Northern England Raptor Forum

Annual Review 2016

Northern England Raptor Forum

Contents

Acknowledgements	Inside front cover
Photograph credits	3
Useful telephone numbers	3
Foreword	4
Chairman's Report	4
Secretary's Report	7
Geographical coverage	8
NERF 2016 Annual Review	11
Species monitoring	11
Persecution	13
Black Hole species	14
Summary	14
Combined statistics	15
Species Reports	
Editor's Note	16
Buzzard, Common Buteo buteo	45
Goshawk, Northern Accipiter gentilis	38
Harrier, Hen Circus cyaneus	31
Harrier, Montagu's Circus pygargus	36
Harrier, Marsh Circus aeruginosus	26
Hobby Falco subbuteo	86
Honey-buzzard Pernis apivorus	17
Kestrel, Common Falco tinnunculus	76
Kite, Red Milvus milvus	19
Merlin Falco columbarius	81
Osprey Pandion haliaetus	49
Owl, Barn Tyto alba	53
Owl, Eurasian Eagle Bubo bubo	74
Owl, Little Athene noctua	59
Owl, Long-eared Asio otus	66
Owl, Short-eared Asio flammeus	69
Owl, Tawny Strix aluco	62
Peregrine Falco peregrinus	91
Raven, Common Corvus corax	97
Sparrowhawk, Eurasian Accipiter nisus	42
Appendices	
1. Combined NERF monitoring data	104
2. Combined productivity graphs	105
3. Ring recoveries	107
Articles	
Harwood, John & Richman, Peter.	
Honey-buzzards in the North York Moors National Park	110
Smith, A. J.	
The unusual behaviour of a pair of urban Peregrines	121
Hen Harrier Day, Edale 2016	124

NERF Group contacts

Inside back cover

Photograph credits

Front Cover:	Adrian Dancy
Honey Buzzard:	Peter Richman
Red Kite:	Ivan Ellison
Marsh Harrier:	Andy Thompson
Hen Harrier:	Sonia Johnson
Northern Goshawk:	Ivan Ellison
Sparrowhawk:	Ivan Ellison
Buzzard:	Gordon Yates
Osprey:	Pauline Mellor Greenhalgh
Common Kestrel:	Ken Smith
Merlin:	Colin Dilcock
Hobby:	Susan K. Wilson
Peregrine:	Adrian Dancy
Barn Owl:	Judith Smith, Mike Killelea
Eagle Owl:	Bill Hesketh
Little Owl:	Gordon Yates
Tawny Owl:	Wilf Norman
Long-eared Owl:	Bob Kenworthy
Short-eared Owl:	Adrian Dancy
Raven:	John Harwood

Useful telephone numbers

If you discover a wildlife crime please report the details to the Police, obtain an incident number and ask that, in addition to sending an Officer to the scene, the report is brought to the attention of the Force Wildlife Crime Officer. If the incident is a 'crime in progress' dial 999.

The national non-emergency telephone number is 101 Cheshire Constabulary 0845 458 0000 Cleveland Police 01642 326326 Cumbria Constabulary 0845 330 0247 Derbyshire Constabulary 0345 123 3333 Durham Constabulary 0345 606 0365 Humberside Police 0845 125 3545 Lancashire Constabulary 0845 125 3545 Manchester Police 0161 872 5050 (General Enquiries). Northumbria Police 0345 604 3043 North Yorkshire Police 0845 606 0247 South Yorkshire Police 0114 220 2020 West Yorkshire Police 0845 606 0606 Crimestoppers 0800 555111 RSPB Investigations Dept. 01767 680551 RSPB Investigations Officer (David Hunt) 07796611954 RSPB Investigations Officer (Howard Jones) 07834534142 RSPB Assistant Investigations Officer (LIFE Hen Harrier Project) Tim Jones 07568103445 Wildlife Incident Investigation Scheme (Natural England) 0800 321600 CEH Predatory Bird Monitoring Scheme 01524 595830

Hen Harrier sightings: RSPB hotline 0845 4600121 or henharriers@rspb.org.uk

Foreword

Alan Heavisides



In 1982 I left Northumberland and headed over the border to start a new job in Edinburgh. I certainly did not envisage most of the changes in raptor populations and distribution, and increase in the monitoring and coordination of reporting which were to occur over the next few decades.

During my time as a member of the Northumbria Ringing Group I helped monitor raptors across the county but in particular was involved with Merlins in the northern Cheviots and Sparrowhawks in the Ponteland/Morpeth area. While living in Northumberland I never saw a Buzzard nest and found my first in Scotland the following year. The only known nest in Lothian Region at the time! How times have changed since then. When I left the North East the only UK Red Kites I had seen were in Wales. This species has only just started to breed in the Borders but it has been great to see these birds across much of Northern England during my visits to the area.

Very soon after moving I made contact with Ian Poxton, who had made the move from Northumberland some time before me, and Andrew Barker (ex-Yorkshire) and we quickly established a new Merlin study area. This was helped by information from Mike Natrass, yet another NRG member, who had undertaken some useful monitoring work in the Lammermuir Hills for the RSPB during the recent national Merlin survey. My Northumberland experience helped us set up and undertake what turned out to be a 30 year study and resulted in a paper published in British Birds (March 2017) *Population and breeding biology of Merlins in the Lammermuir Hills*.

My move north coincided with the formation of the Scottish Raptor Study Group (SRSG). I was one of the founder members of Lothian and Borders branch and a few years later became the branch chair. SRSG soon began to have members' annual conferences. Amongst the first visitors from south of the border to the conference were Martin Davison and Brian Little. Discussion often included reference to the need for something similar in the North of England so I was very pleased to see the eventual creation of the North of England Raptor Forum and I now look forward to reading the Annual Review and hearing about the Fieldworkers' Conference.

The Annual Review gives a very good summary of what is known about the ups and downs of the breeding raptors in the North of England. The national and regional threat assessment for each species is very interesting and useful. A great deal of field work is often summed up by a short paragraph in the report. Compiling and writing such a report also requires a lot of effort by several individuals but the result is a very readable and informative account.

Although the SRSG was created to improve monitoring of the breeding raptors across Scotland it almost immediately became involved with raptor conservation issues, and in particular helping the likes of the RSPB counter illegal persecution. The political involvement and advocacy has increased considerably in recent years and many of us are involved in moves to abolish what I heard the late Donald Dewar so long ago describe as "Scotland's national disgrace". Clearly the NERF raptor study groups and other like-minded organisations are equally engaged in various but similar ways of combatting this on-going illegal persecution.

The collection, collating and in particular the publishing of breeding raptor summary data in the NERF Annual Reviews must make a significant contribution towards a better understanding by the interested public , politicians and organisations of raptors and their conservation needs. This is particularly important when some individuals and shooting-focused bodies clearly often have different views on the merits of raptors than most of us. Despite frequent setbacks I feel we should not get too disheartened as tangible progress is being made. We just have to keep going, doing the monitoring, reporting the crimes, advocating and generally speaking up.

Chairman's Report



Welcome to the NERF Annual Review for 2016. As always this contains data gathered during many hours in the field by raptor group members all over northern England from the south of the Peak District in Derbyshire to north Northumberland, the Forest of Bowland and Cheshire in the west to the east coast of the North York Moors. This is the physical embodiment of that work collated by each group and then consolidated into the species accounts by various authors and combined into the whole by our editor Judith Smith. As ever we owe them all a huge vote of thanks, and to Judith, especially for all the reminders and cajoling of folk who in many ways are much happier gathering the data rather than writing and finalising this report. I have said before that this is your report, it is your data and field work that makes this report what it is, the only document summarising the fortunes of the raptors we all feel passionate about in what is a huge geographical area. Indeed for the first time the report includes data from the Cheshire RSG - a very welcome addition to the NERF family.

We are constantly being told that raptor persecution, that scourge of our uplands is declining, that game shooting is cleaning up its act. Maybe it's true, but it's difficult to judge, particularly with many such crimes only being discovered by chance. What is certainly true is that such crime is still far too common and still widespread enough to effect the distribution and populations of many raptors. During the year we have had the unedifying spectacle of a

man on a National Trust owned grouse moor crouched with a gun near a Hen Harrier decoy presumably waiting for a harrier. As he realised he was being filmed, he confirmed criminal intent by rushing away. In another incident three pole traps were found on Mossdale Estates' Widdale Fell, where a Hen Harrier had recently been seen. Unfortunately due to policing errors the culprit received only a caution despite the severity of the offence. Then of course we have the loss of five satellite tagged young Hen Harriers. Rowan was found shot in Ravenstonesdale, Cumbria on 22nd October 2016; Tarras, "disappeared" in the Peak District National Park the following day; Bonny, "disappeared" on a moor to the east of Geltsdale on 14th December; Mick, disappeared near Thwaite in the heart of Swaledale grouse country on 21st December, and Carroll was found dead in Northumberland on 26th January 2017; although she died of infection there were shotgun pellets in a leg and throat indicating an attempt to shoot her and probably impairing her ability to survive. At least four of these incidents were in National Parks, two in the Yorkshire Dales, one in Northumberland and one in the Peak District. There were also two poisoned Red Kites in the Nidderdale AONB in 2016 and one shot there in 2017. Peregrine Falcon successful nesting on grouse moors is still as rare as hen's teeth, with no nesting harriers on English grouse moors at all. When such incidents become genuinely rare and the status of raptors nesting on or adjacent to grouse moors improves significantly perhaps we can start to believe that the game industry really is cleaning up its act, talk is cheap.

The harrier incidents of course are background to the DEFRA plan for the improvement of the status of the species. The NERF "one year on" assessment of this "plan" can be found on our website at

https://raptorforum.files.wordpress.com/2017/04/thedefrahenharrieractionplan.pdf We know from what is being said that the grouse lobby put great store in "Brood Management." NERF on the other hand is totally opposed under current circumstances to the very idea. How can we have brood management when the population is so tiny, barely viable and persecution, as witnessed by the above disappearances and shootings, is still relatively common, arguably routine? We need harriers to have a healthy population, probably 50-70 pairs before it is even considered for two reasons: (1) to show that persecution has declined significantly and (2) that some estates may have a genuine problem with harrier nesting density. Only then do we believe that it should be considered as an absolute last resort, and even then NERF will consider its position very carefully.

I think that one of the most important parts of our assessment is this statement. "In relation to Hen Harrier persecution it is clear that the greatest potential source of information is to be found from within the shooting industry. NERF expects the representatives of the industry to work tirelessly with their members to assist both local Police Forces and the NWCU to build the intelligence picture and assist with prosecuting offenders when they are put before the courts.

NERF proposes that members of the Raptor Persecution Priority Delivery Group who cannot demonstrate compliance with this action should forfeit their position on the Group."

Recently there have been a number of incidents and increasing applications to use gas guns on SSSIs and SPAs in order, it is claimed, to deter roving groups of Ravens and gulls. We have grave concerns over this. Gas guns are indiscriminate in what they "scare" - this may also be a cover to discourage birds of prey from settling and there seems to be a lack of real data to demonstrate genuine need or effectiveness, rather than anecdotal evidence, to support deployment at all. This whole issue certainly needs to be explored more fully by the relevant authorities. We are of course happy to gather and provide any independent data should it be needed. There are of course other issues and opportunities to use our expertise and data sets for the furtherance of our understanding, and the status of our much loved raptors we spend so much time and effort studying. NERF is happy to explore all and any of these, alone or with others. This year the annual review has become part of the conference package, I hope that you have found conference useful, informative and of course enjoyable, also that this review adds to all of those outcomes. Finally I would once again like to thank all of those responsible for both conference and the production of this report especially Northumberland RG, our "hosts" this year, Judith Smith for all her work on this publication and again welcome to Cheshire RSG.

Paul V. Irving Chairman, Northern England Raptor Forum

August 2017

Secretary's Report



It's now over a decade since The Northern England Raptor Forum (NERF) was formed and this publication is our eighth consecutive Annual Review showcasing the collective results of field-work from member groups as part of their long-running, annual monitoring of key species in our region. Our aim is to provide the most comprehensive, evidence-based data on the breeding success and year-round distribution of raptors in the northern uplands and adjoining areas. The information collected through our voluntary monitoring efforts is supplied to Natural England and goes into the national database, the Rare Breeding Birds Panel, for use in species and habitat conservation and protection. Geographic coverage extends from the Forest of Bowland across to the North York Moors and to the majority of the Pennine chain from Northumberland to south Derbyshire. 2016 saw the very welcome inclusion of the Cheshire Raptor Study Group to the Forum and we look forward to the additional information and expertise that this group will bring.

Further details of NERF activities and its composition can be found on our website, www.raptorforum.co.uk. New postings on our website in the last 12 months have included NERF position statements on the loss of tagged Hen Harriers "Mick" & "Carroll" and "Rowan", the implications of the Carbrach estate prosecution case in Scotland for our own region and our assessment of the status of the Defra Hen Harrier Emergency Action Plan one year after its launch.

NERF meets formally twice per year, with each raptor study group represented by two members. There is a regular attendance, in an advisory capacity, from organisations such as Natural England, the Rare Breeding Birds Panel and the RSPB. NERF is also represented on the Partnership for Action against Wildlife Crime (PAW UK) where our organisation was honoured to receive the 2014 PAW Partner of the Year Award.

The North of England Raptor Conferences, held in November, are an important annual event in the calendar bringing together field-workers and professionals to share knowledge and develop thinking on species' conservation & protection. The 2016 conference was held at the Xcel Centre, Aycliffe Business Park and hosted on behalf of NERF by the Durham Upland Bird Study Group. We are especially grateful for the support of the event sponsors – Paramo Directional Clothing, Northumbrian Water Ltd, the North Pennine AONB and RSPB without whose generosity these events would not possible. We also thank our speakers for such excellent presentations covering the Hen Harrier in Wales, the ecology of Little Owl, the results of the 2014 national Peregrine Survey, Merlins in SE Scotland, the birds of the Durham uplands and two perspectives on grouse moor management.

NERF continues to provide specialist contractor services into the RSPB's Hen Harrier LIFE+ Project. The experience of our members in monitoring Hen Harriers means that we're able to help deliver on the objectives of this important project. Member observations help contribute to the understanding of the movements and status of Hen Harriers across northern England and to enhancing protection at both breeding and wintering sites. Reports are provided to the RSPB covering winter roost occupancy, spring and summer sightings and nest site protection. During the 2016 breeding season these efforts were complemented by extensive survey work by NERF members in support of the National Hen Harrier Breeding Survey.

Members are currently working in conjunction with the RSPB's species research department to collate and review historic breeding data sets for Merlin to explore possible reasons for population change over recent decades.

David Raw Secretary, Northern England Raptor Forum

August 2017

NERF : geographical coverage

Bowland Raptor Study Group

Extent of coverage: Upland area of Bowland AONB.

The Bowland Raptor Study Group's area largely coincides with the boundary of the Forest of Bowland AONB, which in turn is roughly marked out by the M6 to the west, the Lune valley to the north, the A65 to the east and the A59 to the south. The group's main interests lie with the monitoring of upland birds of prey, including Hen Harrier, Merlin and Peregrine, with additional interest in Barn Owls on the low ground. To this end, much of the monitoring effort is focused on the moorland areas of Bowland.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Covers some, or all, of the following grid squares: SD91, 92, 93; SE01,02,03 and SE11,12. Effectively the southern border in the M62, with the Worth valley in the north. In the east the Group covers Brighouse (between Bradford in the north and Huddersfield in the south). The western border is the Pennine county boundary with Lancashire.

Cheshire Raptor Study Group

Extent of coverage: the county of Cheshire and Wirral, adjoining with PDRMG up to Macclesfield Forest in the east, and MRG in the north.

Durham Upland Bird Study Group

Extent of coverage: In this report the Durham Upland Bird Study Group's comments refer principally to the Durham uplands [defined here as the North Pennine SPA and adjoining valley systems all laying generally west of the Easting NZ10 up to the county boundaries with Northumberland, Cumbria and North Yorkshire]. Where appropriate, comments are also made on the status of species throughout the Durham recording area as determined by the county ornithological society, the Durham Bird Club.

Manchester Raptor Group

Extent of coverage: Whole county plus the rest of 10km squares SD50,51,61,71,81,91; SE00; SJ59,78,88,98 into which part of the county falls (with effect from 1st September 2016).

The area is bounded on the north and west by Lancashire and Merseyside, on the north east by Calderdale, in the east by Kirklees, in the south east by Derbyshire and by Cheshire in the south and south west.

The group's main focus is on Peregrines and Barn Owls.

Data submitted includes records from www.manchesterbirding.com

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

The group is active throughout the county of Northumberland. The data in this report primarily refers to the Cheviot uplands, the Kielder Forest, the Border Forest, and a small section of eastern Cumbria around Kershope where the forested area straddles the county boundary.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

The area covered by the NYM Upland Bird (Merlin) Study Group includes the upland areas, gills, dales, forests, farmland and coastal stretch within the boundaries of the North York Moors National Park.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

The PDRMG covers the Derbyshire Peak District, including the Goyt Valley and the Macclesfield Forest, including the low-lying areas. Glossop forms the western boundary, and the north east of the Peak Park is bounded by Huddersfield, Sheffield, Barnsley and Wakefield. The Group does not cover the limestone areas within the Peak Park, nor Derwent Dale. Website: www.pdrmg.co.uk

South Peak Raptor Study Group

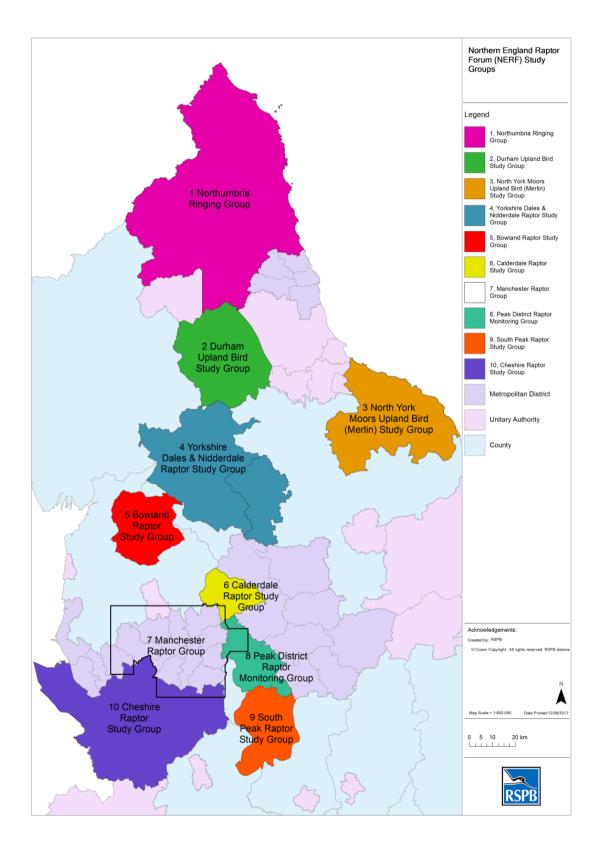
Extent of coverage:

In the north: National Trust land in the upper Derwent valley, west to the R. Alport and east to the National Trust boundary.

In the south: all of the White Peak, with the exception of the Goyt valley. Includes the Staffordshire Moors, Eastern Moors, North Lees Estate, Chatsworth Estate and the Haddon Estate. In addition the Group covers central Derbyshire as far as the Nottinghamshire border and south Derbyshire (mainly Hobby).

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Covers the central Pennine block from the southern boundary between Skipton, Harrogate and Otley, and west to the Cumbria and Lancashire boundaries.



Annual Review

The Northern England Raptor Forum was formed in 2006 to collate the results of fieldwork on raptors being undertaken across the northern uplands by member groups. We speak with one collective voice for the protection and conservation of birds of prey. Members survey all 23 species of raptors, owls and Raven (an honorary raptor) occurring in or on passage through our region.

Whilst the terrain may be sometimes challenging and often remote the following species accounts show clearly that our volunteer fieldworkers manage to study the majority of key species in considerable depth. Many of these studies have been on-going for decades and serve to provide valuable information on long term population trends. Our focus is on Schedule 1 species where members operate under appropriate licences but we also recognise the need where possible to provide information on the other, more common species.

The breeding season really presents quite a small window of opportunity each season so resource and particularly time constraints mean that priority must be given to some species over others.

We attempt to provide as much detailed information as possible for Schedule 1 species and some others. The extent and area of coverage for each group's survey work should be read in conjunction with the figures presented in species account tables. A "**0**" (**Zero**) is shown where the column feature was known with confidence to be zero for the area surveyed having regard to the extent of coverage indicated. Examples include species that definitely did not occur or perhaps where no pairs laid eggs or fledged young. "NC" (Not Counted) is shown in any column where the feature occurred but the number was not known – probably because it was not monitored in detail. The NC notation should not be interpreted to conclude that the species does not occur in the study area.

Similar criteria apply to the persecution data. The numbers in the persecution pie-chart refer only to evidence-based cases recorded by members in respect of both "species" and "type of persecution" categories. These figures are by no means absolute, they simply reflect the incidents that group members have experienced. Equally the absence of persecution incidents shouldn't be interpreted that no persecution occurs.

NERF regional species monitoring

Given that the membership of each constituent Group of NERF has historically consisted of a small number of dedicated volunteers the volume of monitoring undertaken across the NERF region is quite remarkable.

The chart below graphically indicates the level of monitoring undertaken by NERF. Analysis of the species breeding & monitored / breeding & not monitored / absent / passage data identifies the areas in which NERF will be able to focus future monitoring efforts more effectively. This will provide an opportunity to expand the overall dataset in a more meaningful way. This improved dataset, when combined with the persecution dataset will be used to set and / or modify NERF's monitoring priorities over time. In 2011 the Rare Breeding Birds Panel [RBBP] added Long-eared Owl and Short-eared Owl to its list of species that are believed to have a population of less than 1500 breeding pairs in the UK and are therefore deserving of more extensive monitoring. With regard to the expanse of suitable habitat within the NERF region it is possible that these species are under-recorded; if not, they may be under threat. In either case both species merit increased attention by all upland Raptor Workers.

Further information and advice in relation to the criteria for categorising breeding evidence for both species can be found on the RBBP website at www.rbbp.org.uk

GROUP																					
BRSG																					
CRSG																					
ChRSG																					
DUBSG																					
MRG																					
NRG																					
NYM RSG																					
PDRMG																					
SPRSG																					
YD&N RSG																					
	Honey-buzzard	Red Kite	Marsh Harrier	Hen Harrier,	Montagu's Harrier	Northern Goshawk	Sparrowhawk	Common Buzzard	Kough-legged Buzzard	Osprey	Barn Owl	Eagle Owl	Little Owl	Tawny Owl	Long-eared Owl	Short-eared Owl	Kestrel	Merlin	Hobby	Peregrine	Raven

Species monitored by NERF

Breeding* and monitored
Breeding* but not monitored
Absent
Non- breeding; Passage movements monitored

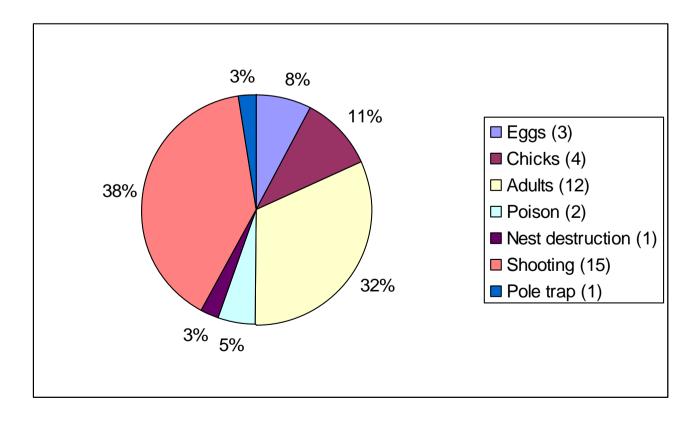
Note: *Breeding attempted at least once in last 10 years

NERF regional persecution data

Of all the data gathered by Raptor Workers the number of persecution cases consistently invokes discussions in relation to the claims. Proven persecution is relatively easy to assert in cases where birds have been shot or poisoned or in cases where traps have been recovered adjacent to nests.

It is self-evident that claims of persecution would be contentious where birds are reported to have "disappeared" from a given location, perhaps during the breeding season. A similar situation arises when the absence of a particular species from a given area, where there is ample suitable habitat and prey, cannot be explained unless human interference is the cause. No matter how contentious these issues are it is the responsibility of Raptor Workers to raise their concerns in the public domain. It is then a matter for others to make evidence-based challenges to the assertion that persecution is affecting several species, particularly in areas associated with game shooting rather than to simply state that it does not occur.

The total of incidents this year is again 38 (as in 2015). This may appear to be a significant reduction on 133 in 2014 (190 in 2012, 119 in 2009, 90 in 2013, 82 in 2011 and 56 in 2010). This is because a decision was taken, in conjunction with the RSPB, only to record incidents where persecution was <u>known</u> to have taken place, rather than where it was strongly suspected but could not be proved. Shooting has overtaken destruction of adults as the largest percentage (38%).

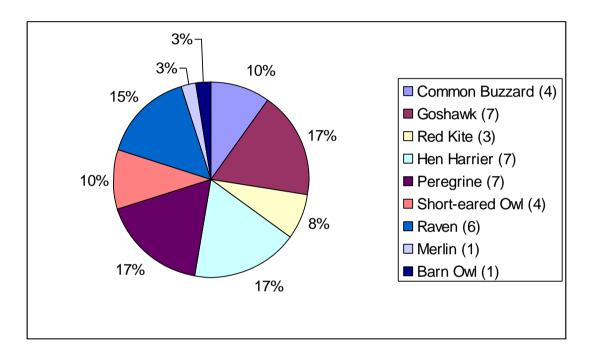


Persecution by type 2016 (figures in parentheses refer to number of incidents)

Black Hole species

During 2016 NERF members analysed the various habitats within their respective study areas with a view to identifying "Black Hole Species", i.e. those habitats where there is ample suitable habitat and food supply but where the relevant species are absent or occur at levels well below those experienced in similar habitat. The pie chart indicates the species and the number of NERF member Groups experiencing reduced populations.

Black Hole species in 2016 (figures in parentheses refer to number of groups listing species)

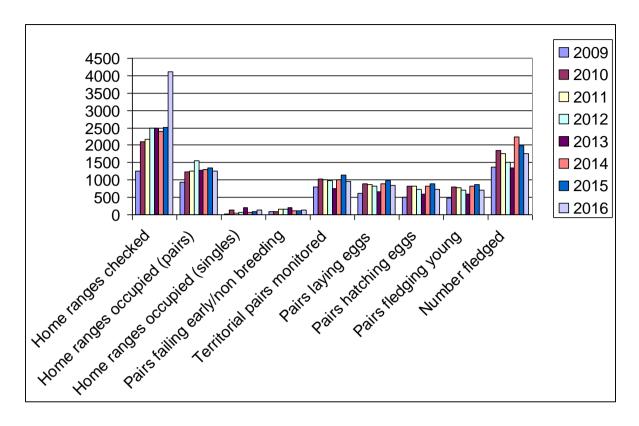


Summary

Within the NERF region 19 of the 23 raptor species were monitored and / or recorded by Group members during 2016. There were no records, or no records in the breeding season, for White-tailed Eagle, Montagu's Harrier and Rough-legged Buzzard. The only Golden Eagle in England was the solitary bird at Haweswater, Cumbria (assumed to have died in early 2016) not included in the NERF region. Full details of the work undertaken are set out in the Species Reports, however for quick reference the combined data for all of the species has been collated into a single table. See Appendix 1.

For ease of comparison the overall statistics for 2009 - 2016 are presented in the table following.

