YORKSHIRE DALES NATIONAL PARK AND NIDDERDALE AREA OF OUTSTANDING NATURAL BEAUTY

BIRD OF PREY EVIDENCE REPORT 2021

This report has been agreed and published by the Steering Group, which includes representatives from British Association for Shooting & Conservation, Country Land & Business Association, Cumbria Constabulary, Moorland Association, Natural England, National Gamekeepers Organisation, Nidderdale AONB, North Yorkshire Police, Northern England Raptor Forum, Royal Society for the Protection of Birds and Yorkshire Dales National Park Authority.

March 2023

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EXECUTIVE SUMMARY

This is the second Evidence Report produced by the Yorkshire Dales Bird of Prey Partnership to help assess progress towards delivery of the Yorkshire Dales National Park and Nidderdale Area of Outstanding Natural Beauty Management Plan objectives to tackle the illegal persecution of birds of prey and owls. It is published to provide accurate information on the status of bird of prey populations and details of all confirmed persecution incidents that occurred in the area in 2021, in order to inform a Steering Group of key stakeholders. All of the stakeholders have been asked to provide summary information in order to try and make it as comprehensive as possible.

Once again, Covid restrictions were again in place in the early part of 2021 affecting early season fieldwork. On 6 January a third national lockdown began that was in place until 29 March, when outdoor activities were permissible but with advice to stay local (Institute for Government, 2022). This affected monitoring of some species, notably Peregrine, with survey effort still below pre-Covid levels. With no established monitoring programmes for many raptor and owl species, there are insufficient data for many of the other species to enable any population trends to be determined.

Hen Harrier fieldwork was not affected by any restrictions, with monitoring work by Natural England and gamekeepers showing that there were four confirmed nesting attempts in 2021 in the Yorkshire Dales, with two successful nests fledging nine young. One of the nests was brood managed, with all of the four brood managed chicks successfully fledging and fitted with satellite tags. This compares with seven nesting attempts that fledged a total of 26 young in 2020. Once again, very little information on winter roosts is available and so an accurate assessment of the wintering population cannot be made. One satellite tagged Hen Harrier went missing fate unknown in the area during the 2021, compared to five in 2020.

In the absence of nationally recognised criteria for recording confirmed persecution cases, the Steering Group agreed to use details of the confirmed persecution incidents published in the 2020 BirdCrime reports. These data are cross referenced against national standards that are used by the Police to record all incidents and crimes. Using these criteria, a total of seven confirmed persecution incidents were recorded in the YDNP and Nidderdale AONB in 2021, compared to ten in 2020.

INTRODUCTION

The Yorkshire Dales National Park Management Plan (NPMP) Objective C5 is to:

> *'Work with moorland managers and other key stakeholders to devise and implement a local approach to end illegal persecution of raptors, including independent and scientifically robust monitoring, and co-ordinated Hen Harrier nest and winter roost site protection'.*

There is a similar objective in the Nidderdale Area of Outstanding Natural Beauty (AONB) Management Plan under Aim W2 - 'Improve the condition of the AONB's priority habitats and species*:*

> *Objective 2. Work with land owners, moorland managers, the police and others to safeguard birds of prey and prevent their illegal persecution in the AONB.'*

The same issues are affecting the conservation of bird of prey populations within both the Yorkshire Dales National Park (YDNP) and Nidderdale AONB (hereafter referred to as the AONB) protected landscapes, and the two areas comprise a contiguous area of similar upland habitat. Given the comparable management plan objectives, and that the representatives from the organisations involved will be the same, a joint Steering Group was established in 2020. This comprises representatives from British Association for Shooting & Conservation (BASC), Country Land & Business Association (CLA), Cumbria Constabulary, Moorland Association (MA), National Gamekeepers Organisation (NGO), Natural England (NE), Nidderdale AONB, North Yorkshire Police, Northern England Raptor Forum (NERF), Royal Society for the Protection of Birds (RSPB) and Yorkshire Dales National Park Authority (YDNPA). NE are the lead organisation for the delivery of the NPMP objective, with YDNPA providing the Chair and Secretariat for the Steering Group.

The population status of birds of prey, owls and Raven, along with details of confirmed persecution incidents have previously been assessed and published in separate Evidence Reports for each protected landscape. The information for the YDNP up to and including 2017 has been published here, and for the AONB the information up to and including 2018 is published here. The 2020 Evidence Report can be found here.

