Northern England Raptor Forum

Annual Review 2018

Contents

Photographs:

Front cover – Long-eared Owl (Jonathan Coombs)
All other photographs - Acknowledgements are given with the photo.

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 and Crimestoppers 0800 555111
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
RSPB: Investigations Dept. 01767 680551. Investigations Officer (Howard Jones) 07834534142.
Hen Harrier sightings: RSPB hotline 0845 4600121 or henharriers@rspb.org.uk
Wildlife Incident Investigation Scheme (Natural England) 0800 321600
CEH Predatory Bird Monitoring Scheme 01524 595830

WARNING: dealing with raptors which might have been poisoned

Some poisons are exceptionally toxic and can be absorbed directly through the skin. Raptor Workers finding a raptor 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 two pairs. However standard, thin, household gloves are not effective against many of the poisons found 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.
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 pbms@ceh.ac.uk or the Wildlife Incident Investigation Scheme [WIIS] telephone 0800 321600.
The information should also be passed on to the RSPB Investigations Team telephone 01767 680551 or email crime@rspb.org.uk. For confidential reports of raptor persecution call 0300 999 0101.
Sick or injured birds can be reported to the RSPCA, telephone 0300 1234 999
All information and telephone numbers correct at September 2019.
For Local Police 'Dial 101' and ask to speak urgently to a Wildlife Crime Officer - please also ask for a wildlife incident number.

Thanks to Yorkshire Red Kites who compiled the original version of the above warning.

Foreword

Mark Thomas

Firstly, it's a great privilege to be asked to write this foreword for NERF's annual report, thank you.
Over the twenty years that I have worked for RSPB Investigations, personal interactions with raptor workers has been one of my job highlights. I remember well visiting my first Goshawk nest with members of the Peak group, quite exciting but overall an event with a feeling of real scientific purpose.
But raptor monitoring can have its lows as well as its highs. I have witnessed failed nests first-hand with the tell-tale signs of human interference, and frequently taken that call from the dedicated raptor worker with bad news. I share that pain every time. It's this that gives me drive and direction in fighting raptor persecution with my team.
Things aren't getting better, except in one area and that is the increasing awareness and support from the wider public. Despite all of our combined efforts we are not going to end raptor persecution without massive public awareness. This gives us a mission and increasingly the tools of the modern day enable us to get our message across very well.
So where is raptor monitoring taking us? Put simply, it needs to continue to provide the raw data that then allows stories to be told. These stories need to be simple yet powerful, illustrative and credible. I was pleased to be a co-author of the recent Peak District Raptor Persecution paper in the journal *British Birds*. A product of joint working between RSPB and a NERF member, it informed the readership of the problems facing Peregrines and Goshawks in the national park through a combination of 20 years' worth of raptor monitoring and persecution data. Maps showing grouse moor management left no one in any doubt as to the cause of the problems. This is a powerful advocacy tool and testament to the thousands of hours of voluntary work by NERF. We need to do more of this: data is redundant if it isn't analysed and shared for conservation purposes.
Supporting technology is improving all the time. For instance, who could have imagined the impact of satellite-tagging in determining the location and scale of raptor persecution?
Finally, without sounding rude, as with RSPB membership, I sense that the age of the average raptor worker isn't decreasing, so it may be time to purposefully address this. Many bird clubs are now piloting initiatives to harness the interests of younger people: this has to be the way. At a time when the awareness of environmental issues such as the ecological and climate emergency amongst young people is soaring then timing is of the essence. There can be no better legacy.
On behalf of the RSPB, I thank you for everything you do, you are our strongest ally and we truly appreciate it!

Mark Thomas, *Head of Investigations, RSPB*

Chairman's Report: September 2018 - September 2019

Every great idea starts with a thought and a question: *'What if……?'* Ten years ago that is how the NERF Annual Review came into existence. All the NERF Raptor Study Groups had already spent countless years, two decades and more in some cases, gathering data, but unless it is put into the public domain and made available to avian science then it's not data; it's ink on paper or endless rows of zeros and ones sitting on a computer microchip – all wasted. Several of the NERF groups were already publishing their own data annually or bi-annually; but *what if* all of the NERF members' collective data was published in one annual report in time for our annual conference the following year?

If we could achieve this, then NERF would be producing the largest, most comprehensive and up-to-date raptor-based dataset of the species that reside in, or transit through, the north of England. Once the discussion was opened the decision to make it happen came very quickly. The format was agreed and a deadline to publish in time for the NERF Annual Conference held each November was set. The first NERF Annual Review was published in November 2009. As anyone who gathers, collates and publishes data will know, deciding to do it and actually doing it are worlds apart. The workload is immense and to prepare an extensive report such as this one in less than 12 months, every 12 months, is a monumental task. This is the 10th NERF Annual Review, eight of which have been edited by Judith Smith, and we are deeply indebted to her for the patience and perseverance that she has shown during this time.

What will the next decade bring? Will the 20th NERF Review continue to report significant levels of persecution? Will groups be continuing to identify 'black hole species' within their study areas? Which species will benefit from global warming, and will other populations decline in the NERF study area or change their habitat requirements? There may be hints and indications on the near horizon; however in reality we just don't know. At the present time we are confident that we have a thorough knowledge of the three Harrier species, Peregrines, Goshawks, Merlin, Osprey and Short-eared Owls etc. and those studies will continue. However, it is clear that we will need to increase our surveillance of species such as Kestrel, Tawny Owl, Sparrowhawk and Little Owl etc. to ensure that we can accurately monitor the impact on these species too.

Having welcomed the Cheshire Raptor Study Group into the 'NERF family' in 2017 we are very pleased to announce that the Friends of the Northern Kites [FORK], initially based around the Gateshead Red Kite release site, are now full members of NERF. In addition, Doug Simpson of the longstanding Yorkshire Kites Project has agreed to join the Forum as an Advisor to NERF. The inclusion of these two new Groups and Doug further strengthens NERF's ability to speak for raptors in the North of England with a single voice.

Birds of prey have faced what appear to be insurmountable problems for decades, tens of decades in some cases. Victorian egg collectors plundered nests, potentially causing local extinctions. Dichlorodiphenyltrichloroethane, more commonly known as DDT, is classed as *'moderately hazardous'* to human beings in low doses by the World Health Organisation [WHO] and yet in the 1950s and 1960s this *'moderately hazardous'* chemical, used for agricultural pest control in the UK, resulted in the thinning of Peregrines' egg shells that may have caused localised extinction of this species had the product not been banned. Whilst the

potential and indeed actual harm to the Peregrine population was immense it was the result of an accidental by-product of an agricultural practice rather than a deliberate attempt to eliminate a predator.

Whilst the devastation caused by DDT was an unintended consequence of a lawful activity, the persecution of Peregrine Falcons across the northern uplands is ever-present. The latest national survey revealed that the population had risen slightly and this was trumpeted as a tremendous success by representatives of the shooting industry. At best this claim was disingenuous; the numbers barely changed and the survey quite clearly revealed that away from cities, coastal cliffs and inland quarries Peregrine populations remain well below the habitat carrying capacity. NERF data accurately exposes the reality in the northern uplands where large numbers of traditional sites have been abandoned following year after year of nest failure due to persecution. If past performance predicts future trends, it is obvious that NERF will need to remain vigilant over the next decade monitoring Peregrine sites, including previously abandoned sites, to ensure that we can continue to present an accurate picture of the upland Peregrine population.

Barn Owls are under-represented in many of the NERF study areas, and habitat loss over decades has played a pivotal part. Improved agricultural machinery and farming methods that enable the conversion of rough, unproductive pasture to grazing land, the removal of thousands of miles of hedgerows, the shift from hay meadows to silage production resulting in the loss of hunting habitat and increased effectiveness of rodent control all led to a reduction in prey availability. These changes, together with the conversion of barns, no longer required for hay storage, into rural dwellings have all taken their toll. However, once again these negative impacts are generally the result of unintended consequences rather than deliberate actions. The expansion of Barn Owl nest box schemes has helped to mitigate against some of these modifications to the rural landscape but other threats are on the horizon. Climate change, resulting in global warming and the erratic, wetter, weather patterns could cause additional problems in the future. Brexit, if it occurs, could lead to food shortages and the need for the UK to become more self-sufficient, which in turn may decrease habitat availability if land previously considered to be of marginal quality is improved for domestic food production. Whether or not these potential changes will have a negative impact on Barn Owls and Kestrels, which share the same habitat, only time will tell. However, it is already clear that the human activity that adversely affects the populations will need to be matched by additional mitigation measures such as the provision of nest boxes. The NERF data already published over the last decade will be of great benefit as we continue to map the population trend lines of these and other species in the North of England enabling us to develop plans to reduce the negative impacts where possible.

Of course it is not only Barn Owls that are vulnerable to climate change or shifts in environmental policies. We may already be witnessing the impact of climate change on Merlins in some of the NERF study areas. As the upland thermocline increases in altitude there are indications that Merlins are nesting at higher elevations, a situation that NERF is monitoring closely.

The Peregrine Falcon is not the only species that is vulnerable to continuing persecution. Red Kites, Goshawks, Short-eared Owls and Ravens are all species that suffer from persecution in the uplands. On 11th September 2018 a fell runner in the Dark Peak witnessed a Short-eared Owl being shot. Three weeks later a Tawny Owl, which had also been shot, was found dead hidden in a drystone wall in the same area. Both of these incidents took place on National Trust land in a Specially Protected Area [SPA]. Whilst the landscape may be protected it is self-evident that raptors, that also have legal protection status, are not immune to being killed in those landscapes. The cliché *'tip of the iceberg'* is frequently used when the level of raptor persecution is discussed and its use is often derided by representatives of the game shooting

industry. However, in relation to raptor persecution it undoubtedly reflects reality on the ground. We know this to be the case because the facts are laid bare in the data that is published annually by the RSPB Investigations Team in their excellent annual *Birdcrime* report. In addition to the information published in *Birdcrime*, details of the occasional criminal prosecution are in the public domain. What we don't know is the true extent of the problem; however, it is reasonable to assume that the numbers are higher than reported and therefore population levels are likely to be lower than we could reasonably expect if persecution wasn't an issue. This criminality is something that successive governments, their statutory nature conservation organisations and the police have spectacularly failed to address for decades; a subject that I will return to later.

The paucity of Hen Harriers across the northern uplands continues to give great concern to Raptor Workers, conservationists and the general public at large. In 2018 there were 14 nesting attempts, 2 of which had a polygamous male and both nests failed in suspicious circumstances at egg stage. Of these 14 breeding attempts 9 were successful, producing 34 young.

2018 was announced as a great year for the Hen Harriers in the North of England, but was it really? I suppose that depends on how that *'success'* is measured:

- if the number of chicks fledging this year is compared to the numbers fledging in recent years, then 2018 was a good year
- if the number of pairs breeding in the North of England, 9 pairs, is measured against the SPA designations, 11 pairs in the North Pennine Moors and 13 pairs in the Bowland Fells, the situation doesn't look so good after all. We should have seen 24 pairs from those 2 areas alone, not 9 across the whole of England. If Hen Harriers had only bred in those 2 SPAs and nowhere else, and if they produced an average of 4 chicks per nest, then we would have seen 96 chicks from those areas alone. The situation looks, and is, disastrous if the 9 successful pairs are measured against the scientifically projected carrying capacity of 332 pairs potentially fledging in excess of 1250 young across the North of England moors.

NERF both recognised and celebrated the slight improvement in Hen Harrier breeding success during 2018 but it proved too soon to break out the champagne. Twenty-eight of 34 English chicks fledged from the nests were monitored by NERF in 2018 and many of these chicks were fitted with satellite tags as part of the RSPB's Hen Harrier LIFE+ Project. By mid-August the chicks were already flying free and some had dispersed from their natal areas.

Unfortunately as the chicks departed from their natal, relatively safe, areas then it became business as usual for the individuals who are prepared to break the law and kill Hen Harriers. Once again future trends were predicted by past events and many of the cohort of 2018 satellite tagged by the RSPB had joined the ranks of the *'disappeared'* by Christmas, never to be heard of again.

Hilma was the first to be declared dead on the 8th August. Athena, Octavia, Heulwen, Margot, Stelmaria, Heather, Mabel and Thor followed. On the 26th October Arthur was the last of the 2018 cohort to be declared dead in their first six months of life. 2019 didn't start off any better when River's tag was reported to have suffered from a catastrophic, unexplained failure in the Yorkshire Dales. River's body was recovered sometime later; he had been shot. Vulcan was next when his tag also suffered from a catastrophic, unexplained failure. Vulcan's demise occurred in Wiltshire a few miles north of the release site chosen by Natural England for their Hen Harrier Southern Release Project; a flawed scheme that NERF opposes.

However, it is illogical to assume that it is only satellite tagged birds that have *'disappeared'* in unexplained circumstances. There can be no doubt that many more birds from the 2018 cohort would have joined the *'disappeared'* before Christmas. Taking into account the ratio

of satellite-tagged to untagged chicks the number of untagged birds that are likely to have met an untimely demise could be as high as double the number of tagged birds. History teaches us that these additional losses would also predominantly occur on land managed for driven grouse shooting.

The evidence that Hen Harrier chicks disappear without trace at the same time that their satellite tags unexpectedly stop without any indication of malfunction is not restricted to chicks tagged as part of the RSPB Life Plus Project. A recently published scientific paper [Murgatroyd, M. *et al.* (2019) - *Patterns of satellite-tagged hen harrier disappearances suggest widespread illegal killing on British grouse moors*] analyse data, covering a 10 year period, provided by Natural England, states that:

"Using data from 58 satellite tracked hen harriers, we show high rates of unexpected tag failure and low first year survival compared to other harrier populations. The likelihood of harriers dying or disappearing increased as their use of grouse moors increased. Similarly, at the landscape scale, satellite fixes from the last week of life were distributed disproportionately on grouse moors in comparison to the overall use of such areas. This pattern was also apparent in protected areas in northern England. We conclude that hen harriers in Britain suffer elevated levels of mortality on grouse moors, which is most likely the result of illegal killing".

The paper went on to reveal the true extent of the problem reporting that:

(i) Bird dead, confirmed to have been illegally killed or (ii) tag harness recovered intact with no evidence of bird = 4 (7%)

Transmitters suddenly stopped with no malfunction detected = 38 (66%)

The results from the analysis of this data are staggering and prove what raptor workers and others have been saying for years. Our concerns are no longer anecdotal; they are based on facts produced by leading professional ornithological scientists from Government data. Following on from the results outlined in this paper, once again, it is not unreasonable to assume that if 73% of the tagged birds disappeared with persecution being the most likely cause, then 73% of untagged birds met the same fate on land managed for driven grouse shooting.

The full version of the scientific paper can be found at:
https://www.nature.com/articles/s41467-019-09044-w

In another recent study – *'Metabarcoding-based dietary analysis of Hen Harrier [Circus cyaneus] in Great Britain using buccal swabs from chicks'* [Nota, K. *et al.* 2019. Conservation Genetics] produced some interesting results identifying Hen Harrier prey species.

The use of buccal swabs:

.....resulted in detection of 62 species of prey across 51 broods with Meadow pipit, Red grouse, Wren, Skylark, and voles being most frequently detected. Frequency of occurrence data and species accumulation curves reveal high incidence of Red Grouse and low prey species richness in the diet of hen harriers in DGMs [driven grouse moors]but low incidence of Red Grouse and high prey species richness in walked-up and unmanaged moors. Waders were only detected within walked-up and unmanaged moors and not within DGMs where they have been reported to occur at high densities.

The use of buccal swabs to identify Hen Harrier prey species is new and innovative. In some ways it confirms what we, as raptor workers, already suspected and in others it produces unexpected results including *turkey*, which was present in one English driven grouse moor [DGM] sample. Other unusual domestic species detected were *goat*, found in a single brood from an English DGM, and *badger* found in three broods from English DGMs across two

different years [one brood in June 2006and two broods in July 2007]. The locations of these grouse moors are not disclosed in the paper.

The findings that waders were only detected on moorland that is not intensively managed for grouse shooting, and not in swabs taken on driven grouse moors, is interesting. This is remarkable for a number of reasons, not least because we are constantly told by the shooting industry that grouse moors are fantastic for waders. If waders are found in the diets of Hen Harriers on unmanaged moors, which we are told provides poor habitat for waders, then it would be reasonable to expect to find an increase in the number of wader prey samples obtained from intensively managed grouse moors. The evidence produced in this paper suggests that this is not the case and the rhetoric that we hear from the shooting industry is just that, rhetoric.

Whilst the reasons are understandable, it is nonetheless worthy of comment that neither the RSPB data nor the data published by Murgatroyd *et al*. attempt to calculate how many winter migrants from the near continent also suffer from persecution as they move around the upland winter roosts. In line with what we know from the data that has already been published that number will be significant.

From a positive public relations point of view it is understandable that the recent publicity generated by Defra, Natural England and representatives of the shooting industry has tended to focus on the good news. They particularly highlight the fact that the number of Hen Harrier chicks fledging during 2018 and 2019 have been slightly higher than previous years rather than addressing the continuing problem of birds of prey persecution as a whole. However, we must not lose sight of the fact that it is not just Hen Harriers that are persecuted on driven grouse moors. Marsh Harriers are equally vulnerable to persecution, as evidenced by the incident that occurred on a grouse moor on Denton Moor in 2017, as are Short-eared Owls and Peregrine Falcons.

Natural England's data and RSPB Hen Harrier Life+ data proves beyond any doubt that persecution on driven grouse moors is having a serious negative impact on the species. The problem is simple – criminals kill birds of prey, including Hen Harriers, on grouse moors. NERF acknowledges that the solution is not simple; however the response from Governments of all persuasions has been to sit around the table in search of a negotiated settlement for decades to what is euphemistically called the Hen Harrier / Red Grouse conflict. To be clear: there is no conflict between these two species, it is a term used by the shooting industry in an attempt to deflect the fact that criminality is at the heart of the problem. These crimes are committed by people who believe that the law does not apply to them or their industry. This should come as no surprise to anyone remotely interested in the well-being of the English Hen Harrier population. In 2008 Natural English published a paper entitled *'A future for the Hen Harrier in England?'* in which they said:

"There is compelling evidence that persecution continues, both during and following the breeding season. Persecution continues to limit Hen Harrier recovery in England."

Natural England staff have worked tirelessly on the ground for almost 20 years and in that time the English Hen Harrier population has barely changed, hovering between zero and three dozen chicks fledging each year. Clearly the so-called negotiations have gone nowhere. Throughout that period the grouse shooting industry has held the whip hand in the knowledge that change would only come if they got their own way and were allowed to control the number of Hen Harriers attempting to breed on grouse moors. The government's lamentable response to tackling Hen Harrier-related crime is to import continental birds and release them in southern England, and implement brood management. The good news is that so far potential donor countries have seen through this sham and have declined to provide birds that are likely, on the evidence that we have to date, to be killed at the altar of game shooting.

Regrettably brood management also remains a flagship policy of Defra's Hen Harrier Recovery Plan. This scheme, which (following demands from landowners), only permits one pair to raise a brood in an area of 314 square kilometres. All additional broods found breeding in that area are then taken into captivity and are reared to the point where they are capable of hunting their own prey. Theoretically the chicks should be released in the same area from which they were removed; however the definition of 'same area' appears to be somewhat flexible. NERF is opposed to this scheme for a variety of reasons; amongst them are;

- Hen Harriers are semi-colonial breeders,
- it rewards decades of criminal behaviour with no guarantee that once the chicks are released they will not be killed,
- there is no guarantee that the adults won't be killed after the eggs / chicks have been taken into captivity,
- the scheme is being predominantly funded from the public purse.

The Brood Management Scheme was implemented in 2019 in the Yorkshire Dales, a region with a long history of raptor persecution, including Hen Harriers. This is an area which saw the demise of the Bowland-bred Hen Harrier *Bowland Betty*; she had been shot. Nearby a Hen Harrier nest in which the eggs had been crushed was found. More recently, a man with a gun and dogs was filmed in a remote Hen Harrier winter roost by RSPB investigators. Fortunately no birds were killed on that occasion. Finally *River*, another Bowland chick, was recently recovered after the satellite tag stopped functioning. That bird had also been shot. Five chicks were taken into captivity; they were fitted with satellite tags and released. Theoretically they were supposed to be returned to the area from which they were removed. However, we now know, from an email sent by Professor Ken Norris, who is a member of the Brood Management Steering Group, to the rest of the Steering Group members, that this didn't happen. In the email he raises concerns from Jemima Parry-Jones, that *'no grouse moors had come forward to allow birds to be released in their land'*. That comment is interesting, disappointing but hardly surprising. Why didn't Natural England have a written contract with the estate in question confirming that the chicks would only be removed on the condition that they would be returned to the same ground after they had fledged? For years we have been told by the Moorland Association that the future success for Hen Harriers depended on 'trust'. Gamekeepers needed a strategy to lawfully deal with what they perceived to be excess numbers of Hen Harriers to ensure that the grouse moors remained viable. The refusal of grouse moor owners to accept brood-managed chicks back on to their land is yet one more example of 'trust' being a one way street. It's all very well proffering a large carrot, in the form of brood management, to grouse moor owners but it needs to be accompanied by a very large 'stick'. Where is the 'stick'? NERF believes that the 'stick' should be in the form of licensing grouse moors backed by an ability to ensure the scheme is adequately policed.

It is clear from Natural England's own data that 73% of their satellite-tagged birds go missing on grouse moors within the first year of their life, and that the cause of their disappearance is, in all probability, as a result of persecution. Following that pattern we can expect three or four of these brood-managed chicks to 'disappear' - tag stopped, no malfunction, in the same type of habitat and for the same reason. It took ten years before Natural England issued their paper outlining the results of their data analysis. The Brood Management project is designed to last five years; will we have to wait until the end of the experiment before we are told that birds within the scheme were systematically killed on land managed for driven grouse shooting, or will Natural England and the other partners in the scheme be open, honest and transparent in real time? Clearly now that Brood Management has taken place there are more questions than answers at the present time and NERF will continue to monitor the situation

closely. In the meantime we also await the outcome of the legal challenge to the scheme made by Mark Avery and the RSPB, which is presently with the courts in the appeals process.

The RSPB Hen Harrier Life+ project is drawing to an end in autumn 2019 after five years. NERF has been a partner in the project throughout and has committed thousands of hours locating nests, monitoring the nests during the breeding season, ringing the chicks and monitoring them until they left their natal areas. During autumn and winter NERF members spent long evenings, often in adverse weather conditions, monitoring and protecting birds at winter roost sites. The project has produced some very interesting data so far and I look forward to reading the final results in due course. NERF may be a voluntary organisation but in my opinion has contributed a very significant amount to the project, which could not have been undertaken by any other group, professional or volunteer, and NERF should be proud of that achievement. Of course our involvement with the project was not just about the birds; it was also about our relationship with the project staff. Regrettably, that too is coming to an end. We knew from the beginning that the project had an end date, and that the staff would move on to other things, and because they were project staff this would in all probability mean leaving the RSPB. On behalf of NERF I want to pay tribute to Cathleen Thomas and Roisin Beck Taylor who had to deal with the endless bureaucracy, and to Tom Grose and Jack Ashton-Booth for their hard work and dedication in the field. From our personal contact with them working in our respective study areas we have some idea of how difficult, and sometimes dangerous, their lives have been whilst working on the project. It was not unusual for them to be working in one of our study areas in the morning and in another, hours away, that same evening, whatever the weather. We, and the Hen Harriers of the North of England are indebted to them and their families who supported them.

The departure of Tom and Jack from the project means that they will also be leaving the Investigations Team, unless additional funding for their posts can be found by the RSPB. Their departure will have a profound impact on the Team's ability to investigate bird of prey crime in the NERF study areas, something that those intent on persecuting raptors will seek to profit from. Hopefully by the time of publication the situation will be resolved and both Jack and Tom will be permanent staff within the Investigations Team.

Wildlife crime has rarely featured on the police priority list despite the fact that there is a National Wildlife Crime Unit. I understand that; they have other more pressing matters on which they need to commit their limited resources. That said, it is more difficult to understand why many police forces fail to deal with what are after all criminal offences when they are reported to them. Often the crimes that are reported to the Police are accompanied by evidence leading to an identifiable suspect.

NERF has been a member of the Raptor Persecution Priority Delivery Group [RPPDG], a sub-group of the police-led Partnership for Action Against Wildlife Crime for the past decade and a previous recipient of the PAW Partner of the Year Award. The RPPDG is charged with preventing raptor persecution; unfortunately throughout that period the Group achieved absolutely nothing whatsoever. Every positive idea put forward was objected to by the representatives of the shooting industry and previous Chairmen tolerated their negativity, thereby stopping progress in its tracks. Superintendent Nick Lyall was appointed to the role in October 2018 and he has achieved more since then than the previous holders of the position did in the first 9 years. The imbalance on the Group between conservationists, RSPB and NERF, and the shooting industry, Moorland Association, BASC, Countryside Alliance and the National Gamekeepers Association, has been rectified, not without challenge, by the inclusion of representatives from the Wildlife Trusts, the National Parks and AONBs. This is a very welcome move.

North Yorkshire has been the bird of prey persecution hotspot for many years, including within the boundaries of both the two National Parks and in the Nidderdale Area of Outstanding Natural Beauty. NERF welcomes a recent report from the AONB, which highlights the impacts of persecution in the area and sets out a plan to address the situation over the next 5 years. NERF looks forward to working with the Authority to ensure that we see a positive outcome for raptors in North Yorkshire. The full report can be downloaded at: https://nidderdaleaonb.org.uk/special-qualities/wildlife-and-habitats/birds-of-prey/
'Operation Owl', initially a North Yorkshire Police project designed to deal with wildlife crime through public engagement and law enforcement, is now being rolled out nationally under the mantle of the RPPDG with support from the Police Chief's Council. This is to be celebrated. Hopefully Operation Owl will help to bring about a long lasting change and a positive future for birds of prey. Time will tell.
These changes are a positive start and NERF looks forward to working with Nick and other like-minded organisations to ensure that birds of prey have a future free, as far as it is possible, from persecution.

