

Bird of Prey Persecution and Poisoning Report Northern Ireland 2017



PARTNERSHIP FOR ACTION AGAINST
wildlife crime
Northern Ireland



A report prepared by the Raptor Subgroup of the Partnership
for Action against Wildlife Crime Northern Ireland (PAW NI)

Dec 2018

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SUMMARY

Bird of prey ('raptor') persecution remains one of the six UK wildlife crime priorities, having been assessed as posing a great threat to the conservation status of several bird of prey species¹. The Partnership for Action Against Wildlife Crime Northern Ireland Raptor Subgroup supports the implementation of plans for the monitoring, awareness and prevention of raptor persecution in Northern Ireland.

This report of the persecution and poisoning of birds of prey in Northern Ireland covers the period 1st January 2017 to 31st December 2017, with comparisons made to previous reports covering 2013 to 2017² (five-year analysis).

In 2017, there were 20 suspected incidents of raptor persecution reported to the PSNI. Six incidents involved confirmed illegal persecution, in which seven birds were killed and one active nest was destroyed. These incidents were located across six 10-km squares, three of which had no previous records of confirmed incidents since reporting began in 2009.

Confirmed incidents involved the killing of three buzzards, two peregrine falcons, one sparrowhawk and one red kite and a case of hen harrier nest destruction. A further incident involved the probable shooting of a long-eared owl. There was additional evidence of secondary rodenticide poisoning in five separate incidents in 2017, affecting five buzzards, but in none of these incidents was secondary poisoning reported as the cause of death.

These incidents bring the total number of birds of prey confirmed shot, poisoned or trapped in Northern Ireland in the five-year period 2013-2017 to 43, with an additional incident of nest destruction, in a total of 38 incidents.

The hot spot mapping of crimes against birds of prey 2013-2017 in Northern Ireland has shown how incidents continue to be widespread with confirmed incidents recorded in 27 different 10km squares across Northern Ireland. This is approximately 15% of 10km squares in Northern Ireland.

¹NWCU Strategic Assessment 2016 [<http://www.nwcu.police.uk/wp-content/uploads/2013/03/NWCU-Strategic-Assessment-2016-Not-Protectively-Marked.pdf>]

² Previous reports can be accessed at <https://www.wildlifecrimeni.org/>

Since reporting began in 2009 the total number of birds confirmed killed or injured in illegal incidents in Northern Ireland is 63, with an additional two incidents of confirmed nest destruction, in 56 confirmed incidents, recorded in a total of 35 different 10-km squares. These incidents have involved eight different raptor species, most frequently the common buzzard.

INTRODUCTION

The Partnership for Action against Wildlife Crime (PAW) is a body comprising representatives of the government agencies and non-government organisations involved in wildlife crime detection and wildlife law enforcement in the UK.

The PAW Northern Ireland Raptor Subgroup (hereafter PAW NI RS) consists of representatives from organisations involved in the monitoring, collection and analysis of data, and enforcement of wildlife crimes against birds of prey ('raptors') in Northern Ireland. These currently include; Police Service of Northern Ireland (PSNI), Northern Ireland Environment Agency (NIEA), Northern Ireland Raptor Study Group (NIRSG), Royal Society for the Protection of Birds (RSPB), National Wildlife Crime Unit (NWCU), Agri-Food and Biosciences Institute (AFBI NI), the Health and Safety Executive for Northern Ireland (HSE NI) and the Department of Agriculture, Environment and Rural Affairs (DAERA) Pesticides Branch.

Bird of prey populations in Northern Ireland, for the most-part, are making a recovery from previous centuries of persecution, land use changes and exposure to environmental contaminants³. Some species are doing well whilst others remain vulnerable for a variety of reasons, but all species remain susceptible to population declines, and potential extirpation, due to persecution and poisoning.

The aim of this report is to increase awareness and understanding of the occurrence and distribution of crimes against birds of prey, and to increase monitoring and reporting of such incidents. Further information on the background of this report and the law in

³Colhoun, K. & Cummins, S. (2013). Birds of Conservation Concern in Ireland 2014-2019. Irish Birds 9: 523-544.

relation to Wildlife Crime in Northern Ireland can be found in the [Bird of Prey Persecution and Poisoning Report Northern Ireland 2009-2013⁴](#).

All birds of prey in Northern Ireland are protected by legislation including the Wildlife (Northern Ireland) Order 1985, as amended by the Wildlife (Amendment) (Northern Ireland) Order 1995, and the Wildlife and Natural Environment (Northern Ireland) Act 2011 (WANE Act). Under the Wildlife (Northern Ireland) Order 1985 and the WANE Act it is against the law to intentionally or recklessly:

- Kill, injure or take any wild bird
- Take or destroy wild bird eggs or take, damage or destroy a nest of a wild bird whilst it is in use or being built
- Disturb a wild bird when it is building a nest or is in, on or near a nest containing eggs or young or disturb dependent young
- Obstruct or prevent any wild bird from using its nest or roost site
- Take, damage or destroy a nest of a golden eagle, white-tailed eagle, osprey, barn owl, peregrine or red kite at any time of the year

Acts of wildlife crime may be subject to custodial sentences of up to six months and/or fines (up to £5,000 per offence) if carried out against any bird of prey in Northern Ireland.