Combined statistics 2009-2016



Regular readers of this review will immediately notice the large increase in Home Ranges Checked in 2016. This is entirely due to the number of Barn Owl territories checked by our new member, Cheshire Raptor Study Group – a massive total of 1770, compared with 413 in 2015 before they joined! This brought the overall total to 4101 compared with 2515 in 2015. However, there was a slight fall to 1250 this year in the number of Home Ranges Occupied, from 1357 in 2015. 848 pairs fledged a minimum of 1755 young, and both these figures were down on 2015, when 876 pairs fledged in excess of 2233 young.

Appendices 2(a) and 2(b) show young fledged per pair laying and per territorial pair monitored.

There is always more work to do and lack of personnel prevents most groups from monitoring the commoner species. Anyone interested in joining one of the Groups should contact the relevant Group representative. Contact details are provided on the inside back cover.

Some very interesting conclusions can tentatively be drawn from the 2009-2016 datasets and it is hoped that these base-line figures will aid the NERF Committee to make strategic decisions for future monitoring projects, including the publication of single species reports. When additional data is available, via future Annual Reviews, a more detailed analysis will be undertaken and comparisons and trended information will provide the Forum with a better overall understanding of the status of birds of prey in the region.

The main body of the Annual Review identifies each of the 19 species in BOU order, concluding with Raven. The sub-sections then examine the national perspective for each bird, including the UK population estimate, the national threat assessment and the conservation status. The Review then outlines the monitoring activity undertaken by NERF, including individual Group reports, Group species summary and the NERF regional threat assessment.

Species reports

Editor's note:

Please note that the species are now arranged in BOU order.

http://www.bou.org.uk/british-list/

The Contents List still arranges them alphabetically, for easy reference.

Species accounts: as explained previously, there are no accounts for the following species:

White-tailed Eagle – no sightings in the NERF region in 2016.

Rough-legged Buzzard – no breeding season sightings in the NERF region in 2016.

Golden Eagle – no sightings in the NERF region in 2016; the only bird in England was the solitary Haweswater bird, which was feared dead by April 2016.

Honey-buzzard Pernis apivorus



UK population estimate

25-39 pairs and a minimum of 7 single birds occupied territories in 2014 with at least 27 birds fledging (Holling, M. *et al.* Rare breeding birds in the United Kingdom in 2014. *British Birds* 2016 109: 491-545).

Roberts, S.J. & Law, C., in their paper on Honey-Buzzards in Britain (*British Birds* 2014 107: 668-691) estimated the national population to be in the region of between 100-150 pairs.

Conservation status

UK	Amber
Europe	Not of concern
Global	Least concern

Listed on Schedule 1 of the Wildlife and Countryside Act 1981. Listed as Endangered (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain, *British Birds* 110 September 2017)

National and regional threat assessment

The only threats to the continuing well-being of these birds stem from the attentions of egg collectors and the damaging effects of wet and cold spring/summer weather. The latter conditions can decimate bee and wasp nests that provide the major food source for the species over the nesting season.

To judge from the amount of dedicated time and effort the NYMs team finds necessary to pin down nests of this very secretive species it is highly unlikely one would be robbed as a result of anything other than fortuitous circumstance. Any stranger attempting to locate a territory from the unavoidably persistent and frequent attendance required over a wide area of the forests would undoubtedly be spotted by vigilant Group members and "investigated"! Those gamekeepers who can differentiate between Common and Honey-buzzards present no problem to the latter and as carrion-feeding by the species is virtually unheard of, poisoning presents no threat. Migration to and from Africa holds inherent and obvious risks, of course, but passage of UK birds via Gibraltar provides a much safer route than the gun-threat alternative across the central Mediterranean.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
NYMUBSG	9	1	0	0	1	1	1	1	1	1	1

Group Reports

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Good coverage: at least two monitoring studies.

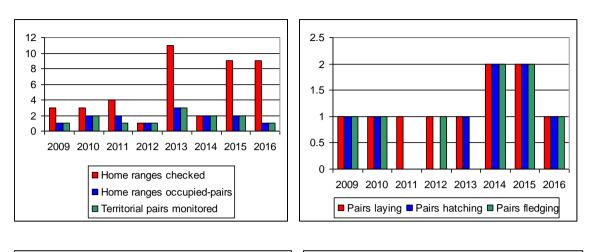
A disappointing season with just 4 individuals recorded from 3 different territories. The nest was located at the same locality as 2015. The same male was involved (returning for his 9th season), but the female was not his usual partner of the past 7 years but a bird also 7 years old, known to have bred with 2 different partners at 3 other distant sites 2010, 2011 and 2012-15. This male, (returning for his 8th season) was recorded un-paired at the 2012-15 territory. A single unrecognised bird was also recorded on several occasions in a new area. The breeding adults were last recorded 15th August, and the juvenile, which wasn't ringed, on 23rd August.

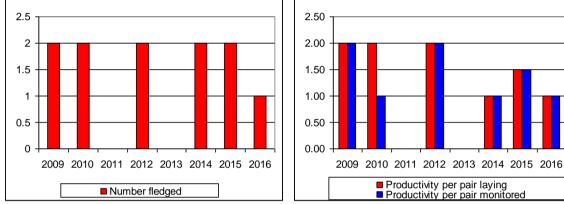
There were no reports of birds from any of the other Groups.

NERF regional summary

Once more the only data for this species come from the hard-working North York Moors team of fieldworkers who are becoming concerned that fewer birds are returning each spring. This situation has apparently been experienced elsewhere in the country with some core populations having gradually died out. The causes behind this worrying state of affairs are not known, but no doubt if the trend persists and worsens, they will need to be investigated and with some degree of urgency.

Comparative data 2009-2016





Red Kite Milvusmilvus



UK population estimate (including Ireland)

5000+ pairs. Based on figures derived from UK and Ireland Red Kite Co-ordination Group. Estimated figures for Wales and South East England alone total 4500+. Information compiled by Doug Simpson MBE – Yorkshire Red Kites Co-ordinator. The BTO BBS report for 2016 showed an increase of 13% for 2015-16 and 19918% from 1995 to 2015.

Conservation status

UK:

Green Red

Global/European and EU regional assessments:

Near threatened; undergoing a moderately rapid population decline in the three core states Germany, Spain and France due mainly to poisoning by pesticides, persecution and changes in land use.

Listed on Schedule 1 of the Wildlife and Countryside Act 1981.

National and regional threat assessment

By far the biggest threat to Red Kites continues to come from illegal poisoning. Whilst they may not be the intended target they are scavengers and will consume poisoned baits placed out illegally to kill other species. There have been at least 27 Yorkshire-related Red Kite illegal poisonings recorded since 2000, 23 of which have occurred in North Yorkshire. According to RSPB figures this area has the unenviable record of being the worst in the UK for offences involving birds of prey.

2016 saw an unprecedented number of Red Kites having been shot in the County (North Yorkshire 4 and West Yorkshire 2). They are also susceptible to poisoning from second-generation rodenticides introduced to control rats which had become resistant to first-generation substances such as Warfarin. There is strong evidence that guidelines for the proper use of these poisons are not being followed and that, in consequence, they are getting into the food chain of scavenging species. There have been 13 recorded Yorkshire deaths from this cause since 2007.

The growth in the number of wind turbines, sometimes featuring as extensive wind-farm arrays, poses an increasing risk of collision. There are still no national guidelines regarding coordinated nature conservation and planning guidance for installations of micro-wind turbines.

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
DUBSG	40	33	5	NC	13	13	8	8	16	1.2	1.2
NRG (Cumbric)	2	1	0	0	1	1	1	1	2	2	2
(Cumbria)	3	1	0	0	1	1	1	1	2	2	2
TOTAL	43	34	5	0	14	14	9	9	18	1.29	1.29

NERF Data

Group reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur as a breeding species.

Kites are seen every year in the hills and we are quite confident that it is only persecution that is preventing them from breeding in Bowland for there is extensive suitable habitat.

Calderdale Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur as a breeding species.

Red Kites are frequent visitors to Calderdale; however they do not breed within the study area. Whilst the number of sightings, predominantly in spring and autumn, was down by 33% to just 14 in 2016 the Group remains hopeful that these birds will eventually breed in what must be near perfect habitat in the east of the study area.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. We are once again grateful to Friends of Red Kite (FoRK) for this summary. 2016 was a disappointing season. In early spring pairs or apparently single birds were believed to be holding approx. 33 territories in the county. Of these, 13 pairs were closely monitored as they went on to lay eggs. Eight of these pairs successfully fledged 16 young. Some nests failed through natural predation and others probably from unintentional disturbance being close to homes or within recreational woodland. Other pairs may also have been successful elsewhere but their outcomes were not recorded so the figures given in the table above should be regarded as a minimum. However, there is concern that in addition to the previously documented failure of the population to expand beyond the original release area, the numbers seen within the core area may recently have declined rather than grown. Counts at the over-wintering roost sites diminished in 2015-16 compared with previous winters and residents in areas where kites were once an everyday sight report seeing fewer. Red Kites were re-introduced in Gateshead BC in 2004 and first bred in 2006.

	2009	2010	2011	2012	2013	2014	2015	2016
Pairs fledging young	11	12	12	14	9+	20	13	8+
Number fledged young	17	24	24	23	18+	35	26	13+

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur as a breeding species.

Sixteen sightings were reported to www.manchesterbirding.com in every month from February to October except September, probably involving 13 individuals.

There was no indication of breeding but if a pair was to hold a territory, Marple would be a distinct possibility, being well-wooded.

Northumbria Ringing Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. We are grateful to Friends of Red Kite (FoRK) for the following information. The first confirmed successful nest in Northumberland since a pair was poisoned in 2010 was a highlight in an otherwise disappointing year. The success involved a very late nest where 2 young did not fledge until early August. The pair may have failed with a first clutch after clashes with local Buzzards. The nest was only discovered during nearby commercial felling of the wood which was immediately halted and FoRK is grateful for the co-operation of the estate.

Thanks to Ian Kerr for his contribution in this report.

North York Moors Upland Bird Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Not known to occur as a breeding species.

The distribution and frequency of mobile birds was significantly down on previous years with minimal sightings to the west and north of the NYMs. Still no concrete evidence of a breeding attempt anywhere but an apparent pair was observed at one particular site in suitable habitat to the west of the area.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur as a breeding species, sightings of single birds continue to increase in and around the study area.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. SPRSG no longer systematically monitors the species as it is so widespread, although continued lack of successful breeding adjacent to the Upper Derwentdale grouse moors points towards persecution as the likely cause.

Yorkshire Dales & Nidderdale Raptor Study Group

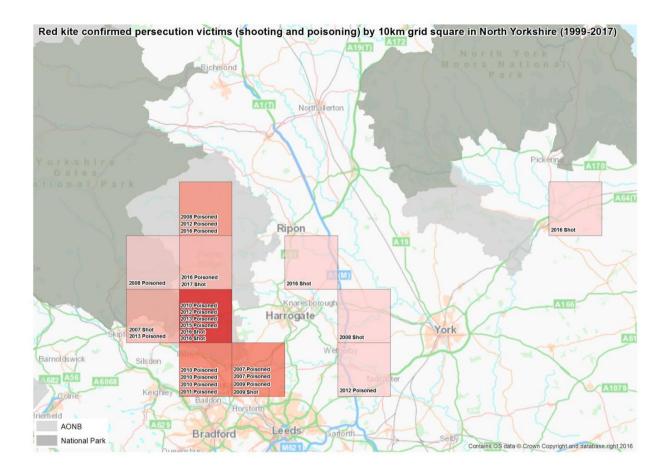
Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place *Yorkshire Dales:*

No change in status with more frequent sightings in the south eastern dales but no known breeding pairs within the national park. The high incidence of persecution as birds attempt to spread into the area is clearly shown in the map recently produced by RSPB Investigations, and is clearly limiting the spread of this species in the area.

Nidderdale:

Although the group does not monitor Red Kites we are aware that in the last 2 years we have at least one and possibly more pairs of Red Kite in Nidderdale and again adults with 2 fledged young were seen in one area in July and August: the observers believe these birds were reared locally. Sadly, birds continue to be found poisoned and shot in the area in a monotonously regular way.



Other data

Yorkshire

The table below, compiled by Doug Simpson MBE shows the available confirmed breeding figures for 2016. Full monitoring was not possible. The 2015 figures are shown in brackets. Rather than including estimated numbers of the Harewood figures in 2016, the figures for that location have been totally excluded. The shortfall arising from the exclusion of the Harewood figures has been compounded by a significant drop in the number of pairs detected in East Yorkshire. Some of this deficiency is accounted for by the fact that 2 nest sites could not be checked as they could not be seen, the estate in question having planted a double row of Leylandii across the field in front of the customary viewpoint. This apparent vindictive action is significantly affecting the viewing of the kite roost which occurs in that locality. In North Yorkshire, pairs were either missing from or not confirmed at 10 sites which had been occupied in 2015. This shortfall was partly offset by 7 pairs having been found at either totally new locations or sites used in the past.

	Yorkshire Breeding Figures 2016.											
AREA	<u>TERR.</u> PAIRS	<u>PAIRS</u> <u>BRED</u>	<u>PAIRS</u> SUCC.	<u>YOUNG</u>								
West Yorkshire	36 (34)	35 (33)	29 (29)	52 (55)								
North Yorkshire	41 (44)	40 (40)	36 (36)	66 (68)								
East Yorkshire	7 (14)	7 (11)	7 (9)	13 (16)								
Totals	84 (92)	82 (84)	72 (74)	131 (139)								
Average	e young raised I	per successful pa	ir = 1.82 (1.88)									

The females at two nest sites in West Yorkshire were found dead in close proximity to their nests. One has been confirmed as having been shot whilst sitting, the death of the other was later found to be due to rodenticide poisoning. 2016 has seen an unprecedented number of Yorkshire kites falling victim to various forms of human intervention. Confirmed incidents are as follows:

	Poisoned Bait	Shot	Rat Poison		
North Yorkshire	2	4	0		
West Yorkshire	0	2	1		

East Yorkshire Red Kites

The following information has been submitted by an independent observer.

Although we continue to remain confident about the long term success of the East Yorkshire Red Kite population, unfortunately once again there has been a decrease in known successful breeding pairs in 2016. There are several accountable reasons for this, including the lack of access to monitor known nests where we have had to resort to observing from the public highway. Sadly at one long established location one of the 3 young fell from the nest and perished beneath; the second time this has occurred. Perhaps the nest isn't big enough for 3 full feathered young! Kites continue to move off the Wolds and we now have several pairs on the plain of York. Sightings continue to come in from the East of the county with minor sightings from the North. East Yorkshire is a massive area and we are confident there will have been other breeding pairs that we aren't aware of. A record maximum of 85+ birds were recorded in December at the communal 2015/16 winter roost site indicating that there must be over 100 birds in the area.

NERF regional summary

Reliable records are not available from all parts of the NERF region. Red Kites are also frequently recorded as passage birds in many study areas.

WARNING:

Some poisons are exceptionally toxic and can be absorbed directly through the skin. Raptor Workers finding a dead Red Kite, or any other species suspected to have been poisoned, should exercise extreme caution before handling a carcass. Butyl gloves offer some protection and may be used. Note: The current Natural England practice is to wear 2 pairs. However standard, thin, household gloves are not effective against many of the poisons found in dead Red Kites and should not be used. If the carcass is recovered it should be dropped into a bin liner. This bin liner should be placed inside a second with the butyl gloves dropped into the space between the 2 bags. The bags should then be securely tied. In every event it is advisable to wash or sterilise hands immediately after contact with a dead animal and in all cases before eating or smoking.

Yorkshire Red Kites have their own guidelines for dealing with casualties that may be found at:

http://www.yorkshireredkites.net/index.php?option=com_content&view=article&id=13&Ite mid=13

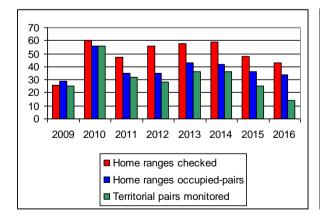
It is essential that all suspected poisoning incidents are reported to the local Police and that an incident number is obtained. The cause of death will be determined by either the Predatory Bird Monitoring Scheme [PBMS], telephone 01524 595830. Email leew@ceh.ac.uk or the Wildlife Incident Investigation Scheme [WIIS] telephone 0800 321600.

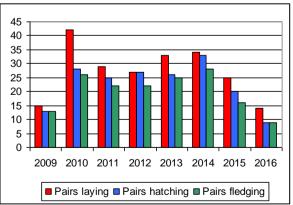
The information should also be passed on to the RSPB Headquarters, telephone 01767 680551 and ask for the Investigations Team during office hours, or 0845 466 3636 at other times. A new email to contact is crime@rspb.org.uk

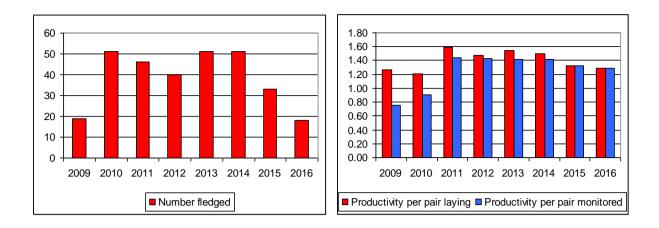
Sick or injured birds can be reported to the RSPCA, telephone 0300 1234 999 All telephone numbers correct at August 2017.

For Local Police 'Dial 101' and ask to speak urgently to a Wildlife Crime Officer - please also ask for an incident number.

Comparative data 2009-2016







Marsh Harrier Circus aeruginosus



UK population estimate

The latest APEP estimate is 320-380 pairs, 2006-2010 (Musgrove *et al.* 2013, APEP 3. *British Birds* 106: February 2013). 263-358 breeding pairs were reported to RBBP (Holling, M. *et al.* Rare breeding birds in the United Kingdom in 2014. *British Birds* 109: September 2016 491-545.)

Conservation status

UKAmberEuropeanNot of concernGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981.Listed as Near Threatened (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds inGreat Britain, *British Birds* 110 September 2017)

National and regional threat assessment

The UK population is more secure now than at any other time during the last 100 years. However, significant habitat loss could reverse this trend. As with any small population the impact of egg collecting could be locally significant. As the species moves north to breed birds are likely to face an increase threat of persecution if they attempt to breed in the uplands.

NERF Data

No other group had breeding Marsh Harriers.

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

In common with previous years the Group recorded several sightings of Marsh Harriers passing through the study area. Unfortunately once again there was no evidence of breeding in the Bowland Fells.

Calderdale Raptor Study Group

Extent of coverage: Part upland areas.

Level of monitoring: Not known to occur here as a breeding species.

Marsh Harriers are infrequent visitors to Calderdale. However, in 2016 only 4 sightings were recorded. These sightings consisted of one in spring and a further 3 in autumn. All of the birds were reported to be 'cream crowns'.

Unfortunately the pair that had shown signs of breeding 3 kilometres from our northern border during 2015 failed to return in 2016.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur here as a breeding species.

The vast majority of records in the county centred on the coastal strip. The first bird of the year occurred at Whitburn on 18th April, and then from late April onwards, and throughout the summer, 1-2 were seen at RSPB Saltholme Reserve. The last report from there was on 30thSeptember. The only report from upland areas was of a bird at Hedley Hope Fell on 30th August.

There is ample suitable habitat for this species to breed within the study area and taking into account the number of birds recorded annually it is clear that Marsh Harriers are a 'black hole' species in County Durham.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur here as a breeding species.

During 2016, 34 records were received, including several for a long-staying immature male at Little Woolden Moss, present from 12th June to 30th August. During this period the bird was often seen hunting along the banks of the River Glaze. When the male first arrived he was observed carrying sticks; unfortunately he failed to attract a mate.

In September and October, females/juveniles, involving at least 3 different birds, were seen at Little Woolden or at the nearby former peat works.

Elsewhere, females or immature birds, all singles, were seen at 10 sites, mostly in the west, with the vismig area at Winter Hill recording 4 sightings between 26th August and 3rd October, as well as one on 1st April.

Northumbria Ringing Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. For the third year in succession Marsh Harriers used the same reed bed in which to breed. In 2014 and 2015 the pair raised 5 young, and in 2016 they fledged 4 young.

With other passage and summering birds it's surprising that additional pairs have not settled to breed elsewhere in the county. However, the Group is optimistic that this situation will change for the better in the near future.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Not known to occur here as a breeding species.

2016 brought the usual pattern of observations across the study area. The, majority of records, provided by the Teesmouth Bird Club, were of passage birds recorded at the regularly watched sites of Sleddale and Scaling Dam Reservoir.

Observations, spanning from April to September, noted that the majority of birds were cream-crowned females or juveniles. Good numbers were recorded over August with up to 3 on 17th at Sleddale, and 6 individuals were recorded on 11th August at Scaling Dam. Elsewhere other reports were received in spring of 2 birds on Fylingdales Moor and a female

or juvenile was observed on Goathland Moor in September.

Taking into account the number of birds that are recorded annually in the study area the Group believes that Marsh Harriers are a "black hole" species on the North York Moors.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

Whilst this species is not known to breed in the study area there were several sightings during 2016. The sightings, all of single birds, continue to increase annually particularly in late summer and autumn. The birds are thought to be moving through the area on passage.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

During 2016 the only sighting in the SPRSG recording area, reported by one of our members, was of an all-dark bird, seen over Raven Tor, Beeley Moor, on 15th February. Other sightings were reported in the Derbyshire Ornithological Society bulletins monthly from April to the end of the year. Many of these sightings related to the Ogston and

Carsington Water areas, although others were from upland moorland areas, suggesting that the upland areas are being used as passage / migration routes.

Yorkshire Dales & Nidderdale Raptor Study Group

Yorkshire Dales

Extent of coverage: Upland areas only.

Level of monitoring: Not known to occur here as a breeding species.

Passage birds are now recorded annually, with immatures occasionally lingering in some areas in late summer.

Nidderdale

Extent of coverage: Part upland areas.

Level of monitoring: Not known to occur here as a breeding species.

This species has as yet not been proved to breed in the recording area although it has in the past been suspected/rumoured. It is however becoming a more regular visitor between spring and autumn, although the only birds seen are usually immatures.

At least one bird summered in 2016. It is not clear how tolerated this species would be if birds were to attempt breeding. It is suspected that it is unlikely they would be tolerated on most moors.

NERF regional summary

Once again only the Northumbria Ringing Group reported a successful breeding attempt in 2015. However, most other NERF Groups observed passage migrants during both spring and autumn.

Wing-tagging project

In 2011 Phil Littler commenced a 10-year wing tagging project in Norfolk where the current population is estimated to be in excess of 100 females. By the end of the 2017 season, 381 birds in total had been fitted with green wing tags, 101 of these in 2017.

The area covered includes the North Norfolk coast, the Norfolk Broads, and RSPB Lakenham Fen in Suffolk.

The survey is already showing some interesting findings:

Young birds are dispersing randomly, some staying local and others travelling to 7 different European countries, as well as all over the UK.

Very few of the tagged birds are breeding, far lower than the 20% expected.

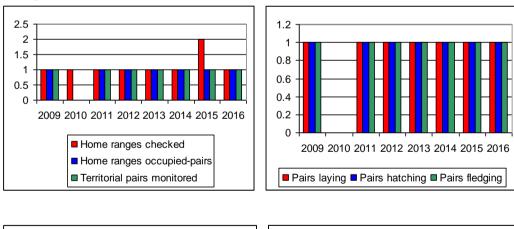
The few birds which are breeding tend to choose the same habitat that they themselves were bred in, e.g. oil seed rape, reedbeds, but they are not necessarily breeding near to their own natal area.

Birds tagged in 2016 have been recorded in Holland and Norway, a second and first respectively for those countries. Tagged birds are now being reported as breeding themselves, including one of the first birds ever tagged in the scheme, a female tagged at Sculthorpe Moor in 2011, reported in Portugal 2012 (a first for that country), and in Belgium in 2015 (a third there). She bred successfully in Lincolnshire in 2016, raising 3 young.

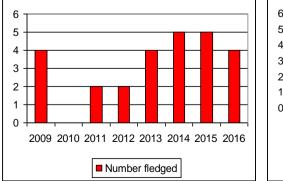


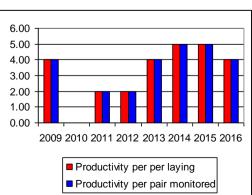
Phil is exploring the idea of satellite tags, as used with Hen Harriers, and is currently looking for sponsorship.

He would welcome sightings of any birds seen in the NERF region. Sightings should be forwarded to Phil at phillittler10@yahoo.co.uk, or by mobile on 07748 556758. Please include the tag number, letter and number, time and date, location, including the grid reference if possible, age and sex in the report.



Comparative data 2009-2016





Hen Harrier Circus cyaneus



UK population estimate

The 2010 national survey provided an estimate of 633 pairs for the UK as a whole (Hayhow *et al.* 2013. *Bird Study* 60, 446-458) with a declining trend. This was sadly confirmed by the results from a repeat national breeding survey completed in 2016. This showed a total of 545 breeding pairs with the majority in Scotland, 35 in Wales, 46 in Northern Ireland but just 4 in England.

Conservation status

UKRedEuropean3; Concern, most not in Europe, depletedGlobalLeast concernListed as Vulnerable (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in GreatBritain, British Birds 110 September 2017)

National and regional threat assessment

The principal reason for the vulnerable and near-threatened-extinction of the English breeding population is widely considered to be the continued illegal persecution around intensively managed northern grouse moors. Numbers are now so low and recruitment so poor that it leaves the English population on the very brink of being lost entirely. The Defra Upland Stakeholder Group Hen Harrier Joint Recovery Emergency Action Plan was issued ahead of the 2016 breeding season but did nothing to reverse the decline. Separate reported incidents involving a pole trap, a decoy trap and several satellite-tagged birds suddenly going missing all pointed to the continuance of persecution. At the time of writing (August 2017), with the dubious benefit of two full breeding seasons to report on since the Defra HH Emergency Action Plan was launched, there is little or no evidence of a change of attitude from those who would do harm to the birds or for grounds of optimism. The updated Hen Harrier Conservation Framework will hopefully be published very soon (original by Fielding *et al.* 2011. JNCC Report 441) to further guide and inform the conservation measures still patently needed to protect this species.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	20+	0	0	0	0	0	0	0	0	0	0
CRSG	2	0	0	0	0	0	0	0	0	0	0
ChRSG	0	0	0	0	0	0	0	0	0	0	0
DUBSG	8	1	0	1	0	0	0	0	0	0	0
MRG	0	0	0	0	0	0	0	0	0	0	0
NRG	6	3	1	0	3	3	3	2	6	3	3
NYMUBSG	4	0	0	0	0	0	0	0	0	0	0
PDRMG	3	0	0	0	0	0	0	0	0	0	0
SPRSG	6	0	0	0	0	0	0	0	0	0	0
YDRSG	5	0	0	0	0	0	0	0	0	0	0
Nidderdale RSG	3	0	0	0	0	0	0	0	0	0	0
TOTAL	57+	4	1	1	3	3	3	2	6	3	3

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage throughout the year.

Only 2 sightings of Hen Harrier were recorded in Bowland in 2016. Although the lack of voles would contribute significantly to birds not settling to breed this does not mask the fact that persecution by gamekeepers associated with driven grouse shooting is the main reason why there were no breeding pairs in Bowland in 2016. Although breeding success has been very limited, in recent years Bowland has at least had birds present during the breeding season – including 6 nests in 2015 – so the dearth of sightings this year is an ominous sign of very low numbers generally.

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual monitoring though not known to occur as a breeding species.

Calderdale hosts a traditional Hen Harrier winter roost, which is occupied annually. Fortynine records were received from collective observations over winter. Two birds were seen regularly, and in spring occasionally 3 birds were seen together. "Highlander", a satellitetagged female from Bowland, was present for much of the winter and spring. She eventually left the area and flew to County Durham where the satellite tag stopped transmitting abruptly. Later in the year there was evidence that "Highlander" had most probably reappeared still sporting an apparently faulty tag. It is most unusual for tags to fail in this manner. See http://www.rspb.org.uk/community/ourwork/skydancer/b/skydancer/archive/2017/01/13/high lander-lives.aspx

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur as a breeding species.

