



LIFE EUROKITE CRIME REPORT

ILLEGAL PERSECUTION OF TAGGED RED KITES AND OTHER RAPTOR SPECIES IN EUROPE

PART 4 - COUNTRY SPECIFIC RESULTS - CROATIA

First interim report on the results of the LIFE EUROKITE (LIFE18 NAT/AT/000048) project 2020-2024 with additional results from 2013 onwards

“Cross-border protection of the red kite in Europe by reducing human-caused mortality”



This company project report was compiled by TB Raab GmbH within the LIFE EUROKITE project (LIFE18 NAT/AT/000048) and was checked by the owner of the loggers and the representatives of the (cooperation) partners responsible for finding the dead birds.

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Cover photo: Poisoned red kite © LIFE EUROKITE Archive (Ján Svetlík)



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Project: LIFE18 NAT/AT/000048 – LIFE EUROKITE



Structure of the Crime Report

Due to the size of the report, it is divided in the following parts. Please see the other report parts for further information.

Part 1 - Introduction, Methods, Overall Results, Discussion, Conclusion & Recommendation

Part 2 - Country specific results - Austria

Part 3 - Country specific results - Belgium

Part 4 - Country specific results - Croatia

Part 5 - Country specific results - Czech Republic

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1 Overall summary

The LIFE EUROKITE project (LIFE18 NAT/AT/000048) is a cross-border protection project for the red kite and other raptor species in Europe. Within the LIFE EUROKITE project the core idea is to use telemetry technology to identify the spatial habitat use of the target raptor species, quantify the key reasons of mortality of bird of prey species in the EU and reduce human-caused mortality, particularly illegal activities such as poisoning.

Between 2013 and 2024, 3,554 individuals of 7 raptor species (3,161 red kites, 97 black kites, 43 booted eagles, 52 honey buzzards, 79 imperial eagles, 22 ospreys and 100 white-tailed eagles) were tagged with solar-powered GPS satellite tags in 19 countries across Europe with the help of many project partners and cooperation partners. From this a total of 1,795 individuals (1,680 red kites, 37 black kites, 18 honey buzzards, 29 imperial eagles and 31 white-tailed eagles) were tagged within the LIFE EUROKITE project.

From the 3,554 tagged birds a total of 1,623 died so far. Of these, a total of 1,594 individuals (1,480 red kites, 13 black kites, 14 booted eagles, 17 honey buzzards, 32 imperial eagles, 8 ospreys, 30 white-tailed eagles) died in the respective country where we also detected bird persecution within our sample. The first results of the LIFE EUROKITE project show, that 320 (20.08 %) of the tagged birds (293; 19.80 % red kites, 3; 23.08 % black kites, 1; 7.14 % booted eagles, 2; 11.76 % honey buzzards, 12; 37.50 % imperial eagles, 1; 12.50 % ospreys, 8; 26.67 % white-tailed eagles) were victims of illegal activities in 24 countries (10/01/2025). Poisoning (n= 238; 74.38 % of illegal activities) was by far the most common illegal act that caused the death of these tagged birds. The most used poison was Carbofuran which is banned in the EU since 2008. The second most common illegal act that caused the death of these tagged birds was shooting (66 individuals; 20.63 % of illegal activities). Of the 320 birds that were tagged and illegally killed, only 8 cases resulted in a conviction for bird persecution.

When extrapolating the data on illegal bird persecution over the past five years (2020–2024), it is estimated that approximately 46.180 red kites have died as a result of persecution. This estimate is derived by scaling up known persecution rates of tagged birds to the entire European red kite population, based on published population size estimates, average annual mortality rates, and the proportion of mortality attributed to illegal killing. It therefore reflects a population-level extrapolation, not a direct count of detected cases.

Due to varying numbers of tagged individuals and differing red kite population densities across countries, the results may vary considerably. Consequently, these findings do not allow for conclusions regarding the statistical frequency of illegal activities relative to red kite density in any given country.

Bird persecution in Europe persists all over Europe. Effective conservation requires stronger law enforcement, public education, international cooperation, and better tools like GPS tracking to detect and prosecute offenders. Political commitment across countries is crucial, along with harmonized laws, stricter penalties, and national action plans with clear goals. Raising awareness through initiatives like the “European Day Against Criminal Poisoning of Wildlife” and systematic data collection can help inform both the public and policymakers. Finally, stronger cross-border collaboration and support for monitoring and reporting systems are essential to address bird persecution at a European level.

2 Introduction

The LIFE EUROKITE project (LIFE18 NAT/AT/000048) is a cross-border protection project for the red kite and other raptor species in Europe. Within the LIFE EUROKITE project the core idea is to use telemetry technology to identify the spatial habitat use of the target raptor species, quantify the key reasons of mortality of bird of prey species in the EU and reduce human-caused mortality, particularly from illegal activities such as poisoning.