PAW NI Raptor Persecution Report

This report includes the persecution and secondary poisoning incidents involving birds of prey recorded in Northern Ireland between January 2017 and December 2017. Confirmed incidents are classified on a case-by-case basis and each incident may then contain various offence types, victims, poisons etc. Details on the collection and collation of the data, the definition of 'confirmed', 'probable' or 'possible' incidents and the definition of the 'misuse' or 'abuse' of pesticides can be found in the [Bird of Prey Persecution and Poisoning Report Northern Ireland 2009-2013⁴](#). Cases of probable and possible incidents may be alluded to in the discussion, but neither of these type of incidents are included in the hot spot maps. These have, however, been collated in databases held by PSNI, NIRSG and RSPB.

⁴<https://www.psni.police.uk/globalassets/advice--information/animal-welfare/documents/pawni-raptorpersecution--poisoning-report-2009-2013-final.pdf>

RESULTS

It is likely that the figures presented here may represent only a fraction of the number of incidents within each category, as many incidents may remain undetected and unreported, particularly since these are often crimes that occur in remote areas.

Overview of Reported Incidents 2017

A total of 19 incidents involving 20 deceased birds of prey, and one incident of nest destruction, were investigated by PSNI to determine whether offences may have been committed in 2017⁵. Of these 20 incidents there were:

- Six confirmed crimes
- One probable crime

There was an alternative cause of death determined in a single incident (starvation). In 11 of the incidents the cause of death was unknown, with the samples too decomposed for testing in four of these incidents (see example: Image 1), and no carcass was available for testing in the remaining incident. These incidents were classified as 'possible' but could not be upgraded without further information.



Image 1. Peregrine falcon found in a heavily decomposed state - cause of death could not be determined. [Photo © AFBI Images]

⁵ One incident of a shot peregrine in 2017 was confirmed by veterinary laboratory x-ray and one incident of a 'probable' shot long-eared owl was identified by the Predatory Bird Monitoring Scheme. Both incidents were subsequently reported to PSNI.

Reported Incidents: Results

Confirmed Incidents

In 2017 there were five confirmed incidents of shooting (4) or poisoning (1) of raptors recorded in Northern Ireland, involving four species; buzzard (3 birds), peregrine (2 birds), sparrowhawk (1 bird) and red kite (1 bird) (Table 1). There was also a single confirmed incident of nest destruction, in which an active hen harrier nest and the eggs/chicks contained within were destroyed (Image 2). Incidents were confirmed in Counties Antrim (2), Tyrone (2), Down (1) and Londonderry (1) (Figure 1).

The one confirmed incident of poisoning involved the highly toxic substance Carbofuran, banned in the EU since 2001 and for which there is no legal use in the UK.



Image 2. The fire started deliberately in Co. Tyrone which destroyed an active Hen Harrier nest and its contents. [Photo © D. Moloney]

Baits and Probable Incidents

In 2017 a long-eared owl was found dead, suspected to have died of natural causes. It was sent to the Predatory Bird Monitoring Scheme (PBMS) for testing for environmental contaminants. The PBMS found two holes in skull and they concluded that the bird was likely to have been shot. Given the circumstances and post-mortem findings, this incident is classified as a 'Probable' persecution incident (Table 2).

Secondary Poisoning by Rodenticides

Detectable levels of secondary poisoning by rodenticides (Bromadiolone, Brodifacoum, Difenacoum, and/or Flocoumafen) were recorded in five birds of prey in 2017, all buzzards (Table 3). However, these rodenticides were not deemed to be recorded at combined concentrations (>0.2 mg/kg) considered to have been the cause of death, and were within the levels expected through ingestion of rodenticide poisoned prey. This brings the total number of birds tested in the period 2013 - 2017 showing background levels of rodenticides to 38.

Summary of Confirmed incidents 2013 to 2017

The confirmed incidents recorded in 2017 brings the number of birds of prey confirmed killed or injured in illegal incidents in Northern Ireland in the five-year period 2013-2017 to 43, with an additional incident of nest destruction, in a total of 38 incidents. Buzzards, red kites and peregrines have been most frequently recorded as illegally killed or injured (Table 4).

The raptor persecution incidents confirmed between 2013 and 2017 were widespread, with confirmed crimes involving raptors recorded in 27 different 10km squares across Northern Ireland. This is approximately 15% of 10km squares in Northern Ireland. Incidents where other illegally poisoned animals, or illegal baits, were recovered in circumstances that could theoretically have resulted in raptor persecution had they not been discovered and removed, were recorded in a further two separate 10km squares. This analysis shows that the illegal killing of birds of prey is not geographically isolated in Northern Ireland.

Since reporting began in 2009 in Northern Ireland there have been a total of 63 birds of prey illegally killed or injured, with an additional two incidents of nest destruction, in a total of 56 incidents (Table 5). Confirmed incidents have been recorded in a total of 35 different 10-km squares (19%) and have involved eight different raptor species, most frequently the common buzzard.

Table 1. All confirmed incidents of persecution and illegal poisoning of birds of prey recorded in Northern Ireland in 2017.

