# Annual report on bird crime incidents in the Pannonian region - 2017

PannonEagle LIFE project, LIFE15/NAT/HU/000902 Action C1.



Photo: Gábor Deák

































# **Summary**

Current report summarizes the overall results of Action C1 of the PannonEagle LIFE project from the start (October 1, 2016) until the end of the year 2017. At this starting phase of the project new birdcrime reporting platforms were developed, additionally to the already existing ones. Beside the national hotlines, online reporting form at the project's website and a newly developed mobile app in 6 languages are also available. We purchased new equipment, such as drones and trained new dog units to help data collection on the field. The project partners also developed a regional database to aid data management and analysis.

In case of the Eastern Imperial Eagle the poisoning is still the leading human-caused mortality among all known deadly threats. In year 2017, there were 31 Imperial Eagles found dead in the project countries. From these 8 were known to be poisoned, 5 collided with vehicles (car, train) and 4 got electrocuted.

In the reporting period (10/2016- 12/2017) the PannonEagle project partners reported altogether 85 cases where illegal raptor persecution could be suspected or proved. Around half of the cases are definitely poisoning, either directly or indirectly and another 20% can be added as suspected poisoning.



# **Abbreviations**

#### **Project partners:**

BL\_AT BirdLife Österreich

BPSSS Bird Protection and Study Society of Serbia (Društvo za zaštitu i proučavanje ptic ab Srbije)

CSO BirdLife Czechia (Česká společnost ornitologická)

HNPD Hortobágy National Park Directorate

INCVP Institute for Nature Conservation of Vojvodina Province

KNPD Kiskunság National Park Directorate

MME BirdLife Hungary

MZP Ministerstvo životního prostředí (Ministry of the Environment of the Czech Republic)

RPS Raptor Protection of Slovakia

VSD Vychodoslovenska distribucna, a.s.

WWF\_AT Umweltverband WWF Österreich / WWF Austria

# **Other abbreviations:**

AB Associated Beneficiary

CB Coordinating Beneficiary

EC European Commission

EU European Union

HELICON Conservation of imperial eagles by managing human-eagle conflicts in Hungary (LIFE10NAT/HU/019) LIFE project

IE Eastern Imperial Eagle (Aquila heliaca)

LIFE Financial Instrument for the Environment of the EU

NÉBIH National Food Chain Safety Office (Nemzeti Élelmiszerlánc-biztonsági Hivatal)

# **Contents**

1.	Intro	ductionduction	5
	<b>1.1.</b> 1	Background information	5
	<b>1.2.</b>	Project description	5
	1.2.1	. Regional overview	5
	1.2.2	. Objectives	6
2.	Mate	rials and methods	6
	2.1.	Methodology and monitoring of Bird Crime incidents	6
	2.1.1	Definitions: what data is being collected?	6
	2.1.2	Data collection: reporting	7
	2.1.3	Data collection: field surveys	8
	2.1.4	Data management and analysis: "TOTEM", the new regional database	9
3.	Sumr	mary of RaptorCrime incidents between 10/2016-12/2017	10
	3.2.	BirdCrime cases in the scope of the PannonEagle project	10
	3.2.1	Main sources of illegal killing	10
	3.2.2	Species affected	13
	3.2.3	Regional differences	14
	3.2.4	Eagle found as victims of different bird crime cases	14
	3.3.	Outcomes	15
	3.3.1	Results of cases reported to Police in 2017	15
	3.3.2	. Communicating results	15
4.	Conc	lusion	17
5	List	of figures	17

#### 1. Introduction

#### 1.1. BACKGROUND INFORMATION

Thanks to the conservation efforts of the past decades, the Pannonian biogeographical region (which includes all of Hungary and parts of Slovakia, Romania, Czech Republic, Croatia, Serbia and Ukraine) now holds more than 250 breeding pairs of the Eastern Imperial Eagle (*Aquila heliaca*).