In some previous years early spring records of potential prospecting behaviour have been recorded on rare occasions so some casual monitoring is undertaken. Winter records emanate from the Dee and Mersey Estuaries.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; nearly all suitable habitat is monitored annually. Group members provided local co-ordination for the National Hen Harrier Breeding Survey 2016 and were able to survey all areas within all 18 of the 10km-squares in the county having suitable habitat.

Efforts were largely on the back of the comprehensive coverage of breeding Merlin but with a special effort to monitor areas from mid- March onwards to look for early signs of occupancy. The coverage represented a full and accurate census.

A pair in one area at the beginning of the year showed no evidence of display before departing by mid-March. There were just 3 isolated reports of Hen Harrier during the survey period; a female hunting on one day in early April, another in similar circumstance elsewhere in early May and an adult male hunting at a third site on 12th July. All locations had been extensively monitored before and after these sightings and none of these was considered to represent a breeding attempt.

One to 3 birds were found roosting in upland areas by late autumn. There were very few sightings elsewhere in the county.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Passage birds recorded. Not known to occur as a breeding species. There were 2 spring sightings: a ringtail moving west over Whitefield on 25th March, seen from the top of a block of flats, and mobbed by a Sparrowhawk, and remarkably, a fine male seen flying alongside a United Airlines plane taking off at Manchester Airport on 12th May, filmed by a plane spotter and forwarded to the county recorder.

In autumn, the vast majority of records came from the invaluable Smithills Moor /Winter Hill visible migration watch-point area in October, as follows: one, possibly 2 ringtails, 2nd; a female and 2 juveniles 6th; a ringtail 9th; up to 5 birds on 12th; 3 on 13th; 2 on 15th; a ringtail 16th, and 2 juveniles 17th. None of these had satellite tags, but one tagged bird was

recorded moving from Chorley towards Rivington Pike (part of Smithills Moor) on 27th. Other tagged juveniles were in areas near Greater Manchester at Risley Moss and Woolston Eyes during the month. These were young of the year from Northumberland ("Mick") and the Isle of Man ("Ailan") respectively. Interestingly, "Mick" had already travelled to Dorset before visiting Risley Moss.

Elsewhere a ringtail was seen at Crompton Moor, between Rochdale and Oldham, 25th October, and a ringtail was at Swineshaw 3rd December.

Northumbria Ringing Group

Extent of coverage: Part upland areas.

Level of monitoring: Good coverage; several long term study areas.

Following the excitement of Hen Harriers having nested in 2015, it was a case of fingers crossed for their possible return in 2016. They did not disappoint and by April birds were once again seen on their home ranges.

Two pairs nested and laid clutches of 5 and 4. These went on to successfully fledge broods of 2 and 4 respectively, all of which were ringed. Additionally, 2 of the males and 2 of the females had satellite tags fitted by RSPB and NE respectively as part of their research programmes. The Northumberland Hen Harrier Protection Partnership should be congratulated for its considerable efforts in safeguarding these nests.

A third pair nesting nearby lost its young to predation by a fox.

As in 2015, in another part of the county alone adult male displayed over 2 areas but once again never attracted a female.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Reasonable monitoring of suitable habitat.

There was no evidence of any breeding attempts over the spring and summer.

There were occasional sightings in the winter months in the Sleddale, Guisborough Moor, Scaling Dam and Fylingdales Moor areas and at the latter site a male and female passed through together on 2nd September.

Several former traditional roosts were checked regularly over the winter months but there were no signs of occupancy.

Peak District Raptor Monitoring Group

Extent of coverage: Upland areas only.

Level of monitoring: Good coverage of a large representative study area.

A number of sightings of Hen Harrier in suitable habitat during the spring and summer were all given the highest priority for follow-up monitoring. Unfortunately only single birds were observed and none lingered for more than a few days. No breeding attempts were recorded. In the autumn a female Hen Harrier "Tarras" from a 2016 nest at Langholm, Scotland was last recorded roosting in the north west of the PDRMG study area; despite extensive searching of the area around the last known fix, the bird was not found. Whilst tag failure cannot be discounted, evidence suggests that satellite tags rarely malfunction.

Elsewhere an unidentified armed person was filmed using what appeared, from the low quality video footage, to be a decoy Hen Harrier. The National Trust gave notice to its current shooting tenant occupying this estate as it could no longer have confidence that the tenant was committed to the delivery of the Trust's vision for its land.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage; several representative areas are studied. Given the continuing issues surrounding the very low population levels of Hen Harrier in England, much effort was directed again during 2016 in responding to all sightings of Hen Harriers in and around the group's study area and contributing to the National Survey. The group has made extra efforts, both in the winter and during the breeding season under the agreement for the Hen Harrier Action Plan. Occasional sightings in 2016 were concentrated around suitable moorland areas where successful breeding has been recorded in the Peak District in the past. A ringtail – believed to have been a female – was present at a suitable site on the evening of 2nd June, but was not seen on subsequent visits. No breeding attempts were recorded in the study area in 2016. Grey males – 2 birds – were seen in the Beeley Moor area in October and last seen on 17th November, when they were believed to have moved out of the area.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland areas.

Level of monitoring: Reasonable / good coverage of representative study areas. *Yorkshire Dales*: Despite large areas of suitable habitat there were no known breeding attempts in the Dales. One or 2 birds were seen in upland areas during the spring but none lingered.

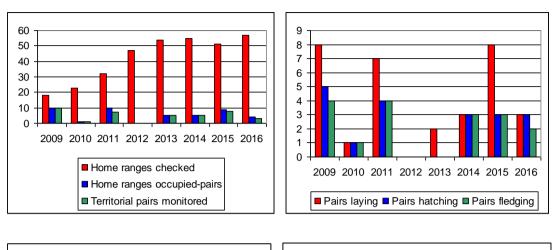
Nidderdale: Has bred in the past; the last successful nest was in 2007 and the last breeding failure was in 2012 (not previously reported) when an empty nest with some disturbance was found. No territorial birds were seen during the present breeding season and one presumed passage female was noted on one date only. Occasional sightings were reported outside the breeding season by members of Nidderdale Birdwatchers. Management of the main previous breeding area has intensified and any birds would certainly not go unnoticed.

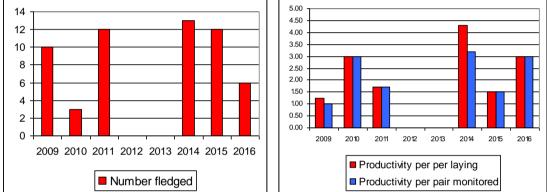
NERF regional summary

There was one other successful breeding in northern England in 2016, which occurred on the RSPB's Geltsdale Reserve, Cumbria. A single bird fledged. The total of 4 breeding pairs compares with the published natural 'carrying capacity' of England of over 300 pairs. Whilst every breeding attempt is to be welcomed we need to remind ourselves that the population remains perilously low and threatened with extinction. Even the small number of young which do fledge face well-documented perils.

Evidence of persecution across our region continues to build and regrettably young from the Northumberland nests of 2016 were involved. Fledglings "Mick" and "Carroll" were named and satellite-tagged in honour of our late colleague and harrier enthusiast Mick Carroll. The body of "Carroll" was discovered in Northumberland having succumbed to disease but found to be carrying shotgun pellets, whilst the signal from "Mick" was lost abruptly in Swaledale. The body of "Rowan", a satellite-tagged bird raised in Langholm, Scotland was found in Ravenstonedale, Cumbria on October 16th within the newly expanded Yorkshire Dales National Park. The bird was likely to have been shot. These events together with those reported by the Peak District RMG (see above) paint a very distressing picture of continued intolerance in some quarters. Further details are available on the NERF website under Publications / Public Statements where NERF has also provided its detailed assessment of the first year of the Defra Upland Stakeholders Hen Harrier Emergency Action Plan. NERF member groups continue to work with the RSPB Hen Harrier LIFE+ Project to monitor winter roosts, respond promptly with follow-up visits to reports from the public submitted into the RSPB's Hen Harrier Hotline and, of course, to support monitoring and protection efforts at any breeding site.

Comparative data 2009-2016





Montagu's Harrier Circus pygargus



UK population estimate

In 2016 it is understood that there were only 5 nesting attempts nationally for Montagu's Harrier, all of these occurring outside the NERF study area. Interesting tracking work can be seen through the RSPB's Montagu's Harrier recovery work. https://www.rspb.org.uk/birds-and-wildlife/multimedia-and-discussion/satellite-tracking/montagus-harrier/index.aspx

Conservation status

UK Amber

EuropeanNot of concernGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981. Listed as CriticallyEndangered (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain,British Birds 110 September 2017)

National threat assessment

In Western Europe approximately 75% of Montagu's Harriers nest in cereal crops and whilst this generally allows them to produce more chicks per breeding pair it also leaves them vulnerable to unintentional disturbance. Consequently, once located, the nests have to be either safeguarded during the harvest season, by enforcing an exclusion zone which has been agreed in advance with the landowner, or alternatively the chicks need to be relocated to a safer area.

The eggs are especially vulnerable to egg thieves and the location of each nest must be kept a closely guarded secret. The nests may also require protection throughout the season. It will be interesting to see how Defra's proposed re-introduction of Hen Harrier to Southern England will play out and whether displacement of successful Montagu's Harrier territories will be affected should the eventual proximity be unnecessarily close due to other constraints.

NERF regional threat assessment

Breeding attempts within the NERF recording area are extremely rare, with only one success in recent years. Montagu's Harriers normally breed in cereal fields, however the success on the North York Moors in 2010 is a strong indication that they can adapt to moorland habitats. Offspring from these areas may be habituated to moorland and return in subsequent years, mirroring the habitat selection of Hen Harriers in northern England. Unfortunately, taking into account the high persecution levels experienced by Hen Harriers this may threaten northern populations rather than enhance them. This perception of persecution may have already presented itself in the North York Moors in 2011 after early pairing followed by the male's absence thereafter.

To counter the threats from egg collectors and excessive disturbance it is essential that the location of future breeding attempts is kept confidential and nest protection is activated where required and practically possible.

NERF data

The data for 2016 has been very thin on the ground with no positive identifications of Montagu's Harrier passing through the area by fieldworkers, giving the overall view that Montagu's Harriers were not present within the NERF area in 2016.

NERF regional summary

With the contraction of the Northern England Raptor Forum, East Yorkshire sightings have been absent in 2016 for Montagu's Harrier particularly on the east coast making a notable species' absence for this year. Whilst Montagu's Harrier remains a rare visitor and even rarer breeder in the study areas it is not inconceivable that they could colonise the area particularly in the Yorkshire Wolds, on the rolling arable fields or in the North York Moors as was proven recently in the moorland area, if they can become established in their current natal area in East Yorkshire.

Northern Goshawk Accipiter 38entiles



UK population estimate

The 428-622 pairs reported to RBBP in 2014 represented a considerable increase over 2013 and is the first time over 600 pairs have been reported. (Holling, M. *et al.* Rare breeding birds in the United Kingdom in 2014. *British Birds* 109: September 2016 491-545). This is well in excess of the latest population estimate from APEP: 280-420 pairs, 2006-2010 (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013).

Conservation status

UKGreenEuropeanNot of concernGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981.Listed as Near Threatened (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds inGreat Britain, *British Birds* 110 September 2017)

National threat assessment

Nationally Goshawks continue to face persecution in many areas, particularly those areas associated with commercial game shooting. The level of persecution can lead to localised extinctions as well as reducing the ability of core populations to expand and colonise new areas. A growing threat is posed by forestry operations and the felling of occupied territories in the breeding season. On a local level recreational activity may also pose a threat.

NERF regional threat assessment

There are large areas of suitable habitat and food availability across the whole of the NERF region which can and should support healthier populations than we currently enjoy. Goshawks thrive in some areas and they are absent from others with very similar habitat and food supply. Taking these and other factors into consideration it is very difficult to find any reasonable explanation, other than human interference, to account for these anomalies.

NERF data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRG	1	0	0	0	0	0	0	0	0	0	0
DUBSG	6	4	NC	NC	NC	NC	NC	NC	NC	NC	NC
NRG	58	37	1	6	31	31	23	19	35	1.13	1.13
	3	3	NC	1	2	2	0	0	0	0	0
PDRMG	U										
PDRMG SPRSG	18	15	NC	1	15	15	14	14	26	1.73	1.73

Group Reports

Bowland Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Sightings at a known site never result in an active nest; this is almost certainly down to persecution.

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Not known to occur here as a breeding species.

The status of Goshawk in Calderdale is somewhat of a conundrum. There is ample suitable habitat and in recent years juveniles have been recorded on 3 separate occasions. However; breeding has never been proven. There were just 4 sightings recorded in 2016; 3 in spring and a fourth in autumn.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. Displaying birds are noted at a number of localities in the county, both upland and lowland areas. Further work in locating nest sites is required.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only. **Level of monitoring:** Reasonable coverage; at least one long-term study. Occasional aerial display in spring was seen at 6 sites, with pairs thought to be present at 4 of these. It was unclear whether these pairs went on to breed, despite subsequent thorough monitoring of the areas through until August. There was one late report of "probable" breeding which could not be confirmed. The species remains scarce and noticeably less evident than just a decade ago.

Northumbria Ringing Group

Extent of coverage: Part of upland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. *Northumberland:*

The Northumbria RG again worked well with the Forestry Commission to make sure there were no problems during forest operations.

2016 was a better year for occupation with 31 pairs laying eggs (28 in 2015) but with a worse outcome. Nineteen pairs (19 in 2015) fledged 35 chicks (41+ in 2015). *Cumbria:*

The study checked 4 home ranges. Two were found occupied, but both failed and no young fledged. These were outside the NERF study area.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. As usual the fieldworkers who monitor this species from year to year do not wish 2016 data to be published. They have however, some concerns regarding sites adjacent to one particular moor where a fresh squad of enthusiastic keepers has been taken on by new shooting tenants. Regular pairs, invariably successful, failed at 3 sites for no obvious reasons this year: the speculative conclusion reached as to cause of failure needs no explanation.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Three breeding attempts were recorded in the PDRMG study area in 2016, 2 in Derbyshire and one in South Yorkshire. Two pairs were confirmed as breeding, both attempts failed in suspicious circumstances; at the third traditional site the male was seen provisioning the female with food early in the breeding season but no breeding evidence was recorded thereafter and the birds disappeared.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. In the Upper Derwentdale area 3 traditional sites were monitored throughout the season; 2 sites were successful, with 3 chicks (2 male, one female) ringed at one site and one female chick ringed at the second site; at the third site the pair failed, after 2 eggs had been laid. Two further sites in this area were thought to have been occupied, but access was not possible, as they were on Forestry Commission land.

Elsewhere in the SPRSG recording area a further 12 sites were successfully occupied (one of which is in South Yorkshire) and a total of at least 23 young fledged. At a further site, which is normally occupied, thinning work had taken place and no birds were present; however an adult was seen carrying food into nearby woodland on 20th June and a juvenile bird was seen in the area in the early autumn.

Yorkshire Dales Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

Yorkshire Dales: The problems of determining the status of this species within the area remain, with reports from two different areas but very few confirmed records. *Nidderdale:* Seems to be a bird of the past here, in small woods associated with game

management, and no birds were seen in 2016.

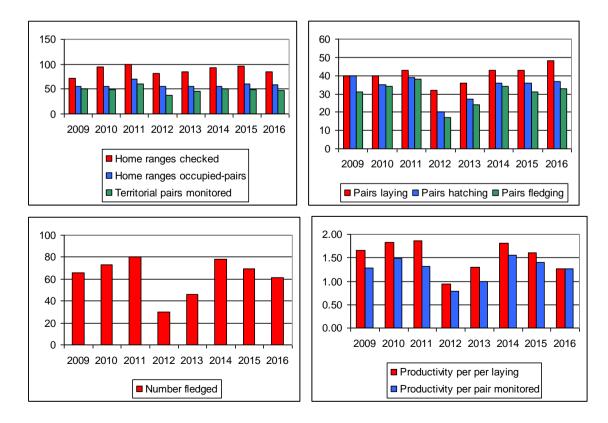
NERF regional summary

Breeding data was received from five areas in 2016: Northumbria, Peak District, South Peak, North York Moors (data withheld) and Durham.

Again, both Northumbria and South Peak held the bulk of the population, Results were similar to 2015 with Northumbria having the same number of occupied Home Ranges, 37, but unfortunately fledging fewer chicks (35 compared with 41+ in 2015). In South Peak, numbers fell slightly with 12 occupied Home Ranges (13 in 2015) fledging 23 chicks (26 in 2015).

It is good to report that the Upper Derwent Peak District population has started to recover, with 3, possibly 5 occupied Home Ranges. Durham held 4 Home Ranges but none were known to have fledged any young. A comment from here "The species remains scarce and noticeably less evident than just a decade ago" is very telling. Another example of this is from Calderdale, where only 4 sightings of Goshawks were recorded all year despite plenty of good habitat (10 sightings in 2015).

Away from these areas the Goshawk is still unfortunately a scarce bird, with very small populations, and possibly decreasing.



Comparative data 2009-2016

Eurasian Sparrowhawk Accipiter nisus



UK population estimate

In 2013 the population was estimated at 33000-35000 pairs (Musgrove *et al.* 2013, APEP 3 *British Birds* 106 February 2013). The BTO's Breeding Bird Survey report for 2016 in England showed a 22% decrease 2015-16, and overall a 21% decrease in the period 1995-2015.

National and regional threat assessment

Sparrowhawk chicks can be predated by both Pine Marten and larger raptors such as Goshawk, Buzzard and Tawny Owl. The increase in Buzzard numbers appears to be having an impact at a localised level. Prolonged cold and wet weather also has an adverse effect on the species.

There are two further issues that result in localised threats; firstly, there is a belief amongst some pigeon fanciers that Sparrowhawks are responsible for high mortality rates in some lofts, and secondly there is the erroneous belief, held by some people, that the Sparrowhawk is responsible for the long-term declines in songbird populations. As a result of these beliefs there are calls from some quarters for the Sparrowhawk population to be controlled, although there is very little scientific evidence to support these allegations.

Conservation status

UK: Green European: Not of concern

Global: Least concern

Listed as Near Threatened (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain, *British Birds* 110 September 2017)

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	3	3	NC	1	2	2	2	2	6	3	3
MRG	22	6	NC	1	6	6	5	5	12	2	2
NRG	28	19	0	0	19	16	12	10	18	1.13	0.95
NYM	4	1	NC	NC	1	1	1	1	4	4	4
PDRMG	15	9	NC	0	9	9	8	7	28	3.11	3.11
TOTAL	72	38	0	2	37	34	28	25	68	2	1.83

Group Reports

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Sparrowhawk is not a currently a target species for the Group, and our focus is on species that are believed to be more vulnerable. Consequently, only 3 home ranges were checked. Two pairs are known to have fledged a total of 6 young; however, considering the number of sightings (132 recorded during the year) and given the amount of suitable habitat available, it is highly likely that other pairs bred in the study area successfully but went unrecorded.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

No monitoring of this species was undertaken by the group in 2016

Displaying birds were noted at a number of localities across the county. Further work in locating nest sites is required.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. There are no structured studies of any local populations; the continuing health of the population as a whole may be judged from the fact that the Sparrowhawk is the most widely reported raptor by members of the Durham Bird Club.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. Despite over 250 records reported to www.manchesterbirding.com or submitted by members, there were only 7 confirmed breeding records. One attempt failed due to campers below the nest; 6 attempts were monitored throughout the season and 5 pairs produced 12 young; the outcome of the fifth nest was unknown.

An analysis of records, using frequency of sightings, dates and behaviour suggested that territories were held at 15 other sites, but this is surely an underestimate.

Northumbria Ringing Group

Extent of coverage: Part of upland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Data was received from two areas:

Border Forest, Kielder: 14 occupied territories were found, 11 pairs laid eggs, 7 clutches hatched, and 6 nests fledged 11 young.

One nest with large young failed after being predated by a Goshawk.

Slaley Forest: 5 occupied territories. 5 pairs laid eggs, 5 clutches hatched, 4 nests fledged 7 young.

One nest at Slaley failed at small young stage when it collapsed.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. This is not a priority study species for the Group, however, nests are occasionally encountered during other woodland operations, and any breeding attempts located are routinely monitored to outcome. In addition, previously identified territories are usually checked out.

The single nest monitored was at one end of a small conifer plantation approximately 100 x 150 metres in size with, surprisingly, a successful Buzzard nest at the other end. A brood of 5 was ringed at the nest but there was clear evidence on a late visit that one chick had been predated by a Tawny Owl. The remains of the nestling were on the ground some 15 metres from the nest intermixed with a substantial number of owl feathers indicating a fair struggle had taken place. The rest of the brood were recorded as safely on the wing. Judging from general observations of birds over the course of the year, the NYMs Sparrowhawk population is probably at a reasonably healthy level.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Other commitments resulted in a lower than usual effort expended on this relatively common species within the PDMRG area. Work did continue as usual at the long-term study area in South Yorkshire, where 10 nests were monitored, just 4 of these attempts were successful, fledging a total of 16 young. Elsewhere the group ringed 12 young from 3 nests.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

As in previous years, no specific studies of the species have been undertaken in the SPRSG area. Sightings of the species are regular and the Sparrowhawk seemingly continues to thrive in both urban and rural areas.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas. **Level of monitoring:** Occurs as a breeding species but no monitoring takes place. *Yorkshire Dales* This species remains widespread but scarce across the Dales.

NERF regional summary

The Sparrowhawk remains widespread across the NERF region as a breeding species, but is not monitored as a matter of course by the majority of the member groups. The number of home ranges checked in 2016 further reduced compared to previous years. Due to the species being relatively common throughout the NERF region and the limited manpower within the raptor groups, the Sparrowhawk has in recent years been rather overlooked, with regards to detailed monitoring. The apparent number of unoccupied home ranges and nationally reported decrease in abundance highlights that this species could be worthy of further investigation by NERF members.

Common Buzzard Buteo buteo



UK population estimate

In 2009 the population was estimated to be between 57000 and 79000 pairs [Musgrove *et al.* 2013. APEP 3 *British Birds* 106: February 2013, updated using BBS trend data]. The BTO's Breeding Bird Survey report for 2016 for England shows a 2% increase 2015-16 and a 194% increase 1995-2015.

The latest BTO Population Trend graphs generally show a continuing steady upward slope for 2015.

The British breeding population represents about 11% of the European total [Birdlife International].

Conservation status

UK :	Green
Europe:	Not of concern
Globally:	Least concern

National and regional threat assessment

Whilst overall the population nationally and within the NERF area is generally healthy and growing, the BTO Population Trend graphs show a marked decrease in North West England from a peak around 2010. The overall trend also masks the more local situation where in some areas numbers remain stubbornly below the habitat carrying capacity. Non-keepered areas continue to have the best figures, suggesting a direct causal effect.

The RSPB in its *Birdcrime 2015* report published an analysis of the 176 individuals convicted of bird of prey persecution over the period 1990 – 2015. This shows that 68% were gamekeepers, 6% other game-related, 7% taxidermists, 5% pigeon fanciers and 4% farming interests.

The *Birdcrime* report confirms the shooting of 16 Buzzards and the poisoning of another 15 in 2015. Of course many incidents go unrecorded where corpses are not found. Within the Forum's area Aldicarb, Carbofuran and/or Alphacloralose were detected in Buzzard poisoning cases in Cumbria, Northumberland and North Yorkshire.

Group Reports

(see page 49 for NERF data)

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage: casual monitoring of a few pairs.

Many Buzzards breed in the farmland areas, but pairs which attempt breeding in the uplands suffer persecution by gamekeepers associated with driven grouse shooting. Individuals with wings showing evidence of shot damage are regularly noted. An established nest site in the fells was lost when the host tree fell in 2015.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage; at least 2 monitoring studies .

Common Buzzards are expanding in both numbers and range throughout Calderdale. Altogether 260 records were received from 50 separate areas across the study area but the number of known breeding birds remains disappointingly low. A minimum of 6 pairs are known to have fledged 2 young each.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Whilst the county as a whole produced over 550 sightings, fewer reports came from the upland areas this year with only 29 sites producing regular reports. Hamsterley Forest provided the only record of a large group with 10 birds together in late March, contrasting

with several spring sightings of 10-13 birds together at various sites in the east where the population continues to expand. Buzzards are difficult to monitor within the study area, where the priorities now lie with other species, as Buzzards have become so well established across the county.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. One nest failed due to Crows. At another nest in a large Hawthorn, adults were feeding young but the outcome was not known. Breeding was strongly suspected at 3 other sites, with birds carrying nesting material, and display was noted at another 5 sites. Of the 13 nests where the number of young was known, 5 fledged 2 young each and 8 fledged one.

As usual this species was difficult to monitor and an analysis of records from www.manchesterbirding.com and members' records suggested probable breeding at a further 34-36 sites.

Sightings in double figures came from a Wigan Flashes roost (10 birds) in February; and in March, over Elton (Bury), 11 were seen on 31st and 13 on 10th. A remarkable 39 flew south over the vismig watchpoint at Winter Hill on 7th September.

Northumbria Ringing Group

Extent of coverage: Part of upland areas.

Level of monitoring: Good coverage; at least 2 monitoring studies.

Data was received from three study areas:-

Border Forest Kielder. 50 nests were found of which 22 were successful, fledging 28 young. This productivity was better than expected given the very low Vole numbers. Corvids and thrushes became the main prey species.

South Cheviots/MOD Otterburn. 55 occupied territories were found. 35 territorial pairs were monitored of which 10 pairs were known to fledge 12 young. Buzzards are now the commonest raptor in this area and dominate at most Goshawk nest sites.

North Cheviots. 32 occupied home ranges were found.

A recovery of a 10 year old bird ringed in 2006 at Kershope Forest (Cumbria) and found injured at Stockton on Tees was an interesting movement.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Poor coverage: casual monitoring of a few pairs.

Regrettably, group manpower is insufficient to allow this species to be studied in depth. The speed of colonisation over the last decade or so has been awesome. Pairs are now breeding just about everywhere in the North Yorks Moors although grouse moors and their perimeters, not surprisingly, are less productive. Fledged young were reported anecdotally from all compass points of the area. The pair detailed in the table bred at one end of a small conifer plantation measuring approximately only 100 x 150 metres in size and a Sparrowhawk pair nested successfully at the other end. Only one Buzzard fledgling was observed.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study.

Other commitments resulted in a lower than usual effort expended on this species within the group's study area. Failures continue to be common in areas adjacent to grouse moors, where

just 2 of the 9 nests monitored were successful, fledging 4 young. Away from the grouse moors 15 nests (out of 20 attempts) successfully fledged 22 young.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. The Group no longer systematically monitors the species as it is now so widespread. A continued lack of successful breeding adjacent to the Upper Derwentdale grouse moors points towards persecution as the likely cause. An interesting record came from one site in NE Derbyshire where a pair of Buzzards repaired an old Raven's nest on a disused quarry face and raised one young.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as breeding species but no monitoring takes place.

Yorkshire Dales: This species remains widespread in the Dales but there is no estimate of the breeding population.

Nidderdale: Buzzards have bred in Nidderdale since 1988; however, there are some areas within that which no longer host pairs. In the grouse moor areas it has become much scarcer over the last 10 years and it seems likely that few pairs now breed successfully in these areas, particularly the upper dale above Ramsgill and in the vicinity of the Masham Moors. Persecution was evident during the year with birds poisoned and shot and found by members

Persecution was evident during the year with birds poisoned and shot and found by members of the public.

NERF regional summary

Within the area covered by the member groups of NERF, the species continues to recover after decades of persecution. However, the relatively limited success of breeding Buzzards in many upland areas of northern England is still evident and contrasts increasingly with the very evident growth experienced in the lowland areas, which, significantly, are usually unkeepered.