Steve Downing, *Chairman, Northern England Raptor Forum*
September 2019

Secretary's Report: August 2018 - August 2019

This report is the tenth Annual Review published by NERF and details the combined results of the extensive fieldwork undertaken by our volunteer members. The data on raptors and Raven presented here come as a result of multiple, long-running field studies by experienced observers. It provides a comprehensive, evidence-based picture of the breeding success or otherwise of the most iconic birds in the northern uplands. The information is used in species' and habitat conservation and protection and to inform the debates that surround these issues.
The extent of NERF's geographic coverage through its individual member groups is explained in the pages that follow. In 2019 we welcomed the Friends of Red Kites (FoRK) in the North England of England to membership of NERF. FoRK is an established and highly committed group and we feel certain that the new ties will bring mutual benefit. Links to Red Kite have been further strengthened by the adoption of the Yorkshire Kites organisation as advisers to NERF. Detailed information on our activities and composition can be found on our website www.raptorforum.co.uk which also includes contact details. Members meet formally twice per year and conduct business via email at other times.
Since my last report, dated August 2018, our website has continued to include a number of public statements setting out NERF's position on matters of common concern to members. In particular we have commented on the regular loss of satellite-tagged juvenile Hen Harriers, on the landmark published paper which explained the root causes of these losses and on the misguided Hen Harrier Brood Management scheme.

In August 2019, NERF organised the 2nd Raptor Persecution Awareness Open Day event in Goathland, North York Moors to raise awareness of the issues. We are grateful to all those who came to lend their support and voice.
Last year's North of England Raptor Conference was hosted by the North York Moors Upland Bird (Merlin) Study Group and held at Askham Bryan College, York in November. The programme not only proved to be very successful but it also attracted a record attendance for these annual events. The range of excellent speakers delivered informative and enjoyable presentations covering Honey-buzzard, Goshawk, Merlin, Raven and Short-eared Owl studies. We would like to thank those organisations who sponsored the conference – Paramo Clothing, the Forestry Commission, Yorkshire Water, The Hawk & Owl Trust, RSPB and the North York Moors NPA.
Our work as a specialist contractor to the RSPB Hen Harrier LIFE+ Project continued with field observations made on year-round movements, winter roosting and spring and summer nesting attempts. As this 5 year project comes to an end the commitment by NERF members to monitoring and safeguarding Hen Harrier will move into a new phase but will remain a clear priority.

David Raw
Secretary to NERF, August 2019

Raptor Persecution Raising Awareness Day – Grassington Saturday 11 August 2018

Steve Downing

Hen Harrier Day, Sheffield 18 August 2018

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 lying 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.

Friends of Red Kites (FoRK) in the north east of England
Extent of coverage: FoRK monitors the continuing fortunes of the population of Red Kites originally released under the Northern Kites Project which was centred on Gateshead Borough, Tyne & Wear. This remains the core breeding and study area and present day FoRK activities therefore concentrate on this area which straddles the north-west portion of the historic vice-county of Durham and the south-west portion of Northumberland. FoRK also coordinates the monitoring of any Red Kites occurring more widely across County Durham and Northumberland as a whole. *See article elsewhere in this Review.*

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.

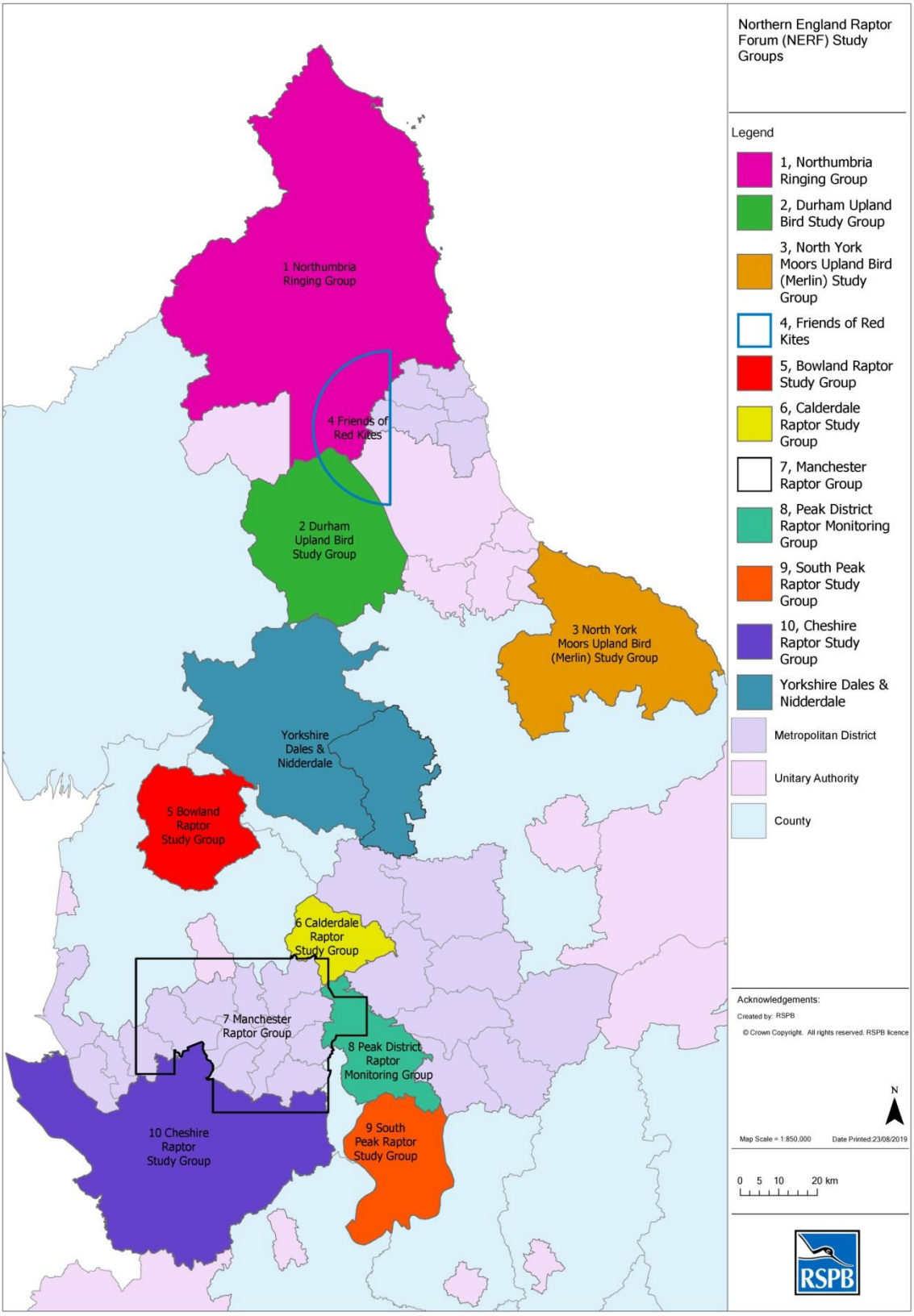
Northumbria Ringing Group
Extent of coverage: Part upland & part lowland areas.
The group is active throughout the county of Northumberland. The data in this report primarily refers to the Cheviot uplands, the Kielder Forest, the Border Forest, and a small section of eastern Cumbria around Kershope where 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
Extent of coverage: No formal RSG exists but records of monitoring are gratefully received from several independent sources, especially the Yorkshire Dales National Park Authority.



NERF is very grateful to Robin Lyon Sinclair at the RSPB for compiling the revised map of the groups' areas.

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 occurred.

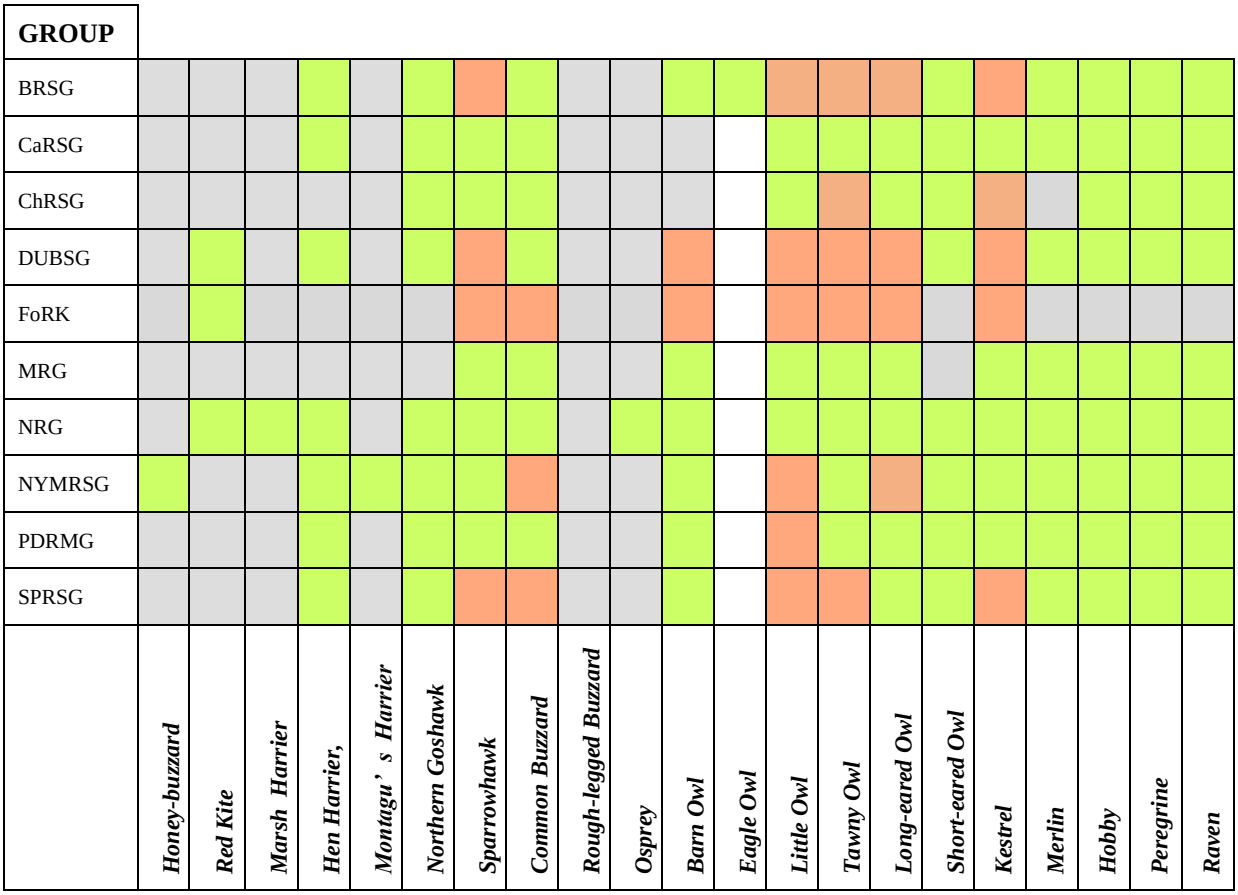
NERF regional species monitoring

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 on p.18 graphically indicates the level of monitoring undertaken by NERF. Analyses of the species 'breeding & monitored' /' breeding & not monitored' / 'absent' / 'passage' data, identify 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

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

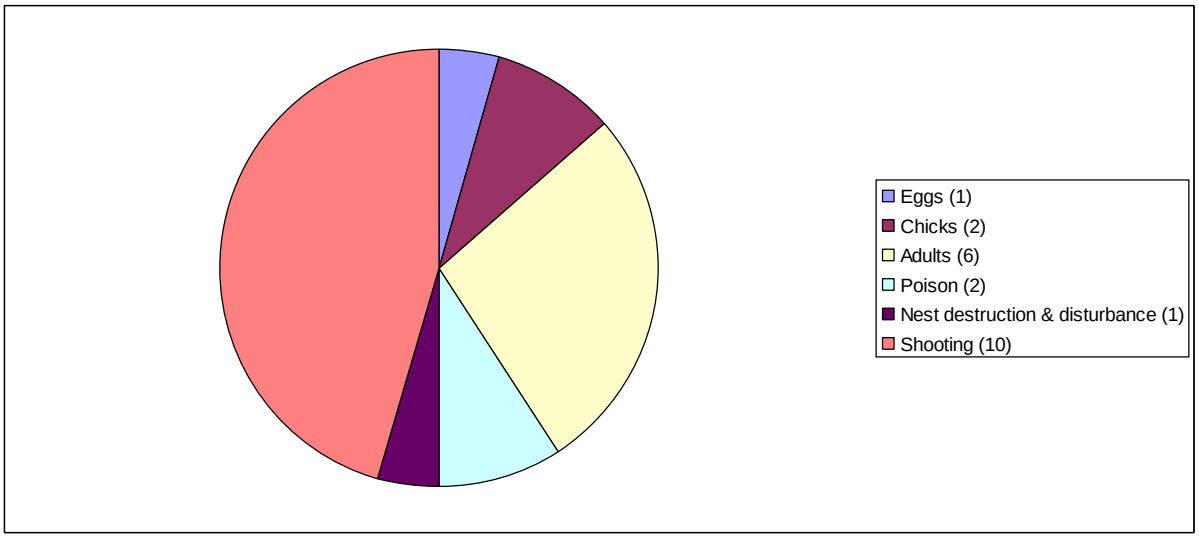
NERF regional persecution data

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 in 2018 was 22, maintaining the downward trend seen in 2017 (21). However, caution must be exercised. In 2015 a decision was taken, in conjunction with the RSPB, to record incidents only where persecution was known to have taken place, rather than where it was strongly suspected but could not be proved. Therefore only incidents reported to the police or RSPB Investigations are included below.

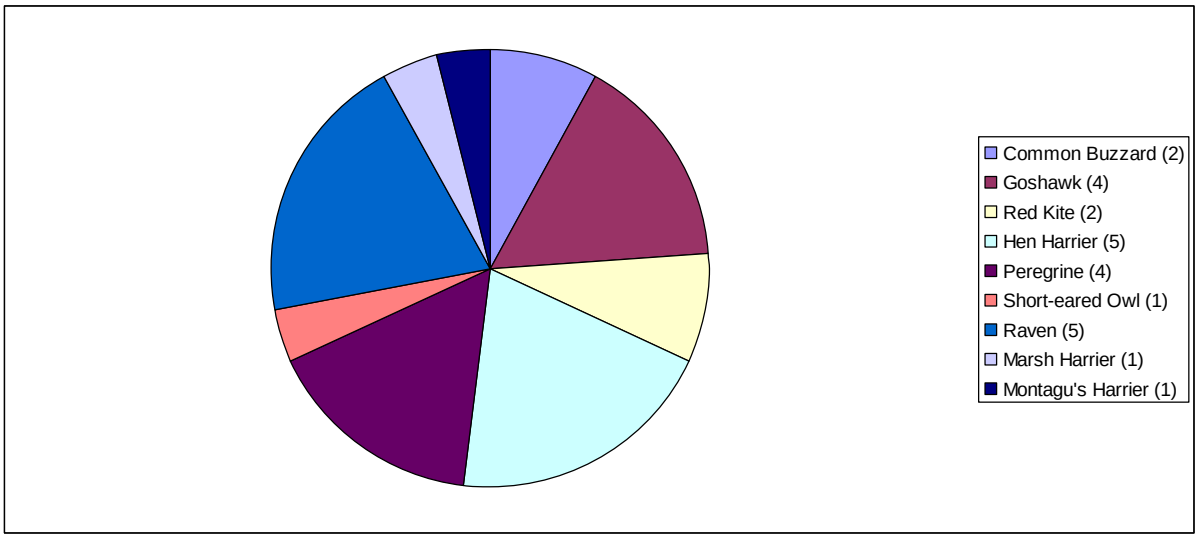
Persecution by type 2018 *(figures in parentheses refer to number of incidents)*



Black Hole species

During 2018 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 habitats. The pie chart indicates the species and the number of NERF member Groups experiencing reduced populations.

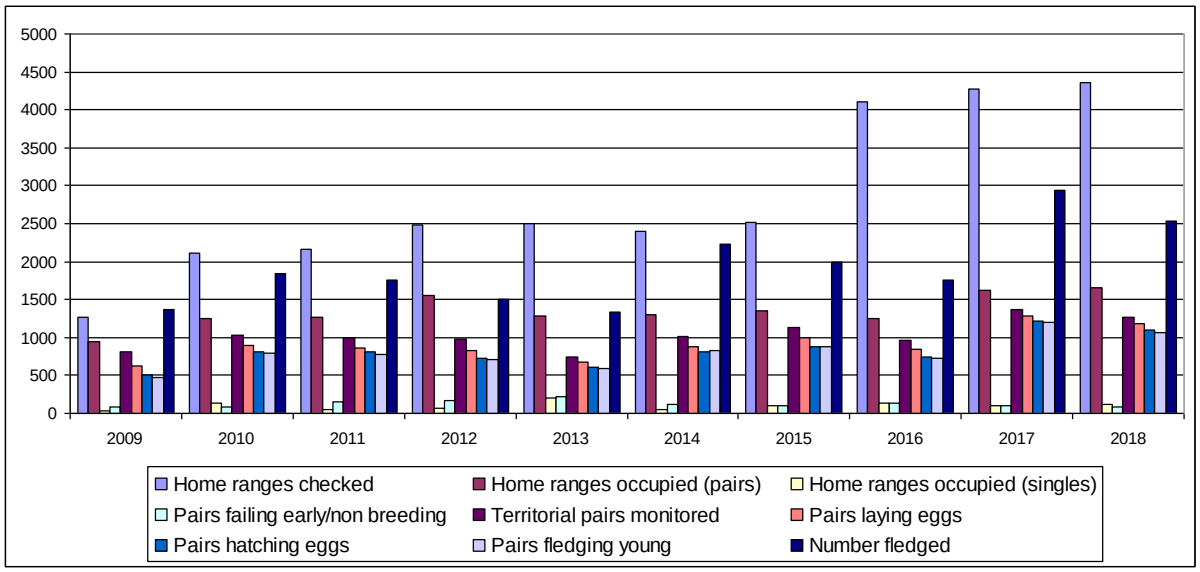
Black Hole species in 2018 *(figures in parentheses refer to number of groups listing species)*



Summary

Within the NERF region 19 raptor species were monitored and / or recorded by Group members during 2018. Additionally this year, there were records for White-tailed Eagle, Rough-legged Buzzard and a new species for NERF, Snowy Owl. None of these bred, but a short section on them is included after the main Species Reports section, where full details of work undertaken with the 19 monitored species can be found. 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 - 2018 are presented in the table following.

Combined statistics 2009-2018



2018 was a mixed year. Whilst Raptor Workers had the highest number of Home Ranges Checked (4360) and Home Ranges Occupied (1786), Territorial Pairs Monitored at 1270, Pairs Laying Eggs at 1183, Pairs Hatching Eggs at 1093, Pairs Fledging Young at 1065 and Numbers Fledged at 2538 were down on 2017. Home Ranges Checked was up 1.97% over 2017 and Home Ranges Occupied was up 9.69%. Pairs failing early or failing to settle, again showed a decrease to 87 compared with100 in 2017. The Minimum Number of Fledged Young at 2538 was down compared with 2928 in 2017, but that was the first year since 2014 that numbers broke the 2000 mark, and 2018 maintains that trend.

The early spring was colder than average but late April and May enjoyed a warm spell, and this was followed by one of the hottest summers on record. The parched grassland and moors probably militated against high numbers of rodents and the devastating fires on the West Pennine Moors and Saddleworth Moors sadly burnt out at least 2 Merlin nests. Barn Owls, too, were affected with dehydrated young being found in some boxes. It was not surprising, therefore, that Numbers Laying Eggs was down 7.7% on 2017 and Pairs Hatching Eggs was down 9.52%, nor that Pairs Fledging Young declined by 13.32%.

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.

Species reports

Editor's note:

Please note that the species are now arranged in BOU order. This changed (yet again) in January 2018.

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

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

Rarer species which occurred but did not breed are included on a separate section at the end of the species reports.

Osprey *Pandion haliaetus*

Ivan Ellison

UK population estimate

216-258 breeding pairs were estimated in the UK in 2017 by RBBP with a 5-year mean of 240. Of these, 21 pairs were in England and 19 of these fledged 35 young (Holling, M. *et al.* 2019 *in press*). 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. A further scheme to expand the population into southern England, based at Poole harbour, is also underway.

Conservation status

UK: Amber
European: 3: Concern, most not in Europe; rare
Global: Least concern
Listed 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 in Great Britain, *British Birds* 110 September 2017)

National and regional threat assessment

For a large bird of prey, Ospreys have fewer threats than many other species of raptors in the UK. With increasing populations throughout the country and a new release site in Dorset, the next few years should see continuing growth in the number of nesting birds.
The risk to the birds will be disturbance at the nest but it should be easy to reduce any problems by discussions with landowners and the judicious use of nesting platforms.

Other threats might come from “some” fishing clubs, but in NERF experience most fisherman like Ospreys and enjoy watching the birds.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
NRG	6	6	0	1	5	5	5	4	8	1.60	1.60

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.
Several Ospreys are seen each year, either passing through or lingering for a few days at Stocks Reservoir, so far always on their own.

Calderdale Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
Ospreys are passage migrants transiting Calderdale in both spring and autumn. Five sightings were made in spring on 21st, 22nd and 25th March and on 20th and 24th April as the birds continued northwards to their breeding grounds.
The only sighting in autumn, when the birds were returning to Africa, was made on 9th September.
The pattern of recording more birds crossing the study area as they fly north in spring than are observed in autumn, as they return south after the breeding season is consistent year-on-year. On a theoretical level this is counter-intuitive, the observer effort within the study area is the same in both spring, when fewer birds migrate northwards and autumn when the population is considerably higher after the breeding season. It would appear, therefore, that the southern migration route does not cross Calderdale.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
Numbers of birds frequent the Cheshire meres in spring and late summer. Migration was down on other years in 2018.

Durham Upland Bird Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur as a breeding species.
Ospreys have shown an increasing and extended presence at Derwent Reservoir in the far north of the County in recent springs and summers and 2018 proved to be no exception. Despite this trend they are yet to breed in the County. Detection of birds bearing colour rings suggest the increase is in part due to the expanding population in Northumberland. Light spring passage was generally evident from early April through until May and autumn passage in August.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
14 spring sightings and 4 in autumn, were down on 25 in 2017. The first sighting was 2 weeks later than in 2017, possibly due to "the beast from the east".

Northumbria Ringing Group
Extent of coverage: Whole County.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
The Northumbrian population is still rising slowly, with an exciting 6 pairs this year, (4 in 2017), although only 5 laid eggs; the remaining pair were sub-adults which held a territory but did not breed. The other new pair was found breeding in a tree in a wind throw area. At least one chick hatched, but it died at about 3 weeks old so the nest failed.
The other 4 nests all held clutches of 3 eggs and produced broods of 3, 2, 2 and 1, fledging a total of 8 chicks.
Over the course of the summer, the nests were often visited by non-breeding birds, which mostly came from the east side of Scotland, but also from Cumbria and Wales. Best of all was our own Kielder bird (Blue Ring UV), who is now 4 years old, and perhaps looking for his own nest site?
Like all the other NERF areas, Northumberland gets passage Ospreys as well and these are widely reported, and even expected, at the well-watched sites.
It's only a matter of time until Ospreys start to populate new areas of the county, as the Kielder population cannot go on expanding for ever!

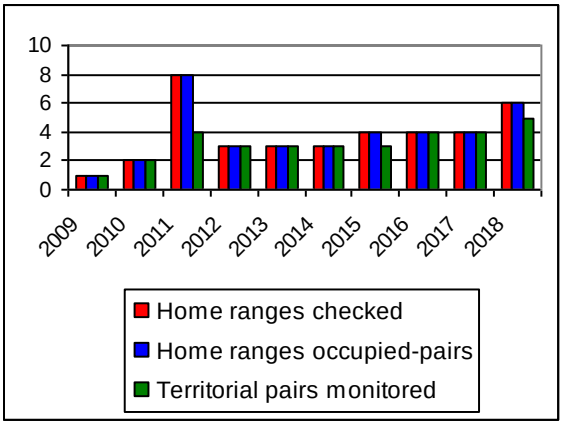
North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Not known to occur here as a breeding species.
The only records gathered refer to presumed passage birds observed by members of the Teesmouth Bird Club at the 2 northern reservoirs Scaling Dam and Lockwood Beck. Between 6th April and 21st August Ospreys were seen at Scaling Dam on 23 dates, usually only single birds but 2 were present on 5th, 7th and 12th June and 3 on 14th June. There was only one sighting from Lockwood Beck, that on 10th July of a single individual.

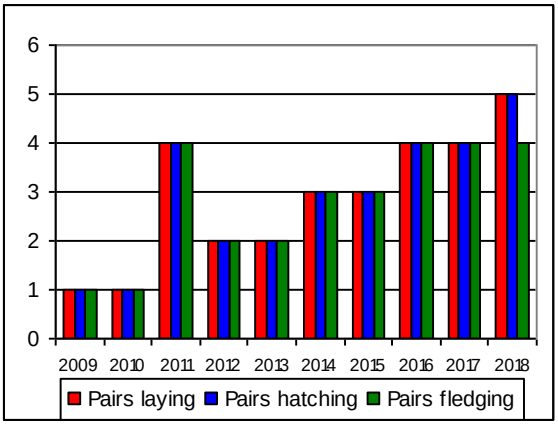
South Peak Raptor Study Group
Extent of coverage: Part upland & part lowland areas.
Level of monitoring: Not known to occur here as a breeding species.
The increase in populations around the UK again resulted in frequent sight records throughout the study area in the spring and the autumn months. Isolated sightings along the River Derwent north of Matlock in the spring raised hopes of a colonisation attempt, but no nesting behaviour was seen. There were two sightings of birds in the Haddon area near the river by one member involved in CBC work at the time.

