Bird of Prey Persecution and Poisoning Report Northern Ireland 2015 & 2016







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

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SUMMARY

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 PAWNI 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 raptors in Northern Ireland covers the period 1st January 2015 to 31st December 2016, with comparisons made to previous reports covering 2009 to 2014^{2,3}.

In 2015, a total of five illegal persecution incidents, involving six individual birds of prey, were confirmed in Northern Ireland in five 10-km squares. There were three incidents of poisoning and two incidents of shooting. Confirmed incidents involved the killing of three buzzards and three peregrine falcons. Four of these incidents occurred in 10-km squares where confirmed crimes have not been recorded since 2009.

In 2016, a total of six illegal persecution incidents, involving six individual birds of prey, were confirmed in Northern Ireland in six 10-km squares. There were four incidents of poisoning, and two incidents of shooting. The most frequently recorded species involved was buzzard (3), with peregrine falcon (2) and sparrowhawk (1) also persecuted. Three of these incidents occurred in 10-km squares where confirmed crimes have not been recorded since 2009.

There were two additional 'probable' incidents, one involving two poisoned buzzards and one involving a shot peregrine falcon, in 2015. There were an additional two recorded cases of 'probable' raptor persecution, involving one shot buzzard and one shot nesting peregrine falcon, in 2016.

²Bird of prey Persecution and Poisoning Report Northern Ireland 2009-2013 [https://www.psni.police.uk/globalassets/advice--information/animal-welfare/documents/pawniraptorpersecution--poisoning-report-2009-2013-final.pdf]

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

³Bird of prey Persecution and Poisoning Report Northern Ireland 2014 [https://www.psni.police.uk/globalassets/advice--information/animal-welfare/documents/2-paw-rs-persecution-report-2014 final.pdf]

There was evidence of secondary rodenticide poisoning in 11 incidents in 2015 and in eight incidents in 2016, 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 between 2009 and 2016 to 56, with an additional incident of confirmed nest destruction. These incidents have involved seven different raptor species.

The hot-spot reporting of crimes against raptors in Northern Ireland has shown how widespread such incidents have been, with 50 confirmed incidents recorded in a total of 32 different 10-km squares (17% of all 10-km squares) between 2009 and 2016.



Image 1. Peregrine falcon found dead in Co. Antrim in April 2016 was confirmed poisoned with banned pesticide Aldicarb (© Anon.).

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 PAWNI RS) consists of representatives from organisations involved in the monitoring, collection and analysis of data, and enforcement of wildlife crimes against birds of prey 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) and the Health and Safety Executive for Northern Ireland (HSE NI).

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 contaminants⁴. Some species are doing well whilst others, such as the hen harrier⁵, 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 relation to Wildlife Crime in Northern Ireland can be found in the first Bird of Prey Persecution and Poisoning Report Northern Ireland 2009-2013⁶.

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

⁴Colhoun & Cummins (2013).Birds of Conservation Concern in Ireland 2014-2019. Irish Birds 9: 523-544. ⁵ RSPB 'Hen harriers on the decline in Northern Ireland' [<u>https://www.rspb.org.uk/our-work/rspb-news/news/444206-hen-harriers-on-the-decline-in-northern-ireland-</u>]

⁶ Bird of prey Persecution and Poisoning Report Northern Ireland 2009-2013 [https://www.psni.police.uk/globalassets/advice--information/animal-welfare/documents/pawniraptorpersecution--poisoning-report-2009-2013-final.pdf]

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.

PAWNI Raptor Persecution Report

This report includes the persecution and secondary poisoning incidents involving birds of prey recorded in Northern Ireland between January 2015 and December 2016. 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 2009-2013⁶.

Cases of probable and possible incidents may be alluded to in the discussion, but neither type of incident is included in the hot-spot maps due to the lack of sufficient information to record these as confirmed incidents. These have, however, been collated for intelligence purposes in the main database held by PSNI, NIRSG and RSPB.

