

Reducing the loss of wolf gene pool in Province of Grosseto, Italy: action plan for the after LIFE IBRIWOLF project period

Riduzione della perdita del patrimonio genetico del lupo in provincia di Grosseto: piano d'azione successivo al progetto LIFE IBRIWOLF



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May 2015

PROJECT LIFE10NAT/IT/265 "PILOT ACTIONS FOR THE REDUCTION OF WOLF GENE POOL LOSS IN CENTRAL ITALY" - IBRIWOLF



SAPIENZA
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After-LIFE Conservation Plan

At the end of their projects, all LIFE Nature beneficiaries are obliged to produce an After-LIFE Conservation Plan. The plan sets out how conservation activities are planned to continue and to develop after the end of the project, and how the longer-term management of the project targeted species will be assured. It should give details regarding what actions will be carried out, when, by whom, and using what sources of finance. This document reports on the activities planned for granting the continuation of activities undertaken by the LIFE IBRIWOLF project, and was produced in 2015.

The LIFE programme

The LIFE programme is the EU's funding instrument for the environment, particularly devoted for the implementation of the Habitats Directive. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with European added value.

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Abbreviations

ASL – Azienda Sanitaria Locale

ATC – Ambito Territoriale di Caccia

CFS – Corpo Forestale dello Stato

CIRSeMAF – Centro Interuniversitario di Ricerca sulla Selvaggina e sui Miglioramenti
Ambientali a fini Faunistici

CRASM – Centro Recupero Animali Selvatici della Maremma

ISPRA – Istituto Superiore per la Protezione e la Ricerca Ambientale

MATTM – Ministero dell'Ambiente e della Tutela del Territorio e del Mare

SWOT – Strengths, Weaknesses, Opportunities, Threats

WWF – World Wide Fund for Nature

The IBRIWOLF Project

The LIFE IBRIWOLF project, co-funded by the European Union under the LIFE programme, started in October 2011 and ended in February 2015. The main goal of the project was to address a subtle, little documented, and under-considered threat to wolf conservation: the cross breeding with dogs that causes genetic deterioration of wild wolves (*Canis lupus*).

The project was led by the Province of Grosseto, in collaboration with the Sapienza University of Rome Dept of Biology and Biotechnology “Charles Darwin”, the WWF Italy, the Maremma Regional Park Administration and the Union of Villages of Amiata Mountain through a series of actions targeting both the source and the effect of the threat tackled.

Wolves have expanded into rural areas in Grosseto province in the last decades and the landscape, dominated by rural economic activities such as tourism and local food and wine products, has experienced the ever often presence of hybrids resulting from wolf x dog crossings.

The possibility of wolves to reproduce with dogs and consequently loose its gene pool, potentially modifying its behaviour that has evolved in millennia, was analysed and effectively contrasted through removal of hybrids from known packs, removal of free-ranging dogs and intensive communication activities. Although the project has opened a door into the multi-faceted issue of wolf conservation and management, a great amount of work has still to be done, also in consideration of the innovative approach that the project has experimented for dealing with such a complex threat.

Project Factsheet

Title: “Azioni pilota per la riduzione della perdita del patrimonio genetico del lupo in Italia centrale”

Acronym: IBRIWOLF

Duration: 30/9/2011 – 28/2/2015

Project Area: Province of Grosseto, Italy

Coordinating beneficiary: Province of Grosseto

Associated beneficiaries: Sapienza University of Rome, WWF Italy, Maremma Regional Park, Union of Amiata Mountain Towns.

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Project budget: 2.296.569€ (EU co-financing: 1.700.906€)

Project website: www.ibriwolf.it

Analysis of the situation after the LIFE IBRIWOLF project

During the project activities, the initial conditions were changed mostly in what concerns the awareness of the theme. The effective number of hybrids in the project area may not have been reduced significantly because of the intrinsic characteristic of the target species (i.e., high mobility and open population with individuals moving from outside the provincial territory). Nevertheless, the project has represented an outstanding example of practical application of measures for the mitigation of a real threat to wolf conservation.

The project objectives set were achieved through a series of actions, implemented with some modifications from the original plan, but according to the real situation. In particular, the set objectives were (as included in form B1 of the project proposal):

Objective	Situation after project end
1. identify and remove all the hybrids from two pilot areas in Tuscany, where they have been recorded;	All captured hybrids were removed from the provincial territory as one of the pilot area turned out not to be any longer inhabited by wolves or hybrids
2. decrease the presence of free-ranging dogs through their removal whenever possible and the sterilisation of all individuals captured;	A total of 23 free ranging dogs were captures and either given back to their owners or kept in appropriate kennels after sterilisation
3. increase the awareness about the threat posed by hybrids to wolves and to wildlife in general among the general public;	In the province the knowledge about the presence and impact of hybrids is higher than in other parts of Italy
4. establish a network of interest groups that would contribute to the development of best solutions for tackling the problem of hybridization in the long run;	A plan for controlling free ranging dogs was developed through a participatory approach among all stakeholders
5. develop and maintain a consistent database for recording all events of hybrids presence that would serve for management activities;	A database for recording all events of hybridisation and wolf presence as well as predator damages to livestock holdings was developed
6. develop guidelines for the management of wolf-dog hybrids after wider consultation with interest groups;	A set of guidelines were produced and approved by the Regional administration, used for a newly funded Regional project
7. develop areas where hybrids can be kept in captivity and visited for public awareness purposes;	Two high standard enclosures were built inside the premises of the specialised centre for wildlife recovery (CRASM)
8. establish a network of public administrations where the hybrids have been recorded to be present in order to stimulate the replication of successful experiences and the improvement of experimental activities implemented through the present project .	Memorandum of Understanding were signed with the Regional Administration, project LIFE WolfAlps, project LIFE MIRCO-lupo.