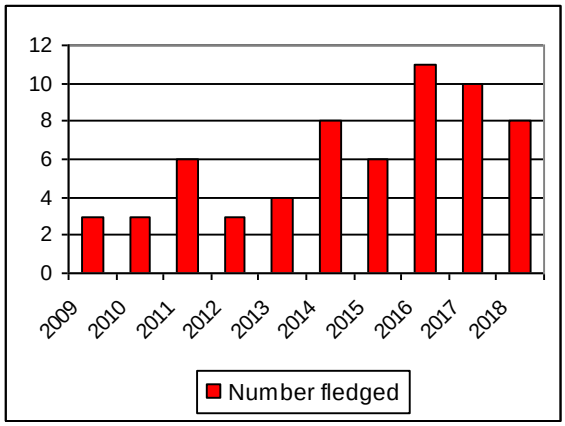
NERF regional summary

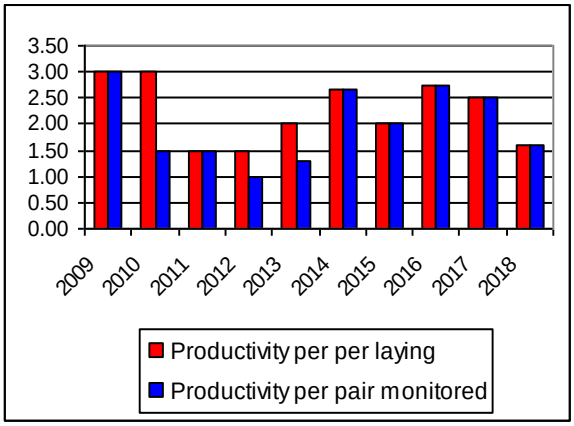
Once again the only nesting birds in the NERF area were in Northumberland; the Kielder birds increased further with 5 breeding pairs, fledging 8 chicks.
As in other years there are still no signs of Ospreys starting to expand their populations, even in Northumberland.
All NERF regions recorded migrating Ospreys, with more and more birds being recorded, and water bodies like Derwent Reservoir, Scaling Dam, Lockwood Beck, and various rivers all having records. Of interest at Scaling Dam, single Ospreys were seen on 23 dates, but with 2 together on 5 dates in June/July.
It's hard to say why Ospreys have yet to expand more in the NERF area, but it will happen. The use of nesting platforms is a great way of getting the birds to colonise a new area, but the erection and siting of these need careful planning, whether in a tree or on a pole.

Comparative data 2009-2018









Honey-buzzard *Pernis apivorus*

John Harwood

UK population estimate

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. 27-47 pairs were reported in 2017, with a 5 year mean of 39 (Holling, M. *et al.* Rare breeding birds in the UK in 2017. RBBP 2019 *in press).*

Conservation status

UK: Amber
Europe: Not of concern
Global: Least concern
Listed on Schedule 1 of the Wildlife and Countryside Act 1981

National and regional threat assessment

The most serious threat to the welfare of this species in the UK arises from the attentions of egg collectors, clutches of these birds being highly prized. However, the secretive, low profile behaviour of birds whilst nesting works in their favour. Location of nests from

observation is invariably extremely time-consuming, and often an ultimately unsuccessful undertaking. Direct persecution from gun or trap in Britain is of relatively rare incidence compared to that suffered by other large raptors. 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.
Fortunately, the species does not depend solely on moorland habitat for food acquisition during the breeding season and therefore does not come into contact with the gamekeeping fraternity there with any frequency. In any case, Honey-buzzards present no threat to grouse stocks as they feed principally on the larvae of bees and wasps excavated from their nests over the period when young grouse are at risk from raptors.
Extremely wet summers can have a catastrophic effect on breeding success if there is large scale wash-out of bee and wasp nests. Luckily, UK birds migrate to Africa in relative safety crossing the Mediterranean via Gibraltar. No doubt hunters will account for some birds en route but almost certainly nothing like the numbers shot illegally further east in Malta.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
NYMUBSG	9	0	3	0	0	0	0	0	0	0.00	0.00
SPRSG	1	0	1	0	0	0	0	0	0	0.00	0.00
TOTAL	**10**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**	**0.00**

Group Reports

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
The total number of birds recorded for the season was 6. Of these 3 were seen regularly throughout the summer: a male bird from 2017, a new male and the well-established female that had bred at 3 different sites since 2010. The other 3 individuals were transient visitors observed the once only. Disappointingly, yet again there were never any indications of nesting activity observed.

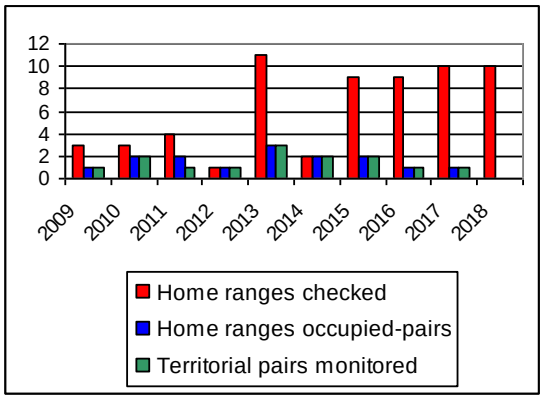
South Peak Raptor Study Group
Extent of coverage: Part upland & part lowland areas.
Level of monitoring: Very occasional breeding species, nests monitored when found. Following regular sightings of a pair in the SPRSG's recording area during 2016, a pair bred in 2017, raising one youngster, which fledged in mid-September. This was the first breeding record for Derbyshire. Confidentiality was observed during these 2 seasons to protect the site and the birds. In 2018 a territorial male was present from 28th May and display was noted and the old nest was attended and repaired. The male bird was missing some primaries from his right wing but his flight seemed unaffected. Unfortunately, no female bird was present at the site in 2018. There were 4 well-spaced sightings of passage birds at Ogston Reservoir; 2 birds in spring and 2 different birds during the autumn.

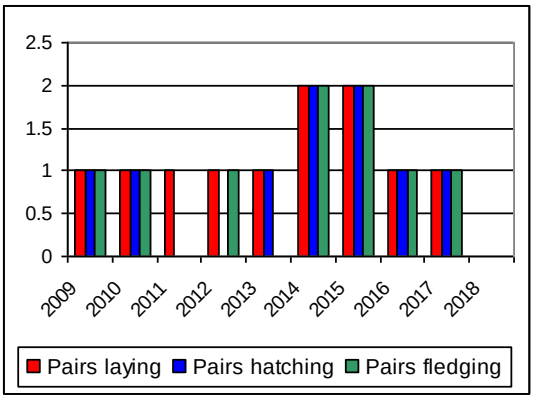
There were no reports of birds from any of the other Groups.

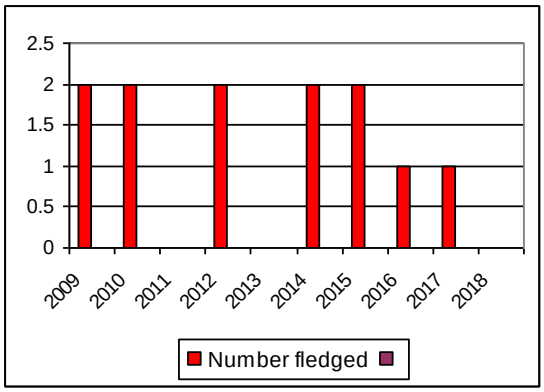
NERF regional summary

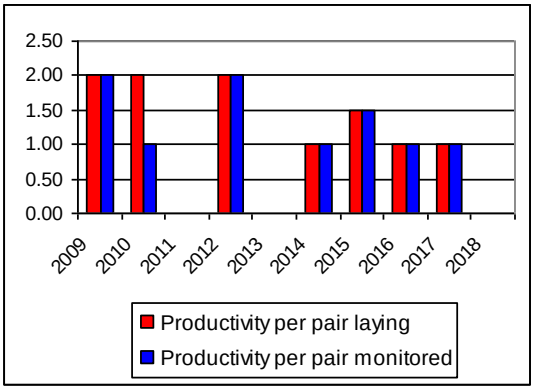
The situation regarding the small North Yorkshire Moors population shows no sign of improving. It is now 2 years since successful breeding was recorded there. It is also very disappointing that no nesting occurred at the South Peak District site following the success of the county's debut pair in 2017. It is possible that environmental problems might be the root cause of failures to breed perhaps by affecting food availability adversely. Opinion among, not only raptor workers but the public at large, is that wasp numbers have been at very moderate levels in recent years. Customers enjoying refreshments in summer beer and café gardens have been pleasantly surprised not to be pestered by hordes of these insects assaulting their cream teas. Whatever the problem is, at this point in time, the future breeding status of the species regionally is looking rather precarious.

Comparative data 2009-2018









Eurasian Sparrowhawk *Accipiter nisus*

Gordon Yates

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 2018 in England showed a 9% decrease 2017-18, a 29% decrease 2007-17 and overall a 29% decrease in the period 1995-2017.

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 at some lofts, and secondly there is the erroneous belief, held by some people, that the Sparrowhawk is responsible for long-term declines in songbird populations. As a result of these there are calls in some quarters for the Sparrowhawk population to be controlled, despite there being 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 early or non-breeding	Territorial pairs monitored known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaSG	2	2	0	0	2	2	1	1	3	1.50	1.50
MRG*	39	11	NC	NC	11	9	9	9	16+*	1.78	1.45
NRG	43	34	0	0	23	23	22	18	35	1.52	1.52
NYM	4	0	0	0	0	0	0	0	0	0	0
PDRMG	21	5	0	4	1	1	1	1	4	4	4
TOTAL	**109**	**52**	**0**	**4**	**37**	**35**	**33**	**29**	**58**	**1.66**	**1.58**

*****UNDERSTATED FIGURE – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

Group Reports

Calderdale Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Poor coverage, casual monitoring of a few pairs.
There are thousands of hectares of suitable habitat for this species in Calderdale. Unfortunately, limited resources inevitably mean that despite the fact 206 sightings were recorded during 2018 there is only casual monitoring of a few nests to a known outcome. Two active nests were located; one nest fledged 3 young; however, the outcome at the second nest is unknown.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage, casual monitoring of a few pairs.
273 records involving 122 sites were received from members or garnered from www.manchesterbirding.com. Analysis of this data suggested breeding territories at 39 locations and confirmed breeding at 11 of those locations. 9 pairs were known to have fledged young, the 2 other pairs were known to have laid eggs, but the outcome was unknown.
The number of fledged young was confirmed at 4 sites, where a total of 11 young fledged (2.75 young fledged per pair). Where pairs are known to have fledged some young, but the exact figure was unknown, they have been recorded as fledging 1+ young.
The height of the nests in what are sometimes insubstantial trees militates against accurate recording.

Northumbria Ringing Group
Extent of coverage: Part of upland areas.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
As in 2017, data was received from the same studies within the NRG study area.
Border Forest Kielder
A healthy 29 home ranges were occupied (compared to 20 in 2017); 18 nests were found and 29 young fledged.
One nest failed as a result of the chicks being predated by a Buzzard. Goshawks caused two nests to fail. At one nest the brood was taken; at the other nest the adult male Sparrowhawk was predated. One chick was eaten by a Fox, having fallen out of the nest. Of interest at one site the female Sparrowhawk predated the male early in the season then went on to nest with a second male.
Slaley Forest
Five home ranges were occupied, 5 nests found, 3 nests successfully fledged a total of 6 chicks. One nest failed on eggs, another nest failed when the brood was predated by a 2CY Goshawk.
Most nests were in Sitka Spruce with only one in Scots Pine. Interestingly only one nest was within 1km of the moor edge.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Surprisingly not one of the known sites was deemed to be occupied this season. Winter and autumn observations suggested birds were as numerous as ever so perhaps all pairs coincidentally used alternative nest sites.
Sparrowhawk is not a species studied by NYMUBSG and any fieldwork directed to it is usually incidental if time allows from other studies. It is felt that there is no cause for any concern for the species in the North York Moors as a result of one recorded blank season from the few sites casually monitored.

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 again limited our monitoring of this relatively common species. Work continued as usual in the long-term study site in South Yorkshire, where 5 nests were monitored, with just one successful nest fledging 4young; the other 4 nests were abandoned

at various stages of building, all prior to egg laying. Elsewhere, several active nests were located, and evidence suggested most were successful, but time constraints meant that they were not monitored fully. Further work needs to be done on this species, for it is felt that Sparrowhawk continue to slowly decline from their peak numbers in the 1990s.

NERF regional summary

The Sparrowhawk remains widespread across the NERF region as a breeding species, but the species is not monitored as a matter of course by most of the NERF member groups.
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.

Northern Goshawk *Accipiter gentilis*

Paul Galloway

UK population estimate

460-684 pairs were reported to RBBP in 2017 with a 5 year mean of 619 (Holling, M. *et al.* 2019 *in press*). 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

UK:	Green
European:	Not of concern
Global:	Least concern

Listed 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 in Great Britain, *British Birds* 110: September 2017).

National and regional threat assessment

The Northern Goshawk is a notoriously elusive, generalist raptor that suffers from persistent illegal interference and is still missing from large areas of the UK. In Britain, Goshawks were extinct by the late 19th century, persecuted by humans who saw them as vermin and despite a recovery and slowly expanding population in some areas, they remain absent from large areas of prey-rich and suitable breeding habitat as undertones of this archaic mentality remain. Although Goshawks are fully protected by law, they remain vulnerable and continue to face many threats both in the NERF study area, and nationally, including illegal persecution by humans in rural areas. Forestry operations and recreation are also of growing concern in some areas. Engagement with forest operators can help overcome the former, and on the continent the birds have shown they can successfully colonise urban areas.

Goshawks are arboreal, and now well established in cities such as Prague and in Berlin. As one of Europe's most wooded cities Berlin, with its tree-lined streets (averaging 80 per kilometre) and parks and cemeteries where the trees have re-grown after the second world war, now has the highest density of Goshawk territories anywhere in the world, urban or rural. Around 100 pairs live and breed in a park in central Berlin, they are now revered by many, not least for helping control the city's 'problem' pigeon population and have been so successful they are reaching saturation point in the city's forests. Proof, if it is needed, that Goshawks are a remarkably adaptable and secretive species quite capable of living successfully alongside people.

Unfortunately, and consistent with many of the raptors studied by NERF raptor workers, at present the biggest threat to Goshawk remains human interference. NERF data continues to show prey availability is unlikely to be a limiting factor and that survival is the species' main constraint, with population expansion being restricted by persistent disturbance, and stable populations continue to exist principally in the more heavily-forested areas on the higher ground. The Goshawk remains a rare breeding bird in the more accessible lowland areas, which should naturally be richer in prey and thus far more productive. With BTO tracking studies and a more expansive and longer-running Scottish study, helping to expand knowledge of habitat use and both juvenile post-fledging behaviour and dispersal, we have learnt more about local Goshawk movements in the last three years than from decades before, yet there remains an urgent need to better understand predator-environment interactions and the response to change.

Looking outward at the wider general public's awareness and fundamental understanding of the species, hopefully both have been raised with greater coverage on mainstream TV (BBC Springwatch), and arguably by the best-selling publication "*H is for Hawk"*, by Helen Macdonald. With a growing interest in the species, particularly among younger generations, of the critical role played by this super predator in the environment, there may yet be positive hope for the future for this phantom of the forest.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home ranges occupied (pairs)	Home ranges occupied (singles)	Pairs failing early / non breeding	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum Number fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	1	0	2	0	0	0	0	0	0	0	0
DUBSG	6	2	2	0	1	1	1	1	2	2.00	2.00
NRG	63	41	6	2	39	37	30	25	42	1.14	1.08
PDRMG	13	3	NC	0	2	2	1	1	2	1.00	1.00
SPRSG	27	27	1	0	26	26	17	17	39	1.50	1.50
TOTAL	**110**	**73**	**11**	**2**	**68**	**66**	**49**	**44**	**85**	**1.29**	**1.25**

Group Reports

Calderdale Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Not known to occur as a breeding species.
2018 was another year which once again produced no breeding pairs of Goshawk within the Calderdale study area. This is particularly disappointing when we consider that there are large areas of suitable habitat available in both the extensive woodland areas and in plantations on the moorland fringe. During 2017 there were only 3 sightings of single birds in 3 different locations. In an effort to gain a better understanding of the status of the species locally, additional resources were deployed in 2018, which led to an increase in the number of sightings to 9 from 5 locations. One of the sites monitored produced 5 sightings of Goshawks throughout the year. Unfortunately, all of these sightings were of birds that appeared to be drifting through the area.
However; one location north of Hebden Bridge, which is eminently suitable Goshawk habitat, did produce a sighting of a single displaying bird on 6th May. Unfortunately, this bird was not seen again. This type of observation at this particular site has been noted during consecutive springs for many years with birds arriving, displaying and then mysteriously disappearing. It is believed that they are either deliberately moved on ensuring that they do not breed in the area, or they are persecuted.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.
Although no monitoring takes place there was a low detection of displaying birds in both upland and lowland forests.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Reasonable coverage; at least one long-term study.
Considerable survey effort in the main study area, supported by the Forestry Commission, secured the first confirmed breeding in the county for several years. A pair located in late February appeared to switch their preferred nest site but were then relocated nearby and went

on to raise 2 young to fledging. Display was also noted at 3 other sites in the west of the county with a pair seen briefly at one and single males at the other two. Breeding could not be confirmed at any of these sites.
Accepting the difficulties of monitoring this often-elusive species the indications are that the Goshawk remains very scarce and under-represented in the uplands. Equally there were very few reports during the year from the Durham lowlands.

Northumbria Ringing Group
Extent of coverage: Part of upland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Northumberland: Once again the number of home ranges occupied has increased from 37 in 2017 to 41 this year and although only 30 were recorded laying eggs, 25 pairs went on to fledge 42 chicks; the same as 2017. Another 6 home ranges had only a single bird present, the same as 2017. At one nest site the Goshawk had moved from its usual nest and built a new one only 40m from a Buzzard's nest; both nests fledged young.
Cumbria: An excellent year was recorded with 4 home ranges all occupied. Three pairs fledged 4 chicks.
The Northumbria RG would like to thank the Forestry Commission for its continuing support over the timing of forest operations in the nesting season.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
The field workers who monitor this species do not wish to have the population figures published. Pairs were reported to have had a poor season, much of the blame being laid at the door of the "beast from the east" dreadful weather spell which was considered to have disrupted nesting activity significantly. At least 2 occupied sites were apparently abandoned and were subsequently taken over by Buzzards, and generally clutches and broods across the board were small with more sites than usual being unoccupied.

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
Whilst we have seen a reasonable recovery of breeding success in the Upper Derwent Valley area, we are seeing less success in the PDRMG study area as a whole. Just 3 pairs were recorded breeding and only one of those was successful, fledging 2 young. In late 2018 an injured Goshawk was discovered near Ladybower Reservoir, the bird unfortunately died, and a post-mortem revealed that although unlikely to be the cause of death this bird had previously been shot.

South Peak Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
Within the area of Upper Derwentdale 5 traditional sites were monitored throughout the season; 4 sites were successful, with 9 chicks fledging in total; at the 5th site the pair failed, after eggs had been laid. Elsewhere in the SPRSG recording area at least 22 sites were occupied and a minimum total of 30 young fledged. At 8 of these sites pairs bred but failed, and at one site a single male was present, but no breeding took place due to unintentional

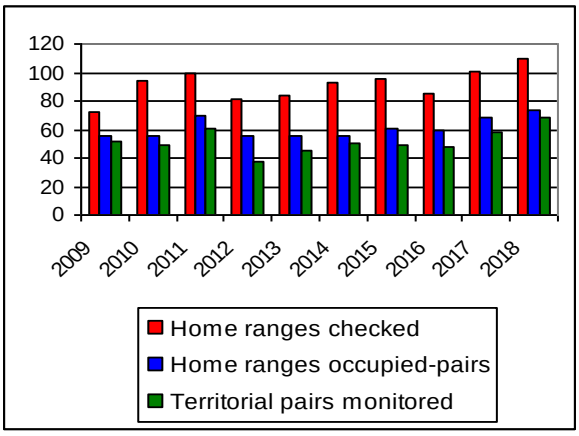
disturbance near the usual nest tree. At a new site in central Derbyshire a pair raised 4 young; these figures are included in the above totals. At a new site in central Derbyshire a pair raised 4 young; at one in South Yorkshire one young fledged: these figures are included in the above totals.

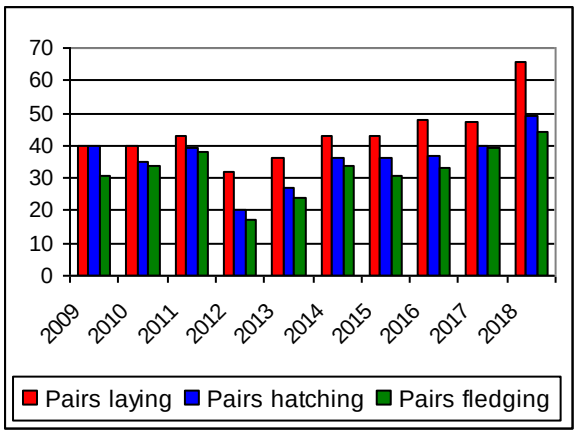
Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Poor coverage: casual monitoring of a few pairs
There were unconfirmed reports of birds at 2 different sites.

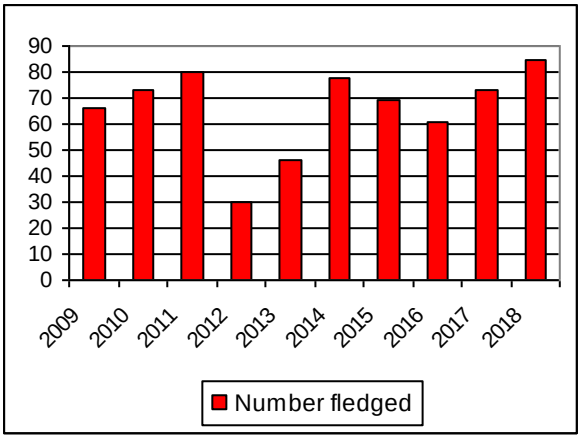
NERF regional summary

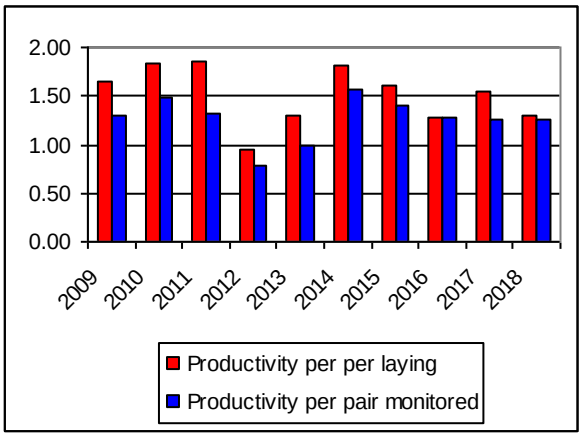
Recurrently, only Northumberland, North York Moors, and the Peak District groups have populations of any size. The North York Moors fieldworkers who monitor this area have once more requested that their figures be withheld. A modest increase was again noted in occupied home ranges in Northumberland and the South Peak District, although 41 pairs produced only 30 eggs and 8 pairs failed in the respective regions. I n Cumbria all 4 sites were occupied although only 4 young fledged. As usual however, despite sporadic successes, this is offset by the results from other NERF members. The North York Moors reported poor productivity, unoccupied and abandoned sites due to the impact of bad weather and Calderdale, despite an abundance of suitable habitat, again recorded no breeding pairs. Considerable survey effort in Durham revealed some display but only 2 fledged chicks, with sightings again only scarce, and birds under-represented. The Peak District chronicled only 3 breeding pairs and the death of a Goshawk that had been previously shot. Disturbance and illegal persecution remain major problems and are of prime concern, to both the status and future prosperity of the species.

Comparative data 2009-2018









Marsh Harrier *Circus aeruginosus*

Andy Thompson

UK population estimate

Musgrove *et al.* 2013, APEP 3 (*British Birds* 106: February 2013) estimated 400 pairs. Holling, M. *et al.* Rare breeding birds in the UK in 2017(RBBP 2019 *in press)* reported 350-392 pairs with a 5 year mean of 371pairs.

Conservation status

UK: Amber
European: Least concern
Global: Least concern
Listed 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 in Great 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 negative impact of egg collecting could be locally significant. As the species moves north to breed the birds are likely to face an increased threat of persecution if they attempt to breed in the uplands which are dominated by driven grouse shooting.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	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
ChRSG	1	1	0	0	1	1	1	1	1	1.00	1.00
NRG	1	1	0	0	1	0	0	0	0	0.00	0.00
TOTAL	**2**	**2**	**0**	**0**	**2**	**1**	**1**	**1**	**1**	**1.00**	**0.50**

No other Group reported Marsh Harriers attempting to breed in their respective study areas during 2018.

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.
A few individual birds are recorded annually each spring and summer. In the majority of cases most birds are passing through the study area with the occasional individual lingering for a few days. There have been no accounts of 2 birds being seen together and consequently no breeding attempts were recorded.

Calderdale Raptor Study Group
Extent of coverage: Part upland areas.
Level of monitoring: Not known to occur here as a breeding species.
During 2018 there were 16 reported sightings of Marsh Harriers in the study area between 25th April and 10th October. These sightings invariably came from observations at a

traditional Hen Harrier winter roost and the observational data suggest that the 16 reports referred to just 7 individuals.
Between July and September a juvenile bird was recorded at the same upland site on 8 occasions and in all probability it remained there throughout that period.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.

Marsh Harriers are recorded annually on passage throughout the year. Recently there has been an increase in the number of birds being observed during spring. However, regrettably in the majority of cases these are not developing into breeding attempts as the birds move on. Breaking with the norm, a single pair was monitored in the study area during 2018 in partnership with the RSPB. Whilst the pair successfully fledged one chick this is disappointing when considering that the average clutch size is 4 -5.
In future years the Study Group will be undertaking a more targeted approach to monitoring this species.

Durham Upland Bird Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
In common with previous years, coastal sites in and around Teesmouth accounted for the majority of records for passage and over-summering birds.
In the western uplands the Marsh Harrier occurs as a very scarce passage migrant and in 2018 it was particularly poorly represented with just single isolated records in mid-May and late August.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
There was a significant reduction in the number of sightings of Marsh Harriers across the study area during 2018. Eighteen records, involving 10 individuals were received representing a decline from both 2017 and 2016, which produced 24 and 34 reports respectively.
In line with previous years, no summering birds were reported and the majority of the sightings were made on the mosslands. A juvenile bird, fitted with green wing tags was resident from the 28th - 31st August, however it was not possible to read the unique number on the tag. This is the second year in succession that a bird fitted with green patagial wing tags has been recorded in the area. Unfortunately, whilst we know that both of the birds were tagged as part of the project being co-ordinated by Phil Littler in East Anglia, without the unique numbers on the tags it was not possible identify the individuals concerned.