Many groups noted a clear pattern of failures in and around grouse moors. There is no doubt that more casual disturbance takes place which prevents many birds from settling down to nest. The RSPB's *Birdcrime 2015* Report details specific evidence of continued persecution of the species through both shooting and poisoning across the region.

Comparing the total figures for Buzzards in the NERF region since the first of these Annual Reviews was published in 2009 to the 2016 returns produces interesting results:

Both the *Home Ranges Checked* and their *Occupancy By Pairs* totalled 261 in 2009 and 230 in 2016, although this masks the changes in effort over the period between member groups in studying the species as the population has grown across the whole of the NERF region. South Peak RSG for example no longer records these figures given the population growth that has occurred in its area.

Territorial Pairs Monitored Through The Season totalled 149 in 2009 compared to 138 in 2016 but monitoring effort has also varied between respective groups over time and there has been some tightening of the definition of "monitoring" used by the groups.

Productivity Of Young Fledged Per Pair Laying was an average of 1.36 in 2009 and 1.57 in 2016.

Young Fledged Per Territorial Pair Monitored averaged 0.93 in 2009 and 0.72 in 2016.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CRSG	10	10	0	NC	6	6	6	6	12	2	2
DUBSG	29	29	NC	NC	1	1	1	1	2	2	2
MRG	17	17	NC	1	16	16	13	13	18	1.13	1.13
NRG	137	137	0	NC	85	10	10	32	40	4	0.47
NYMUBSG	4	4	NC	NC	1	1	1	1	1	1	1
PDRMG	33	33	NC	4	29	29	20	17	26	0.9	0.9
TOTAL	230	230	0	5	138	63	51	70	99	1.57	0.72

Osprey Pandion haliaetus



UK population estimate

203-237 breeding pairs were estimated by RBBP in their 2014 report (Holling, M. *et al.* Rare breeding birds in the United Kingdom in 2014. *British Birds* 109: September 2016 491-545), with a minimum of 378 young fledging – the first time in over a century that the number of known breeding pairs in the UK has exceeded 200.

APEP 3 estimates 200-250 pairs, 2006-10 (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013) The Bird Atlas 2007-11 found an increase of 68% since the last atlas (1988-91) with expansion into northern England and Wales and a successful relocation programme at Rutland Water.

Conservation status

UKAmberEuropean3: Concern, most not in Europe; rareGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981.Listed as Near Threatened (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds inGreat Britain, *British Birds* 110 September 2017)

National threat assessment

Ospreys are generally liked by most people, or at least tolerated, and as the population has expanded they have had to move into more areas closer to people, nesting in country parks, and near footpaths etc. This has brought about new threats, disturbance by birdwatchers or photographers, fisherman, farmers and walkers. There is still a concern about egg collectors, and the ever-present threat that a bird might be persecuted, but these are minor as the popularity of the Osprey with nest cameras, blogs, and even live viewing continues to grow. The threats to these birds can be well-managed.

NERF regional threat assessment

As the species extends its breeding range within the NERF region there will be an increased requirement for members to monitor nests and provide advice to land owners to reduce any potential conflicts.

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
NRG	4	4	0	0	4	4	4	4	11	2.75	2.75

NERF Data

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas. **Level of monitoring:** Not known to occur here as a breeding species. Seen annually, usually in spring, on passage. A platform has been erected at a suitable site.

Calderdale Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur here as a breeding species.

Ospreys are only observed as a passage migrant crossing the study area in spring and autumn. In 2016 only 2 sightings were reported; a single bird was seen flying north on 4th April and the second bird was noted flying south on 28th August.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur as a breeding species in the county. The first spring returning birds moved north through the area 28th March and there were a

further 6 sightings in April in what was a relatively poor showing. The vast majority of reports during the summer concerned 1-3 birds lingering around a northern reservoir though there was no breeding attempt. Last reported from here on 11th September.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Not known to occur here as a breeding species.

There were 11 passage records in spring, and 4 in autumn, all singles submitted to www.manchesterbirding.com. First and last dates were 25th March and 19th September. Consideration has been given to the erection of a platform at Rivington Reservoirs but for various reasons it is not feasible.

Northumbria Ringing Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study.

2016 was another very good year for Ospreys, with 4 pairs nesting for the first time,

including our first brood of 4 chicks: the other nests had broods of 2, 2, and 3.

Another 2 birds spent the summer in the area but it was unclear if they were a pair, or of the same sex.

A further 13 birds were seen, often intruding at nests and identified by their colour rings over the breeding season, as well as other unringed birds.

There are many birds seen on passage or hanging around in later summer in the county, so hopefully it's only a matter of time before the population starts to spread out.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Not known to occur here as a breeding species.

The only records to come to hand were supplied by the Teesmouth Bird Club. All occurred between 30th March and 27th September at Lockwood Beck and Scaling Dam Reservoirs – principally the former, (18:5). Although an artificial nest platform has been erected at Scaling, Lockwood Beck has features that closely mirror characteristics of a Scottish loch,

therefore this reservoir may appeal more to the species and thus be a better bet for a future nest!

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas. Level of monitoring: Not known to occur here as a breeding species. An annual passage migrant.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

Ospreys are seen quite frequently in the spring and the autumn months, with the increase in populations around the UK resulting in sight records throughout the study area. There were numerous sightings of a bird feeding, whilst perched on a small post on Beeley Moor during the season; it was thought that this bird was fishing at Ogston Reservoir. Contrary to some rumours, it can be stated that Ospreys did not breed in the Peak District in 2016, but there were very encouraging signs that colonisation may be imminent. Action is being taken to try to encourage this, and we hope to be able to say far more in future reports.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

Yorkshire Dales: A passage migrant in spring and autumn.

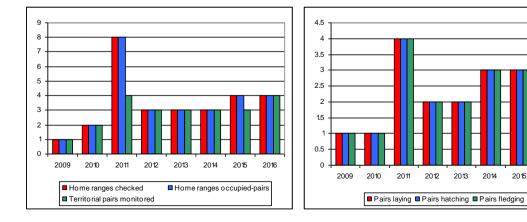
Nidderdale: An increasing migrant in both spring and autumn with occasional birds summering including apparent pairs. There was, however, no summering in 2016 although plenty of migrants passed through at both seasons.

NERF regional summary

A record year in Northumberland, the only NERF area with breeding birds, where 11 chicks fledged, easily surpassing the 2014 record of 8. For the first time, there were 4 nests, and 2 other adults summered. The number of passage birds bodes well for the future.

Elsewhere, the erection of 4 artificial platforms at large waters will surely encourage breeding in other areas before too long.

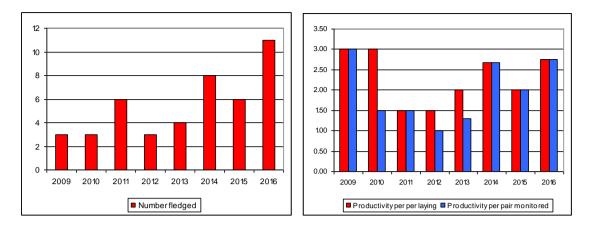
The "Near Threatened" status in the recent article on extinction risk, referred to above, was because of the small population nationally.



Comparative data 2009-2016

2015

2016



Barn Owl Tyto alba



UK population estimate

The Bird Atlas 2007-11 suggested an expansion of 67% since the 1988-91 Atlas, due to nestbox schemes, mild winters and agro-environment schemes. Musgrove *et al.* (2013 APEP 3: *British Birds* 106: February 2013) gives a figure of 4000 (3000-5000) based on the now rather old survey date of 1995-1997. The work done by the many Barn Owl groups around the country to increase the number of boxes, especially at higher altitudes where they were not thought to breed in any numbers, may have resulted in a considerably higher population today.

The Barn Owl Trust commented, in their annual publication *The state of the UK Barn Owl population 2016* that overall, 2016 was a rather poor year for Barn Owls in the UK but with marked geographical variation. Most Barn Owls in the west did rather better than those in the east, with the exception of Northumberland (25% up on all-years average). Weather was the main factor affecting productivity, with a cool wet spring preventing females from attaining enough weight to breed. More settled weather in late summer resulted in many late broods.

Conservation status

UKGreenEuropean3: Concern, most not in Europe; decliningGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981Listed on Schedule 9 of the Wildlife and Countryside Act 1981. Barn Owls cannot bereleased into the wild without a licence from Defra.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	34	7	4	0	7	7	7	7	15	2.14	2.14
CaRSG	8	3	5	2	1	1	1	1	3	3	3
ChRSG	1770	153	14	4	153	153	153	153	367	2.39	2.39
MRG	81	24	9	2	24	24	24	24	74	3.08	3.08
NRG	225	74	5	2	72	72	58	55	162	2.25	2.25
NYMUBSG	52	16	4	2	14	14	13	13	39	3.17	3.17
PDRSG	10	3	0	0	0	0	0	0	0	0	0
SPRSG	3	3	NC	NC	3	3	3	3	7	2.33	2.33
YDRSG	11	2	0	2	0	0	2	0	0	0	0
TOTAL	2194	285	41	14	274	274	261	256	667	2.62	2.62

National and regional threat assessment

The usual ever-present threats of habitat destruction, barn conversions and reductions in agrienvironmental schemes, together with deaths due to traffic collisions and other accidents due to the human environment, are somewhat balanced by an increasing interest in helping this species, due to its photogenic appeal. Barn Owl came third in a national vote for Britain's most popular bird in a vote in 2015, despite the fact that many people who voted had probably never seen one. The Barn Owl Trust also suggests that improvements in box design should be incorporated into replacements or new boxes, to increase owlet survival – chicks which drop onto the floor from boxes often die if they are too young to return of their own accord.

Group reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. This species almost certainly suffered due to a lack of voles in Bowland this season. Only 7 pairs fledged young this year compared with 30 in 2015.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Breeding Barn Owls are very rare in Calderdale and it is very encouraging that 51 records were received from 13 different locations during 2016. Three pairs were located in spring; however only one pair went on to breed in a box installed by the group in 2015. Four chicks hatched; unfortunately the smallest disappeared, possibly eaten by its parents or siblings.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. 45% of adults trapped at nest sites were unringed, proving that the population is open with a healthy floating population which take up any vacancies in territories. A female Barn Owl pullus ringed in 2005 in Bostock Cheshire was caught by the Shropshire Barn Owl group in 2016 breeding in one of its nestboxes, at 11 years old, a good age for a female but a little short of the record which is 14 years for a female Barn Owl recorded in Berkshire. But still very noteworthy!

Durham Upland Bird Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

The Barn Owl is now benefiting from a nest box scheme being rolled out by the Durham Bird Club. Reports came from over 40 locations in the county in the first quarter of the year. This included one area of upland moor fringe which hosted an astonishing 7 birds in March. Later in the year, post breeding, another site attracted 10 birds. These exceptional counts are clearly indicative of a healthy population.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. The number of pairs laying eggs was down on last year by 2 but the number of chicks presumed fledged was up at 75 from 55 last year. Ninety-nine fledged in the bumper year of 2014 so this could be perhaps described as an average year. Five new sites were counterbalanced by non-breeding at 5 sites used last year – 4 of these were in Rochdale. The largest brood was 6 but these owlets were maintained by supplementary feeding. There were 2 broods of 5, both in Wigan.

Once again there were several sites where breeding was strongly suspected but for one reason or another, a check could not be made.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage.

The total for Barn Owl for 2016 looks very healthy. Although down on 2015, it is evident that the population has recovered from the bad winter of 2010-11.

Very few pairs nested in the uplands in 2016. Those which tried mostly failed, with the voles being very poor, and even a lot of the pairs on the low ground delayed their breeding until later, with many not fledging young until late August or September

With the bulk of the population nesting on low ground in 2016, thanks go to Phil Hammar for the use of his data, along with other NRG members.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

North York Moors Upland Bird Study Group	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
Scheme A	35	14	4	2	12	12	12	12	38	3.17	3.17
Scheme B	17	2	0	0	2	2	1	1	1+*	NC	NC

*Exact number fledged was not known

Scheme A: Is a South Cleveland Ringing Group nest box scheme. There was generally good overwinter survival 2015/16 and a productive season was anticipated. However, results were very variable, broods, with the odd exception, being generally small, and most pairs were late in laying. Presumably low rodent populations were the cause – prey larders were never found at any site. Reports continue to come in of mainly single birds occupying new sites indicating good fledging survival. Severe winters notwithstanding, the future looks reasonably rosy for this species in the NYMs.

Scheme B: Run by Geoff Myers on the western perimeter of the NYMs. Results from this scheme continue to be very disappointing. This operation also extends out on to the Tees plain. Results from these Tees plain boxes (<u>not</u> included in the above table), were in direct contrast to the NYMs results with 21 Boxes checked, 11 occupied, 11 pairs hatched eggs, 10

producing a total of 30 fledged young – virtually on a par with 2015 productivity, and closely mirroring the NYMs Scheme A productivity figures above.

Scheme C: Covers the south-eastern area of the national park and is run by Pawl Willet. No work was carried out on the species in 2016 due to his ill health over the season.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor; casual monitoring of a few pairs.

Three pairs of Barn Owls were recorded in the PDRMG study area. However, no breeding activity was recorded in 2016.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. In the SPRSG recording area, 3 broods of Barn Owls were raised on the Chatsworth Estate: at least 7 young fledged, but none were ringed.

Yorkshire Dales & Nidderdale Raptor Study Group

Yorkshire Dales

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

There were widespread reports of Barn Owl from across the Dales but results from a nest monitoring scheme show that it was a disastrous year with no young fledged from any of the nesting attempts monitored.

Nidderdale

Extent of coverage: Part of upland areas.

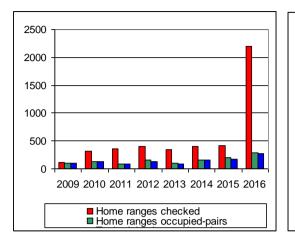
Level of monitoring: Occurs as a breeding species but no monitoring takes place. No nest monitoring, but from casual observations and information from other birders there are at least 4 pairs of Barn Owls in the northern part of the Nidderdale AONB.

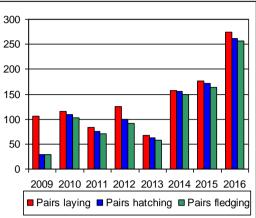
NERF regional summary

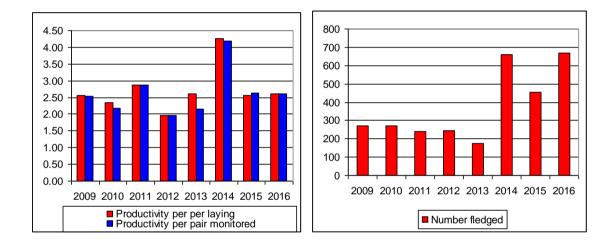
The inclusion for the first time of Cheshire RSG, who joined NERF in 2016, increased the number of fledged young by a third. Taking their total of 367 out of the overall total leaves 300 young in 2016 compared with 453 in 2015 – a considerable decline. This was most noticeable in Bowland, down from 85 to 15, and North York Moors, down from 77 to 39. In contrast Manchester's total was 74 compared with 55 in 2015. These results mirrored the Barn Owl Trust's conclusion of a patchy year. There were several reports of females not attaining sufficient weight to breed, and also of later successes as the vole population improved in the more settled weather of late summer.

At least 3 groups are still expanding their nest box schemes, and these, if correctly sited, will undoubtedly add more breeding pairs to the population.

Comparative data 2009-2016









Little Owl Athene noctua



UK population estimate

The current estimate is 5700 pairs (summer) as at 2009 (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013). The BTO's 2016 Breeding Bird Survey Report shows a 28% increase 2015-16 and a 57% decrease 1995-2015. Similarly in mainland Europe the decline of Little Owl has resulted in its listing as a Species of European Conservation Concern.

Conservation status

UK	Not assessed
European	3: Concern, most not in Europe; declining
Global	Least concern

National and regional threat assessment

The CBC/BBS trend for Little Owl in the UK shows very wide variation, but a downturn in recent decades suggests that a rapid decline now lies behind the observed fluctuations. The UK's Little Owl population has declined by 65% in 25 years 1988 – 2013 (BTO BirdTrends). There is as yet little direct evidence to explain the losses in the UK but continental studies suggest poor survival rates for juveniles to be a primary driver linked to changes in farming practices and habitat.

The UK Little Owl Project, set up in June 2015 by conservation biologist Dr Emily Joáchim, with the assistance of Andy Rouse Wildlife Photography, aims to further our understanding of the Little Owl's ecology in the UK. They want to support, develop and promote new and existing UK Little Owl research projects. This includes projects which monitor Little Owl nests, record biometrics, habitat use, diet, vocalisations and juvenile survival rates. They have set up a UK Little Owl sightings project for more information (www.littleowlproject.uk). Reports and geographic spatiality can be viewed on this site.

NERF data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	20	7	13	NC	1	1	1	1	1	1	1
ChRSG	5	5	NC	NC	5	5	5	5	13	2.6	2.6
MRG	30	4	NC	0	3	3	3	2	5	1.66	1.66
NRG	20	3	0	0	1	1	1	1	1	1	1
NYMUBSG	3	2	2	0	2	2	2	1	1	1	0.5
TOTAL	78	21	15	0	12	12	12	10	21	1.75	1.75

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

The Little Owl breeds at a traditional site which is monitored casually on passing. Success can be proved when the chicks can be seen standing together on the roof of the old barn on warm sunny days.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study.

130 sighting records were received but these only mustered 7 pairs occupying sites, with little specific monitoring of outcomes available.

Cheshire Raptor Study Group

Extent of Coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage: casual monitoring of a few pairs.

Nests are recorded at a number of localities across the county, but further work in locating sites and output would be beneficial. Some sites were monitored with 5 adults and 13 pulli ringed. Projects involving orchard habitats and nest box provision have been instigated.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. The Little Owl remains uncommon around upland fringes and in the valleys of the midsection of the main river systems. Most territories are around the eastern lowlands and less commonly on the upland fringe. There is no structured monitoring.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Using records submitted to www.manchesterbirding.com and from others, there were records from a total of 30 locations but breeding information came from only 3 of these. Numbers still seem to be recovering after being hit hard in the 2009/2010 and 2010/2011 winters.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. The nest study in south-east Northumberland was poor again and only had one nest which fledged a single chick. In the Tyne &Wear area 2 pairs were located, but not followed through, so the outcome is unknown. With a growing interest in this species, another study has been started, with 10 boxes erected in 2015. Sadly none of these were occupied in 2016.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. This species receives little targeted attention from the Merlin Group. However it does exist at a low density over the study area, being thinly distributed over farmland in the valleys and dales and moorland edge/in-bye habitat. Three sites were checked, and 2 occupied sites were recorded, with one of these producing 2 chicks failing before fledging. Around the periphery of the study area Little Owls seem to do well, in lowland areas as demonstrated by Geoff Myers' successful monitoring in the Tees Valley with 5 boxes occupied, and 3 of these producing at least 6 young (not in table as outside study area)

NERF regional summary

The Little Owl's preference for lowland, open arable habitat with old trees, mature hedgerows or farm out-buildings for nesting produces a bias away from it being seen and reported by RSG field-workers whose activities focus them into upland terrain. Nevertheless, the species can be found in the NERF recording area at lower elevations though not at any great density.

For those sample areas studied the relatively low yield of occupied home ranges is noticeable compared to the number of traditional territories checked by members. Fledging rates remain only modest.

Tawny Owl Strix aluco



UK population estimate

In 2005 the population was estimated at 50000 pairs (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013). The Bird Atlas 2007-11 suggests a shallow decline of 17% 1967-2010 but the reasons for this are unknown. The BTO's Breeding Bird Survey 2016 suggested a 36% increase 2015-16 and a 29% decline 1995-2014 with the caveat that nocturnal species are covered poorly by the scheme; for example the 2014 BBS found a 71% increase 2013-14!

Conservation status

UKAmberEuropeanNot of concernGlobalLeast concernListed as Near Threatened (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds inGreat Britain, *British Birds* 110 September 2017)

National and regional threat assessment

The UK breeding population of Tawny Owls has fallen by about a third over the last 25 years. This has resulted in the species being moved from Green to Amber in the 4th edition of *Birds of Conservation Concern* published in December 2015.

The source of threats to the well-being of these birds these days stem principally from potential harmful effects of present generation rodenticides through consumption of poisoned prey, and the usual targeted persecution by gamekeepers of individuals having the temerity to visit Pheasant co-ops! Road casualties occur, but not to a degree that could affect populations significantly, whilst some broods in the larger forests are undoubtedly predated – most probably at the fledging stage – by Goshawks that might be nesting close by. The increasing population of Buzzards might also now possibly be creating some conflict between the two species.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CRSG	21	7	0	0	7	7	6	6	9	1.29	1.29
MRG	58	41	16	2	27	27	26	26	43	1.59	1.59
NRG	224	38	0	0	38	38	30	20	31	0.82	0.82
NYMUBSG	33	12	NC	NC	11	12	9	8	16	1.33	1.45
PDRMG	7	6	NC	0	5	5	5	5	8	1.6	1.6
TOTAL	343	104	16	2	88	89	76	65	107	1.2	1.22

Group Reports

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Tawny Owls were reported to be present in woodland areas across the study area. The Group has a nest box scheme in place for this species and a third of the boxes were occupied by Tawny Owls in 2016; 2 other boxes were occupied by Stock Doves. The breeding season appeared to start well; however the collapse of the local vole population affected the outcome at the end of the season. One pair failed to hatch eggs and chicks were found dead at 2 other sites. Eight chicks were ringed.

Cheshire Raptor Study Group

Extent of coverage: Poor coverage; casual monitoring of a few pairs.

Level of monitoring: Whole County.

Nests at a number of localities across the county: 15 nestlings were ringed this season. A number of nestbox schemes have been initiated over 2016 in order to increase monitoring of the species.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Whilst remaining by far the commonest owl in the county there are unfortunately no current local population studies.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Breeding failed at 2 sites: a male trapped itself in a chimney, and another male died of some unknown disease. It was generally held to be a poor season with broods later than usual due to a cold spring. Only 16 boxes (included in the 28 sites above) checked by Peter and Norma Johnson were occupied compared with 25 last year; the 16 boxes produced 28 young (av. 1.75 per box) compared with 49 young (av. 1.96) last year. At one site 3 eggs were known to have been laid but the outcome was unknown.

There was probable breeding at 6 sites, and possible breeding at another 6. Single sightings came from 16 more sites. Given the sedentary nature of this owl it is likely that these were also territories.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

2016 will go down as one of the poorest breeding seasons ever for this species in Northumberland. With the vole population crashing, most pairs had a year off, with large numbers moulting during the summer and not even attempting to nest. Data was received from 6 areas. Only 38 pairs laid eggs (75 in 2015), fledging just 31 young (162 in 2015). The two studies in Cumbria at Kershope and Grizedale forests fared even worse. Just 8 pairs nested (34 in 2015), with no chicks fledging at all. A dire season all round.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

The data below refer to the South Cleveland Ringing Group owl box scheme. Productivity in regard to the number of chicks fledging was a distinct improvement on the figures for the previous 4 years. However, the 2012/16 year band figures below reveal a fall-off in box occupation and nest failure rates. Although the average brood figure for successful nests compares very closely to those for earlier 5-year bands going back to 1992/96, the average productivity figure for all nests is the lowest recorded since the earliest band 1977/81. Another nestbox operation is in place for the species to the west of the moors, run by Geoff Myers. However, of just 4 boxes checked, not one was occupied. This scheme also extends out on to the Tees plain. Results from these latter boxes (not included in the above table),

were: 8 boxes checked, 3 occupied, producing a total of just 4 fledged young.

Tawny Owl Annual Productivity Data – North York Moors

Year Band	No. of sites	Number occupied	% 0CC	No. successful	Young ringed	Avg per succ. Nest	Avg all nests
1977-81	202	55	27.2	29	69	2.4	1.25
1982-86	174	46	26.4	34	72	2.1	1.57
1987-91	169	54	31.9	41	83	2.0	1.54
1992-96	150	33	22.0	29	51	1.8	1.55
1997-01	109	24	22.0	18	32	1.8	1.33
2002-06	128	38	29.7	28	50	1.8	1.32
2007-11	154	44	28.6	40	68	1.7	1.55
2012-16	145	33	22.9	22	39	1.77	1.18

Large Nestbox Scheme (A)

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Tawny Owls were not prioritised by PDRMG in 2016. Just 7 sites were checked, 6 were occupied and 8 young fledged from 5 pairs (the last pair was not revisited).

Yorkshire Dales & Nidderdale Raptor Study Group

Yorkshire Dales:

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

No indication of any change in status.

Nidderdale

Extent of coverage: Part upland areas

Level of monitoring: Reasonable coverage: at least one long-term monitoring study Occurs relatively commonly but no monitoring takes place so no data is gathered. It is possible some birds in pheasant-rearing woods are persecuted.

NERF regional summary

In general the species appears to have experienced either a fairly moderate season or poor one in regard to both the numbers of pairs occupying sites and brood productivity. Conversely the NYMs nest box operation had its most successful season for some years. This was due mainly to broods of 3 chicks in boxes sited fairly closely together on the outskirts of a village alive with rabbits, which the adults were predating. Elsewhere, the impression was that voles were in short supply over the NYMs and perhaps this was the case right across the region. The long-term NYMs box study does clearly indicate an appreciably higher nest failure rate over the last 5 year period than occurred over earlier 5-year bands.

Long-eared Owl Asio otus



UK population estimate

The latest population estimate is 1800-6000 pairs (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013). It is certainly under-recorded, because of the wide range of habitat used. Where an intensive study is carried out, numbers found are always considerably higher than thought. The Bird Atlas 2007-11 found a decline of 19% since the 1968-72 atlas.

Conservation status

UK:Green. Added to the RBBP monitoring list from 2010.European:Not of concernGlobal:Least concern

National and local threat assessment

The main threat to Long-eared owl appears to be competition for habitat with Tawny owls and predation from larger raptors. Breeding attempts are affected by prey availability and in poor vole years large numbers of adults do not breed; those that do breed produce smaller clutches.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CRSG	14	3	2	2	1	1	1	0	0	0	0
MRG	7	7	2	5	2	2	2	2	4	2	2
NRG	23	6	1	4	2	2	2	2	2	1	1
PDRMG	11	0	0	0	0	0	0	0	0	0	0
SPRSG	5	0	NC	NC	NC	NC	NC	NC	NC	NC	NC
TOTAL	60	16	5	11	5	5	5	4	6	1.2	1.2

Group Reports

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. In 2015 the Group located 13 pairs; 11 of which were successful fledging in excess of 34 young. Things could not have been more different in 2016. As with other species the local vole population crash had a dramatic negative effect on the outcome at the end of the season. One young bird was heard hunger calling in June on one occasion. Nothing was heard on subsequent visits and it is believed that the bird died, most likely of starvation.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Nesting attempts were reported at a number of localities across the county; however no formal monitoring took place. Further work in locating nest sites and monitoring breeding output is required.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Generally under-recorded, without any long-term monitoring being undertaken. Impressions given from Durham Bird Club member reports suggested that the species was unusually scarce in 2016. The largest roosts recorded during the year were of just 3 and 5 birds.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. In a disastrous year for this species, there was no breeding in the east where 5 territories were monitored by Bob Kenworthy. A pair bred in the south-east and fledged 2 young and there was breeding at a new site in the west where 2 young were heard calling.

Other records of singles came from Ashworth Moor Reservoir 19th March and a regular site in May.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Data was received from two areas:

In the study at Kielder, it was the worst year since the mid-1980s with only 4 territories occupied. Of these, only one pair was thought to have had eggs and here the breeding female was predated by a Goshawk.

It is known that the vole population crashed, with the result that the owls struggled to feed and to achieve breeding condition.

In the other area on the Northumberland /Tyne &Wear border, 2 territories were occupied, one of which fledged 2 chicks.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

No nests were recorded in 2016. In fact, no records were received at all.