	Species	County	10Km Sq.	Year	Month	Incident Type	Toxin / Rodenticide detected
1	Buzzard	Tyrone	H74	2017	Jan	Shot	
2	Hen harrier	Tyrone	H44	2017	May	Nest destruction	
3	Peregrine	Antrim	J29	2017	Jul	Abuse	Carbofuran
4	Red kite	Down	J23	2017	Aug	Shot	
5	2 x Buzzards, 1 x Sparrowhawk	Londonderry	C42	2017	Sep	Shot	
6	Peregrine	Antrim	J09	2017	Oct	Shot	

Table 2. Probable incidents of raptor persecution identified, but not confirmed, in 2017.

	Species	County	10Km Sq.	Year	Month	Probable Cause of Death
1	Long-eared owl	Down	J55	2017	Aug	Shot

Table 3. Carcasses tested showing evidence of secondary poisoning by rodenticides in 2017. In these cases ingestion of rodenticide was not deemed to be the cause of death and rodenticides could not be confirmed as being used in an illegal manner.

	Species	County	10Km Sq.	Year	Month	Cause of Death	Rodenticide detected
1	Buzzard	Tyrone	H86	2017	Jan	Unknown	Brodifacoum, Bromadiolone, Difenacoum
2	Buzzard	Down	J56	2017	Feb	Starvation	Difenacoum
3	Buzzard	Tyrone	H96	2017	May	Unknown	Bromadiolone, Difenacoum, Flocoumafen
4	Buzzard	Armagh	J03	2017	Jun	Unknown	Brodifacoum
5	Buzzard	Down	J21	2017	Sep	Unknown	Difenacoum

Table 4. All confirmed bird of prey victims of persecution (including nest destruction) recorded in Northern Ireland in the five-year period 2013 to 2017 and incidents where other illegally poisoned animals, or illegal baits, were recovered in circumstances that could theoretically have resulted in raptor persecution. *NB. Figures relate to the total number of animals found.*

	Buzzard	Red Kite	Peregrine Falcon	Sparrowhawk	Golden Eagle	Merlin	White-tailed Eagle	Hen Harrier	Sub-total	Raven	Other Animal	Bait only	Total
2013	6	5				1	1		13		2		15
2014	4	4	2	1					11	1			12
2015	3		3						6		1		7
2016	3		2	1					6				6
2017	3	1	2	1				1	8				8
Total	19	10	9	3	0	1	1	1	44	1	3	0	48

Table 5. All confirmed bird of prey victims of persecution (including nest destruction) recorded in Northern Ireland between 2009 and 2017 and incidents where other illegally poisoned animals, or illegal baits, were recovered in circumstances that could theoretically have resulted in raptor persecution. *NB. Figures relate to the total number of animals found.*

	Buzzard	Peregrine Falcon	Red Kite	Sparrowhawk	Golden Eagle	Merlin	White-tailed Eagle	Hen Harrier	Sub-total	Raven	Other Animal	Bait only	Total
2009	3		1						4	1	5	1	11
2010	5	3			1				9	1	1	1	12
2011	3		1						4		2	2	8
2012	2	1		1					4	1	1		6
2013	6		5			1	1		13		2		15
2014	4	2	4	1					11	1			12
2015	3	3							6		1		7
2016	3	2		1					6				6
2017	3	2	1	1				1	8				8
Total	32	13	12	4	1	1	1	1	65	4	12	4	85