Specifically, the red kite (*Milvus milvus*) can act as an indicator of anthropogenic mortality across broad extents (Donázar et al. 2016; Natsukawa and Sergio, 2022) due to its high individual variability in migration strategies (García-Macía et al. 2022) and its condition of good sentinel species for main threats to raptors (Mattson et al. 2022). As migratory behaviour is associated with different exposure and risk levels, understanding the causes of cross-border mortality in red kites can provide important warning signs regarding wider impacts of human activities on wildlife populations in Europe (Donázar et al. 2016; Natsukawa and Sergio, 2022).

In response to ongoing illegal threats to migratory birds, international conservation bodies have taken major steps toward unified action. Under the leadership of the Convention on Migratory Species (CMS) and the Bern Convention, and with the involvement of numerous states, observers, and expert groups, a comprehensive framework was adopted: the *Rome Strategic Plan 2020–2030*. This plan outlines a joint commitment to halving illegal bird killings in Europe and the Mediterranean by 2030, using 2020 as a baseline (Council of Europe, 2019). By generating large-scale, cross-border evidence on mortality causes, the LIFE EUROKITE Crime Report plays a key role in tracking progress toward this ambitious objective.

The Article 12 of the Habitats Directive clearly defines that member states shall take requisite measures to establish a system of strict protection for the animal species listed in Annex IV(a) in their natural range, prohibiting, among others, all forms of deliberate capture or killing and shall establish a system to monitor the incidental capture and killing of specimens of these species in the wild (European Commission, 2021; Panter et al. under review)

Between 2013 and 2024, 3,554 individuals of 7 raptor species (3,161 red kites, 97 black kites, 43 booted eagles, 52 honey buzzards, 79 imperial eagles, 22 ospreys and 100 white-tailed eagles) were tagged with solar-powered GPS satellite tags in 19 countries across Europe with the help of many project partners and cooperation partners. From this a total of 1,795 individuals (1,680 red kites, 37 black kites, 18 honey buzzards, 29 imperial eagles and 31 white-tailed eagles) were tagged within the LIFE EUROKITE project (Figure 1 to Figure 7).

The first results of the LIFE EUROKITE project show that illegal persecution of tagged birds (shooting, poisoning, trapping) is one of the biggest threats for those species. To date (as of 10 January 2025), 320 tagged birds have been victims of bird crime (Figure 8).

This report will give an overview of tagged birds which died due to illegal activities in Croatia and will give a detailed inside of the status of investigations and legal procedure.