Below is a SWOT analysis of the current situation, after four years of project activities, that guided a thorough assessment of the current situation in order to develop realistic goals for the near future. The analysis allows the identification of internal and external factors that are favourable or unfavourable to achieve a given goal.

Considered the overall goal of the LIFE IBRIWOLF project being the mitigation of the impact of cross breeding between wolves and dogs on the genetic identity of wolves, the same goal should be aimed at in the future, and the project has brought it to the attention of the relevant National Authorities.

The SWOT has been undertaken a provincial level, which is the geographical limit of the LIFE IBRIWOLF impact. The threat posed by hybridization with dogs is not mitigated, although locally noteworthy results have been achieved in Province of Grosseto.

Internal Factors	
Strengths	Weaknesses
<ul style="list-style-type: none"> - the minimum number of hybrids present in the province is now known - the impact of hybrids on wolf is recognised - the number of free ranging dogs in the provincial territory has decreased - the habit of leaving dogs free ranging has been mostly abandoned - a standard procedure for hybrids identification exists as a reference at national level - collaboration with ASL and hunters is ongoing for the control of unregistered free ranging dogs in the area 	<ul style="list-style-type: none"> - the number of hybrids is impossible to control at local level given the population is open and bordering packs with areas where no control is undertaken - a systematic survey for estimating the total number of hybrids is lacking and expensive - insufficient resources for intensive captures and maintenance of dogs in appropriate kennels - genetic analyses may give different results if performed by different labs
External Factors	
Opportunities	Threats
<ul style="list-style-type: none"> - livestock owners are willing to support further control activities - better dialogue and understanding among different interest groups - awareness on the topic of hybridisation is high and interest groups press for removal of predators - Wolf Conservation National Action Plan currently under revision will include a chapter on wolf/dog hybrids largely inspired at the IBRIWOLF guidelines - Regional government highly sensible towards the topic - LIFE MIRCO-lupo project just started will continue increasing the awareness and keeping the attention on the topic 	<ul style="list-style-type: none"> - High cost of the action and limited funds available may discourage investments - Lack of adequate funds for coordinating implementation of plan for reducing free ranging dogs at large scales - current law on animal welfare does not require birth control for pet dogs, including working dogs - Lack of strict control on free ranging dogs - Discontinued effort on monitoring hybrids presence - High costs of genetic analyses

Future objectives

Main Goal:

The future goal at broader scale is that the mitigation of threats posed by hybridization of dogs and wolves will be considered and tackled at national level, replicating and improving the experiences undertaken throughout the LIFE IBRIWOLF project.

Specific objective:

Continue the control of hybrids and neutralise the source effect of free ranging dogs in the regional area of Tuscany.

This will be pursued through the following actions:

1. continue removal of hybrids
2. continue captures of free ranging dogs
3. continue control of dogs
4. mainstraming hybridization issues into wolf conservation
5. export experiences in neighbouring regions

1. Continue removal of hybrids

The Regional Government of Tuscany has started a project that represents the continuation of activities undertaken within the LIFE IBRIWOLF project. Since March 2015 has funded a project called “Wolf monitoring and protection of wolf gene pool integrity in Tuscany through removal of wolf/dog hybrids from the natural environment”. The project, undertaken by CIRSeMAF, makes explicit reference to the procedures tested throughout the project and adopts the guidelines produced within action C5. In particular it plans to (Annex A):

a) collect information about presence of wolf stable packs through wolf howling, snow tracking and camera trapping, and estimate the presence of hybrids through use of camera traps and genetic analyses of non invasive samples;

b) capture and removal of hybrids from the natural environment. They will be kept in captivity in adequate infrastructures.

Furthermore, the hybrids already captured during the LIFE Ibrewolf project will be kept in captivity within the CRASM premises, using the infrastructures built on purpose. For this an agreement was signed between CRASM and the Province administration.