The pair that occupied the site in 2014 and 2015, (when the well-grown brood was predated by a presumed Goshawk), fortunately had abandoned this stretch of conifers, as the Goshawk nested in it this season. It is widely accepted that Long-eared Owls are difficult to monitor and require a considerable amount of dedicated fieldwork to do so. North York Moors Upland Bird (Merlin) Study Group does not have the resource to commit to even a rudimentary survey at this point in time. There exists an abundance of suitable habitat for the species, but the accepted view is that the NYM population exists at a low density with pairs sparsely distributed across the study area.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Unlike 2014 and 2015 when a high breeding density was recorded for this species, no evidence of Long-eared Owl occupation was recorded at any of the 11 sites visited in 2016. Not all the historic Long-eared Owl sites were checked due to other commitments, and there was a lack of evidence of breeding at the 11 sites checked.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. After a relatively successful year in 2015 in the SPRSG area, it appears that 2016 has been a very poor year for this species. There have been no sightings in the Beeley Moor area since Sitchs Plantation was partly felled in late 2015.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Yorkshire Dales

No formal monitoring of this species takes place, but normally a few pairs are reported each year. No records were received in 2016 with birds absent from a number of sites occupied in recent years.

NERF regional summary

Although Long-eared Owls are notoriously difficult to monitor, there are several studies undertaken within the NERF region. Distribution is subject to under-recording owing to the discrete nature of the species and a lack of manpower.

An apparent lack of small mammal prey in 2016 was reflected in a poor breeding season for Long-eared Owl in all of the NERF member group areas. A high proportion of recorded pairs failed to breed and those that did breed produced low numbers of fledged young. Moorland fringe conifer plantations appear to be an important habitat for this species, a habitat that is being reduced significantly due to forestry work being undertaken in many of the study areas.

Short-eared Owl Asio flammeus



UK population estimate

The UK population fluctuates markedly from year to year due to natural factors, mainly associated with vole numbers, and the latest estimate is within the wide range 620-2180 pairs (Musgrove *et al.* APEP3: *British Birds* 106: Feb 2013). The birds' often secretive behaviour on the breeding grounds and the annual fluctuation in home range occupancy makes it an especially challenging species to survey with any degree of accuracy, and an element of under-recording seems inevitable. Overall a long-term decline in breeding pairs has been apparent (BTO Bird Atlas 2007-11) which resulted in the RBBP beginning to include the species in its reports from 2010.

Conservation status

UKAmber. Added to the RBBP monitoring list from 2010.European3: Concern, most not in Europe; depleted

Global Least concern Listed as Endangered (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain, *British Birds* 110, September 2017)

National and regional threat assessment

Breeding numbers and success fluctuate with prey abundance, predominantly determined by the local vole population but possibly also by late winter and spring weather conditions. Short-eared Owls will nest early and can be on eggs by the end of March or in early April. The difficulties of surveying this species always mask any accurate assessment of populations and even in good vole years sightings can be hard to come by and interpret. Nationally the level of reports and confirmed breeding remain low (Holling, M. *et al.* Rare Breeding Birds in the UK in 2014, *British Birds* 109, September 2016) although the overall picture is becoming clearer with the inclusion of this species on the RBBP target list. Locally, incidents of persecution as reported in NERF's 2015 Annual Review remain of considerable concern and point to other possible causes of population decline.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	15	0	0	0	0	0	0	0	0	0	0
CRSG	7	7	0	6	1	1	0	0	0	0	0
DUBSG	27	6	6	2	4	4	NC	NC	NC	-	-
NRG	8	0	1	0	0	0	0	0	0	0	0
NYMUBSG	5	1	3	1	0	0	0	0	0	0	0
PDRMG	11	2	2	2	0	0	0	0	0	0	0
SPRSG	6	6	NC	6	6	0	0	0	0	0	0
YDRSG	10	1	0	1	0	0	0	0	0	0	0
Nidderdale RSG	3	1	0	1	0	0	0	0	0	0	0
TOTAL	92	24	12	19	11	5	0	0	0	-	-

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage over a large representative study area.

Due to an extensive crash of voles at the back end of 2015 not a single Short-eared Owl was reported in Bowland in 2016 despite normal monitoring effort.

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Short-eared Owls usually do reasonably well in Calderdale. In 2015, for example, 7 pairs fledged in excess of 16 young. 2016 started very promisingly but ended as a disaster for this species in Calderdale. Pairs were present throughout the study area in spring; however a vole population crash put an end to the breeding attempts of 6 of the 7 pairs on territory. Members of the Group continued to monitor the 7th pair and all indications were that they did lay eggs but abandoned them before they hatched.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Good coverage, several large representative areas are studied annually. After a relatively strong showing from the 2015 breeding season, (when at least 11 successful nests), the presence of birds at several upland sites over the winter and into the early spring appeared to bode well for another good breeding season. Unfortunately this was not to be and in 2016 there were just 4 confirmed breeding attempts with a further 2 sites where breeding was thought possible. The exact nest outcomes couldn't be determined but in some cases a failure at an early point in the breeding cycle was suspected. Single birds were seen during the spring and summer at 6 other sites. Observer coverage was probably above average given the extra visits to upland areas as part of the National Hen Harrier Survey methodology though some owls on "white moor" grassland may have gone unrecorded. Away from the uplands, autumn arrivals at the coast were reported from the first week of October onwards with a peak of at least 8 seen coming in off the sea on 15th and by year end 1-3 birds were to be found at 6 sites.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Breeds very rarely, so no regular monitoring.

There were no reports in 2016 of confirmed breeding, or even of territories held. This was despite the early winter having more birds than usual with 2 long-stayers on Ashton Moss, 2 on Little Woolden Moss in January and again early April, and singles during February to end of March at Saddleworth Moor, Castleshaw, Ashworth Moor Reservoir, Wigan Flashes and Hollingworth Lake. A very late bird was chased off by a Buzzard 14th May at Turn Moss in the Mersey Valley.

Autumn sighting were few, and came from Holcombe (5th September), Crompton Moor (25th October), and Little Woolden Moss from 30th October through to year end.

Northumbria Ringing Group

Extent of coverage: Upland areas only.

Level of monitoring: Reasonable coverage; at least one long-term monitoring area studied.

The only record was a single bird flushed from roosting in heather in May at Kielder. Later it or another was found plucked out by an avian predator.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Occurs as a breeding species but no regular monitoring takes place. A considerable number of autumn migrants were present in North Yorkshire in late autumn 2015 and these may have comprised the majority of the birds recorded in the area in the early part of 2016, especially those seen during January to March. Eventually these probably returned in late spring to their countries of origin. Birds were regularly recorded from 9 different sites over the first quarter of 2016 with odd sightings even through until June. Most were singles but up to 3 birds were observed at Liverton/Waupley Moors in mid-April where a pair had bred successfully in 2012, so they may just have nested there again. However, no records have been received for the latter half of the summer from any area of the NYMs, consequently there is no firm evidence of nesting having been attempted anywhere. Even recognising the species' dependence on vole numbers, it is highly suspicious that so little evidence of nesting on grouse moors is obtained by group members year after year. However, in view of the persecution incident on one NYM's estate, as reviewed in the 2015 report, one should not perhaps be surprised.

Peak District Raptor Monitoring Group

Extent of coverage: Upland areas only.

Level of monitoring: Poor coverage, casual monitoring of a few pairs. In marked contrast to the relatively high numbers reported in 2015, birds were seen displaying at only 2 sites in the study area in spring 2016 but unfortunately there were no further sightings on subsequent visits.

South Peak Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. On the North Staffordshire moorlands, at least 4 sites were occupied in late March to early April, but none seems to have been successful; the birds were out hunting very early in the day and very little display was noted; a shortage of prey was suspected to have been the issue. In the Upper Derwentdale area only one site seems to have been occupied and there was no direct evidence of any actual breeding. During the first winter period up to 3 birds were also seen regularly in the Sitchs Plantation / Alicehead area, with 2 birds sighted in early May, giving hopes for potential breeding; however these birds disappeared after a last sighting on May 15th. There were no sightings at all in this area during the latter part of the year, except for a bird picked up freshly dead at Alicehead.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage, casual monitoring of a few pairs.

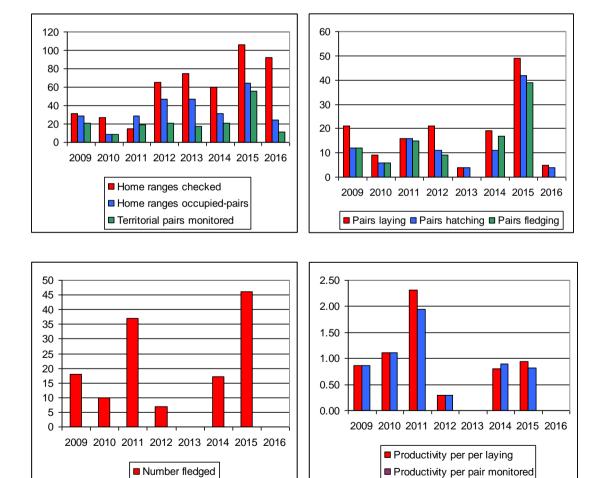
Yorkshire Dales: There is no systematic monitoring work undertaken, but a number of potential breeding records normally arise from fieldwork for other species. Numbers were very low in 2016 with only one pair reported in suitable habitat during the breeding season. This is in marked contrast to the stronger position reported in 2015.

Nidderdale: No evidence of breeding. Birds were seen in one area throughout the year but a nest could not be located. This species used to be common in the area but is now seen

increasingly rarely, particularly on the moors east of the River Nidd where intensity of management has increased over the last 25 years.

NERF regional summary

If further evidence were ever needed that Short-eared Owl breeding populations can experience huge annual variations then this is answered by a simple comparison of the 2016 results with those presented just one year ago. In 2015 the NERF monitoring area reported the "best year" since our collective recording began in 2009. In stark contrast, 2016 proved to be the poorest year with just 5 (or perhaps fewer) confirmed nests and, tellingly, no absolute confirmation of successful fledging anywhere. Each raptor study group would never claim to be able to provide a complete picture of breeding of this species but the interpretation of the 2016 season is remarkably consistent across the whole region. Despite reasonable numbers over-wintering 2015/16 and lingering into spring, the birds either then departed or attempted to nest but deserted at a very early stage. A widespread crash in the vole population appears to have been responsible.



Comparative data 2009-2016

Eurasian Eagle Owl Bubo bubo



UK population estimate

The UK population is unknown at the present time but is still likely to be small. At least 3000 are thought to be in captivity.

Conservation status

UK No category as not on the British List.

European 3: Concern most not in Europe; depleted.

Global Least concern

Listed on Schedule 9 of the Wildlife and Countryside Act 1981, Eagle Owls cannot be released into the wild without a licence from DEFRA. Importation of wild-caught birds has been banned since 2007.

National and regional threat assessment

It appears that the pilot study into the possible threat to Hen Harriers from Eagle Owls, mentioned in the 2013 Review, has now been abandoned. The chief threat to Eagle Owls breeding in Bowland is human disturbance, with anecdotal information regarding a particular egg collector.

It was estimated in 2008 that an average of 65 captive birds per annum escape annually – based on figures supplied by the Independent Bird Register and numbers registered under an CITES Article 10 certificate – many of these are not re-found. (Melling,Tim *et al.* The Eagle Owl in Britain. *British Birds* 101 September 2008 478-490)

This species is not a priority for RSPB protection as all breeding individuals are considered to be escapees. It is difficult for the 3 fieldworkers covering the Bowland area to protect nesting pairs as long as this species is not admitted to Category A of the British List where it would need to be listed as a Schedule 1 species under the Wildlife & Countryside Act 1981.

Controversy still exists as to whether, historically, Eagle Owls existed in Britain after the Ice Age and whether records in the 19th century are accurate (Melling *op. cit.*)

Within the UK there are many areas which could support this species where persecution would not be an issue and Eagle Owls seem to be very tolerant of humans working and using the area within their territory for recreation. They are however susceptible to disturbance in

the early stages of the breeding cycle and later can become very aggressive in defence of young.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRG	2	1	0	0	1	1	1	1	3	3	3

Group Reports

Bowland Raptor Study Group

Extent of coverage: Upland areas only.

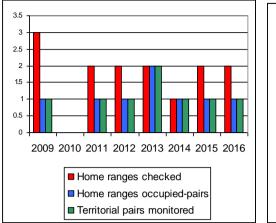
Level of monitoring: Excellent coverage; all or most sites receive annual coverage. A pair nested in a brand-new scrape this year at the extreme north of the breeding site after clearing out several old scrapes. The pair continues to attract unwanted attention and may have moved after being disturbed at one of the regular scrapes. Probably persecuted on the private estates but seems to be tolerated on the United Utilities estate.

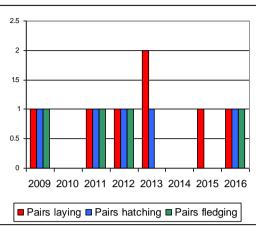
All other groups reported nil sightings.

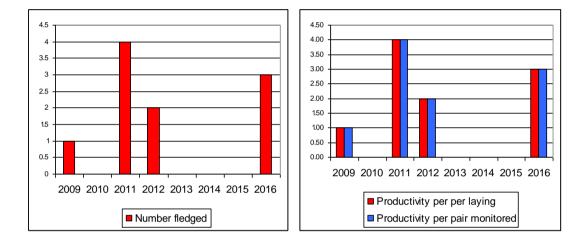
NERF regional summary

There were no records of breeding by Eagle Owls from any of the regional study areas apart from Bowland, despite suitable habitat in forests such as Kielder. A pair has been breeding, or attempting to breed, at the Bowland site for eight years and a change of female occurred in 2012. There are several reports of sightings away from the main breeding site every year which would suggest there may well be at least one other pair within the study area, but given the secretive nature of the species and remoteness of habitat, pairs could easily be overlooked. This could also apply to other study areas. Persecution and disturbance are the main reasons for failure for this species.

Comparative data 2009-2016







Common Kestrel Falco tinnunculus



UK population estimate

The Kestrel is one of the most widespread and abundant raptors in Britain, although it is absent from areas of south-west and central Wales and some upland areas of western Scotland. Densities are highest in central and eastern England, although the BTO's Breeding Bird Survey of 2016 reported a 24% reduction in the Kestrel population between 1995 and 2015 in the UK. Based on material from the BTO Bird Atlas 2007 – 2011, in Britain the Kestrel has lost its position as the most widespread raptor to the Buzzard. The most recent UK population estimate of the species, reported by Musgrove *et al.* (2013), was 46,000 individuals. The BBS report 2016 gave figures which showed that numbers in England decreased by 25% in 2015 – 16. Despite these long-term setbacks the Kestrel is widespread and perhaps the raptor species most readily identified by the general public.

Conservation status

UKAmberEuropean3: Concern, most not in Europe; decliningGlobalLeast concernListed as Vulnerable (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in GreatBritain, British Birds 110 September 2017)

National and regional threat assessment

The population is in decline nationally. This is because the Kestrel population fluctuates and this fluctuation is linked closely to the availability of prey, largely voles, which contribute c.75% of their main food supply. When vole numbers are low, a significant percentage of Kestrels may not breed. However, the main threat to the species is associated with incompatible farming practices that reduce available habitat and adversely affect food supply. With the rapidly increasing global demand for food, this situation is unlikely to change without intervention from the EU and the UK Government.

However, because many of the NERF member groups do not study this species in detail, the national decline may be being mirrored within the NERF region – yet going unnoticed.

Group Reports

(see page 80 for NERF Data)

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas. **Level of monitoring**: Poor coverage; casual monitoring of a few pairs. The species undoubtedly suffered in 2016 because of the low vole population.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

There were 253 records from across the study area during 2016. Whilst this may seem to be a large number, it in fact represents a reduction of about 50% from the previous year. The number of home ranges checked was down from 8 in 2015 to 3 in 2016, which reflects the casual monitoring of the species, as the group does not have sufficient resources to fully monitor sites throughout the year. Fledging rates will consequently be extremely unlikely to reflect actual numbers in the area.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Most Kestrel monitoring is largely casual monitoring as a consequence of the species utilising Barn Owl nest-boxes. It is notable that the species is declining across the county, with traditional sites lost. Further monitoring work is planned by the group, with nest-boxes being erected and monitored intensively.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Occurs as a breeding species, but no monitoring takes place. Kestrels are a common feature of most upland habitats and indeed remain widespread across the whole county. There are no local population studies.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. There was confirmed breeding by 22 pairs, fledging a minimum of 61 young.

Peter and Norma Johnson checked 16 boxes but found only 4 occupied; these produced 16 young (included in the totals above).

The city centre pair produced 3 young this year and after learning that their mill is to be redeveloped, negotiations took place with the architects to preserve the nest site.

An analysis of records from members and reports on www.manchesterbirding.com suggested probable breeding at a further 9 sites and possible breeding at another 9.

A pair on Irlam Moss bred in a bucket on its side, and produced 4 young which were ringed. This bucket has now been replaced with a purpose-built nest box!

Three young which fledged at a farm in Wigan landed in a slurry pit; 2 of these managed to get out but one drowned.

There were some indications of insufficient food: 3 young fledged at one site but 2 eggs did not hatch, and brood numbers generally were low. In the only known brood of 5, in Horwich, one chick died before fledging.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. 2016 was a very poor year for NRG. The population of voles was very poor and this was reflected in the Kestrel population. A high number of home ranges were checked, but only 16 were found to be occupied; of these only 8 pairs laid eggs (compared to 22 in 2015), fledging 14+ young (compared to 50+ in 2015).

Of the few pairs which did fledge, most of these were in the lowland areas.

It was noted that in the South Cheviots/MOD area the Common Kestrel is now **not** a common bird any more, with many former breeding sites occupied by Common Buzzards.

In the Kielder Border Forest area, after the success of 2015, it was back to normal with only one successful nest.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study.

This has been another quite dreadful season for the species in the study area, based on the results from the South Cleveland RSG nestbox scheme. It really is a puzzle as to why so few pairs are occupying boxes, but many local birders claim that these days they see more Sparrowhawks when out in the field than they do Kestrels. It is also worrying that of the 3 pairs occupying sites early in the season only one pair went on to breed successfully and produced just the 2 chicks. The table below, which gives the breeding performance from the above scheme in 5-year bandwidths, suggests that productivity per successful nest has remained fairly stable over the past 49 years, but overall has fallen significantly with more nests failing at one stage of the nest cycle or another.

Year Band	No. of sites	No. occupied	% occupancy	No. succeeded	Young ringed	Av, per successful nest	Average all nests
1977-81	202	10	4.95	8	32	3.84	3.35
1982-86	174	12	6.9	11	53	4.86	4.5
1987-91	169	22	13	21	90	4.09	4
1992-96	150	20	13.3	19	83	4.5	4.25
1997-2001	109	17	15.6	16	68	4.32	4.16
2002-06	128	19	14.8	15	62	4.1	3.15
2007-11	127	21	16.5	19	84	4.42	4
2012-16	120	18	15	12	49	4.08	2.72

Kestrel Annual Productivity Data – North York Moors Large Nestbox Scheme

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

No monitoring took place in 2016. It was noticeable that no breeding took place at many historic breeding sites, probably due to a suspected lack of prey.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

The group did not monitor the species in any widespread way during 2016 but accepts that further study is warranted.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part of upland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

Yorkshire Dales

No monitoring is undertaken in the Yorkshire Dales RSG area, so it is difficult to determine any long-term trends.

Nidderdale

A not uncommon bird in the Nidderdale RSG area, but there has been no monitoring of any pairs this year.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	5	0	0	0	0	0	0	0	0	0	0
CaRSG	3	3	NC	0	3	3	3	3	6	2	2
ChRSG	12	12	NC	0	14	12	12	12	44	3.6	3.1
MRG	59	40	NC	0	22	22	22	22	61	2.77	2.77
NRG	64	16	6	8	8	8	6	6	14	1.75	1.75
NYMUBSG	26	3	1	1	2	2	1	1	2	1	1
TOTAL	169	74	7	9	49	47	44	44	127	2.7	2.59

NERF regional summary

Nationally the Common Kestrel population is known to be declining. However, from the data collected across the NERF region, it appears that the species is faring reasonably well in some areas. All groups report Kestrels as present in their respective study areas, although only few groups undertake any detailed monitoring of the species, with the best results being produced by nest box schemes. It is therefore difficult to assess the current status of the species without comparative quantitative data from all areas. This is perhaps an issue that needs to be addressed by all NERF members in future years.

Merlin Falco columbarius



UK population estimate

The UK population estimate from the last national survey of this species in 2008, (Ewing *et al.* 2011), was 1162 pairs. This represented a 13% decrease overall from the previous survey carried out over 1993/94 with the decrease for England alone being 25%.

Holling, M. *et al.* Rare breeding birds in the United Kingdom in 2014 recorded 279-377 pairs monitored (*British Birds* 2016 109: 491-545) but stated that these represent only about 25% of the estimated UK total.

Conservation status

UK: Red

The 4th review of *Birds of Conservation Concern* published in December 2015 returned this species to the UK Red List based on evidence from various monitoring schemes that indicate continuing worrying declines in breeding populations. (The species was moved from the Red to Amber category following the second review in 2009).

European: Not of concern as far as is known.

Global: Least concern.

Listed on Schedule 1 of the Wildlife and Countryside Act 1981.

Listed as Endangered (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain, *British Birds* 110 September 2017)

National and regional threat assessment

Direct persecution in all the usual ways by the gamekeeping fraternity on birds of this species is generally minimal. Grouse moor owners and their keepers are well aware of the increasing bad press they are receiving in social media in regard to raptor persecution and endeavour to create as much goodwill as possible with conservation bodies by indulging – even encouraging – Merlins on their estates. All are well aware these birds present no significant threat to grouse stocks so if they are routinely eradicated on some estates it most certainly is not due to ignorance of the species' lifestyle but far more likely motivated by pure malice or retaliatory spite.

Direct poisoning from carrion sources is not an issue but absorption of contaminates in the environment via prey consumption is potentially an increasing problem and constant

monitoring of these, e.g. mercury levels, is carried out by CEH through egg and corpse analyses.

Prey availability during the breeding season may potentially be causing birds difficulties on some higher moors, and extreme deluges which seem now to be a regular feature of spring weather can threaten brood survival. Losses to foxes, mustelids, other larger raptors and humans at nest sites also occur but at an insignificant level, whilst the proximity of traffic and house windows to hunting birds outside the breeding season present the other principal threats to survival.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	25	12	0	2	10	10	9	9	28	2.8	2.8
CRSG	5	5	0	3	2	2	2	2	6	3	3
DUBSG	88	43	1	2	41	41	38	36	128	3.12	3.12
NRG	64	23	0	2	21	21	17	15	48	2.29	2.29
NYMUBSG	40	9	3	0	9	9	8	7	26	2.89	2.89
PDRMG	34	20	2	6	14	14	12	10	36	2.57	2.57
SPRSG	11	3	1	0	3	3	1	1	2	0.67	0.67
Nidderdale RSG	7	2	0	2	2	0	0	0	0	0	0
TOTAL	274	117	7	17	102	100	87	80	274	2.74	2.69

Group Reports

Bowland Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Although persecution of individuals does not occur, this species continues to lose ground due to extreme grouse shooting estate habitat management; many sites have simply been burnt out. Bad weather which seems to occur regularly now in early June can have a damaging effect on breeding success.

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. The 2016 breeding season was both disappointing and confusing. A total of 31 sightings were recorded during the year and 5 pairs were present on territory at the beginning of the breeding season. Unfortunately, following a very wet winter, which left the uplands saturated and the valleys flooded, there was a fall of late snow. The sodden ground undoubtedly reduced the vole population at the start of the breeding season and the late snow either delayed the arrival of the Meadow Pipits, or drove those that had arrived from the high ground. Three pairs of Merlin that were on territory left early with no evidence that they had attempted to breed. The fourth and fifth pairs were on a grouse shooting estate which is not formally monitored by the Study Group members. An independent ringer reported that he had ringed a brood of 4 and had returned to the estate later to ring another brood. However this pair had already fledged 2 young which he was unable to catch. Information from a second source suggested that a further 2 pairs had fledged young from the same estate Despite this information having allegedly come from one of the estate workers it cannot be verified and these 2 nests are not included in the data given above.

Cheshire Raptor Study Group

Extent of coverage: Not known to occur here as a breeding species.

Level of monitoring: Whole County.

Not known to breed in the county upland areas – however further survey work is required. Winter records emanate from the Dee and Mersey Estuaries.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. 2016 was another generally successful season, but both the number of successful pairs and young fledged, perhaps not unexpectedly, fell below the record levels seen in 2015. Several traditional territories, to which pairs had been very faithful in recent years, were nevertheless found to be unoccupied in 2016 and significant movements of nest sites (> 500 metres) were seen at several other territories. A total of 88 young were ringed. A female pullus ringed in late June was controlled by a ringer at Dartmoor in October and one ringed in mid-June and found dead at Aberlerry, Wales in October was thought to have been killed by another raptor.

Manchester Raptor Group

Extent of coverage: Upland areas only.

Level of monitoring: Breeds very occasionally; monitored by PDRMG.

A nest in the Greater Manchester area was found, monitored and the brood ringed by Mike Price of the PDRMG. The data are therefore included in that Group's statistics. All other records related to wintering birds or migrants.

Northumbria Ringing Group

Extent of coverage: Part of upland areas.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

Northumbria experienced a much improved breeding season with a very healthy 48 chicks, (26 chicks 2015), fledging from 21 nests, (17 nests 2015). Better summer weather helped the birds considerably. Pleasingly, the improvement was spread across all the monitored areas.

In the Border Forest, Kielder and South Cheviots/MOD areas, 2 sites were re-occupied for the first time since 1987 and successfully fledged broods of 3 and 4. The nest in the Border Forest was only 200m from a Goshawk nest.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. A very similar situation was experienced this season as for recent years. The NYM's population appears to be stabilising at approximately 25% of the peak mid 1990's level. As has been the case in recent seasons, when pairs do nest successfully, productivity is usually good. Nonetheless, it is only nests on the higher moors that are keeping the population going. However, it is of real concern that continuing excessive burning of old heather on these upper moors could be compromising Merlin nest bed availability.

Peak District Raptor Monitoring Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Thirty four sites were checked; 20 sites were occupied by pairs and 2 sites by single birds. Ten pairs were successful. Four pairs failed on eggs or small young. Five pairs disappeared early in the breeding cycle, whilst the final pair remained on territory throughout the breeding season, but breeding was not proven despite several visits to the site.

South Peak Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. On the North Staffordshire moors 2 pairs were present, but unfortunately both failed at the egg stage. In the usual Upper Derwent area one pair was located, and 2 young (from 3 eggs) were ringed and pit-tagged.

In the traditional recording areas of the SPRSG on the Eastern Moorlands there were only isolated sightings of birds hunting finches during both winter periods on moorland and surrounding fields; the only breeding season record was of a female at Alicehead on 23rd April.

Yorkshire Dales & Nidderdale Raptor Study Group

Yorkshire Dales:

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species but no monitoring takes place.

No systematic survey work is undertaken but 6 possible pairs were present at 6 locations, plus 4 confirmed pairs, including a brood of 4 ringed.

It is believed that NE was working with a number of estates in the north of the YDNP to monitor the status of Merlin populations with a number of gamekeepers working as agents under a Schedule 1 licence holder. Unfortunately, no further details of this project or any breeding data have been received.

Nidderdale:

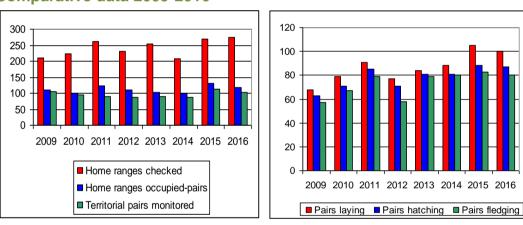
Extent of coverage: Part upland areas.