In order to inform the work of the main Steering Group and to measure progress in delivering the management plan objectives it is crucial that accurate information on the status of bird of prey, owls and Raven populations within the two protected landscapes is assessed. It is equally important that details of all confirmed persecution incidents are also clarified. The Steering Group have agreed that this information needs to be collated and published in an annual evidence report. Many of the organisations represented on the Steering Group undertake survey and monitoring work, and so the comprehensiveness of this report is dependent on the data supplied by the relevant stakeholders. The purpose of this report is to publish the relevant data for both the YDNP and AONB in 2021, so that the main Steering Group can agree a position statement on the current status of birds of prey populations and assess any progress in reducing persecution. This report has been written by members of the Monitoring Sub-Group that includes representatives from MA, NE, NGO, NERF, YDNPA and RSPB and subsequently agreed and published by the full Steering Group membership.

DATA COLLECTION METHODOLOGY AND SOURCES

In order to ensure consistency of data collection, only survey work that has been undertaken following recognised standardised methodologies will be published. Unless otherwise stated, survey methodologies for breeding birds will follow those outlined in Hardey *et al.* (2013), and listed on the Sottish Raptor Monitoring Group website.

All members of the Steering Group have been encouraged to submit data, provided that methods conformed to recognised recording standards and/or criteria. The sensitivities of publishing fine-scale data on breeding or roosting birds are fully acknowledged and therefore avoided, however, accurate summary information on the breeding and wintering status of key species is essential to inform the work of the Steering Group.

Where appropriate, fieldwork was undertaken by individuals with the relevant licence under Schedule 1 of the Wildlife & Countryside Act (as amended). In many cases observations of nest territories or potential nesting areas was done at distance to observe bird behaviour and determine breeding status without causing any disturbance. Where nest visits were not made, records were attributed to either possible, probable or confirmed breeding status using criteria recommended by the Rare Breeding Birds Panel, with details shown in *Appendix 1*.

Data within this report has been has been provided by:

- Records submitted to BirdTrack
- Cumbria Bird Club
- Independent Raptor Workers from the Nidderdale Raptor Study Group
- Independent Raptor Workers supplying records to the YDNPA
- Natural England Hen Harrier Project (Hen Harrier breeding data)
- Nidderdale Moorland Group
- YDNPA
- Moorland Association

Any new datasets (including potential citizen science projects) can be utilised within future reports, provided that they meet nationally recognised recording standards and provide robust quantitative data. It is the intention to publish an Evidence Report annually.

SPECIES ACCOUNTS

All survey work been undertaken and data provide by Independent raptor fieldworkers unless otherwise stated.

OSPREY *Pandion haliaetus*

Overview: With an increase in the breeding population elsewhere in the country, particularly in Northern England, there has been a corresponding increase in the number of passage birds in the area. In recent years one or more birds have remained throughout the summer, some at specific sites with others ranging across a larger area.

AONB: two different birds seen several times in June and early July, with photographs showing that one had been colour ringed at Rutland Water in 2019 (*pe*r Nidderdale Raptor Study Group).

YDNP Yorkshire: There were multiple records of single birds at Semerwater and the Bolton Abbey area between 1 May and 18 July.

HONEY-BUZZARD *Pernis apivorus*

Overview: A rare passage migrant that is not known to have bred in the area.

There were no records in 2021.

SPARROWHAWK *Accipiter nisus*

Overview: Only a few casual records of breeding birds are reported that are not representative of the actual breeding population. Population trends and status are not known but casual records suggest that this species is widespread in the Yorkshire Dales but occurs at low density.

AONB: two confirmed pairs were recorded that successfully fledged at least seven young.
YDNP Yorkshire: no breeding pairs reported.
YDNP Cumbria: two probable pairs

There was no systematic monitoring undertaken of breeding populations and so there are insufficient records for any assessment of population status or trends to be determined.

GOSHAWK Accipiter *gentilis*

Overview: There is no coordinated survey work during the breeding season, although some formerly occupied and potentially suitable sites are checked for evidence of territorial birds in spring. This species was formerly much more widespread in the area during the 1990s, with territorial birds present at a number of sites in the AONB and YDNP annually. There are now very few confirmed records.

Despite some Covid access restrictions being in place during the key monitoring period, some limited fieldwork was possible.

AONB: at one site in the southern area a pair and two additional males were seen displaying.

MARSH HARRIER *Circus aeruginosus*

Overview: This species is now a regular passage migrant with a small number of birds summering. There have been two recent breeding attempts in the AONB both in 2017. One on the West Nidderdale Moors in the southern part of the AONB which failed when the nest was destroyed, and another on East Nidderdale Moors in the northern part of the AONB which failed through unknown causes (Nidderdale AONB, 2019).