Northumbria Ringing Group
Extent of coverage: Whole County.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
After success in 2016 followed by failure in 2017 due to bad weather, the Study Group was hoping for an upturn in fortunes during 2018. Early observations located a pair of birds, and as expected they appeared to settle in April. However, by late May it was obvious that the breeding attempt had failed. Throughout early and mid-April the breeding site was shrouded

in cold, dense coastal fog for 10 days and it is believed that this prolonged period of adverse weather was the cause of the nest failure.
As in previous years there was a good passage of Marsh Harriers across the study area and hopefully 2019 will bring better news for the species in Northumberland.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Not known to occur here as a breeding species.

In common with previous years, during 2018 Marsh Harriers were predominantly recorded as passage migrants in both spring and autumn. Fewer sightings than usual were recorded during the year and the majority of these were at the traditional sites Scaling Dam, Sleddale, Fylingdales, Waupley and Egton Moors during late April and early October.
The majority of the sightings were of a single immature bird; however, one adult male was recorded on 10th September. Additionally 2 immature birds were observed in the Guisborough Forest on 6th May, and a female and a juvenile were reported at Sleddale on 22nd August.
There is a significant amount of eminently suitable breeding habitat on the North York Moors and large numbers of birds occupy the Tees estuary annually from April to December, on the Study Group's north-west border. Taking into account the number of birds that are recorded annually in the study area, but fail to breed, the Group believes that Marsh Harriers are a 'black hole' species across 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.
Marsh Harriers are recorded in the study area annually but infrequently during spring, summer and autumn. 2108 followed the same pattern with birds being observed on passage throughout the season. Once again no evidence of breeding was reported.

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.
In 2017 the Study Group only recorded a single 'cream crown' as it crossed Beeley Moor flying from east to west on 13th August. Encouragingly 2018 proved to be a better year for sightings of this species in the study area with 4 individuals, 2 males and 2 females, all of which were probably 2nd calendar-year birds. They remained in the Upper Derwentdale area during May and June. However, no breeding attempts were recorded.

NERF regional summary

Only the Northumbria Ringing Group and the Cheshire Raptor Study Group reported breeding attempts in 2018. One pair fledged a single chick in Cheshire and whilst this success is to be celebrated it is nonetheless disappointing when considering that the average clutch size is 4 or 5 eggs for this species. The Northumberland breeding attempt failed.
Once again the majority of NERF Study Groups reported that birds had been seen on passage during spring and autumn with some individuals remaining on potential breeding grounds in summer. It is evident from the data collected over many years by NERF that Marsh Harriers are under-represented as a breeding species in the North of England. Taking into account the number of birds observed on passage crossing the region annually, the fact that there is ample

suitable habitat, coupled with the proven persecution incident on Denton Moor in 2017, it is difficult to avoid the conclusion that the population is being illegally suppressed. Indeed the North York Moors Raptor Study Group is firmly of the opinion that Marsh Harriers should be classed as a 'black hole species' in their study area.
If Marsh Harriers do attempt to breed in the NERF study area all of the available evidence highlights that they are vulnerable to persecution and Raptor Workers in general and our members in particular will be required to protect them.
As an aid to preventing raptor persecution NERF supports a system of licensing of driven grouse shooting designed to act as a deterrent to anyone intent on persecuting passage or nesting birds. Critics of this proposal insist that such a licensing scheme would be unenforceable and therefore should not be attempted. Whilst NERF does not share this view we do accept that policing the scheme would require sufficient resources to be effective. The provision of those resources is a matter for the Government to resolve.

Police investigate the persecution of Marsh Harriers on Denton Moor, Nidderdale May 2017 – update from NERF Annual Review 2017

Marsh Harriers normally breed in wetlands, reed beds and oil seed rape fields. However there are increased numbers of records of birds prospecting for nesting sites in the uplands and occasionally remaining there during the summer to breed on heather moors in the North of England.
In May 2017 a pair of Marsh Harriers was discovered nesting on moorland forming part of Middleton and Denton moors near the village of Denton in North Yorkshire. Following the discovery of the nest the area was monitored by RSPB investigators who initially photographed the nest containing five eggs before installing a camera to record activity at the nest site. At the time that the camera was installed both of the adult birds were observed at the nest.
Subsequent examination of the video images recorded by the camera revealed that on 17th May a minimum of 2 individuals, both of whom appeared to be men wearing dull, brownish-green coloured jackets, carrying what appeared to be shotguns and a brown game bag, approached the nest site on 6 occasions between 12.40pm and 9.30pm.
It is clear from the video footage that one of the men stood over the nest, bent down, before appearing to pick up something from the nest and walking away. The sound of several shots, fired in the vicinity of the nest, was also recorded, as was the noise of an engine which is believed to have been a quad bike.
The following day, 18th May, a man, dressed in similar clothing and carrying a green rucksack, was recorded at the nest at 9.40am. This individual stood over the nest, bent down, and appeared to remove something from the nest before leaving.
RSPB investigators checked the site on 19th May and discovered that the nest was empty and there was no sign of any debris from damaged eggs in the vicinity of the nest suggesting that predation was not the cause of the nest being abandoned.
Unfortunately despite extensive enquiries by North Yorkshire Police the individuals in the RSPB video have not been identified and this wildlife crime remains unsolved.
Anyone who has any information about the incident or can help identify the people responsible is advised to contact North Yorkshire Police and speak to PC 820 Bill Hickson, the Officer in the Case, or email bill.hickson@northyorkshire.pnn.police.uk.

WIng-tagging project – 2018 update

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 2018 season, 551 birds in total had been fitted with green or orange wing tags. The area covered includes Norfolk, Suffolk and Cambridgeshire. Prior to this season's work, the recovery rate was running at 34.86% with birds having flown 94,949km from their natal areas. This year's numbers are slightly down on last year, but this is mainly due to heavy rain in the east of the county flooding out a few nests.

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, reed beds. But they are not necessarily breeding near to their own natal area.

Birds tagged in 2016 have been recorded in Holland and Norway, a 2nd and 1st record respectively for those countries. A male bird ringed in 2017 was seen in Germany in October of that year, taken into care in Belgium in July 2018, released in August and recorded at the RSPB reserve at Titchwell in May 2019.

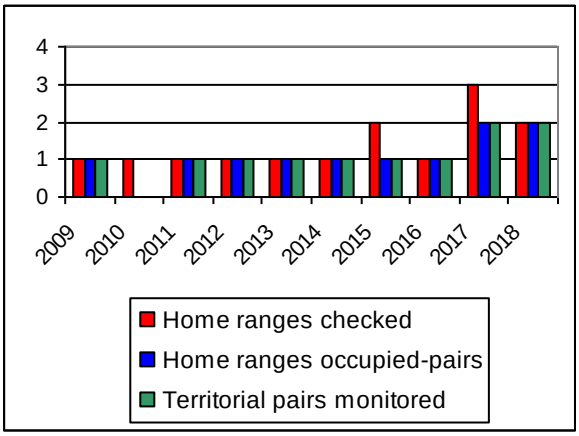
Of those tagged birds now being reported as breeding, one of the first-ever tagged in the scheme, a female at Sculthorpe Moor in 2011, was reported in Portugal 2012; [a 1st for that country], and in Belgium in 2015, [a 3rd there]. She bred successfully in Lincolnshire in 2016, raising 3 young.

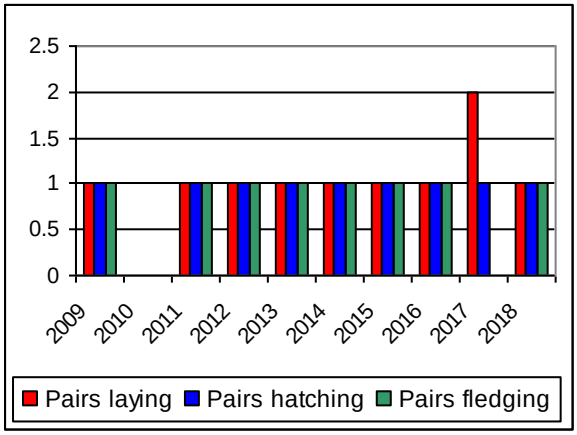
Phil Littler

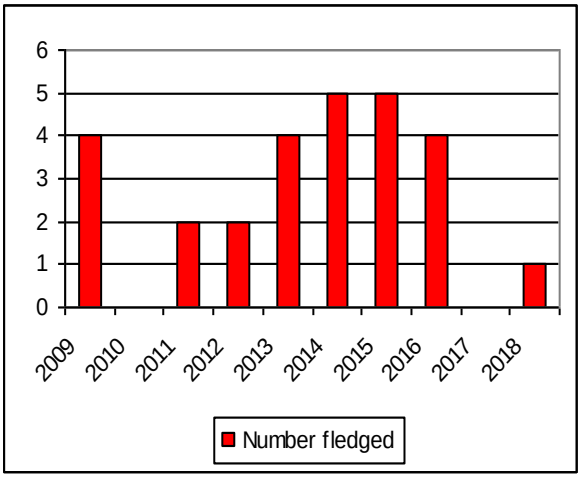
Phil is exploring the idea of satellite tags, as used with Hen Harriers, and is currently looking for sponsorship. He was hoping to get sponsorship from Anglian Water but at present they have said they can't justify it.

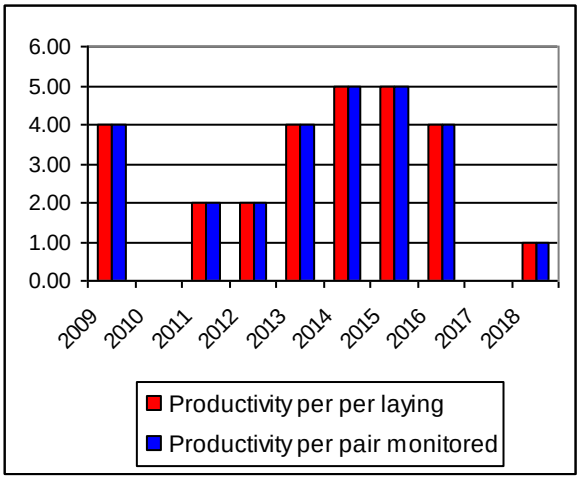
He would welcome sightings of any birds seen in the NERF region. Sightings should be forwarded to Phil at phil@mal5041.plus.com, or by mobile on 07748 556758. Please include the tag letter and number, time and date, location, including the grid reference if possible, age and sex in the report.

Comparative data 2009-18









Hen Harrier *Circus cyaneus*

Sara Hanson

UK population estimate

The 2016 national survey, in which there were significant local contributions from NERF member groups, estimated the breeding population of the UK and Isle of Man to be 575 territorial pairs with the majority in Scotland, 35 in Wales, 46 in Northern Ireland, 30 in the Isle of Man and at that time a mere 4 in England (Wotton, Simon *et al.* The status of the Hen Harrier in the UK and Isle of Man in 2016, *Bird Study* 65: Issue 2, Aug 2018).
The 2016 survey also took care to assess accurately Special Protection Areas (SPAs) in northern England for which the Hen Harrier features as a citation species in the original designations. In the Forest of Bowland SPA, which has 13 pairs cited, there were no pairs found during the survey and in the North Pennine SPA, which has 11 pairs cited, there was one territorial pair.

Conservation status

UK: Red
European: 3; Concern, most not in Europe, depleted
Global: Least concern
Listed as Vulnerable (Stanbury, Andrew *et al.* 2017. The risk of extinction for birds in Great Britain, *British Birds*110: September 2017)

National and regional threat assessment

In 2019 the long-awaited paper was published analysing Natural England's data from its programme of tracking the movements of young birds from English and Scottish nests that had been fitted with satellite tags (Murgatroyd, M. *et al*. Nature Communication, http://go.nature.com/2JuoRfo).Whilst unsurprising, the conclusions make for stark and depressing reading. A staggering 72% of 58 tagged birds in the study were confirmed or thought very likely to have been illegally killed. The likelihood of Hen Harriers dying or disappearing over land predominantly covered by grouse moor was 10 times that of non-grouse moors. Regrettably there were marked spatial clusters of missing tagged birds, fate unknown, within the NERF recording area (Yorkshire Dales NP, North Pennine & Bowland AONBs). A Natural England spokesperson said that illegal persecution is having a major impact on the conservation status of the species. This remains the UK's most persecuted bird of prey.
The Defra Upland Stakeholder Group Hen Harrier Joint Recovery Emergency Action Plan was issued ahead of the 2016 breeding season but after three full seasons there is little to suggest neither a significant positive impact nor a sea-change to those with intolerant attitudes. Plans by Defra to implement brood management trials in England were announced in 2019 but in the face of such heavy persecution over the autumn and winter months this seems to be a wayward strategy on which to base the recovery of such a fragile population. Greater emphasis on nest and roost protection measures, increased resources for crime detection and the licensing of driven grouse shooting estates is seen by NERF as a better way forward. A judicial review to the legality of Natural England's Brood Management plan was sought by Mark Avery and the RSPB but this failed at the courts.
Birds are vulnerable at their roost sites and in November 2018, in the Nidderdale/Colsterdale area of the North Yorkshire National Park, a man with a gun and two dogs was witnessed deliberately walking directly through an area where birds had only just gone down to roost.

Fox predation has been linked to several 'natural' failures at English nests in the past and in the present year. Ethical methods to protect nests from foxes continue to be worthy of research.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	20+	3	0	0	3	3	3	3	13	4.33	4.33
CaRSG	2	2	0	0	2	2	0	0	0	-	-
DUBSG	9	0	0	0	0	0	0	0	0	-	-
NRG	16	5	2	0	5	5	4	3	11	2.20	2.20
NYMUBSG	4	0	0	0	0	0	0	0	0	-	-
PDRMG	7	2	0	1	1	1	1	1	4	4.00	4.00
SPRSG	6	0	0	0	0	0	0	0	0	-	-
YDNP	6	1	0	0	1	1	1	1	4	-	-
TOTAL	**70**	**13**	**2**	**1**	**12**	**12**	**9**	**8**	**32**	**2.67**	**2.67**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage throughout the year.
After 2 successive years when Hen Harriers had failed to breed at this previous English stronghold for the species, 2018 saw a welcome change in fortunes in the Forest of Bowland, which is formally designated as a Special Protection Area for this species. A total of 13 chicks fledged from 3 nests in 2018. Whilst this result is to be welcomed it should not be forgotten that the SPA is designated for 13 pairs and in the 2000s over 10 breeding pairs each year was a regular occurrence in Bowland.
One male was responsible for 2 of the nests which impressively fledged 9 chicks (more than one-quarter of all chicks fledged in the whole of England in 2018): a remarkable achievement, but ultimately a sad reflection on this species' tenuous status. None of the juveniles that were fitted with satellite tags survived to their first birthday with signals from at least 2 being suddenly lost in suspicious circumstances on or adjacent to driven grouse shooting estates. It will be interesting to see how many return to breed in Bowland in 2019.

Winter roost numbers remained very low when compared to past decades reflecting the state of the local and national populations. The signal from one of the young harriers fitted with a satellite tag in Bowland in 2018 was suddenly lost from the same winter roost area in Bowland where two other satellite-tagged birds had been 'lost' in 2014.

Calderdale Raptor Study Group

Extent of coverage: Upland areas only.

Level of monitoring: Very occasional breeding but excellent coverage; nearly all suitable habitat is monitored annually.

The story of Hen Harriers in Calderdale during 2018 really begins in the autumn of 2017. A traditional winter roost monitored annually had usually held just 1 or 2 individuals on several days in both autumn and winter. However, the roosting season of autumn 2017 brought a complete change in the number of birds occupying the roost. A minimum of 7 birds roosted daily, with perhaps as many as 10 individuals present at the end of October. The majority of the birds were females, sometimes accompanied by a first-winter male and a full adult grey male.

The presence of the adult male was particularly important in that it was the first record of a grey male in the study area in 26 years of observations. This bird was seen sporadically during October, November and December. With this number of birds in the roost throughout the autumn and early winter, speculation began to ferment; would the birds abandon the roost when the weather deteriorated? What would happen if some of these birds remained in the roost during the beginning of 2018 and would a pair remain to breed?

Monitoring of the winter roost intensified and was undertaken on most days over the winter. As a consequence of these intensive observations and the extensive use of digital photography, group members identified 11 individual birds using the roost, with 9 birds seen regularly.

As would be expected at the beginning of spring, the majority of the birds left the area for destinations unknown. However, a grey male and 2 females remained, and they formed a polygamous breeding group. The Raptor Study Group and members of the Calderdale Bird Conservation Group were mobilised and formed an organised nest watch scheme. Unfortunately the 2 nests were in different valleys separated by a hill and they could not be seen from a single watch point, leaving the monitoring resources stretched.

Taking into account the location of the 2 nests, one on a private estate and the other on Yorkshire Water land, over which a private estate holds the shooting rights, both parties were informed of the locations of the nests. Unfortunately the private estate staff were observed driving a track-laying vehicle through the heather at one of the sites and they had to be officially warned to stop. Natural England Hen Harrier staff were also informed. A licensed visit was made to both nests by NE staff and as a result of those visits we know that they contained 4 and 6 eggs respectively. All appeared to be going well until 1st May when the female from one of the nests disappeared, never to be seen again. It is not unusual for a polygamous male to abandon one of his females if the weather deteriorates restricting his ability to hunt, or if the amount of prey available crashes to a point where only one female, and her potential broods, can be supplied with sufficient prey. However, we know that this was not the case. The weather was mainly excellent during 2018 and, judged by the success of other species breeding on the same moor, prey availability was abundant.

All hopes then rested with the second nest. These hopes proved forlorn and the male was last recorded on 16th May. Without a male to provide food for the incubating female she eventually abandoned her breeding attempt and was not seen again after 20th May.

We will never know what happened to the male or the 2 females. Did they just give up and leave or were they persuaded to abandon their breeding attempts? Naturally suspicion tended

to favour the latter. Whatever the cause, the failure of these 2 nests was a significant blow for the local Raptor Workers who had committed a tremendous amount of time and physical and emotional energy to monitoring them. The English breeding population remains in a perilously low situation and these 2 nests had the potential to add 10 chicks to the population. Regrettably both failures put an end to that possibility.
There were no further sightings of Hen Harriers on the estate during mid-summer; however they did begin to return towards the end of August. The first bird was seen on 25th August and the roost was occupied until the end of the year. Although the maximum number of birds on site on any one day was 2, observers believe that there were 3 or 4 individual birds using the roost.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur as a breeding species.
There were no records during the breeding season. Odd birds were reported from the Dee Estuary during the winter periods.

Durham Upland Bird Study Group
Extent of coverage: Whole County.
Level of monitoring: Excellent coverage; nearly all suitable habitat is monitored annually.
Despite widespread coverage of suitable upland areas there was no indication of any breeding attempt in the county.
Regular observations were made at a roost in the west of the county which held just 1-2 ringtails between January and late March. The same location held 2-4 birds from Oct through to year-end. Another roost was monitored in the south-west of the county and this held 1-3 birds between August and mid-December. In December DUBSG members participated in the NERF coordinated roost watch and visited 9 possible roost sites in upland areas.Only the 2 sites mentioned above were found to be occupied.
Satellite-tagged bird *Marc* which fledged in Northumberland in 2017 spent the early winter of that year in County Durham but unfortunately, in early February 2018 the signal from the otherwise reliable transmitter suddenly failed. The last known "fix" transmitted was from Lunedale in the county. Another 2 birds, each fitted with a satellite tag, having fledged from a nest in the Forest of Bowland in 2018, spent some of their first autumn and early winter on the Durham moors.
Autumn passage along the coast produced November records of a ringtail apparently in off the sea over Hartlepool Headland on 3rd, one at Washington WWT on 5th and a ringtail first seen at Cowpen Marsh on 17th which then remained at Teesmouth until the year-end.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Passage birds recorded. Not known to occur as a breeding species.
There were just 4 sightings involving 5 birds, all in autumn. An adult male was present at Ashworth Moor Reservoir on 15th October and the remaining reports, of ringtails, came from the various vismig watchpoints on Winter Hill: 2 on 22nd and one on 28th September, and one on 7th October.
The group sponsored the satellite tag on a 2nd Natural England chick, *Frank*, who survived to breed successfully in 2019.
Last year's sponsored chick, *Dru*, also survived and bred in Northumberland, but the eggs were predated.

Frank, on right (Stephen Murphy)

Northumbria Ringing Group
Extent of coverage: Part upland areas.
Level of monitoring: Good coverage; several long term study areas.
Northumberland Hen Harriers provided another excellent outcome in 2018.
As in 2017, 5 pairs nested in the north of the county. A total of 11 chicks fledged from 3 successful nests with clutch sizes of 3x5, 1x4 and 1x3 and brood sizes of 1x5 1x4 and 1x2. The 2 nests which failed resulted from natural causes. At one, a fox predated the eggs whilst at the other, a 1st clutch was possibly deserted and then taken by Ravens, before a 2nd clutch of 5 was laid nearby, only for the 4 chicks that hatched to be predated by a fox.
A number of chicks were satellite-tagged by RSPB and Natural England. A female named *Athena* moved north but by August her satellite tag suddenly stopped transmitting in suspicious circumstances in Inverness-shire. *Vulcan*, a young male moved through the Peak District in September before continuing further south into Hampshire and Dorset. On 16th January 2019 the signal was lost with a last-known fix near Calstone Wellington, Wiltshire in an area managed for Pheasant and partridge shoots.
Thanks go to the Northumberland Hen Harrier Protection Partnership whose efforts once again helped safeguard the birds at their natal sites.
There were very few reports from elsewhere in the county with only an adult male and ringtail seen in different areas during April and May.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage of suitable habitat, nests monitored when found.
Once again there was no evidence obtained of any attempted breeding on the North York Moors.
During the first half of the year records were few and nearly all from the usual well-watched locations of Scaling Dam Reservoir, Sleddale and Waupley Moor. All bar one bird were reported as ringtails or juveniles with an adult male observed on Fylingdales Moor on 20th January. However, over the early autumn period - August to September - observations were relatively numerous across the National Park and according to one grouse moor owner 10 individuals were roaming around the NYMs at one time. Information was received from the Egton High Moor Estate that up to 5 birds were roosting in a large bracken patch on open

moorland over September. This roost was used with some regularity by individuals from then on through to and beyond the year end. The satellite signal from "Arthur", one of 2 chicks tagged in the Dark Peak in July, sadly failed on 26th October at a last known fix location of Lowna Bridge bordering the Farndale and Spaunton grouse moor estates.

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage of the study area.
There were 2 pairs of Hen Harriers displaying breeding behaviour in the Dark Peak in 2018. One pair, which appeared not to settle, ranged between the National Trust land in the Upper Derwent and the private estates on the eastern side of the Dark Peak, and a 2nd pair bred successfully on National Trust land elsewhere. Two young from the successful pair (which fledged 4 young) were satellite-tagged as a part of the RSPB "Hen Harrier Life+ Project". The National Trust asked the public to suggest names for the birds via social media. Unfortunately, the tag from one of the young (*Octavia* - named after Octavia Hill, founder of the National Trust), stopped transmitting on the 26th August 2018, just 4-5 days after she dispersed from her natal area, and despite extensive fieldwork she has not been seen since. Her last registered position was from the Broomhead moorland area of the Peak District. On the 12th November the RSPB reported that Octavia's sibling *Arthur*, (named after Sir Arthur Hobhouse who proposed the National Parks Legislation Act), has become the 10th satellite-tagged Hen Harrier to disappear in the UK during the autumn of 2018. After fledging, *Arthur* spent most of his time within the Peak District National Park. He briefly moved to the Brecon Beacons, South Wales before heading north to Nidderdale. On Friday 26th October *Arthur* flew to the North York Moors National Park and registered a last position at 09:55; he was just north of Lowna Bridge near Hutton-le-Hole.
PDRMG responded to all sightings reported to either the RSPB Hen Harrier Hotline or directly to the group. Despite odd reports of male and female birds, no evidence of pairing up or breeding behaviour was recorded.

South Peak Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage of the study area.
Extensive coverage failed to produce any evidence of a breeding attempt. The group followed up on any reports. There were multiple sightings of a ringtail at a regular site at the end of September.

Yorkshire Dales National Park
Extent of coverage: Upland areas only.
Level of monitoring: Reasonable coverage of representative study areas.
A pair was first located by Natural England staff in the South Lakeland area of the Yorkshire Dales National Park and the site was subsequently monitored by NE and YDNP staff. The nest was in a large area of rush on upland pasture primarily used for livestock grazing with the local shooting estate holding the shootings rights over it. Four chicks fledged in mid-July and 2 were fitted with satellite tags by NE.

NERF regional summary

Overall in England in 2018, 34 young fledged from 14 nesting attempts, 9 of which were successful. The details of events surrounding the majority of these are explained in the above accounts and table to which can be added a nest in another part of Cumbria, fledging 2young,

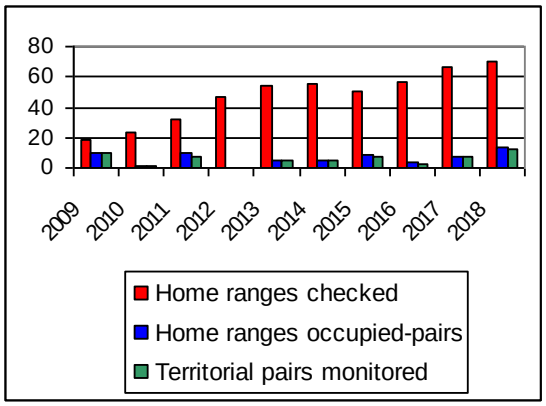
which completes the picture. None of the 9 successful nests was on a privately owned grouse moor.
Whilst the number of young fledged, the highest for over a decade, is to be welcomed it is important to be reminded of the context that the northern uplands have been assessed as having a natural carrying capacity for over 300 breeding pairs. Even more sobering is the obvious early mortality in suspicious circumstances reported from this year's cohort of satellite-tagged birds and the unexplained nest failures at some locations. For Scottish and English satellite-tagged birds as a whole in 2018, the signal from 12 had been lost in suspicious circumstances by the spring of 2019.
The dates on which reliable signals were inexplicably lost within the autumn of 2018 are shown below.

