfall. This means longer droughts and more seasonal floods, reducing soil water uptake and soil conservation. Meanwhile average temperatures are increasing by 14C per year, with up to 5C higher maximum temperatures. Climate change will therefore have a negative impact on Lisbon citizens life quality and health and its urban green areas.

##### Objectives

LIFE LUNGS main objective is to implement the municipal climate adaptation strategy (EMAAC) by making use of urban green infrastructure as a tool for climate change adaptation. It will also promote and develop related ecosystem services. Its overall aim is to increase Lisbons resilience and resistance to climate change. It will target water use by developing zero rainwater waste urban green infrastructure and increasing flood resistance, while maintaining a quality, resilient ecological base. By developing more green spaces, it will also tackle rising temperatures caused by urban heat islands.

##### Results

#### Expected results:

- better use of rainwater by trialling zero rainwater waste areas and implementing rain-fed ecosystems in an area of over 100 ha;
- over 100 ha of shaded areas thanks to tree planting, with improved microclimate conditions within the urban, green areas of vora;
- improved flood resilience in over 100 ha of the urban green infrastructure areas;
- around 115 ha to benefit from increased resilience against soil erosion by using natural-based solutions;
- around 740 tonnes of CO2 sequestered;
- replication of the project once at EU level during the project lifetime, and three times afterwards two cases in Portugal and one at EU level;
- reproduction of project activities in five private green areas in Lisbon;
- share technical knowhow with around 20 municipalities in the Lisbon metropolitan area and with five other Portuguese municipalities which are working on climate adaptation; and
- encourage more local urban farmers to use more water-efficient and climate-adapted irrigation.

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#### Environmental issues addressed:

##### Target EU Legislation

- Climate Change & Energy efficiency
- COM(2013)216 - EU Strategy on adaptation to climate change (16.04.2013)

##### Natura 2000 sites

Not applicable

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#### Beneficiaries:

Coordinator	Município de Lisboa
Partners	AM(Ayuntamiento de Málaga), Spain

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#### Administrative data:

Project reference	LIFE18 CCA/PT/001170
Duration	16-SEP-2019 to 31-AUG -2024
Total budget	2,739,725.00 €
EU contribution	1,506,384.00 €
Project location	

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