Level of monitoring: Reasonable coverage: at least one long-term monitoring study. Two pairs located in the pre-breeding period were certainly on territory with males provisioning females. It is not clear whether they failed to nest or the nests failed at some point during the incubation period. What is clear is that neither pair successfully hatched eggs and there were no birds present for the rest of the season. It is suspected that there may be human interference at some sites in some years on this estate.

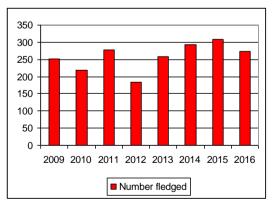
NERF regional summary

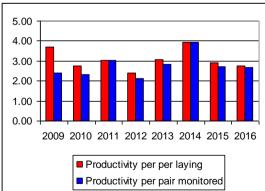
Most NERF areas appear to have experienced a season of moderate success but Northumberland enjoyed a welcome resurgence and the Durham uplands again fared well. The most avoidable man-made problem that appears to be limiting and in some cases reducing the numbers of breeding pairs in some areas across the north of England is the increasing intensity of heather-burning operations particularly on the profitable bigger commercial grouse moors. Certainly on some lengthy stretches of the higher grouse moors in the NYMs it is rapidly getting increasingly hard to find old heather beds suitable for the requirements of the species.

When one considers how long heather takes to grow to a level of maturity providing suitable nesting habitat for Merlins, one can readily appreciate that a denuded territory could take decades to be re-occupied and that situation being reached would of course depend on the terrain subsequently being managed sympathetically to achieve that end. Frankly, DEFRA should really be getting to grips with this situation now and doing something about it!



Comparative data 2009-2016





Hobby Falco subbuteo



UK population estimate

In 2009 the UK population was estimated to be 2,800 pairs. (Musgrove *et al.* 2013, APEP: *British Birds* 106, February 2013). The BTO's Breeding Bird Survey Report for 2016 shows an 11% decrease for England 2015-2016, and a 9% increase 1995-2015. Clements(2001) estimated the UK population to be in the region of 2,200 breeding pairs, so considering their northwards spread since then, the current figure is probably considerably higher, and further research, based on a combined sixty years of fieldwork in three counties, (Kent, Hertfordshire and Derbyshire), and also including evidence from many other counties, suggests that the current UK Hobby population may be best expressed as a broad estimate of around 5000 territorial pairs, but it is recognised that more data on breeding density is required from marginal areas for that figure to be widely accepted.(Clements, Everett & Messenger 2016: *The Hobby in Britain—A Revised Population Estimate)*.

Conservation status

UKGreenEuropeanNot of concernGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981

National and regional threat assessment

Formerly rare, and confined to southern heathland areas, Hobbies are now becoming widespread in farmland in lowland England, and in a few upland areas, especially moorland edges with scattered trees. Hobbies are secretive and breed later than most other species, and both these factors can lead to under recording. The easiest way to locate breeding pairs is to check for fledging success from mid-August, when the young are most vociferous and can be heard from a considerable distance, and this has proved a useful method of finding new pairs. When checking known breeding sites, returning birds can sometimes be seen perched on conspicuous dead trees in the area.

Fieldworkers studying this species should be reminded that a Schedule 1 Licence is required if nests are to be visited, or any other observation required for monitoring that might cause disturbance of the nesting pair.

There are no specific threats associated with this species at the present time, however whilst the population has increased significantly in recent years it still remains relatively low and Fieldworkers should be mindful of the continuing threat posed by egg collectors. 2016 was thought to be a less successful than normal breeding season by most fieldworkers in most areas.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	1	0	1	0	0	0	0	0	0	0	0
MRG	7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
NRG	2	1	0	0	1	0	0	0	0	0	0
PDRSG	15	13	NC	0	11	11	10	10	23	2.09	2.09
SPRSG	31	31	NC	4	31	29	25	25	43	1.48	1.39
TOTAL	56	45	1	4	43	40	35	35	66	1.65	1.53

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Occurs as a breeding species, but no monitoring takes place. Several individuals are seen most years hawking insects among the fells, but breeding pairs are confined to the farmland and we have been unable to locate breeding mainly due to the extensive habitat and access issues.

Calderdale Raptor Study Group

Extent of coverage: Part of upland areas.

Level of monitoring: Not known to occur here as a breeding species.

Six separate reports were received during July and August, all of single birds in the same discrete part of the study area. In 2015, 20 sightings were received, including a pair. However, although this 66% reduction in sightings is not believed to be significant, nonetheless it is disappointing.

Durham Upland Bird Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

For the second successive year there was no confirmation of breeding in the county, although some summer reports were probably indicative of at least one breeding attempt. Nevertheless the Hobby remains scarce and 2016 saw the fewest records across the county for a number of years. The species appears to still have some way to go to consolidate its position as a regular breeder. There were no reports from upland moorland locations.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Occurs as a breeding species but no monitoring takes place. There were no reports of confirmed breeding this year. However, enough sightings were recorded by members and on www.manchesterbirding.com to suggest territories were held at 5 sites, with possible territories at 3 others. There were no reports from a very regular site this year.

Northumbria Ringing Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

A pair spent much of the summer hunting round the edge of a forest block out on the heather moorland after dragonflies and moths. The pair was seen bonding and being interactive with an adult female Merlin and fledged broods of Kestrel and Sparrowhawk, but after much time watching no nest was found.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Not known to occur here as a breeding species.

This species is not a study species of the Merlin Group. There must be at least the odd pair nesting the North Yorks Moors somewhere, but this was no nearer being confirmed in 2016 than in past seasons. In fact the species has been remarkably thin on the ground this year, with very few records of sightings coming to hand, none of which hinted at a breeding

situation. It is a species that really does merit some dedicated effort in the field, but finding the time and manpower for this is beyond the Group's capability at present.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage, at least two monitoring studies or large representative study areas.

In Cheshire 4 pairs fledged 9 young, a fifth nest failed at the egg stage. In West Yorkshire 3 pairs fledged 8 young; in South Yorkshire one pair fledged 2 young; 2 pairs in North Yorkshire fledged a total of 4 young. Seventeen young were ringed from 7 broods. In addition there were sightings of birds at historic territories in all 4 counties but no further nests were located, nor were any fledged young seen. As usual with this elusive species it is difficult to say whether or not breeding occurred.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Anthony Messenger confirmed that in his 10k square core study area only 6 pairs were present, (where there are usually 8 or 9). Four pairs were successful, with one pair definitely failing and the other suspected of doing so. Nine young fledged from the successful sites and all were ringed, (2.25 per successful pair, 1.25 per breeding pair present). Across the whole of Anthony's general study area there were 19 pairs present, (including the core area), where there are usually up to 25 pairs.

Seventeen pairs were successful, with one definite failure and one site where the outcome was unknown, although failure was suspected; 35 young fledged, (2.06 per successful pair, 1.84 per breeding pair present). A total of 18 young were ringed. At one site the female continued to incubate a clutch of 3 eggs from a first clutch, (presumed to have been addled or infertile), until at least 3rd September; this confirmed previous observations that the species does seem reluctant to leave the nest post-failure. One further note from Anthony stated that when ringing a brood of 3, 2 young were alive and aged 21 - 22 days old, but the third chick was dead – aged about 14 days at time of death; it is very unusual for young of the species to die at that stage and it was the first time he has encountered that. In short, Anthony felt that 2016 was a rather disappointing season.

In NE Derbyshire and the Peak District, Roy Frost, Mick Lacey and Mick Taylor reported that at least 8 further pairs were successful and juveniles were seen at various sites. Two pairs were known to have failed, and pairs were present at 2 further sites with no evidence of breeding.

All observers commented that it appeared to be a less successful breeding season than normal.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part of upland and lowland areas.

Level of monitoring: Not known to occur here as a breeding species.

Nidderdale

Hobbies have possibly bred in the area in some years, although no nest has ever been located. In 2016 there were few records of birds and none suggesting a permanent presence indicative of breeding.

Yorkshire Dales

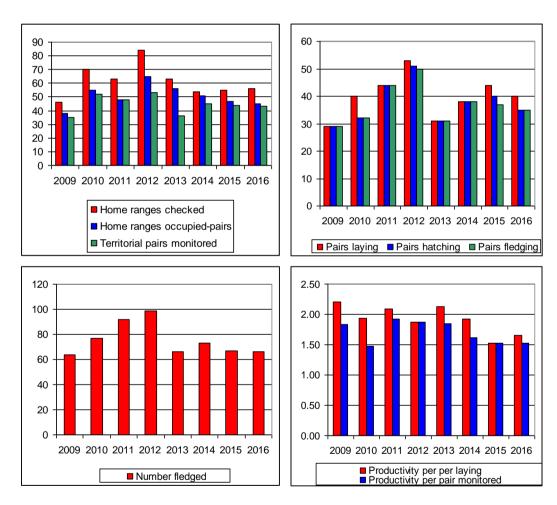
At one site bird(s) seen during the breeding would suggest that a pair possibly bred, with single records at a number of other sites.

NERF regional summary

A considerable amount of work is undertaken by NERF Group members, particularly in the Peak District and South Peak Raptor Study Group areas. Hobbies were observed across the region and known to have bred successfully in 3 study areas, and are no doubt considerably overlooked in some other RSG areas.

Colour Ringing

A colour ringing scheme was in operation for this species from 2004 to 2010 and to assist with this project raptor workers are requested to report all sightings of all colour ringed birds via the website at www.ring.ac, or alternatively the information can be passed to Jim Lennon at lennons@shearwater50.fsnet.co.uk



Comparative data 2009-16

Peregrine Falcon Falco peregrinus



UK population estimate

The current estimate is 1530 pairs (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013; Banks *et al.* 2010. The breeding status of Peregrine Falcons in the UK and the Isle of Man in 2002. *Bird Study* 57: 421-436). The BTO conducted the 6th national survey in 2014 and this will give a figure of 1694 pairs in the UK and Isle of Man with 7 additional pairs in the Channel Isles (Wilson *et al.* (in prep). The 2016 BBS figures showed an increase of 13% 2015-16 and a 45% increase 1995-2015.

Conservation status

UKGreenEuropeanNot of concernGlobalLeast concernListed on Schedule 1 of the Wildlife and Countryside Act 1981

National and regional threat assessment

The greatest threat to this species was undoubtedly the use of DDT in the 1950s. When this chemical was banned that particular threat was removed. Regrettably this is not the case with persecution, which is now the largest threat faced by Peregrines. They are targeted by four groups: egg collectors; gamekeepers; those taking eggs on the point of hatch or chicks, sometimes to be smuggled overseas, and pigeon fanciers. Over the last two years this last threat has been increasing at a significant rate. Whilst research shows that racing pigeon losses to Peregrines are extremely low, in some parts of the country, particularly at sites close to the urban fringe, it is apparent that pigeon fanciers are responsible for persecuting Peregrines. However, those pairs nesting in boxes or trays on public buildings in city centres are generally safe from interference.

The threats faced by Peregrines on some grouse moors, in some NERF areas, continues unabated and it is clear that the large number of breeding attempt failures can only be attributed to human interference. Raptor workers must remain vigilant in the face of these ongoing problems if Peregrines are to go unmolested across the whole of their natural range.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	20	6	0	4	2	2	0	0	0	0	0
ChRSG	5	5	0	2	3	3	3	3	5	1.7	1.7
CRSG	3	3	2	1	2	2	1	1	2	1	1
DUBSG	16	1	1	1	0	0	0	0	0	0	0
MRG	9	9	0	3	6	6	6	4	10	1.66	1.66
NRG	29	18	1	11	7	7	6	5	12	1.71	1.71
NYMUBSG	3	2	1	0	2	2	1	1	3	1.5	1.5
PDRMG	19	7	3	3	4	4	1	1	3	0.75	0.75
SPRSG	35	28	NC	4	24	24	13	13	31	1.29	1.29
YDRSG	20	6	0	0	6	6	6	5	9	1.5	1.5
Nidderdale RSG	4	1	0	0	1	0	0	0	0	0	0
TOTAL	163	86	8	29	57	56	37	33	75	1.34	1.32

Group Reports

Bowland Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. This species is heavily persecuted in Bowland. Pairs continue year on year to occupy sites only to fail at the egg stage or just before the onset of laying. Driven grouse shooting is undoubtedly the main problem affecting this species.

At the time of writing (Sept. 2017) a gamekeeper has appeared in court charged in connection with the deaths of 2 Peregrines; a further appearance is scheduled for early 2018.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study. Most Peregrine Falcon nests in Cheshire occur high on industrial structures, which attract their own security! One nest was predated by neighbouring Ravens and a further nest failed due to disturbance; the latter incident is under investigation by the Police.

Calderdale Raptor Study Group

Extent of coverage: Excellent coverage; all or most sites receive annual coverage. **Level of monitoring:** Part upland & part lowland areas.

There was another fall in sightings of this totemic species during 2016, with just 70 reports being submitted to the Group's recorder. Whilst there were 3 pairs present throughout the breeding season only 2 pairs attempted to breed. One pair failed at egg stage and the eggs were sent to the Predatory Bird Monitoring Scheme for analysis. The other pair went on to fledge 2 young for the second year in succession.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. The table shows the results of monitoring all traditional eyries in upland areas. A pair was present at one premier site from mid-March until 4th May but did not settle and was not seen subsequently. A male was present at another site in early April but not later. Away from the uplands, excluding north Teesmouth, 6 pairs nested in the county. One pair

Away from the uplands, excluding north Teesmouth, 6 pairs nested in the county. One pair lost 4 young in the nest in suspicious circumstances whilst the 5 remaining pairs were all successful fledging a total of 10 young (1.7 young fledged per pair laying).

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Breeding was successful at 3 out of 5 urban sites, with broods of 4, 4 and 1. At the 2 others, over-running roofing works were probably the reason why one pair failed at chick stage, and the male becoming trapped in a building undergoing renovation at the end of March led to failure at the other. Although this elderly male was rescued, fed in care for a few days and quickly released near the nest site, he was not seen after 10 days. The female then re-paired with her son from 2015, who was too young to breed.

At the 3 quarry sites (one of which is not included in our statistics as monitored and ringed by PDRMG), only one was successful, fledging one chick. Eggs were stolen or predated from 2 attempts at the other, where there have been serious problems for several years now.

Pairs were noted at 2 further sites: at a mill site, a pair was watched throughout the summer but the female was too young to breed, and at Manchester Airport a pair was resident at the Thomas Cook hangar but due to Health & Safety considerations a nest tray cannot be installed.

Winter territories were held at 3 sites, with pairs bringing juveniles back in August at 2 of them. These juveniles did not stay around.

Whilst urban breeding is undoubtedly more successful due to the lack of persecution and predation, it is not without its drawbacks. Spring is the time when all kinds of maintenance work is planned on roofs, and careful negotiation with owners is necessary to avoid disturbance. Ground-level events also need to be controlled. This year, in July, a number of large fireworks were set off under one tower (without permission) to celebrate a wedding. A plan a few years ago to release a flock of white doves to celebrate VE day underneath a town hall nest site was abandoned when we advised of the probable bloodshed! Abseiling for charity, window cleaning, pigeon netting, and the propensity of young birds to land on the

floor just as they are beginning to fly, resulting in them being picked up by members of the public, are just some of the other problems encountered.

Northumbria Ringing Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Throughout Northumberland the Peregrine appears to be struggling, although the occupation of breeding territories has remained at around 20, the success has been very poor over recent years. With no recorded persecution of adults birds and only the odd known theft of eggs or young (and not every year), it's hard to put a finger on the reasons for their poor breeding. 2016 was no exception with 18 home ranges occupied by pairs, but only 7 pairs known to lay any eggs. There were other pairs holding territory and displaying but none laid any eggs. Of the 7 pairs which laid eggs, one failed during incubation and at another, the chicks were stolen. The 5 remaining nests fledged 12 chicks. Let's hope that there is nothing sinister starting to unfold.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Both of the 2 regular inland sites may well have been occupied by pairs but only a male bird was seen at one of them on just the one occasion over 4 visits. It is possible that a nest may have been robbed of eggs, as this site failed in suspicious circumstances in 2015. The other site was successful. Information came to hand of an "at risk" nest on the coastal cliffs stretch of the National Park. This new pair, much photographed and much disturbed, had opted to nest in the middle of what is normally a Kittiwake colony. The nest ledge and clutch of 4 eggs lay in full view of the public footpath across the cliff top. The birds coped with a lot of attention until the Bank Holiday weekend when in addition to the normal level of human traffic along the path, a fun run took place. This proved too much for the birds and sadly the clutch was abandoned whereupon the Kittiwakes – absent until then – gratefully recolonised the cliff face. Strong anecdotal evidence was received that at least one, possibly 2 more pairs had nested along the North York Moors National Park coastal boundary, which is encouraging indeed.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Seven territories were found to be occupied in the PDRMG study area and 3 by single birds. Of the 7 sites known to be occupied by pairs, disappointingly just one pair was successful, fledging 3 young. Two pairs failed at egg or small young stage. The remaining 4 pairs were found to be absent on subsequent visits.

South Peak Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. In the SPRSG recording area 35 sites were checked in 2016. Of these, 7 sites were unoccupied, including 3 sites in Upper Derwentdale, although at the traditional Alport Castles site the pair raised 2 young, a third consecutive successful year following a run of failures since the last breeding success in 2007. At the 27 remaining sites where pairs were present, 12 sites were successful, raising at least 29 young. Of the further 15 sites, 4 failed, perhaps because of poor weather conditions after incubating birds were observed, and at 3 sites the final outcome was unknown. At the remaining 8 sites monitored, pairs failed in circumstances which suggested disturbance or robbery; all 8 sites were within disused quarries. At one of these sites, the pair was robbed twice – of a first clutch and a replacement clutch from a different nest ledge. There were indications reported by the RSPB Investigations Department that Peregrine eyries in the north of England had been targeted by egg thieves in the spring of 2016 and this view would seem to have been confirmed with the failures in the SPRSG area.

At the traditional site in the Manifold Valley (Staffs), which had been successful since its discovery in 2003 and which was successful in 2015, no birds were seen by group members, but the National Trust reported that a pair was present and success assumed. The usual pair in Dovedale (Staffordshire side) raised 3 young, and the outcome of the second pair on the Derbyshire side was unknown, although successful breeding was strongly suspected. Two lowland NE Derbyshire sites are included in the above figures, one site having been successful with at least one flying young observed, whilst the other site in a disused quarry failed for unknown reasons.

Three pairs of urban Peregrines were successful and are included in the 13 successful sites: the pair at Derby Cathedral fledged 4 young which were ringed by Anthony Messenger (3f, 1m); the pair at St. George's Church in Sheffield (S. Yorks.) fledged 3 young from 4 eggs which were ringed by Steve Samworth and the pair at DWT's East Mill in Belper raised 3 young, although one juvenile (a male) became grounded and later died, possibly from stress, as reported by Nick Brown of DWT. Nick further reported that the remaining 2 juveniles (both females) fledged successfully and were later joined by another juvenile, which had fallen from a site in Nottingham, been taken to the PDSA and for some inexplicable reason released back into the wild near Belper; this latter bird was accepted by the resident birds and was fed not only by the adults, but also by one of the other juveniles!

In late February 2016, John Atkin, a member of SPRSG, found a dead Peregrine in a disused quarry in the White Peak, where Peregrines had bred in 2003 and raised 4 young; the quarry has a history of persecution of Ravens, which attempt to breed there annually, although Peregrines have not bred there since 2003. The dead bird was an adult male and the corpse was sent to ZSL to ascertain cause of death; there was some bruising on its left foot. At the time of writing no report has been received, due to lack of funding, but it is hoped that a report will be processed soon.

Nick Brown of DWT reported a further distressing Peregrine story from a site in the south of the county, where a pair of urban birds had 4 chicks; when the licensed ringer went to ring the birds, all four chicks were dead in the nest, presumed starved; the adult female had been missing for some time, presumed shot, and the male had a damaged leg and was probably having difficulty to feed himself, let alone 4 chicks.

Yorkshire Dales & Nidderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Yorkshire Dales: Excellent coverage; all or most sites receive annual coverage; Nidderdale: at least one long-term monitoring study.

Yorkshire Dales

It was a much better year than 2015 with 5 successful sites however, productivity was relatively low. As is the norm now, none of the traditional grouse moor sites were occupied. Following a considerable amount of work by RSPB Investigations and North Yorkshire Police, a dead Peregrine was found near Grassington. The North Yorkshire Police press release stated that "on the 5th October 2016, a member of public reported finding a dead Peregrine Falcon at the side of a footpath at Hebden Ghyll. PC Simon Crossley, Wildlife Crime Officer for the district of Craven attended and recovered a dead female Peregrine

Falcon with apparent gunshot wounds to one of its wings. The bird appeared in very good condition despite its injuries.

The bird has been examined by a local vet and X-rays have confirmed the presence of shotgun pellets which have caused major trauma. These injuries would have caused the death of the bird". Full details can be found at https://northyorkshire.police.uk/news/peregrine-falcon-found-dead/

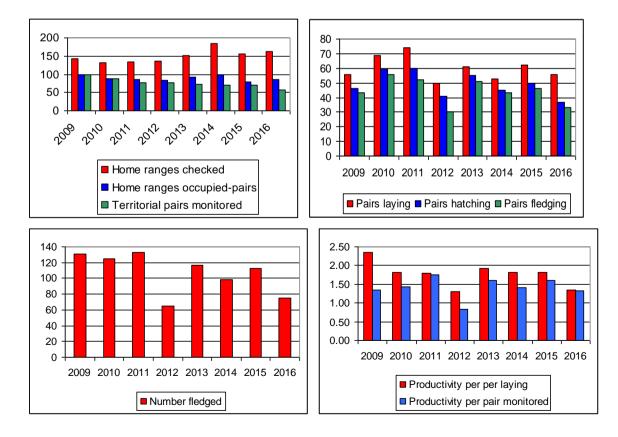
Nidderdale

Three grouse moor sites as per normal apparently unoccupied although male birds were seen at 2 of these sites in late winter (February). One working quarry site was occupied throughout the season but the birds did not lay, although present until late June. One other non-grouse moor site is usually occupied but no data has been received from the relevant observers.

NERF regional summary

When published, the results of the 2014 Peregrine survey will give an updated assessment of the status of this species across the country. The preliminary results suggested a decline in breeding numbers in upland areas, as highlighted in recent NERF annual reports. The data provided by RSG highlights the continued absence of Peregrines from the majority of traditional sites in areas managed for grouse shooting.

Away from grouse moor areas, it is generally a much better situation. However, there continues to be problems with disturbance and suspected egg or chick thefts that show all is not well even in these areas. It is of particular concern that there may be some issues relating to breeding success in some areas. In Northumberland for example, where there appears to be no persecution, the number of occupied sites has been consistent for several years but productivity has been very low.



Comparative data 2009-2016

Common Raven Corvus corax



UK population estimate

In 2009 the population was estimated at 7400 pairs in the UK (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013). The 2016 BTO Breeding Bird Survey Report showed a 5% increase 2015-16 for England, and a 130 % increase 1995-2015.

National and regional threat assessment

Whilst the persecution of the Common Raven has reduced nationally the threat remains a clear and present danger in some areas, particularly where birds come into conflict with the game shooting community. In some parts of the NERF region they are both shot and poisoned. In recent years there has been a proliferation of gas guns being used in the uplands, including on and adjacent to Sites of Special Scientific Interest and in Specially Protected Areas that are designated as such for rare and vulnerable birds. The shooting industry justifies the use of these indiscriminate bird scaring devices on the grounds that they are protecting wader chicks and new born lambs from attacks by "marauding flocks of Raven". There is no scientific, peer reviewed, data to show that Raven are having a significant impact on waders or lambs which tend to be born at lower altitudes away from heather moorland. An analysis of Raven populations across the NERF study area is given in the NERF Threat Assessment. In October 2009 the British Mountaineering Council [BMC] opened a discussion within the Cave and Crag Access Advisory Group to consider the BMC's position on voluntary climbing restrictions on crags with nesting Raven. Any withdrawal from the current voluntary restrictions, by the BMC, could open up crags with nesting Ravens to climbers and may lead to breeding birds abandoning nesting attempts.

Conservation status

UK	Green
European	Not of concern
Global	Least concern

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CRSG	2	1	1	0	1	1	1	1	5	5	5
DUBSG	9	2	0	2	0	0	0	0	0	0	0
MRG	16	5	NC	1	3	3	3	3	11	3.66	3.66
NRG	33	24	2	3	21	19	16	16	40	2.1	1.9
NYM	1	1	0	0	1	1	1	1	3	3	3
PDRSG	20	8	0	0	8	7	3	3	12	1.71	1.5
SPRSG	45	45	NC	8	15	15	15	15	53	3.53	3.53
YDRSG	25	9	0	3	6	6	6	6	20	3.3	3.3
Nidd.RSG	2	0	0	0	0	0	0	0	0	0	0
TOTAL	153	95	3	17	55	52	45	45	144	2.77	2.62

Group Reports

Bowland Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Whilst there were several sightings of Raven throughout the year there was no evidence of breeding in the Bowland Fells during 2016.

It is possible, but not probable, that some pairs may breed undetected in shelter belts in remote areas near farms and at least one pair may be breeding in the large Gisburn Forest. Overall the Group believes that persecution is likely to be suppressing the local population.

Calderdale Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

Over the winter 2015 / 2016 one Raven nest collapsed and was rebuilt by a single bird on a different part of the crag. Only one bird was ever seen at that location and the nest was eventually abandoned and taken over by a pair of Peregrine Falcons. At the second site 6 young hatched; however only 5 went on to fledge.

Ravens are long-lived birds, typically living 10 to 15 years in the wild. Between 2009 and 2016, inclusive, 47 young have fledged from Calderdale and yet depressingly the breeding population remains static. Additionally, and of great concern, is that the over-wintering / passage population in the Calder Valley continues on a downward trajectory. In 2014 the Group received 103 sightings, which fell to 91 sightings in 2015 and then collapsed to just 49 in 2016. The Group has analysed the data and is convinced that the reduction in annual sightings is a result of a reduced local and regional population and cannot be attributed to a reduction in observer effort. Whether or not this dramatic drop in sightings is a worrying trend, as it appears to be, has yet to be decided. However; it is something that the Group needs to monitor closely.

The game-shooting industry continues to lobby for measures to control the Raven populations throughout the uplands, which is of concern for a number of reasons, not least of which is the fact that the majority of the sightings in Calderdale come from the uplands.

Cheshire Raptor Study Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

There is little, casual coverage of Raven undertaken by the Group. However, from observations recorded by the members it is clear that the species is under represented at the population level. Within the study area we have recorded that Ravens nest in a variety of habitats including trees, on cliffs, on pylons, and on other tall man-made structures. There is some intraguild conflict with raptors occupying nests in the same sites; this is typical with this species, which has a tendency to squabble with neighbours, and is of no concern.

Durham Upland Bird Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.

Regrettably once again there was no evidence of breeding during 2016. Groups of 2 to 5 birds were recorded in early spring from a range of upland sites but none settled. The species was very sparsely reported during the summer months and even by late autumn counts remained noticeably low.

There is no doubt whatsoever that Raven is a 'black hole' species in the Durham study area.

Manchester Raptor Group

Extent of coverage: Whole County.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

During 2016, 5 chicks fledged at a Horwich quarry, and 4 were ringed at Greenbooth (a fifth chick was judged not likely to fledge, it was not ringed and it is not included in the table). Two chicks fledged from the Wigan Market Hall tower.

Additionally the Group received a report that chicks had fledged at Bolton Town Hall, where due to roof works this new nest site was only discovered late in the season. The adults were apparently brooding young on 29th March; however, the nest was in a position where it was impossible to monitor and the number of fledglings is not known. Including this nest in the table would give a false impression of the known breeding success and consequently it has been omitted.

For the second year in succession there is evidence that the nest was shot out at Buckton Vale Quarry.

