



LIFE & WILDLIFE CRIME

Environment



EUROPEAN COMMISSION ENVIRONMENT DIRECTORATE-GENERAL

LIFE (*"The Financial Instrument for the Environment and Climate Action"*) is a programme launched by the European Commission and coordinated by the Environment and Climate Action Directorates-General. The Commission has delegated the implementation of many components of the LIFE programme to the Executive Agency for Small and Medium-sized Enterprises (EASME).

The contents of the publication "LIFE and Wildlife Crime" do not necessarily reflect the opinions of the institutions of the European Union.

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Luxembourg: Publications Office of the European Union, 2018

Print	ISBN 978-92-79-76745-6	ISSN 1725-5619	doi: 10.2779/96643	KH-AJ-17-001-EN-C
PDF	ISBN 978-92-79-76744-9	ISSN 2314-9329	doi: 10.2779/630015	KH-AJ-17-001-EN-N

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Foreword



Wildlife crime has a negative impact on biodiversity across the world. The illegal killing, poisoning, trapping or trade of species is putting the European Union's biodiversity under pressure. In April 2017, the European Commission adopted the "Action Plan for nature, people and the economy" to improve the implementation of the Birds and Habitats Directives and boost their contribution towards reaching the EU's biodiversity targets for 2020.

The European Commission developed a Roadmap towards eliminating the illegal killing, trapping and trade of birds. It aims to prevent and tackle wildlife crime in the European Union and therefore ensure compliance with the Birds Directive. The Roadmap also supports the recommendations of the Bern Convention and the implementation of the Convention on Migratory Species by outlining four areas in which the European Commission can support Member States to enforce the law.

This new publication shows how LIFE projects have already helped contribute to each of the areas identified in the Roadmap: monitoring and data collection, prevention, information exchange, training and awareness-raising, and enforcement and legal aspects.

The aim of the brochure *LIFE and EU Wildlife Crime* is not only to highlight the actions of specific projects in each of these areas, but also to provide a set of lessons and best practices that will be of use to all those interested in tackling wildlife crime, with a particular focus on illegal killing (poisoning and poaching) of bird species and large carnivores.

The first chapter focuses on issues relating to tagging of protected birds and the building of national and transnational databases of poisoning cases.

The chapter on prevention brings to the fore the benefits of poison detection dog units, anti-poison stakeholder networks, innovative technologies, teams of nest guardians and effective awareness-raising campaigns. It also touches on poaching of protected fish species, by highlighting good practices such as anti-poaching protocols and alternatives to illegal fishing.

The third chapter looks at the impact of LIFE projects that have helped to train police, customs officers, prosecutors and judges.

The concluding chapter shows how the LIFE programme is at the forefront of efforts to make the application of law on wildlife crime more consistent across Europe. Regional action plans to tackle illegal poisoning developed with the support of LIFE are now being incorporated into a European action plan by the European Network against Environmental Crime.

This new publication puts the programme's knowhow in one place and in an engaging format. We hope that you will find it informative and useful.

Humberto Delgado Rosa

*Director for Natural Capital
DG Environment, European Commission*

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EU wildlife crime policy and international agreements

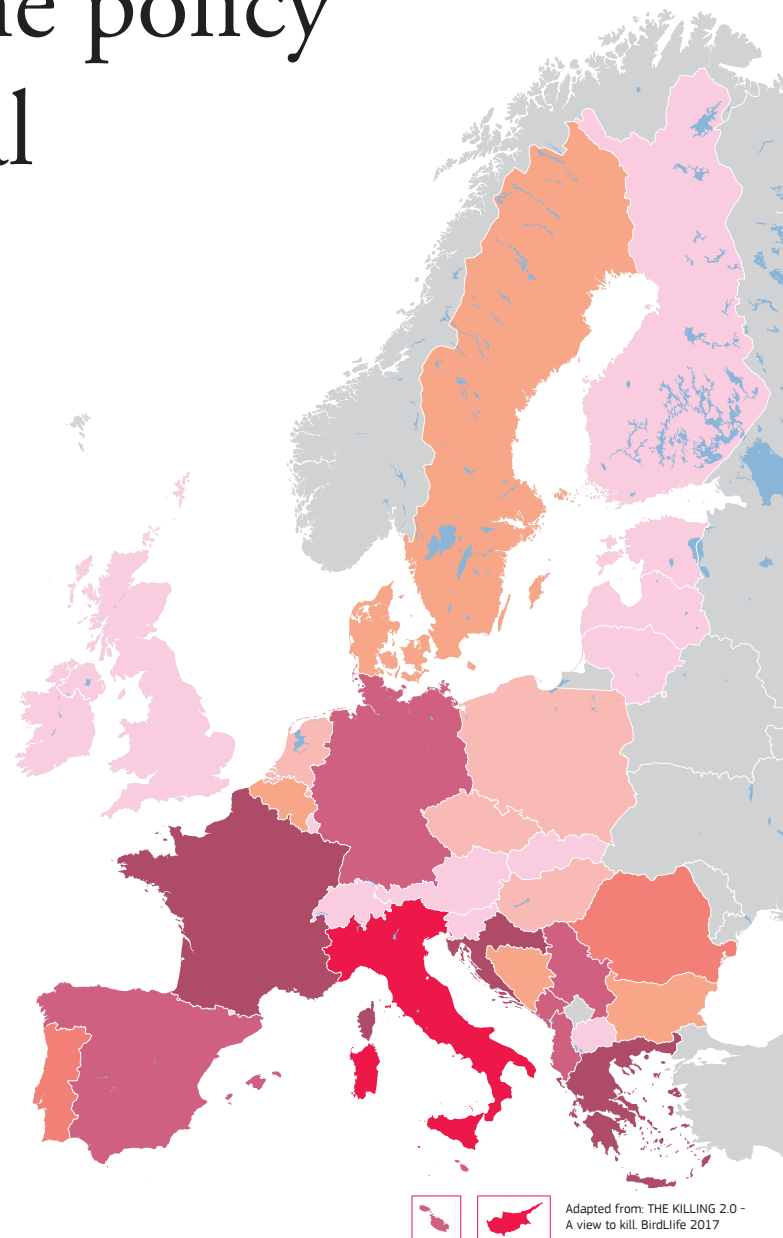
Crimes against wildlife cause significant damage to the environment. According to WWF, wildlife crime is the **second most significant threat to biodiversity** after habitat loss/degradation¹.

These types of illegal activities can be very profitable for the perpetrators, and they are very hard to detect. Wildlife crime often involves a cross-border aspect.

There is no systematic record of wildlife crime across the whole of the EU. However, several recent initiatives (including some funded by the LIFE programme – see pp.10-13) have increased our understanding of the scale of this problem. For instance, according to the latest (2017) report from the NGO BirdLife, an estimated 36 million birds are killed illegally every year while migrating in the Mediterranean region. This has led to a 30% decline in the population of some species and the complete loss of species from some regions (see map above).

Types of wildlife crime in the EU

- Illegal trapping and poaching for food
- Illegal predator/pest control
- Illegal killing for sport of protected species
- Illegal egg collection and taxidermy
- Illegal poisoning
- Illegal trade of protected species
- Illegal destruction of protected habitat



ILLEGAL BIRD KILLINGS

0 - 10 000
10 001 - 20 000
20 001 - 60 000
60 001 - 99 999
100 000 - 300 000
500 000 - 1 million
2 million - 6 million

1. http://wwf.panda.org/about_our_earth/species/problems/illegal_trade/

Wildlife crime legislation

Several pieces of EU legislation regulate the illegal killing of wildlife, including the Birds Directive, Habitats Directive and the Environmental Crime Directive² (see box).

The EU is also a signatory to several international agreements on wildlife crime, including the Conventions on the Conservation of Migratory Species of Wild Animals (CMS) and on International Trade in Endangered Species (CITES). By joining CITES, the EU has become a stronger actor in global efforts to protect the environment and prevent illegal trade.

Environmental crimes in the EU

Approved in 2008, the Environmental Crime Directive requires Member States to treat as criminal offences certain activities that breach EU environmental legislation. These offences include the killing and trade of protected species and the significant deterioration of wildlife habitats forming part of the Natura 2000 network of protected sites.

Member States have to implement effective, dissuasive and proportionate criminal penalties for these and other environmental crimes (such as illegal dumping of waste).

Illegal killing, trapping and trade of birds in the EU



The Bern Convention developed the 'Tunis Action Plan for the eradication of illegal killing, trapping and trade of wild birds' (Council of Europe 2013). The Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) adopted a Resolution in 2014 and established an 'Intergovernmental Task Force to address illegal killing, taking and trade of migratory birds in the Mediterranean' - MIKT (UNEP/CMS 2014), with the support of the Commission. This task force brings together governmental representatives of CMS Parties around the Mediterranean, including the EU and other interested parties.

Main bird killing crimes

- Indirect poisoning as a result of pest and predator control – mainly raptors affected
- Illegal trafficking of eggs and birds for falconry
- Egg collection
- Poaching and illegal killing in areas of competing interests (e.g. grouse estates, truffle hunters)
- Indiscriminate trapping for food (e.g. of songbirds)

The illegal killing, trapping or trade of birds is a widespread problem in the EU, and it has a negative impact on the populations of certain bird species and in specific locations. Thus, it is a barrier to achieving a measurable improvement in the status of species of EU conservation concern. That is an objective of the Birds Directive (see box), the first target of the EU Biodiversity Strategy to 2020 and a priority of the recent Commission's action plan for nature, people and the economy.

International activity to address this issue has accelerated in recent years. In 2012, the European Commission published a 'Roadmap towards eliminating illegal killing, trapping and trade of birds', updated in 2017. This consists of a set of targeted actions to be carried out by Member States, stakeholders, and the Commission. In addition, two of the major international agreements on species, the Bern Convention and Bonn Convention have taken steps to tackle the problem.

The Birds Directive

The Birds Directive bans activities that directly threaten birds, such as deliberate killing or capture, the destruction of nests and taking of eggs, and associated activities such as trading in live or dead birds, with a few exceptions, listed in Annex III of the Directive. The Directive recognises hunting as a legitimate activity and provides a comprehensive system for its management to ensure that this practice is sustainable. This includes a requirement to ensure that birds are not hunted during the periods of their greatest vulnerability, such as the return migration to nesting areas, and the breeding/fledging season. It requires Member States to outlaw all forms of non-selective and large scale killing of birds, with the proviso that derogations are available to address specific needs in the absence of other satisfactory solutions. It promotes research to underpin the protection, management and use of all species of birds covered by the Directive.

2. Directive 2008/99/EC on the protection of the environment through criminal law

The EU Roadmap

The Roadmap towards eliminating illegal killing, trapping and trade of birds identifies five main domains where the European Commission can act to support Member States:

1. **Raising awareness of the competent authorities and civil society**
2. **Funding projects**
3. **Co-ordinating efforts at EU level**
4. **Processing data provided by Member States in the context of their reporting obligations or Commission enquiries**
5. **Initiating legal procedure**

The Roadmap does not aim to set up a comprehensive programme to end the illegal killing, trapping and trade of birds. Such a programme can be found in the Bern Convention's Action Plan. The Roadmap lists a number of possible actions for the Commission and other concerned parties under four categories:

1. **Monitoring and data collection**
2. **Information exchange, training and awareness-raising**
3. **Enforcement and legal aspects**
4. **Prevention**

Photo: LIFE10 NAT/HU/000019/MME/Márton Horváth



CITES

International wildlife trafficking

The international trade in wild animals and plants is worth billions of euros and includes hundreds of millions of plant and animal specimens. The trade is diverse, ranging from live animals and plants to products derived from them, including foodstuffs, leather goods, timber, and medicines.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), signed in 1973, aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. It accords varying degrees of protection to more than 30 000 species of animals and plants. CITES works by making international trade in specimens of selected species subject to certain controls. These include a licensing system that requires authorisation for the import and (re-)export of species covered by the Convention.

In February 2016, the European Commission adopted a **Communication on the EU Action Plan against Wildlife Trafficking** which sets out a comprehensive blueprint for joined-up efforts to fight wildlife crime inside the EU, and for strengthening the EU's role in the global fight against these illegal activities. The plan has three main strands – greater enforcement, better cooperation, and more effective prevention. The Action Plan is to be implemented jointly by the EU (Commission services, EEAS, Europol, Eurojust) and its Member States by 2020. The goal is to develop a more strategic approach to checks and the enforcement of rules against wildlife trafficking at EU level. The EU Action Plan against Wildlife Trafficking aims as well to step up efforts to ensure implementation of the EU roadmap towards eliminating the illegal killing, trapping and trade of birds.

EU Sustainable Hunting Initiative

To address the long-standing need for an improved dialogue with and between stakeholders, the European Commission launched the Sustainable Hunting Initiative in 2001. An important outcome of this initiative was the EC Guide on Hunting under the Birds Directive (2004). This provides clear and comprehensive guidance on how Member States should be reflecting the principles laid down in the Birds Directive in their national measures for regulating hunting.

The initiative also instigated a dialogue between the Federation of Associations for Hunting and Conservation of the EU (FACE) and BirdLife International. This led to a joint agreement in 2004 to recognise the value of the Birds Directive for maintaining wild birds (including huntable species) and their habitats in a favourable conservation status at EU level - with application of the Directive being based on the Commission's Interpretative Guide.

Established in 1977, FACE represents the interests of Europe's seven million hunters, with members comprising hunting associations from 34 countries.

"FACE has a zero-tolerance policy towards wildlife crime and illegal killing and this is what we promote within our membership," emphasises Dr David Scallan, the organisation's senior conservation manager.

Hunters and hunting associations can make a key contribution to combating wildlife crime, he argues. "They are the eyes and the ears to what's happening in the field, so they can play a role in terms of reporting incidents."

Moreover, hunting associations can communicate effectively on illegal killing. For example, FACE has focused on the killing of birds in the Mediterranean region, working with hunters to condemn illegal activities and to cooperate with investigations.

"FACE is a very valuable partner in fighting wildlife crime in the EU and has a particular responsibility as well," says Wouter Langhout, EU Nature Policy Officer BirdLife. "We need them to send out a message of zero tolerance."

FACE and the European Landowners Organisation (ELO), jointly provide the secretariat of the European Parliament intergroup, 'Biodiversity, Hunting, Countryside'. Set up in 1985, it is one of the oldest and most active parliamentary platforms, gathering the support of 110 MEPs, including Karl-Heinz Florenz (see box).

MEP Karl-Heinz Florenz

German MEP Karl-Heinz Florenz is president of the European Parliament intergroup, 'Biodiversity, Hunting, Countryside'.

In addition to the preservation of biodiversity and the promotion of economically and socially prosperous rural areas, a key idea behind the intergroup is that "a serious sustainable hunting system controlled by the government is part of a good environmental policy," according to MEP Florenz.

He says that "every hunter is fighting against illegality" and that "lawmakers have to cooperate with the hunters in the fight against illegal hunting". While he recognises that not everyone is sympathetic towards hunting associations, he emphasises that they play an important role in combating wildlife crime by explaining legal restrictions to their members. "I don't have the impression that hunting associations are a block in the process. They are the ones that are interested in going down the middle of the street," he says.



Photo: © European Union 2012 PE-EP

BirdLife and the illegal killing of birds

"Our main focus areas [on wildlife crime] are poisoning and the use of poison baits, the traffic of songbirds and the persecution of raptors. Over the past few years, we've invested heavily in the monitoring aspect – the characterisation of wildlife crime and its scale," explains Mr. Langhout.

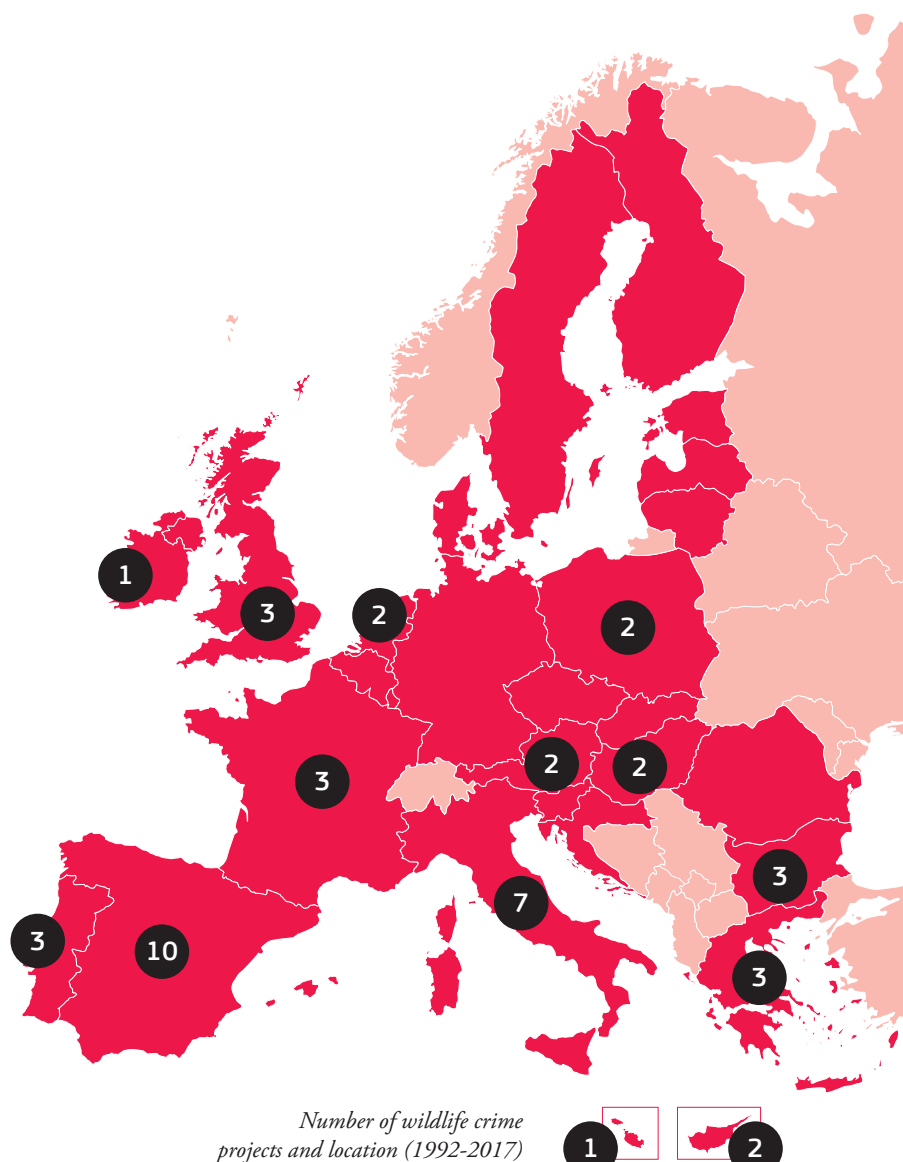
"We have produced a report on killing, which documents the extent of illegal killing of birds in the Mediterranean. And we have just launched the killing 2.0 campaign, which is covering the whole of Europe, as well as some other countries, and these are the best estimates of the numbers of birds affected by this type of crime: the number of birds killed as well as the species involved," says Mr Langhout.