RESULTS

It is likely that the figures presented here 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 2015

A total of 30 incidents, involving 35 deceased birds of prey, were investigated by PSNI to determine whether offences may have been committed in 2015⁷. Carcasses were available for testing in 29 of these cases (*NB* in some cases incidents are reported for information only and there is no carcass available for testing). Of these 29 incidents there were:

- Five confirmed crimes
- Two probable crimes

There was an alternative cause of death determined in a further five cases (disease, starvation, and trauma e.g. cable strike). In the remaining 17 cases the cause of death was unknown, with the samples too decomposed for testing in seven of these cases.

Overview of Reported Incidents 2016

A total of 19 incidents, involving 19 deceased birds of prey, were investigated by PSNI to determine whether offences may have been committed in 2016⁷. Carcasses were available for testing in 17 of these cases. Of these 17 incidents there were:

• Six confirmed crimes

There was an alternative cause of death determined in a further four cases (disease, starvation and trauma e.g. cable strike). In the remaining seven cases the cause of death was unknown.

In the two cases where carcasses were not available the eye-witness accounts, photographs, circumstances, and history of the site, resulted in the incidents being determined as;

• Two probable crimes.

⁷ One incident of a shot peregrine in 2015 was confirmed by veterinary laboratory x-ray and reported to PSNI retrospectively in 2016. The incident, which occurred in Aug, is included in the 2015 statistics in this report.

Reported Incidents: Results

Confirmed Incidents

In 2015 there were five confirmed incidents of persecution or poisoning of raptors recorded in Northern Ireland, involving six individual birds of prey from two species, namely buzzard and peregrine (Table 1). Incidents were confirmed in Counties Down (2), Londonderry (1), Tyrone (1) and Armagh (1) (Figure 1). Confirmed incidents involved both poisoning (3) and shooting (2) (Figure 2).

In 2016 there were a further six confirmed incidents of persecution or poisoning of raptors, involving a further three buzzards, two peregrines and a sparrowhawk (Table 1). Incidents were confirmed in Counties Antrim (5) and Down (1) (Figure 1). Confirmed incidents involved both poisoning (4) and shooting (2) (Figure 2).

Pesticides found in poisoned birds in 2015 and 2016 included the highly toxic substances Carbofuran and Aldicarb, which have been banned in the UK since 2001 and 2003 respectively and for which there is no legal use in the UK, and Alphachloralose, a pesticide with restricted indoor-only use for targeting mice in Northern Ireland, but which may be used in other strict conditions under licence by professionals for the control of pest species on the General List. In confirmed poisoning cases Alphachloralose was found in concentrations which would be considered as abuse of the product, rather than being consumed as secondary poisoning.

Indiscriminate Baits and Probable Incidents

As in previous reports, pesticide abuse incidents in which other wildlife was killed, or indiscriminate baits were recovered in circumstances that could have resulted in raptor persecution, are noted here in a separate table (Table 2). In 2015 a magpie was confirmed poisoned by Alphachloralose. This magpie had been found next to two dead buzzards and a further four dead magpies. However, when PSNI officers arrived to the scene all carcasses other than one magpie had been removed. The buzzards killed in this incident are classified as a 'Probable' persecution incident (see Table 3).

There was an additional probable crime recorded in 2015 involving a peregrine falcon, which was found dead at the side of its nest containing three eggs. This was at a site of known historical peregrine persecution (NIRSG observations). The peregrine was

suspected shot with a rifle (Image 2). Despite the overwhelming high likelihood of persecution and corroborating evidence the cause of death could not scientifically be verified at post mortem examination, but could also not be ruled out by qualified personnel, and thus appears in this report as a 'probable' crime (Table 3). The new incubating female disappeared from this site again in 2016, at exactly the same time of year that the previous female was found dead in 2015. Footprints were recorded below the nest (which is in a secluded privately-owned area). In the absence of a carcass, and given the long history of anecdotal persecution at this site, this incident was recorded here as 'Probable' (Table 3).

Finally, in 2016, a buzzard was witnessed being shot in Co. Londonderry. However, when PSNI officers attended the scene several days later, the carcass of the bird, which had landed on a main road, was badly destroyed by vehicles and viable samples for post mortem examination could not be collected by the officers. In the absence of post mortem evidence, this crime has been reported here as 'Probable' (Table 3).