Hot Spot Mapping

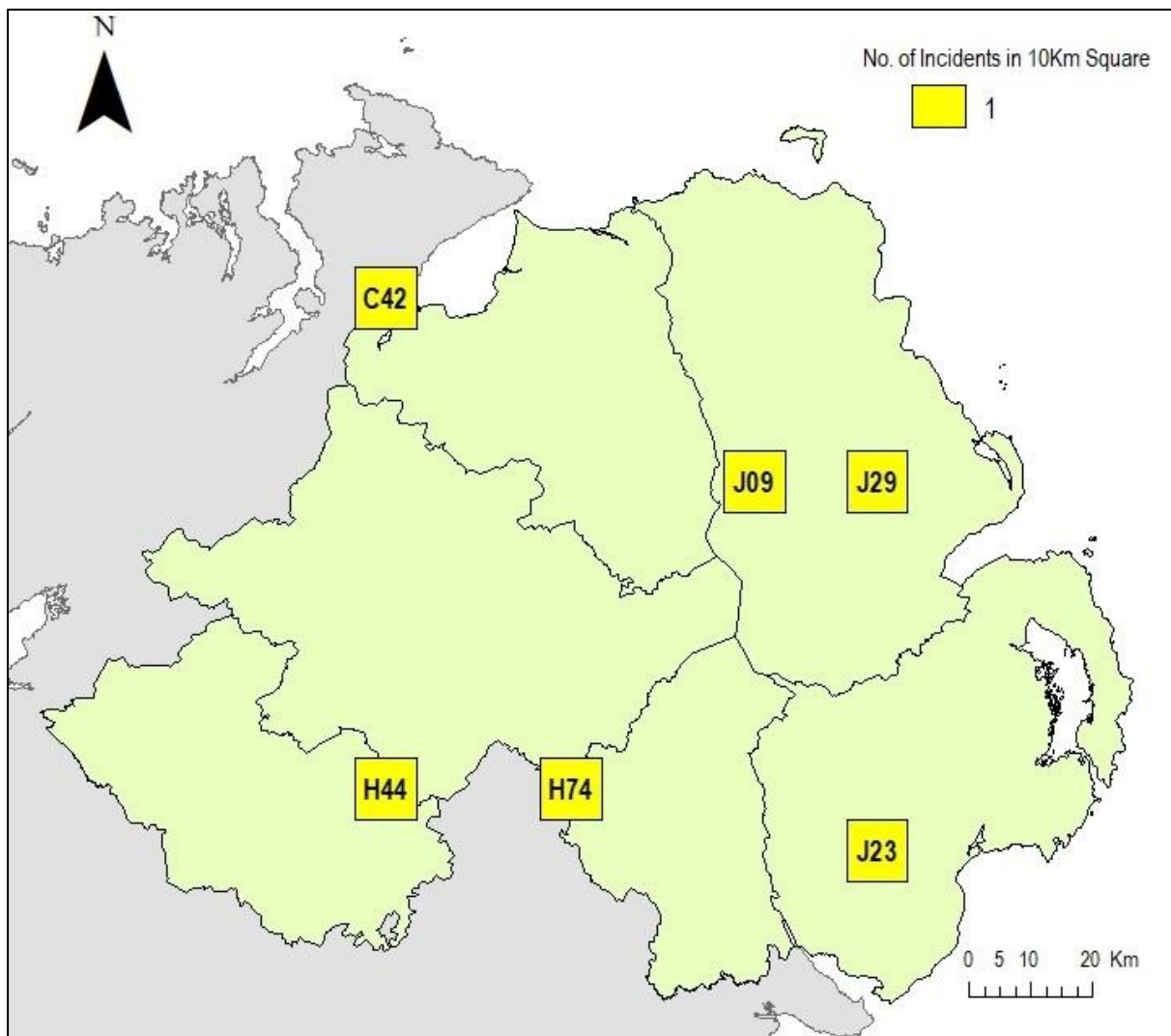


Figure 1. Confirmed incidents of persecution of birds of prey (see Table 1 for details) reported in Northern Ireland in 2017. The map shows incidents on a 10km-square scale. *Please note that the number of incidents does not indicate the number of birds killed.*