"We are also active in the policy around this. We've been putting forward formal complaints to the Commission [re: the Birds Directive], and participating in the Roadmap toward the illegal killing of birds – in the meetings that are regularly held between the Commission and the stakeholders on this topic. We are one of the organisations that implements actions on the Roadmap, so we keep an eye on the monitoring – and we give the Commission an overview on what's happening on the ground. For example, last time we reported to the stakeholders in Europe on the LIFE projects that are working on the illegal killing of birds – and we do that on a running basis. We participate in the meeting to make sure everyone is up to date with what's happening," he concludes.

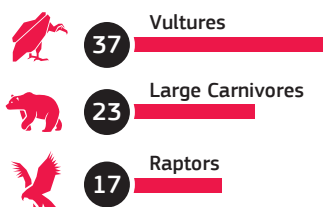
LIFE's role in tackling wildlife crime in the EU

LIFE has played a pivotal role in piloting actions that can help prevent and reduce wildlife crime across the EU.

The programme has invested more than **70 million euros** in over **40 LIFE projects** that have targeted illegal activities connected to wildlife.



Number of projects per annex species (Habitats and Birds Directives)



LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU. LIFE is the only financial programme under the EU budget solely dedicated to the environment, and in particular to nature conservation. Since 1992, LIFE has co-financed more than 1 650 nature and biodiversity projects, mobilising over 2 billion euros for conservation.

Of the 43 LIFE projects that have targeted illegal activities connected to wildlife, the majority have addressed the problem of poisoning of protected species, in particular birds, such as raptors and vultures, as well as large carnivores. As the figure at the top of page 9 shows, projects have

also targeted other wildlife crimes, such as illegal hunting, trapping and poaching, and species trafficking, with three projects covering all wildlife crimes.

LIFE projects dealing with wildlife crime have been mainly located in southern and central Europe. This is in line with the highest incidences of wildlife crimes in Europe, according to BirdLife's Killing 2.0 report. However, several Member States, in particular in central Europe, have yet to have a LIFE project addressing wildlife crime activities. It is worth noting that some projects have implemented trans-border actions, such as the Bulgarian-led Return of the Neophron project, which is also active in Greece (see pp. 25-26 and 46-47).



Examples of LIFE project actions

Monitoring and data collection:

- Collection of cases (database) and reporting of wildlife crimes
- Identifying which species are targeted and types of illegal activities and location

Information exchange, training and awareness raising:

- Training of enforcement officers
- Training dogs to detect poison baits – some cross-border
- Training in evidence collection (poison kits)
- Public information campaigns against the illegal use of poison

Enforcement and legal aspects:

- Updating/implementation of legislation, fines and sanctions
- Training specialised prosecutors in judicial processes
- Helping to establish or resource specialised wildlife crime units within police forces

Prevention:

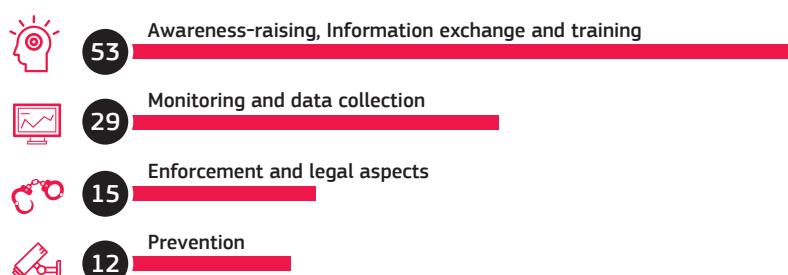
- Setting up surveillance zones in collaboration with local hunters' associations

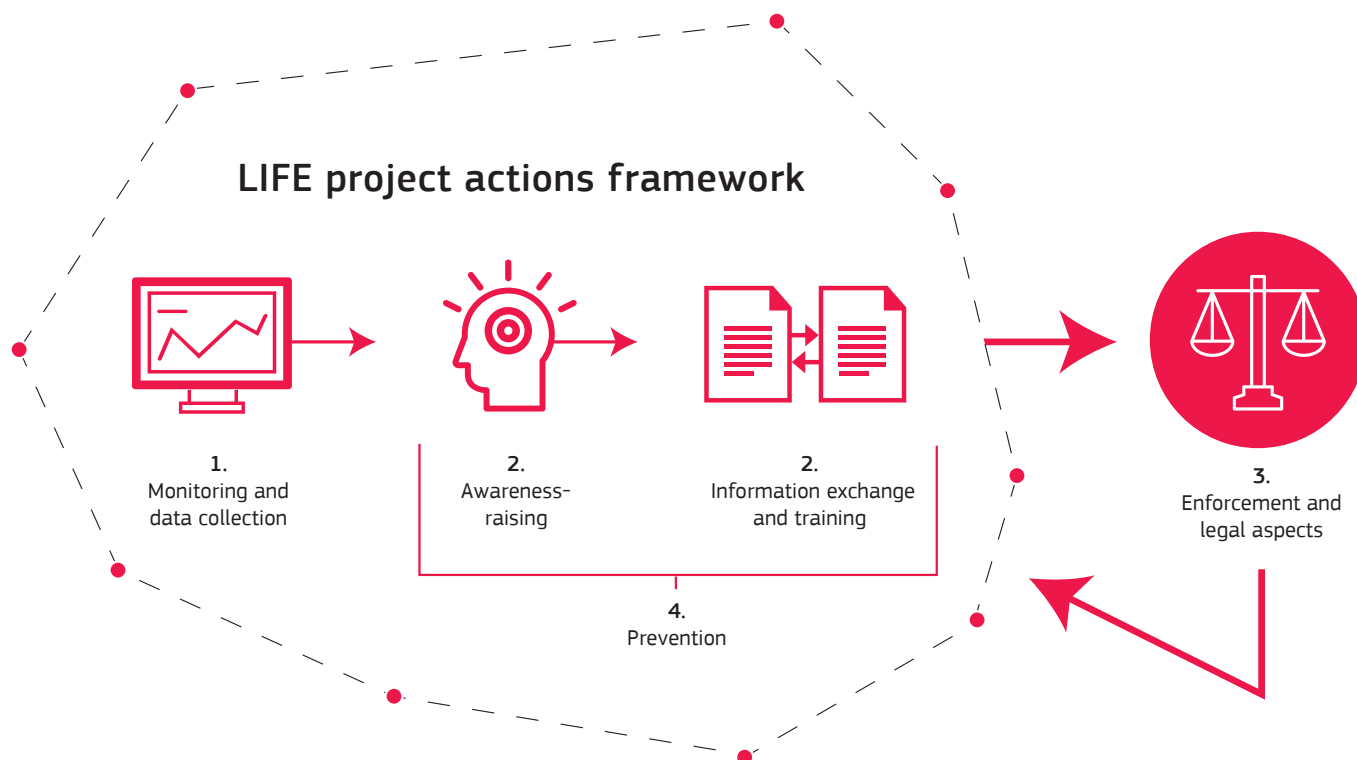
Lessons from LIFE

The objective of this publication is to highlight how LIFE is supporting the implementation of EU wildlife crime policy. The majority of the featured projects have developed actions that support the EU Roadmap towards eliminating illegal killing, trapping and trade of birds. The actions in the Roadmap are divided into four categories: monitoring and data collection; information exchange, training and awareness raising; enforcement and legal aspects; and prevention.



Number of LIFE project actions carried out in line with the Roadmap towards eliminating illegal killing, trapping and trade of birds:





The image above shows how LIFE projects can contribute to the integrated approach outlined in the Roadmap. Projects that collect data on illegal activities and access the problem (1.), can lead to actions that range from training to raising awareness (2.) that are combined in preventive actions (4.). Enforcement and legal competences (3.) are the responsibility of Member States. However,

some project actions support the implementation of legal aspects, including training police and customs officers to enable them to uphold the law more effectively. The exemplary VENENO NO project covered all bases from data gathering to support for enforcement and prevention (see pp. 20-21 and 55-56).

Key achievements of LIFE wildlife crime projects

- *Monitoring and data collection with new satellite tagging technologies*
- *Database of incidents (potential to become pan-European)*
- *Anti-poison detection and prevention patrols in almost all EU Mediterranean countries*
- *Anti-poison networks involving hunters and shepherds etc.*
- *Working with technology and people*
- *Getting the media involved – making people aware wildlife crime is a crime*
- *Awareness-raising campaigns across Member States*
- *Specialised awareness raising and training for statutory authorities, police, customs, public prosecutors, environmental lawyers and judges*
- *Strong and clear penalties, more routinely enforced*



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Promoting action plans for birds

The EuroSAP project is a wide-ranging three-year initiative bringing together 13 partners, led by BirdLife, to tackle the threats to 16 species. The aim of this LIFE project is to improve conservation measures for these birds by studying their entire lifecycles, migratory routes and survival pressures – including wildlife crime, which for many of the species represents a major problem.

“The prime example is the turtle dove (*Streptopelia turtur*), where the level of illegal killing is extremely high both inside and outside the EU,” says Wouter Langhout, EU Nature Policy Officer BirdLife.

“Vultures are very vulnerable too, because they are susceptible to poison baits and are able to find these baits over a long distance and some of the populations are very fragile. The population of the Egyptian vulture in Bulgaria is very susceptible to poisoning and that population is very small. Every individual counts at this point.”

He also emphasises that the high number of incidents of poisoning in Spain remains a great concern for BirdLife. The approach encouraged by the NGO through the LIFE project, however, is to draw up state-of-the-art action plans. “Their implementation is the responsibility of the EU Member States and the Commission must make sure that this happens,” he adds.

1

Data collection and monitoring tools:

- Networks of interested parties
- Hotlines/dedicated point of contact
- Dog units
- Satellite tags
- People

Best practices:

- Make use of historical data
- Give people a tool to report cases
- Mobilise local networks for data collection
- Provide protocols for how to deal with poisoning cases
- Create and harmonise European-wide databases

Problem:

Poisoning is the most serious threat to many endangered raptors, such as the imperial eagle in Hungary. Knowledge of when, where, how and why cases are happening is essential to reducing this threat to protected bird species.

Solution:

The HELICON project developed a bird crime database for cases of poisoning, shooting and other illegal activities against birds of prey in Hungary. Follow-on project PannonEagle Life is expanding the database to the regional level.

Outcome:

More than 1 000 bird crime cases in Hungary have been entered in the TOTEM database. In 2018, it will be expanded to include data from Austria, Czech Republic, Slovakia and Serbia. "Theoretically it will be possible to collect data from all over Europe in the future," says project manager, Márton Horváth.

Read more on page 14.

2

Problem:

Hen harriers and other protected bird species often suffer from high rates of juvenile mortality.

Solution:

Satellite tagging of juvenile birds enables conservation NGOs to find out the causes of mortality. It also reveals new roosting sites and gives fresh insight into the behaviour of protected species.

Outcome:

Tagging data is playing a crucial role in identifying cases of wildlife crime. Knowledge that birds are tagged can also deter people from killing them illegally.

Read more on page 18.

3

Problem:

Lack of knowledge of the poisons used to illegally kill birds and other wildlife is hampering efforts to tackle this problem.

Solution:

VENENO NO ('no poison'), a LIFE project in Spain, analysed information from more than 4 000 poisoning cases over a five-year period. This revealed the need for stronger controls over the marketing and use of phytosanitary products, to prevent their use in poisoned baits.

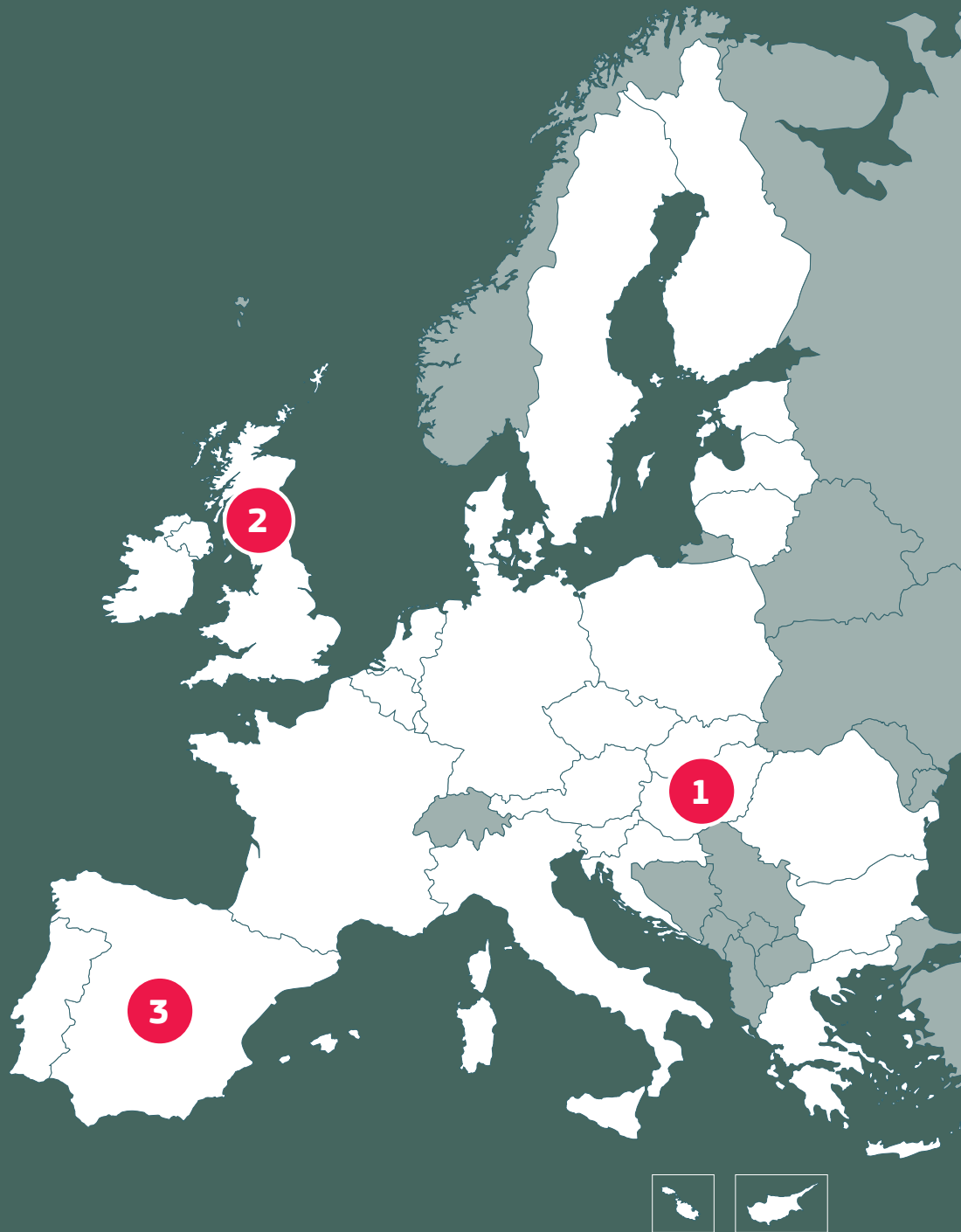
Outcome:

The project's discoveries have fed into national action plans and a European Action Plan to Prevent Illegal Poisoning of Wildlife.

Read more on page 20.

Chapter 1

Monitoring and data collection



Towards a European wildlife crime database

1

The HELICON project developed a bird crime database for cases of poisoning, shooting and other illegal activities against birds of prey in Hungary.

Follow-on project PannonEagle Life is expanding the database across five central European countries.

"We first started to build a bird crime database in around 2007," recalls Márton Horváth, of BirdLife Hungary (MME) and the project manager of both HELICON (see box) and PannonEagle Life. The catalyst was the loss of two imperial eagles due to poisoning in 2005. Systematic collection began with a trawl of veterinarian and conservation publications. "We gathered all the known historical data back to 1975, and put it together with recent data collected by us and our colleagues in the National Parks," says Dr Horváth.

The HELICON database is held in Excel, but the data is also published on Google Drive so the project partners can access it. Key data includes: the type of crime, location, species, number of affected specimens, the investigating police authority, veterinary reports and, in cases of poisoning, the poison type.

An anti-poisoning working group, established during the first LIFE project, brings together all governmental and non-governmental organisations involved in bird of prey conservation, such as national park directorates, police, vets and hunters. They provide information for the database, and in turn can access the raw data. For security reasons public access is restricted, but summary reports are available.

HELICON: an overview

*Hungary is home to the largest population of the eastern imperial eagle (*Aquila heliaca*) in the EU, with 117 breeding pairs recorded in 2010. Although numbers of this globally threatened species have slowly increased since the 1980s, a significant rise in cases of illegal killing threatens to reverse this positive trend. More than 50 imperial eagles had been poisoned in Hungary in the years leading up to the start of HELICON. This LIFE project set out to significantly reduce non-natural eagle mortality. This was achieved through measures to track and guard the eagles and enable them to breed successfully; measures to monitor illegal killing incidents, set up a bird crime database, and establish protocols for investigating cases; and measures to increase stakeholder awareness of eagle-friendly game management methods and to raise public awareness of raptor conservation and the negative impacts of poisoning. The project helped the Hungarian authorities detect and prosecute more cases of poisoning, leading to five convictions. There was a significant reduction in the number of imperial eagle poisoning cases (from 16 in 2012, to 1 in 2016). This helped reduce the mortality rate of the species. The known breeding population of the imperial eagle has now reached 200 pairs in Hungary.*

Read more: <http://www.imperialeagle.hu/>





“This project is for five countries, but theoretically it will be possible to collect data from all over Europe in the future.”