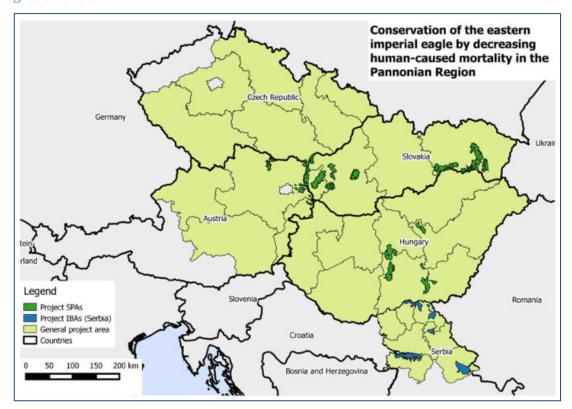
Most Imperial Eagles die due to direct persecution aiming predators (shooting, poisoning) and to elements of modern civilization (electrocution, collision) and not because of natural causes. Furthermore, the reduction of semi-natural agricultural lands serving as feeding habitats and old trees and forests patches offering nest sites give reason for serious concern. Predator persecution incidents, especially illegal poisoning is the main threat for the species in the Pannonian region, representing almost 50% of the known mortality causes.

Persecution also affects other protected raptor species, including another Annex I-listed bird, such as the Saker Falcon. Combating illegal bird poisoning is in line with the anti-poison policy of the Bern Convention on the Conservation of European Wildlife and Natural Habitats.

#### 1.2. PROJECT DESCRIPTION

To help protecting this magnificent predator species, the European Union LIFE Nature Fund supports the project titled "Conservation of the Eastern Imperial Eagle by decreasing human-caused mortality in the Pannonian Region" (LIFE15 NAT/HU/000902). The project is coordinated by MME/BirdLife Hungary together with 10 other partner organizations from 5 different countries.

#### 1.2.1. Regional overview



Map 1. Map of the PannonEagle project's site

#### 1.2.2. Objectives

In the frame of the PannonEagle LIFE project, we aim to discover and investigate bird crimes committed against eagles with the help of our trained field staff. We also use working dogs which are specialized in poisoning cases, in close cooperation with a network of national park rangers and policemen. Injured birds are treated by veterinarians and released back into the wild if their conditions allow.

The project aims to facilitate a 10% increase of the Eastern Imperial Eagle's Pannonian population, which would result a 9% increase of the EU population, if other populations remain stable.

Further specific objectives in connection with Bird Crime mitigation are:

- to increase the chance of detecting illegal activities and of successful prosecutions;
- to increase understanding of the true, minimal impact of raptors on game species and encourage raptor-friendly game management methods;
- to increase public awareness of the conservation importance of the Eastern Imperial Eagle and of the possible consequences of persecution.

#### 2. MATERIALS AND METHODS

#### 2.1. METHODOLOGY AND MONITORING OF BIRD CRIME INCIDENTS

#### 2.1.1. Definitions: what data is being collected?

The PannonEagle project partners deal with birdcrime cases historically to a quite different extent. Most partner organizations collect every data on illegal activities that involve any bird species. In the course of the current project all known mortality cases of Eastern Imperial Eagles or Saker Falcons are collected by the beneficiaries with special attention paid on human-caused mortalities. In order to unify the reported cases for the use of this report, we set some criteria to be taken account when deciding whether to account it as a "birdcrime" case. The criteria are the following:

- it should affect protected raptor bird species
- illegal human activity (such as shooting, trapping or poisoning, nest robbing etc.)

Thus, our definition of 'birdcrime' should rather be addressed by 'raptorcrime' – focusing only on birds of prey. We don't deal with accidental injuries or disturbance of birds, such as collisions. However, accidental poisoning is incorporated if it affects birds of prey species, even though the original intention may have been to kill other animals, the act itself is rather deliberate.

There have been other bird crime related cases, which were excluded from our analysis. These can be categorized in 3 groups:

1.) Birdcrime cases not involving raptor species: e.g. blocking nesting holes of European beeeater (*Merops apiaster*), or shooting at White storks (*Ciconia ciconia*). Even poisoning cases where only mammals or poisoned baits were found were excluded from this report.