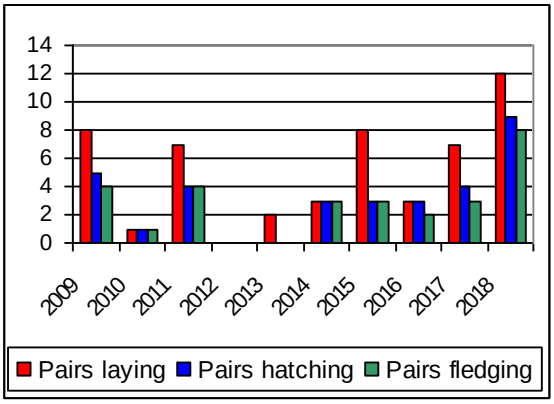
RSPB tagged Hen Harriers **2018 named cohort**	**Date of 'disappearance'** **in 2018**
Hilma	8 August
Athena	16 August
Octavia	26 August
Heulwen	28 August
Margot	29 August
Stelmaria	3 September
Heather	24 September
Mabel	2 October
Thor	3 October
Arthur	26 October

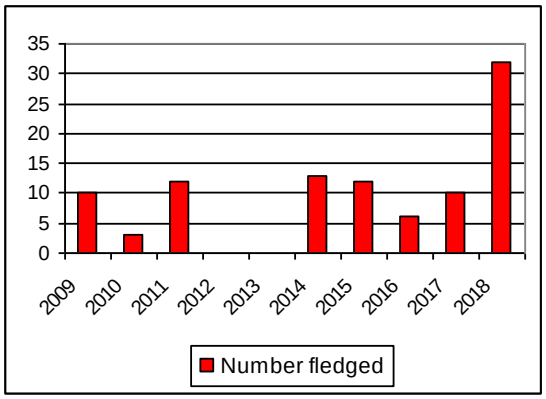
Of course it is reasonable to assume that the many non-tagged birds that fledge across all nests in the UK must proportionately suffer the same fate.
The demise of *Vulcan* in Wiltshire in January 2019 is especially significant since the location of the last known fix is very close to the area proposed for the planned Southern Re-introduction and the incident seriously undermines the assumption that the vicinity is demonstrably a safe environment.
The stakeholders of Hen Harrier Breeding Protection Partnerships in Northumberland, Yorkshire Dales and the Peak District deserve credit for their considerable effort and commitment.
The NERF website includes under Publications / Public Statements our assessment of topics relating to the current Hen Harrier debate.
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

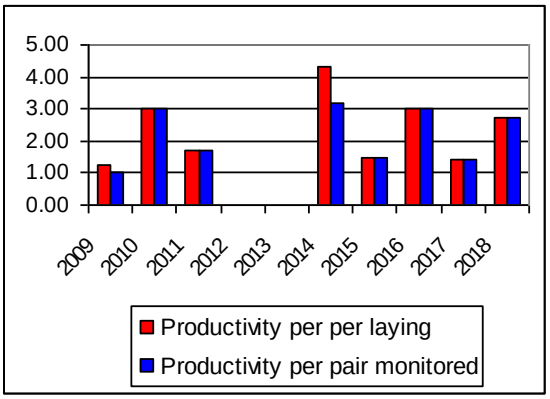
submitted into the RSPB's Hen Harrier Hotline and, of course, to support monitoring and protection efforts at any breeding site.

Comparative data 2009-2018









Red Kite *Milvus milvus*

Damian Money

UK and Ireland population estimate

8000+ pairs - this figure is very much an estimate. Full monitoring is no longer undertaken in several areas - including major population regions such as Wales and The Chilterns. The Southern England population alone is estimated at 6400+. Information based on figures from the UK and Ireland Red Kite Co-ordination Group and compiled by Doug Simpson MBE – Yorkshire Red Kite Co-ordinator.
The BTO BBS report for 2018 showed increases in England of 12% for 2017 to 2018 and 19069% from 1995 to 2017.

Conservation status

UK: Green list. Population increasing.
Global/European and EU regional assessments: Red list (Version 3.1, 2018). 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. (Source: The IUCN Red List of Threatened Species).
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 illegally in the open countryside to kill other species.
Kites 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.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored throughout season to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
FoRK	50+	32	10	NC	19	19	15	12	24	1.26	1.26
SPRSG	3	2	NC	1	1	1	1	1	1	1.00	1.00
TOTAL	**53+**	**34**	**10**	**1**	**20**	**20**	**16**	**13**	**25**	**1.25**	**1.26**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Not known to occur here as a breeding species.
Kites are seen every year in the hills and we are confident that it is only persecution that is preventing them from breeding in Bowland, as there is extensive suitable habitat.

Calderdale Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
Following a 50% increase in sightings of Red Kites in Calderdale between 2016 and 2017 the upward projection of sightings continued slightly throughout 2018 to 28. Birds were observed in every month except August and November.
Nine of the sightings were recorded over a golf course in the eastern section of the study area where birds have been observed in previous years. This may be the location of the first breeding attempt in the near future.

Cheshire Raptor Study Group.
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
No comprehensive monitoring; records seem to emanate from single birds passing through the county.

Friends of Red Kites (FoRK)
Extent of coverage: Tyne & Wear, County Durham and Northumberland

Level of monitoring: Excellent coverage: all or most sites receive annual coverage.
All reports from Durham Upland Bird Study Group and Northumberland Ringing Group are now presented under the FoRK report as set out below.
Monitoring effort in the early spring was deliberately focused on locations just outside the core area in an attempt to look for any evidence of an expansion in the population. This met with limited success with just 6 additional territories being found, whilst at the same time 2 outlying territories used last year were not apparently occupied in 2018. The core area in the Derwent Valley of Gateshead Borough has held between 25 and 30 pairs annually in recent years and the figure for 2018 appeared to be in the mid-range of these values although not all nests were monitored through the season to a known outcome. Some of the 32 home ranges initially identified, but not followed through, will have been successful so the figures of 19 known territorial pairs raising 24 young represent a minimum, known outcome. Four nests failed during incubation and 3 after hatching. Predation by crows accounted for 2 of the failures and the cause was unknown in the remaining 5 cases.
Twenty-four fledged young (of which 11 were ringed) is the same result as 2017 and although the number of incubated nests and brood sizes were both up on the previous year, the number of nest failures was higher.
The majority of nests were in Gateshead BC and adjoining parts of County Durham (collectively within the historic vice-county of Durham) but included in the table figures are 2 nests in Northumberland, one of which failed, and one which fledged 2 young.
There were reports from 2 areas in Teesdale in early spring and then early summer but no evidence of breeding.
The population is continuing to face difficulties in its hoped-for expansion beyond the core area, where 94 birds were released between 2004-06 under the Northern Kites Project. It is a matter of great concern that a widespread and sustainable breeding population has yet to be established. Illegal persecution is a significant contributing factor. In April 2018 an adult bird was found shot (later euthanised) at a prime breeding area in the Derwent Gorge. This is the 11th known example of poisoning or shooting since the release programme began.
Autumn roost counts peaked in late October with about 60 birds at Chopwell Woods. On 6th January 2019, as part of the National Roost Count, a total of 44 birds were logged by 17 observers stationed across all previously known roost sites. (This compared with 57 in January 2017 and 66 in January 2018).

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur here as a breeding species.
There were 22 sightings in 2018 maintaining the annual increase over the last few years. Mostly these are singles, but 2 birds were seen over Altrincham 21st May and over Heaton Park 1st October.
The shooting of a bird at Dove Stones 7th June, witnessed by a climber, was widely publicised though not, for some reason, until well after the event.
The following account was published in the RSPB's publication *Legal Eagle*, No.86 (Winter 2018):
A red kite was seen falling from the sky accompanied by the sound of gunshots near Saddleworth Moor, in the Peak District National Park, on 7 June. Climber Adam Long heard gunshots and saw the bird fall from the sky. The shooter, however, remained out of sight. He called the police who made enquiries, but no leads were forthcoming. Red kites are not commonly seen in this area on the outskirts of Greater Manchester and are struggling to expand into the Peak District National Park despite plenty of suitable breeding habitat. Like all birds of prey, they're protected by law under the Wildlife and Countryside Act 1981. If

someone is found to have shot this bird they face an unlimited fine and/or up to six months in jail. Witness Adam said: "I saw the kite slowly soaring up the valley, then again when we'd started our climb. I heard two shots, and the kite fell out of the sky – I can only describe it as like a balloon bursting. I was completely shocked by the brazenness of it. You hear about this sort of thing happening, and that the chances of seeing or recording something are so slim, so to see this in broad daylight when anyone could have witnessed it was incredible." The persecution of birds of prey in upland areas like the Peak District is a continuing issue with serious implications on raptor populations.

North York Moors Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Not known to occur here as a breeding species.
Still no indications of potential breeding anywhere in the study area. However, it would not come as too much of a surprise to learn at some time in the future that nesting had occurred undetected at an out-of-the-way location in the NYMs. Roaming individuals recorded just about everywhere in the study area, across all seasons of the year were too numerous to detail. However, Scaling Dam reservoir and the favoured raptor area of Sleddale merit individual mention for providing sightings most regularly with 3 individuals at the former site on 15th September.

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Not known to occur here as a breeding species.
Red Kite sightings were more frequent this year in the PDRMG area, including at least one pair that was often seen in areas of suitable breeding habitat throughout the breeding season and into the autumn. The coming seasons will hopefully see Red Kite established as a breeding species in the group's study area.

South Peak Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Very occasional breeding species; nests monitored when found.
A pair bred for the first time in Derbyshire in over 150 years at the National Trust's Kedleston Park and raised one youngster in 2018. The pair was found independently by member Ant Messenger in late June, when he was able to confirm a nest containing one large youngster, although Nick Brown, and later Dave Richardson (DOS), had been monitoring the pair since April. Numerous sightings in South Derbyshire had been made by Ant earlier in the season and across the county the number of reports has much increased this season (per DOS). Member Mick Taylor reported that birds were present in likely breeding habitat in North Derbyshire, with one observed carrying food on 22nd June, but successful breeding was not thought to have taken place. A 2nd pair was present in South Derbyshire for much of April but was not seen to be present after that.

Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Not known to occur here as a breeding species.
A scarce species in the YDNP, but casual records would suggest a slight increase in sightings in 2018. No breeding records were reported during the year.

Other data

Yorkshire
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Extensive covering all known breeding areas.
We are grateful to the Yorkshire Red Kite group for the following report.
The steady flow of reports of Red Kite sightings to the YRK website shows that they are continuing to explore new areas – both urban and rural. A new feature on the YRK website maps the locations of reported sightings. However, there is still a relative dearth of sightings from south of Leeds. As previously reported, the most southerly confirmed Yorkshire nest site is some 12km due east of Leeds City Centre and to the north of the A1(M)! There are strong indications that kites are spreading slowly northwards from the well-established Midlands population and it is possible that the large areas of potentially suitable habitat in the south of the county will soon be colonised from this source.
Breeding monitoring continued in 2018. All of the sites which had been checked in 2017 were again visited. Pairs were located at 22 new locations, though several of these are likely to have been relocations rather than new pairs. However, as is usually the case, not all sites previously occupied were again active. Indeed, as is indicated in the table below, the overall figures for 2018 show 4 fewer territorial pairs. Nine fewer pairs were recorded as having bred and there were 12 fewer successful pairs. Whereas it might have been expected that the number of young raised would have reached the 200 mark, only 179 were recorded. It is difficult to account for these lower figures, though it is suspected that the weather may have been a significant factor, particularly in the number of nests (16) which failed at the egg stage. Only the East Yorkshire pairs bucked this trend, the number of pairs located there increasing from 8 to 11, all of which were successful.
One West Yorkshire youngster had a lucky escape. It was fished out of a Koi Carp pond close to its nest site. It was fortuitous that the gardener was on duty on that particular day. After a couple of days in the rehabilitation pen to dry out it was successfully released back at its nest site.

AREA	TERR. PAIRS	PAIRS BRED	PAIRS SUCC.	YOUNG
West Yorkshire	**66** (71)	**61** (71)	**52** (60)	**94** (102)
North Yorkshire	**47** (49)	**45** (47)	**35** (42)	**68** (79)
East Yorkshire	**11** (8)	**11** (8)	**11** (8)	**17** (13)
Totals	**124** (128)	**117** (126)	**98** (110)	**179** (194)
Average young raised per successful pair: **1.83** (1.84)				

A broad indication of the extent of the breeding range is the fact that the two most distant confirmed nest sites are almost 50 miles apart.
The annual roost count, held in early January, produced a total record of 301 birds observed over 6 locations.

Persecution remains a problem. There have been at least 31 Yorkshire-related Red Kite illegal poisonings recorded since 2000, 26 of which have occurred in North Yorkshire. According to RSPB's *Birdcrime 2018* this area has retained the unenviable record of being the worst in the UK for offences involving birds of prey for the 5th consecutive year. In response to this dire situation, North Yorkshire Police launched 'Operation Owl' in the spring of 2018, a high-profile attempt to reduce the incidence of such offences in the region. They invited the public to 'Be Our Eyes and Ears' and to report anything untoward. Shooting of kites continued, however; victims having been confirmed in North and West Yorkshire in 2018. Coincidentally, both birds were found close to public rights of way on prestigious estates – Bolton Abbey and Harewood respectively – begging the question whether someone was seeking to make a point! Moreover, a 2018 North Yorkshire poisoning victim was found to be carrying lead shot from 2 separate shooting incidents. No doubt there were many other victims which were not located. It is worthy of note that almost half (44%) of the confirmed Yorkshire persecution victims were found and reported by walkers who had spotted them from public rights of way.
Meanwhile, the rows of Leylandii planted in the middle of a field on a large East Yorkshire estate continue to thrive. Their planting was an apparently vindictive act which was undoubtedly intended to block the view of the local kite roost. It has spoiled things for the many people who visited the locality to see up to 80 or so kites gathering to roost. Disabled visitors had been able to sit in their wheelchairs to witness this spectacle. Unfortunately, the apparently deliberate actions of the estate mean that this is no longer possible.

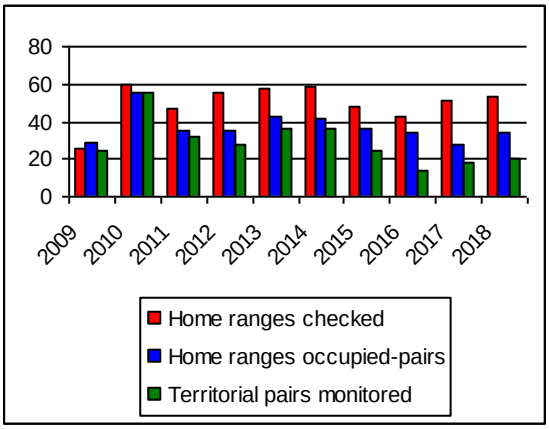
East Yorkshire Red Kites
The following information has been submitted by an independent observer.
We continue to remain confident about the long-term success of the East Yorkshire Red Kite population. We were able to monitor 3 new nests, unfortunately one quite late in the season where we were only able to confirm one fledged young. At the 2nd we could confirm at least 2 young fledged, and possibly a third. At the 3rd there was the added problem of a herd of cattle with a bull, cows and calves introduced into the field that was the only access to monitor the nest, so having seen 2 young early on, we can only confirm one that fledged! From an independent source after the breeding season we were told of 3 more new nests with 3 confirmed fledged young. This brought our total to 17 confirmed fledged young, possibly 19. The problem of lack of access to monitor known nests where we have had to resort to observing from the public highway still exists. Kites once again 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 several 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 maximum of 107 birds were recorded in January 2019 at the communal winter roost site confirming that there are well over 100 birds in the area.

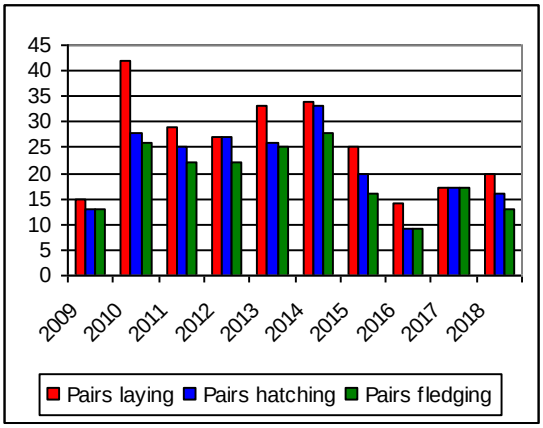
NERF regional summary

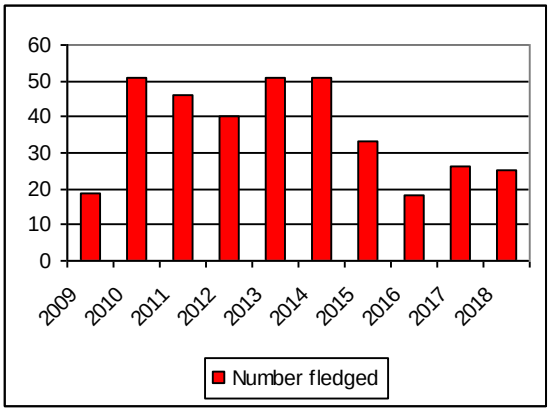
It is a concern that both FoRK and YRK this year report only modest breeding numbers and a lack of range expansion. Red Kites are also frequently recorded as passage birds in many study areas.

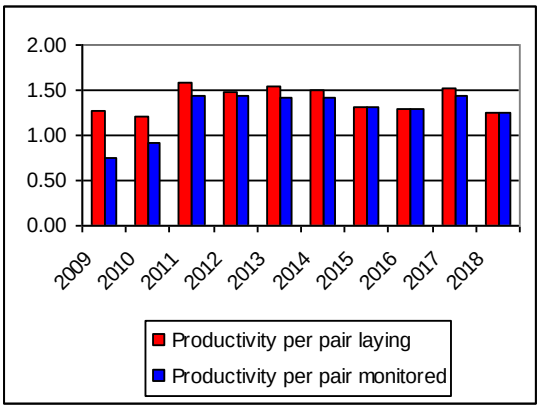
NERF is grateful to Nigel Puckrin for compiling the above account,

Comparative data 2009-2018









Common Buzzard *Buteo buteo*

David Bretherton

UK population estimate

This is the UK's most abundant raptor.
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. This remains the most up to date published estimate although all the trends since then indicate further growth has occurred. The latest BTO Breeding Bird Survey information for Buzzard in England nationally up to 2018 shows an increase of 213% from 1995. More impressively, over the 49 year period up to 2016 the BBS and CBC data showed an 800% increase in England's Buzzard population.
The British breeding population represents about 11% of the European total (Birdlife International).

Conservation status

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

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	6	6	0	0	6	6	6	6	6	1.0	1.0
ChRSG	30	27	9	2	7	7	7	7	10	1.42	1.42
DUBSG	37	37	NC	NC	9	9	9	9	14*	1.55	1.55
MRG	36	29	NC	NC	29	28	28	28	24*	0.86	0.83
NRG	161	145	NC	NC	85	34*	34*	63	80*	NC *	0.94
NYMUBSG	4	4	0	0	4	4	4	4	5*	1.25*	1.25
PDRMG	27	26	NC	1	25	25	22	22	45	1.80	1.80
TOTAL	**301**	**274**	**9**	**3**	**165**	**113**	**110**	**139**	**184**	**1.63**	**1.12**

*****UNDERSTATED FIGURE – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

National and regional threat assessment

Analysis of the BTO data by habitat, recorded between 1995 and 2011, shows the greatest population increases were on arable land, followed by those on mixed farmland and then

around rural settlements. Of particular interest to NERF's studies is the fact that upland grassland and heath habitat areas recorded the lowest increase over this period.
Although persecution continues nationally, the range spread eastwards into less intensively keepered areas. The increase in food supplies arising from the recovery of rabbit populations from the effects of myxomatosis has resulted in improved nesting success, evident in the BTO's figures.
However, the overall trend masks more local situations where in some areas, particularly in and around moorland managed for grouse shooting, numbers remain stubbornly below the habitat-carrying capacity.
Within the NERF study area Yorkshire continues to be a serious black hole for raptors generally, including Buzzards. Persecution was again recorded there with incidents of both alphachloralose poisoning and shooting of Buzzards confirmed.
Within the South Peak RSG's area a very welcome reversal of recent events was noted in the Upper Derwent Valley where a minimum of 20 young fledged.

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Occurs as a regular breeding species but no monitoring takes place.
This species now occurs more commonly than in previous decades in Bowland, particularly in the farmland areas, due to the large number of woods and copses. However, some pairs that nest in upland areas regularly fail for unexplained reasons, believed to be most likely due to persecution linked to driven grouse shooting. Birds with wing damage suggestive of shotgun damage are seen occasionally.

Calderdale Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
The population of Buzzards in Calderdale is increasing significantly year on year. There were 260 sightings in 2016, 323 in 2017, an increase of 24.23%, and this was boosted to 508 sightings in 2018, which equates to an additional increase of 57.27%.
The overall increase in Buzzard sightings from 2016 to 2018 is 95.83%.Unfortunately due to a lack of resources the study group is restricted to monitoring a small number of breeding pairs annually. Six pairs are known to have fledged a minimum number of 6 chicks during 2018. However, there are large areas of suitable habitat across the whole of Calderdale and it is entirely reasonable to presume that several other pairs, that went unmonitored, would have bred across the study area.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Reasonable coverage; at least one long term monitoring study.
Common Buzzard numbers are increasing across the whole County, possibly becoming the most common raptor in Cheshire. Tagged birds, from a long-term project in Wirral, seemingly move south in their first year before returning to infill between established territories.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Now well established across the whole of the County, numbers of Buzzards within the western uplands study area continue to be well below carrying capacity, and are now settled into a distribution pattern which avoids the open moorlands. There is some consistency year on year with the numbers of pairs monitored and those producing young, although the number of known fledged young actually noted, i.e. 14* in the table, is very much a minimum figure and the real total was almost certainly well above this. Nine monitored nests produced an average of 1.55 young, an increase from 1.25 in 2017.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
The number of known young fledged was 15. A further 11 pairs were known to have bred but numbers fledged were unknown, and a further 9 pairs were known to have fledged at least one young each. Hence a minimum of 24 young assumed.
David Steel monitored 10 pairs on the mosslands, where another nest was destroyed by a resident.
On 28th August a kettle of 33 birds was over Little Woolden Moss, with 39 in total being counted that morning.
506 records came from 153 locations during the year, suggesting there are many more pairs breeding than are found, as the species is rather sedentary.

Northumbria Ringing Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least two monitoring studies or large representative study area.
With the vole population holding up in 2018, Buzzards had a fairly good year.
Data was again received from 4 study areas within the County :-
Border Forest, Kielder: Another good year with 51 nests found, of which 30 nests fledged a total of 40 chicks. In this study egg stage success/failure is not noted.
South Cheviots/MOD Otterburn: 60 occupied home ranges were found (as in 2017); 27 nests were found; all held eggs and all fledged one young. On the Otterburn MOD Training Area 13 nests were found in an area of 261 square kilometres.
North Cheviots: 25 home ranges were occupied but no outcomes were recorded.
Slaley Forest: 7 home ranges were occupied: 7 pairs were noted with eggs, of which 6 pairs fledged 6 young. In this forest, Buzzards only nest in the quiet parts where they are found in Sitka Spruce, Scots Pine and Douglas Firs.
In the table the figures asterisked for pairs laying/hatching and young fledged per pair laying are based only on those found at the egg stage in the South Cheviots/ Otterburn and Slaley areas. However, the total minimum number of fledged young, (80), includes birds from nests in the Borders which were not monitored at the egg stage, hence the overall 'young fledged per pair laying' figure cannot be calculated.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a regular breeding species but no monitoring takes place.
Although there is no direct monitoring of the species by Group members, judging from incidental observations made during the course of other studies, Common Buzzard continues

to consolidate its status in the study area despite it being unwelcome as a breeding resident adjacent to grouse moors.
There were two instances of persecution investigated by police – one of poisoning, another of shooting. Both incidents occurred in the proximity of grouse moors to the north of the NYMs. Additionally, a primary feather was found on another northern grouse moor showing distinctive shotgun pellet damage.
There have been indications of potential conflict with Goshawks in the forests to the south-east of the National Park, with two occupied Goshawk nests subsequently being taken over by Buzzard pairs. However one of the Goshawk pairs involved abandoned the site as a result of Forestry operations and the Buzzards simply exploited the situation and moved in.
In the table, although 3 pairs were known to breed successfully in the forests, brood sizes were unknown therefore a minimum of one fledgling has been assumed for each nest. Actual productivity was 2 chicks fledging from one successful nest.

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
2018 saw a welcome improvement in both the numbers and fledging success of nesting Common Buzzards in the study area.

South Peak Raptor Study Group
Extent of coverage: Part upland and 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 so widespread. Pleasing reports this year came from the Upper Derwentdale where a minimum of 10 pairs bred and fledged at least 20 young.

NERF regional summary

Within the NERF study area the Common Buzzard continues to recover after decades of persecution. However, it is clear that in many Counties successful nesting giving rise to greater populations occurs away from the upland areas, particularly those with keepered grouse moors.
Data from the respective county bird clubs, whose recording areas extend well beyond the upland areas, continue to confirm this trend through the annually increasing reported sightings they receive.
Persecution continues to be an issue nationally and within the NERF area with reported incidents of both poisoning and shooting undoubtedly under-representing the true level that takes place.
The 274 home ranges occupied across the NERF area show a welcome increase from the 240 recorded in 2017. The total number of known fledged young recorded at 184 was also a record high. This is despite several study groups not monitoring Common Buzzards in their areas because it has become so widespread and local priorities dictate that efforts are directed to less common species, otherwise the total would be considerably higher.

Barn Owl *Tyto alba*

Jonathan Coombs

UK population estimate

The Bird Atlas 2007-11 had suggested an expansion of 67% since the 1988-91 Atlas, due to nestbox schemes, mild winters and agro-environment schemes. Musgrove *et al*. (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.

Conservation status

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

Listed on Schedule 1 of the Wildlife and Countryside Act 1981

Listed on Schedule 9 of the Wildlife and Countryside Act 1981. Barn Owls cannot be released into the wild without a licence from DEFRA.