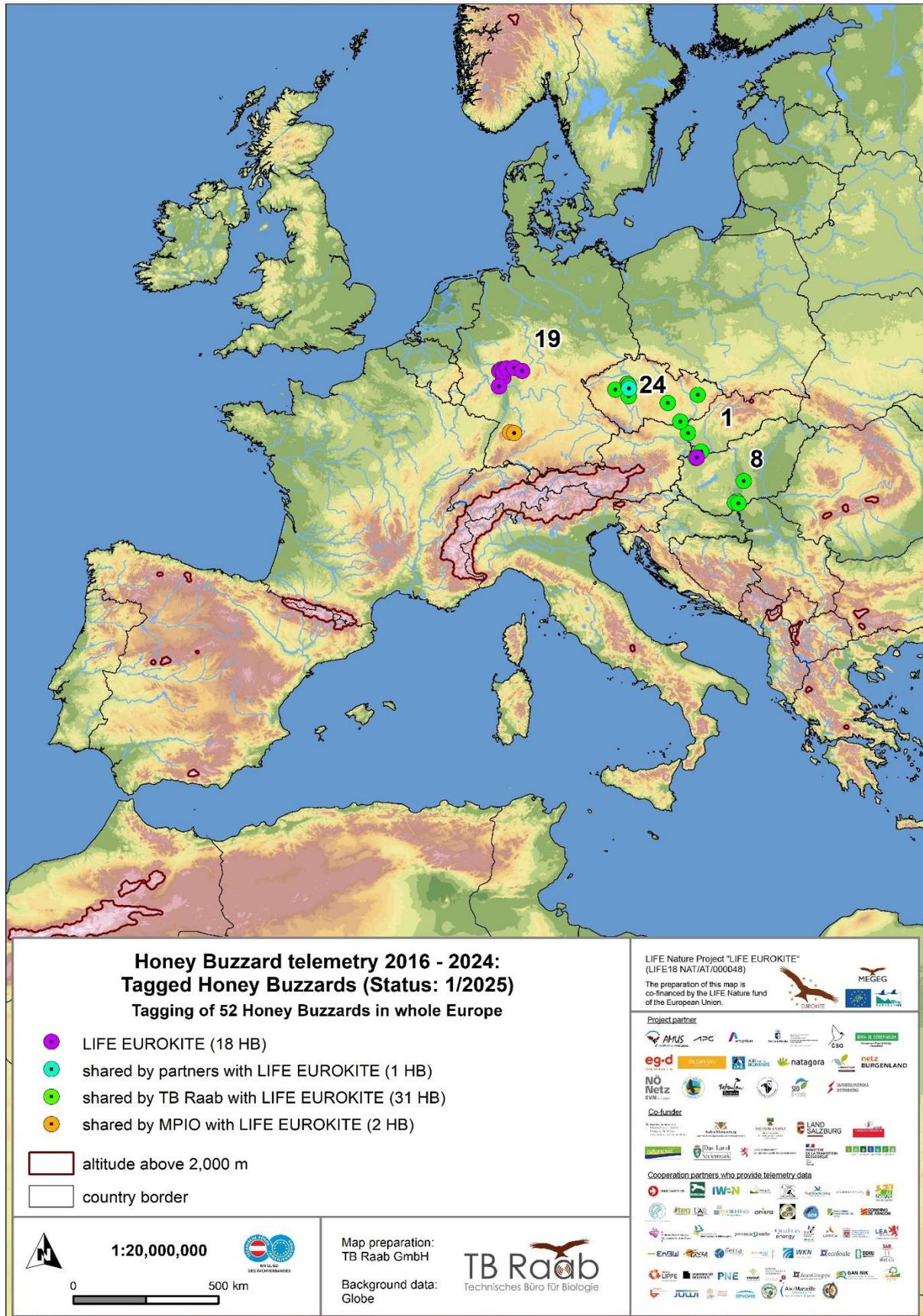


Figure 4: Tagging of 50 honey buzzards by the LIFE EUROKITE project and numerous cooperation and project partners across Europe in the years 2016-2024.

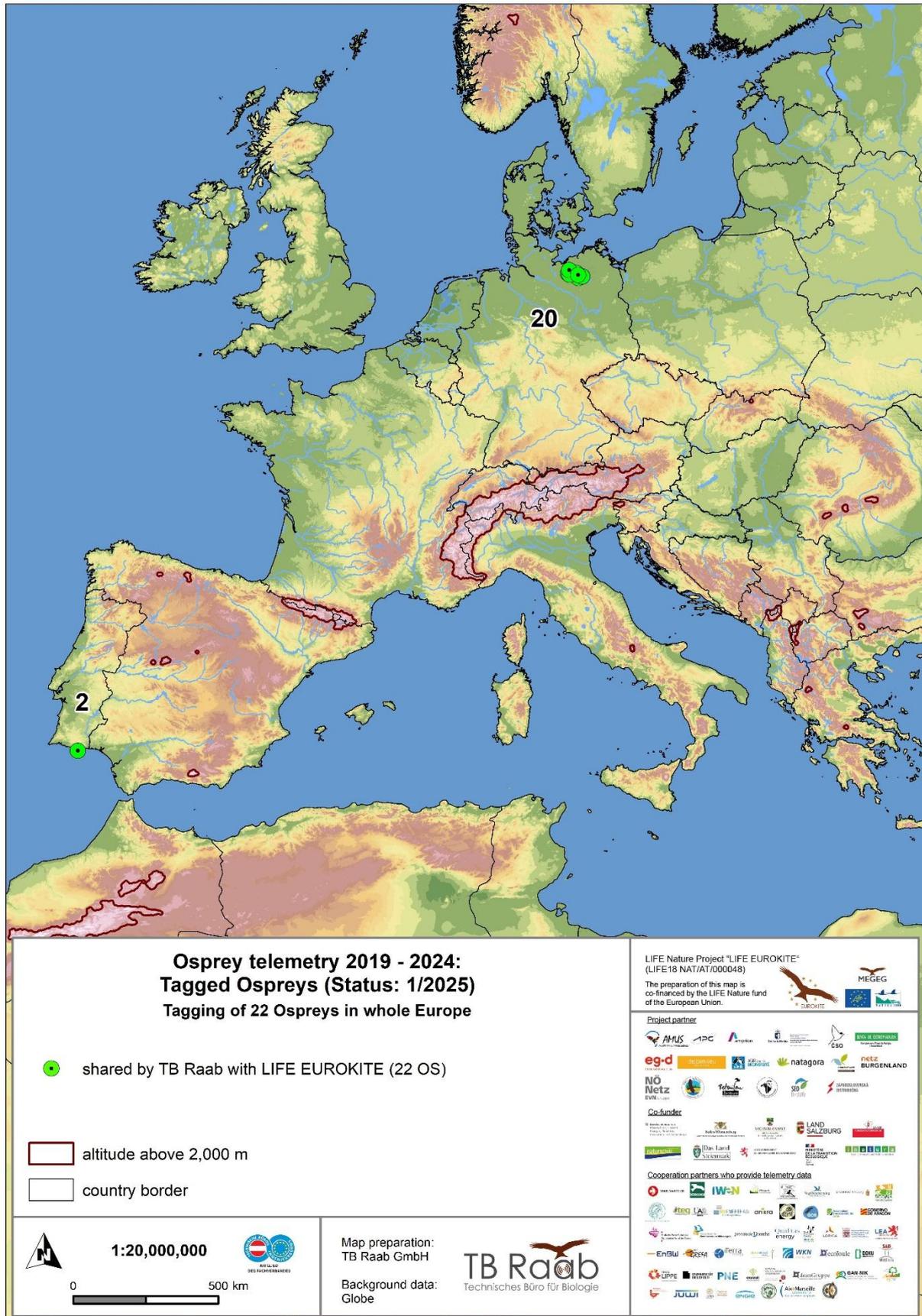


Figure 6: Tagging of 22 Ospreys by the LIFE EUROKITE project and numerous cooperation and project partners across Europe the years 2019-2024.

3 Croatian results

The subsequent section provides a detailed overview of the cases with illegal mortality reasons in Croatia. 1 tagged bird have been confirmed as a victim of illegal activity. This bird died due to poisoning.

3.1 Tagged individuals that have been poisoned

The birds are listed in chronological order by date of death, commencing with the first recorded case.

RK_0045

General information about the bird

Name: Breclav_03

Species: Red kite

Birth date: 04.05.2016

Place of tagging: Breclav, Břeclav, Jihovýchod, Czech Republic

Date of tagging: 13.06.2016

Age at tagging: 1. CY

Origin of bird: Juvenile from nest

Ownership category: E_TBRAAB_1

Logger number: AUKI 46 – AAA 15 kite

Ring number: CT1664

Sex: Male

Bird crime information

Place of bird crime: Bibinje, Jadranska Hrvatska, Croatia

Coordinates: 44,089849, 15,2991670

Date of bird crime: 27.10.2016, 5:56:00 AM (UTC)

Age at bird crime (Days): 176

Age at bird crime: 1. CY

Responsible organization for the investigation: Institute of Ornithology, Croatian Academy of Sciences and Arts

Logger and/or bird found: Logger and bird found

Carcass state: No information received

Bird crime: Poisoning - Carbofuran

Certainty category: Certain

Additional information: Expert assumption (Institute of Ornithology, Croatian Academy of Sciences and Arts). The bird was found in an area where more birds already died due to carbofuran. So, the bird was left in the field.

Investigation information

Last editing: 08.01.2025

Investigation: No

Police and/or authority investigation: No

Legal proceeding: No

Conviction: No

If investigation stopped or no conviction was achieved, why?

As other birds from the same area were already investigated, this specific bird was not investigated. Carbofuran was suspected.