Secondary Poisoning by Rodenticides

Detectable levels of secondary poisoning by rodenticides (Bromadiolone, Brodifacoum, Difenacoum, and/or Flocoumafen) were recorded in 11 birds of prey in 2015 and in eight birds of prey in 2016 (Table 4). However, these rodenticides were not deemed to be recorded at concentrations (>0.2 mg/g) to have been the cause of death, and were within the levels expected through ingestion of rodenticide poisoned prey.

Summary of Confirmed incidents 2009 to 2016

The confirmed incidents recorded in 2015 and 2016 brings the number of birds of prey confirmed persecuted or poisoned in Northern Ireland between 2009 and 2016 to 57 (including one incident of confirmed nest destruction), in 50 incidents. Buzzards, red kites and peregrines have been most frequently recorded as illegally killed (Table 5).

The raptor persecution incidents confirmed between 2009 and 2016 have been widespread, with confirmed crimes involving raptors recorded in 32 different 10km squares across Northern Ireland. This is approximately 17% of 10km squares in Northern Ireland. Incidents where other poisoned animals, or 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 eight separate 10km squares.

	Species	County	10Km Sq.	Year	Month	Incident Type	Toxin / Rodenticide detected
1	Buzzard	Tyrone	H45	2015	Apr	Abuse	Carbofuran
2	Peregrine x 2	Down	J15	2015	May	Shot	
3	Peregrine	Armagh	H74	2015	Aug	Shot	
4	Buzzard	Down	J56	2015	Sep	Abuse	Alphachloralose
5	Buzzard	Londonderry	Н99	2015	Nov	Abuse	Carbofuran
6	Buzzard	Antrim	D31	2016	Mar	Abuse	Carbofuran
7	Buzzard	Antrim	D30	2016	Mar	Abuse	Alphachloralose
8	Peregrine	Antrim	J29	2016	Apr	Abuse	Aldicarb
9	Sparrowhawk	Down	J02	2016	Apr	Shot	
10	Buzzard	Antrim	J49	2016	Jun	Abuse	Alphachloralose
11	Peregrine	Antrim	J28	2016	Sep	Shot	

Table 1. All confirmed incidents of persecution and poisoning of birds of prey recorded in Northern Ireland in 2015 & 2016.

Table 2. Confirmed pesticide abuse incidents in 2015 & 2016 in Northern Ireland, in which other wildlife was killed or indiscriminate baits were recovered in circumstances that could have resulted in raptor persecution.

	Species	County	10Km Sq.	Year	Month	Incident Type	Toxin / Rodenticide detected
1	Magpie	Armagh	J05	2015	Jun	Abuse	Alphachloralose

	Species	County	10Km Sq.	Year	Month	Probable cause of death
1	Peregrine	Armagh	J01	2015	Apr	Shot
2	Buzzard x 2	Armagh	J05	2015	Jun	Alphachloralose
3	Buzzard	Londonderry	C83	2016	Apr	Shot
4	Peregrine	Armagh	J01	2016	Apr	Shot

Table 3. Probable incidents of raptor persecution identified, but not confirmed, in 2015 & 2016.

Table 4. Carcases tested showing evidence of secondary poisoning by rodenticides in 2015 & 2016. 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.