National and regional threat assessment

The usual ever-present threats of habitat destruction, barn conversions and reductions in agri-environmental schemes, together with deaths due to traffic collisions and other accidents due to the human environment,
The long hot summer in 2018 provided further problems for barn owls, with a number of young owls dying of heat exhaustion in nestboxes located in areas without shade.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	33	31	0	0	31	31	29	27	82	2.65	2.65
CaRSG	15	13	3	1	12	12	11	11	35	2.92	2.92
ChRSG	1816	195	14	6	195	195	195	190	488	2.50	2.50
MRG	116	47	15	8	39	39	33	30	91	2.33	2.33
NRG	231	96	5	11	85	78	70	60	153	1.96	1.80
NYMUBSG	49	33	1	2	31	31	31	30	105	3.39	3.39
YDNP*	18	18	NC	NC	8	8	NC	NC	NC	-	-
TOTAL	**2260**	**415**	**38**	**28**	**393**	**386**	**369**	**348**	**954**	**2.47**	**2.43**

* *Incomplete data received so YDNP data not included in totals.*

Group reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
2018 was a mixed year for Barn Owls in Bowland. Most sites were occupied and those pairs laid decent-sized clutches, but the number of chicks that fledged per pair was low, with many chicks dying either in the nests, or soon after fledging. It is possible that the hot dry summer had an impact on prey availability, particularly around the lower in-bye areas. 31 pairs (compared to 29 pairs in 2017) fledged 82 chicks (compared to 124 in 2017).

Calderdale Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Until 2018 Barn Owls were rare breeders in Calderdale. In 2016 there was only a single breeding pair; this increased to 3 pairs in 2017.
In 2018 the breeding population quadrupled to 12 known pairs collectively producing 35 young. One pair nested in a reservoir overflow pipe and was fortunate that the long hot summer lowered the water level and there was no risk to either the eggs or 3 young that subsequently fledged from the site.

Another pair nested in a disused quarry, which they shared with a Peregrine Falcon. The owls nested in a very deep crevice and were apparently safe from predation. The pair of Peregrines failed and didn't lay a clutch of eggs and the male left the area. However; the female remained in the quarry and behaved very oddly, alarm calling as if she was protecting her non-existing nest for several months. As each of the young Barn Owls fledged, they were killed, apparently at the entrance to the crevice. One by one all six chicks were found dead at the base of the rock face with their heads torn off. Whilst this is typical of how Peregrines kill their prey there was no damage to the rest of the Barn Owl carcasses and the culprit remains unknown.
A third pair was known to have laid six eggs in a nest box in a farm building; however, when a visit to the nest box was made to ring the chicks the box was empty. There was no sign of eggs, the young or the adults. The cause of the failure remains unknown.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
A second good year for Barn Owls, with the third highest number of breeding pairs but the productivity again remained below the average and was below the figure quoted by Shawyer for sustainability.
The long hot dry period had mixed results. Whilst allowing the owls to hunt uninterrupted the high daytime temperatures resulted in a number of owlets to perish within the nestboxes.
The adult recoveries again show around 50% of unringed birds which still indicates a good unknown population out there. It has been suggested that some of these are birds moving in from outside the area. This may be the case, but as they don't move very far, it is thought most are in Cheshire.

Durham Upland Bird Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Barn Owls showed an increase in casual reports in upland areas from the beginning of the year, building on what appeared to have been a relatively poor year in 2017.
Birds were seen mainly around rough pasture on the moorland fringe but also hunted some open heather moorland areas, and their presence throughout the year suggested a reasonable breeding season overall.
Breeding was confirmed in at least upland 4 barns laying up to 380 metres a.s.l. Their exact outcomes were unclear.
The species is uncommon but widespread across the remainder of the county.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
The hot weather caused problems for several broods, with one brood being rehydrated successfully, but 5 others where dead chicks were found were also thought to be due to this reason. The only double-brooded pair this year was at the usual farm on Irlam Moss, where there is supplementary feeding. In all, it was an average year with the number of chicks over a third less than in the bumper year of 2017.

Northumbria Ringing Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.

After the fantastic year of 2017, it was always going to feel like a let-down in 2018. With the voles on the decline, we were expecting fewer Barn Owls nesting and that was indeed the case.
Seventy-eight pairs laid eggs (126 in 2017), and with more failures and smaller broods, the number of chicks fledged was well down, with 153 fledged (462 chicks 2017)
Data was received from 7 areas, again spread over a wide area of Northumberland.
Comments received from the different areas were as follows:
A small study north of Newcastle: "worst year ever".
MOD Otterburn /South Cheviots Study: only a 5th of sites occupied .
North Cheviots: a good year with over half the county's chicks fledged here - a total of 88.
At one farm the old box fell off the beam with 2 chicks inside , both chicks survived, if a little shaken - a new box was installed, and both fledged.
On Holy Island one nest with small chicks failed when a stoat was thought to have predated the chicks, having been seen in the barn rafters a short time before (the box has been re-sited now).
Two siblings from 2017 were recovered in the winter, one near Alnwick, the other in South Wiltshire.
Once again, thanks go to Phil Hanmer for his lowland records.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least two monitoring studies or large representative study area.
This species continues to thrive in the NYMs. Considering it was only in 2006 that the South Cleveland RG, (active from 1976), had its first pairs of Barn Owls (2) occupy boxes, the expansion of the population since has been quite amazing. This also in the face of two horrendous winters in between that caused heavy mortality of birds. Of the 27 pairs that laid eggs, one failed at the egg stage and another presented a puzzling scenario when the box previously checked had held 5 downy chicks was found to be empty. One could only conclude predation was the cause but as to the identity of a possible culprit no clues were evident. Geoff Myers' nestbox scheme to the west of the moors and on the Tees Plain is now run by the Tees Ringing Group. Of 11 boxes checked in the study area, 4 were occupied producing 15 fledglings. On the Tees Plain 20 boxes were checked, 10 were occupied producing 34 fledged young.
It needs to be noted that both nestbox operations cover a fairly restricted area to the north of the NYMs

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and 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 2018.

South Peak Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
In the SPRSG recording area, three broods of Barn Owls were raised on the Chatsworth Estate: at least seven young fledged, but none were ringed.
Last year's roosting bird on edge of Beeley Moor was still present at his usual barn. Isolated sightings of other single birds, and the occasional sighting of two birds indicate there might

be a resident pair somewhere in the area. At a different locality near Farley, a pair raised three young in a nest box attached to a farm building. If the landowner had not informed group member, Ken Smith, about these birds, their existence would never have been suspected: they were never seen from adjacent roads, and on the occasion that our member visited to check out the report, both adults left the box and flew straight into nearby thick woodland. In the Leash Fen / Big Moor area birds were present throughout the season and one pair bred, raising 5 young. Five pairs were present in the Haddon area and two pairs in the Youlgreave area.
In the Buxton area birds were observed at 8 sites and sightings reported by an associate member, Vic Pearson from at least 10 further sites in that area.

Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Five possible, 5 probable and 8 confirmed breeding records were received, almost certainly an underestimate of the true population. Appears to be doing well in the Dales.

NERF regional summary

Overall 2018 followed on 2017 as a good year in terms of Barn Owl productivity across the NERF recording range.
Again, the birds at lowland farmland areas seem to be more successful that the pairs in the higher altitudes; this may be linked to weather and temperature factors influencing timing of breeding rather than prey and nest site availability.
The last few years have seen the Barn Owl population building in the NERF range. If the ecological cycles follow the normal timelines a prey crash is due; the recovery from this event will be a true measure of the resilience of the Barn Owls in the region.
Some interesting long range movements have occurred from the ringing data over the years and these are listed in an article elsewhere in this Review. In 2018, a male fledged from Norden near Rochdale was recovered exhausted in Chudleigh Knighton South Devon, 367km SW.
Movements of owls, both short range dispersal and long-range movements, will begin to show pattern shifts as the temperature changes begin to take effect.

Barn Owl Trust Overview

Overall, 2018 was a poor year for Barn Owls. The only groups that recorded an unusually high number of nesting pairs were in Shropshire and Staffordshire. All other results, both in terms of nesting pairs and brood sizes, were more or less within the range of typical variation and on the whole quite poor. Many data contributors flagged up climatic factors as the possible cause of their disappointing results. They blamed two extreme weather events, the ‘Beast from the East’, eight days of extremely cold/snowy conditions (24/02 to 4/03), and the eight-week drought which was officially declared as a ‘heat wave’ by the Met Office on 22nd June. Both events were caused by unusual variations in the jet stream related to Arctic warming.

Tawny Owl *Strix aluco*

Wilf Norman

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 2018 suggested a 17% increase 2017-18 and a 21% decline 1995-2017 with the caveat that nocturnal species are covered poorly by the scheme; for example the 2014 BBS found a 71% increase 2013-14! The current estimate is 19,000 pairs (summer).

Conservation status

UK:	Amber
European:	Not of concern
Global:	Least concern

National and regional threat assessment

The UK breeding population of Tawny Owls has fallen by about a third over the last two and a half decades. This has resulted in the species being moved from Green to Amber in the list of Birds of Conservation Concern published in December 2015.
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 visiting Pheasant co-ops. Goshawks are likely to become an ever more significant predator of owl fledglings in coniferous forests and the increasing population of Buzzards may also make life hazardous for young owls raised in the species' preferred deciduous woodland habitat. Tawny Owls survive testing winter conditions well, probably through their ability to switch to feathered prey when small rodents are not accessible, for example by the plundering of thrush or finch roosts.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home ranges occupied (pairs)	Homes ranges occupied (singles)	Pairs failing early / non breeding	Territorial pairs monitored to known outcome	Known pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	21	17	NC	NC	6	6	6	6	16	2.67	2.67
MRG	107	33	NC	NC	33	33	30	30	53*	1.61	1.61
NRG	243	84	0	0	84	84	72	69	144	1.71	1.71
NYMUBSG	34	9	0	0	8	9	7	6	12	1.33	1.50
PDRMG	4	4	0	0	4	4	4	4	10	2.50	2.50
TOTAL	**409**	**147**	**0**	**0**	**135**	**136**	**119**	**115**	**235**	**1.73**	**1.74**

*****UNDERSTATED FIGURE – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

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.
Raptor workers are well aware that locating and monitoring Tawny Owls using natural nests is both difficult and time-consuming, often with little to show for the considerable effort required. Consequently most of the records emanate from the Group's nest box scheme. Twelve young fledged from 5 boxes and a further 4 young fledged from 2 natural sites. Once again Stock Doves occupied several of the Tawny Owl boxes, often after the Tawnies had fledged.

Cheshire Raptor Study Group
Extent of coverage: Poor coverage; casual monitoring of a few pairs**.**
Level of monitoring: Whole County.
There is no comprehensive monitoring of the species. Records originate from across the county but it is very under- recorded. Twenty young were ringed in 2018 from various habitats including city parks, farmland and forest/wooded areas. A targeted nest box project has commenced in parks and Delamere Forest.

Durham Upland Bird Study Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
There are no Tawny Owl monitoring studies undertaken by the group. The species remains widespread and common in suitable habitat throughout the western uplands.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.

In addition to the total number of known young fledged shown in the table, at least one fledged from each of 2 nests where the brood size was not known; therefore 51+2 = 53. Peter & Norma Johnson's long-running study had 20 boxes occupied holding 30 young, one dead chick and 8 unhatched eggs, these including a clutch of 3 where the female incubated for 60 days before abandoning them. They checked 70 boxes in all, and as usual many were occupied by grey squirrels. Another clutch of 3 monitored by Chris Sutton also failed.

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.
In Northumberland, although 2018 was not such a successful year as last year, productivity was still reasonable with 84 nests (117 in 2017) fledging 144 chicks (237 in 2017). Data were received from 7 areas within the county ranging from just a single nest from one area to 70 from the extensive Kielder Forest study. No nests in natural sites were found this year. Both in Slaley Forest and at MOD Otterburn the number of boxes will be increased over the coming winter.
No data were received from Grizedale in Cumbria for this season.

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.
A mixed bag of results for this species from the South Cleveland RG box returns. One nest was not followed up after the egg round check, due to a subsequent major access problem. A nest failed at the egg stage and another at the chick stage for unknown reasons. However, 2 chicks per brood for the 5 successful pairs represent about average annual productivity for this scheme. Four boxes operated by Geoff Myers to the west of the study area were checked, one was occupied with 2 young fledging. These figures are included above. Of 8 of his boxes sited on the Tees Plain, 2 were occupied with just 2 chicks fledging from one nest. These data are excluded from the above table as lying outside the NYMs area. It is very puzzling as to why Barn Owls should be thriving when Tawny Owls seem to struggle to achieve even moderate breeding success each year.

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.
The ongoing long-term study of Tawny Owls by the PDRMG once again took a back seat in 2018 due to other priorities. However, 4 sites were checked and found to be occupied. All 4 pairs were successful, 10 young fledged (of which 7 were ringed); 3 pairs fledged 3 young each and the final pair fledged just one. In October, a Tawny Owl was found dead close to where a member of the public witnessed a Short-eared Owl being shot a few weeks earlier: a post mortem revealed it had also been shot.
https://raptorforum.wordpress.com/2018/12/09/two-owls-shot-in-the-dark-peak-why/ refers.

Tawny Owl Annual Production Data
Large Nestbox Scheme (A)

Year Band	No. of sites	Number occupied	% occ	No. successful	Young ringed	Avg per succ. nest	Avg all nests
1977-81	202	55	27.2	29	69	2.38	1.25
1982-86	174	46	26.4	34	72	2.12	1.57
1987-91	169	54	31.9	41	83	2.02	1.54
1992-96	150	33	22.0	29	51	1.76	1.55
1997-01	109	24	22.0	18	32	1.78	1.33
2002-06	128	38	29.7	28	50	1.79	1.32
2007-11	154	44	28.6	40	68	1.70	1.55
2012-16	145	33	22.9	22	39	1.77	1.18
2017-18	**61**	**17**	**27.9**	**14**	**27**	**1.93**	**1.59**

NERF regional summary

2018 appears to have been a fairly average season for Tawny Owls across all study areas with hopes for further improvement over the generally excellent 2017 figures not realised. On the face of it, the "beast from the east" does not seem to have had any serious negative impact on the breeding fortunes of the species. Many birds would have been already sitting at the time of its occurrence and it is unlikely small rodent prey would have suffered adversely from the weather conditions that delayed the arrival of migrant songbirds significantly and made life difficult for resident birds. It will be interesting to see where vole cycles are next season and whether owl productivity goes up or down.

Little Owl *Athene noctua*

Sonia Johnson

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 2018 BBS report shows a welcome 15% increase 2017-18 but a 59% decrease 1995-2017. 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 (introduced)
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.https://www.bto.org/understanding-birds/species-focus/little-owl
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. These include 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 and reports and geographic spatiality can be viewed on this site.

NERF data

RAPTOR STUDY GROUP	Home ranges checked	Home ranges occupied (pairs)	Homes ranges occupied (singles)	Pairs failing early / non breeding	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	35	29	NC	NC	7	7	6	6	11*	1.57	1.57
MRG	28	28	NC	NC	9	9	9	9	19*	2.11	2.11
NRG	7	2	0	0	1	1	1	1	1	1.0	1.0
NYMUBSG	5	1	0	0	1	1	1	1	2	2.0	2.0
TOTAL	**75**	**60**	**0**	**0**	**18**	**18**	**17**	**17**	**33**	**1.83**	**1.83**

*****UNDERSTATED FIGURE – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Little Owl records in Bowland have been limited to casual observation and the one reliable nest site has been deserted due to renovations to the barn roof.

Calderdale Raptor Study Group
Extent of coverage: Part upland & part lowland areas.
Level of monitoring: Reasonable coverage.
Little Owl is not a target species for monitoring in Calderdale but is monitored when site visits are planned for other species. Consequently, of the observed occupied ranges only 7were followed up to outcome. It can be expected that the remaining territories not observed to outcome would also have successfully produced some young.

Cheshire Raptor Study Group
Extent of coverage: Poor coverage; casual monitoring of a few pairs.
Level of monitoring: Casual monitoring resulted in 5 adults and 14 pulli ringed in 2018. More dedicated survey work is planned for coming years.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.
There is no structured monitoring of sample populations but for the county as a whole a reduction in both the number of casual reports and confirmed breeding sites suggest a decline in the region's population. Little Owls are uncommon in upland pastures and moorland fringes. Breeding was noted in two separate barns each about 400m above sea level; their outcomes were unknown. A few nest boxes in upper Weardale have failed to attract birds.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Using records from group members, those submitted to www.manchesterbirding.com and others, there were records from a total of 28 locations. The known number of young was confirmed at 8 sites, with the number fledged at a 9th site confirmed as fledging at least one young. Predation was evidenced at one site, demonstrating how these small birds have all the usual natural threats and stresses to contend with in order to breed successfully.

Northumbria Ringing Group
Extent of coverage: Part upland & part lowland areas.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
The 2018 results are very similar to those of previous years, apart from a small nest box study in south east Northumberland. Little Owls are not recorded by NRG as most concentrated activity is on other species in the uplands. The two occupied territories recorded were in a nest box and a sand quarry.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.

This species receives little targeted attention from the Merlin Group, so to a certain extent is a little bit of a mystery; it is probably more numerous and widely distributed breeding species than considered at present. The one breeding pair found this year was discovered by fortuitous information rather than targeted searching.

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 species is not monitored on a regular basis by the group, but it remains a fairly common resident within the area. A pair at Ashford in the Water was the only breeding pair noted; the same barn has been occupied for over 45 years. There were isolated sightings of birds on Elton Moor, but no evidence of breeding was found.

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 its being seen and reported by RSG fieldworkers whose activities focus them into upland terrain. However, dry stone walls, grouse butts and rabbit holes in the uplands can often provide nest sites. Nevertheless, the species can be found in the NERF recording area at lower elevations though not at any great density, although the records from Durham suggest any upland barn or refuge should be checked if time allows.
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, although slightly higher than 2017.
It should be noted that most groups do not concentrate specifically on the monitoring of Little Owls and any breeding success tends to develop from *ad hoc* observations that may then be followed up, (depending on other commitments), by individual field workers.

Long-eared Owl *Asio otus*

Reece Fowler

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. 270-338 pairs were reported to RBBP in 2017 (Holling, M. *et al.* 2019 *in press*).

Conservation status

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

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing early or non-breeding	Territorial pairs monitored known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaSG	16	15	1	NC	14	14	14	14	37	2.64	2.64
MRG	8	8	NC	NC	8	8	8	8	15*	1.88	1.88
NRG	21	8	0	0	8	5	4	4	6	0.75	1.20
PDRMG	8	4	NC	NC	3	3	3	2	6	2.00	2.00
SPRSG	5	5	NC	NC	4	4	4	4	13	3.25	3.25
NYM	5	2	NC	NC	2	2	2	2	5*	2.50	2.50
TOTAL	**63**	**42**	**1**	**0**	**39**	**36**	**35**	**34**	**82**	**2.28**	**2.10**

***UNDERSTATED FIGURE** – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

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.

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.
This species is not fully monitored in Bowland, but near-fledged chicks were found in 3 locations, presumably benefiting from the good numbers of voles in upland areas in Bowland in 2018.

Calderdale Raptor Study Group
Extent of coverage: Part upland and part lowland areas**.**
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
On average the Group locates 5 successful breeding pairs annually, with this in mind the Group was astonished to locate 3 times that number in 2018. This proved to be the best-known breeding season for Long-eared Owls on record in Calderdale. Other unconfirmed reports were received during the year from non-members and these statistics are not included in this account.
It is clear from the breeding results of this and other species that 2018 was a good vole year in the study area and Long-eared Owls along with other species benefited from the ample prey available.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.
No monitoring of Long-eared Owl is undertaken by DUBSG. However, a new initiative by the Durham Bird Club and led by Steve Evans, beginning in 2017, has resulted in the status of this elusive and exciting species being revealed with spectacular results. Looking back at 2017, monitoring mainly in the eastern portion of the county produced an amazing 79 confirmed breeding pairs and a minimum of 176 fledged young. In addition, there were a further 17 potential breeding pairs.

Manchester Raptor Group
Extent of coverage: Whole County
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
A minimum of one young was heard or fledged at 3 sites listed in the table above. However, the exact number of fledged young was not known; these are included in the fledged totals as a minimum one fledged young.
NB: 3 additional nests within the MRG area were located by the PDRMG and details appear in their statistics.

Northumbria Ringing Group
Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
The Kielder Forest study had 7 occupied home ranges, (one more than 2017). Only 4 chicks fledged from 3 nests; this is thought to be a result of decreasing vole numbers.
No nests were known to fail due to Goshawk predation in 2018. However, an adult male Long-eared Owl was found eaten at a Goshawk site, adjacent to where the Long -eared owl chicks were being reared. The chicks had already fledged.
One nesting attempt was located on the Northumberland/Tyne and Wear border which produced 2 fledged young.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
A successful breeding attempt was recorded at a new site to the west of the study area with 4 chicks known to fledge.
In addition to this a juvenile was heard calling on 2 dates over early June at a known breeding site in the east of the study area, included in the table as a successful nest fledging 1+ young.
Isolated reports from other parts of the study area were received over the course of the year, although none indicated any breeding behaviour. The species remains something of an enigma in the NYMs – the population density is still a mystery.

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.
Due to other commitments, there was much-reduced effort directed to Long-eared Owl by the group in 2018.
Four nests were fully monitored, 2 were successful and fledged 6 young. One nest failed at the egg stage and the outcome of the final nest was unknown.

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.
Members reported a better breeding season for this species in 2018; pairs were present at five localities in the SPRSG recording area and a minimum of 13 young were raised. At one site an adult bird was seen hunting in daylight at the end of June, a classic indication that breeding was in progress, although this was not proven.

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 low-profile behaviour of the species and a lack of manpower, but when intensive work is carried out, numbers are invariably higher than estimated.
Moorland fringe conifer plantations appear to be an important habitat for this species, one that is being reduced significantly due to forestry work being undertaken in many of the study areas.

Short-eared Owl *Asio flammeus*

Phil Dyson

UK population estimate

The UK population of this species experiences significant annual variation principally linked to the abundance of the local vole population. Late winter and early spring weather conditions may also play a part. The latest UK population lies within the broad range 620-2180 pairs (Musgrove *et al.* APEP3: *British Birds* 106: Feb 2013) reflecting both the species' scarcity and the challenges of accurately surveying birds in their mainly remote upland core breeding range. Overall, a long term decline in breeding numbers has been apparent (BTO Bird Atlas 2007-11) and this resulted in the Rare Breeding Birds Panel now including the species in its reports. Nationally, the level of reports of 'possible' or 'confirmed' breeding received by RBBP remains low and in 2017 139-278 pairs were recorded (Holling, M. *et al*, Rare Breeding Birds in the UK in 2017 (RBBP *in press*). Typically most UK regions tend to follow the same recognisable trend of peaks and troughs from year to year.

Conservation status

UK	Amber. Added to the RBBP monitoring list from 2010
European	3: Concern, most not in Europe; depleted
Global	Least concern

Listed as 'Endangered' in the UK by Stanbury, Andrew *et al.* 2017 (The risk of extinction for birds in Great Britain, *British Birds* 110 September 2017) with a reported 60% reduction in range.

National and regional threat assessment

The challenges of surveying this species make any accurate assessment of local populations and the threats they face quite problematic. However many NERF groups provide a widespread and largely consistent monitoring effort of suitable habitat each year for this and other species which allows a simple but meaningful assessment of population trends. The underlying reasons explaining apparent long-term declines remain difficult to discern. Even in good vole years breeding outcomes can be hard to come by and interpret. Given the national sense of the breeding population being vulnerable and in decline, incidents of illegal

persecution as reported in NERF's 2015 Annual Review and additional examples cited below are of considerable concern for this emblematic species of the moors.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum known number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	15	9	0	0	6	6	6	6	10	1.66*	1.66*
CaRSG	10	10	0	0	10	10	10	10	20	2.00*	2.00*
ChRSG	3	0	0	0	0	0	0	0	0	-	-
DUBSG	21	11	3	1	8	8	7	7	13	1.63*	1.63*
NRG	10	1	2	0	1	1	1	1	3	3.00	3.00
NYMUBSG	5	1	0	0	1	1	1	1	2	2.00	2.00
PDRMG	14	10	0	0	8	8	8	8	10	1.25*	1.25*
SPRSG	20	12	0	0	5	5	5	5	5	1.00*	1.00*
YDNP	13	8	0	0	5	5	5	5	5	1.00*	1.00*
TOTAL	**111**	**54**	**5**	**1**	**44**	**44**	**43**	**43**	**68**	**1.50***	**1.50***

***UNDERSTATED FIGURE** – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study area.
In what was a very good year for voles in the uplands, Short-eared Owls had a correspondingly good breeding season in Bowland. It was not possible to find all the nests before the chicks dispersed or were seen on the wing but brood sizes appeared to be good.

Calderdale Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
2018 brought a significant upturn in fortunes for Short-eared Owls in Calderdale. There were 255 casual sightings reported compared with just 36 records in 2017 when low vole numbers

had seriously suppressed breeding. A 'vole plague' in 2018 had a hugely beneficial impact such that it wasn't possible to follow up on all reports during the breeding season with the thoroughness deserved.
A minimum of 10 pairs are known to have nested successfully but the precise outcome was known from only two nests where on the 2nd June a truly impressive total of 12 chicks were found hunger calling in the same general location near a track on the western edge of the study area. Based on other observations it is reasonable to assume that chicks fledged from the remaining 8 known nests.
Frequent reports were received from non-members of birds seen at other locations across the study area during the breeding season. These could not be verified or followed up and are not included in the figures given in the table. Nonetheless, the Group believes that some accounts will have represented additional breeding pairs and only added to what was clearly a very good season.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Not known to occur as a breeding species.
Birds were again recorded overwintering on the Dee Estuary. Occasional birds were recorded over Macclesfield Forest and Goyt valley but did not settle to breed

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage, several large representative areas are studied annually.
Eleven pairs were found to be occupying home ranges. One pair appeared not to breed and two other pairs possibly bred but could not be monitored. Of the 8 nests studied, 1 nest with 3 eggs on 7th May had 6 cold and abandoned eggs on 6th June. Four nests were known to fledge a total of 10 young (3, 3, 2, 2), and a further 3 nests were obviously successful but the number of young fledged was not known. A minimum of 1 young is assumed in these two cases. The productivity of the 4 nests with known outcomes was 2.5 young per successful pair.
Based on a largely constant effort approach to surveying, 2018 was seen as being a reasonably good season, comparable with 2017 and much improved over 2014 and 2016 , though a little below the peak seen in 2015.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Breeds very rarely, so no regular monitoring.
There were no reports of confirmed breeding or of territories being held in the Greater Manchester area.
There were just 5 late winter and 5 early winter records. The latter included 2 at Little Woolden Moss on 1st November, one at Lowercroft and one at Wilderswood, Horwich, both in early December.