In addition to the above a number of other territories were examined and possible or probable breeding was determined at 11 further sites. These included some where breeding has been

recorded in the past. Furthermore, from the number of sightings received throughout the year it is likely that there were more undetected pairs breeding in the study area. On 21st December, 20 birds were seen emerging from a probable roost on Ludworth Moor, in ones, twos and threes during the late afternoon. It is possible that other birds remained in the roost unobserved.

Northumbria Ringing Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. In 2016 there was a slight improvement on the 2015 breeding figures. Early in the season the Group located 24 pairs on territory and 16 of those pairs fledged a total of 40 chicks. This compares favourably to the 2015 breeding season when 36 chicks fledged from the study area.

In the Southern Cheviots /MOD areas the majority of the nests were found in trees with only a single pair nesting on a crag. Encouragingly 2 new sites were discovered in the area in 2016. In the other monitored regions the population of Ravens is stable.

Northumberland is a very large county with extensive areas of perfect Raven habitat. Whilst 24 pairs could be classed as "good" it is actually poor when compared to other areas of suitable habitat of a similar size. At the present time the Group is not classifying the whole study area as a 'black hole' for the species. However, there are sectors where this is likely to be the case and the situation is being monitored closely.

North York Moors Upland Bird (Merlin) Study Group

Extent of coverage: Whole National Park area.

Level of monitoring: Poor coverage; casual monitoring of a few pairs.

2016 was something of a watershed year for this species in regard to the NYM Study Group. A pair nested successfully on coastal cliffs in the area of Ravenscar. As far as can be determined this is the first documented breeding attempt in the NYMs for over 100 years – the last being further north on cliffs at Hawsker near Whitby in 1880 (Mather, J.R. 1986. *The Birds of Yorkshire*).

It is of course quite possible that moorland keepers, past and present, could, if so inclined, provide the Study Group with details of otherwise unrecorded nesting attempts made on the North York Moors during the intervening period. The information would make a welcome addition to local records.

The 2016 successful breeding attempt is very much an encouraging turn of events. Aside from this nest, single birds were recorded at Goathland in the north of the study area in February on two occasions. In addition unconfirmed reports were received of single birds elsewhere over the course of the year. It is to be hoped that the successful nesting pair will survive to return to breed in 2017 and that eventually their offspring go on to re-colonise other parts of the North York Moors.

Peak District Raptor Monitoring Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. The plight of the local Raven population continued to follow the traditional depressing pattern in 2016. Once again breeding Ravens appear to be seriously under-represented in the PDRMG study area. In common with the observations experienced in other NERF Raptor Study Group areas it is self-evident that Raven is a 'black hole' species in the Dark Peak. Of the 20 historic breeding sites that were checked in 2016 only 8 were found to be occupied by pairs. From those 8 occupied sites only 3 pairs went on to fledge a total of 12 young. Perhaps unsurprisingly none of these successful sites were on or adjacent to grouse moors.

South Peak Raptor Study Group

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. In the SPRSG recording area the species continued to expand, with many pairs nesting in trees rather than the traditional quarry and rocky outcrop sites. Twenty-seven occupied sites were visited in the area and a minimum of 53 young fledged from 15 successful sites. The outcome at a further 4 sites was unknown and 8 sites were known to have failed. Most of the White Peak quarry sites had successful breeding pairs, with broods of 3 or 4 young. Additionally 2 pairs were successful on crags in the Dove Valley. In the south of the recording area (south of Carsington Water) 18 tree nests were located, all of which were successful, however; the brood numbers were not ascertained. Six pairs nested in Scots Pine, 6 in Corsican Pine, 2 in Cedar, 2 in Oak, and 1 each in Sycamore and Wellingtonia. **N.B**. The statistics shown in the table only reflect the data from nests where the absolute outcomes are known. The text includes all of the nests that were monitored to a greater or lesser degree and presents a more accurate overall picture of the Raven population in the White Peak.

Yorkshire Dales & Nidderdale Raptor Study Group

Yorkshire Dales

Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Excellent coverage; all or most sites receive annual coverage. Following on from 2015, which was the best year on record for the number of nests in the Yorkshire Dales, 2016 proved to be an average year. Pairs were present at most of the regularly occupied sites in the area fledging a total of 20 young. There is ample potential for the population to increase as there are a number of eminently suitable nesting sites that are currently unoccupied.

Nidderdale

Extent of coverage: Poor coverage; casual monitoring of a few pairs.

Level of monitoring: Part of upland areas.

Although Ravens have bred recently in the Nidderdale study area and birds were present at the beginning of the season, there was no recorded breeding during 2016.

The one site where Ravens have bred in recent years regularly hosts birds but they either do not breed, or, more likely, they are not allowed to breed. This is despite the fact that the majority of sightings at that location refer to pairs of birds.

Due to the lack of breeding in Nidderdale it is difficult to be sure if the Ravens that are observed in the study area are permanent residents rather than visiting non-breeders or birds looking for vacant territories. Whatever the truth, it is evident that they have "disappeared from", or been persuaded to leave the area before they have the opportunity to breed. There is ample and extensive habitat available for Raven; yet in common with other NERF Raptor Study Group areas Nidderdale is a 'black hole' for this species.

NERF regional summary

Raptor Workers have, for decades, known that Raven populations have been suppressed in the northern uplands year upon year. Records from 1900 onwards reveal that the birds have been sparse along the Pennine Chain with c.20 breeding territories between the Tyne and

Aire Gaps – a distance of 135 kilometres and $c.5000 \text{ km}^2$. On average only half of these known territories are occupied annually. Compare this to the Lake District, an area of c.2000km² with 70 – 90 pairs (Ratcliffe, D. 1997. *The Raven*, page 220). As has been demonstrated in previous NERF Annual Reviews it is evident that the NERF area, which includes the Pennines, the Forest of Bowland and the North York Moors, continues to be under populated by Raven despite the fact that there is ample habitat to support a substantial population. Raptor Workers are fully aware that the productivity of all species, including Raven, fluctuates with prey availability and climatic conditions during the breeding season. However, these fluctuations do not account for the wide variations in site occupancy between lowland quarries and forestry and the uplands. There are no doubt fringe issues that cause these population differences, however the main driver appears to be land use. Where Ravens breed successfully, the productivity is within the statistical norms across the spectrum, an indication that it is not habitat or prey availability that is the cause of the variations. That leaves us with the question; if these are not the causes, what is? The uplands across the Pennines, the North York Moors and the Forest of Bowland are dominated by grouse moors. Lowland quarries, forests and the uplands in the Lake District are self-evidently not dominated by grouse moors. The answer is clear for all to see: the suppressed Raven populations are associated with land management dedicated to grouse shooting. Consequently Ravens thrive outside of the uplands monitored by NERF members and conversely they do not fare well on land that is predominantly managed for driven grouse shooting. This fact cannot be stressed too strongly.

The "NERF Eight Years Raven Data" shown in the table below brings the issue into sharp focus. During this period NERF has recorded a total of 963 fledglings, an average of 120.38 per year. The average annual breeding pair productivity rate per pair laying eggs is 2.39 chicks and yet the resident population remains static. Where are these chicks going? There is no doubt that some birds, both young and old, die. There is no doubt that some are "moved on" to prevent them from breeding and there should be no doubt that some are killed illegally.

NERF regional threat assessment

The national threat assessment for this species is applicable in the NERF region. Raven populations are suppressed by persecution.

NERF Eight Year Raven Data Analysis

There is ample evidence to show that persecution in areas managed for grouse shooting is suppressing local Raven populations. There is also ample evidence to indicate that nothing will change unless there is Government intervention to prevent persecution. Regrettably past experience indicates that this is extremely unlikely to occur, particularly under the current Government.

NERF members, other Raptor Workers and conservationists have raised serious concerns about the proliferation of the use of gas guns, banger ropes and inflatable bird scarers in the uplands. Representatives of the shooting industry defend their deployment on the grounds that they are being used to drive away Ravens that allegedly threaten breeding wader populations. No one outside of the shooting industry believes this to be a valid claim. On the contrary it is widely believed that the positioning of these devices is being undertaken solely to protect grouse eggs and chicks. How the use of birdscarers, designed to protect agricultural crops, can be used on land designated to protect bird assemblages can be justified under any circumstances is simply beyond comprehension and their use on SSSIs and SPAs should be prohibited by Government forthwith.

YEAR	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
2009	84	68	0	11	51	39	39	37	105	2.69	2.06
2010	111	85	0	6	49	43	40	39	122	2.84	2.49
2011	111	82	1	5	52	47	46	44	138	2.94	2.65
2012	91	65	1	4	51	50	50	46	132	2.64	2.59
2013	145	87	0	17	78	72	68	44	116	1.61	1.49
2014	96	62	1	19	50	41	35	34	97	2.36	1.94
2015	124	92	3	16	73	59	57	54	109	1.85	1.49
2016	153	95	3	17	55	52	45	45	144	2.77	2.62
Totals	915	636	9	95	459	403	380	343	963	2.39	2.1
Av. / year	114.38	79.5	1.13	11.88	57.38	50.38	47.5	42.88	120.38	2.39	2.1

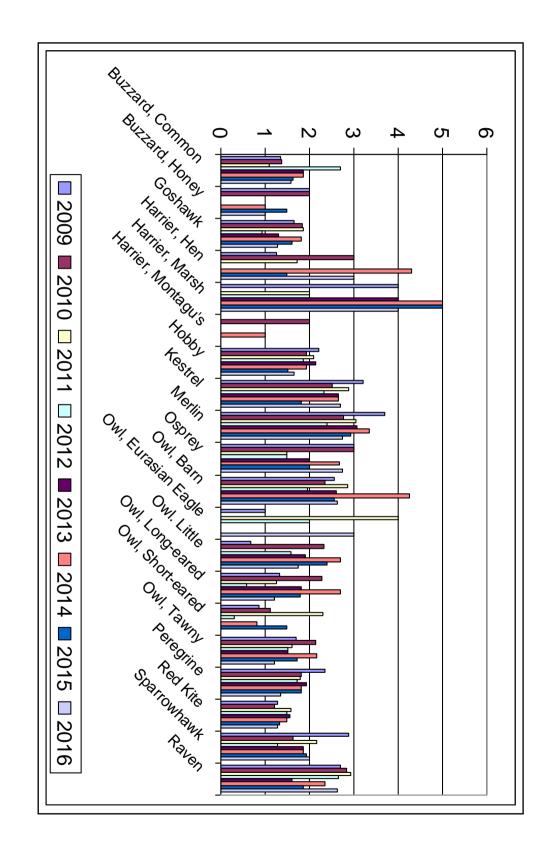
In order that NERF can monitor the inappropriate use of bird scarers, anyone discovering gas guns, banger ropes or other bird scarers on protected landscapes is encouraged to report the type and location to the local Raptor Study Group. Contact details are available at the end of this review.

Appendix 1: Combined NERF data

Species	Home ranges checked	Home ranges occupied (pairs)	Home ranges occupied (singles)	Pairs failing/non-breeding	Territorial pairs monitored	Pairs laying eggs	Pairs hatching eggs	Pairs fledging young	Number fledged	Young fledged per pair laying	Young fledged per pair monitored
Honey Buzzard	9	1	0	0	1	1	1	1	1	1	1
Red Kite	43	34	5	0	14	14	9	9	18	1.3	1.29
Marsh Harrier	1	1	0	0	1	1	1	1	4	4	4
Hen Harrier	57	4	1	1	3	3	3	2	6	3	3
Goshawk	155	96	3	17	56	53	46	46	147	1.3	1.27
Sparrowhawk	72	38	0	2	37	34	28	25	68	2	1.83
Buzzard	250	250	6	5	156	70	58	77	111	1.6	0.71
Osprey	4	4	0	0	4	4	4	4	11	2.8	2.75
kestrel	169	74	7	9	49	47	44	44	127	2.7	2.59
Merlin	274	117	7	17	102	100	87	80	274	2.7	2.69
Hobby	56	45	1	4	43	40	35	35	66	1.7	1.53
Peregrine	163	86	8	29	57	56	37	33	75	1.3	1.32
Barn Owl	2194	285	41	14	274	274	261	256	667	2.6	2.62
Eagle Owl	2	1	0	0	1	1	1	1	3	3	3
Little Owl	78	21	15	0	12	12	12	10	21	1.8	1.75
Tawny Owl	343	104	16	2	88	89	76	65	107	1.2	1.22
Long-eared Owl	60	16	5	11	5	5	5	4	6	1.2	1.2
Short-eared Owl	92	24	12	19	11	5	4	0	0	-	-
Raven	153	95	3	17	55	52	45	45	144	2.8	2.62
Totals	4175	1296	130	147	969	861	757	738	1856		

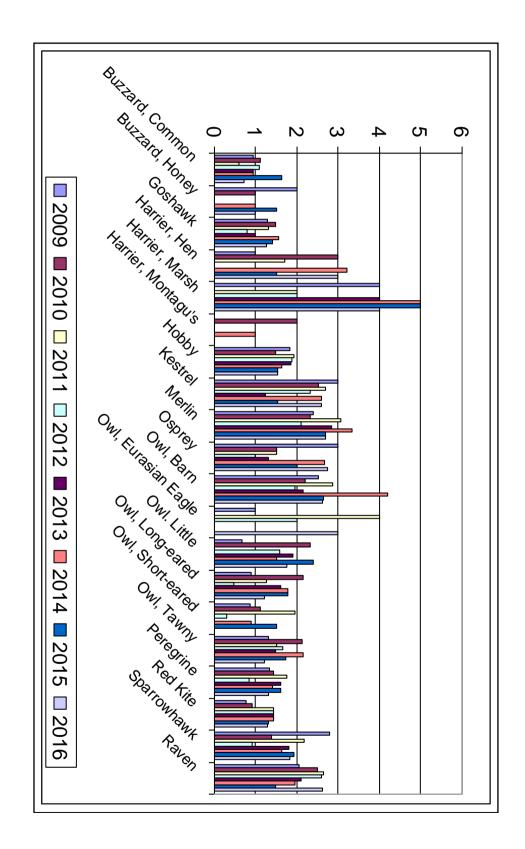
Appendix 2: Combined productivity graphs

a) young fledged per pair laying 2009-2016



Appendix 2: Combined productivity graphs

b) young fledged per territorial pair monitored 2009-2016



Appendix 3: Ring recoveries and colour ring sightings

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment
NRG	Red Kite	GR81219	20/06/14	Blaydon, Tyne & Wear	01/01/17	Harrogate, N, Yorks	3yrs	105km	S	Tag read in field
NRG	Sparrowhawk	DA62382	23/10/10	Benton, Tyne & Wear	06/02/17	Killingworth	7yrs	4km	NNE	Dead on farm
NRG	Sparrowhawk	DA78067	03/04/16	Slaley, Northumb.	08/04/17	Riding Mill, Northumb.	Adult	3km	NNE	Entered house, stunned, recovered, released OK
NRG	Sparrowhawk	ET76536	12/07/02	Kershope, Cumbria	05/01/03	Gilsland, Cumbria	Juv	20km	E	Late report
NRG	Buzzard	GC26289	12/07/06	Kershope Forest, Cumbria	15/02/16	Stockton-on- Tees	10yrs	106km	SE	Found injured, no flight feathers, in care
ChRSG	Barn Owl	GN48424	19/06/05	Bostock Green, Ches	14/07/16	Dorrington, Shropshire	4043 days (11 yrs)	29km	SSE	Controlled at nest site
MRG	Barn Owl	GR83524	19/06/14	Glazebury, Gtr Manc.	26/06/16	Great Warford, Ches	738 days	23km	SE	Controlled at nest site
MRG	Barn Owl	GV43485	23/07/16	Westhoughton nr Bolton	15/10/16	Leigh nr Wigan	86 days	4km	S	In care as weak, released
MRG	Barn Owl	GR26873	27/06/11	Hilton House nr Bolton	10/02/17	Standish, nr Wigan	5yrs 8 months	7km	NW	Dead at probable nest site
NRG	Barn Owl	GR34756	08/09/11	Burradon, Northumb.	30/06/16	Longhorsley, Northumb.	5yrs	21km	SE	Controlled (breeding F)
NRG	Barn Owl	GR34756	08/09/11	Burradon, Northumb.	15/04/17	Longhorsley, Northumb.	6yrs	21km	SE	Controlled (breeding 6 eggs)
NRG	Barn Owl	GV41048	05/08/16	Landbeach, Cambridge	15/01/17	Holy Island	164 days	401km	N	Dead after storm
NRG	Barn Owl	GR10895	06/07/11	Ingram, Northumb.	24/03/17	Hethpool, Northumb.	6yrs	17km	NW	Dead in building
NRG	Barn Owl	GR95219	17/07/16	Burradon, Northumb.	19/12/16	Scremerston, Northumb.	Juv	41km	N	Road casualty
NRG	Barn Owl	GR61797	13/07/13	Warcop, Cumbria	08/07/16 & 21/05/17	Page Bank, Durham	3 and 4yrs	52km	ENE	Controlled
NRG	Barn Owl	GV19305	16/05/15	Cumbria (site confidential)	04/06/17	Alston, Cumbria	2yrs	5km	NNE	Controlled
NRG	Barn Owl	GR95045	23/07/14	Littlehoughton, Northumb.	02/07/16	Low Stead, Northumb.	2yrs	3km	-	Controlled

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment
NRG	Barn Owl	GV38433	07/07/16	Red Row, Northumb.	27/08/16	Red Row, Northumb.	Juv	-	-	Damaged wing
NRG	Barn Owl	GC43467	21/07/10	Once Brewed, Northumb.	14/02/11	Backworth, Northumb.	Juv	56km	E	Dead (late report)
NRG	Barn Owl	GC73349	28/05/14	Lindisfarne	25/07/16	Lindisfarne	2yrs	-	-	Long dead
NRG	Barn Owl	GV18507	29/07/16	Slaley, Northumb.	01/10/16	Pelton, Durham	3yrs	28km	E	Injured
NRG	Barn Owl	GC18509	29/07/16	Slaley, Northumb.	16/11/16	Hexham Golf Club	3yrs	9km	N	Dead
NYMUBSG	Barn Owl	GC82477	16/06/14	Lamplands, N. Yorks	21/09/16	Ugthorpe, N Yorks	828 days	6km	NNW	Road casualty
NYMUBSG	Barn Owl	GV00611	28/06/16	Lamplands, N. Yorks	10/10/16	Brotton, Redcar & Cleveland	104 days	21km	NW	Road casualty
NYMUBSG	Barn Owl	GC82494	10/07/14	Glaisdale, N. Yorks	09/11/16	Lealholm, N. Yorks	853 days	5km	NNE	Freshly dead
SPRSG & PDRMG	Barn Owl	GC90680	15/06/15	Woodsetts, S. Yorks	27/01/15	A1 near Doncaster	226 days	21km	N	Road casualty
NRG	Tawny Owl	GR81496	19/05/15	Slaley, Northumb.	24/02/17	Horsforth, W. Yorks	2yrs	119km	S	Dead on railway
NRG	Tawny Owl	GN00977	14/05/04	Rowlands Gill, Tyne & Wear	08/05/16 & 13/05/17	Rowlands Gill, Tyne & Wear	12yrs & 13yrs	-	-	Controlled
NRG	Tawny Owl	GR95170	07/05/17	Rowlands Gill, Tyne & Wear	29/07/17	Whickham, Tyne & Wear	Juv	4km	ENE	Freshly dead
NRG	Tawny Owl	GV18594	12/05/16	Red Row, Northumb.	18/05/17	Stobswood Allotments, Northumb.	1yr	4km	SSW	Entangled in netting, in care
NRG	Tawny Owl	GC73486	27/04/10	Kershope, Cumbria	15/06/16	Newcastleton, Cumbria	6yrs	3km	N	Ring found in Goshawk nest
SPRSG & PDRMG	Tawny Owl	GN13013	11/05/06	Rivelin valley Sheffield	09/01/16	Rivelin valley Sheffield	10yrs	1km	-	Freshly dead
SPRSG & PDRMG	Tawny Owl	GJ811117	05/06/09	Barbrook, Derbs.	13/04/16	Ramsley Moor, Derbs.	17yrs	1km	-	Road casualty
SPRSG & PDRMG	Tawny Owl	GR31514	07/06/14	Birley Garden Centre, Highlane,Derbs.	16/04/16	Shirebrook valley, Derbs.	2yrs	3km	NW	Hit window, fate unknown
SPRSG & PDRMG	Tawny Owl	GR31513	07/06/14	Highlane, Derbs.	01/08/16	Highcliffe Rd Allotments, Sheffield	2yrs	10km	W	Unknown
SPRSG & PDRMG	Long- eared Owl	GR82800	05/05/14	Nr Carlecotes, S. Yorks	11/03/16	Cumberworth, W. Yorks	2yrs	4km	E	Freshly dead

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment	
SPRSG & PDRMG	Kestrel	EW21724	20/05/14	North Anston, S. Yorks	04/02/16	Barrow Hill, Derbs.	260 days	12km	NE	Freshly dead	
SPRSG & PDRMG	Kestrel	EZ54270	07/06/16	Brampton Common, S. Yorks	18/07/16	Gerrick, Redcar & Cleveland	41 days	127km	NE	Freshly dead	
SPRSG & PDRMG	Kestrel	EY03540	24/06/16	Ulley Beeches, S. Yorks	13/11/16	Flamborough Head	142 days	114km	NE	Controlled, released	
NRG	Merlin	ES57935	17/06/17	Edmundbyers, Durham	28/07/17	Little Whittington, Northumb.	Juv	19km	N	Road casualty	
NRG	Merlin	EZ12864	07/07/17	Middleton, Teesdale	01/08/17	Newbiggin- by-the-sea, Northumb.	Juv	72km	NNE	Found dying on beach	
NRG	Merlin	DB41491	25/06/09	Edmundbyers, Durham	17/07/16	Middleton, Teesdale	7yrs	25km	SSW	Male-road casualty	
NRG	Merlin	EY12347	19/06/16	Edmundbyers, Durham	23/10/16	Aberlerry, Ceridigion, Wales	Juv	295km	SSW	Peregrine kill	
NRG	Merlin	DE81711	21/06/16	Middleton, Teesdale	06/08/16	Ashgill Bridge, Cumbria	Juv	24km	NW	Male. Dead.	
NRG	Merlin	EZ12678	27/06/16	Middleton, Teesdale	10/10/16	Dartmoor, Devon	Juv	482km	SSW	Controlled	
MRG	Peregrine	NL (red) GV11664	18/05/15	Leigh, nr Wigan	04/09/16	Hightown nr Formby	1yr	37km	W	Colour ring read in field	
MRG	Peregrine	V1 (red)	27/05/10	Rochdale town hall	04/09/16	Seaforth, nr Crosby	6yrs	59KM	wsw	Colour ring read in field	
MRG	Peregrine	PF (red) GV11677	29/05/15	Bolton town hall	06/09/16	Little Woolden Moss, Irlam	1yr	16km	S	Colour ring read in field	
MRG	Peregrine	DA (red) GR21384	27/05/11	Horwich, nr Bolton	19/03/16	Bolton parish church	5yrs	8km	SE	Colour ring read in field, breeding nearby	
SPRSG & PDRMG	Peregrine	GN13288	30/05/11	Derby Cathedral	10/04/16	St George's church Doncaster	5yrs	71km	N	Colour ring read in field	
SPRSG & PDRMG	Peregrine	GV25267	21/05/16	Wakefield Cathedral	17/06/16	Wakefield	27 days	2km	-	Freshly dead	
SPRSG & PDRMG	Peregrine	GV25266	21/05/16	Wakefield cathedral	22/09/16	Hutton Conyers nr Ripon, N Yorks	124 days	56km	n NE Destroyed, wires		
SPRSG & PDRMG	Raven	MA18685	14/03/13	Macclesfield Forest, Ches.	23/03/16	Nr Slaidburn, Lancs	3yrs	85km	N	Freshly dead	
SPRSG & PDRMG	Raven	MA18663	17/04/11	Chinley, Derbs.	20/04/16	South Reddish, Stockport	5yrs	17km	NW	Destroyed, injured	
SPRSG & PDRMG	Raven	HW10766	09/04/16	Stoney Middleton, Derbs	25/05/16	Stoney Middleton, Derbs	46 days	-	-	Freshly dead	

HONEY-BUZZARDS IN THE NORTH YORK MOORS NATIONAL PARK



John Harwood and Peter Richman

Abstract: This contribution to Yorkshire ornithology presents the results from a ten year study by the authors of a small breeding population of the Honey-buzzard *Pernis apivorus* in the eastern area of the North York Moors National Park. It also summarises 40 years of records assembled from various other sources (e.g. Yorkshire Naturalists' Union Ornithological Reports) to assess the average population based on occupied home ranges within the study area: the approximate numbers of birds and breeding pairs each year; and the proportions of birds returning in subsequent seasons. Aspects of productivity, fidelity and longevity are also considered.

Introduction

The study area covers approximately 100km² of the eastern part of the North York Moors National Park, approximately 40% of which is covered by working forest/woodland. The area holds many mixed woodlands, large sections of working conifer plantations of varying age (some 95 years old originating from post-war planting needs), and increasing areas of mixed deciduous species resulting from the Forestry Commission's new wildlife-friendly planting regimes. Similar habitats, albeit in smaller areas, also exist on the many farms and private estates within the study area, and some are managed for game shooting at the appropriate times. Heavily forested slopes on rolling hillsides are prominent throughout, with many steep, virtually impenetrable valleys, gills, or grains ideally suited to this secretive raptor allowing it to move unnoticed within the forest canopy. Streams and becks fuelled from hilltops and adjacent moorland up to 200m above sea level eventually feed the River Derwent, which winds its way south and west through the Vale of Pickering. There are many miles of public roads, tracks and footpaths throughout that are very popular and used for recreational activities.

Despite as much time being spent in the field as possible, (certainly over the last decade), due to its very secretive behaviour there is a strong possibility that individuals and perhaps other breeding pairs were not encountered: the results of this study are therefore presented as absolute "minimums". A raptor viewpoint set up in 1993 as a focal point for birders is still

popular today and helps provide an initial assessment of the numbers arriving back at the beginning of each season.

Since 1976 there have been five or six home ranges, each of approximately 25-30km² in area. Even though each has been a breeding site in the past it is doubtful if all have been occupied in the same season. Some home ranges overlap to a small degree, especially when the food demands of young increase as they develop. One particularly popular feeding area has been the prime foraging source for many birds over the last ten years and visited at varying times by breeding pairs from at least three home ranges.

The recent advances in digital photography have enabled underwing patterns of birds in flight to be determined in much clearer detail, providing unique "fingerprints" for individuals. Reasonable quality digital images of distant birds, which would have been difficult to assign in the past, can now record gender, plumage type and active wing moult/faults etc. This has proved the principal method of ensuring accuracy of results in efforts to establish the correct numbers of birds.

All reference photographs were taken within the study area, with those near to nest sites carried out under Natural England licence during routine monitoring visits. The flight paths of birds returning with food to nests can sometimes be predicted and enable photos to be obtained. When visiting nests, adults often perch up nearby for a while to check the immediate area is safe before flying to the nest, and this habit also provided photographic opportunities of settled birds. Most adults sit tight on the nest when an approach is made; only occasionally will they fly off, usually to return soon after. Well grown juveniles still on the nest or recently branched are very relaxed and tolerant and remain settled even when the fieldworker's approach to the nest is clearly visible to them.