- 2.) Illegal possession of live or stuffed birds
- 3.) Vague cases reported with uncertain facts that could not be clarified later, whether or not it surely involved illegal activities

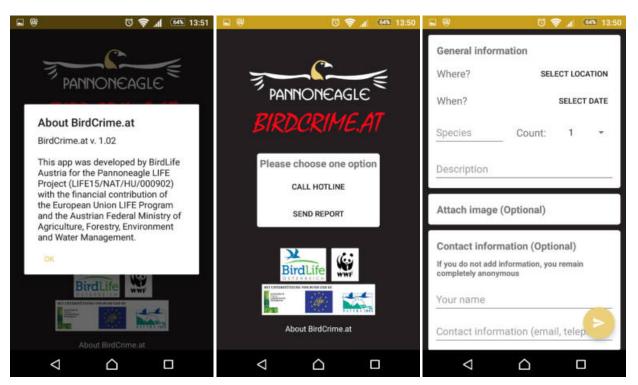
These above mentioned cases were usually not systematically collected by partners, as they fall outside of the project activities in general. In order not to generate biases based on the involvement of partner organizations in these side activities, we excluded these types of cases from our report.

#### 2.1.2. Data collection: reporting

The project partners operate several different options for reporting a bird crime incident. Some of these have been in operation for a long time – mostly national hotline and e-mail services, but some new tools have been added especially by the project. In the Czech Republic a hotline and a thematic webpage (http://karbofuran.cz/) have been operated by CSO. In Austria a hotline is operated by WWF Austria, in Hungary hotline and email reporting have been installed during the previous Helicon LIFE project. The RPS in Slovakia and INCVP in Serbia takes record of poisoning incidents revealed by its members, authorities or by the public.

New means of reporting possibilities have been created in the frame of the PannonEagle LIFE project. The project's website contains an online reporting form, operating on 6 languages (English, German, Slovakian, Czech, Serbian and Hungarian). The reporting form is accessible since March, 2017 at the following link: <a href="http://www.imperialeagle.eu/en/content/reporting-bird-crime">http://www.imperialeagle.eu/en/content/reporting-bird-crime</a>. The form is sent to the national PannonEagle project coordinators, depending on the language used (the English version is directed to MME/BirdLife Hungary).

The BirdLife Austria has created a new reporting tool during 2017: a mobile application, called "BirdCrime" app. The free, android app has been launched first in July in German and English languages. The Hungarian, Slovakian, Czech and Serbian translations are underway and will available from early 2018.



**Image 1.** Screenshot's of the BirdCrime / TOTEM mobile app

The use of the newly developed mobile app is lower than expected. However, a joint advertisement campaign will begin after all language options are tested and finalized.

In practice, the vast majority of reported cases come from the professional communities: national park rangers, environmental authority officers, professional hunters. Maintaining the good contact with these stakeholders is crucial for the program's success, and therefore special attention is paid on nourishing these networks within the PannonEagle project.

#### 2.1.3. Data collection: field surveys

Several different field survey methods are used by the project parallel, depending on the circumstances.

- Dog units
- Drone
- Car

Dog units are best used along linear structures (i.e. ditches, railroads, power lines) or remarkable vegetation switch (like forest edge). Drones can be used to search vast open areas. Cars obviously have a restrain in rough terrain. Actual whether also influences the applicable methods intensely: drones cannot be used in strong wind, while dogs are less tolerant toward a hot summer day nor can small effectively in heavy rain.

#### **Dog units**

4 newly established dog units were formed in the year 2017. The main features are summarized in the table below:

Country	Organization	Name of the dog	Name of the dog leader	Breed	Age at purchase	Training
Hungary	MME	Carlo	Gábor Deák	Belgian malinois	8 months	passed exam in 2017
Hungary	KNPD	Samu	Anna Gálos	German shepherd	8 months	passed exam in 2017
Czech Republic	CSO	Victory	Klára Hlubocká	Cheasepeak Bay retriever	2 months	from July onward
Slovakia	RPS in cooperation with Slovakian Police	Xara		Medium schnauzer	with the leader from 2 months	on-going

**Table 1.** Dog units newly employed by the PannonEagle LIFE project in 2017

In Hungary, Gábor Deák also works with "Falco", a 5-year-old German shepherd, trained previously in the course of the HELICON LIFE project. In Czech Republic, Klára Hlubocká has also involved her other dog, "Sam" – earlier trained as human rescue dog – to help her in the field searches.