Gathering the data

HELICON developed three wildlife crime protocols, for vets, police, and field investigators. “We also developed a protocol flowchart for use if someone finds a carcass or poisoned bait in the field. By going through all the yes or no possibilities, you can categorise the data. If it is suspected, accidental or illegal poisoning, it will go into the bird crime database,” explains Dr Horváth. “A common case with [accidental poisoning of] eagles, for example, is that hunters still use lead shots and lead accumulation can cause toxicosis.”

The project beneficiary, MME, established an online reporting sheet, and a dedicated telephone number and email address, so anyone could report suspected illegal poisoning. “We ran a hotline, but to be honest there were very few reports from the public,” says Dr Horváth, “but it serves as a good tool for operating the network.”

The hotline is operated by Gábor Deák, who is in the field several times a week as head of the dog unit (see pp. 46-75). This unit can respond quickly to reports, and is a major source of data for illegal poisonings. It is directly linked to the new online database

via a GPS system, which tracks both dog and handler. We get about 50 calls per year from the public, around 10% of the calls, and 90% from the conservation community, hunters or vets,” explains Mr Deák.

A network of around 250 rangers working in Hungary’s national parks, and 300 volunteers taking part in raptor surveys, provide valuable information on wildlife crime. Rangers also have direct contacts with local farmers, so farmers tend to call rangers who then call the MME hotline. Hunters are encouraged to report bird crime through the Hungarian Hunters’ National Chamber, which is a project partner.

By the end of the HELICON project (2012-2016), the bird crime database held 1 023 records, involving 2 350 specimens (including 252 Imperial eagles). There were 147 recorded cases of bird poisoning (of which, 89 were illegal, 14 accidental, and 44 suspected poisonings).

Building the TOTEM database

The ongoing LIFE project is allowing the IT team at MME’s monitoring centre to develop and programme an online database called TOTEM. “This will incorporate all kinds of mortality data on birds, animals, reptiles and amphibians, but it will have a special section on the poisoning issue,” says Dr Horváth.

The Monitoring Centre is harmonising four databases developed by HELICON (eagle nest, eagle monitoring, satellite-tagged birds, and bird crime), along with other MME databases. A key aim is to channel all the data into a bird atlas for Hungary, within the MAP (Madáratlasz Program) database.

New methods of collecting bird crime data are also being explored. “There is an online app that was prepared by our partner BirdLife Austria, so we already have a mobile app for collecting data, and our plan is to connect this with the TOTEM database,” says Dr Horváth.

TOTEM (not an acronym, but a play on words for ‘dead animal’) is constructed around three levels of data, explains Dr Horváth. “The first corresponds to a given case, for example, where a perpetrator sets poison in an area and carcasses are found at different locations.” At this level, TOTEM finds all the relevant documents for the given case (e.g. police and court documentation).

“The second level, which we call an event, has an exact date and location,” he continues. The coordinates in the database for events are linked to Google Maps to visualise locations. “In one location, for example, we found three marsh harriers and two ravens. Every single specimen found will then have a file in the third level. For this, we can upload photos, veterinarian documents about single specimens, concentration of poison, and so on.”

Toward a European database

TOTEM (totem.mme.hu) brings big advantages in terms of data reporting, compared to Excel. When a new case is added it instantly appears on maps, for example, while summaries can be automatically generated.

The PannonEagle Life team are overcoming the challenges of merging national databases into a regional database. "We have over 1 080 records now for Hungary. In every country our partners are collecting data but in different formats, so we would like to put it all together into the same database," says Dr Horváth. "Our aim is to finalise the Hungarian version of the database and then, in early 2018, start importing data from the other four PannonEagle countries: Austria, Czech Republic, Serbia and Slovakia."

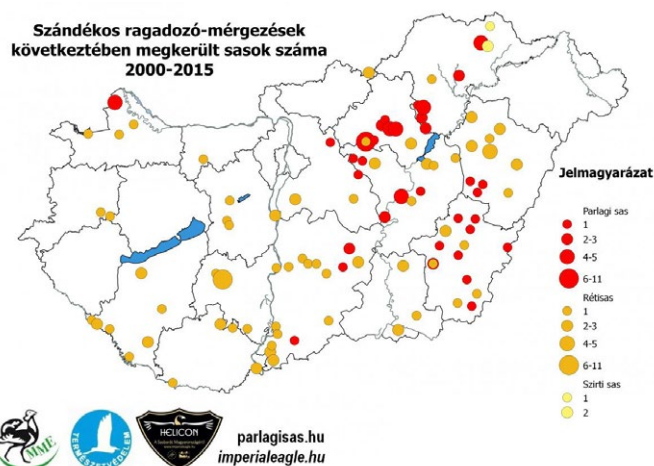


The Hunters' Chamber

The Hungarian Hunters' National Chamber (HHNC) represents some 3 500 members of the hunting community. Gábor Kovács from the HHNC explains that the Chamber took part in the LIFE project to demonstrate commitment to protecting the imperial eagle.

The project organised sessions during annual hunters' training days. "The consequences of illegal killings were demonstrated clearly to the audience. In this regard changes in attitude are perceptible," says Mr Kovács. "There are many common interests between game management and nature protection," he adds.

HHNC's national scale, means that its ecologically-minded members can make a significant contribution to revealing illegal actions, notes Mr Kovács.



LIFE10 NAT/HU/000019
Title: Conservation of imperial eagles by managing
human-eagle conflicts in Hungary
Beneficiary: MME BirdLife Hungary
Contact: Márton Horváth
Email: horvath.marton@mme.hu
Website: <http://imperialeagle.eu/>
Period: 01-Jan-2012 to 31-Dec-2016
Total budget: € 2 100 000
LIFE contribution: € 1 600 000

Carbofuran

"Carbofuran is the substance we find most often in illegal poison baits, though we have cases of phorate and recently some cases of anticoagulants that are used as rodenticides," says Dr Márton Horváth. Ákos Horváth of the Hungarian National Bureau of Investigation (no relation) explains that there are three sources of carbofuran: "Firstly, there are some old stocks. Until 2008, it was legal to use in Hungary and surrounding countries. However, from the poisoning methodology we expect it is mainly coming from Austria, where they have a different brand of Carbofuran that is purple. In Hungary it is white or red. We even find this purple brand in the south-eastern corner of Hungary, so it must be an illegal trade. The third source is probably an illegal trade from Ukraine and Serbia. It is still legal to use carbofuran in Ukraine, and there are probably big illegal stocks in Serbia."

Satellite tagging gives conservationists and police key data

2

The LIFE hen harrier project is giving the RSPB the opportunity to carry out its most far-reaching satellite tagging programme to date for monitoring a raptor species.

LIFE co-funding allowed the UK-based NGO to train up and achieve official tagging licences for seven of its team investigating the high mortality rates among juveniles, many of whom are thought to succumb to illegal shootings on grouse moorlands. "The LIFE tagging allows us to find out why they died and help us understand if there is something we can do," says project manager Cathleen Thomas.

While it is calculated that UK habitat could sustain 30 pairs of the hen harrier (*Circus cyaneus*), just three pairs successfully bred in 2016. Tagging has also revealed new roosting sites, and yielded fresh insights into the raptor's behaviour.

A tagger's tale

Tagging of birds is not new, but new technology has made it more reliable and improved the quality of data. Tags are also getting smaller, so that more and more bird species can be safely tagged. In the UK, it takes around three years of training to get a licence from the British Ornithological Society to fit a tag. "The reason why it takes that long is that you've got to make sure that the tag fits the bird in a particular way, so that it has no impact at all on that bird, when it has left the nest," says Mark Thomas an Investigations Officer for RSPB in England, who is officially trained to attach satellite tags to larger birds such as raptors.

Ahead of their first tagging, trainees will practice on model birds, "essentially cuddly toys", which the RSPB produces for this purpose, he explains. "The satellite tag [used in the LIFE project] is like

Tagging data also plays a crucial role in investigations of illegal killing, as it clearly indicates the location of an incident. The RSPB's investigation team gathers evidence and passes it on to the police wildlife crime officer. Ms Thomas believes that tagging can also be a deterrent given that the proportion of tagged birds is unknown. In 2016, 12 birds were tagged, of which just five were still alive a year later. Clearly, much progress remains to be made, but satellite tagging is proving to be a key tool in the fight against the persecution of hen harriers.

a rucksack that the bird wears on its back, and the straps for the rucksack go under the bird's wings and fasten in a particular way."

Methods vary for different species, and larger birds can carry larger tags. The female hen harrier is larger than the male, for example, and the tags on the female birds in the LIFE project were able to transmit data on a daily basis. The male tagged birds were fitted with a smaller device that only sent information every two to three days.

The timing of the fitting of the tag is crucial: the optimum point is one or two days before the juvenile is able to fly, and to make this judgement the researchers visit the nest site several times ahead of the tagging. Once the tag is in place, the research team



Photo: Guy Anderson

“Clearly, we don’t want birds to be killed within six weeks of tagging, but at least the tag tells us that it is happening.”

should immediately start to receive data from the bird. “Some will immediately go long distances; some will stay within the territory of the nest – but you’ll be able to look at the data on the website every day. If it’s a ‘public-facing’ bird, then we’ll start updating our website and tell people where the bird is and what it’s doing.”

If the tag stops transmitting or gives a signal from the same spot, then the team will suspect that something has happened to the bird and will investigate. If it has been illegally shot, then often the tag will have been destroyed and the individual removed. Some-

times shot birds can be recovered, if they are not killed immediately. “Because the data we’re getting is saying that the voltage is decreasing on the tag and there’s no movement, we’ve gone to the location where we’ve last had a signal, ground searched and found the bird,” explains Mr Thomas.

“Last year, we had Rowan and Carol, two birds tagged by the project, which were found dead but when we’ve gone to the birds and taken them for analysis, they’ve been found to have been shot.”

Campaigning for better enforcement

Transparency is the watchword of the LIFE project. “If these birds are being killed on grouse moors by gamekeepers, which we know is happening, then our absolute duty is to get that information into the public domain,” says Mr Thomas.

“It’s the right of people to know the nature of what’s going on, and then to campaign and to ask for better police enforcement of wildlife crime.” In fact, the police have registered bird of prey persecution as a national wildlife crime priority, identifying hen harriers as a key species.

The project is also protecting nests by making it harder to approach them. While most nesting sites in recent years have been on land that is managed for conservation – and very few on private grouse moors – individuals are still vulnerable. Males can hunt up to 15 km away from the nest and can thus be “picked off”

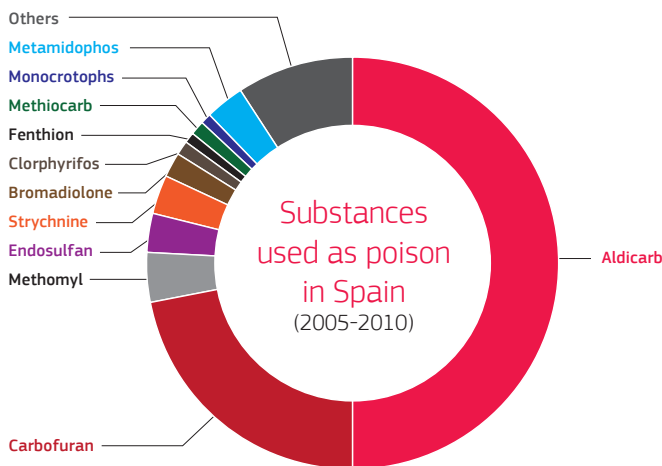
on neighbouring estates, acknowledges Mr Thomas. Nevertheless, the tagging is providing a picture of what is happening to these birds that was previously unavailable. “Clearly, we don’t want birds to be killed within six weeks of tagging, but at least the tag tells us that it is happening.”

LIFE13 NAT/UK/000258
 Title: LIFE hen harriers
 Beneficiary: The Royal Society for the Protection of Birds
 Contact: Nick Folkard
 Email: nick.folkard@rspb.org.uk
 Website: <http://ww2.rspb.org.uk/our-work/conservation/henharrierlife/>
 Period: 01-Jul-2014 to 30-Jun-2019
 Total budget: € 2 270 000
 LIFE contribution: € 1 135 000

Know your poison

The VENENO NO project collected extensive data on the poisons used to illegally kill birds.

The resulting database is a valuable resource for understanding and fighting wildlife crime.



The collection of data on poisoning has allowed us to have a very good picture of what is happening in Spain,” says David de la Bodega Zugasti, coordinator of the VENENO NO project (2010-2014) and currently coordinator of the European Network against Environmental Crime (ENEC) at SEO/BirdLife.

A study conducted by the project, covering the years 2005 to 2010, analysed 4 395 specimens of various species killed by poisoned baits in Spain. The literature shows that only around 7% to 10% of poisoned animals are ever found, so SEO/BirdLife estimated that around 45 000 animals could have been killed by poisons in those five years. The specimens included highly-threatened species, such as red kite (*Milvus milvus*: 297), Spanish Imperial eagle (*Aquila adalberti*: 30) and bearded vulture (*Gypaetus barbatus*: 13).

The analysis was conducted in collaboration with IRCE (the Spanish Institute for Game and Wildlife Research), which also helped formulate a standardised protocol for toxicological laboratories and wildlife rescue centres to use when dealing with illegal poisoning.

The project’s report revealed that over 70 substances were used to prepare poisoned baits. These were mainly phytosanitary products and biocides. The most commonly used were aldicarb (50%) and carbofuran (22%), both of which are banned in the EU (see figure).

A total of 1 694 poison baits were collected, mainly chunks of meat. The project team sometimes found whole carcasses im-

pregnated with poison and used as bait. Common foodstuffs used as bait included bread, eggs and canned fish. Such baits pose a potential danger to people, particularly when laid in parks and other public spaces.

Analysis of the data showed that over 70% of cases were related to poisons being used to eradicate predators competing with game species (e.g. partridges or rabbits). Further cases were associated with beekeeping (8%), stockbreeding (5%), and urban situations (9%) where family pets (dogs and cats) were the main victims.

Investigations, for example of Internet sales, revealed the existence of a black-market trade from stockpiles of banned pesticides that had not been eliminated. The project team concluded that there was a need for stronger controls over the marketing and use of phytosanitary products, to prevent their use in poisoned baits.

“One of the main developments following the project was a European Action Plan to Prevent Illegal Poisoning of Wildlife,” says Mr de la Bodega. “This was based on action plans developed under the LIFE project.”

LIFE08 NAT/E/000062
 Title: VENENO NO – Action to fight illegal poison use in the natural environment in Spain
 Beneficiary: SEO/BirdLife
 Contact: David de la Bodega
 Email: ddelabodega@seo.org
 Website: <http://www.venenono.org>
 Period: 01-Jan-2010 to 30-Mar-2014
 Total budget: € 1 672 000
 LIFE contribution: € 647 000



Photo: © ARurales- Catalunya



VENENO NO: an overview

The goal of the VENENO NO ('No Poison') project was to reduce illegal use of poison in Spain. It did this by implementing actions recommended by Spain's national strategy against the illegal use of poisoned bait in the countryside. This work focused on three pillars: prosecution of the crime; prevention and deterrence; and refining knowledge and information. The major outcomes of the project have been to build capacity to investigate and prosecute poisoning cases and to place poisoning of protected wildlife firmly on the political agenda in Spain.

"The collection of data on poisoning has allowed us to have a very good picture of what is happening in Spain."

Read more: <https://www.venenono.org/>

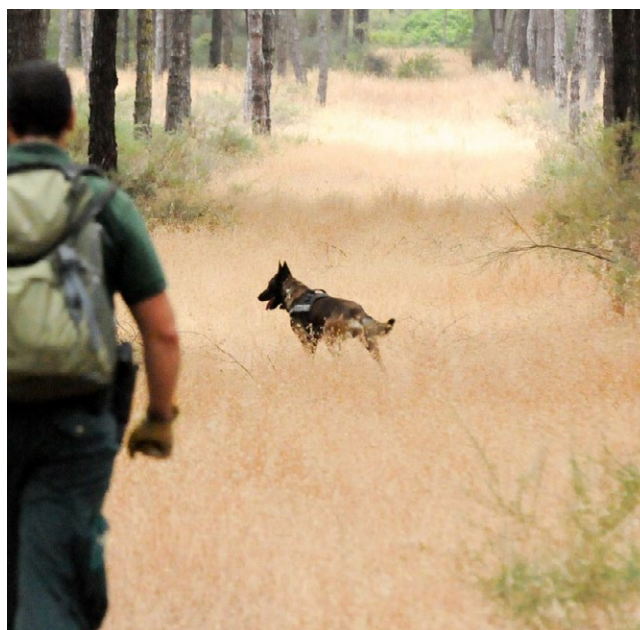


Photo: © Guardia Civil SEPRONA

1

Problem:

There is not enough of a deterrent to stop people leaving poisoned bait.

Solution:

Projects such as LIFE under Griffon Wings in Italy and Return of the Neophron in Greece have invested in anti-poison dog units.

Outcome:

Circumstantial evidence suggests these dog units are having a valuable deterrent effect.

Read more on page 24.

5

Problem:

Awareness that wildlife crime is a crime is low in some parts of Europe.

Solution:

The Bulgarian Society for the Protection of Birds set up an awards scheme through a LIFE project to recognise individuals who 'protect the forests and eagles of Bulgaria'. In Cyprus, a large-scale communications campaign was launched to increase awareness of the impact of illegal bird trapping on biodiversity.

Outcome:

By recognising 35 individuals, including seven who have played a part in court actions against wildlife crimes, BSPB's campaign has raised awareness of the issue in Bulgaria. Making wildlife crime more public will make a difference. In Cyprus, surveys show a significant increase in awareness that trapping is a problem following the LIFE project's campaign.

Read more on page 31.

2

Problem:

Setting poison to protect livestock and game is still considered a 'necessary evil' in many parts of Europe. However, this illegal practice has many unintended negative consequences on protected species, working dogs and pets.

Solution:

As part of the Return of the Neophron project, the Hellenic Ornithological Society has built a substantial anti-poison network that involves shepherds, hunters and other members of local communities.

Outcome:

More than 150 stakeholders have joined the anti-poison network in Epirus, Greece. "There do seem to be fewer and fewer poison incidents," says network coordinator, Haritakis Papaioannou.

Read more on page 25.

3

Problem:

More effective methods are needed to deter people from poaching protected bird species. More advanced technology would be welcome.