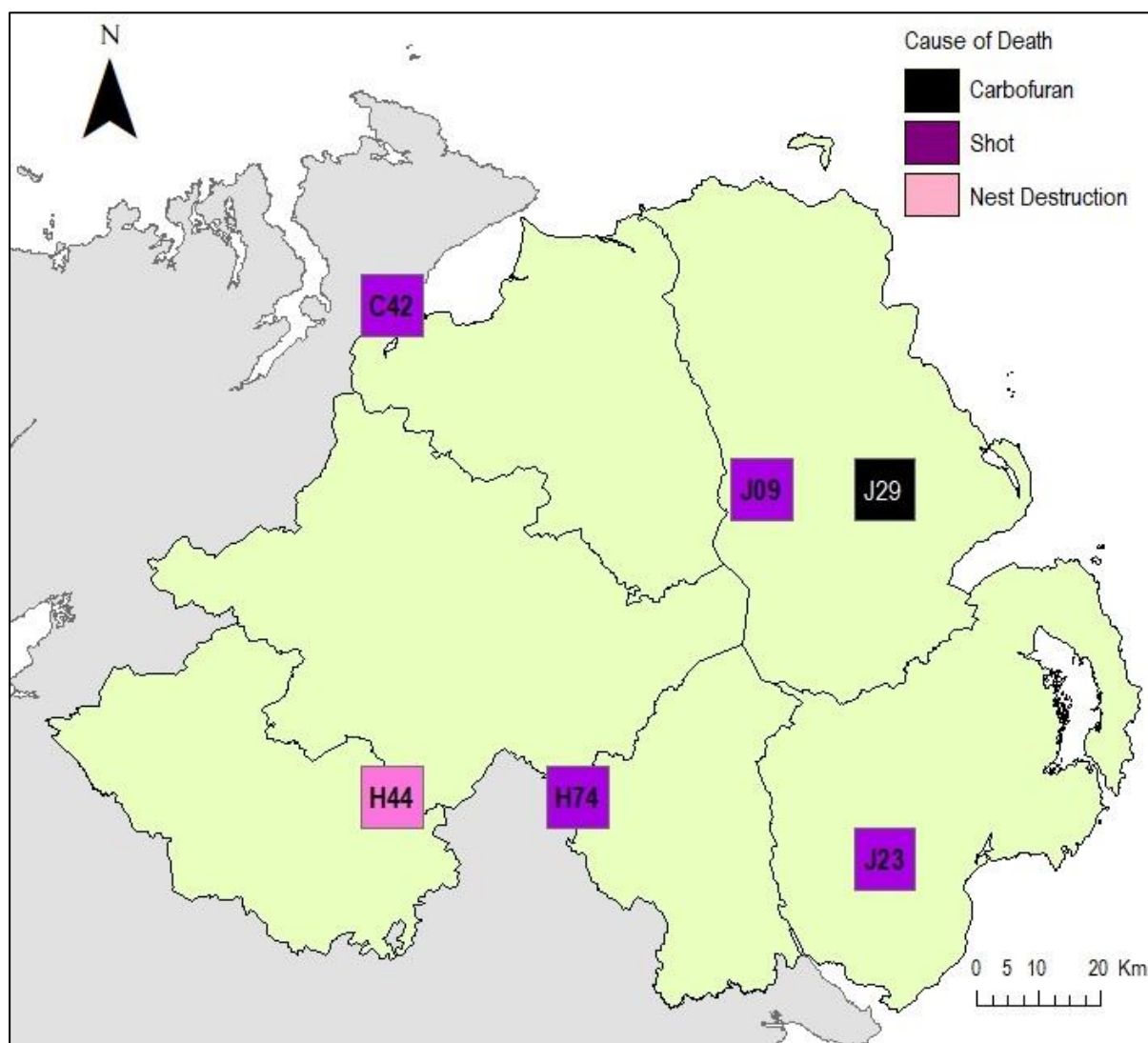


Figure 2. Confirmed incidents of persecution of birds of prey reported in 2017 in Northern Ireland mapped by incident type (see Table 1 for details). The map shows incidents on a 10km-square scale. *Please note that this map does not indicate the number of birds killed.*

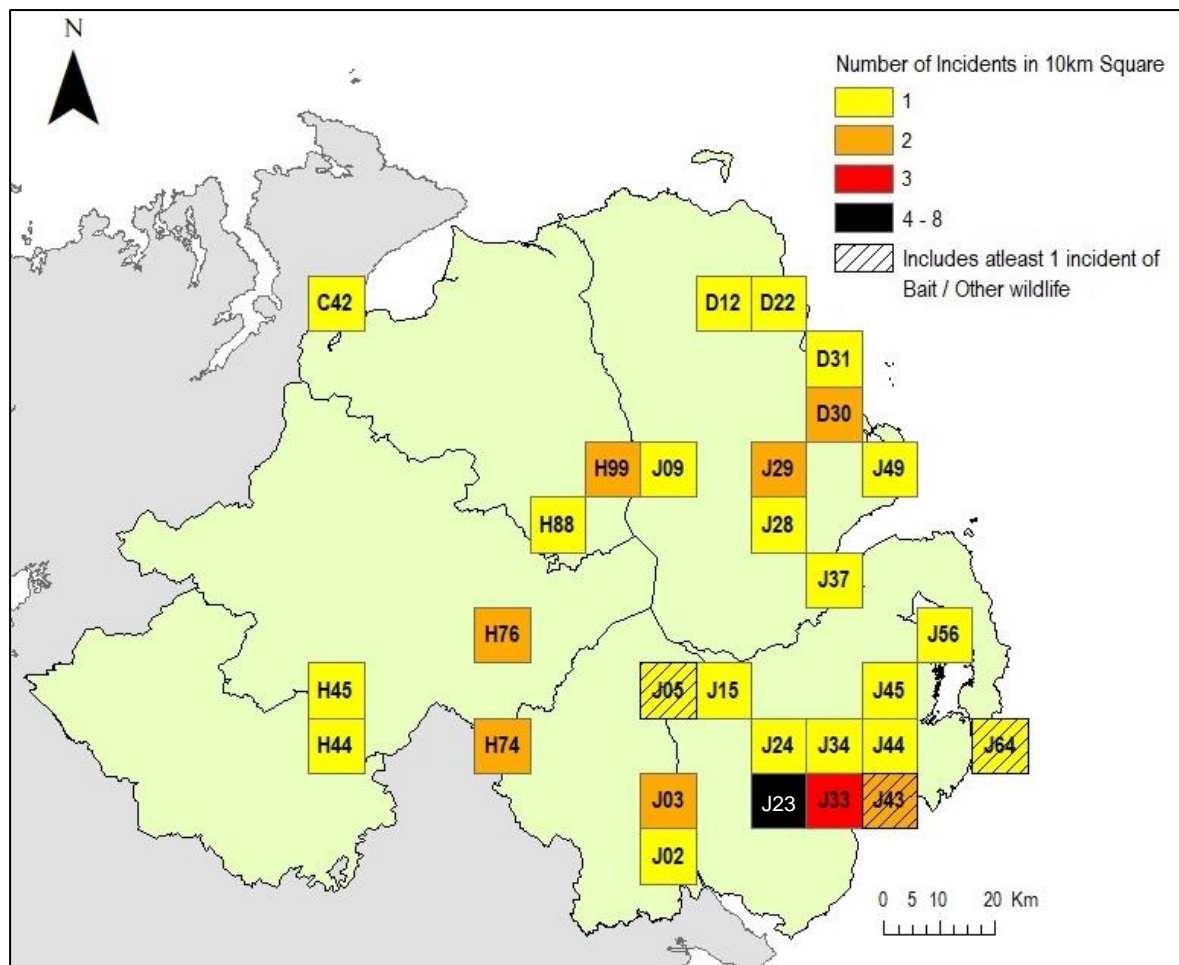


Figure 3. Five-year Hot Spot map of confirmed incidents of persecution of birds of prey, and illegally poisoned baits and other wildlife, reported in Northern Ireland in the period Jan 2013 – Dec 2017. The map shows incidents on a 10km-square scale. Colour coding indicates where more than one incident has occurred in a 10km-square. *Please note that the number of incidents does not indicate the number of birds killed.*