AONB: One probable pair were present in the core Hen Harrier breeding area. Fieldwork undertaken by independent raptor workers between 11 and 30 May recorded singles on three dates, a pair interacting on one date, a male displaying on one date and a possible food pass on another. There were no additional visits undertaken after this date and so it is not known if there was a nesting attempt.

HEN HARRIER Circus *cyaneus*

Overview: Monitoring work undertaken since the early 1990s showed that a few pairs attempted to nest annually, although breeding success was generally poor. It was lost as a breeding species in the area from the late 2000s, with a small number of pairs attempting to nest from 2017 onwards. The Yorkshire Dales is known to be an important wintering area for this species.

Monitoring work by Natural England and gamekeepers from the relevant Estates showed that there were four confirmed nesting attempts, with two successful nests fledging nine young with the details shown in Table 1.

This compares to the seven nesting attempts in 2020 that were all successful, fledging a total of 26 young.

Table 1. *The Breeding Productivity of Hen Harriers nesting in the Yorkshire Dales National Park and Nidderdale Area of Outstanding Natural Beauty in 2021.*

Nest site	Area	No. eggs laid	No. eggs hatched	No. young fledged
Swinton Frank 1	AONB	5	5	5
Swinton Frank 2	AONB	5	4	4
Whernside	YDNP Yorkshire	Nest found empty[1]	0	0
Garsdale	YDNP Cumbria	3	0	0

[1] the nesting attempt was monitored by NE staff from distance for a considerable length of time, with nest building, copulation and food passes observed and the behaviour of the female indicative of incubation. No nest visits are made until the female has been sitting on a full clutch for at least a week but after a period of inactivity, a check was made and a nest but no eggs were found.

The Moorland Association have provided additional information that one of the Hen Harrier nests was brood managed in 2021, with all of the four brood managed chicks successfully fledging and fitted with satellite tags. All of this work was funded by the Moorland Association.

The Moorland Association have also provided details that five of the six surviving birds from the 2020 brood managed cohort attempted to breed in 2021, with four of these nesting attempts successfully fledged young. The distances between the release aviaries and eventual nesting site ranged between 28km and 48km with respective distances as 28km, 36 km, 37km and 48km.

The details last known contact or current status of all the 2020 brood managed birds published by Natural England are shown in Table 2.

***Table 2**. Details of Hen Harriers that were Brood Managed in the Yorkshire Dales National Park and Nidderdale Area of Outstanding Natural Beauty in 2020 and Satellite-tagged by Natural England (details published here, by Natural England in August 2022).*

Tag Type	Tag ID	Sex	Nest	Tag code or Name	Date fitted	Date last contact	Location of last contact	OS Reference	Status	Notes
MT	55154	M	BM R1 North Yorkshire	R1-M1-20	11-Jul-20	20-Oct-20	North Yorkshire	SE132992	Dead	Frank's son. Natural causes
MT	203004	M	BM R1 North Yorkshire	R1-M2-20	11-Jul-20	Transmitting August 2022	Co Durham	Transmitting August 2022	Alive	Frank's son 2021 - Bred successfully, Co Durham, Breeding 2022
MT	55153	M	BM R1 North Yorkshire	R1-M3-20	11-Jul-20	Transmitting August 2022	Yorks Dales	Transmitting August 2022	Alive	Frank's son - 2021 - no breeding, 2022 - bred successfully.
MT	55152	M	BM R1 North Yorkshire	R1-M4-20	11-Jul-20	20-Sep-20	N. Pennines	SE103956	Missing Fate Unknown	Frank's son
MT	55146	M	BM R2 Cumbria	R2-M1-20	14-Jul-20	Transmitting August 2022	Co Durham	Transmitting August 2022	Alive	2021 - Bred successfully with sibling 203005 Co Durham, 2022 Breeding with sibling same site.
MT	203003	F	BM R2 Cumbria	R2-F1-20	14-Jul-20	15-Nov-21	N. Pennines	NY959039	Missing Fate Unknown	2021 - Failed breeding attempt, likely predation Cumbria
MT	55144	F	BM R2 Cumbria	R2-F2-20	14-Jul-20	Transmitting August 2022	Bowland	Transmitting August 2022	Alive	2021 - Bred successfully Bowland, breeding 2022

Tag Type	Tag ID	Sex	Nest	Tag code or Name	Date fitted	Date last contact	Location of last contact	OS Reference	Status	Notes
										mate is RSPB tagged male "Heath"
MT	203005	F	BM R2 Cumbria	R2-F3-20	14-Jul-20	Transmitting August 2022	Co Durham	Transmitting August 2022	Alive	2021 and 2022 - Bred successfully with sibling 55146 Co Durham.