Solution:

LIFE projects are introducing innovations such as 'dead body indicators' and smart patrol systems that are deterring poachers and could help in enforcement. Established technologies like camera traps have also been deployed to great effect by LIFE project teams.

Outcome:

A smart patrol system in Greece prevented any incidence of mortality of the lesser white-fronted goose, a species classed as vulnerable by the IUCN. Camera traps observing Bonelli's eagle nests on Sardinia prevented poaching in 2017. And the use of prototype 'dead body indicators' backed up by a large network of volunteers and sustainable hunters is helping to implement Italy's national plan against illegal bird hunting.

Read more on page 27.

4

Problem:

In some places, protected birds are killed because of the persistence of traditional methods of hunting that do not discriminate between species.

Solution:

Sharing a positive message about biodiversity in schools can be an effective way of communicating bird conservation goals, as shown by the efforts of LIFE projects in Sardinia and Bulgaria.

Outcome:

Engaged young minds helped open the eyes of older generations to the problem, without finger pointing.

Read more on page 30.

6

Problem:

Illegal fishing is a major threat to wetland birds and fish stocks in some Natura 2000 sites.

Solution:

LIFE projects in Bulgaria and Italy have established anti-poaching protocols in support of law enforcement bodies. These have had a greater impact by involving angling and hunting associations as well as conservationists.

Outcome:

In Bulgaria, LIFE FOR THE BOURGAS LAKES established a partnership that has increased reporting of illegal fishing, reduced violations and begun to develop sustainable economic activities such as sports fishing in place of illegal commercial fishing. The LIFE BARBIE project in Italy agreed a protocol with angling associations that opened up a dialogue with public authorities.

Read more on page 33.

Problem:

Illegal fishing of the Danube sturgeon threatens the long-term survival of this protected species. This fishing activity is closely linked to the illegal caviar trade.

Solution:

A pair of LIFE projects have worked closely with fishing communities on both the Romanian and Bulgarian sides of the lower Danube. This has meant addressing the causes of illegal fishing and providing economically-viable alternatives.

Outcome:

The initial LIFE project, SAVING DANUBE STURGEONS, increased local awareness of the problem through a team of 'sturgeon advocates' who formed a bridge between the authorities and the fishing communities. The trust built by the first project is enabling the ongoing project, LIFE FOR DANUBE STURGEONS to increase support for a sturgeon fishing ban, increase awareness of the ban among retailers and increase capacity to enforce the bans on fishing and trade. It is also establishing a pilot business to give a practical demonstration that alternatives exist.

Read more on page 36.

Preventing wildlife crime



Dog patrols deter poisoners

1

More than 20 LIFE projects have shown that creating dog patrols to detect poison can be an effective wildlife crime deterrent. Dog patrols have identified poisoning hot spots and promoted the reporting of wildlife poisoning by the public.



“Dog patrols serve not only to find the proofs of poisoning, but also to let the community know that animal poisoning is a crime and that authorities are committed to prosecuting it.”

Sardinia's first anti-poison dog unit was created thanks to LIFE Under Griffon Wings, a project to conserve the griffon vulture (*Gyps fulvus*) on the island. The dog unit is a joint initiative of the veterinary medicine department of the University of Sassari, which trains and houses the animals, and the regional environmental protection police, which carries out patrols year round, four to six times per month.

“Dog patrols serve not only to find the proofs of poisoning, but also to let the community know that animal poisoning is a crime and that authorities are committed to prosecuting it,” explains project manager Fiammetta Berlinguer, from the University of Sassari. “Before the patrols, the anti-poison dog unit goes to local towns, distributes leaflets and talks to people so that everyone gets to

know the risk of poisoning and is motivated to eventually report it to the authorities.” More cases are being reported and the project partners plan to continue GPS-tracked inspections for the foreseeable future.

Poison baits are a big problem for the vulture species targeted by the Return of the Neophron project in Greece. Its dog teams work in (rapid) response to calls from the network of stakeholders, which it has created. Elzbieta Kret of WWF Greece, is a dog handler, working with the Malinois, Kiko. She explains that the use of dogs is primarily a preventive measure. “When the public sees a dog sniffing for a poison bait, they can see that forestry service and the police care about poison,” she says. And this could make them think twice before laying down poison baits.

Dog teams for wolves

The WOLF IN THE ALPS project has set up anti-poisoning teams of four or five dogs and handlers in both the eastern and western parts of the mountain range. This is designed to deter would-be poisoners from killing wolves moving back into these parts of the Alps. The new teams work alongside the anti-poaching teams of park rangers or forestry service guards on poisoning cases.

Currently four major investigations are being carried out thanks to the project.

The support of hunters has been crucial. The project engaged hunting districts, which are supported by a guard paid for by the hunters, to cooperate with the dog teams in their evidence-gathering efforts. “In general, hunters are supportive, espe-

cially in areas where the wolves have just come back,” affirms Francesca Marucco, the project's technical manager.

She also believes that the dog teams have a deterrent effect: “This is the most important result of all the work,” she concludes.



Egyptian vulture (*Neophron percnopterus*) - Photo: Bogdan Boev

2

Building an anti-poison network

A LIFE project has got local stakeholders in north-west Greece directly involved in the fight to stop the illegal use of poison baits. Haritakis Papaioannou of the Hellenic Ornithological Society (HOS) is coordinator of the Network of Stakeholders against Wildlife Poisoning in Epirus region.

"I come from this place so I have very good connections with people who live on the mountains," explains Haritakis Papaioannou. "Maybe if someone from Athens approached them they would not be as successful in getting people to join!"

The network started in 2012 as part of Return of the Neophron, a LIFE project to conserve the Egyptian vulture (*Neophron percnopterus*). "Things progressed little by little," recalls Mr Papaioannou. "Month after month we added more people. Now we have more than 150 members who live in and have connections with the countryside: shepherds, hunters, border police and so on."

Lessons

- Create local anti-poison networks
- Respected local people to lead/mobilise the networks
- Meet people on their own terms and in their own places (face-to-face at the places they frequent, not top down through organised meetings)
- Show how you can solve their problem – loss of dogs through poison
- Work with hunting associations, not against them
- Give members of the network a sense of belonging and the motivation to continue
- Maintain your network – keep in touch.

A shepherd's story

George Spanos is a 56-year old farmer who looks after of his family's flock of 500 sheep. From late autumn to early summer the sheep graze on Konitsa town plain in Epirus, near the border with Albania. Each summer Mr Spanos hikes three hours with half of the flock to one of the most remote and mountainous areas of Greece, Aaos Gorge in the Vikos Aaos national park.

Mr Spanos has experienced the unintended negative consequences of poison on several occasions. "The last time was around three years ago when five of my shepherd dogs disappeared over the course of six months. I found one and took it to the vet. It had been poisoned with methomyl, probably set down by wild boar trappers."

"The use of poison in livestock pastures where there are large carnivores - especially brown bears and wolves - is a big problem for people like me. When you lose shepherd dogs due to baits, especially mature, experienced dogs, it leaves the whole flock vulnerable to predators," he says.

'Since the anti-poison network started, there have been fewer poisonings,' says Mr Spanos. He also believes there are fewer people setting poison baits, "however, those that do, sometimes do it repeatedly."

Mr Spanos says that the anti-poison network is the best opportunity shepherds have to work together to solve this issue, while also stopping nature becoming poorer year by year. "Who are the best people to protect rare species? People who live and work permanently in the countryside, like shepherds," he proclaims.



"Almost all the shepherds and half of the hunters have lost at least one dog because of poisoning."

Cafes and binoculars

Winning the trust of the local community has been crucial to building the anti-poison network. This means meeting people on their own terms and at a time that suits them. "Public meetings are not a good method. It is best to go directly to where the people are, for instance to the cafes where they go after milking in the morning or late in the evening," explains Mr Papaioannou.

In general, the network has been very well received. "Even if people don't want to participate, they know that poison is a big problem. Almost all the shepherds and half of the hunters have lost at least one dog because of poisoning," he says.

"We cooperate directly with the local hunting association, the hunting wardens and the regional hunting council. This makes it easier to convince local hunters to take part," explains Mr Papaioannou.

The Epirus network also includes representatives of the main statutory authorities and local interest groups: "The association of friends of mushrooms or a village

hiking club, for instance," points out Mr Papaioannou. Members of the network phone him when they find a suspected poisoned animal. "Some of them discuss with other shepherds, other hunters, so the people who might use poison know local people are watching and wanting to take care of their area," he adds.

"I tell all the members of the network to call the closest forest authority or police force to attend the suspected incident. Sometimes the agencies cannot attend in person, in which case I go myself and then pass on the details to the forest service or the police," explains Mr Papaioannou.

One important role played by the network is to demonstrate that effective alternatives to poison exist for guarding livestock. "We gave 27 electric fences and about 60 pairs of binoculars to the most active members of the network," he says. "When people feel like they belong they feel a duty to participate, give information and help us."

LIFE's legacy

Mr Papaioannou says the anti-poison network has already had a noticeable impact. "The fact that these people are outside and discuss with each other – one hunter or shepherd to another – this is the most positive impact. There do seem to be fewer and fewer poison incidents."

"Now people know what to do if they find a poisoned animal. Even without us I think the network would continue," believes Mr Papaioannou. Return of the Neophron has helped Greece's national anti-poison task force work in a more intense and systematic way. "Our next goal is to replicate what we have done here in Epirus in the area of Meteora in Thessaly (east-central Greece)."

Preventive technology works

“It is only with a genuine interest and will to protect biodiversity that any high-tech system can be utilised to its full potential.”

Photo: LIFE10 NAT/GI/000638/HOS/ManoliaVougioukalou

Technology is playing a key role in helping to prevent the illegal killing of endangered bird species, thanks to innovations such as ‘dead body indicators’ and smart patrol systems as well as established technologies like camera traps.

Johannes Fritz is leading a LIFE project to reintroduce the northern bald ibis (*Geronticus eremita*) to Europe. During the 2017 autumn migration, the project trialled a prototype technology that enables a rapid response to the loss of a tracking signal.

“The most essential thing is to get information about an accident as soon as possible. Ideally, as soon as it happens. So we came up with the idea of a ‘dead body indicator’, a sensor that recognises that an accident has happened and im-

mediately transmits the position where this accident happened,” explains Dr Fritz, who is founder and head of the Austrian NGO, Walddrapteam.

Once the technology is fully established, if the project team receives a signal from a dead body indicator, it can inform its network of about 700 volunteers. The goal is to quickly find out what has happened to the bird, ideally within one to one and a half hours of the alert. "They inform the police and hand over the body of the bird, or whatever has to be done," says Dr Fritz.

Hunters take care

"We spent a lot of energy and money on the development of the dead body indicator," explains Dr Fritz. The idea is to use it not only for the northern bald ibis, but also to equip other migrating birds with this device. And to communicate the fact that this exists within the hunting community, because this substantially increases the risk for the poacher. We invest money in every bird that is released and so we can define the monetary damage that is caused by shooting one: it is between 20 000 and 70 000 euros per bird. If we can identify a hunter who has shot our birds we go for a civil lawsuit to request compensation for this damage. Just communicating this, that we have the 'dead body indicators' and that we have this high monetary damage,

The LIFE project team is working with Italian lawyers and the country's leading forensic institute on a training package for the volunteers. There is also a separate taskforce organised by the hunters themselves and managed by the Federazione Italiana dell Caccia, the largest Italian hunting association.

alerts those hunters out in the field who do not follow rules to care and to be more careful regarding illegal bird hunting."

The dead body indicator is being developed in collaboration with the Max-Planck Institute for Ornithology in Starnberg in Germany and other institutions. The current prototype is a discrete unit; the aim is to integrate it with the GPS tracking device.

"The dead body indicators and the voluntary network should substantially improve the probability that perpetrators are identified and prosecuted. They can help to implement the Italian national plan against illegal bird hunting," says Dr Fritz.

Smart Patrol System

In Greece, a project to safeguard the lesser white-fronted goose (*Anser erythropus*) in its key staging and wintering sites of Kerini Lake and the Evros Delta successfully combined technology with people in a so-called 'Smart Patrol System' (SPS). The three elements that make up the SPS are a 'remote unit' (solar-powered surveillance cameras set up in an area of interest); a 'control centre' where trained wardens can view and process images from remote units; and a 'mobile unit' – a 4x4 patrol vehicle equipped with VHF, a mounted GPS unit and a tablet device with GPS tracker. The mobile unit is in touch with the control centre and can carry out checks in the field.

No recorded mortality

Thanks to the patrol system and concerted awareness-raising activities, there was "zero recorded mortality" of the lesser white-fronted goose during the project, says Ms Vougioukalou. "The SPS also revealed a number of illegal and/or potentially threatening activities – illegal fishing, sea food smuggling and uncontrolled tourism – taking place near roosting sites within the protected areas."

Although the LIFE project is now completed, the management authorities of Kerini Lake and the Evros Delta National Park are continuing to use the SPS to protect the wintering sites of the lesser-white fronted goose.

Ms Vougioukalou believes that it was the combination of "remote surveillance" and "human presence in the field" that has



Deploying camera traps to stop poaching on Sicily

LIFE ConRaSi is an ongoing project dedicated to stopping predation of Bonelli's eagle, Egyptian vulture and lanner falcon nests on the island of Sicily. In 2017, the project's partner Coop. Silene installed 28 camera traps across 21 sites. "These basically broadcast the images they take at the nest over the GSM network. A central team receives the images in real time by email," explains project manager, Gianluca Catullo. Without additional support from volunteers, the project's surveillance camp at Castel di Iudica saw two Bonelli's eagle chicks successfully fledge in June 2017. "The method works: This was the first year in a long time in which no nest was poached," says Mr Catullo. "Poachers are aware of the surveillance operation and it has a deterrent effect," he believes.

made the SPS such a striking success. "It is only with a genuine interest and will to protect biodiversity that any high-tech system can be utilised to its full potential."



“The dead body indicators and the voluntary network should substantially improve the probability that perpetrators are identified and prosecuted.”

Extra patrols bring benefits for birds in Cyprus

The LIFE-FORBIRDS project, which ended last year, implemented measures to conserve bird species in lowland forest habitats in Cyprus. Actions included a highly visible awareness campaign about illegal trapping and killing of birds that involved TV spots and roadside billboards, as well as activities in schools. The project team set up a consultation committee to propose measures to address bird crime within three Natura 2000 network sites. One of the most effective of these was to block access to trapping sites and increase the number of patrols by the Game and Fauna Service. This led to a 57% increase in the detection of bird crimes in the protected areas. Monitoring shows a small increase in the number of breeding pairs of three passerine bird species affected by trapping since the project's measures were introduced.

Lessons

- Technology can help prevent wildlife crime
- Measures such as dead body indicators, camera traps and smart patrol systems have all had a demonstrable preventive effect
- Technological solutions aren't a silver bullet: they need to be part of a wider strategy that involves people too.

Spreading a positive anti-poaching message

4

"I saw these little sparks in the eyes of the students."

Photo: LIFE07 NAT/IT/000436/Monica Di Francesco



Organising activities in schools has proved to be an effective way of raising awareness of wildlife crime, engaging young minds who go on to spread the message of respect for protected species.

Engaging with schoolchildren, students and their teachers is also a way of avoiding direct confrontation with poachers and the development of a new generation of poachers. Such an approach was exemplified by the project, 'A safe haven for wild-birds', which was carried out across several Mediterranean countries. In Italy, the project beneficiary, the Italian bird protection organisation, LIPU, reached around 3 000 students, with some classes joining LIPU volunteers, the Regional Forestry Guards and the Carabinieri in removing traps from the surrounding woods.

The success of the initiative was due to its "positive approach", explains project leader Umberto Gallo-Orsi. "We didn't look directly at the poaching issue but tried to highlight the importance of biodiversity, and eventually the problem of poaching comes up."

For some schools in Sardinia, the "capital" of poaching, which were concerned about allowing the NGO to speak about this issue, such an indirect approach was actually necessary. By avoiding "finger pointing", the project was able "to open the eyes" of

more people, he emphasises. The project held competitions in classes, along with prize-giving ceremonies in the villages with parents in attendance in an attempt to "break this closed-in culture".

In Greece and Spain, the project produced educational packages that were available online for teachers to download. Those schools in 'hot spot' areas of illegal killing were informed of the package.

The 'Birdman' of Bulgaria

The Return of the Neophron project engaged teachers in Bulgaria such as Medjun Angelov, in support of its efforts to conserve the Egyptian vulture (*Neophron percnopterus*). He gave presentations to secondary schoolkids as well as establishing an ornithology club at his own school in Provadia.

The kids proved to be very receptive. "I saw these little sparks in the eyes of the students when I spoke about the symbol

of the town, the Egyptian vulture, and how important it is for the conservation of the environment," he says.

"I saw a great opportunity to connect conservation and education... I used each and every opportunity to take the children out in the field so they could understand the causes of the species' decline, both locally and globally."

One of the children participated in a special campaign dedicated to vultures and even travelled to the Eastern Rhodopes to learn more about vulture conservation. Another pupil created a vulture t-shirt, which led Mr Angelov to organise a workshop for others to have a go and earned him the nickname, the 'Birdman'.



Lesser spotted eagle (*Aquila pomarina*) • Photo: Boris Belchev

Publicity aids preventive action



An awareness campaign, now in its fourth year, is raising the profile of wildlife crime in Bulgaria.

Since 2014, a public relations campaign in Bulgaria has focused on individuals who help conserve the lesser spotted eagle (*Aquila pomarina*). This globally threatened raptor has been adversely affected by people plundering its nests and trafficking birds and eggs, as well as by poaching and poisoning, both illegal. The 'I Protect the Forests and Eagles of Bulgaria' campaign was set up as part of the LIFE for Eagles Forests project to raise awareness of these pressures and promote those preventive measures that have proved successful in deterring and prosecuting wildlife crime.

The general public, government authorities and specialist stakeholders are invited to nominate individuals who have made valuable contributions to combating illegal activities. "Since 'crimes against nature' is quite a foreign concept to most people, the campaign has made a point of defining them. It has focused on people and their personal stories of crimes they've managed to prevent – from illegal capture of wild animals and robbery of nests and eggs, to the use of illegal hunting practices and taxidermy," says Emilia Yankova of the Bulgarian Society for the Protection of

Birds (BSPB), the project beneficiary. Together with the country's Executive Forest Agency, the NGO has presented 35 people with the award, ranging from ordinary members of the public, to journalists, customs officers, police and forest inspectors.