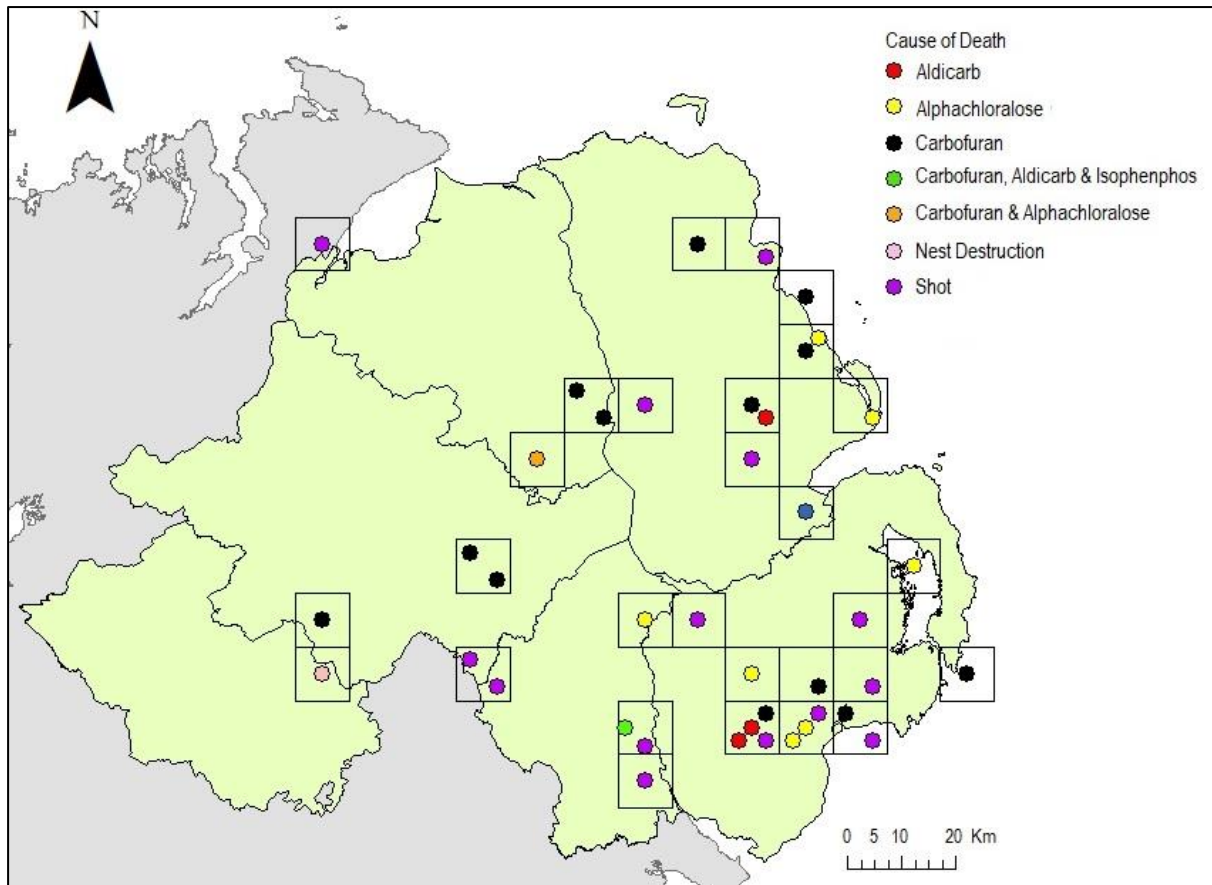


Figure 4. Five-year Hot Spot map of confirmed incidents of persecution of birds of prey, and illegally poisoned baits and other wildlife, reported in Northern Ireland in the period Jan 2013 – Dec 2017, listed by crime type in each 10km-square. *Please note that the number of incidents does not indicate the number of birds killed.* N.B. Symbols within squares simply represent an incident in that square, not the actual location.

