

Iberian Lynx Project Record¹

¹ Including projects on prey base and habitat which do not focus specifically on *Lynx pardinus* but do benefit it.

Basic Project Information:

Project Name:	Conservation of the Iberian lynx in Portugal				
Abbreviation:	CILP				
Project Institution:	Instituto da Conservação da Natureza (ICN)				
Project Leader:	Pedro Sarmento				
Project Website:	www.icn.pt				
Start Date (year/month):	2002/01	End Date (year/month):	/		
Expected Duration:					
Current Status:	<input type="checkbox"/> proposed	<input checked="" type="checkbox"/> active	<input type="checkbox"/> closed	<input type="checkbox"/> unknown	
Notes:					

Focus Level Countries:

Spain Portugal
Project Region: National level

Focus Level Taxa:

	Key focus	substantial	significant	small	unassessed
<i>L. pardinus</i> :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>O. cuniculus</i> :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other species:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

in situ / ex situ

Project Goals and Methods:

Abstract:

The Portuguese Iberian lynx project is focused in several work areas that include:

- 1- Status survey of the species in country;**
- 2- In-situ conservation actions based on habitat restoration (particularly in Malcata and Guadiana valley) and rabbit populations recovery;**
- 3- Application of strategic pre-reintroduction activities in the geographic areas pointed above.**

Conservation Action Plan

Being aware of the considerable critical status of Iberian lynx in Portugal, the ICN developed a Conservation Action Plan for the Iberian lynx in order to provide a consistent and effective approach to conserve the species in Portuguese territory.

This proposal describes guidance that retains future options, provides management consistent, and offers necessary flexibility, in order to achieve the maximum goal of conserving the lynx in Portugal. Conservation measures have the goal of provide guiding lines for conservations agents in order to conduct actions that can positively affect lynx and/or to help avoid negative impacts through thoughtful planning of activities.

The proposal of Action Plan will be applied in all the areas located in the lynx historical distribution geographic area, that present suitable characteristics for the species presence or landscape features that can be optimise for lynx survival and that can be relevant for the species life-cycle, independently of their protection status. The goal of this plan is to apply pre-release strategic reintroduction activities to make possible, in a long-term, the reintroduction of Iberian lynx, in order to assure the viability of the species, as a fundamental element of Mediterranean ecosystems. For achieving this goal it will be necessary to establish a suitable connection between ex-situ and in-situ actions.

On-going conservation efforts

Conservation efforts are focused in areas that can be future selected for lynx reintroduction particularly Malcata Nature Reserve and Guadiana valley.

Malcata Life Project

In the Malcata area a LIFE project named “Recovering of habitat and prey for the Iberian lynx in Serra da Malcata” was conducted from 1999-2003, with the main goal of applying an integrated Iberian lynx ecosystem recovery process in order to achieve the following objectives.

1. Manage the lynx ecosystem in order to optimise its suitability for the species;
2. Increase wild-rabbit density;
3. Control human persecution;
4. Contribute towards the increase of public awareness towards the species' conservation;
5. Augment scientific knowledge on the lynx, preys and other elements of the Mediterranean ecosystem.

Carried out actions:

1. Increasing natural regeneration of native tree species
2. Increasing the density of native tree species
3. Plantation of fruit trees
4. Construction of artificial rabbit warrens
5. Construction of a captive breeding centre for rabbits
6. Recovery of olive groves
7. Recovery of chestnut tree plantations
8. Prescription burning in pastures
9. Creation of pastures
10. Management of shrubs through prescribed fire
11. Poaching and forest fires patrolling
12. Rabbit vaccination campaigns
13. Rabbit restocking operations
14. Analysis of the incidence of rabbit epizootic diseases
15. Educational actions
16. Exchange of information with Spanish teams
17. Study of ecological parameters of the Iberian lynx and the Carnivore community
18. Study of ecological parameters of wild-rabbits

In terms of biological criteria, the project achieved a proper success in several areas. In managed areas, rabbit density recovery from 2.53 rabbits per hectare to 5.13 rabbits per hectare. Other variables such as lynx carrying capacity and percentage of suitable habitat also had a positive evolution.