"Most often they have been nominated by a colleague or their manager. The bulk of the nominations are related to crimes against protected species of birds or illegal logging," says Ms Yankova.

Maria Salabasheva, journalist

Maria Salabasheva is a Bulgarian TV reporter based in Burgas. She was awarded the “I protect the Eagles and Forests of Bulgaria” prize for her in-depth coverage of the prosecution and conviction of Jan Ross, a British national found guilty in Bulgaria of collecting eggs from a number of protected bird species, including the griffon vulture³. “I found it interesting not only because I didn’t know such a crime existed before, but because of the psychological side of it: what is driving this criminal mind? What is behind this obsession with having things that are very rare? That was my motivation to dig into this case,” says Ms Salabasheva. “It was very unusual and interesting to work on.”

Her coverage for Bulgarian public television and the private channel TV7 attracted a lot of attention. “People didn’t know the scale of this whole thing. By revealing the details, the parts of the puzzle, a lot of people got interested.”

Ms Salabasheva strongly believes in the power of publicity to deter wildlife crime: “The media rules the nation, so if non-profit organisations and people who work in this field work along with the media the result will be visible pretty soon. Making it more public will make a difference; little by little, step by step, drop by drop, we will get to some really good result.”

“I am a classical concert pianist; I’ve played at Carnegie Hall, so I’ve received a lot of awards. Nevertheless, I feel honoured to receive this prize. It’s nice to think that you have made a difference,” she says.

3. <http://www.lifeneophon.eu/en/video-galery/2/51.html>



Veselin Kolev - Awarded with “I protect the Eagles and Forests of Bulgaria” prize.

“Making it more public will make a difference; little by little, step by step, drop by drop, we will get to some really good result.”

Nominees help convict wildlife criminals

Seven of the nominations have been in relation to cases that have resulted in court action – five for illegal acts against birds and two against tortoises. Each year 10 nominees are presented with awards at special ceremonies across the country during the national forest week festival. The winners receive a diploma, a plaque and a cash prize of 150 leva.

“The campaign aims to raise awareness of the public and those professionals working in the field, and hopefully have a positive impact on wildlife crimes and illegal killing,” Ms Yankova concludes.

Highlighting the harm caused by trapping birds

Cyprus is one of the countries where illegal trapping of birds with non-selective means such as lime sticks and mist nets is still practiced. More than 200 bird species are affected, with up to 2 million birds per year killed illegally.

The BIOforLIFE project carried out an extensive communication campaign in the country to make the concept of biodiversity better understood. Jointly led by a media conglomerate, an NGO and the Department of Environment, the campaign was targeted at the general public, relevant interest groups and political decision-makers. In particular, it highlighted the seriousness

of the bird slaughter that takes place during the migratory period every year, when millions of birds fly across Cyprus. TV debates brought the issue of illegal and indiscriminate trapping of birds to a wider audience. The campaign brought about a measurable increase in awareness of the issue in relation to songbirds. Surveys at the close of the project found that 95% of respondents were aware of why some people are against the killing of blackcaps (*ambelopoulia*); at the start of the project, the corresponding figure was 47%.

Joint action against illegal hunting and fishing

6

Projects in Bulgaria and Italy show the value of establishing partnerships with stakeholders to create and enforce anti-poaching protocols and promote alternative sources of local income.



“Every bird of an endangered species strangled in a net is a major loss, so we keep working on it.”

“Prior to the LIFE FOR THE BOURGAS LAKES project, illegal activity, especially illegal fishing, was a threat to the birds and lakes,” says Konstantin Gospodinov, of the Bulgarian Society for the Protection of Birds/BirdLife Bulgaria. “There was little knowledge about this issue among wider audiences and law enforcement authorities.”

Even conservation organisations did not know the full scale of the threat, he recalls.

“We realised that we couldn’t expect law enforcement bodies to tackle this problem by themselves,” says Mr Gospodinov. “Therefore, our goal was to find a way to strengthen and support law enforcement bodies.”

Illegal fishing is a severe threat to birds because it is mainly carried out at night, when nesting and resting birds are especially vulnerable to disturbance. Concealed illegal fishing tackle and discarded nets are especially problematic after dark, because they are invisible to the birds, which can become ensnared and drown.



Bringing organisations together

When the LIFE project started in 2010, “there was tension between organisations, especially between anglers’ organisations and the body responsible for addressing illegal fishing in the lakes, the National Agency for Fisheries and Aquaculture (NAFA),” explains Mr Gospodinov. The project was a catalyst for organisations from different backgrounds to collaborate and work together in support of law enforcement.

“We established a core unit to carry out joint patrols for poaching,” he continues. This unit carried out 170 patrols in Natura 2000 network sites over four years, resulting in fines and the seizure of nets and boats. The joint patrols also raised awareness of the problem, and demonstrated how this kind of cooperation can be both effective and viable.

“Although NAFA is limited in capacity, people saw that this problem could be tackled successfully if it was supported by other

institutions,” says Mr Gospodinov. “We established a partnership between NAFA and six organisations here in Bourgas, including anglers’ and hunters’ unions, sport fishing clubs, and conservation organisations.”

Key to the partnership’s success, according to Mr Gospodinov, was that organisations supported enforcement bodies, rather than being seen as blaming them for being ineffective. “It took us approximately two to three years to develop this partnership agreement. Many of my colleagues once thought it impossible, but it is now common practice.”

Illegal hunting at the Bourgas lakes has a big impact on bird species. To prevent it, the project team worked with national hunters’ unions. “Together we developed a guide for hunters to help them recognise species, especially ones that are very similar, and distinguish species that can be hunted from species that are protected. The guide has been reissued several times

by our Ministry, and was also issued in other countries, like Greece and Uzbekistan,” says Mr Gospodinov.

The project established a practice of reporting observations of illegal fishing and hunting to the local authorities. This ensured feedback and gave people more confidence that their reports were being processed with the full power of the law.

“At the end of 2015, we could state that the number of reports of illegal activities was raised, but the number of violations had decreased. Violators did not want to be fined or have their equipment confiscated.”



Photo: Svetoslav Spasov

Protecting barbels from illegal fishing

One of the main achievements of the LIFE Barbie project, which aimed to improve the status of threatened and endangered barbel populations in rivers in northern Italy, was an anti-poaching protocol. The impact of illegal fishing in some areas is “quite heavy”, says Francesco Nonnis Marzano of Parma University who led the project. “While most illegal fishing targets alien species, it is bringing to extinction even native species that have very low populations.”

The way forward was to agree a protocol with angling associations that opened up a dialogue with public authorities and “even resulted in calls when something has gone wrong on the river”, says Professor Nonnis Marzano.

Nevertheless, while the associations are paying more attention to illegal fishing and carrying out controls of their members, more needs to be done to stop fishermen from outside Italy, who are responsible for a large share of the illegal killing. To improve prevention further, more controls and heavier fines are required.

An association of conservationists, hunters and fishers

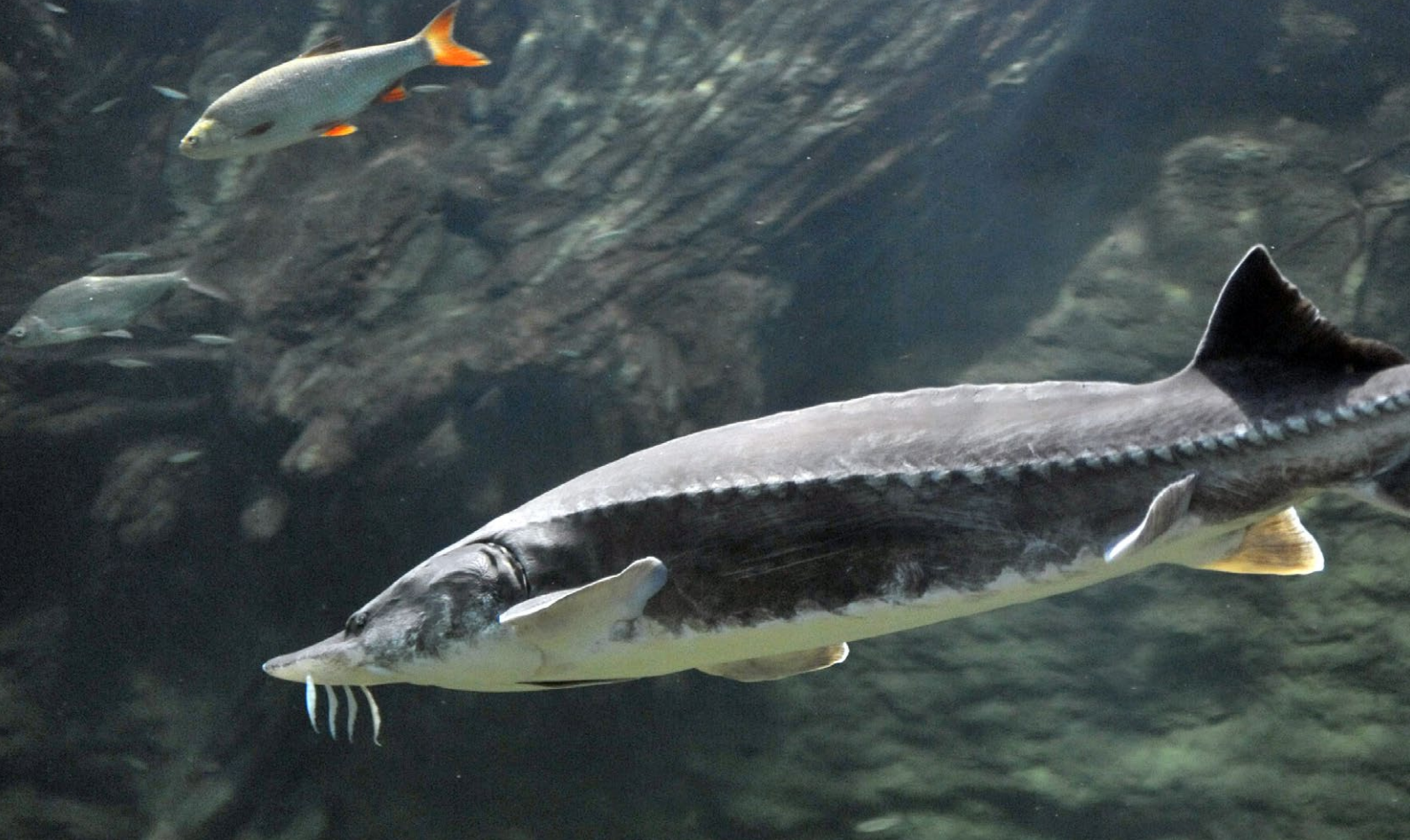
The project team recognised the economic potential of the lakes. “They are abundant in fish and if managed in a sustainable way there are activities, such as sports fishing and angling, that could provide a ‘natural barrier’ to illegal activities. So, building on the success of the partnership, in 2012 we established the ‘Association of Environmental Organisations, Hunting and Angling Unions, and Fishing Sport clubs in Bourgas’ to foster these kinds of activities,” says Mr Gospodinov.

The association provides a model of how organisations with potentially conflicting interests can be brought together with a common aim.

“When we first started, commercial fishing was allowed in the lakes. At that time, the authorities believed there was no way of distinguishing illegal from legal fishing,” explains Mr Gospodinov. “When we established the association we worked very hard with the stakeholders to change this. We

were instrumental in achieving a ban on commercial fishing, because it was used as a cover for illegal fishing and illegal fishing was also unfair in terms of competition with aquaculture farms.”

The last few years have seen considerable progress in tackling wildlife crime at the Bourgas lakes, but, says Mr Gospodinov, there is still much to do to get rid of this threat. “Every bird of an endangered species strangled in a net is a major loss, so we keep working on it.”



Beluga sturgeon (*Huso huso*) • Photo: LIFE11 INF/AT/000902/Lubomir Hlasek

Working with fishermen to save sturgeons



LIFE projects are raising awareness about endangered sturgeons and promoting alternatives to illegal fishing on the Danube.

The last viable populations of sturgeon species in the lower Danube are threatened by poaching and the illegal trade in caviar. Sturgeon fishing bans were imposed by Romania and Bulgaria in 2006 and 2011, respectively, but with no mechanisms for compensating fishermen for

loss of income. Criminal activities are still a significant problem.

The Saving Danube Sturgeons project (2012-2015) took action to reduce illegal fishing in 15 communities along the Danube in Romania and Bulgaria, includ-

ing creating a network of 'sturgeon advocates'. In the follow-on project, LIFE FOR DANUBE STURGEONS, these advocates are developing socio-economic measures that offer realistic alternatives to the fishermen who once caught sturgeon.

Sturgeon advocates

The role of a sturgeon advocate is to visit fishing communities, mediate between fishermen and the authorities, provide the latest fisheries information, listen to the concerns of fishermen, and work with them

to find solutions to their problems. As sturgeon advocates become more widely recognised, fishermen have been more open to interacting with them.

Sturgeon advocates George Caracas and the project coordinator Cristina Munteanu, both from WWF Romania, are exploring alternatives to poaching, such as aquaculture and tourism, and alternative fish for



“We met with heads of the fishing associations two or three times, to get to know each other and to let them see we are not bad guys.”

LIFE15 GIE/AT/001004
 Title: **LIFE FOR DANUBE STURGEONS**
 Beneficiary: **WWF Austria**
 Contact: **Jutta Jahrl**
 Email: sturgeons@wwf.at
 Website: <https://danube-sturgeons.org/the-project/>
 Period: **01-Oct-2016 to 31-Dec-2020**
 Total budget: **€ 1 852 000**
 LIFE contribution: **€ 1 108 000**

the market, such as barbel, carp, perch, pike and bream.

They have noticed a reduction in the number of sturgeon being poached since the LIFE projects started. This has been achieved, in part, through their work with a number of fishermen's associations, enabling them to reach over 200 fishermen (see box). With an estimated 4 000 commercial fishermen along the Danube in Romania alone, there is still much to do. Nevertheless, the idea is to get some of the associations working well with them, to set a good example that all the other associations can follow.

“At one point, communication between the authorities and the fishermen disappeared. We want to restore that as it is clearly needed,” explains Mr Caracas. He recalls that early attempts to engage directly with fishermen were unsuccessful. “So we met with heads of the fishing associations two or three times, to get to know each other and to let them see we are not bad guys, and after that we could call the fishermen and they would answer our questions.”

“We observed that fishermen would agree with a long-term sturgeon fishing ban if they would be rewarded when they accidentally catch a sturgeon and release it, or if they could earn their income from other sources,” says Ms Munteanu.

Fishermen's associations

The Saving Danube Sturgeons project established the first collaborations between conservation organisations and local fishermen's associations in Romania and Bulgaria. Sturgeon advocates learn about the fishermen's concerns and help them develop alternative sources of income that are compatible with sustainable fishing.

“Nowadays it is forbidden to fish sturgeons, so we need economic alternatives,” says Marian Chinan, president of the Borcea Fishermen's Association. “It is very difficult to live exclusively from fishing. The construction of new infrastructure for Danube navigation has adversely affected fish stocks.” The National Agency for Fishing and Aquaculture (NAFA), under the Romanian Ministry of Agriculture, sets annual quotas for the fishing associations. “We want to be involved in the process of setting the fish quotas. We feel the sturgeon is in decline, but it is hard to be sure as there is not good monitoring of the species,” says Mr Chinan.

“The LIFE FOR DANUBE STURGEONS project will support us in working with the authorities on the application of legislation, and of course to solve some problems,” says Marian Cristea, president of the Fetesti Fishermen's Association. “The fish we catch is directly sold to local customers, or is kept to feed the fishermen's families. The quota of fish we can catch per boat per year is 850 kg, which is not high as we have on average three fishermen per boat.” He is hopeful that the project can help them assess new income sources in key fishing communities.

Alternative income workshops

Sturgeon fishing bans reduce income, and can make illegal fishing tempting. To address this, Saving Danube Sturgeons held workshops in 14 fishing communities to show them how to apply for public funds. In one case in Bulgaria, a new fishermen's association was established to enable a community to apply for available funding.

The workshops also helped build concrete business plans for alternative income sources in fishing communities. The focus includes young people, who represent the future of riverside communities in a relatively underprivileged region. Providing new job opportunities could prevent migration to cities.

Overall, the team behind the ongoing LIFE project believes that fishermen are expressing a greater willingness to protect sturgeons, and this is leading to less poaching.



1

Problem:

Prosecutors and judges lack capacity to enforce the EU Nature Directives. This is particularly the case in Mediterranean countries and parts of Eastern Europe.

Solution:

LIFE Natura Themis is training prosecutors, judges and lawyers in Crete. LIFE Justice4Nature will provide e-learning courses for those involved in environmental law enforcement in Poland.

Outcome:

Hundreds of forest inspectors, lawyers, prosecutors and judges are expected to participate in training courses. This is helping to build capacity and governance of wildlife crime prosecution and establish liability for biodiversity damage in Natura 2000 areas in Crete and Poland.

Read more on page 40.

2

Problem:

Many customs officials lack knowledge of how to enforce law around protected species. In particular, they may have difficulty identifying whether or not a species can legally cross EU borders.

Solution:

The Return of the Neophron project trained customs officers from Bulgaria and Greece, boosting their ability to deal with bird-related crimes. A total of 127 customs officers took part in seminars and meetings, with one officer also receiving specialist training in the UK. The project also published a manual for the prevention of endangered species trafficking, available in Bulgarian, Greek and Albanian.

Outcome:

Six cases of bird-related crime have been prosecuted as a result of these actions. Customs officials have increased awareness and confidence in their ability to deal with bird crime.

Read more on page 42.

3

Problem:

Many countries outside the EU offer nominal legal protection to migratory bird species. In practice, rangers, environmental agencies and other enforcers of that legislation lack the knowledge and training to apply the law.

Solution:

LIFE projects can work with local conservation partners along the Europe-Africa migratory flyway to build capacity. Projects to conserve the Egyptian vulture demonstrate what can be done.

Outcome:

Partner organisations in Niger and Nigeria have raised the awareness of local communities and officials that it is important to protect the Egyptian vulture. Lessons learned are now being applied along the flyway.

Read more on page 44.

Training, information exchange and evidence gathering

4

Problem:

It is difficult to gather evidence of poisoning of wildlife.