			10Km			Cause of	
	Species	County	Sq.	Year	Month	Death	Rodenticide detected
		-	70.4	001 -	-	-	Bromadiolone,
1	Red Kite	Down	J24	2015	Jan	Trauma	Difenacoum
2	Buzzard	Tyrone	H47	2015	Mar	Starvation	Brodifacoum
3	Red Kite	Down	J24	2015	May	Unknown	Difenacoum, Flocoumafen
4	Peregrine*	Down	J15	2015	May	Shot	Bromadiolone
5	Buzzard	Down	J23	2015	Jul	Unknown	Bromadiolone
	Birds of prey x					_	
6	28	Tyrone	H85	2015	Aug	Unknown	Brodifacoum, Difenacoum
7	Buzzard	Londonderry	H99	2015	Sep	Unknown	Brodifacoum, Difenacoum
							Bromadiolone,
8	Buzzard*	Down	J56	2015	Sep	Abuse	Difenacoum
9	Buzzard	Armagh	J03	2015	Oct	Unknown	Brodifacoum, Difenacoum
10	Buzzard	Londonderry	C62	2015	Oct	Unknown	Brodifacoum, Difenacoum
							Bromadiolone,
11	Buzzard*	Londonderry	H99	2015	Nov	Abuse	Difenacoum
10		-	10.1	0011	-	1	Bromadiolone,
12	Buzzard	Down	J21	2016	Jan	Unknown	Difenacoum
13	Buzzard	Antrim	J18	2016	Mar	Unknown	Brodifacoum, Bromadiolone
15	Duzzalu	Antrini	J10	2010	Mai	UIIKIIOWII	Brodifacoum, Difenacoum,
14	Buzzard	Down	J44	2016	Mar	Unknown	Flocoumafen
							Brodifacoum,
							Bromadiolone,
15	Buzzard	Down	J57	2016	Mar	Unknown	Difenacoum
							Brodifacoum,
10	Duggord	Deve	124	2010	Ман	Unknown	Bromadiolone,
16	Buzzard	Down	J34	2016	Mar		Difenacoum
17	Red Kite	Down	J35	2016	Jun	Unknown	Difenacoum, Flocoumafen
18	Buzzard	Armagh	H84	2016	Aug	Unknown	Difenacoum
19	Buzzard	Antrim	D30	2016	Мау	Unknown	Difenacoum

⁸ Species not identified

^{*}In these cases the cause of death was confirmed as persecution or intentional poisoning using other pesticides, and as such these incidents are also included in Table 1.

Table 5. All confirmed bird of prey victims of persecution and poisoning recorded in Northern Ireland between 2009 and 2016 and incidents where other poisoned animals, or 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	Golden Eagle	Merlin	Sparrowhawk	White-tailed Eagle	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	4	2			1		11	1			12
2015	3		3					6		1		7
2016	3		2			1		6				6
Total	29	11	11	1	1	3	1	57	4	12	4	77



Image 2. 'Probable' shot Peregrine and chilled eggs (insert) in nest in Co. Armagh in 2015 (See text above and Table 3) (© E. Rooney).

Hot Spot Mapping

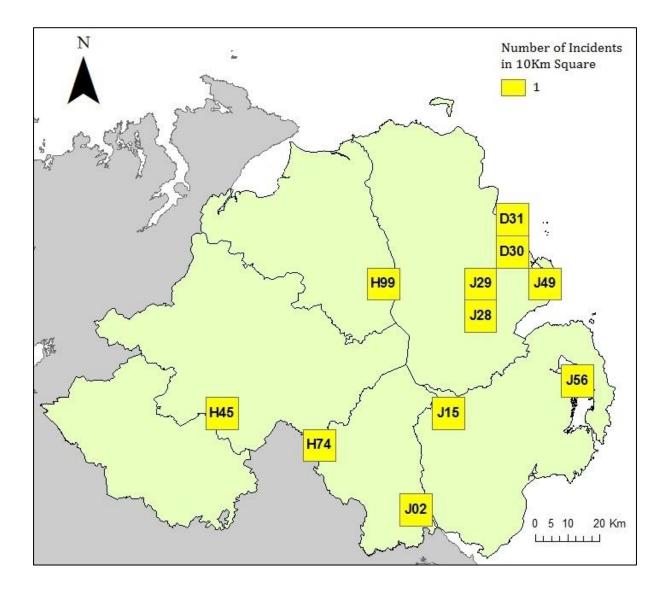


Figure 1. Confirmed incidents of persecution of birds of prey (see Table 1 for details) reported in Northern Ireland in the period Jan 2015 – Dec 2016. The map shows incidents on a 10km-square scale. *Please note that the number of incidents does not indicate the number of birds killed.*