#### **Drones**

MME and HNPD use DJI Mavic Pro type drones, purchased in the frame of the current project. (The drones are also used for checking breeding success of IE's nests in cases when it is the less disturbing

possibility.) The drones are a good option when larger, open areas need to be searched. They have very limited applicability in dense vegetation. Drones cannot be used in windy or rainy weather conditions, but are also good options in extreme hot or cold, when dogs cannot work. Drones can be previously program to fly and scan vast lands – and data can be analyzed later by the computer.

The use of the drones for birdcrime field searches has been only in a pilot phase in this first year of the project, supporting the use of the dog units over extended, open lands. So far, the first experiences show that this method has its relevance under special circumstances; however dogs tend to be more effective in general to find carcasses.

#### 2.1.4. Data management and analysis: "TOTEM", the new regional database

#### **Structure**

The purpose of the online database is to fully register, archive and display information about illegal predator crime primary in the region (including the 5 project countries – geographically Romania should be involved later.)

The structure of the database consists of three parts:

Finding

**Event** 

Case

The lowest level is the "Finding" that contains the most important information about the victims found. "Event" is all the connected findings in a particular area. Usually, this comprises the animals/carcasses within 25 meters found on the same day. There may be more findings for one event if the circumstances indicate a clear link among them. Official documents related to the event such as veterinary reports, national park records, police and court documents are also recorded in the database.

The database structure can be easily adopted later to keep record on other type of wildlife mortality, as well.

#### **Quantity of data**

The oldest poisoning data in the database is now dated from 1975, however detailed information on raptor crime has been available since 2000. For now, information available on poisoning and shooting of 2193 mammals and birds, of which 102 individuals are IEs. Certainly, these numbers are increasing continuously. The data submitted online are needed to be validated by an admin/coordinator.

#### **Query options**

Data in the database can be displayed in map and chart using different filter settings. The map display works in the  $10 \times 10$  km UTM grid, which can be saved in image format similarly to the diagram. The data stored in the database may be imported in a variety of different file formats.

# 3. SUMMARY OF RAPTOR CRIME INCIDENTS BETWEEN 10/2016-12/2017

#### 3.2. BIRD CRIME CASES IN THE SCOPE OF THE PANNON EAGLE PROJECT

Poisoning has been the most significant human-caused mortality factor for Imperial Eagles in the Pannonian Region in the past decade. The situation is still grave.

In the year 2017, there were 31 Imperial Eagles found dead in the project countries. From these 8 were known to be poisoned, 5 collided with vehicles (car, train) and 4 got electrocuted. Statistics for mortality causes of IE in total from the 5 project countries in the past 5 years is shown in *Table 2*.

Eastern Imperial Eagle	Estimated number of breeding pairs	Mortality causes						
(Aquila heliaca)		Poisoning	Electrocu tion	Collision w cable/wi ndfarm	Shooting	Collision w vehicles	Other	Unkno wn
2017	309	8	4	1	1	5	6	6
2016	291	2	3	1	0	3	0	1
2015	268	9	9	1	0	3	2	7
2014	230	2	4	0	0	1	0	0
2013	225	14	0	1	1	1	0	2

**Table 2.** Estimated number of breeding pairs and mortality causes of found Imperial eagles in the Pannonian region in years 2013-2017

The Saker Falcon (*Falco cherrug*) is considered as secondary key species in the PannonEagle project. In 2017 there was 1 bird which was found electrocuted in Slovakia and another found dead in Serbia but its remnant didn't make it possible to determine the cause of its death. There was also a case where 4 Saker Falcons were confiscated in Serbia, 2 of them identified as hybrids, and the other 2 were released back into the wild. We have no concrete data of Saker Falcons falling victim of poisoning during the year.