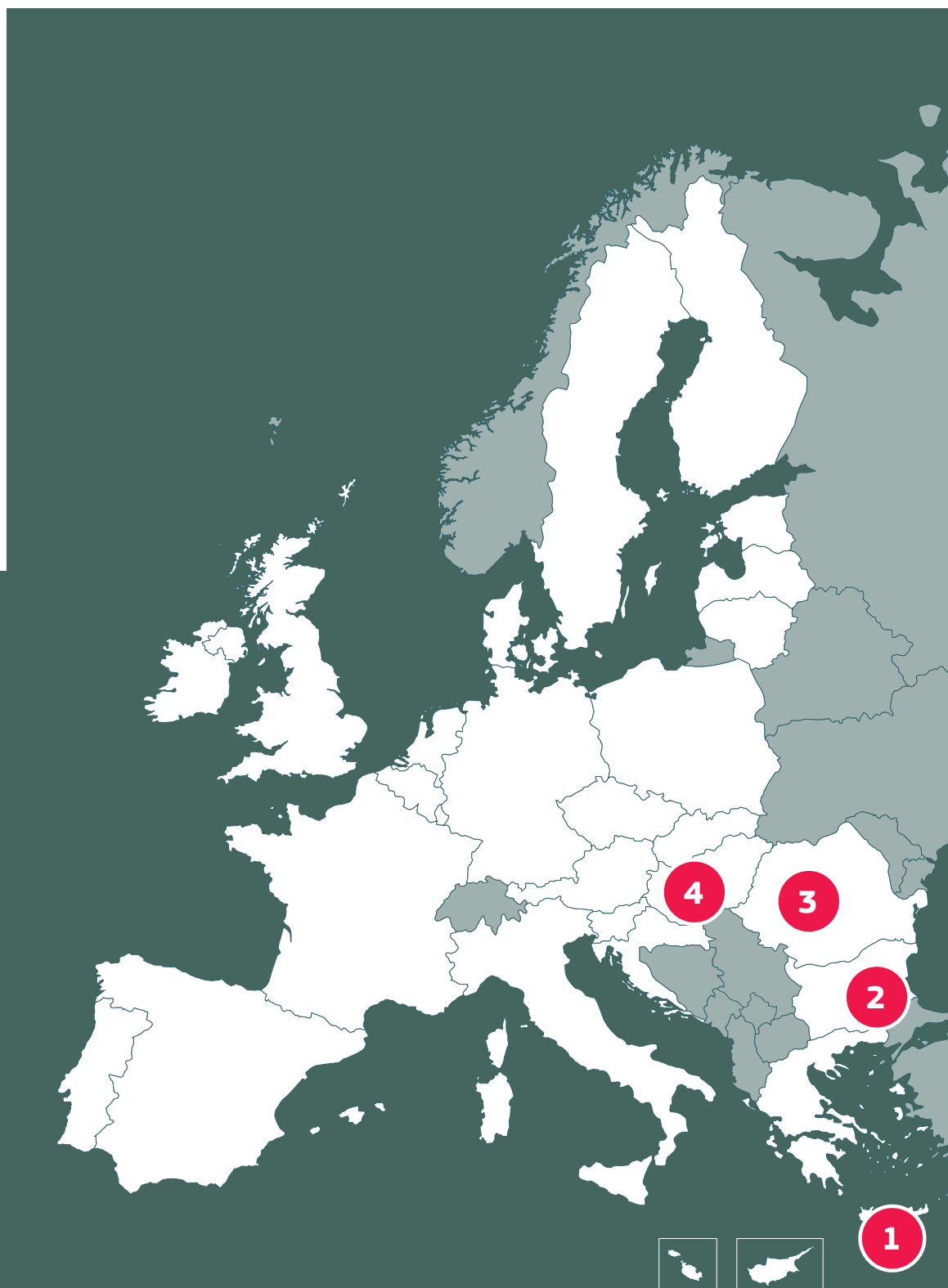
Solution:

Training and sharing of best practice is helping anti-poison dog units to help quickly identify cases of poisoning of protected species and collect evidence.

Outcome:

The evidence gathered by the LIFE dog units has led to successful prosecutions in Spain, Hungary and elsewhere.

Read more on page 46.





1

Legal lessons aid Greek wildlife

By training legal professionals, LIFE Natura Themis will promote the effective implementation of legislation that protects biodiversity in Natura 2000 sites in Crete.

“Our research has highlighted the inadequate implementation of environmental legislation in Crete,” says Michalis Probonas of the University of Crete (UoC) and coordinator of the LIFE Natura Themis project. “This weakness is mainly due to the lack of knowledge of environmental issues by the justice system, state administrators and citizens.” The project team has developed training seminars for judges, state prosecutors, public servants and environmental NGOs, which will be held during 2018.

“The purpose of the seminars for judges and state prosecutors is to improve their capacity to identify wildlife crime as a separate case for prosecution, and to provide them with the skills to guarantee the correct and efficient application of EU environmental law and the Environmental Liability

Directive [ELD] with regard to biodiversity protection,” says Dr Probonas. They also provide a valuable forum for the exchange of knowledge and experience.

Numbers expected to attend project seminars:

- 600 lawyers
- 300 prosecutors and judges
- 150 members of environmental NGOs
- 100 public officers

To complement the seminars, the project team is producing technical guides for the judiciary, lawyers, state administrators and citizens. These will help facilitate the prosecution of wildlife crime and the implementation of the ELD in Greece.



Photo: © 2017 – LIFE14 GIE/GR/000026/NHMC/Popi Baxevari. All rights reserved. Licenced to the European Union under conditions.

A prosecutor's perspective

Panagiotis Panagiotopoulos is a prosecutor and a member of the Committee of Experts of the LIFE Natura Themis project. He was serving as a prosecutor in the Heraklion Public Prosecution of a First Instance Court during 2014.

"I am very interested in the protection of the environment," says Mr Panagiotopoulos, who has prosecuted cases of environmental crime in the past. "LIFE Natura Themis can provide legal professionals with important statistics about environmental crimes, information about biodiversity conservation and the need to protect wildlife, and information about the way

that penal law and civil law protect the environment," he explains.

"It is very important that judges and prosecutors understand that environmental crimes are serious crimes and not crimes of lower importance," believes Mr Panagiotopoulos. "It is important to understand that environmental crimes destroy the quality of our life. By understanding how harmful the crimes are, they can be dealt with more strictly."

"It is very important that judges and prosecutors understand that environmental crimes are serious crimes and not crimes of lower importance."

LIFEJustice for Nature

To improve Poland's ability to implement EU Nature policy it is necessary "to raise the level of awareness and knowledge of nature protection of judicial and law enforcement authorities," explains Renata Putkowska-Smoter, manager of LIFEJustice for Nature.

This project will develop free e-learning courses and training seminars for judges and law enforcement authorities (police, prosecutors and forest inspectors) and work to improve local cooperation between them and regional directorates of environmental protection. The end goal: effective protection of nature.



Photo: LIFE11 INF/IT/000253

Targeted training helps customs tackle illegal wildlife trade

2

The Return of the Neophron project trained customs officers from Bulgaria and Greece, boosting their ability to deal with trafficking of birds and eggs. Officers from Kipoi Border Post on the Greece/Turkey border were among those to take part.



Kipoi Border Post is the busiest border land crossing border between Greece and Turkey. "About one million people enter and exit the EU at this border. And about 70 000-80 000 trucks too, says Athanasios Grigoriou, Director, Kipoi Customs Office. "It's a lot of traffic and it's increasing all the time." Controls of commercial and passenger traffic take place in line with the Eu-

ropean risk analysis system. "We do every kind of control," explains Mr Grigoriou. "Tobacco, cigarettes, alcohol, drugs, money, weapons, illegal immigration, external threats, CITES [protected species] and archaeological treasures."

In 2014, the Return of the Neophron project's partners from the WWF in Dadia,

north-east Greece, arranged a presentation for customs officers at Kipoi border post. "The goal was to help our customs officers to know more things about illegal trafficking. How to recognise if a bird or an egg is not allowed to move or be transferred or needs appropriate documentation to do this," says Mr Grigoriou.

Hard to handle

"It is difficult for us to handle these kinds of cases because when we find something it is not something common," he adds.

Around 20 customs officers from Kipoi attended the training. Among them was George Kansizoglou. "We have to apply very broad legislation and we have priorities when we are doing controls. But you have priorities because you know something matters a lot. When you are not familiar with something, you are afraid to proceed."

Return of the Neophron's support has had a direct impact on the work of Mr Kansizoglou and his colleagues. Since 2014, the border post has dealt with four wildlife crime cases. "We had not had any before, but when something is in your mind – 'this crime is taking place' – you think about it when you do a control," he says.

"The first case in 2014 was a long-legged buzzard (*Buteo rufinus*) that was being transported from Turkey into the EU. This was the most important case because it

was a live bird," explains Mr Grigoriou. At first we thought it was a hawk for falconry. Because the presentation from the project had just happened it was in our minds to double check. We asked the people working there to come and certify that this was illegal."

Customs handbook

Return of the Neophron published a manual for the prevention of endangered species trafficking, available in Bulgarian, Greek and Albanian. This primarily focuses on birds of prey, as well as owls, songbirds and eggs of some species protected under CITES or the EU Birds Directive. "It's a very practical and easy guide for regular customs officers. If they find something they can just open the book, see what species it is, where it is in the legislation, what is the status and also how to deal with it," explains Dimitar Gradarinov, BSPB's Bird Crime Officer.

"I think it will have a huge impact in detecting bird crime," says Mirjan Topi from the Association of Protection and Preservation of Natural Environment in Albania, one of the local collaborators of this LIFE project. "It is the first book of its kind in Albanian and there is a real lack of knowledge among enforcement officials of the laws that protect wildlife in Albania and on identification of species: this book enables both."

Collaboration leads to conviction

Certification of the species was done by Soufli Forest Service, the statutory authority for environmental matters in the region. "We are by law obliged to react when they invite us. When they have an incident they call us to go there to certify the species," explains Panayiotis Alexoudis, Director of the Department for Forest Protection in Soufli Forest Service. His team called on the support of the Return of the Neophron (WWF Greece) project partners in Dadia to help identify the raptor found at Kipoi. "We collaborate with WWF Greece and the Management Body of Dadia National Park because for certain issues they have more specialised knowledge," notes Mr Alexoudis.

Mr Grigoriou from Kipoi Customs Office recalls that the certificate was requested on the 5th of September 2014, "And we had it on the 6th. It needs to be speedy because we can only detain someone for 24 hours. When we have the certificate we inform the public prosecutor for this area. In some cases, we are able to issue a penalty ourselves under the customs code."

The rapid reaction helped ensure that the case went forward to the public prosecutor. The perpetrator – a UK national – received a fine of 768 euros and a suspended prison sentence. "If he commits the same crime again in the next three years he will go to jail," notes Mr Kansizoglou.

Mr Grigoriou is very positive about the benefits of LIFE's assistance to his team. "Because of this cooperation with people working for this project, we feel more comfortable and are not afraid to meet the challenge of such cases."

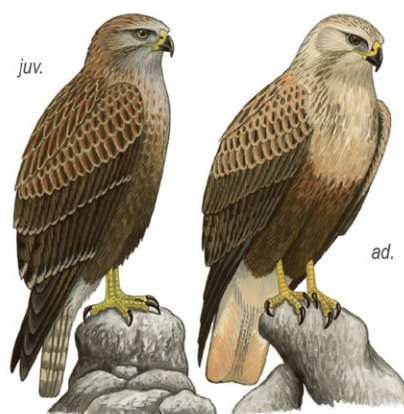
A repeat of the 2014 bird crime presentation is planned for 2018 thanks to the Egyptian Vulture New LIFE project. This will refresh the memories of the customs officers and ensure that newer recruits are able to deal with similar cases in future. The customs officers are also equipped with copies of a handbook produced in three languages by BSPB as part of the Return of the Neophron project (see above).

Photo: Ravisangeetha/CC BY-SA 4.0



"Because of this cooperation with people working for this project, we feel more comfortable and are not afraid to meet the challenge of such cases."

Customs handbook illustration of *Buteo rufinus*:



ILL: LIFE10 NAT/BG/000152

Tackling illegal killing along migratory flyways

LIFE projects to conserve the Egyptian vultures are moving beyond its breeding grounds in the Balkans to take action along the whole migratory flyway of the species. This is also building local conservation capacity and leading to new knowledge and awareness of this highly-prized species.

Paschalis was a juvenile Egyptian vulture (*Neophron percnopterus*) hatched in 2013 in Dadia, Greece and tagged with a satellite transmitter as part of the LIFE project The Return of the Neophron. He was the only one of 10 such juveniles to successfully migrate to wintering grounds in southern Niger. In late February 2014, the coordinating beneficiary of the project, the Bulgarian Society for the Protection of Birds (BSPB), noticed that his transmitter

was giving a signal from the same location for a long time, followed by the loss of the signal. This was an indication that there might be a problem. The last signal from the bird in the wild was received from a site about 115 km north-east of Zinder (some 140 km from the border with Nigeria) and the next signals were from a house in the nearest village. A few days later, the transmitter was exported to Nigeria.

BSPB contacted its LIFE project partners from the Sahara Conservation Fund (SCF) in Niger and the A.P. Leventis Ornithological Research Institute (APLORI) at the University of Jos in Nigeria to investigate. These simultaneous investigations took place in March and April 2014 and revealed crucial information that is now being used to protect Egyptian vultures and other migratory species⁴.

What happened to Paschalis?

"The last location they had was not very far from where I used to live so I sent a team of local colleagues to investigate. They managed to get the story about why this vulture had been killed," recalls Thomas Rabeil of SCF.

The investigation revealed that Paschalis was killed by a traditional vulture hunter who comes regularly from Nigeria. His aim was to sell the bird to customers in Nigeria for traditional 'blood money' [juju] ceremonies.

"People in some parts of Nigeria believe that the vulture is a very wise animal. If you kill a vulture or if you do some be-

lief-based use – e.g. eat vulture parts and keep it on you, somehow you are able to become as wise as the bird itself," explains Dr Manu Shiiwua, Director of APLORI. For instance, some people believe that by smoking the vulture's brains they can see into the future.

APLORI discovered that there is a big market for vulture parts in south-west Nigeria. "Every vulture part is sold in the market – even its droppings. It's not just vultures, other species of birds as well," says Dr Shiiwua. Though illegal, "these markets are not hidden; it's a traditional practice, that's the difficult thing."

Vulture parts are valuable and what Paschalis's tale showed was that the market for vulture parts in Nigeria was also having a negative impact on the species in neighbouring countries such as Niger and Chad. "There were jokes in Niger that once raptors cross the border with Nigeria they never come back! We didn't know why, but now we understand," says Dr Rabeil.

4. For the full story see http://lifeneophron.eu/files/docs/1431623272_325.pdf

Across the border

The SCF team in Niger began working with wildlife authorities and local communities to change perceptions of vultures. “The Egyptian vulture is listed in Appendix 1 of the wildlife law in Niger, but the rangers and wildlife authorities didn’t pay it any attention. It was considered a pest, a useless species,” recalls Dr Rabeil. SCF worked with the LIFE project to raise awareness. “We implemented a public awareness campaign with some journalists, people from the wildlife authorities and the NGO,” he says. “We also visited the main rulers. Traditional hunter is an official job in Niger. For example, in Zinder, which is quite a big town, the second or third largest in the country, the Sultan has more than 200 traditional hunters working for him.”

Dr Rabeil says this campaign was very useful in sensitising people to the issues, the threats to the species and the vulture’s important role as an ecosystem service provider. “There was a better understanding of the importance of the vultures within the wildlife authorities. We managed to get very strong support from the main rulers.” The project also worked with the traditional hunters, increasing their awareness of which species are protected by the law and which can be hunted and providing compensations for any impact on their livelihoods. “We tried to do that by hiring some of them to use their knowledge about wildlife for tracking purposes,” explains Dr Rabeil.

Photo: LIFE10 NAT/BG/000152/Svetoslav Spasov



“The enthusiasm with which everybody along the flyway is coming on board is very positive.”

New LIFE for vultures

Now LIFE is helping to build on these first steps. The newly-funded Egyptian Vulture New LIFE project aims to reinforce the breeding population of the species in the Balkans by carrying out measures in its breeding grounds and along its migratory flyway, with the active involvement of 10 countries in Africa and the Middle East, as well as four in the Balkans. Both SCF and APLORI will be involved in the new project.

“We will be monitoring the micro habitats of the Egyptian vulture: noting where they are found and seeing what is attracting them to those habitats where they are stopping over,” says Dr Shiiwua in Nigeria. “We will also be doing awareness campaigns along their route, working with the Nigerian Conservation Foundation.” These campaigns will involve a lot of face-to-face meetings, as well as pamphlets and other materials in the local language, Hausa.

“The enthusiasm with which everybody along the flyway is coming on board is very positive,” says Dr Shiiwua. “I think the project will be very useful. Take Nigeria for example: we get to locations where some of the birds have fallen victim and we will talk to some of the people just on a one-to-one basis; another country does something; the next does something, it passes on a very good message: at least some of the birds will come out here and return.”

According to Thomas Rabeil: “If we want to protect Egyptian vultures along the pathway during their seasonal movement, it’s very important to get a great collaboration with all the stakeholders in the different countries. This LIFE project is a real opportunity for that. It’s not only going to benefit the Egyptian vultures, it’s going to benefit all the vultures and all the raptors.”

What would be a successful outcome of this project? “First of all that more awareness is raised among all the stakeholders; second, that if we want to implement the right actions in terms of conservation for this species, we need to improve our knowledge; and globally the collaboration between the different countries along the flyway, which didn’t exist at all before. The former EU project was the real kickoff for that,” believes Dr Rabeil, mainly through the Flyway Action Plan for the Conservation of the Balkan and Central Asian Populations of the Egyptian Vulture. Known as EVFAP, this is a key element of the Multi-Species Action Plan to conserve African-Eurasian Vultures (Vulture MsAP) endorsed by the CMS range states at COP12 in October 2017.



LIFE's canine detectives

4



We have already seen how dog units can deter potential poisoners. In this chapter, we look at the methods and protocols different dog units use to gather evidence of poisoning cases.

The HELICON project (see pp. 14-17) established the first anti-poisoning dog unit in central Europe, with the aim of protecting the imperial eagle (*Aquila heliaca*) and other birds of prey. Unit

leader Gabor Deák and his dog Falco have found over 200 illegally killed birds and poison baits that would not have been discovered by other methods.