Northumbria Ringing Group
Extent of coverage: Upland areas only.
Level of monitoring: Very occasional breeding species, nests monitored when found.
The Short-eared Owl remains by far the rarest owl within the study area. There was only one breeding record received in 2018 with 3 chicks fledging from a nest in the north Cheviots. At both MOD Otterburn and Kielder Forest single birds were found summering.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a breeding species but no regular monitoring takes place.
A pair bred successfully on the same moor as in 2012. This is a favoured location for this species with records usual throughout the year, no doubt with a bias due to the site's close proximity to a major road and observers regularly visiting nearby Scaling Dam Reservoir. A total of 4 birds there in December almost certainly involved arrivals from the continent. Elsewhere, records were scarce with only Fylingdales Moor providing more than one incidental sighting.

Peak District Raptor Monitoring Group
Extent of coverage: Upland and part lowland areas.
Level of monitoring: Poor coverage, casual monitoring of a few pairs.
A marked upturn in fortunes from the two previous seasons with the number of successful pairs falling only just short of the peak experienced in 2015. The number of fledged young couldn't be accurately determined at any nest.
West Yorkshire Police issued an appeal for information concerning an incident where a Short-eared Owl was witnessed being shot and killed at Wessenden Head Road on National Trust land on 11th September 2018. [On 1st October the dead body of a Tawny Owl was discovered close to the same site]. See RSPB's *Legal Eagle*, Spring 2019 Issue 89.

South Peak Raptor Study Group
Extent of coverage: Upland and part lowland areas.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
On the eastern moors 5 pairs were known to be present and were all thought to have bred successfully although an accurate assessment of their outcomes couldn't be made. In the upper Derwent Valley a further 5 pairs nested on moorland east of Howden Reservoir but it wasn't clear whether they had been successful.
On the North Staffordshire moorlands the Group recorded 2 sites occupied by pairs but their outcomes were unknown.

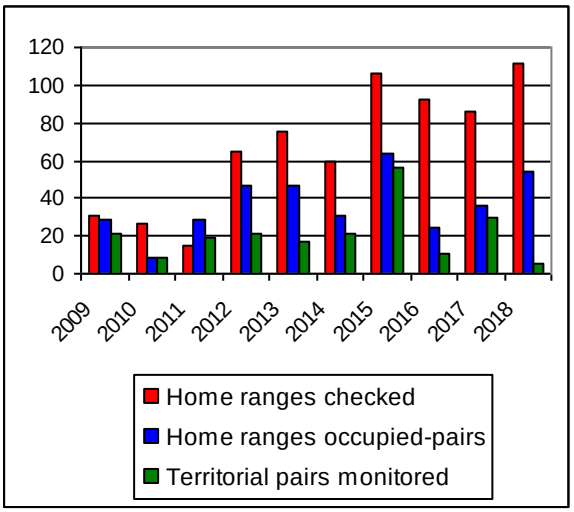
Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas
Level of monitoring: Poor coverage, casual monitoring of a few pairs
There are no systematic monitoring studies undertaken but a number of confirmed or probable breeding records were submitted. There were 4 confirmed breeding reports within the Yorkshire boundaries of the park and 6 reports of possible-only breeding. The number of young could not be determined for any of the 4 confirmed breeding events. In the Cumbrian section of the park there was one confirmed breeding and 2 very probable breeding reports. Only the instances of confirmed breeding are included in the table. In what was clearly a very good year it is likely that the number of breeding pairs could have at least reached double figures had more detailed monitoring been possible.

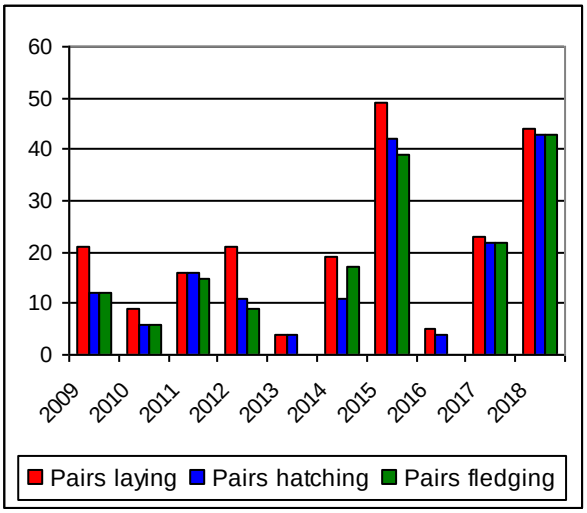
NERF regional summary

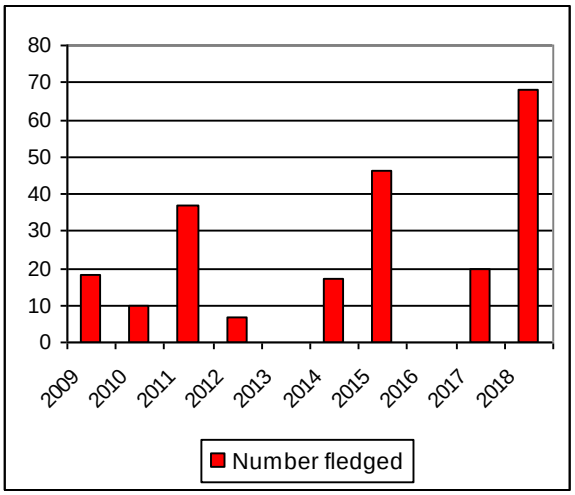
2018 was clearly a very good year for breeding Short-eared in several study areas. Overall the number of sites occupied by pairs and those laying eggs were just a little below the peaks found in 2015. However in 2018 the minimum number of known young (63+), and hence minimum productivity per successful nest (1.6+), exceeded the previous "best year" of 2015 as recorded in NERF Annual Reviews going back to 2009. The 8 nests with known fledging

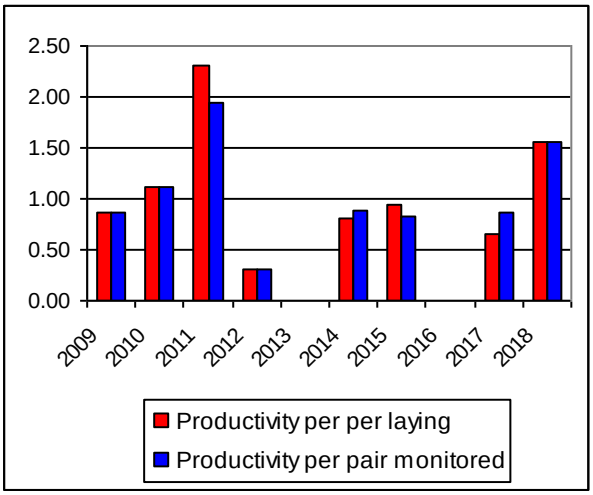
outcomes produced 3.4 young per nest. Calderdale, Bowland and South & North Peak Districts all reported a significant upturn in the number of breeding pairs and productivity with still more pairs likely to have gone unrecorded. Durham had a good year whilst the continuing low level of the breeding populations in Northumberland and North York Moors makes an interesting comparison with the overall picture. This might suggest that good vole years are not always experienced uniformly across the uplands of northern England.
The species status in our region remains as a scarce, and in some years a rare breeding bird and despite the success in 2018 it should be seen as 'vulnerable and threatened' for the population's long term wellbeing. Against this background it is of great concern to note that the collective evidence shows the species is being targeted through illegal persecution. In addition to the two incidents covered in our 2015 Annual Review we can now list the report from the Peak District in 2018 (see above) and a bird confirmed as being shot and killed on Leadhills Estate [Lanarkshire] in 2017 (see RSPB *Legal Eagle*, Summer 2019 Issue 88) and finally gamekeeper Timothy Cowen was fined after pleading guilty to shooting two Short-eared Owls on the Whernside Estate, Cumbria in April 2017.

Comparative data 2009-2018









Eurasian Eagle Owl *Bubo bubo*

Bill Hesketh

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. It was estimated in 2008 that an average of 65 captive birds escape annually – based on figures supplied by the Independent Bird Register and numbers registered under a 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 three 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 to known outcome	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	2	2	0	1	2	1	1	1	4	4.00	2.00

Group Reports

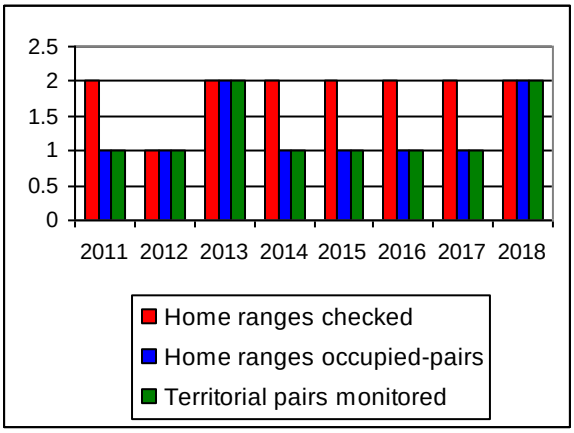
Bowland Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
A pair in the traditional territory was present in early 2018, but no signs of breeding were recorded. What was assumed to be a different pair at a different site successfully fledged 4 young. Concerns continue about disturbance to this species in Bowland.

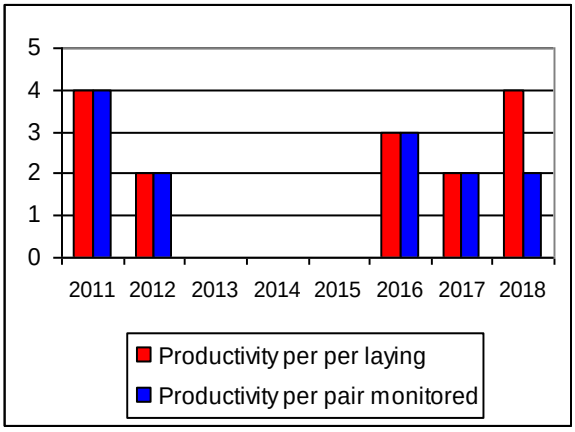
All other groups reported nil sightings. No other breeding pairs were reported to RBBP in 2017 (RBBP *in press*).

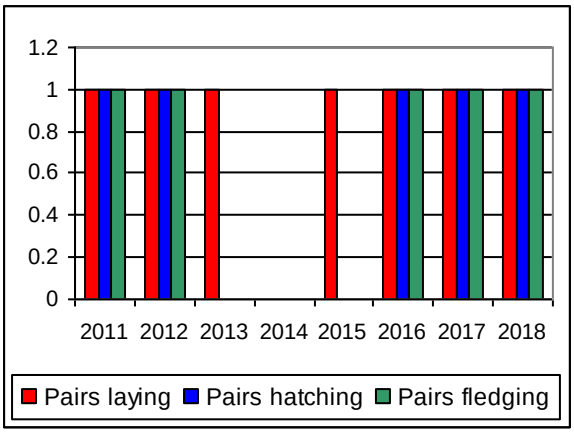
NERF regional summary

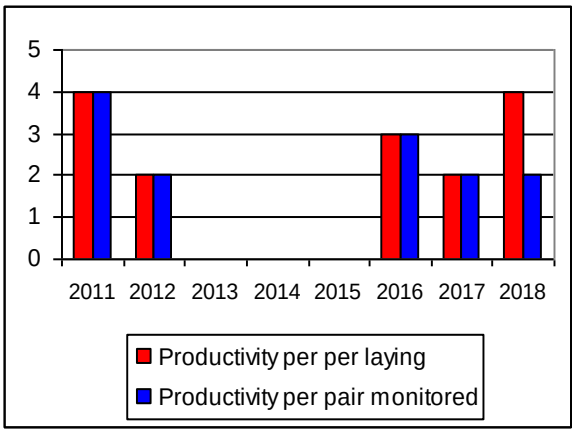
There were no records of breeding by Eagle Owls from any of the regional study areas apart from Bowland, despite suitable habitat in forests such as Kielder. A pair has been breeding, or attempting to breed, at the Bowland site for 13 years and a change of female occurred in 2012. The suspicion that there is more than one pair was given further weight by this year's results, but given the secretive nature of the species and remoteness of habitat, pairs can 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 2009-2018









Common Kestrel *Falco tinnunculus*

Ken Smith

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 Breeding Bird Survey of 2018 reported a 17% reduction in the Kestrel population between 1995 and 2017 in the UK. There was no change 2017-2018. 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.* (APEP 3: *British Birds* 106: February 2013) was 46,000 individuals.
Despite these long-term setbacks the Kestrel remains widespread and is perhaps the raptor species most readily identified by the general public.

Conservation status

UK: Amber
European: 3: Concern, most not in Europe; declining
Global: Least concern
Listed as vulnerable (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 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 etc., 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.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
CaRSG	6	6	0	0	6	6	6	6	15	2.50	2.50
ChRSG	16	16	NC	3	13	13	12	12	40	3.08	3.08
MRG	49	30	NC	NC	30	30	30	30	87*	2.90	2.90
NRG	58	11	8	2	9	8	8	8	24	3.00	2.67
NYMUBSG	25	8	0	1	6	7	7	7	26	3.71	4.33
TOTAL	**154**	**71**	**8**	**6**	**64**	**64**	**63**	**63**	**192***	**3.00**	**3.00**

***UNDERSTATED FIGURE** – *assumes a minimum of 1 young from some successful nests where the precise number of young could not be determined. See respective RSG text for productivity values from any nests with an accurately known number of young*

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.
This species is currently not closely monitored in Bowland, however broods are often found whilst Barn Owl monitoring work is being carried out. It appeared that there was an altitudinal split in success, with pairs nesting on higher ground being fairly successful (e.g. there were 4 successful nests within one 1 km square) whilst those pairs lower down were less successful).

Calderdale Raptor Study Group
Extent of coverage: Part upland & part lowland areas.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Kestrels are, perhaps unsurprisingly, the most common species monitored by the group. In excess of 500 records were received from across the whole of the study area during 2018. Four pairs collectively raised 13 young and 2 additional pairs were known to have bred successfully in the area. Although the outcome at these sites was not recorded it can be

reasonably assumed that a minimum of one chick fledged from each of those nests and this is reflected in the column *'known number of fledged young'.* Twenty-five individuals, which were mainly juveniles, were reported in the west of the study area on 30th July; consequently we are confident, having regard to the number of juveniles seen in late summer / early autumn, that several other pairs also successfully reared young.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
More targeted work is to be undertaken by the Group in future years and new nest boxes have been installed.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Occurs as a regular breeding species but no monitoring takes place.
There are no monitoring studies of representative sample populations, but Kestrels remain well reported across the County as a whole – second only to Common Buzzard in the number of casual records submitted to the Durham Bird Club; this despite the evidence of decline at national level. The species remains relatively common in upland areas, nesting in barns, quarries, tree holes and cliff faces and hunting at even the highest elevations. In 2018 a pair nested on the ground amongst boulders at 500 metres a.s.l.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
A total of 82 young was based on known results from 25 of the 30 pairs; the remaining 5 pairs were known to have fledged young but actual numbers of young were unknown.
The number of breeding pairs was well down on 2017 when there were 45 confirmed breeding pairs.
This season Peter and Norma Johnson checked 8 pairs which fledged 30 young. In one box there were 2 young and an additional 3 dead young which had possibly died due to the heat. At a further site one young was found to have drowned in a water butt.

Northumbria Ringing Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least two long-term monitoring studies.
Even with the vole population still being fairly high, the Kestrel population is struggling as it was in 2017 with no real increase overall. Fifty-eight home ranges were checked and only 11 were occupied.
Data was received from 3 areas within the county.
By far the biggest study is the south Cheviots / MOD Otterburn where 47 home ranges were checked, but only 6 were occupied by pairs, of which 4 laid eggs, fledging 9 young; at another 8 sites single birds only were seen. Five new nest boxes have been installed in this study area with the hope of future success.
In the Border Forest (Kielder area) only 3 pairs laid eggs, fledging 9 chicks which included a brood of 6, whilst in the North Cheviots one nest was found fledging another brood of 6.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least one monitoring study.

This was the most successful season experienced by this species since 2008 based on the returns from the South Cleveland RG nest box scheme. One pair included above but outside the scheme used a crow nest. Located after fledging had occurred it was considered from the amount of down on the nest that more than one youngster had fledged. However, only a single bird represents the brood in the total of 26 young in the table above. Actual known productivity values are therefore 4.17 & 3.57 (i.e.25 divided by 6 & 7). Although a pair appeared to be settled and in residence at one site the birds ultimately disappeared without attempting to nest. Another site was successfully occupied after a 10-year absence during which period the box was empty each season. It would be most heartening if this year's results proved to represent a reversal of the worrying decline experienced over the past few seasons.

Kestrel Annual Productivity Data – North York Moors
Large Nestbox Scheme

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	4.00	3.20
1982-86	174	12	6.9	11	53	4.82	4.42
1987-91	169	22	13	21	90	4.28	4.09
1992-96	150	20	13.3	19	83	4.37	4.15
1997-2001	109	17	15.6	16	68	4.25	4.00
2002-06	128	19	14.8	15	62	4.13	3.26
2007-11	127	21	16.5	19	84	4.42	4.00
2012-16	120	18	15	12	49	4.08	2.72
2017-18	49	11	22.4	11	43	3.91	3.91

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 of the species took place in 2018 due to other commitments, but one nest was located containing 4 recently fledged young.

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*

Wilf Norman

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 2017 (2019 *in press*) recorded 283-353 pairs monitored.

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 2nd 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.

National and regional threat assessment

Persecution of this species in all the usual ways by grouse moor gamekeepers is generally a thing of the past. Keepers are well aware these birds do not present any problems for them in regard to predation of young grouse and are on the whole happy to tolerate nesting pairs on their moors. Currently absorption of contaminates in the environment via prey consumption is potentially the most serious problem with which the species has to contend and levels are routinely monitored by CEH through egg and corpse analyses.
Reduced prey availability during the breeding season seems to be an increasing problem in many upland areas and in some cases is considered to be causing pairs severe difficulties provisioning broods: such insufficiencies may even be deterring pairs from actually nesting.

It is also quite possibly a featuring factor at wintering areas with birds failing to achieve pre-season breeding condition and subsequently not attempting to nest when back on breeding territories. Another worrying, increasing man-made problem for the birds is that of excessive burning-out of old heather stands on many of the intensive commercial grouse moors, making it difficult for them to find suitable nest beds.
In light of the predictions from scientific circles that extreme weather events are likely to become the norm in future the probability of wildfires occurring with increasing frequency on tinder-dry moors is also cause for real concern not just for Merlins but for all upland ground-nesting species.
Clutch and brood losses to foxes, mustelids, other larger raptors, humans and even adders at nest sites do occur but not to an extent that affected population levels adversely in the past when Merlin numbers in the uplands were much higher than of now. At present with such low numbers of breeding pairs in Calderdale, the Peak District and North York Moors, any nest failures in these areas represent losses that could well have a damaging effect on populations already under significant pressures.

NERF Data

	Home ranges checked	Home ranges occupied (pairs)	Homes ranges occupied (singles)	Pairs failing early / non breeding	Territorial pairs monitored to outcome	Known Pairs laying eggs	Known Pairs hatching eggs	Known Pairs fledging young	Known Number fledged	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	20	14	0	0	14	11	9	7	28	2.55	2.00
CRSG	9	4	5	2	2	2	2	2	7	3.50	3.50
DUBSG	80	43	2	1	42	41	36	31	110	2.70	2.60
NRG	58	18	3	4	14	12	12	9	31	2.58	2.21
NYMUBSG	52	13	2	1	12	12	12	11	36	3.00	3.00
PDRMG	34	22	0	3	16	16	14	13	45	2.81	2.81
SPRSG	11	2	NC	1	1	1	0	0	0	0.00	0.00
TOTAL	**264**	**116**	**12**	**12**	**101**	**95**	**85**	**73**	**257**	**2.71**	**2.55**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Following a good breeding season in 2017, hopes were high for this species in 2018. However, it turned out to be a fairly poor season. Several pairs failed for reasons unknown on the most closely-monitored part of Bowland, and densities on the areas of Bowland intensively managed for grouse shooting remain much lower than in the past. It is likely that the Merlin population in Bowland is appreciably below the level that earned it Special Protection Area status.

Calderdale Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.

The number of records received during 2018 increased by almost 50% over the previous year to 74. Two pairs successfully raised 3 and 4 chicks respectively. Two other pairs were located in spring; however both failed prior to laying eggs. Five single birds were noted in separate areas. This is the highest number of occupied sites recorded in the study area for several years and hopefully will lead to a future increase in the local breeding population.

Cheshire Raptor Study Group
Extent of coverage: Not known to occur here as a breeding species.
Level of monitoring: Upland areas only.
No breeding information, only occasional records above Macclesfield Forest area in the autumn and early spring periods. The Dee and Mersey estuaries provide numerous sightings during the winter.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Coverage was reasonably complete across suitable habitat in the county but this year some areas in the NW could not be covered as normal and a few territories are therefore not included. Nevertheless, the total of 43 pairs found on territory sits within the range of 38-50 pairs recorded over the past 5 years which have marked something of a population recovery. However the most notable and disappointing feature of the season was the unusually high failure rate with 28% of pairs failing to fledge any young. At least 5 nests appeared to be predated at egg stage and a further 5 were probably lost at the fledgling stage.
Three young ringed in nests from separate central Durham sites were later found dead at Marske-by-Sea and Scalby (both North Yorkshire) and at Morpeth, Northumberland. The tendency of fledglings to move toward the coast after fledging is evident but even more striking is the urgency with which they leave the natal area. The bodies were found at the end of July or early August and it is estimated that these birds could only have been capable of flight, let alone self-sufficiency, for between 22-28 days.
It is not clear how the extreme heat and dry weather experienced in late June and early July might have affected nest failures and fledged young survival.

Manchester Raptor Group
Extent of coverage: Upland areas only.
Level of monitoring: Very occasional breeding species; nests monitored when found.
There was one instance of confirmed breeding in the Carrbrook area, with 3 young hatching from 4 eggs. Sadly these young were destroyed by moorland fires when close to fledging; (monitored by the PDRMG and will appear in their records).


Remains of Merlin nest and young at Carrbrook (Tim Entwistle)

Early winter records ended with a male at Elton Reservoir 25th-26th April. Audenshaw Reservoirs also recorded a female eating a Pied Wagtail 13th April, one was in the Piethorne valley 4th February and a male was on Horrocks Moor Egerton 30th January. All other records, 13 in total, came from the various mosslands comprising Chat Moss.
Autumn and late winter records were dominated by 15 reports of passage birds seen from the vismig points on Winter Hill. A maximum of 3 was recorded on 4th and 29th September and records spanned a period from 20th August to 30th November with most flying in a southerly direction; one also flew through High Rid Reservoir nearby 25th September. There were 5 records from Ashworth Moor between 31st August and 31st October, with 2 on the former date. Other moorland records came from Hobson's Moor 6th-8th September, Ludworth Moor 3rd October and Wild Bank 14th September. A male was briefly trapped in a barn at Affetside 17th October, and Elton Reservoir had 4 records between 13th August and 24th November involving at least 2 different birds. There were 12 records from the mosslands, with Little Woolden Moss sightings accounting for 9 of these, all singles and perhaps involving the same wintering male.
A bird considered to be a Merlin x Peregrine hybrid escapee was at Pennington Flash 1st September, and what was probably the same bird had been seen around St. James Poolstock from mid-July, apparently evading the resident Peregrines.

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.
The same number of occupied Home Ranges was recorded this year - 18 – the same as in 2017, but producing a slight increase in the number of chicks fledged - 31 compared to 27 in 2017. But overall 2018 was a poor season. In the Border Forest Kielder study, (started in 1974), it was the worst year ever with only 3 nesting pairs, although all were successful with 11 chicks fledging. The "beast from the east" was thought to have had a significant adverse effect on the population.
In another area of the county, the observers described the season as "turbulent" with 3 nests failing at the small-chick stage and another where the breeding female was thought to have been killed by an adder! The adult male continued to feed the young chicks but to no avail and the brood failed.
A 2018 female chick was recovered 50 km east of its nest site, probably killed by a combine harvester.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
A season on a par with 2017 in regard to number of pairs although the figures above include 2 nests reported by reliable keepers from sites not checked by Group members this season which helped achieve parity between the years. As reported last season, the NYMs population does seem to have more or less stabilised, encouraging faint hopes that perhaps it might yet experience an upturn in fortunes in future.
It was evident from the lack of a faecal ring around the nest cup that the nest which failed did so almost certainly within hours of being located, when the hen bird was reluctant to leave chicks very recently hatched. The fate of the brood is something of a mystery but it does seem a most unlikely coincidence that it was predated so soon after the departure of the fieldworkers concerned. It is possible that the female bird herself removed the chicks –

perhaps even consumed them - through some instinctive, misguided attempt to protect them from future interference. It would undoubtedly have been extremely revealing to have had a camera on that nest. Three sites initially showing strong evidence of occupation, (2 by single birds, one by a definite pair), were abandoned well before the usual laying period. Difficult to fathom why, but perhaps the birds decided there was insufficient prey-carrying capacity at the sites to cater for successful brood-rearing. Certainly Meadow Pipits seemed thin on the ground on some moors numbers possibly having been adversely affected by the untimely "beast from the east."

Peak District Raptor Monitoring Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Twenty-two pairs of Merlin were recorded on territories; 3 pairs failed to settle; 3 pairs were outcome unknown; 3 pairs failed - 2 at the egg stage and one when large young perished in a moorland fire. Forty-five young fledged from 13 successful nests.

South Peak Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Within the SPRSG area no confirmed breeding was observed on the Upper Derwentdale moorlands in 2018 for the first time in more than 35 years. Early breeding activity was, however, observed at one site, where a bird was observed defending a traditional territory, yet no nest was subsequently found. On the Eastern Moors one pair bred, but the nest failed at the late egg / small young stage; natural predation was suspected. Plenty of suitable habitat is present on the Eastern Moors and the lack of more breeding pairs in this particular region needs further in-depth study.
There were no confirmed breeding records from the Staffordshire Moorlands in 2018.