Malcata POA project

The conservation actions applied during the LIFE project are being continued by a POA project named “Management of priority habitats and species in Serra da Malcata”, during this project, which started in 2003, the following actions were applied:

1. Construction of 10 rabbit restocking pens;
2. Implantation of 100 hectares of pastures and 100 artificial warrens;
3. Conduction of six rabbit restocking operations, with the release of approximately 500 rabbits;
4. Implementation of Experimental Reintroduction Centre for Iberian lynx.

Iberian lynx Genomic Resource Bank

An Iberian lynx Genomic Resource Bank was created in Cibio (Research Centre on Biodiversity and Genomic Resources – Porto University). This bank will contribute to promote research on lynx genetics and reproductive physiology and will be integrated in the organizational structure of the captive breeding programme.

Guadiana valley rabbit recovery programme

In the Guadiana valley an intensive programme of rabbit recovery is being applied since 2002. Using six rabbit breeding centres, several restocking operations are being conducted in areas previously selected as lynx priority reintroduction areas. This area has also been submitted to a regular monitoring of rabbit populations.

Project Goals: To contribute, in a long-term, for the restoration of the Portuguese Iberian lynx historical nuclei.

Project Methods: Population survey by scat DNA analyses and camera trapping. Rabbit recovery by habitat improvement and restocking. Habitat recovery by promoting mediterranean scrubland areas and by creating a mosaic landscape.

Additional Information:

Activities:

Focus Level ► Activity ▼	Key Focus	substantial	significant	small	unassessed
<u>Habitat-related implementation:</u>					
<input checked="" type="checkbox"/> Protected Area management support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Land-use changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Habitat or prey base restoration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Transboundary initiatives	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>People-related: Law enforcement:</u>					
<input type="checkbox"/> Law enforcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>People-related: Opinion-formers:</u>					
<input checked="" type="checkbox"/> Networking and information sharing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Planning and policy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Advocacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>People-related: Living near the species:</u>					
<input type="checkbox"/> Personal involvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Economic incentives/alternative resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Resolving human/carnivore conflict	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>People-related: General public:</u>					
<input checked="" type="checkbox"/> Education	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Awareness and PR	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Taxon-related implementation:</u>					
<input checked="" type="checkbox"/> Gene pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Re-introduction or supplementation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Translocation/rehabilitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Disease control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Species utilization/management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ecological research:

- | | | | | | |
|---|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> Cat population surveys or monitoring | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Habitat/prey assessment or monitoring | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Spatial/temporal patterns | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Predator/prey relationship | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Population dynamics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Behavioural ecology | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Human activities research:

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> Human attitudes research | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

Taxon-related research:

- | | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> Veterinary research | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Evolutionary research | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Genetics research | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Supplement to Research activities: Research techniques:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Camera-traps | <input type="checkbox"/> Direct observation |
| <input checked="" type="checkbox"/> GIS-mapping/modelling | <input checked="" type="checkbox"/> Molecular analysis |
| <input type="checkbox"/> Population modelling | <input type="checkbox"/> Questionnaires/interviews |
| <input type="checkbox"/> Radio-telemetry | <input checked="" type="checkbox"/> Tracking/sign surveys |

Agency Involvement (Funding):

Agency	Year	Grantee	Amount	Notes
ICN	2004		511 427 euros	

Contacts:

Organisation	Name, Surname	Email	Phone	Fax
ICN/RNSM	Pedro Sarmento	rnsn.sarmentopicn.pt	0035 1 277394467	0035 1 277394580
ICN/RNSM	Joana Cruz	joana.cruzasapo.pt	0035 1 27739446	0035 1 277394580
ICN	Rodrigo Serra			
ICN/PNVG	Pedro Monterroso			

Additional comments/notes: