

Preliminary Assessment of the Recent Extent and Methods of Illegal Killing of Raptors in Denmark

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Abstract

- In Denmark, despite protection from hunting since 1967, illegal hunting and poisoning of raptors is still ongoing.
- In this study we collected all known and reported cases of illegal hunting and poisoning of raptors from all known sources for the years 2009-2019, to assess which species, number of individual birds and methods were involved in these reported cases
- In the span of the 10 years studied, 7 different raptor species were identified as illegally killed.
- The most common method amongst the reported raptors killed was poisoning by Carbofuran



Introduction

The illegal hunting and poisoning of wild birds remains a major threat on a global scale.

Several recent studies conclude that raptors are the avian group with the highest percentage of species affected by illegal killing^a. However, there are few quantitative data available on the extent or magnitude of this problem, and for many countries e.g Denmark, the numbers of raptors killed illegally remains unknown, as well as the extent to which this may affect the populations of individual raptor species.



Photo: Poisoned Red Kite found alongside a Common pheasant filled with carbofuran. Photocredit DTU/ Veterinary Institute.

Methodology

Following Brochet et al.^a the illegal killing of raptors was defined as any form or action that resulted in the death of wild raptors, as is prohibited under national legislation.

We distinguished between poisoning and secondary poisoning ("2.poisoning") where the latter was cases known to be caused by ingestion of poisoned wildlife or bait. The following data were included:

- The annual reports on diagnostic studies of wild game carcasses^b were studied for the years 2009 through 2018.
- Online resources and cases that were reported to BirdLife Denmark of known illegally killed/poisoned raptors in the timespan 2009-2019.
- Individual cases that were verifiable by media reports in the studied period were assessed and in verifiable cases, included.

Results



- In the span of the 10 years studied, 7 different raptor species were identified as illegally killed.
- The most common was the White tailed eagle (*Haliaeetus albicilla*) followed by Red kite (*Milvus milvus*) and Common buzzard (*Buteo buteo*) (table 1).
- The most common method amongst the reported raptors killed was poisoning by Carbofuran. However this finding should be weighed against the higher likelihood of finding poisoned birds, than those shot.
- Alltogether 43 raptors were found or reported to have been illegally hunted /poisoned in the 10 year timespan.

CARBOFURAN

- Is primarily used as insecticide in the production of crops
- Is considered one of the most toxic pesticides
- Inhibits breathing, targeted species die of hypoxia
- An active toxin, has a working effect of up to several months.

Results

Year	Species	N	Method
2009	Common buzzard	3	Carbofuran (2. poisoning)
2009	Common buzzard	1	Carbofuran
2009	White tailed eagle	1	Illegal hunting (shot)
2010	Red kite	1	Carbofuran
2010	White tailed eagle	2	Carbofuran
2011	Common buzzard	3	Carbofuran
2011	White tailed eagle	1	Carbofuran (2. poisoning)
2012	Red kite	1	Carbofuran
2012	Golden eagle	1	Carbofuran
2012	White tailed eagle	2	Carbofuran
2012	Red kite	1	Carbofuran
2012	Red kite	1	Carbofuran (2. poisoning)
2013	Red kite	1	Carbofuran
2015	Common kestrel	6	Carbofuran
2015	White tailed eagle	1	Illegal Hunting (shot)
2015	White tailed eagle	1	Carbofuran
2015	Peregrine falcon	1	Illegal hunting (shot)
2016	Red kite	1	Carbofuran
2016	Rough-legged buzzard	1	Carbofuran
2016	Common buzzard	1	Carbofuran
2016	Golden eagle	1	Illegal Hunting (shot)
2016	Red kite	1	Carbofuran
2016	Red kite	1	Illegal Hunting (shot)
2016	White tailed eagle	1	Carbofuran
2017	Red kite	4	Parathion
2017	White tailed eagle	1	Carbofuran
2018	White tailed eagle	1	Carbofuran
2018	White tailed eagle	1	Illegal killing
2019	White tailed eagle	1	Illegal Hunting (shot)
Total	Total Nr Species	Nr	Nr Methods
10 yrs	7 Species	43	5

Table 1. Surveyed years, species, number, and method applied in illegal persecution.

^a In 2018, not many cases were reported, due to lower rates of handling and diagnostic studies performed on avian fauna due to the ongoing highly pathogenic H5N6 Avian Influenza in wild birds in Denmark. All findings for 2019 have not yet been documented



Photo: a family of Red kites found poisoned Poul Blicher Andersen

Conclusion

- In Denmark all raptors have been protected from hunting since 1967, although some species e.g. the northern goshawk still could be persecuted on private property with gamebird release sites until 1994.
- Despite legal protection, illegal killing and poisoning of birds still occurs at an unknown magnitude and scale.
- In this study we collected all known and reported cases of illegal hunting and poisoning of raptors from all known sources for the years 2009-2019, to assess which species, number of individual birds and methods were involved in these reported cases.
- Assessing these results for a 10 year period mainly instills knowledge on which main species that are persecuted and the most common methods used, since understanding the scale and importance of illegal activities can be challenging, as by definition the detected cases may only be the 'tip of the iceberg' and the proportion of the total number of illegally killed raptors that detected cases represents is often unknown
- Furthermore, it is likely that raptors killed by poisoning were found more often than raptors killed by other methods.
- It is plausible that only a low percentage of all dead raptors are found, as well as recognized and identified as being a protected species, with legislative bindings that should be reported and documented by the authorities. In many cases it is most likely that the raptor goes unfound, or that decomposition or removal by scavengers prohibits finding any recognizable remains. Finally, birds that are killed illegally are bound to be rapidly removed by the perpetrator.
- Although controlling illegal killing is a complex issue, Denmark compared to other European countries has a low rate of legal sanctioning and enforcement of hunting legislation. Few if any cases are police reported and even fewer result in other sanctions than fines.
- We suggest that monitoring systems for more efficient control of illegal killing of raptors as well as enforcing following legal sanctions for raptor persecution. Finally a greater understanding of the behind lying motives for illegal killing and poisoning of raptors may help tailor appropriate interventions.



References

- ^a Brochet, A-L, et al. "Illegal killing and taking of birds in Europe outside the Mediterranean: assessing the scope and scale of a complex issue". *BirdLife Conservation International*, 2019
- ^b Chriél, M., et al. "Rapportering af diagnostiske undersøgelser af faldvildt". DTU Veterinærinstituttet. (all annual reports 2019-2019)