Training the dog units

Falco, a 10-month old German Shepherd, was one of two dogs specially-bred for search work that underwent training at the Dog Training Centre of the Hungarian National Police.

"Falco used his nose very well and was good at problem-solving," says his handler Gabor. "The other dog was a good searcher, but Falco checked large areas very fast and this habit is very good for searching in fields."

During four months training with handler Gabor, Falco first learned to find bird of prey carcasses, then carbofuran and phorate, and finally both carcasses and poison in baits such as animal parts and eggs.

"Units in some countries use passive signals, for example, the dog finds something and sits down or lies down next to what he finds. However, Falco alerts me by barking because usually we search in bushy areas or wetlands, and in this case I would not see the dog."

The dog teams of the WOLF IN THE ALPS project in northern Italy have been trained to detect more than 30 types of poison: "The most common poisons used in baits in the Alps," explains the project's technical manager, Francesca Marucco. "Of particular concern in recent years is alfa-beta endosulfan (an organochloride), which is a very dangerous illegal poison that has been found in Cuneo Province during the LIFE project," she explains.

The search for evidence

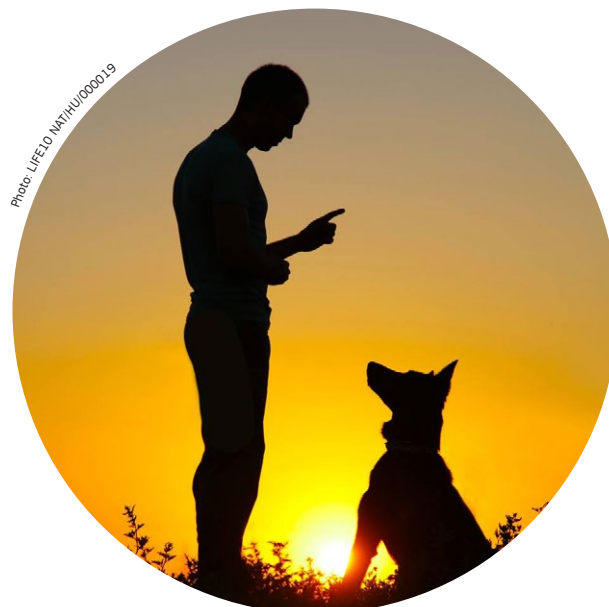
"If there is some poisoning activity made by a poacher, then usually the dog team is the first to be contacted and they quickly go into the field to try to detect the poison," explains Ms Marucco. A rapid response is crucial both to stopping the spread of the poison and potentially catching the perpetrators.

"We need to be ready to act fast because it is like a bomb. It's like a mine in the fields. We try to collect all the poison baits and animals as fast as we can. We want to catch the vicious circle and stop it," explains Ela Kret of WWF Greece, who patrols the Dadia

Forest Reserve with Malinois breed dog, Kiko. "In the beginning we thought we would patrol three times per week and patrol particular areas but then we realised that it's like playing a lottery. You have the same chance to find a poison bait if you go randomly in time and place," she says. Responding to call outs (from the forest service, parks authority or concerned citizens) reduces the chance that Kiko will work without reward, which would reduce his motivation.

In Hungary, Falco "finds every dead bird and animal," explains Gabor. "Every year he learns new things." It is dangerous work. Diet is very important, because Falco must not recognise the baits as food. "He only eats dried food, specially formulated for sports dogs, which is high in protein, fat and vitamins," says Gabor. The job can also be stressful for the dog handler, especially on days when large numbers of dead birds and animals are found. It's dangerous because while working the dog is free. You need to be in good shape because sometimes you need to run," explains Ela Kret.

Ela and Kiko work closely with the Soufli Forest Service and the management authority of Dadia Forest Reserve to gather evidence. "If you collect a potentially poisoned sample you have to be careful how you keep it, how you give it to the veterinarian, how the sample is analysed, if you want to build a strong case for the court," says Dr Dimitris Vasilakis forest officer of Soufli Forest Service, responsible for forest and wildlife management in Dadia National Park. "The toxicological analysis has to be done in a certified public laboratory, for example."



Police dogs do better?

While the training and working methods of different anti-poison dog units are similar, they can be managed by many different types of organisation, sometimes even within the same country. For instance, in Greece, there are units operated by the Hellenic Ornithological Society and the Cretan Hunting Federation (paid for by the National Museum of Crete), as well as WWF Greece. Some organisations also bring in dogs from specialist handlers on a contract basis.

Dr Vasilakis and his colleagues at Soufli Forest Service believe that it would be far more effective for enforcement purposes for anti-poison dog units to be run by the state Forest Service, as they would have more authority and standardised protocols.

In both Spain and Portugal, the gendarme service operates anti-poison dog units initially established through LIFE projects. "I realised that there was a very big difference between the number of poisoning incidents detected by the dog units and what came to court," says Lieutenant Colonel Costa Pinto of the Portuguese National Republican Guard (GNR), which now operates eight anti-poison dog units with the support of LIFE, trained to adapted FRONTEX standards. He believes that by having police dog units doing the work rather than, say dogs owned by NGOs, there will be a more effective link to investigations and a stronger deterrent effect. It also guarantees that the units will continue to operate after LIFE project funding ends (see pp. 53-54).



1

Problem:

Prosecutors and judges lack the capacity to enforce the EU Nature Directives. This is particularly the case in Mediterranean countries and parts of Eastern Europe.

Solution:

A LIFE project is supporting the work of the European Network of Prosecutors for the Environment to make the application of environmental law more consistent across Europe.

Outcome:

ENPE is developing new training tools for prosecutors and judges. "If they have better training, more self-confidence to monitor investigations they will investigate more and prosecute more," says ENPE Secretary-General, Lars Magnusson. The project is also building a database of good practices and raising awareness in the whole chain of enforcement.

Read more on page 50.

2

Problem:

In order to successfully prosecute those responsible for wildlife crime, the police need resources and protocols to investigate cases.

Solution:

The Hungarian Bureau of Investigation (NNI) has set up a nine-person environmental crime sub-unit. This team was a partner of the HELICON and PannonEagleLife projects, investigating cases of mass poisoning or illegal killing of strictly protected species, such as the imperial eagle.

Outcome:

Through the LIFE project, the NNI developed protocols for investigating wildlife crime and provided training to around 250 police officers. There have been five successful prosecutions as a result.

Read more on page 52.

3

Problem:

Most anti-poison dog units are operated by NGOs or environmental agencies. While they can still have a positive impact in investigating wildlife crime, they do not have the same power to enforce the law that police dog units have.

Solution:

Two Portuguese LIFE projects worked with national police dog units to investigate suspected cases of poisoning of protected species.

Outcome:

Six dog units have been set up to cover the four major Portuguese Natura 2000 network sites. The national police will maintain the dog units and enlarge the scope of their role when the LIFE projects finish.

Read more on page 53.

Enforcement and legal aspects

4

Problem:

Few cases involving the illegal poisoning of wildlife reach the courts and result in convictions.

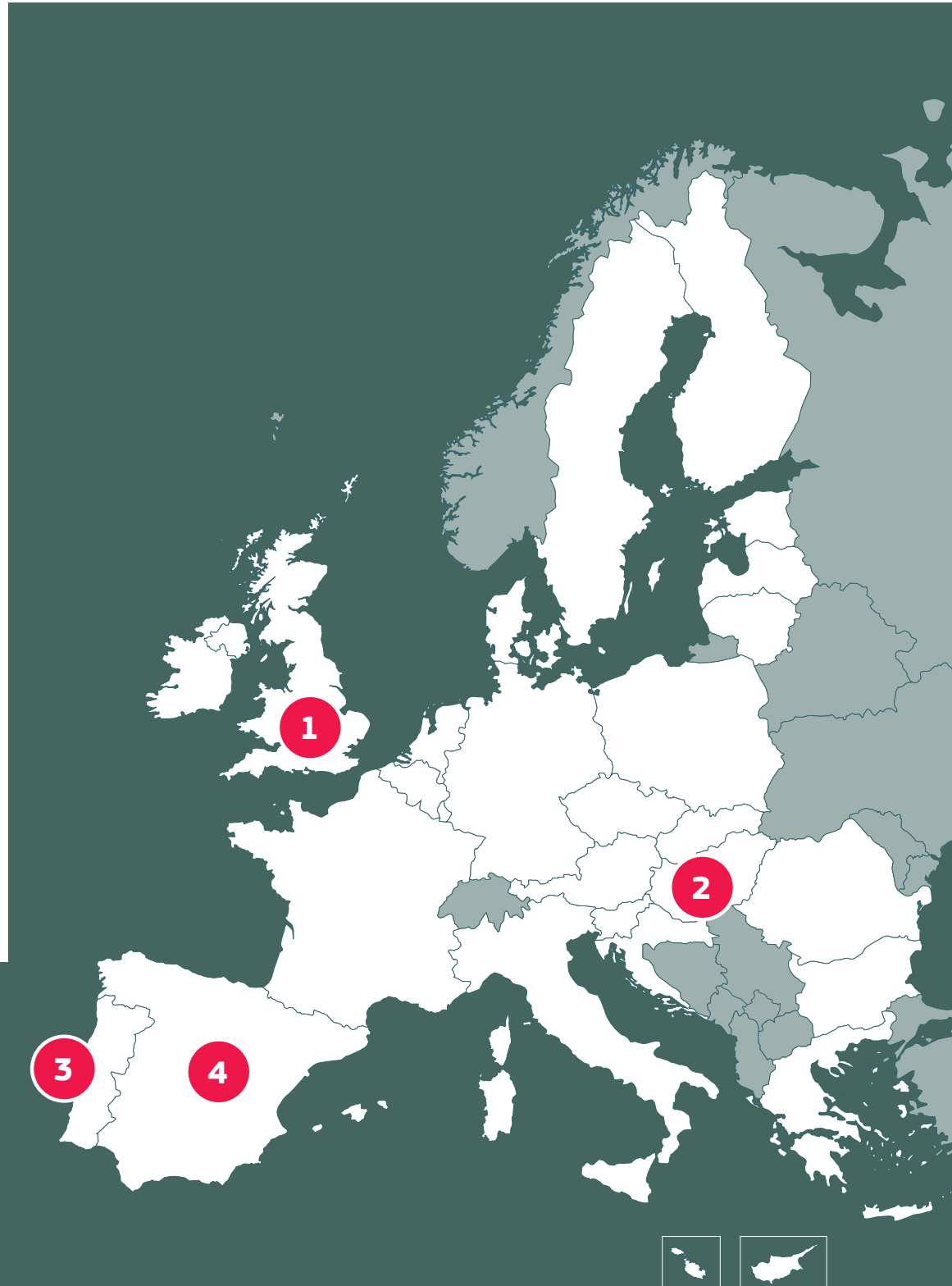
Solution:

The LIFE VENENO NO project promoted close cooperation between bird conservation organisations, investigating officers and legal professionals. It also developed a protocol for toxicological laboratories, since this is the most important evidence in court.

Outcome:

The project led to 24 court cases involving illegal bird poisoning. These have resulted in around 13 convictions, with sentences of up to two years in prison. The project also developed action plans for tackling poisoning that have informed an action plan to tackle illegal poisoning throughout the EU, drawn up by the European Network against Environmental Crimes.

Read more on page 55.



Building the capacity to prosecute wildlife crimes

1

Lars Magnusson is Secretary-General of the European Network of Prosecutors for the Environment. A LIFE project called ENPE is supporting the network's efforts to make the application of environmental law more consistent across Europe. This involves giving public prosecutors and judges the knowledge and confidence to pursue such cases.

Interpol and the United Nations Environment Programme estimate the cost of international environmental crime to be around €188 billion per year. High levels of environmental crime can be partly attributed to inefficient and ineffective prosecution and sanctioning. Wildlife crime (under the Habitats Directive, Birds Directive or CITES Regulations) is notoriously difficult to prosecute because the law in this area is complex and because criminal circles are small, highly organised, closed and hard to penetrate.

The European Network of Prosecutors for the Environment (ENPE) was founded in 2012 with the goal of making sure that environmental law is applied in a more consistent manner across Europe. "It's an organisation for prosecutors who want to prosecute environmental crime, to make

it easier to cooperate across borders and who want to facilitate other prosecutors to make more prosecutions on environmental crimes," explains Lars Magnusson.

Since 2016, the network has been running a LIFE project (also called ENPE) designed to build a self-sustaining network of environmental prosecutors, improve the sharing of information on environmental crime, and improve capacity and consistency for combating transnational waste, wildlife and chemical crimes.

Lars Magnusson chairs ENPE's wildlife crime working group, which is tasked with looking at four main issues: interpretation, practical application, evidence gathering and quantification of damage to the environment from failure to apply the law relating to wildlife.

"The hardest thing is to mobilise interest in the investigative organisations in the Member States to prioritise these types of crimes," says Mr Magnusson. He recognises that some countries may have more pressing priorities than illegal killing of migratory birds, "but there should be some space for these kinds of cases."

Mr Magnusson points out that in Sweden, which along with the UK and the Netherlands, has a dedicated environmental crime unit within the public prosecution service, there are around 3 000 suspected environmental crimes per year, of which around 15% result in a prosecution or a crime. "Our goal is to increase that figure to 25%," he says. "Only a small percentage of the cases are wildlife crimes."

Dealing with tricky cases

One barrier to increasing the number of prosecutions is the complexity of the cases. "It's tricky legislation. Maybe the cases end up at the bottom of the pile on the prosecutor's desk. We want to make a guide to navigate the legislation. How to avoid the pitfalls in it and explain all the derogations and exemptions, because there are a lot of them. We want to present

different cases in webinars or as slides, and make prosecutors understand that if you are methodical, it may not be that tricky," explains Mr Magnusson.

The project is building a database of good practices, cases such as the prosecution of a poacher who killed northern bald ibises in Italy (see pp. 27-29).

"We must raise awareness in the whole chain of enforcement – from the inspectors to police, prosecutors and the judges," believes Mr Magnusson. To facilitate this process, in September 2017, ENPE signed a Memorandum of Understanding with organisations representing inspectors (IMPEL) and police and other enforcement agencies (EnviCrimeNet).



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The European Forum of Judges for the Environment (EUFJE) was already a partner in the LIFE project: “our working group on prosecution and sanctioning is chaired by a judge,” notes Mr Magnusson. “I hope the MoU will facilitate the different Member States to support our work and to be open-minded in collaborating over state borders.”

“I think the key factor in many countries are the prosecutors,” he adds. “If they have better training, more self-confidence to monitor investigations they will investigate more and prosecute more.”

ENPE includes member organisations from 15 countries. “The gaps are in the Mediterranean and Eastern Europe,” explains Mr Magnusson. The network is already expanding to cover some of those gaps, adding new member organisations representing Greece, Albania and the Former Yugoslav Republic of Macedonia in early 2017. “I hope we will have even more members by the end of the project. It doesn’t cost anything to join.”

“I think the key factor in many countries are the prosecutors,” he adds. “If they have better training, more self-confidence to monitor investigations they will investigate more and prosecute more.”

Damage quantification: Updating the ‘Finnish price list’

As part of its remit of identifying barriers and solutions to the issues prosecutors and judges encounter in quantifying damage, the ENPE project is investigating ways of assigning appropriate intrinsic value to species. Work to date is based on the so-called ‘Finnish price list’ (see box), a 2002 regulation on guidelines for protected animals and plants produced by the Finnish Environment Ministry⁵.

“This price list was used for a case involving egg collectors in Finland, Sweden and the UK. One person convicted in Finland was given a fine of €225 000 in total”, explains Mr Magnusson. In general, however, he believes that “current penalties are not dissuasive enough.”

5. <http://www.finlex.fi/sv/laki/alkup/2002/20020009>

What’s next?

“Our members have identified trafficking in endangered species as a priority for training. Our next task is to develop the materials to do that. We will also have more conferences where we bring inspectors and police and prosecutors together to

present success stories,” says Mr Magnusson. “We also plan to hold a workshop on the killing of Mediterranean birds. We will invite prosecutors from relevant non-EU countries like Egypt and Lebanon, where a lot of birds are killed.”



Photo: LIFE03 NAT/S/000073

The Finnish price list

Examples of intrinsic values assigned to protected animals and plants in the Finnish regulation:

- Saimaa ringed seal (*Phoca hispida saimensis*) €9 755
- Arctic fox (*Vulpes lagopus*) €7 400
- Golden eagle (*Aquila chrysaetos*) €4 877
- Common kestrel (*Falco tinnunculus*) €1 009
- Great bittern (*Botaurus stellaris*) €589
- Common raven (*Corvus corax*) €151
- Redstart (*Phoenicurus phoenicurus*) €17

2

Hungarian police investigations

Ákos Horváth is a policeman with the Hungarian National Bureau of Investigation (NNI). He was a professional hunter before joining the police.

This experience has proved useful when it comes to fighting bird crime.



"There are nine detectives in my environmental crime sub-unit. Three of us work with animals: one with CITES, one with reptiles, and myself with bird crime," says Mr Horváth.

The NNI was an associated beneficiary of the HELICON LIFE project, which aimed to conserve imperial eagles by managing human-eagle conflicts. The police investigated cases arising from HELICON and the follow-on PannonEagle Life project.

"NNI is called in for mass wildlife poisoning or when strictly protected species are affected; so for imperial eagles a field investigation is always required," says Mr Horváth. "We need to collect both objective and personal evidence. Objective evidence is, for example, the poison bait. Personal evidence is, for example, a confession."

"Toxicological results are the basis for convictions, so are always at the start of a case," says Mr Horváth. They are accompanied by a range of other evidence, including that collected by the dog unit (see pp. 46-47), phone tapping operations, and images captured by photo-trap cameras. Mr Horváth recalls how good evidence was collected, for example, by camera traps near pheasant breeding farms where poison baits had been found.

Six cases were investigated during the HELICON project. Five led to prosecutions and one is still in progress. Mr Horváth explains how the project team provided prosecutors and judges with information on the significant environmental impact of poisoning, putting the crime into context by helping them to understand that poisoning affects whole ecosystems. "This has resulted in more serious penalties over time, reaching even a suspended jail sentence in two cases."