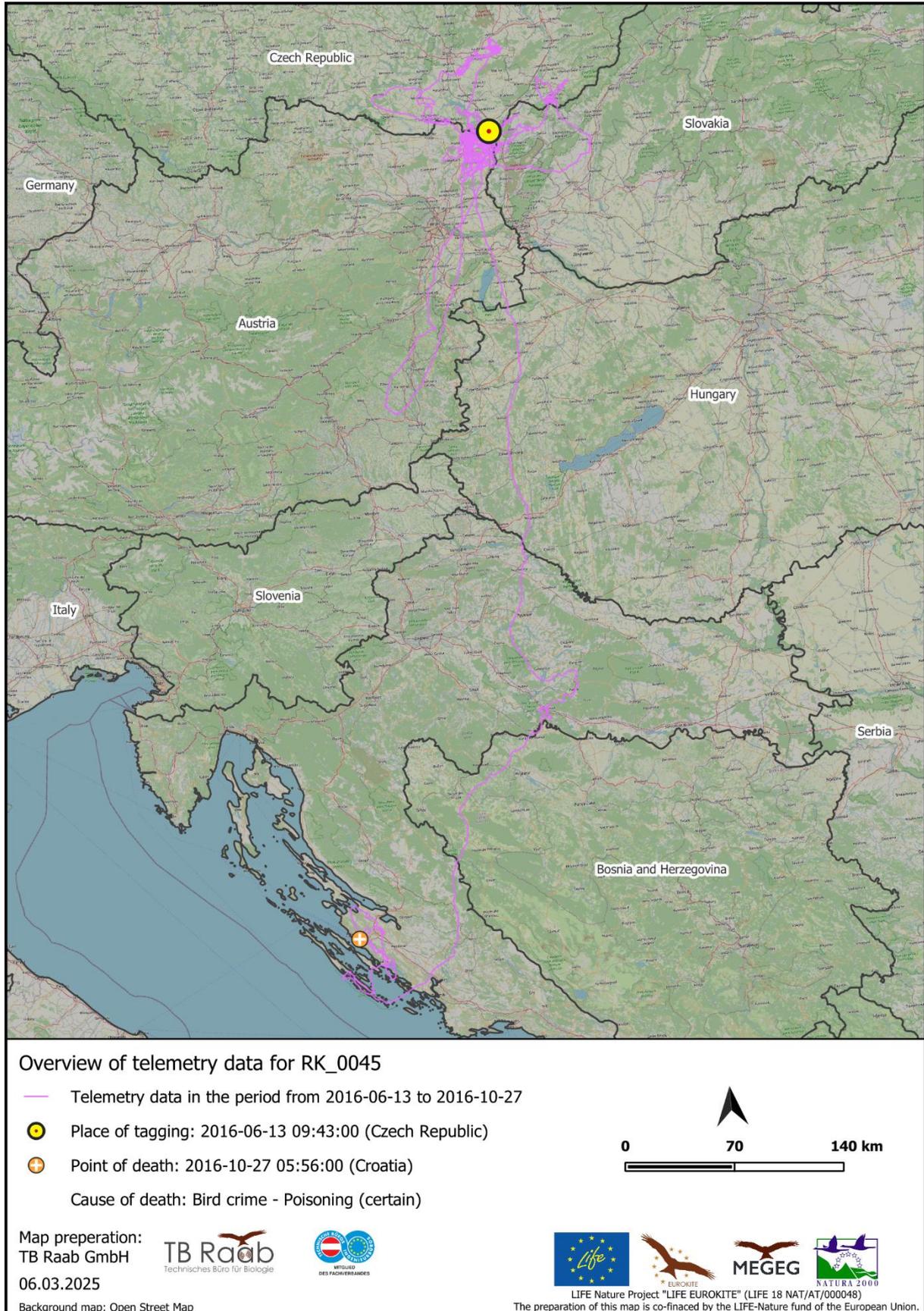


Figure 9: Overview of the telemetry data for RK_0045.



Figure 10: Detailed telemetry data of RK_0045 in the last days before death.

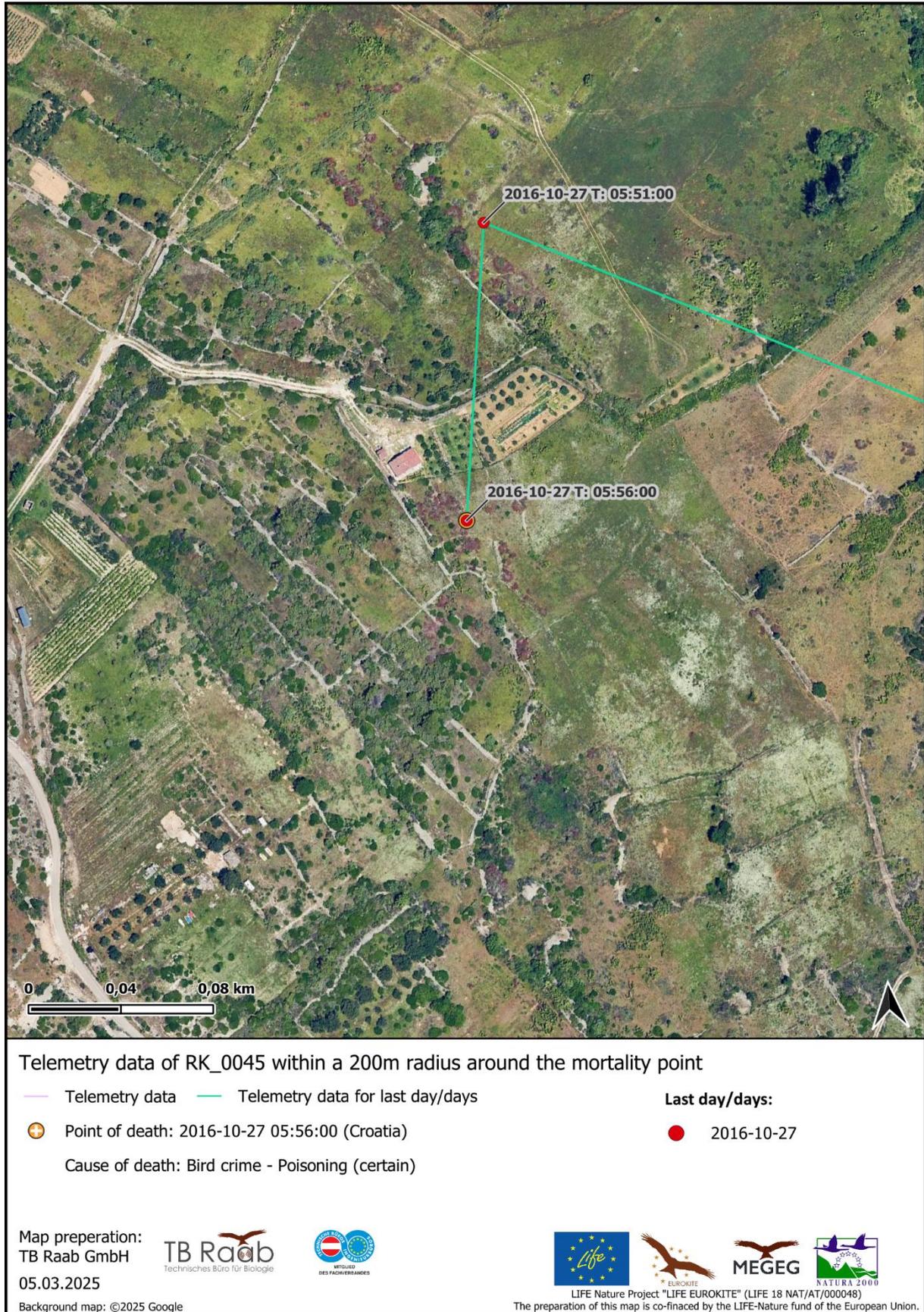


Figure 11: Telemetry data of RK_0045 within a 200m radius around the mortality point.

3.2 Summary of the Croatian results

Please note, that due to different number of tagged birds per countries and especially the different density of red kites per country the results can differ significant per country. Therefore, these results do not provide any information about the statistical frequencies of illegal activities in the respective country.

The interim results of the LIFE EUROKITE (LIFE18 NAT/AT/000048) project 2020 to 2024 with additional results from 2013 onwards show, that a total of 3 tagged birds died in Croatia. Of those, raptor (red kite) died due to illegal activities. The tagged red kite died of poisoning (Table 1 to Table 2 & Figure 15).

Table 1: Overview of the numbers of tagged birds which died due to bird crime in Croatia.

Mortality reason	Red kite	Total
Bird crime - Poisoning	1	1
Total	1	1

Table 2: Overview of the districts where tagged birds died due to bird crime in Croatia.

Federal State	Bird crime - Poisoning	Total
Adriatic Croatia (Jadranska Hrvatska)	1	1
Total	1	1

Detected substance

Toxicological analysis of the poisoned bird identified a single active substance: the carbamate insecticide Carbofuran (Figure 12).

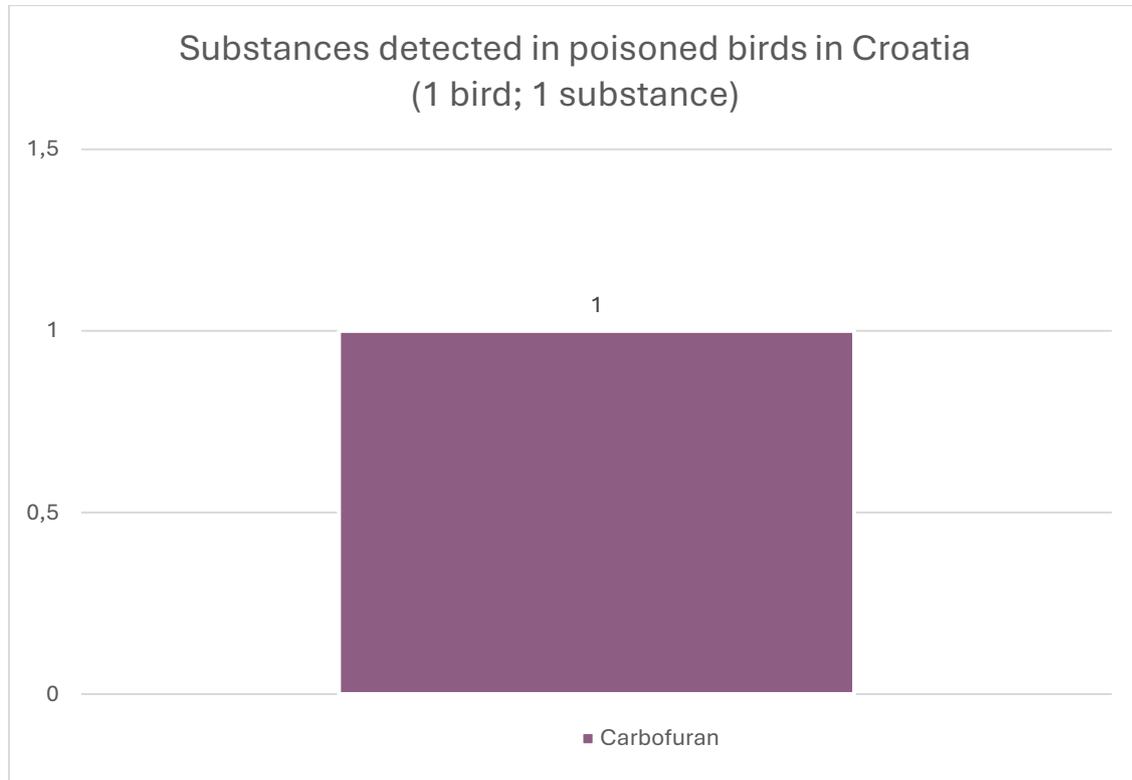


Figure 12: Substance detected (1 substance) in the toxicologically analysed poisoned bird (1 analysed bird with detected substance) in Croatia.

Carbofuran is not approved for use under current European legislation (European Parliament and Council of the European Union, 2009) (Table 3).

Table 3: Regulatory status and legal framework of not approved toxic substances detected in poisoned raptors in Croatia tagged in the LIFE EUROKITE project (2013–2024) according to Regulation (EC) No 1107/2009 of the European Parliament and Council.

Substance	Status	Regulation	Legislation
Carbofuran	Not approved	Reg. (EC) No 1107/2009 (repealing Directive 91/414/EEC)	Reg. (EU) 2007/416

Substances confirmed as lethal

Toxicological analysis reveals that the bird is confirmed to have died because of poisoning, with toxicological threshold values enabling the lethal substance to be clearly identified. The bird is confirmed to have died from Carbofuran exposure (Figure 13).

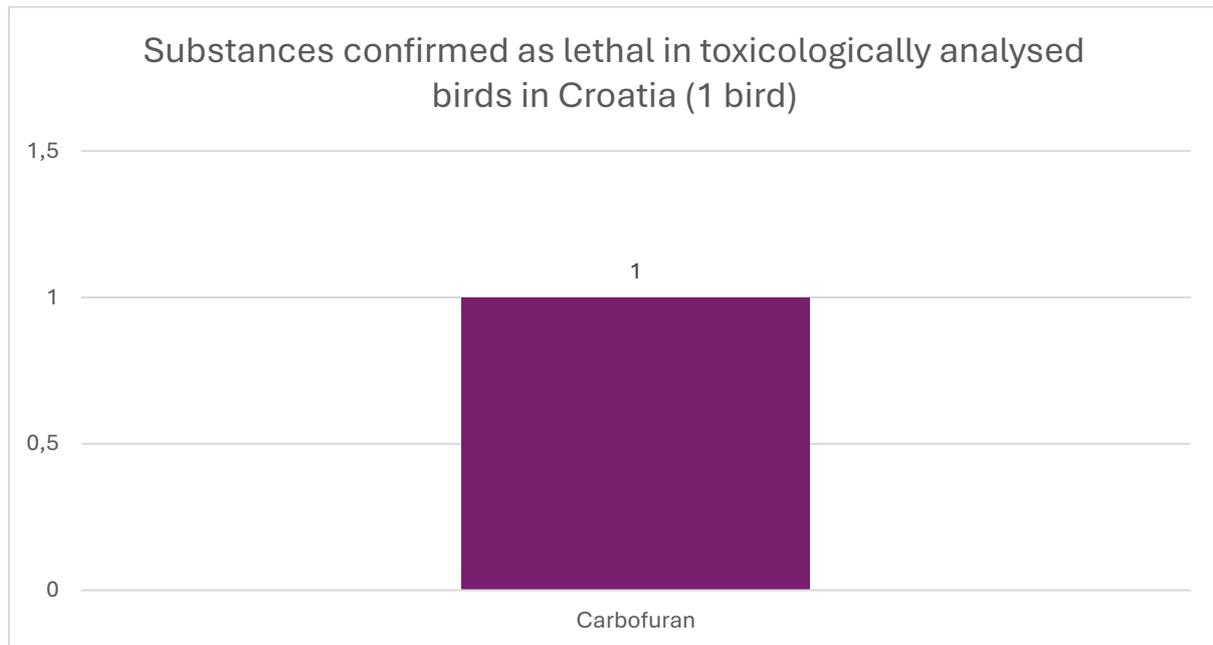


Figure 13: Toxic substances confirmed as lethal (1 substance) in poisoned birds in Croatia. In total, 1 bird was classified as poisoned based on field evidence and GPS data. Toxicological analysis were available for 7 birds, all of which were confirmed to have died as a result of poisoning, with toxicological threshold values enabling the lethal substance to be clearly identified.