In order to try to provide a more consistent approach, since 2019 NERF have organised a series of co-ordinated winter roost watches on specific dates across Northern England. A small number of what are believed to be transient roosts in the western YDNP were checked. Between 21 and 24 October three roost sites were checked with a grey male and 1st calendar year male recorded flying through, but did not roost. Between 9 and 12 December three roosts were again checked, with a grey male and two 1st calendar year males seen, but only the latter two observed to go to roost at one of the locations.

More regular watches were undertaken by members of the Nidderdale Raptor Study Group at several sites in the AONB. In the first winter period roosting was noted on 16 occasions from three sites, including a maximum of 12 birds seen from the publicised watch point at Druid's Plantation on the Swinton Estate. There were 12 reports from a second site with a maximum of two birds on any one night, with a minimum of three different birds (a grey male and at least two ringtails) and a grey male recorded on two dates at a third site.

In the second winter period there were records from the same three locations with eight counts from the Druids watch point where between one and six birds were recorded, with no more than one grey male involved. There were 23 reports from the second site, all of single grey males apart from one date when two were present, one date when two first calendar year males were seen and another date when a ringtail was present. Only a single ringtail was recorded at the third site.

No other data or details of any satellite-tagged birds that may have been present were submitted and so the overall status of wintering Hen Harriers in the area is not known.

Missing Fate Unknown' Satellite Tagged Hen Harriers

The Natural England (2021) criteria for 'Missing Fate Unknown' includes:

- Satellite tagged birds that were recorded after the battery ran out or transmissions had stopped.

- Satellite tagged bird that died in such a position as to render the transmitter hard to locate and recover. The satellite transmitters depend on light to recharge, and operate on a 10 hours on 48 hours off duty cycle. Therefore, when a bird dies there is only a small chance that it would happen whilst the transmitter is transmitting with enough charge to enable transmission of co-ordinates and a signal to enable retrieval. If the bird dies in the off cycle of the transmitter, then it could have travelled many km to its final resting place from the last transmitted co-ordinates. If this final resting place is in long vegetation, and/or the bird is lying on its back with little or no light available to the solar panel it will never transmit again and the bird would fall into the Missing Fate Unknown category.

It is fully acknowledged that given the cycle of the satellite tag transmissions, the last location transmitted is not necessarily the location that the bird died. However, there are an increasing number of satellite tagged Hen Harriers that have gone 'missing' in the north of England including the Yorkshire Dales where there have been no bodies

or tags located, or any further sightings or reports of the birds. Murgatroyd *et al.* (2019) concluded that illegal killing of the birds and destruction of the tags was the most likely explanation when tags suddenly stopped transmitting without any prior evidence of malfunction, where no remains of the birds or tag could be found and where the birds were not seen again.

There was one satellite tagged Hen Harriers that went ‘missing fate unknown’ during 2021 where the last known fix occurred within the AONB, with details shown in *Table 3*.

This compares to the five satellite tagged Hen Harriers that went ‘missing fate unknown’ during 2020 where the last known fix occurred within the YDNP.

***Table 3**. Details of Satellite tagged Hen Harriers that Died of Natural Cause or Were Missing Fate Unknown Where the Last Known Fix was in the Nidderdale Area of Outstanding Natural Beauty in 2021 (details published here by Natural England in August 2022).*

Natural England Satellite Tagged Birds (details published here).									
Tag Type	**Tag ID**	**Sex**	**Nest**	**Tag code or Name**	**Date fitted**	**Date last contact**	**Location of last contact**	**OS Reference**	**Status**
MT	213848	F	Cumbria	Jasmine	27-Jun-21	12-Dec-21	Yorks Dales	SE034733	Missing Fate Unknown

RED KITE *Milvus milvus*

Overview: Despite the success of Yorkshire Red Kite Project site and the proximity of the re-introduction site at Harewood, there have been very few confirmed breeding records in the YDNP and northern area of the AONB. There are, however, two areas in the south of the AONB where a number of pairs regular breed. The spread of Red Kites into the National Park and AONB has previously been restricted by illegal persecution (YDNPA, 2018; Nidderdale AONB, 2019).