Protocols and training

The Police Investigation Protocol, one of three protocols produced during the HELICON project, sets out procedures to follow in cases of suspected bird crime, and summarises the four articles of the criminal code relating to bird crime: nature damage, abuse of poisons, animal cruelty, and poaching. "I wrote the protocol for police field investigation," says Mr Horváth. "It has been uploaded to the police intranet, so all police forces around Hungary can access it in cases of bird poisoning."

Mr Horváth and other LIFE team members organised training days for police officers. "We held training days for all 19 counties in Hungary," he says. "Around 250 police were trained. We also trained hunters." In addition, police officers learn skills, such as bird identification, in the field with Park Rangers.

The police training was not just about developing specialist knowledge and skills. A person was selected within each county's police force to handle bird crime cases as a result of the LIFE training.

Lessons

- Clear protocols for dealing with wildlife crime
- Training for police officers
- A dedicated wildlife crime officer in each regional/county force
- High-level networking and joint action between police, prosecutors and judges

3

Investigating illegal poisoning in Portugal



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The Portuguese National Republican Guard (GNR) established eight anti-poison dog teams as a partner in two LIFE projects. These police dogs operate in Natura 2000 network sites across the country, collecting evidence and deterring wildlife crime.

LIFE Imperial (2014–2018) supported the creation of six anti-poison dog teams in the GNR's environmental crime unit (SEP-NA). Another two dog teams were created within the framework of LIFE Rupis (2015–2019). The main aims of these two LIFE projects are to protect the Spanish imperial

eagle and Egyptian vulture, respectively, in Portugal. However, according to Lieutenant Colonel Costa Pinto of the GNR, the projects contribute not only to protecting specific species, but also entire ecosystems by removing poisons from the environment and food chains.

“LPN, the LIFE Imperial project beneficiary, contacted us about the possibility of being partners in this project, and it suited us perfectly,” he says. “We met expectations as dog detection unit trainers, and at GNR we needed to improve our capacity as an enforcement authority.”

Following the Spanish example

To establish the dog teams, GNR drew on the existing experience of SEPRONA, the Nature Protection Service of the Spanish Civil Guard. The LIFE project VENENO NO played a key role in helping SEPRONA develop best practices for training dog units to handle different types of poisons.

“From January to March 2016, we trained with the Spanish police, because they have a similar landscape and conditions, especially around Madrid, with very high temperatures,” says Lieutenant Colonel Costa Pinto.

Following the Spanish model, GNR established four teams of two dog units each (eight units comprising one handler and one dog in total). Each dog team patrols a different Natura 2000 network site covered by the LIFE projects.

The dogs were purchased from dedicated companies in Europe using LIFE funds. “We buy each dog for €3 200 and all the specialist training is done here in Portugal,” explains Lieutenant Colonel Costa Pinto. “They will work until they are eight or nine years old. When this group of dogs reaches the age of six, we have to start preparing a new group.”

A key development has been the establishment of a facility within GNR for breeding the next generation of dogs. These will be used to carry on the work started under the LIFE projects.

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Gathering evidence

The GNR dogs have been trained to detect nine types of poison, including aldicarb and strychnine (the two most frequently encountered). The protocol is that the dog units call their colleagues in GNR SEPNA, who are in charge of removing the poisons and often the surrounding contaminated soil.

“GNR collects and preserves the evidence, sends it to the toxicological laboratory, and reports the case to the public prosecutor. The focus of the dog units is to continue the search to avoid wasting time with the formalities. We on average do more than 120 patrols per year. Patrols can run until 20:00 in the evening during summer time,” says Lieutenant Colonel Costa Pinto. “The important thing is to identify patterns of poisoning. We are focusing more and more on trying to catch someone ‘red handed’, for example, in the act of buying baits. We’re also trying to improve the collaboration with criminal investigation personnel, to build stronger evidence for cases.”

His colleague Captain Gonalo Brito adds: “Ideally the physically fittest dog is the hybrid between a Belgian shepherd and German shepherd.” He notes that the handlers have previous experience of being in drug detection dog teams, but will stay in the anti-poison units after the LIFE projects end.

“We adapted the EU Frontex (European Border and Coast Guard Agency) dog training system to the reality of our country,” says Captain Gonalo Brito. For example, the dogs are also trained to bark to signal baits even without poison, as these have been found several times to contain nails that are dangerous to animals.

Seven incidents of poison baits have been detected in Castelo Branco, and nine in Beja, and these are being investigated.

“At the moment we are focusing our efforts to record the poisoning incidents that are subsequently collected by SEPNA, but we want the next step, especially with regard to criminal investigation, to intensify,” says Captain Gonalo Brito.

“The key point is that at the end of the projects we will have dogs that perform well and are capable of detecting a wide spectrum of poisons.”

Spanish bird crime prosecutions have lessons for EU

4

VENENO NO has helped authorities bring 24 cases involving illegal bird poisoning to court. These have resulted in 13 convictions. The project's work also informed an action plan to tackle illegal poisoning throughout the EU.



Before the LIFE project, few cases involving the illegal poisoning of wildlife reached the courts in Spain. The project team's achievements in promoting law enforcement and prosecution were built on close cooperation between coordinating beneficiary SEO/BirdLife, investigating officers and legal professionals.

Once it decides to take a case to court, SEO/BirdLife gathers evidence from various sources, in collaboration with lawyers and authorities (such as Spain's Guardia Civil). The team also work with environmental prosecutors to ensure they are aware of illegal poisoning issues. Each case, in effect, raises awareness of legal professionals and the general public about the seriousness of poisoning to birds of prey, and biodiversity generally, in Spain.

SEO/BirdLife prepares information, for example, on the type of poison baits used and where they are found (e.g. in a Natura 2000 network site), and the species involved and its protected status.

Toxicological reports are the most important evidence in court, according to project coordinator David de la Bodega. VENENO NO helped to increase the effectiveness of these by producing a comprehensive report on poison baits (see pp. 20-21), along with a protocol for toxicological laboratories.

Two of the most serious cases involved the poisoning of six Spanish imperial eagles (*Aquila adalberti*) in Castille-La Mancha and the poisoning of over 140 raptors in Navarre.

Securing convictions

Convictions obtained in some cases have resulted in prison sentences, ranging up to two years.

In Spain, crimes are also evaluated in terms of civil responsibility, so wildlife crimes take into account the value of animals. SEO/BirdLife has argued that civil responsibility should take into account the conservation value of illegally killed birds, in relation to entire regional populations, and also the public investment in protecting the species, for example LIFE projects.

In the case of the six eagles poisoned in Castille-La Mancha, each was valued at €60 000. The judge increased the severity of the fine because he took into account

the conservation importance of the species when considering civil responsibility.

A case heard in northern Spain in 2015, involving the poisoning of 11 red kites (*Milvus milvus*) and other wildlife, resulted in a two-year jail sentence and a €90 270 civil responsibility fine, with an additional €28 500 fine to be used for monitoring red kites for three years in Cantabria. The farmer found guilty was also disqualified from hunting and farming activities for several years. At that time, this was the toughest sentence passed for this type of crime in Spain.

Mr de la Bodega believes that successful convictions set a precedent that serves as

an important deterrent to such crimes in the future. According to the latest reports, some Spanish Autonomous Communities – including Andalusia, Aragón and the Canary Islands, have seen a reduction in the number of poisoning cases in recent years. In other Communities, such as Castille-Leon and Castille-La Mancha, the levels of poisoning are still very high.

Developing a European wildlife crime action plan

One of the main outcomes of the LIFE VENENO NO project was the development of action plans for tackling poisoning. These have informed an action plan to tackle illegal poisoning throughout the EU that has been drawn up by the European Network against Environmental Crimes (ENEC).

“We have seen that an action plan is a commitment for the administrations to develop minimum actions against poisoning, and administrations are responding in Spain,” says Mr de la Bodega.

In fact, almost all the Spanish Autonomous Communities have adopted or reviewed action plans to fight against poisoning, as a result of the project. This demonstrates that the issue of illegal use of poison has climbed up the political agenda in the country. But Europe as a whole should implement measures included in the action plan, Mr de la Bodega argues. “The results and outcomes obtained in the implementation of action plans have been essential in Spain, and it would be very good for all European countries to adopt these action plans.”

ENEC has adopted proposals for a European Action Plan to combat illegal poisoning of wildlife. The document proposes a co-ordinated strategy for all Member States to prevent, deter, monitor and ultimately, prosecute cases of illegal poisoning of wildlife within the European Union, where the illegal use of poison remains a serious problem for wildlife conservation.

Enduring legacy

The impact of VENENO NO is also being assured through continued funding for follow-up initiatives from private sources. After the LIFE project, the NGO also sent a proposal for a new project on environmental crime to the criminal justice programme in Spain. Efforts have achieved tangible results: since the start of the project in 2010, the number of cases of poisoning in Spain has decreased. “Collection of data on poisoning has allowed us to have a very good picture of what is happening in Spain,” explains Mr de la Bodega.

The project's impact can also be measured in the number of convictions for wildlife crime. VENENO NO identified 24 cases for which 13 convictions were obtained. Six cases are still to be adjudicated. Given that only around 70 sentences have been handed down since the use of poison baits was criminalised in Spain in 1995, the LIFE project can be clearly said to have resulted in a greater conviction rate.

Additional funding after LIFE has also allowed the NGO to continue its training of environmental officials. The training addresses the “great shortcomings” of the different police forces in this area and has a motivating impact on those attending the courses, believes Mr de la Bodega. “For many administrations, wildlife crime is not serious crime, and many officials and police are not really trained to investigate this kind of crime.”

But he cautions that more needs to be done. “It is necessary to improve the means of investigating environmental crimes, create forensic units to support the environmental police and guarantee the access of NGOs to environmental criminal proceedings.”

SEO/BirdLife is also continuing to promote the message of the importance of the action plans and the training, and Mr de la Bodega is encouraged to see that other

initiatives are following suit, including LIFE projects such as HELICON, which is targeting the persecution of the imperial eagle in Hungary (see pp. 14-17). “In every project tackling poisoning the VENENO NO action plan and training has been considered as one of the main actions to be implemented,” he says.

Selected wildlife crime projects

The table below includes a selection of LIFE projects on the illegal killing of wildlife.
For more information on individual projects visit the online database at <http://ec.europa.eu/environment/life/project/Projects/index.cfm>.

Reference	Project Title
POISONING	
LIFE97 NAT/NL/004210	<i>Black vulture Conservation in a European Network</i>
LIFE98 NAT/E/005351	<i>Conservation of the european black vulture in the SPAs of Madrid</i>
LIFE00 NAT/E/007340	<i>Black vulture conservation in Mallorca and in other ZEPAs in Spain</i>
LIFE00 NAT/IRL/007145	<i>The re-introduction of Golden eagle into the Republic of Ireland</i>
LIFE02 NAT/GR/008497	<i>Conservation of birds of prey in the Dadia Forest Reserve, Greece</i>
LIFE03 NAT/F/000103	<i>Recovery plan for the Egyptian vulture in South-Eastern France</i>
LIFE04 NAT/ES/000056	<i>Preliminary actions and reintroduction of the bearded vulture</i>
LIFE04 NAT/ES/000067	<i>The conservation of guirre in Spas of the Fuerteventura island</i>
LIFE07 NAT/E/000742	<i>Conservation of Mediterranean priority species in Castille-La Mancha</i>
LIFE07 NAT/IT/000436	<i>A new strategy against the poisoning of large carnivores and scavengers raptors</i>
LIFE08 NAT/E/000062	<i>Action to fight illegal poison use in the natural environment in Spain</i>
LIFE08 NAT/P/000227	<i>Enhancing Habitat for the Iberian lynx and black vulture in the Southeast of Portugal</i>
LIFE10 NAT/BG/000152	<i>Urgent measures to secure survival of the Egyptian vulture (Neophron percnopterus) in Bulgaria and Greece</i>
LIFE10 NAT/ES/000570	<i>Recovering the historic distribution range of the Iberian lynx (Lynx pardinus) in Spain and Portugal</i>
LIFE10 NAT/HU/000019	<i>Conservation of imperial eagles by managing human-eagle conflicts in Hungary</i>
LIFE12 NAT/ES/000322	<i>Conservation of the bearded vulture and its contribution to eco-system services</i>
LIFE12 NAT/IT/000807	<i>Implementation of coordinated wolf conservation actions in core areas and beyond</i>
LIFE13 NAT/ES/001130	<i>Natural feeding habitat restoration for cinereus vulture and other avian scavengers in central Spain</i>
LIFE13 NAT/FR/000093	<i>Reduction of the human threats affecting the bearded vulture</i>
LIFE13 NAT/IT/000311	<i>Italian emergency strategy for fighting illegal poisoning and minimize its impact on bear, wolf and other species</i>
LIFE13 NAT/PL/000060	<i>Conservation of nest zone protected birds in the selected Natura 2000 sites in Lubelszczynna region</i>
LIFE13 NAT/PT/001300	<i>Conservation of the Spanish imperial eagle (Aquila adalberti) in Portugal</i>
LIFE14 NAT/FR/000050	<i>Restoration of connections between the Alpine and Pyrenean populations of bearded vulture (Gypaetus barbatus)</i>
LIFE14 NAT/IT/000484	<i>Implementation of best practices to rescue griffon vultures in Sardinia</i>
LIFE14 NAT/NL/000901	<i>Conservation of black and griffon vultures in the cross-border Rhodopes mountains</i>
LIFE14 NAT/PT/000855	<i>Egyptian vulture and Bonelli's eagle Conservation in Douro/Duero Canyon</i>
LIFE15 NAT/HU/000902	<i>Conservation of the eastern imperial eagle by decreasing human-caused mortality in the Pannonian Region</i>
WILDLIFE TRAFFICKING	
LIFE11 INF/AT/000902	<i>Joint actions to raise awareness on overexploitation of Danube sturgeons in Romania and Bulgaria</i>
LIFE15 GIE/AT/001004	<i>Sustainable protection of lower Danube sturgeons by preventing and counteracting poaching and illegal wildlife trade</i>
TRAPPING	
LIFE07 INF/MT/000554	<i>Changing cultural attitudes to Trapping in order to facilitate implementation of the Birds Directive in Malta</i>
LIFE11 INF/CY/000863	<i>An awareness-raising campaign in Cyprus for appreciating biodiversity in our life</i>
LIFE13 NAT/CY/000176	<i>Improving lowland forest habitats for Birds in Cyprus</i>
LIFE14 NAT/IT/001017	<i>Measures for the conservation of Bonelli's eagle, Egyptian vulture and Lanner falcon in Sicily</i>
ILLEGAL HUNTING	
LIFE08 NAT/BG/000277	<i>Ensuring Conservation of Priority Bird Species and Coastal Habitats at the Bourgas Natura 2000 Wetland Sites</i>
LIFE10 NAT/GR/000638	<i>Safeguarding the LWf-goose fennoscandian population in key wintering and staging sites within the European flyway</i>
LIFE11 INF/IT/000253	<i>A safe haven for wild birds: Changing attitudes towards illegal killing in North Mediterranean for European Biodiversity</i>
LIFE13 NAT/UK/000258	<i>Conserving the hen harrier (Circus cyaneus) in northern England and southern and eastern Scotland</i>
LIFE13 NAT/IT/000728	<i>Strategies to minimize the impact of free ranging dogs on wolf conservation in Italy</i>
LIFE12 NAT/BG/001218	<i>Preserve Key Forest Habitats of the Lesser Spotted Eagle (Aquila pomarina) in Bulgaria</i>
ALL WILDLIFE CRIMES	
LIFE14 GIE/GR/000026	<i>Promoting awareness of wildlife crime prosecution and liability for biodiversity damage in Natura 2000 areas in Crete</i>
LIFE14 GIE/UK/000043	<i>European Network of Prosecutors for the Environment</i>
LIFE15 GIE/PL/000758	<i>You have right to effective protection of nature</i>

A number of LIFE publications are available on the LIFE website: <http://ec.europa.eu/environment/life/publications/lifepublications/index.htm>
A number of printed copies of certain LIFE publications are available and can be ordered free-of-charge at:
<http://ec.europa.eu/environment/life/publications/order.htm>

LIFE "L'Instrument Financier pour l'Environnement" / The financial instrument for the environment

The LIFE programme is the EU's funding instrument for the environment and climate action

Period covered 2014-2020

EU funding available approximately €3.46 billion

Allocation of funds

Of the €3.46 billion allocated to LIFE, €2.59 billion are for the Environment sub-programme, and €0.86 billion are for the Climate Action sub-programme. At least €2.8 billion (81% of the total budget) are earmarked for LIFE projects financed through action grants or innovative financial instruments. About €0.7 billion will go to integrated projects. At least 55% of the budgetary resources allocated to projects supported through action grants under the sub-programme for Environment will be used for projects supporting the conservation of nature and biodiversity. A maximum of €0.62 billion will be used directly by DG Environment and DG Climate Action for policy development and operating grants.

Types of projects

Action Grants for the Environment and Climate Action sub-programmes are available for the following:

- > "Traditional" projects – these may be best-practice, demonstration, pilot or information, awareness and dissemination projects in any of the following priority areas: LIFE Nature & Biodiversity; LIFE Environment & Resource Efficiency; LIFE Environmental Governance & Information; LIFE Climate Change Mitigation; LIFE Climate Change Adaptation; LIFE Climate Governance and Information.
- > Preparatory projects – these address specific needs for the development and implementation of Union environmental or climate policy and legislation.
- > Integrated projects – these implement on a large territorial scale environmental or climate plans or strategies required by specific Union environmental or climate legislation.
- > Technical assistance projects – these provide financial support to help applicants prepare integrated projects.
- > Capacity building projects – these provide financial support to activities required to build the capacity of Member States, including LIFE national or regional contact points, with a view to enabling Member States to participate more effectively in the LIFE programme.

Further information

More information on LIFE is available at <http://ec.europa.eu/life>.

How to apply for LIFE funding

The European Commission organises annual calls for proposals.

Full details are available at <http://ec.europa.eu/environment/life/funding/life.htm>

Contact

European Commission – Directorate-General for the Environment – B-1049 Brussels (env-life@ec.europa.eu).

European Commission – Directorate-General for Climate Action – B-1049 Brussels (clima-life@ec.europa.eu).

European Commission – EASME – B-1049 Brussels (easme-life@ec.europa.eu).

Internet <http://ec.europa.eu/life>, www.facebook.com/LIFE.programme, twitter.com/lifeprogramme

LIFE Publication / LIFE and Wildlife Crime