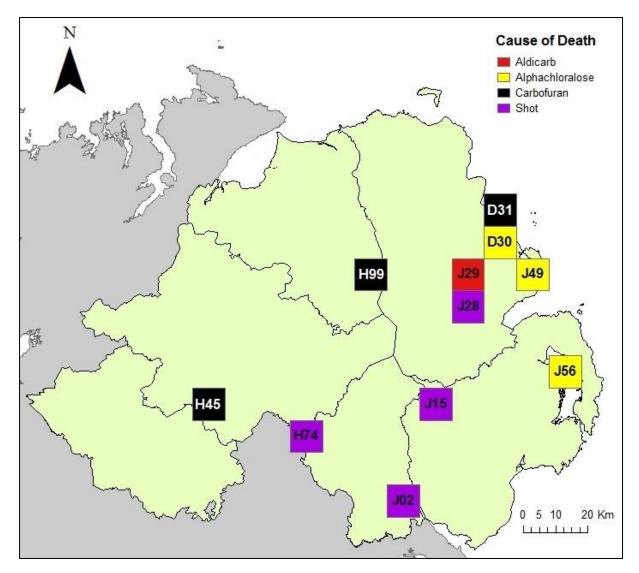


Figure 2. Confirmed incidents of persecution of birds of prey reported in 2015 & 2016 in Northern Ireland mapped by incident type (see Table 1 for details). The map shows incidents on a 10km-square scale. *Please note that this map does not indicate the number of birds killed.*

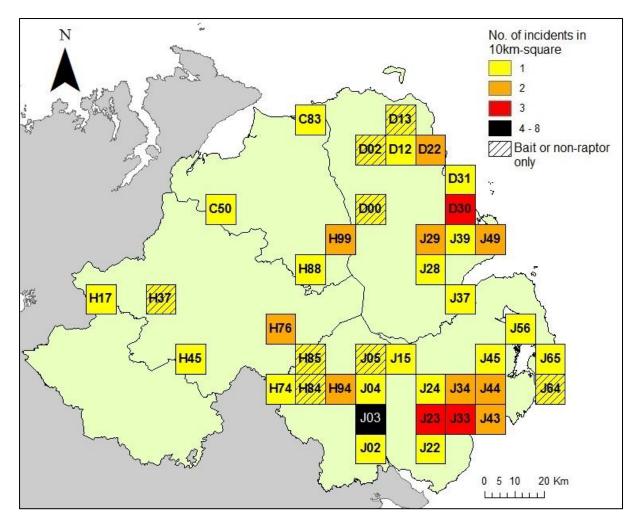


Figure 3. **Hot Spot map** of confirmed incidents of persecution of birds of prey, and poisoned baits and wildlife, reported in Northern Ireland in the period Jan 2009 – Dec 2016. The map shows incidents on a 10km-square scale. Colour coding indicates where more than one incident has occurred in a 10km-square. *Please note that the number of incidents does not indicate the number of birds killed.*

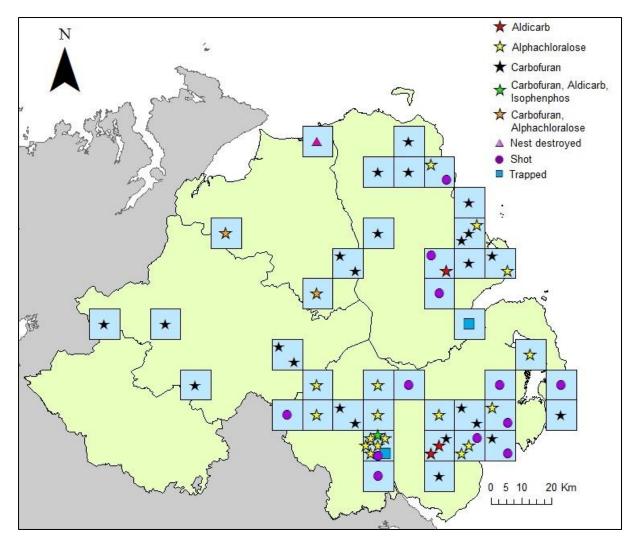


Figure 4. Hot Spot map of confirmed incidents of persecution of birds of prey, and poisoned baits and wildlife, reported in Northern Ireland in the period Jan 2009 – Dec 2016, listed by crime type in each 10km-square. *Please note that the number of incidents does not indicate the number of birds killed.* N.B. Symbols within squares simply represent an incident in that square, not the actual location.