YDNP Yorkshire: Records from BirdTrack indicated that two probable breeding pairs were present in the south east area but any breeding outcome is not known.

AONB: There were 13 confirmed breeding pairs. Of these a breeding outcome was established for seven of these attempts, with 15 young fledged. The outcome of the other six nesting attempts was not determined.

Anecdotal records suggest that the number and distribution of non-breeding birds is increasing across the area however, the number of confirmed nesting attempts, particularly in the YDNP, remains low.

BUZZARD *Buteo buteo*

Overview: There is no systematic monitoring of nesting attempts although population trends have been determined for the YDNP using British Trust for Ornithology Breeding Bird Survey data. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population. Population trends and status are not known but casual records suggest that this species is widespread in the Yorkshire Dales but occurs at low density.

The results from the Breeding Bird Survey analysed for the YDNP area up to and including 2019 when the analysis was last undertaken show that within the YDNP there has been a statistically significant increase in the Buzzard population since the survey began in 1994 (Harris *et al*., 2021). The population has increased from very low numbers, initially restricted to Cumbria.

YDNP Yorkshire: Records from BirdTrack indicated a minimum of ten probable pairs.

YDNP Cumbria: Records from BirdTrack indicated a minimum of ten probable and one confirmed pair.

In the AONB there were 16 confirmed breeding pairs and a further 11 probable pairs.

There was no systematic monitoring undertaken of breeding populations and so there are insufficient records for any assessment of population status or trends to be determined.

BARN OWL *Tyto alba*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a small number of records are reported from nest box monitoring projects and are not representative of the actual breeding population. Population trends and status are not known but casual records suggest that the population has increased significantly over the last two decades, with this species now widely distributed across the area.

AONB: A nest box monitoring scheme undertaken by the Nidderdale Moorland Group had nine occupied boxes all successfully fledging young. A total of 23 chicks were ringed from eight of these, with the chicks from the remaining nest box fledging prior to the ringing visit.

YDNP Yorkshire: A nest box monitoring scheme carried out by independent fieldworkers in Wensleydale and Swaledale had six successful pairs fledging 18 young, with one pair failing.

A nest box monitoring scheme carried out by independent fieldworkers in Malhamdale and Wharfedale had only three occupied boxes from a total of seven that were checked, with a single pair fledging one young.

Additional records from BirdTrack indicated an additional minimum of two probable and three confirmed pairs.

YDNP Cumbria: one confirmed pair.

LITTLE OWL *Athene noctua*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population.

YDNPA Yorkshire: two probable pairs reported.

YDNP Cumbria: two confirmed and one probable pair.

There were insufficient records for any assessment of population trends or status to be determined.

LONG-EARED OWL *Asio otus*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population.

AONB: three territories were check at one site and five at another but no evidence of occupancy was found. One pair were confirmed to have young at a third site.

YDNP Yorkshire: Records from BirdTrack indicated a minimum of three confirmed pairs.

It is likely this species is more widespread than records suggest.

SHORT-EARED OWL *Asio flammeus*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population. This is a difficult species to monitor as birds don't tend to return to traditional territories, and are affected by cyclic vole populations.

AONB: there were two confirmed, two possible and two probable pairs recorded.

YDNP Yorkshire: records from BirdTrack indicated a minimum of there were four confirmed and 18 probable pairs.

YDNP Cumbria: records from BirdTrack indicated a minimum of two probable and one pair.

It is likely this species is more widespread than records suggest.

TAWNY OWL *Strix aluco*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population.

There were insufficient records for any assessment of population trends or status to be determined.

KESTREL *Falco tinnunculus*

Overview: There is no systematic monitoring undertaken of breeding populations. Only a few casual records of breeding birds are reported that are not representative of the actual breeding population.

YDNP Yorkshire: A nest box monitoring scheme carried out by independent fieldworkers had five occupied boxes that were all successful fledging a total of 15 young. Four broods were ringed.

Records from BirdTrack indicated a minimum of ten probable and four confirmed pairs were recorded.

YDNP Cumbria: Records from BirdTrack seven probable and two confirmed pairs.

There were insufficient records for any assessment of population trends or status to be determined.