#### 3.2.1. Main sources of illegal killing

Out of the wide variety of human-induced mortalities, the project deals with the illegal activities affecting raptors - as these cases are all potential threats to our species in focus.

In the reporting period (10/2016- 12/2017) the PannonEagle project partners reported altogether **81 cases** where illegal raptor persecution could be suspected or proved. Around half of the cases are known to be poisoning, either directly or indirectly and another 20% can be added as suspected poisoning (for definition of suspected poisoning see *Image 3*). The suspected poisoning category here in this database means

mostly those cases where the birds were found alive and the suspected poisoning couldn't be proven toxicologically.

After the poisoning, the shooting is the second most frequent crime category in our database, adding up to 22 % of the reported cases. There were also several cases of illegal trapping. However, trapping cases were included in the analysis only if birds of prey were affected the trapping method was proved to be illegal.

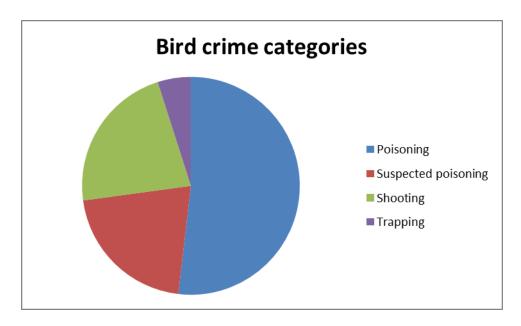


Image2. Relative frequency of bird crime case types in the reporting period in the Pannonian region

A chart flow was created to help decide definitions in case of suspected wildlife poisoning (*Image 3.*). As this terminology is newly developed and not yet used widely throughout the region, in this report we merge illegal and accidental poisoning in one category and keep suspected category to those cases where we don't have the result of the analysis yet, but it is very probably poisoning.

In case of poisoning or suspected poisoning samples are taken and sent to a nationally accredited laboratory for analysis. The most frequent chemical in the analyzed samples are still the carbofuran, which was banned several years ago in all the countries in question.

# Suggested protocols and definitions in case of suspected wildlife poisoning (working version, February 2017)

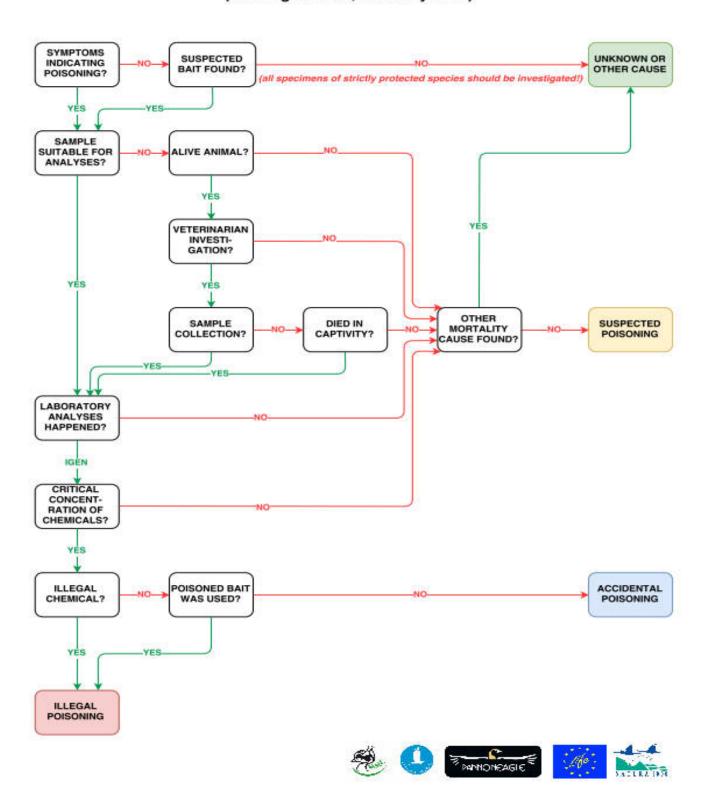


Image3. Suggested protocol and definitions in case of suspected wildlife poisoning

#### 3.2.2. Species affected

The table shows the number of effected individuals registered by our partners in the reported bird crime cases they had to deal with during the reported period.