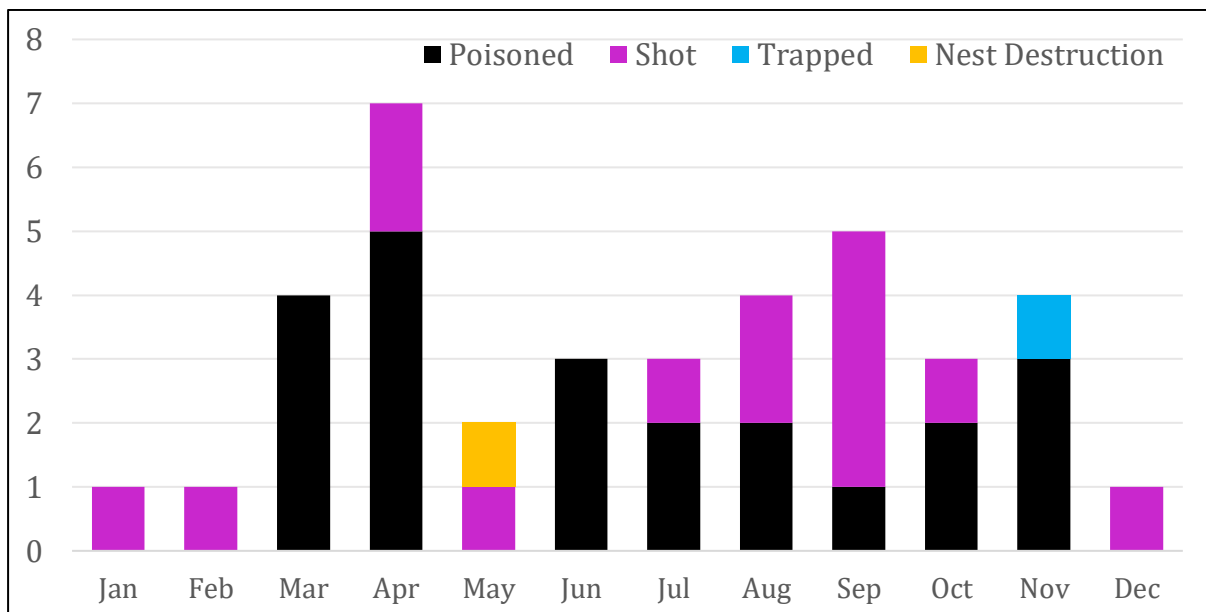


Figure 5. Different types of confirmed incidents of raptor persecution, displayed by month of occurrence, in 2013-2017.

Five year spatial analysis (2013-2017)

When the confirmed incidents from 2017 are added to those recorded in the four previous years the same “hot spot” areas as in previous years are evident (Figure 3), i.e. areas where confirmed incidents of raptor crime are most frequently detected. These are, in particular, in the south of Co. Down and the Antrim Glens. However, the continued emergence of new squares continues to show how widespread raptor persecution in Northern Ireland is – as spatial knowledge and reporting increases each year.

Three of the six confirmed incidents in 2017 were found in areas with previous confirmed incidents in the preceding four years, bringing the total confirmed incidents in the corresponding 10km-squares to two, two and four in the period 2013-2017;

- A buzzard was shot in H74, between Caledon and Aughnacloy, approximately 5km from where a peregrine was found shot in the Tynan area in 2015, suggesting that a negative attitude towards birds of prey in this area continues.
- Banned pesticides were once again used to kill a peregrine in the Ballymena area (J29), having previously been found in a dead peregrine here in 2016 and where a peregrine was shot in 2012.
- A red kite was shot in the Moneyslane area of J23 in Co. Down. Three previous incidents in this square involved the poisoning of three buzzards and a red kite in 2013, which occurred closer to the Rathfriland/ Hilltown area. This latest incident confirms J23 as a ‘black’ hot spot for raptor persecution (4 or more records in the 5-year reporting period).

There were no further incidents confirmed in previously highlighted areas in previous persecution reports. In the three ‘new’ squares where incidents were confirmed;

- Three shot raptors (two buzzards and a sparrowhawk) were found together in a flooded drain after heavy rain, in the Campsie area of Londonderry (C42).
- A peregrine was found injured but alive in the Toomebridge area and confirmed shot after x-ray examination by a local vet (J09). The bird did not survive its injuries.
- A hen harrier nest was destroyed by a fire started deliberately in the Sliabh Beagh area of Co. Tyrone (H44) (Image 2). Also, a second hen harrier nest may also have been destroyed in the same fire.

There is continued concern at the use of highly toxic, banned pesticide Carbofuran in one confirmed case in 2017 (killing a peregrine, Table1; Figure 4). There is no lawful reason to be in possession of, or to use, this pesticide. However, it is noted that the number of records of Carbofuran use (and other banned Carbamates such as Aldicarb) is lower in 2017 than in previous years in the five-year reporting period (seven confirmed incidents in 2013, four in 2014, two in 2015 and two in 2016) .

Five year temporal analysis (2013-2017)

Raptor persecution peaks occur in April and September (n=38; Figure 5). When separated into crime type the spring peak occurs as a result of poisoning offences. The peak of raptor persecution shown in September is a result of an increase in shooting offences at this time. These patterns are corroborated by previous analysis undertaken across the UK (NWCU⁶).

The temporal pattern in the persecution of the three most commonly persecuted species varies throughout the year. It would appear that buzzards are illegally killed most often in March/April and September (7 out of 17 incidents), peregrines in July to September (5 out of 8 incidents), and there is a peak in red kite deaths in August (3 out of 8 incidents).

Second-Generation Anticoagulant Rodenticides

In 2017 there were five raptors, all buzzards, exhibiting levels of second-generation anticoagulant rodenticide (SGARs) toxicity, suggestive of the misuse of these compounds. SGARs can accumulate in non-target scavenging and predatory species and the sublethal effects on breeding success and survival are unknown⁷. SGAR contamination and poisoning of non-target animals is increasing in degree and scale⁶.

There is a code-of-best practice for the safe use of rodenticides, which not only aims to protect non-target wildlife from exposure, but also make the treatment regime most effective in killing rodents and preventing spread of rodenticide resistance. This code of best practice is from the 'Campaign for Responsible Rodenticide Use', and more information on methods that should be used can be found at www.thinkwildlife.org.

⁶ Rattner, B.A. *et al.* 2014. Adverse outcome pathway and risks of anticoagulant rodenticides to predatory wildlife. *Environ. Sci. Technol.* **48** (15): 8433-8445.

Early Detection - Report suspicious activity

A proportion of suspected crimes reported to PSNI in 2017 resulted in an inconclusive result (n =11), with several carcasses (n = 4) submitted too decomposed for meaningful post mortem examination or reliable toxicology testing (e.g. Image 1). This is due to the bird(s) being found and/or reported some time after death and is beyond the control of statutory agencies.