MERLIN *Falco columbarius*

Overview: The Yorkshire Game Management Cluster is a long-term collaborative study being undertaken by moorland owners and their gamekeepers that commenced in 2016, with keepers working under a Schedule 1 licence on more than a dozen estates to monitor Merlin breeding performance. Initial results show that to date approximately 90% of pairs located on the participating estates have bred successfully producing an average of three chicks per nest. The data will be analysed by a raptor specialist with the aim to provide landscape-scale guidance on habitat management, with more detailed annual reports published on a website dedicated to this ongoing raptor research and conservation project in due course.

AONB: Records from independent fieldworkers indicate that there were a minimum of five probable pairs and two sites where only a single bird was noted.

No information has been submitted by the Yorkshire Game Management Cluster for 2021 but has been made available for the 2022 report.

A monitoring programme work involving the Bolton Abbey Estate, Northern England Raptor Forum and YDNPA located five nesting pairs, with four of these successfully fledging at least ten young including nine that were ringed. One pair failed at either late egg or early young stage. There was also an additional probable pair present.

HOBBY *Falco subbuteo*

Overview: A species that is spreading northwards with a few pairs potentially nesting each year.

AONB: there were a minimum of two probable pairs and two different sites.

YDNP Yorkshire: there were a minimum of two probable pairs.

PEREGRINE *Falco peregrinus*

Overview: Systematic monitoring has been undertaken across the area since the late 1970s, although monitoring effort has decreased in recent years. Previous analysis that has included data from the YDNP and AONB has shown differences in productivity between nest sites on and away from grouse moor sites (Amar *et al.,* 2011).

AONB: There were no breeding records reported.

YDNP Yorkshire: A total of 13 sites were checked with five occupied, four were successful fledging 12 young.

YDNP Cumbria: one confirmed pair.

Monitoring was once again partly affected by the Covid-19 restrictions with the number of traditional sites checked still below pre-Covid levels. Given that a number

of traditional sites have not been checked in recent years, it is not possible to determine any current trends in the Peregrine breeding population.

RAVEN *Corvus corax*

Overview: The breeding population in the YDNP has remained relatively stable over recent years. The increase in casual records indicates an increase in the non-breeding population, presumable as a result of an increase in the number of breeding pairs elsewhere in Northern England, particularly in Cumbria.

Monitoring was once again affected by the Covid-19 restrictions as they limited access during the early part of the Raven breeding season, with approximately only half of the number of sites normally checked.

AONB: No records received.

YDNP Yorkshire: Ten sites were checked with six occupied and all successful fledging a total of 23 young.

YDNP Cumbria: two confirmed pairs.

PERSECUTION DATA 2021

Raptor persecution is one of the UK government's seven wildlife crime priorities, with an emphasis on Hen Harrier, Peregrine Falcon, Goshawk, Golden Eagle and White-tailed Eagle. The data detailing all raptor persecution incidents in England and Wales that is published by the Raptor Persecution Priority Delivery Group (RPPDG) for England and Wales is available on the Defra MAGIC website. At present, only the details of confirmed incidents recorded between 2011 and 2015 are available.

In the context of the delivery of the Management Plan objectives it is important that there is a complete picture of all offences, so that there is a wider understanding of the issues, what drives them to take place and measures to try and determine who is responsible. In addition, what existing action is underway to prevent offences taking place. This will enable the Stakeholder Group to devise and implement appropriate actions to address the problem.

At present there is no requirement for the Police to record raptor crime because it is not defined as notifiable by the Home Office. In the absence of nationally recognised criteria for recording confirmed persecution cases, all members of the Steering Group agreed that details of the incidents supplied by RSPB and published in the annual BirdCrime reports will be used. These data are cross referenced against national standards that are used by the Police to record all incidents and crimes.

The National Wildlife Crime Unit (NWCU) recommend that offences within the Wildlife and Countryside Act including shooting, trapping, killing, poisoning, disturbing or taking (bird or egg) should be considered for inclusion in the report. There may well be some instances where an illegal act (for example, shooting at a raptor or illegally using a decoy) has been committed but may not result in, for example, the actual offender being identified, a bird being killed or the body of a bird being recovered. Whilst there may not be sufficient evidence for a conviction, it is still criminal behaviour irrespective of who has committed the offence. Recording the location of these incidents will help to determine any spatial or temporal patterns of offences and assist any subsequent incident or crime reports from the Police. These will include the following:

- Confirmed raptor persecution incident - Where circumstances indicate that an illegal act against a wild bird of prey has taken place. These incidents are typically substantiated by evidence such as post-mortem or toxicological analysis, or reliable eyewitness evidence.
- Shooting – where an X-ray, vet or expert opinion has confirmed that shot killed the bird.
- Poisoning – where toxicology tests confirm the likely cause of death
- Trapping, disturbance or attempt of any offence – where there is evidence provided by a witness, video or similar.