Spatial analysis 2009-2016

When the confirmed incidents from 2015 and 2016 are added to those recorded in previous years several "hot-spot" areas are evident (Figure 3), i.e. areas where confirmed incidents of raptor crime are most frequently detected. These are, in particular, on the Armagh/Down border, mid-Down and the Antrim Glens.

It is of particular note is that four of the five confirmed incidents recorded in 2015 occurred in areas with no prior confirmed incidents in the period 2009-2014. This shows how we are only beginning to see how widespread raptor persecution is – as spatial understanding increases each year. Indeed, three incidents in 2016 occurred in 10km-squares which had no confirmed incidents previously.

In 2015 one persecution incident was recorded in a previously known area, the Castledawson/Bellaghy area of Co. Londonderry, which indicates the ongoing use of the banned, and highly toxic, pesticide Carbofuran to poison raptors in the area (previously recorded here in 2013).

In 2016 two confirmed incidents occurred in previously highlighted areas; a buzzard was poisoned by Alphachloralose in Co. Antrim in D30, an area where a buzzard and a red kite have previously been poisoned with Carbofuran (in 2011 and 2013 respectively). A peregrine was poisoned with Aldicarb in J29 in Co. Antrim, at the same site where a peregrine was previously shot in 2012⁹.

There were no further confirmed incidents in the black square (10km-square J03) (Figure 3), which is the area surrounding Jerrettspass and Poyntzpass, on the border of counties Down and Armagh (see previous reports for details¹⁰). However, four dead buzzards were collected by PSNI in this square in 2015 and a further dead buzzard was collected here in 2016. In 2015 the four carcasses were too decomposed for post mortem examination and thus persecution could not be confirmed and in 2016 death was concluded as 'trauma' and again, persecution could not be confirmed.

⁹ Please note that the site of this incident lies on the border of two 10-km squares and is noted as 'D20' in the 2009-2013 report, which is the adjacent square. This has since been corrected to 'J29' in the persecution database.

¹⁰ Please note that the key in the Hot-spot map in the 2014 report should read '4-8' incidents for square J03, not '4-7' incidents.

There were no further incidents confirmed in previously highlighted areas in the previous persecution reports.

It is worrying to see the large number of cases in which background levels of secondgeneration anticoagulant rodenticides (SGARs) are found. SGARs can accumulate in nontarget scavanging and predatory species and the sublethal effects on breeding success and survival are unknown¹¹. SGAR contamination and poisoning of non-target animals is increasing in degree and scale¹¹. There is a code-of-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 is the Code of the Campaign for Responsible Rodenticide Use, and more information on methods you can use can be found at <u>www.thinkwildlife.org</u>.

The PAWNI RS group note with continued concern the widespread use of highly toxic, banned pesticides Carbofuran and Aldicarb (Figure 4). There is no lawful reason to be in possession of, or to use, either of these pesticides. These pesticides were detected in two confirmed cases in 2015 (killing two buzzards) and a further two confirmed cases in 2016 (killing a buzzard and a peregrine).

A proportion of suspected crimes reported to PSNI resulted in an inconclusive result (n = 17 in 2015; n= 7 in 2016), with many carcases (n = 7 in 2015; number unknown in 2016) submitted too decomposed for meaningful post mortem examination or reliable toxicology testing (e.g. Image 3). This is due to the birds 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 intentional 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.

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.

¹¹Rattner, B.A. *et al.* 2014. Adverse outcome pathway and risks of anticoagulant rodenticides to predatory wildlife. *Environ. Sci. Technol.* **48** (15): 8433-8445.

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



Image 3. The remains of White-tailed eagle 'Inger', which was wing-tagged White-Black N as a chick in 2009, were heavily decomposed when they were found and post mortem examination could not take place (© M. Ruddock).