Arrival and display

Honey-buzzards usually arrive back at the North York Moors from their wintering quarters in West Africa during the third or fourth week of May. Following a short breeding season adults depart mid to late August, followed by any juveniles in September. During their relatively short time here they can appear very leisurely and unhurried in their behaviour whereas in reality they can be very busy coping with all stages of the breeding cycle courtship, nest building and egg-laying to food provisioning and rearing of young. Display usually takes the form of wing-clapping /sky dancing. This study has revealed display is most apparent when unpaired males first arrive in a suitable breeding habitat. They may be new to the area, non-breeding returners, or even previously successful or wellestablished breeding birds whose regular mates have failed to appear. Display can also stimulate strong site defence in existing breeding pairs, causing "resident" males and occasionally females to react against any intrusion to their territories from other Honeybuzzards or other birds of prey. This is also the case when rival males are competing for the attentions of a visibly airborne female or even during scouting missions to attract any females to them. Some lone males can display quite intensively over large areas long into the breeding season in the hope of attracting a mate, whilst others may give up early or even move on. If established breeding pairs from previous years settle down quickly to breed, then display by the resident male is much reduced or even absent, being replaced by courtship in the form of mutual circling, soaring and gliding to feeding areas within their home range prior to egg-laying.

During quiet periods when pairs are incubating eggs there is little evidence of prolonged display. However, it is not impossible to witness brief sequences of wing-clapping at any time of the breeding season. As soon as the first egg hatches and chicks require attention, this seems to trigger excitement in parent males, and they can display frequently over the

breeding territory during forays for food. This display becomes less frequent as the young develop and demand a greater and more frequent food supply from both parents.

Aerial interaction

Proving any relationship between birds seen together can be difficult unless they are recognised as an established pair. When seen together in flight these very placid birds show little or no aggression, appearing to accept each other's presence, whilst in reality they may be engaged in either courtship activity or ushering an unwanted rival away from a territory. This confusion also exists later in the season when an influx of non-breeding birds into breeding areas tends to occur. If one of an established pair does not return in spring, the remaining bird will understandably look for another mate, giving breeding opportunities to younger or inexperienced birds. Some interesting behaviour witnessed during this study has revealed previously successful returning pairs are not always faithful if rival males appear. In 2011 a successful breeding pair from the previous year was indulging in very visible display with an unpaired returning male first seen in 2009. The established male lost his partner to the newcomer even though he was an older returning bird, possibly eight or nine years of age and a successful breeding bird on at least six previous occasions. He was only seen for one more year post-2011, whereas his younger rival stayed with this female for four more years, having bred successfully until the time of writing (2016).

Calling

Rarely heard away from the nest site. In 2009 a breeding male was seen in a popular feeding area 2km from the nest site when two other males appeared. For ten minutes he circled and called constantly. This might possibly have been a warning to these intruders to his feeding area, or delivered in excitement and acceptance of them. The call is far reaching, eerie and plover-like in tone.

Plumage phases

As is well known, the plumage phases of Honey-buzzard are many and varied, and over a relatively short time the extremes of dark and pale phase birds (both male and female) have been encountered with little or no barring on the body and underwing coverts, along with many different phases in between. At distance, unless there are striking flight features to set them apart, it is hard to separate birds of a very similar plumage which clearly can lead to misidentifications. Descriptions of birds compiled from telescope observations in the field are often inadequate, plumage details of flying birds along with other factors such as distance, light and angle of view etc being difficult to register. Digital photography addressed this problem allowing increased accuracy of results. Over the study period a library of flight shots was assembled recording the distinguishing features of many birds: this has proved invaluable and provides the basis of this paper.

Our classifications for the naming of birds are as follows:- (all refer to the body/underwing pattern only)

"Barred" approximately equal mix of pale/dark barring on underwing coverts and body
"Pale Barred" pale/white background with small amounts of barring, streaks, spots etc.
"Dark Barred" dark brown background with small amounts of barring, streaks, spots etc.
"Dark" dark brown background with little/no barring, streaks, spots etc.
"Pale" Pale/white background with little/no barring, streaks, spots etc.

Where in any one year new birds were encountered having very similar plumage phases to known birds, "nicknames" were assigned to distinguish them individually. Also, some returning individuals have been given a suffix of the year in which they were first seen to indicate their longevity, e.g. "Barred Male 08" was first seen in 2008, and when listed under yearly section 2016 indicates its longevity, i.e. a returning bird of nine years. (See Table 1 for summary of longevity in individuals for each home range, their relationship and breeding performance.)

Apart from the pale and dark phase types listed above, a common plumage of some males, including breeding birds in the study area, is a "Dark Barred" type, having a rich brown background colour on the neck, body and underwing coverts with thin pale/white barring mostly on the flanks, axillaries and underwing coverts. The neck is usually plain brown with increasing flecks of white on the breast and barring on the flanks extending onto the axillaries and underwing. To distinguish between males of a similar "common" plumage they were given either nicknames or assigned their plumage type with a yearly suffix.



Barred Male 09

Dark Male 07



Pale Male 009

Dark Female 09





John Harwood

Pale Female 07

Dave Mansell
Angular Female 09



Tim Cowley

Pale Male 10



John Harwood

Spotted Male 07



Peter Richman

Barred Male 08



John Harwood

Neat Female 10



Dave Mansell

Pale Male 12

Dave Mansell

Pale Female 09

Breeding density

Since 2009 only one blank year has been recorded, just one breeding pair in another, two breeding pairs in each of four years and three pairs recorded once. With the study area not much more than 1 x 10km square, this breeding density ties in well with that published for the New Forest (Wiseman 2012 *in litt.*). Mean distance between active nests of different home ranges is also very similar, being an average of 7.5 km for 13 nests between 2009 and 2016. As mentioned in the Figure 1 sub-text below, the breeding population in this study area is considered to be between two and four pairs per annum with a productivity rate of 1.7 young per attempt and 2.04 per successful nest. This higher than average rate is due to a very productive pair in Area A from 1997 to 2006, when these birds regularly raised three chicks.

"Summer" nests

Young and inexperienced birds may go through stages of courtship for a couple of years before attempting to build a nest and lay eggs, perhaps even building or trying out "summer nests". Such a structure could be a previously used nest of a Honey-buzzard or Goshawk *Accipiter gentilis*, possibly even a newly built nest near to an active one. In most nesting areas two or more nests built in close proximity to each other is not uncommon. Even small clusters of nests are built up over a number of years in established areas, ranging anywhere from 50m up to 500m apart (see Table 2). Although nest building has never been witnessed, adults, both male and female, have been observed sitting in nests near to active breeding nests for short periods. The year in which birds first breed may also vary. A national colour ringing project carried out by Roberts *et al.* since 1997 has proved the youngest male and female to breed were three and five years old respectively.

Food supply

There is much work to be done in the study area on the identification of the source(s) of the predominant food item, the larvae of social wasps. Red Wasp *Vespula rupa* build very small nests and are dying out at a time when Honey-buzzard chicks require the most food; however, they may be used in the very early stages of chick development. Adults have been seen feeding in areas holding many Red Wasp nests but camera traps set at these have not confirmed their predation by Honey-buzzards. Nests of the Common Wasp *Vespula vulgaris* have the largest ground colonies, providing a more reliable and regular food supply throughout the chick development period. Adults have also been witnessed making many

sorties in different directions from the nest site in search of food. Rotating the extraction of small amounts of wasp comb from different nests allows the colonies to re-build, rather than suffer eradication as a result of consecutive pillaging visits. If one food source is consistently used until depletion, adult would almost certainly be recorded making the same directional journey repeatedly. This has not been witnessed during the study.

Departure

In most years the order of departure by the adults has followed a similar pattern of the male leaving first, followed by the female perhaps a week or two later. Juveniles at this stage increasingly wander further from the nest tree, usually within or just above the forest canopy. They are the last to leave. Although some juveniles are seen during September moving from one area to another, or at the start of their migration, locally-raised juveniles have never been seen airborne in the company of their parents. However, it would not be impossible for juveniles to be seen migrating with adults, as any young from an early nesting pair could accompany migrating adults of a late breeding pair. Juveniles have been recorded branched and free-flying from as early as the first week in August, to as late as the second week in September, over a month apart, making this scenario quite possible.

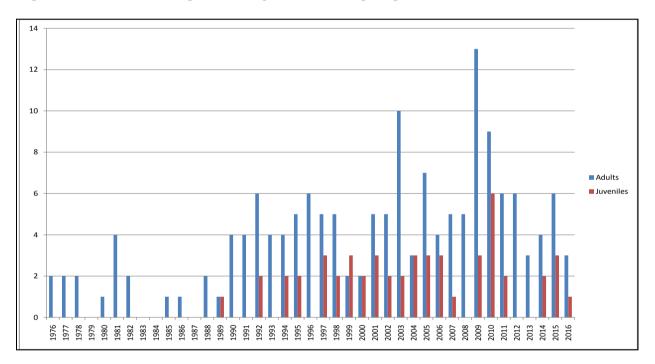


Figure 1

Fig 1 shows the approximate number of adults and juveniles recorded annually since 1976. These are regarded as minimum numbers with a high probability of more birds being present (observer coverage playing a large part in the results). For ten years after the first birds were found breeding in 1976 occasional buzzards were reported during the summer however few were confirmed as "Honey-buzzard". The graph for the following 25 years reveals, apart from a few peaks, an average of five or six adults per year producing approximately three young. It is therefore not unreasonable to conclude that this area alone has supported two to four breeding pairs per year for at least 40 years. Productivity per nesting attempt in 10 years, 2007-2016 = 1.5 young

Males 2 2	Fermates		Males												
- 9.0						Females		Male]	Female	Male Fe	Female	Male Fe	Female A	Adults (M/F)	Juvs
- 9 8							+	T			+		t		
- 9.0							-	1100 1044						2 (1M,1F)	
- 9 8							Î	1		-	_			2 (1M,1F)	e.
- 9.8										1	-			2 (1M,1F)	~
- 9.8							_				_				
- 9.0											1			1 (F)	
- 9 8												5	_	4 (2M.2F)	\$
- 9.8					100 10 10 10 10			1			1			2 (IM IF)	•
- 9.8	-									1) 1)	2		2	(
- 9.8	-									1					
- 9.0	-													1 (F)	
- 9.9	-										1		_	1 (F)	
- 9 9	-									1			1		
- 9 9	1	And the second s								-			-	UNC	
- 9 9	1									i.	2	-	1	2(IM)	-
										1	ł	-		4 (DM DE)	• •
5							1		1	1	-			4 (3M 1F)	
	c	1 H					51 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	н н н	1		1	ii I	l	(TITTT) +	- c
Hinhert* 1 Maria*	1				-			1		ł	-			(JCTNIC) O	- 0
		semantic consists are a se								and a second	10		-	+ (21417) +	- •
1											-			4 (2M,2F)	6
	es* 2							1						5 (2M,3F)	6
2											-			6 (3M,3F)	c.
1 1* 1							11	H			j	1		5 (3M,2F)	ŝ
1*		1									-			5 (2M,3F)	e
1*		and the second sec									-			2 (1M,1F)	e
1*														2 (1M,1F)	e
1*	1	7									_			5 (1M,4F)	e
Twitch" 1* 1 Brighteyes"	es" 1*													5 (1M,5F)	e
4	es* 1	3											_	10 (SM, SF)	6
Newman* 1 Brighteyes*	*Se													3 (2M,1F)	e
Newman* 2 Virginia*	3													7 (3M,4F)	4
Newman* 1 Virginia*	1													4 (2M.2F)	e
Newman* Spotted # Dark Virginia*	Pale 07	Barred 07#												6 (3M.3F)	1
	Pale 07+	Barred 07#					Bar	Barred 08						5 (3M2F)	~
		Blotchy	Barred 09*	Pale 1 Pale 2	e 2 Pake 07*	Pale 09	Dark Bar	Barred 08* Angular*	ngular*					13 (8M.5F)	3+2
Viewpoint		Blotchy			-	Clapping*		Barred 08* Angular*	ngular*		ł			9 (6M.3F)	9
		Blotchy~			Neat 10-	Neat 10~ Clapping	Bar	Barred 08* Angular*	ngular*	-	1		-	6 (3M.3F)	2
Raggy		. Pale 12#				Clapping#	Bar	Barred 08)	1	1 Bk	Blotchv* Neat 10*	1	6 (4M.2F)	0
						•	Bar	Barred 08		-		Blotchy* Nea		3 (2M.1F)	~
							Bar	Barred 08* Angular*	ngular*		Bk	Blotchy* Nea	1	4 (2M.2F)	2
Barred 15		Pale 15					Bar	Barred 08* Angular*	ngular*		Bk	Blotchy* Nea		6 (4M.2F)	e
		_			_		Baı	Barred 08* Neat 10*	eat 10*	-	BI			3 (2M,2F)	-
* — encossént hraading nair	hommese - #	# - accumulation of the second manual the second	not never ton 1		Name	Names of the Amore of the of some (A see A) measured	adt ha tha	- id amaa	d' ao ba						
" = pair laid infertile eggs	$\sim =$ breeding failed at e	failed at egg stage	ge mor proven		+ = foo	the must be the second se	nay oc unc n August			KKY					
00		00	þ	: E		0	0								

Table 1 shows the sub totals of birds present within each home area, their colloquial names, relationships and breeding success etc (1976-2016). Colloquial names 1990-2007 courtesy of R.H. Appleby et al

Comments			av = average	distance is from 2007 nest		Suspected old HB nest			Failed at the egg stage		Food carrying observed			Distance is 2011-2014 nests	Suspected old HB nest			100m from 2010/11 nests		Pair using the area	Food carrying observed		
Tree Position			NE slope (mid) av	Level Ground		NE slope (mid) S	NE slope (top)		SW slope (top)		H	NE slope (top)	NE slope (top)	I	NE slope (mid) S	NE slope (mid)	NE slope (mid)	NE slope (mid) 1		H	H	NE slope (top)	NE slope (mid)
Distance Apart		= 8km	<1.5km	lkm	= 6km	001	IUUII	500m	1.5km	= 7km		£0m	IIIOO	500m	20	THAC	50m	500m	= 8km			150	moci
Height ASL		e Area A to D	175m av	196m	e Area A to B	164m	173m	unknown	144m	e Area B to C		187m	175m		161m	156m	176m	170m	e Area C to E		unknown	177m	148m
Nest Position		Average distance Area A to D = 8km	Against Trunk	Against Trunk	Average distance Area A to $B = 6km$	Against Trunk	Against Trunk	unknown	Against Trunk	Average distance Area B to C = 7km		3m from Trunk	Against Trunk		1m from Trunk	Against Trunk	3m from Trunk	Against Trunk	Average distance Area C to $E = 8$ km		unknown	Against Trunk	Against Trunk
Nest Height			20m av	15m		17/18m	17/18m	unknown	10m			13m	16m		15m	16m	18m	20m			unknown	16m	15m
Tree Girth			I. Im av	1.6m		1.5m	1.65m	unknown	lm			1.9m	1.6m		2.4m	1.65m	2.44m	1.7m			unknown	1.57m	3.75m
Tree Height			25m av	20m		22m	25m	unknown	15m			18m	22m		22m	21m	30m	27m	÷		unknown	21m	25m
Tree Type	Prob Conifer	Ľ	Sitka&Douglas Fir	Larch		Larch	Larch	Conifer	Sycamore		Prob Conifer	Larch	Larch	Prob Conifer	Sitka Spruce	Larch	Sitką Spruce	Larch		Prob Conifer	Conifer	Scots Pine	Sitka Spruce
Success	Yes		Yes	Yes		2	Yes	Yes	No		Yes	Yes	Yes	2	6	Yes	Yes	Yes		2	Yes	Yes	Yes
Year	1976-78		1989-2007	2010		2008/9	2009	2010	2011		2009	2010	2011	2012	2013	2014	2015	2016	-	2012	2013	2014	2015
Area	D		A	A		В	В	B	B		c	c	ပ	c	c	C	C	С		н	н	ш	Е

some situations, even though intensive food carrying into an area is apparent, the actual nest/nest tree cannot be located. They are well adapted to breed in a variety c similar species mix, Larch has been used six times in the last ten years. All nest trees we recorded are included in the national results tabled by Roberts & Law 2014, except for the nest in Sycamore *Acer pseudoplatanus*, in 2011, which is not listed as being used in 404 breeding attempts in Britain between 1972 and 2012. FirAbiesgrandis. Even though LarchLarix decidua, is scattered throughout this area it was only recorded once as the nest tree in 2010, whereas in other areas with a tree types, for example in area A from at least 1989 to 2008 tree type selection was mainly Douglas-fir Pseudotsugamenziesii, Sitka Spruce Piceasitchensis or Grand Table 2 shows the nest details for each area including some inactive nests which were strongly suspected of being built and previously used by Honey-buzzard. In Table 2

Brief Summary of Seasons: 2007-2016

2007 and 2008 started with existing watch points from the 1990s being re-visited, new areas being checked out and familiarisation with areas of most activity to be in the best position to record and perhaps photograph the birds in flight. This was carried out from the many public roads, footpaths and viewpoints near popular displaying and feeding areas and well away from a known breeding area. At this stage intentions were purely to build a photographic library, determine the numbers of birds and those returning in subsequent years. 2009 not only provided a significant breakthrough but coincided with an increase in numbers with photographic evidence obtained of 13 different adult birds throughout the year (clearly separated by plumage phase, gender and wing faults). Of these, an established male paired with a female in area A, one new pair successfully bred in area B, and food carrying was observed by a new female in area C. The number of birds throughout caused much excitement and led to the long establishment of two breeding pairs that continue to this season, (2016). The Forestry Commission arranged for the issue of Schedule 1 Honey-buzzard licences to the authors for the study area.

Good fortune continued in 2010, the long-standing male bred with an unknown female in area A. Last year's breeding male chose a new female and bred successfully in area B, (intensive food carrying observed), and the new female bred again with a male first seen in 2008 in area C. Three successful pairs bred raising a total of six young, a remarkable result never proven in Yorkshire before.

During 2011 in a very visible aerial courtship battle, the established male in area A lost his partner to a male first seen in 2009. The new pair moved site and built a nest in a Sycamore in area B, the first known attempt in a broadleaf in this area, and possibly the first attempt in Sycamore in the UK. Unfortunately, eggs having been laid, and incubation changeovers observed, a prolonged deluge of torrential rain washed out the nest and eggs which was then deserted. It was early July and too late for the pair to rebuild and attempt a second clutch. Was this a new inexperienced male that had been attempting to breed since his arrival in 2009? The female certainly wasn't, having successfully raised two young the year before with a long established male.

There was much better news in area C as last year's pair returned and raised two more young. Unfortunately results for 2012 were in direct contrast to the previous three years; the pair that failed in 2011 in the Sycamore nest (area B) moved to a new area E; however they remained very elusive and proof of breeding was not established. Very few other birds were seen. This situation was mirrored throughout the country with large scale failure of many nests at the egg stage due to lack of social wasp nests. (Steve Roberts *in litt*.).

2013 was much like 2012 although intensive food carrying was observed by the same returning pair in area E, again the nest was not located. Breeding was not in doubt although no juveniles were seen.

2014. The established pair in area C was relocated and bred again in Larch raising one young. The nest of the pair in area E was found this season in a Scots Pine. It contained one chick which was ringed, and one addled egg.

2015. Area C pair returned and again raised at least one young while Area E pair also returned and successfully raised two young. Both nests were in a Sitka Spruce.

2016. A very lean year. Only three birds (all returners) were seen. The male in Area E returned along with his partner since 2011 (Neat female 10), however she moved to Area C and bred with the long standing male there (Barred male 08). They nested in a Larch and raised one youngster. After seven years the established female in Area C (Angular female 09) did not return and the male managed to attract the female from nearby Area E. This was not the first time this female moved site and changed partner, she did so back in 2011. She has

now nested or attempted to do so in four out of the five home ranges in the study area. Unfortunately the male in Area E was left abandoned and unsuccessful in finding a new mate. Some unique behaviour and footage was obtained from a small matchbox sized pole camera (remotely operated) and erected for two short periods at the nest containing one well grown juvenile.

Acknowledgements

I am indebted to Dave Bywater for first introducing me to this fascinating species. A skilful observer: without his keen eye in 1989 and 1990 none of this study would have been possible.

In 2007, following 18 years of casual observations Dave Mansell stimulated and renewed inspiration via digital photography providing the means to identify plumage types. Although the authors knew of each other many years earlier, they did not meet until 2009 when Forestry Commission Environment Manager Brian Walker set up a formal Honeybuzzard study group. Thanks go to Brian, Wilf Norman and the late Mick Carroll for recognising our work and arranging Schedule 1 licence cover.

Thanks are due to the ringing team of Wilf Norman, Garry & Mike Marchant for their very quick and efficient processing of the Honey-buzzard chick in 2014.

During the last seven years Frank Moffatt has provided much assistance and backing with many hours of fieldwork, and more recently Clive Scholefield has also been a great help providing many hours of support.

Our gratitude goes to the photographers listed below for the use of their images, and to Dick Forsman and Pauli Dernjatin for providing expert opinion on a small number of contentious photos.

Dave Bywater	Alistair Forsyth	Dave Mansell	Peter Richman
Graham Catley	Ian Glaves	Gary Marchant	Clive Scholefield
Tim Cowley	John Harwood	Frank Moffatt	

And for their help in various ways:

Richard Baines & Dan Lombard Mick Carroll (*dec.*) Secretary of North York Moors Bird Study Group 1995-2015 Andrew Hutchinson (Red Wasp nests) Wilf Norman (BTO Schedule 1 Licence Holder, Birds of Prey) Brian Walker (Environment Manager, Yorkshire Forests, 2002-2010, 2012 & 2014) Wykeham Raptor Viewpoint Visitors With sincere apologies for any omissions.

For their positive comments on the first draft and advising corrections and improvements we are grateful to Frank Moffatt, Wilf Norman and Brian Walker. For further help with refining this particular draft our thanks again go to Wilf Norman. Any remaining mistakes present in this paper are all of our own making.

References

Irons, A. 1980. Breeding of the Honey Buzzard in Nottinghamshire. Trent Valley Bird Watchers.

Roberts, S.J., Lewis, J.M.S. & Williams, I.T. 1999. Breeding European Honey-buzzards in Britain. *British Birds* 92: 326-345.

Roberts, S.J. & Law, C., 2014. Honey-buzzards in Britain. *British Birds* 107: 668-691 Wiseman, E.J. 2012, Honey-buzzards in Southern England. *British Birds* 105: 23-28 Yorkshire Naturalists' Union. Annual Bird Reports 1976-2007.

John Harwood, 13 West Garth Gardens, Cayton, Scarborough, North Yorkshire YO11 3SF johnharwood30@gmail.com

Peter Richman, New Earswick, York, North Yorkshire YO32 4AR peterichman@hotmail.com

THE UNUSUAL BEHAVIOUR OF A PAIR OF URBAN PEREGRINES

A.J. Smith

Introduction

The Manchester Raptor Group currently monitors 13 sites regularly used by breeding Peregrines in Greater Manchester and its fringes. These consist of 8 quarry sites and 5 urban sites. Of these latter, 3 are on prominent buildings in town centres and 2 are on mills on the periphery of towns. Efforts are made to ring all accessible chicks with BTO metal rings and red Darvic (plastic) rings, each of which carries a two-letter code in white.

Observations by Group members have shown that all the 5 urban pairs stay in the area of their nest sites throughout the year. There is a plentiful food supply, feral pigeons being the most common prey item, but a variety of other species are taken, including Woodcock, other overflying waders, Black-headed Gulls and Woodpigeons.

Birds presumed to be from the quarries (5 of which are in use) appear in winter in the smaller towns on the edge of the county which are close to their nest sites. Structures such as mill chimneys, a major football stadium and church towers or spires are used as hunting lookouts. Food is scarce in moorland quarries in winter and it has long been recognised that such movements take place (Ratcliffe 1980,1993; Drewitt 2014).

The Wigan and Chorley pair

In late 2013, reports began to surface of a pair in the centre of Wigan, frequenting a refurbished mill with a prominent tower. Trencherfield Mill is now partly flats and houses a small museum, an arts academy and other offices. A tray was fixed on a ledge of the tower in early 2014 to encourage the pair to breed. This did not happen and the birds disappeared in the spring, but reappeared every autumn subsequently, and were also discovered to be using a church tower about 500m away. This tower on St. James' church is a landmark seen from many points in the town. It was assumed that this pair was wintering here from a moorland site.





Trencherfield Mill

St James with St Thomas Church

Darvic rings on Peregrines are not easy to read and several hours of patient watching with a telescope was needed before the ring numbers were confirmed as FV and JD. Both hatched in 2012, FV being a male from a mill in Leigh 9.5 km away, and JD a female from a quarry north of Rochdale about 33 km to the east. A birdwatcher working near Trencherfield was sure that this was the pair breeding on the ledge of a preserved mill chimney in the grounds of Morrisons supermarket, Chorley, a town 13km to the north of Wigan in Lancashire, and outside MRG's recording area. Contact with Neil Southworth of the Chorley Natural History Society confirmed this, and that they had bred successfully using an old Raven nest on the chimney in 2015-16, and probably also in 2014, when the rings were not read. In 2016 they fledged 2 chicks, which appeared briefly with a parent on St James' church, 25th August. Nesting on a chimney obviously precluded ringing. In the winter of 2016-17, this pair was again on one or other building in Wigan on a daily basis. As the parapet at the top of the tower at St James' was pierced with glassless lancet windows, it was decided to place a nest tray on the tower roof behind one of these windows, which enabled birds to exit via a sheer drop, something we have found essential in the placement of nest trays.



FV at St. James' Church obligingly showing his Darvic ring (A. Hammond)

2017 breeding

Mating was observed on the tray at Trencherfield 31st March, and it was hoped the pair would stay and breed, as the Raven nest at the Chorley chimney had disintegrated. FV and JD were last seen in spring in Wigan on 8th April, and returned to Chorley town centre to breed instead in a tray erected at St George's church in 2012 after excessive rain had killed the young of a former pair, which had bred in an old Raven nest on a ledge. (This pair did not attempt to breed in the town centre again and relocated to a quarry site; the tray remained unused until 2017). Four young hatched, of which 3 fledged, being colour-ringed on 22nd May. Single adults were seen back at Trencherfield as early as 10th July, with both FV and/or JD identified as being present there or at St. James on one or more days by 16th August, and almost every day from 21st August. On 2nd August one, possibly 2 juveniles were with an adult, but this was the only sighting of young birds, despite a report from Chorley that the pair was still feeding one of the juveniles 11th August.

Discussion

Chorlev is a sizeable town with a population of 41000 and in common with all other Lancashire and Greater Manchester towns, it has a healthy population of feral pigeons. Wigan's population is 81000 and its only obvious advantage over Chorley for Peregrines is the proximity of the Wigan Flashes, an area of wetlands close to the town centre, though Peregrines are rarely seen there. Why, then, should a pair of Peregrines breed in one town and winter in another? This pair's earliest breeding opportunity was 2014 and despite wintering in Wigan from 2013, they chose to breed in Chorley (despite the provision of a nest tray in Wigan from early 2014). Philopatry then dictated that they return there to breed. However, there are two other pairs breeding about 5km to the north of Chorley, and by deserting their breeding territory for a large part of the year FV and JD must run a risk of losing it. By leaving Wigan with its two nest trays, those are available for other new pairs. The relatively early abandonment of their fledged young may be detrimental if they do not acquire the hunting skills from their parents that they need to ensure their survival. Discussions with other Peregrine enthusiasts and the London Peregrine Partnership confirm our view that this is unusual behaviour, and as far as we know has not been documented before.

Acknowledgements: thanks to David Bretherton, Neil Southworth and Paul Risley for their observations without which this article could not have been written. Thanks to Trencherfield Mill management and St James with St Thomas' Church for allowing the installation of nest trays.

Adrian Dancy made constructive comments on the first draft of this article.

References:

Drewitt, Ed. Urban Peregrines. Pelagic Publishing 2014. Ratcliffe, Derek. The Peregrine Falcon. Poyser 1980. 2nd ed.1993.

HEN HARRIER DAY, EDALE, 7th AUGUST 2016 (photos by Adrian Dancy and Judith Smith)



Listening to speakers

NERF members



Tim Birch, Derbyshire Wildlife Trust

Natalie Bennett, Green Party leader



Dr. Mark Avery

Hardyal Dhindsa, Derbyshire Police and **Crime Commissioner**