The details of confirmed raptor persecution incidents in 2020 have been extracted from the RSPB Species Protection Data Base (SPDB) system, and includes any that occurred within or intersecting with Geographical Information System (GIS) shapefiles for the YDNP and AONB boundaries. Any 'officially sensitive' information

within the extracted data has been removed so that the information can be shared openly in the public domain.

All the data were accurate at the date of extraction, but may be incomplete and subject to change. This is due to COVID-related backlogs from the data sources, and includes delays in laboratory analyses and/or results. In addition, there may be some data that may be required to be withheld to protect any ongoing investigation and/or pending permission from an enforcement partner. Any changes or amendments to previously listed incidents will be published in future Evidence Reports and where appropriate, any totals will be revised.

The criteria used by RSPB for recording offences against wild birds have been in place for several decades using a consistent recording format. Only confirmed incidents are published in this report where the circumstances indicate an illegal act has taken place with a high degree of certainty (95% and above). These incidents are typically substantiated by evidence such as post mortem or toxicological analysis (e.g. shooting and poisoning cases).

It should be noted that for any incident (i.e. per RSPB ID or reference.) there can be multiple victims of more than one species within one incident. Incidents are separated on the basis that any bait, victim, group of baits, victims etc. that are found on a different date; found sufficiently far apart to be represented by a different six-figure grid reference; found at the same grid reference and on the same date but in circumstances that otherwise separate them (for example a poison victim that is very decomposed beside a fresh bait - so the bait could not have been responsible for the death of the victim); are classified as separate incidents.

The following criteria are used in the assessment:

- Species Number: "U" or "0" indicates victim number is not known but the known target species is listed.
- Species Involved or Targeted: Involved: Species victim number is known. Targeted: Used when the species or species group listed is clearly targeted but the victim number is not known e.g. illegally set traps or poisoned baits.
- Persecution 'Other': Captures confirmed persecution incidents that do not fall clearly to the other categories of shooting, trapping, nest destruction or poisoning. For example, this could include: killing or attempted killing using other means; possession of equipment capable of being used to commit an offence (where there is supporting evidence or intelligence of sufficient standard to substantiate that birds of prey are the intended target) e.g. possession of a banned pesticide for use in poisoned baits where intelligence/evidence substantiates persecution occurred with >95% certainty).

It must be made clear that where the incident data provided are assigned to a geographical location this does not imply or assign blame to the custodians, landowner, land managers or their operatives.

The persecution of birds of prey can take place in remote locations, where detection and the probability of coming across evidence of a crime are very low. This means that the rate of detection between years will vary, and so the number of confirmed incidents will fluctuate between years. Combined with the differences in how incidents have been categorised and recorded, along with the availability of nationally recognised data sets this make any comparison of annual persecution data problematic.

A total of seven confirmed persecution incidents were recorded in the YDNP and AONB in 2021, with the details shown in Table 4.

Taking account of the caveats detailed above, the overall number of confirmed incidents is lower than 2020, with seven in 2021 compared to ten in the previous year. Based on the Protected Landscape boundaries there was a reduction in incidents in the YDNP from five in 2020 to two in 2021, but the same were recorded in the AONB with five in both 2020 and 2021. In 2020, incidents involved a range of differing offences however, in 2021 all bar one related to poisoning.

***Table 4**. The number of confirmed persecution incidents recorded in the Yorkshire Dales National Park and Nidderdale Area of Outstanding Natural Beauty in 2021 Received from the RSPB and Published in BirdCrime 2021 here).*