We excluded most of the non-raptor bird species, however, some exceptions are incorporated in the table, such as the Raven, because of its scavenger feeding habit – thus, those poisonings indicate a very likely threat to the Imperial Eagles, too.

Unfortunately enough, March and April are the peak season for eagle-poisonings. In case of adult birds, the occurred bird crime cases surely affect not only the bird itself, but most likely the success of its breeding. There were some cases where after finding the killed birds, direct link to the devastation of the already laid eggs could be traced; however the fate of their nests are mostly unknown. Therefore, we only included the demolishment of one nest (with two eggs) caused by direct shooting.

Species effected (between10/2016-12/2017)	Poisioning	Suspected poisoning	Shooting	Trapping
Black kite (Milvus migrans)	1			
Common buzzard (Buteo buteo)	26	13	7	
Common kestrel (Falco tinnunculus)	1			
Golden eagle (Aquila chrysaetos)	1			
Goshhawk (Accipiter gentilis)				1
Imperial eagle (Aquila heliaca)	5	3	1+2 eggs	
Long-eared owl (Asio otus)			1	
Long-legged buzzard (Buteo rufinus)	1			
Marsh harrier (Circus aeruginosus)	6	1	13	
Montagu's harrier (Circus pygargus)			5	
Peregrine falcon (Falco peregrinus)	4		1	
Raven (Corvus corax)	8	3		
Red kite (Milvus milvus)	6	1	1	
Sparrowhawk (Accipiter nisus)			1	2
White-tailed eagle (Haliaeetus albicilla)	18	9	1	
TOTAL: 137	77	30	31	3

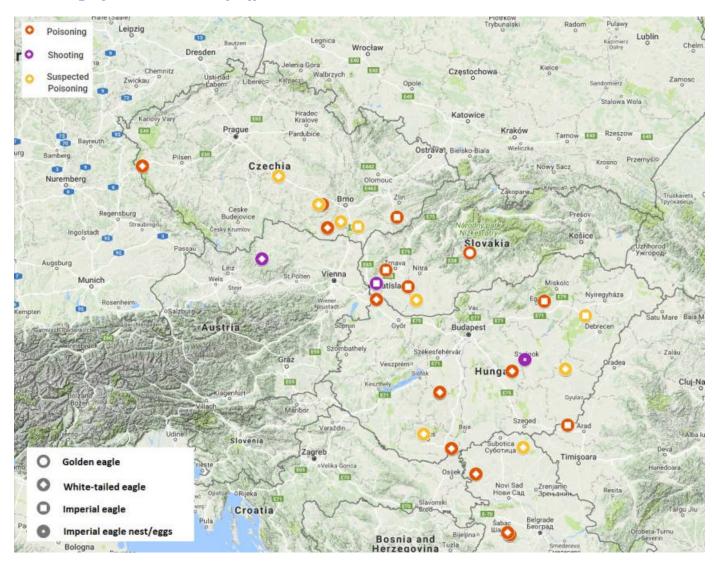
**Table 3.** Number of affected individual raptors by bird crime category in the Pannonian region during 10/2016-12/2017

# 3.2.3. Regional differences

Period: 10/2016-12/2017	Austria	Czechia	Hungary	Slovakia	Serbia	TOTAL
Poisoning	9	11	13	4	5	42
Suspected poisoning	1	8	10	1	1	21
Shooting	10	5	1	2		18
Trapping	3			1		4
TOTAL	23	24	24	8	6	85

 $\textbf{\textit{Table 4. Number of independent bird crime cases reported by project partners in the frame of the PannonEagle project during 10/2016-12/2017$ 

# 3.2.4. Eagle found as victims of different bird crime cases



Map 2. Spatial pattern of bird crime cases

#### 3.3. OUTCOMES

#### 3.3.1. Results of cases reported to Police in 2017

It is noticeable that out of the several detected cases, only a little portion of them would finally reach the stage of prosecutions. Even though bird crime cases can be very difficult to investigate and prove, in some countries there is also still a moderate understanding of its importance from part of the law enforcement authorities. This is one point where project partners must exercise more influence.