Assessment of intentional poisoning

Poisoning cases were evaluated using toxicological findings together with field observations. Birds were classified as intentionally poisoned when evidence clearly indicated deliberate poisoning, such as detection of substances banned in the European Union, discovery of poisoned bait near the carcass, the presence of multiple dead birds at the same site or when the perpetrator had been identified. When available evidence did not allow a clear determination of intentional poisoning, cases were classified as undefined. This group includes birds exposed to substances that are legally permitted in the EU (e.g. rodenticides, metaldehyde or cadmium), cases of secondary poisoning, birds recovered from landfill sites, and birds without toxicological examination. It also covers cases in which a detected substance was banned at the time of analysis but remained legally authorised when the poisoning event occurred. Overall, the 1 poisoned bird in Croatia was classified as intentional poisoning case.

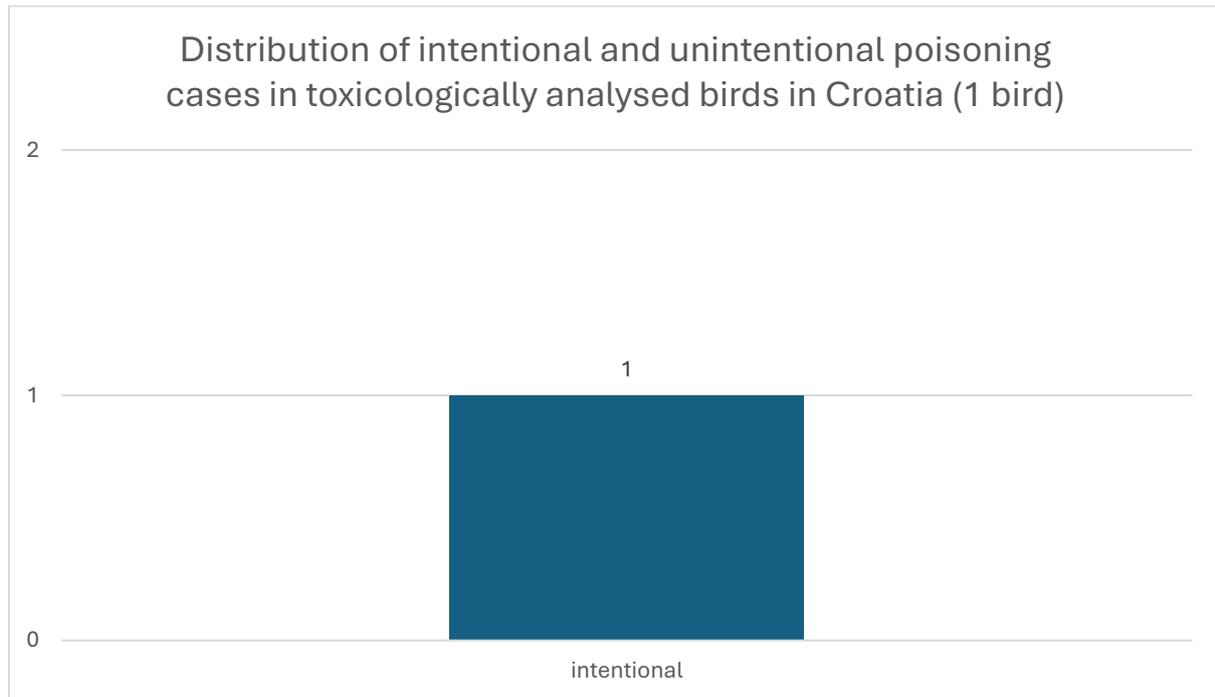


Figure 14: Number of poisoned birds classified as confirmed intentional poisoning or as cases with undetermined intent. Confirmed intentional poisoning includes cases involving toxic substances prohibited in the European Union, the presence of poisoned bait, multiple birds found dead at the same site or instances where the perpetrator has been identified. Cases with undetermined intent include birds exposed to legally permitted substances, secondary poisoning, landfill-related cases, or birds without toxicological analysis. The 1 poisoned bird in Croatia was classified as confirmed intentional poisoning.

Results of the investigation

There was no investigation or prosecution, as neither the police nor the authorities were informed.

4 References

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5 List of tagged individuals which died in Croatia

Red kite

RK_0045..... 11



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Coordinating beneficiary



The TB Raab GmbH was commissioned to implement the LIFE EUROKITE project after a pan-European public tender.



Project partner (Associated Beneficiary)



Co-financier



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Cooperation partner



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