ACTIONS TAKEN

In order to minimise the number of potential persecution and poisoning incidents which are not reported to the PSNI and/or birds which are not sent for post mortem examination, 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 PAWNI RS:

- Cases reported to PSNI, including unconfirmed cases, (depending on how it is logged within PSNI) are now believed to be included in background analysis enabling the 'Overview of Reported Incidents' section (above) to be written. This provides an overview of the total number of potential raptor persecution incidents reported to PSNI on '101' and analysis of the proportion of birds where the cause of death is unknown to be publicised. This makes the reporting of incidents more transparent, and allows any questions which may arise surrounding particular incidents, to be targeted. This change in data collection has been primarily facilitated by the administrative support in the PSNI wildlife section and is subject to this support being available.
- Inclusion of the hot-spot map by crime type allows Investigating Officers and the wider public to identify whether a similar type of incident has occurred in that locality at a quick glance. Although all wildlife crime is treated as a priority by

PSNI, mapping such as this helps to prioritise response times when resources are finite and must be allocated based on information/intelligence and allows strategic decisions to be made and focussed operations in particular areas.

- The mapping allows focussed operations to be launched by the PAWNI RS in particular hot-spot areas.
- 'Operation Raptor' was launched by PSNI in March 2016. This initiative targets hot-spot areas identified in the persecution reports in a bid to encourage members of the public to report wildlife crime and to deter potential offenders (image 4). The poster can be used as and when a hot-spot area is identified. Operation Raptor was publicised widely in the local and regional press and served to remind the public that PSNI are committed to working with partner agencies to tackle wildlife crime through prevention as well as enforcement, and will continue to work hard to do so.
- AFBI have circulated information to veterinary practices on Operation Raptor, the multi-agency initiative launched to pursue those who target birds of prey, in their newsletter (Issue 2). This informs veterinary surgeons submitting carcasses of samples to AFBI staff of how PSNI see crimes against birds of prey as a wildlife crime priority.
- The veterinary network of Northern Ireland has been provided with a reminder to call PNSI on '101' if presented with a bird of prey which they believe to have be persecuted. They have also been provided with the Operation Raptor poster and copy of the Raptor Persecution Crime Leaflet. PAWNI RS are thankful to the secretariat, VET NI, for facilitating the dissemination of this information to the veterinary network.
- A database of contacts who can accurately identify raptor species when required has been collated and provided to both AFBI laboratories. It is hoped that this will mitigate the issue of unidentified, or misidentified carcasses.
- Following on from the launch of Operation Raptor, PSNI worked in tandem with NIRSG and NIEA to develop 'Operation Peregrine Watch'. The Air Support Unit from PSNI have and may continue to use drones fitted with specialist cameras to monitor peregrine nest sites to assist in prevention of persecution, and if possible to catch perpetrators in the act. Operation Peregrine watch was launched officially

in May 2017 and an update on its progress will be included in the 2017 Raptor Persecution Report.



Image 4. The Operation Raptor poster which has been placed in hot-spot areas to deter raptor persecution and promote reporting of suspected wildlife crimes.

GOING FORWARD

In order to increase the reporting, recording and analysis of raptor injuries and mortality incidents, and to increasing public awareness and education about the issues surrounding crimes against birds of prey, to help combat illegal bird of prey persecution and poisoning in Northern Ireland, and to help secure a successful prosecution, the PAWNI 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 and cases, 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 invite representatives from the DAERA Pesticides branch to participate in PAW NI RS meetings to provide expert advice on specific pesticides.
- To provide assistance to AFBI in the identification of raptors submitted for testing.
- PSNI will continue to carry out searches in the areas identified in this report, in collaboration with the Health and Safety Executive and NIEA where the information is 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.
- To consider other ways to collectively combat crimes against birds of prey.

The PAWNI 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 PAWNI RS. All partners recognise the value in review and improvement of systems and knowledge relating to the illegal killing of birds of prey.

ACKNOWLEDGEMENTS

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