Planning

Action	Responsible	Funding	Timing
Wolf survey	CIRSeMAF	Tuscany Region	2015, 2016, 2017
Hybrids survey	CIRSeMAF	Tuscany Region, included in the funds above	2015, 2016, 2017
Hybrids Captures	CIRSeMAF	Tuscany Region	2015, 2016, 2017
Genetic Analyses	ISPRA	Tuscany Region, included	2015, 2016, 2017

		in the funds above	
Hybrids captivation	CFS	Tuscany Region, included in the funds above	2015, 2016, 2017
Present Hybrids care	CRASM	Province of Grosseto	2015, 2016, 2017

2. Captures of free ranging dogs

At the same time, the Regional Government has granted the continuation of free ranging dogs capturing through the funding of a project for the implementation of the integrated plan for the reduction of free ranging dogs, produced within action A6 of LIFE IBRIWOLF project. The initiative, called “Actions for wolf conservation and reduction of wolf depredations, including the mitigation of wolf/dog hybridisation due to the presence of free ranging dogs”, involves actions directly coordinated and implemented by the National Health Service ASL9 Grosseto, will be implemented in the provinces of Arezzo, Siena and Grosseto, and includes (Annex B):

- a) Capture of free ranging dogs from urban, rural and natural environment;
- b) Sterilization of privately owned dogs living in rural environment (subject to vagrancy);
- c) Promotion of canine registry;
- d) Control of food sources and eventual presence of registry number in free ranging dogs;
- e) Promotion of responsible ownership.

Planning

Action	Responsible	Funding	Timing
Trap location	ASL	Tuscany Region	2015, 2016, 2017
Capture and chip scanning	ASL	Tuscany Region, included in the funds above	2015, 2016, 2017
Release / Captivity	ASL / Relevant authorities	Tuscany Region, included in the funds above	2015, 2016, 2017
Information campaign	ASL / Province of Grosseto	Tuscany Region, included in the funds above	2015, 2016, 2017
Census of potential food sources	ASL	Tuscany Region, included in the funds above	2015, 2016, 2017
Dog registration	ASL	Tuscany Region, included in the funds above	2015, 2016, 2017

3. Control of dogs

In order to continue the activities planned in the “Strategic plan for the control of free ranging dogs” the Province of Grosseto has reached an agreement with the members of Hunting Districts (ATC), to the Provincial Police and the Environmental Volunteer Patrols,

for providing chip detectors to check that free ranging dogs are regularly registered to the National Dog Register and eventually take action (either call the owner or call the relevant authority in case of non-registration).

Planning

Action	Responsible	Funding	Timing
Dog control during hunting activities	ATC	-	Always
Dog control during institutional activities	Provincial Police	-	Always

4. Mainstreaming hybridization issues into wolf conservation

In March 2015 the Ministry of Environment has launched an initiative for the revision of the existing National Action Plan for the conservation of wolf. The work is being coordinated by Luigi Boitani with the support of Valeria Salvatori, and the chapter on control of hybrids will make full reference to the guidelines produced within the LIFE IBRIWOLF project. Among the authorities invited to the consultation rounds, the Tuscany Regional Administration has invited the Manager and Technicians from the Province of Grosseto recognising their recent efforts and to provide their contribution to the discussion, thus taking full representation of the experience developed within the project.

The revised plan is scheduled to be available at latest by June 2016 and the guidelines will be made available to all interested parties at any meeting for the release of the new plan.

Planning

Action	Responsible	Funding	Timing
Reprint of Guidelines	Istituto di Ecologia Applicata	own funds	2015
Promotion of Guidelines	Province of Grosseto, Istituto di Ecologia Applicata, Sapienza University of Rome	-	Always

5. Export experiences to neighbouring regions

A series of agreements have been signed between the Provincial Administration as project coordinator, and other authorities, such as the Regional Park Alpi Marittime, which is leading the LIFE WOLFALPS project, and the National Park Appennino tosco-emiliano, coordinator of LIFE MIRCO-lupo project. The adoption of the guidelines by the Tuscany Region through approval of CIRSeMAF and ASL projects represents an opportunity for promoting the experience at larger scale with neighbouring regional governments, as well as the reference to the experience of the LIFE IBRIWOLF project included in the revised Action Plan for wolf conservation.

Planning

Action	Responsible	Funding	Timing
Promotion of IBRIWOLF experience	Istituto di Ecologia Applicata, Province of Grosseto, Sapienza University of Rome	-	Always

Conclusions

The LIFE IBRIWOLF project represented the opportunity, never available before, to deal with a complex issue that was latent and subtly emerging into the wolf conservation scenarios. The project has provided the needed scientific approach, administrative support and pragmatic input for concretely tackle complex issues relatively little known.

The wolf and hybrids survey detected a % of presence of hybrids much higher than expected according to any previous survey or estimate.

The confrontation and collaboration with ISPRA and MATTM made the experience a reference for any future initiative.

The social context allowed for the confrontation with different interest groups in a civilised manner, with no disregard towards any stakeholder and in full respect of the diversity of interests. The participatory approach was successful albeit requested higher resources than planned (particularly in terms of time planning).

The fortunate contingency of CRASM existence in the area and the high competence of the staff in the Centre made the preservation of individuals in captivity adequate to their needs.

The attention raised stimulated the Tuscany Regional Administration to fully fund the activities in the whole regional area for at least two years after the project's end.

LIFE IBRIWOLF Project After LIFE Plan

Planning of actions to be continued after the end of LIFE IBRIWOLF PROJECT

May 2015