RSPB ID	Month	Year	County	Area	10-km grid ref	Summary	Species	Species Number	Offence Type	Poison
102925	11	2021	North Yorkshire	YDNP	SE06	Species involved: Red kite x 1.	Red Kite	1	Shooting	
103663	11	2021	North Yorkshire	YDNP	SE06	Species involved: Red kite x 1. Tested positive for: Bendiocarb	Red Kite	1	Poisoning	Bendiocarb
102306	3	2021	North Yorkshire	AONB	SE17	Species involved: Red kite x 1. Tested positive for: Bendiocarb, carbofuran, isofenphos.	Red Kite	1	Poisoning	Bendiocarb, Carbofuran, Isofenphos
102316	3	2021	North Yorkshire	AONB	SE16	Species involved: Red kite x 1. Tested positive for: Bendiocarb, alphachloralose, brodifacoum, carbofuran, isofenphos.	Red Kite	1	Poisoning	Bendiocarb, Alphachloralose, Brodifacoum, Carbofuran, Isofenphos
102623	1	2021	North Yorkshire	AONB	SE17	Species involved: Red kite x 1. Tested positive for: Bendiocarb, carbofuran, isofenphos, alphachloralose, brodifacoum.	Red Kite	1	Poisoning	Bendiocarb, Carbofuran, Isofenphos, Alphachloralose, Brodifacoum.
102624	1	2021	North Yorkshire	AONB	SE17	Species involved: Buzzard x 1. Tested positive for: Alphachloralose, carbofuran, bendiocarb.	Buzzard	1	Poisoning	Alphachloralose, Carbofuran, Bendiocarb
103577	11	2021	North Yorkshire	AONB	SE17	Species involved: Red kite x 1. Tested positive for: Bendiocarb, carbofuran, isofenphos	Red kite	1	Poisoning	Bendiocarb, Carbofuran, Isofenphos

ACKNOWLEDGEMENTS

The Monitoring Sub-Group would like to thank all the individuals and organisations that have contributed to the survey and monitoring work that are included within this report. In particular, the following people for collating and submitting data including: Roger Foreman, Chris Hind (Cumbria Bird Club), Tracy Johnson (Nidderdale Moorland Group), Andy Jowett (Nidderdale Raptor Study Group), Jon Middleton, Stephen Murphy (Natural England Hen Harrier Project, Stephen Root (Harrogate Naturalists' Society).

We are also grateful to RSPB Investigations for providing the information on confirmed persecution incidents.

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Appendix 1

RARE BREEDING BIRDS PANEL (https://rbbp.org.uk/)

Information from the Rare Breeding Birds Panel includes:

"From the evidence before you, for each species, the number of pairs (or territories) at each site needs to be worked out, and each record which represents a breeding or potentially breeding "pair" needs to be assigned to one of the breeding evidence categories (confirmed, probable, possible; note the special category of "singing males" used for some species traditionally counted by this method). Thus for each site you could have up to four different numbers for a species"

EUROPEAN BIRD CENSUS COUNCIL BREEDING CATEGORIES

Always use these – see the comments to help interpretation.

POSSIBLE BREEDING

H. Species observed in breeding season in suitable nesting habitat. This can be a problematic category, and relies on significant judgement by observers and local recorders. We suggest the following guidelines:

a. Consider carefully what is likely to be 'suitable' or 'possible' breeding habitat. In many cases this will be clear, but for some, especially non-native birds, it may not be. Be cautious rather than optimistic.

b. 'Suitable' habitat may vary according to where in the country a record comes from.

c. Historical breeding records in the area may guide this judgement, but range expansions should also be considered.

d. Discussions with the local recorder can help agree whether habitat is suitable, so good communication is desirable.

S. Singing male present (or breeding calls heard) in breeding season:

a. This must include an assessment of whether the habitat is suitable for breeding.

b. Consider the most probable situation, and be cautious. Is the bird likely to be a migrant? Even a singing male may well not breed. However, if song persists for over 7 days, see 'T – Permanent territory presumed' below. Many potential rare breeders are also scarce migrants. If they are reported through local recording channels, it will be possible retrospectively to extract records from bird reports if at some stage breeding, or a colonisation, takes place.

PROBABLE BREEDING

P. Pair observed in suitable nesting habitat in breeding season

T. Permanent territory presumed through registration of territorial behaviour (song etc.) at the same place, on at least two dates separated by at least one week. Consider possibility of an unpaired male when recording ‘probable’ breeding using this criterion.

D. Courtship/display (judged to be in or near potential breeding habitat; be cautious with wildfowl.)

N. Visiting probable nest site

A. Agitated behaviour or anxiety calls from adults

I. Brood patch on adult examined in the hand

B. Nest building or excavating nest-hole

CONFIRMED BREEDING

DD. Distraction-display or injury feigning (make sure no confusion with courtship display or low-levels of agitation).

UN. Used nest or eggshells found (occupied or laid within period of survey).

FL. Recently fledged young (nidicolous species) or downy young (nidifugous species).

Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.

ON. Adults entering or leaving nest-site in circumstances indicating occupied nest (including high nests or nest holes, the contents of which cannot be seen) or adults seen incubating

FF. Adult carrying faecal sac or food for young

NE. Nest containing eggs

NY. Nest with young seen or heard