It is plausible that a number of 'inconclusive' cases, where birds were too decomposed for meaningful toxicology testing or post mortem examination, did indeed involve the illegal killing of these birds. This highlights the importance of reporting suspected incidents to PSNI as soon as possible, to maximise the likelihood of determining a cause of death.

There were 205 reports of suspected wildlife crime⁷ submitted to PSNI in 2017. The hot spot maps of confirmed incidents enable PSNI efforts to be focused in problem areas, however, this is not a substitute for intelligence gathering through public reports. Any information, whether current or historical, could be extremely important.

**PLEASE REPORT ANY SUSPICIONS OF RAPTOR PERSECUTION TO PSNI ON '101'
OR ANONYMOUSLY VIA CRIMESTOPPERS ON 0800 555 111**

ACTIONS TAKEN

In order to increase awareness and promote recognition and reporting, and to increase the likelihood of successful prosecution in the near future, several actions have been identified and undertaken by the PSNI and other members of the PAW NI RS:

- Operation Peregrine Watch was launched in early 2017. This joint initiative between PSNI, NIRSG and NIEA, saw the Air Support Unit (ASU) from PSNI use an unmanned aerial vehicle (UAV) fitted with specialist cameras to monitor peregrine nest sites in 'hot spot' areas to assist in prevention of persecution. In

⁷ For more information on 'what is a wildlife crime' please see <https://www.wildlifecrimeni.org/copy-of-wildlife-crime-northern-ire-1>

2017 there appeared to be a reduction in the number of persecution incidents recorded at peregrine sites.

- Operation Peregrine Watch is an ongoing initiative to prevent and stop any peregrine persecution and this can include theft of eggs and chicks from nests and/or the killing of adults and/or chicks through poisoning, shooting or trapping at any time of the year.
- NIRSG scientists, along with PSNI officers, carried out the fitting of leg-rings, under special licences, at a number of peregrine falcon sites across the country as part of ongoing research studies on this species. NIRSG scientists have also been installing cameras under licence at peregrine nest sites, in order to monitor adults and nestlings and to identify individual peregrines (Image 3). This information contributes to knowledge about the movements of peregrines and their survival, and ongoing monitoring by remote cameras across Northern Ireland will continue indefinitely.
- The Raptor Persecution awareness leaflet was redesigned and printed in an effort to bring up-to-date with the 'Watch Out for Wildlife Crime' message. The updated leaflet can be accessed [here](#)⁸



Image 3. 'Blue V/E' with her two chicks captured on nest camera installed under licence. [Photo © NIRSG Images]

⁸ https://docs.wixstatic.com/ugd/259455_67750c0253004a558102e14ea436f7c0.pdf

GOING FORWARD

In order to;

- ▶ increase the reporting, recording and analysis of raptor injuries and mortality incidents
- ▶ increase public awareness and education about the issues surrounding crimes against birds of prey
- ▶ help combat illegal bird of prey persecution and poisoning in Northern Ireland,
- ▶ help secure a successful prosecution,

the PAW NI RS has collectively agreed the following;

- To support PSNI and AFBI in considering a good practice working arrangement surrounding the collection, delivery and testing of incidents of different types, to maximise the likelihood of determining cause of death, and maintain records which could be used in a prosecution.
- To maintain an ongoing review of protocols, to identify any factors which may be improved upon going forward.
- To maintain a review of the availability of additional resources, research and techniques to help support the ongoing work.
- To explore and develop new initiatives to raise the awareness of, increase the reporting of, and to deter, wildlife crime.
- To provide assistance to AFBI in the identification of raptors submitted for testing.
- To continue to use the Wildlife Department in PSNI as the first point of contact in suspected wildlife crime cases
- The PSNI will continue to carry out searches in the areas identified in this report, and when future incidents occur, in collaboration with the HSE NI and NIEA where there is information available to do so.
- To continue to identify, and engage with, other stakeholders or partners to maximise participation in future reporting e.g. Council Animal Welfare Officers, local council biodiversity officers, veterinarians etc.
- To raise the profile of each incident on a case-by-case basis, an important tool in obtaining intelligence information relating to specific crimes. However it is necessary that once confirmed a crime is to be highlighted in the public domain,

that the PSNI/ WLO and/or PSNI Investigating Officer will be consulted beforehand to ensure any ongoing investigation is not compromised.

- To continue to support the Campaign for Responsible Rodenticide Use (www.thinkwildlife.org) in Northern Ireland and the Republic of Ireland to continue to raise awareness of the risks to wildlife from rodenticides and secondary poisoning of raptors.
- To continue to raise the profile of Operation Raptor and Operation Peregrine Watch as and when required.

The PAW NI RS partner organisations recognise the increased efficacy of the collaboration of effort, knowledge and analysis gained by compiling these annual reports and will endeavour to continue to maintain the working partnership facilitated by the PAW NI RS. All partners recognise the value in review and improvement of systems and knowledge relating to the illegal killing of birds of prey.

ACKNOWLEDGEMENTS

This publication has been researched and produced by Eimear Rooney (NIRSG) with assistance of other members of the PAW NI Raptor Subgroup.

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