		BIRD CRIME					
Country	Year	DETECTED bird crime cases	POLICE INVESTI- GATION started in bird crime cases	PROSECUTION started in bird crime cases	CONVICTION in bird crime cases		
Austria	2017	23	17	0	0		
Czechia	2017	24	18	0	0		
Hungary	2017	20	12	1	1		
Serbia	2017	6	0	0	0		
Slovakia	2017	8	8	2	0		
PANNONIA	2017	81	55	3	1		

**Table 5.** Outcomes of the bird crime cases in the Pannonian region in year 2017

#### 3.3.2. Communicating results

Raising awareness among the most important target groups (hunters, game keepers, farmers etc.) and also among the widest audience is an inevitably important part of successfully combating the problem. Bigger birdcrime cases can stir significant media attention. Pressure by the media and conveying public opinion may also influence court decisions.

However, during this first year of the project RPS decided not to communicate bridcrime results in order not to alternate the assessment of the baseline indicators. The agreement between RPS and the Slovakian Police also requested for caution during the investigatory phase. On the other hand, this strategy hinders the project's own communication goals, so RPS agreed to stop this practice from 2018.

The several appearance of the project, the demonstrations held by the dog units at various events and the press releases, TV and radio interviews reached millions of people. The exact output is reported in the communication part of the project's progress reports. This first year has been a most important period in establishing good cooperation with law enforcement authorities (police, ranger service) and other relevant stakeholder groups.

The project put emphasis on networking with LIFE projects combating similar problems to exchange best practice ideas. In 2017, we contacted all LIFE projects involved in birdcrime related issues and part of the staff personally visited some of them. The PannonEagle project gained international attention from the BirdLife International (articles about the project were published in March and June). At the end of the year, the coordinating beneficiary welcomed a journalist from Neemo to give input to the 'LIFE and EU Wildlife Crimes' publication.

Visual communication tools, such as folders, leaflets, posters, roll-ups and information boards have been published by the project partners and distributed nationally. Some examples are shown on next page:





#### 4. CONCLUSION

The illegal killing of birds is still a huge conservation problem in the region – the poisoning being the biggest concern for the IE's European population. The PannonEagle project partners reported over 80 bird crime cases in this reporting period, where birds of prey were directly affected. Out of these 8 IEs and 27 WtEs known or suspected to be poisoned.

During this starting phase of the project, the emphasis was put on the setting up the collaboration and communication channels with the relevant partners and stakeholders. In some countries, there has been no previous systematical data collection on bird crime incidents. Thus, at this stage there is no possibility to look for trends at regional level. Yearly updates of this birdcrime report must be delivered by March in all subsequent project years, enabling us to monitor the trends in detecting, reporting, preventing and combating bird crime cases in the next 5 years.

#### 5. LIST OF FIGURES

Map 1. Map of the PannonEagle project's site	5
Image 1. Screenshot's of the BirdCrime / TOTEM mobile app	7
Table 1. Dog units newly employed by the PannonEagle LIFE project in 2017	8
Table 2. Estimated number of breeding pairs and mortality causes of found Imperial eagles in the Pannonian   2013-2017	
Image2. Relative frequency of bird crime case types in the reporting period in the Pannonian region	11
Image3. Suggested protocol and definitions in case of suspected wildlife poisoning	12
Table 3. Number of affected individual raptors by bird crime category in the Pannonian region during 10/20	16-12/2017
	13
Table 4. Number of independent bird crime cases reported by project partners in the frame of the Pann during 10/2016-12/2017	
Map 2. Spatial pattern of bird crime cases	14
Table 5. Outcomes of the bird crime cases in the Pannonian region in year 2017	15