NERF regional summary

Durham and the North Peak Distict seem to have had a fairly good and productive season, but Northumberland, the South Peak , Bowland and the NYMs experienced either a poor or moderate one. It is impossible to know what effects the "beast from the east" and the lengthy summer heatwave had on Merlin activity but it seems likely that both placed some degree of stress on birds at different stages of the breeding cycle. The former certainly delayed the arrival of Meadow Pipits, the principal Merlin prey species, to the uplands and the latter may well have caused death of young through severe hydration. The appalling death of a brood on Saddleworth Moor directly attributable to the huge fire there vividly demonstrates just how vulnerable moorland nesting birds are to wildfires.

Territorial Pairs NERF Study Areas

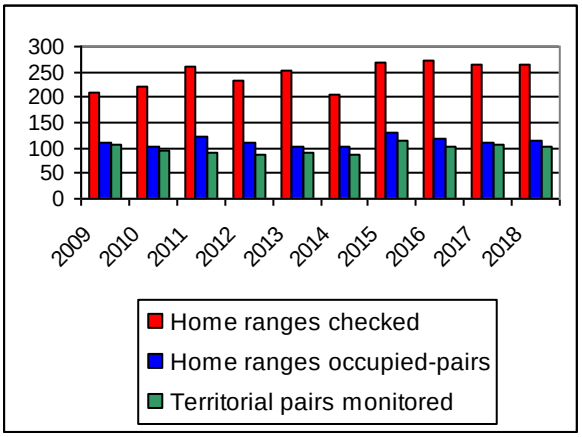
RAPTOR STUDY GROUP	National Survey 1994	National Survey 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
DUBSG	-	-	39	30	30	31	40	40	54	43	38	43
NRG	39	12	20	23	26	21	17	20	23	23	18	18
NYMUBSG	36	12	17	17	17	14	9	7	11	9	13	13
North Peak & South Peak	55	29										
PDRSG			11	13	14	12	13	19	24	20	23	22
SPRSG			9	7	9	9	3	2	1	3	2	2

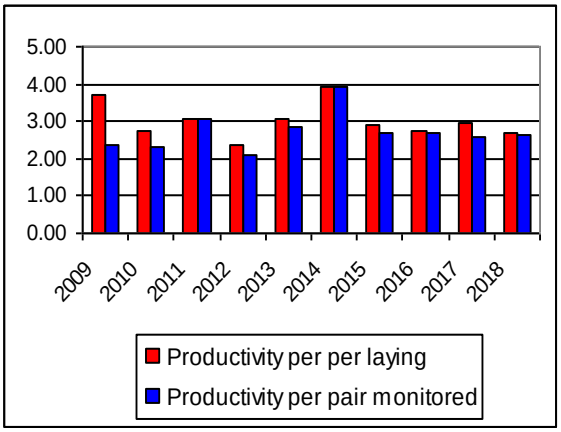
The above table displays occupied territories data for the study areas shown extracted from all NERF annual reviews with those for 2018 added. For comparative purposes and in order to illustrate the significant decreases that have occurred since the mid 1990s, the figures from the 1994 and 2008 national surveys are included. Unfortunately, Durham totals do not feature in either of them, which is disappointing as it is the only area bucking the downward trend experienced by all other regions. It would be very interesting to know whether the Durham population existed at more or less the same level as now, back in 1994, or was in fact considerably higher, and has like all other areas suffered a similar fall-off in numbers since then.

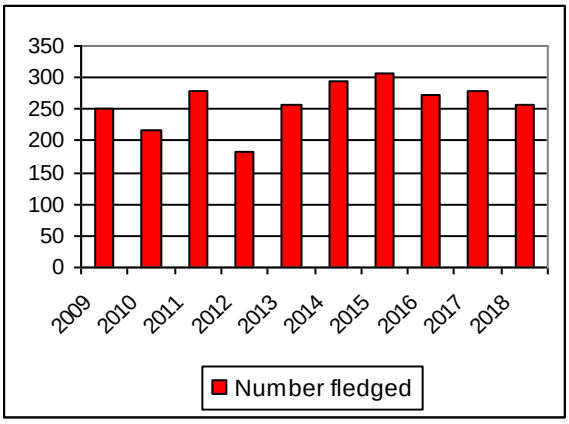
The NYMs and the Peak District have yet to achieve parity with 2008 totals. Northumberland has managed to surpass its equivalent figure but all NERF uplands are well down on the 1994 returns; Northumberland (-54%); NYMs (-64%) and the Peak District, (both areas combined for the national surveys), (-56%). It has been established that the principal cause of the decrease in the NYMs loss of pairs is from sites under 300 metres, the population having in the main contracted to core sites on the central higher moors. The NERF totals for the North and South Peak areas present an intriguing picture. In 2009 the populations for both were virtually on a par, the overall total of 22 pairs almost evenly split. From then until 2018, (24 pairs), there has been more or less a gradual increase in the pairs for the North Peak matched by corresponding decreases in pairs for the South Peak. It does not seem unreasonable to conclude that the North Peak has been recruiting pairs from the South Peak District over the past decade which is the belief held by raptor fieldworkers there. Topographically, the Peak District has an altitudinal range comparable to that of the NYMs,

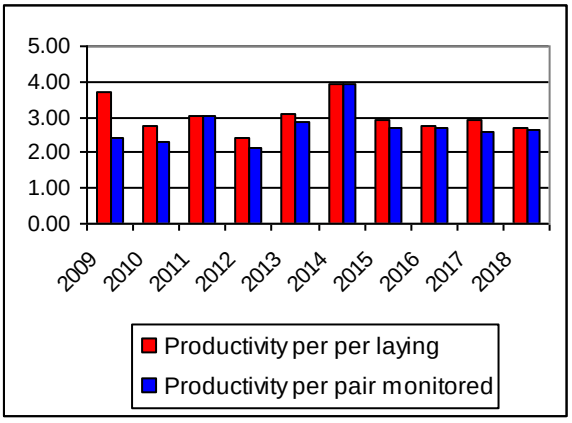
differing however with upland height increasing from south to north rather than from perimeter to centre as in the NYMs. The North Peak moors are higher than those to the south and also are mainly west-facing, thus wetter. This factor could perhaps be a crucial factor behind the distribution of pairs. It is almost certainly of relevance that the Durham moors are considerably higher than those of other NERF areas, (with the probable exception of some parts of the Yorkshire Dales). Elevation increases to over 700 metres in the Durham uplands and could well be the reason Merlins continue to do well there by providing the species with a preferred higher and cooler breeding environment.
It has been predicted in scientific circles that the UK Merlin population will in years ahead be forced further and further north by the effects of climate change. The Peak District scenario could well be regarded as symptomatic of what the future holds for this species.

Comparative data 2009-2018









Hobby *Falco subbuteo*

Andy Butler

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 BBS Report for 2018 shows a 10% decrease for England 2017-2018, a 21% decrease 2007-2017, and a 17% decrease from 1995-2017. Clements (2001) estimated the UK population to be in the region of 2,200 breeding pairs. However, following the large-scale expansion in range from southern England to the north, west and east, and the species being widespread south of a line from the Humber to the Mersey, (with the exception of west Wales and Cornwall),bearing in mind there is some evidence of breeding as far north as the Scottish highlands, despite some recent decreases, the current figure is probably considerably higher. Further research, based on a combined 60 years plus of fieldwork in 3 counties, (Kent, Hertfordshire and Derbyshire), and also evidence from many other counties, suggest 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).* The RBBP gives a figure of 282-632 breeding pairs in 2017 with a 5 year minimum of 795 pairs (Holling, M. *et al.* Rare breeding birds in the UK in 2017 (RBBP 2019 *in press)*

Conservation status

UK: Green
European: Not of concern
Global: Least concern
Listed 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 if any other observation required for monitoring might cause disturbance of the nesting pairs.
There are no specific threats associated with this species at the present time. However although 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.
Although numbers of pairs monitored and breeding in 2018 were down overall, productivity remained virtually unchanged compared to 2017.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
NRG	1	0	1	0	0	0	0	0	0	0	0
NYMRG	3	0	0	0	0	0	0	0	0	0	0
PDRSG	19	16	2	0	16	12	12	12	28	2.33	1.75
SPRSG	33	30	3	2	26	26	26	26	46	1.77	1.77
TOTAL	**56**	**46**	**6**	**2**	**42**	**38**	**38**	**38**	**74**	**1.95**	**1.76**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Occurs as a breeding species, but no monitoring takes place.

Several individuals were seen hawking insects over the fells from late June until mid August, but it is thought that 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.
Sightings of Hobby in Calderdale are very rare. In 2017 there were 7 sightings during the summer months. Despite committing the same amount of observer effort in 2018 the number of sightings fell to 2. These observations were both of single birds, one on 18th May and the 2nd on 27th June, and they came from 2 different locations.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
Birds were reported by Durham Bird Club from a few well watched sites in the eastern lowlands between late spring and late summer but there were no confirmed reports of breeding in the county. A few isolated and undetected pairs may breed but overall the species has yet to show signs of really consolidating its status as a regular breeder. There were no reports from upland areas where in the past odd birds have been seen hunting over the moorland fringes.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Occurs as a breeding species but no monitoring takes place.
There was no confirmed breeding this year, but a record of an adult with three juveniles on Carrington Moss, near a regular site, on 17th September, though late, was indicative of probable breeding. Previously, a juvenile had been noted over the Shell NR not far away on 21st August. On 24th August an adult and a calling juvenile were near Glazebury sewage works.
On the mosslands there were regular sightings of an adult and a first-summer bird, sometimes together, but they were not thought to have bred.
Other areas with regular sightings throughout the summer, suggesting breeding, reported on www.manchesterbirding.com,were Elton Reservoir, Pennington Flash and environs, and Romiley. A bird carrying a kill flew towards Daisy Nook on 25th August.
There were sightings from 18 further locations, with the first at Bickershaw Rucks on 26th April, and the last at Horrocks Flash on 25th September.

Northumbria Ringing Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
One immature seen in the Otterburn/South Cheviots area in July was the only bird recorded by the group. In Northumberland Hobbies are recorded every year and most years at least one pair is thought to attempt to breed somewhere, but we have only ever had 2 confirmed nests in the county.
North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Not known to occur here as a breeding species.
No firm evidence obtained of nesting by this species this year. However, birds were again recorded from one site where breeding was suspected in 2017. Suitable stands of mature

conifers in the vicinity were thoroughly checked out with negative results. Consideration is being given to installing artificial basket nests there ready for next season, as the whole area does appear very suitable for the species. Foraging birds were recorded occasionally from other areas over the course of the summer with no clues given as to possible nest sites.

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.
A reduced effort in fieldwork in Cheshire by PDRMG members due to other commitments resulted in only 6 pairs being recorded on territory and one territory occupied by a single bird. Three nests were located with 6 young fledging.
In the Yorkshire study area, 10 sites were recorded with pairs and one site with a single bird. One pair failed, and behaviour suggested that this was a second attempt. Nine successful nests fledged 22 young.

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.
SPRSG member and Hobby expert Anthony Messenger confirmed that in his main10k square core study area in South Derbyshire 6 sites were occupied by pairs, (at least one of the pairs had a first-year female); 5 of the pairs were successful, the other pair definitely failed. Eleven young fledged and all were ringed, (2.20 young per successful pair, 1.83 per breeding present). In addition, one site was seemingly occupied by a single female.
Across the whole of Anthony's southern study area, (including the core area), 22 sites were occupied by pairs, (at least 2 of which included a first-year female). There were 21 successful pairs and one definite failure; 41 young fledged, (1.95 per successful pair, 1.86 per breeding pair present), and a total of 27 young were ringed. Three additional sites were seemingly occupied by single females.
In NE Derbyshire and the Peak District, Roy Frost, Mick Lacey and Mick Taylor reported that at least 8 more pairs were present, of which 5 were thought to have bred successfully; at a 6th site an adult was seen carrying food, but success was not confirmed. At the other 2 sites there was no confirmation of breeding.

Yorkshire Dales and Nidderdale Raptor Study Group
Extent of coverage: Part of upland and lowland areas.
Level of monitoring: Very occasional breeding species – nests monitored when found.
One possible breeding pair was reported in 2018.

NERF regional summary

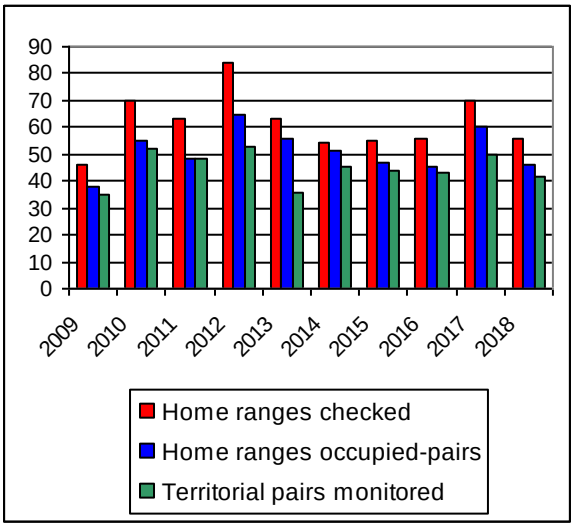
A considerable amount of work is undertaken by NERF Group members, particularly in the Peak District and South Peak Raptor Study Group areas. Hobbies were observed across the region and known to have bred successfully in 3 study areas, and are no doubt considerably overlooked in some other RSG areas.

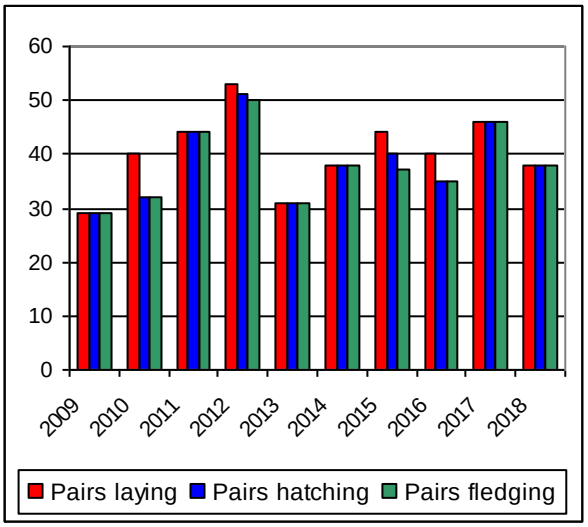
Colour Ringing

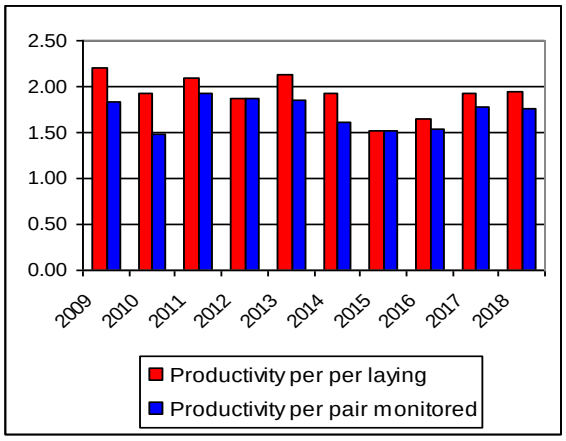
A colour ringing scheme was in operation for this species from 2004 to 2010 and to assist with this project raptor workers are requested to report all sightings of all colour ringed birds

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 2009-18







Peregrine Falcon *Falco peregrinus*

Adrian Dancy

UK population estimate

The BTO conducted the 6th national survey in 2014 and this gave a figure of 1769 pairs in the UK, Isle of Man and the Channel Islands (Wilson, M.W. *et al*. The breeding population of Peregrine Falcon *Falco peregrinus* in the United Kingdom, Isle of Man and Channel Islands in 2014. (*Bird Study* 2018:65 Issue 1 pp.1-19).This showed a 22% increase on the previous survey in 2002. The 2018 BBS figures showed a decrease of 22% in 2017-18, a decline of 17% 2007-17 and a 40% increase 1995-2017.The RBBP report for 2017 (*in press*) gives a figure of 834-1088 breeding pairs.

Conservation status

UK: Green
European: Not of concern
Global: Least concern
Listed 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 most serious 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. Although 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 direct interference, but there can also be problems inherent to the roofs of high buildings in public places. These include urgent roof repairs, window cleaning by specialist contractors, air conditioning malfunctions, and disturbance from fireworks,

drones and other human activities at ground level. Health and Safety legislation and the need to employ a qualified steeplejack to check and renovate nest trays, which can easily develop drainage problems, are other considerations – all often require tact and diplomacy to overcome problems with managers unfamiliar with raptors and the law.
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 on-going 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 to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Minimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	20	3	0	1	3	3	2	2	7	2.33	2.33
CaRSG	5	4	0	3	1	1	1	1	2	2.00	2.00
ChRSG	7	5	0	2	3	3	3	3	6	2.00	2.00
DUBSG	21	6	3	1	5	5	5	2	3	0.60	0.60
MRG	21	15	0	1	14	14	9	8	20	1.43	1.43
NRG	29	16	1	6	10	10	9	8	19	1.90	1.90
NYMUBSG	9	6	0	0	6	6	6	6	13	2.17	2.17
PDRMG	21	5	0	3	2	2	1	1	3	1.50	1.50
SPRSG	32	28	NC	NC	20	19	14	14	27	1.42	1.35
YDNP	24	7	0	0	7	6	6	6	14	2.33	2.00
TOTAL	**189**	**95**	**4**	**17**	**71**	**69**	**56**	**51**	**114**	**1.65**	**1.61**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
2018 was another very disappointing year for this species in Bowland, yet another year in the increasingly long run of years in which breeding numbers are far below the levels of the 2000s when up to 15 pairs nested annually in Bowland.
Three pairs were found to have laid eggs, and 2 of those managed to fledge chicks. The 3rd pair's nesting attempt failed for unexplained reasons just after one of the 3 eggs had hatched.

Many historically productive home ranges remain unoccupied, and it is thought that persecution linked to intensive driven grouse shooting remains the primary reason for the species' precarious status in Bowland.

Calderdale Raptor Study Group
Extent of coverage: Excellent coverage; all or most sites receive annual coverage.
Level of monitoring: Part upland and part lowland areas.
2018 proved to be another disappointing year for Peregrines in Calderdale. Despite the number of sightings being received more than doubling over the previous year to 154, the numbers of pairs breeding was limited to one, which fledged 2 young.
Three other sites were occupied by pairs throughout the season; however they all failed for a variety of reasons. At one location the juvenile pair remained on site for several months but made no attempt to breed. At the first recorded urban site within the study area, a pair appeared to be breeding, but when the scrape was checked it was empty. At a traditional site where the pair have been failing for a number of years at egg stage the birds were present but no eggs were laid. The female's behaviour was very erratic. She initially occupied her usual nest ledge, and then moved to a second ledge before crossing to a small crag opposite the main quarry face. She had used this site previously in a year when late snow and biting cold winds would have battered the main quarry face. However, despite being observed several times apparently incubating eggs she changed ledges once more. On one visit she was seen lying flat on the grass with her wings outspread as if she were dead, before getting up and flying off. Whilst the male left, the female remained on site until late August.
The site is occupied by breeding Kestrels, Little Owls, and for the first time, a pair of Barn Owls also nested in the quarry and they reared young. Whenever site visits were made to monitor the Barn Owls in late July and August the female Peregrine would alarm call constantly as if she was protecting her own, non-existent young. The Barn Owls reared 6 young; unfortunately one by one the chicks, which were on the point of fledging were found at the foot of the cliff face with their heads missing. It is not known what happened to the Barn Owl chicks, but Peregrine Falcons frequently kill their prey by tearing the head off and it is possible that the female Peregrine took the chicks as they appeared at the entrance of the crevice in which they were bred, or as they attempted to take their first flight.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Reasonable coverage; at least one long-term monitoring study.
Peregrines are possibly under-recorded given the private and/or high security sites available. A successful mitigation resulted in the provision of a nestbox in Chester which is now being used.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
The data in the table and these comments apply to the whole of County Durham excluding North Teesmouth.
Once again there were no nesting attempts within the county's portion of the North Pennine SPA. Here single birds were seen at 3 traditional eyries early in the season but not thereafter. It is now 20 years since the SPA supported a successful nest.
In the eastern lowlands, where birds have shown a modest expansion over the last decade, 5 pairs settled to nest but productivity was extremely low with 2 sites failing at egg stage and

one where the evidence suggested that the young had been robbed. The 2 remaining nests fledged 2 and one young respectively.
As much as the depressing status in the uplands remains of great concern, the hoped-for expansion in the eastern lowlands now appears to have faltered. Productivity has been low, new sites are not being occupied and some of the worked quarries which originally served the expansion are no long suitable after infilling.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Fifteen pairs bred and 8 of these fledged one or more chicks, 20 in total. Six pairs laid eggs which failed to hatch; 2 of these were definitely due to deliberate interference by man and another possibly so. One pair hatched chicks which died through misadventure, possibly accelerated through human interference. A further pair held a territory and may have tried to breed.
Three more pairs bred this year than in 2017, but productivity was not as good (26 fledged in 2017). The "beast from the east" and the hot weather may have been factors in this. Two new sites were used in 2018, but one site was lost - a quarry site near Bolton used for the first time in 2017 - due to operational reasons.
Four further sites were checked. One had become unsuitable due to quarrying; 2 had no birds and the pair at the 3rd did not breed, though present throughout the breeding season (no suitable nest site?).

Northumbria Ringing Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
It is a worrying time for Peregrines in Northumberland, with many home ranges unoccupied, and at others there appears to be a problem with the failure of females to lay eggs.
2018 recorded a slight drop in occupied territories: down to 16 (18 in 2017) but with a slight increase in fledged chicks to 19 (15 in 2017).
In one part of the county, only 50% of occupied sites were occupied by adult pairs and at one site, an adult male was paired with a 1st-year female on a nest site with breeding Ravens.
Unfortunately persecution continues with a nest suspected of being robbed of large chicks, and at another the pair deserted through continual human disturbance.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
The two inland sites regularly checked were not occupied this season as far as could be determined. The positive figures above were provided by a non-member of the Merlin Group who monitors cliff-nesting pairs from the Cleveland Way footpath which wends its way along the cliff edge. It seems there are 7 regular breeding sites along the National Park coastal stretch, only one of which was not occupied this year. It is known that there are also other pairs both north and south of the reporting area. This really is encouraging and uplifting information in that the likelihood of persecution from shooting is virtually non-existent and even assuming the position of any nest could be pin-pointed from a blind position above, it would require a significant degree of stupidity on the part of any potential egg or chick thief to attempt abseiling down these notoriously unstable cliffs. So unlike their inland brethren these pairs are likely to be about as safe as possible from human interference of any kind.

Peak District Raptor Monitoring Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Peregrine Falcons are seriously under-represented in the PDRMG study area with just 5 of the 21 known territories occupied. Three of these pairs failed to settle. Of the 2 pairs known to have laid eggs, only one was successful, fledging 3 young. The other pair failed after the adult bird was reported by walkers as seriously injured in the vicinity of the nesting attempt. Despite extensive searching, a delay in receiving the report of the injured bird left us unable to locate it.

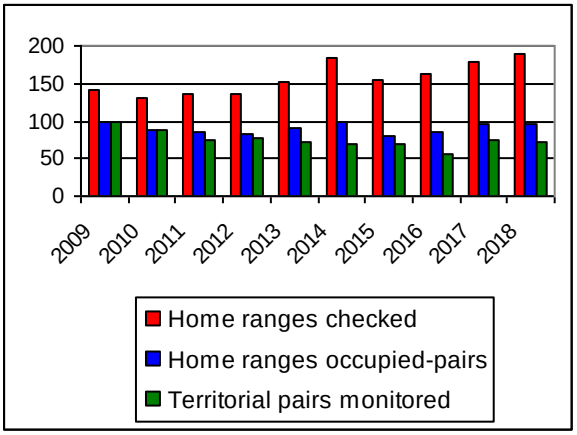
South Peak Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
In the SPRSG recording area of the Upper Derwent Valley, 3 previously successful home ranges were checked in 2018 and found to be occupied by pairs in the early part of the season. Further repeat visits confirmed successful breeding at 2 of these sites, including Alport Castles where 3 young fledged; at the 2nd site 2 young fledged; at the 3rd site successful breeding was not confirmed.
Elsewhere in the SPRSG's study area 29 further sites were checked for occupancy; 4 sites where pairs had bred in the past could not be checked this season. Adult pairs were located at 25 of the 29 sites in the early part of the season and breeding was confirmed at 12 sites with at least 22 young fledged. Unfortunately, time restrictions meant that at 7 of the remaining 13 sites breeding could not be confirmed; failures occurred at 5 sites, where incubating birds had been observed, one of which has a history of disturbance or robbery, this was suspected as having been the cause in 2018. At the final site both adult birds were present throughout the season and although some aspects of usual pair behaviour were observed, actual breeding was not confirmed.
Adult pairs bred successfully on 2 natural limestone crags where climbing restrictions were put in place by National Trust and Natural England with the co-operation of Peak Park and the British Mountaineering Council.
In addition to the natural sites above, and not included in the figures in the table, there were 3 urban sites as usual: Sheffield St. George's Church, Derby Cathedral and Belper East Mill; a total of 9 young fledged from these sites, with the 3 young in Sheffield being ringed by member Steve Samworth. At the Derby site 4 eggs were laid, 3 young hatched, of which 2 survived and were ringed by Dave Budworth (DOS); the 3rd chick died in care, (of canker). At Belper East Mill, 4 chicks were reported by Nick Brown to have fledged successfully.

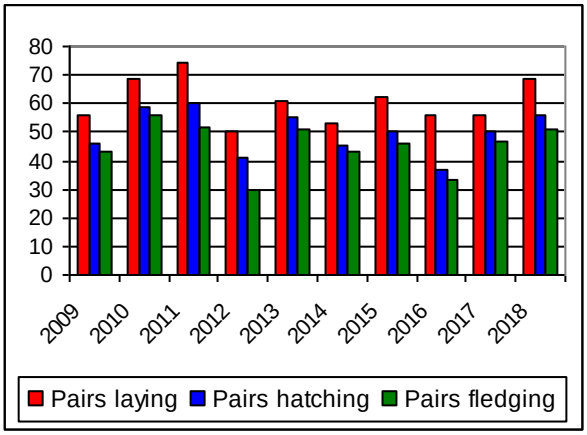
Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Good coverage; at least 2 monitoring studies or large representative study area.
It was good year in the YDNP with six successful nesting attempts, the highest since 2008. All fledged young, with one other pair present throughout the season but no evidence of any breeding attempt. Productivity was also relatively good with 14 fledged young, the highest total since 2007.

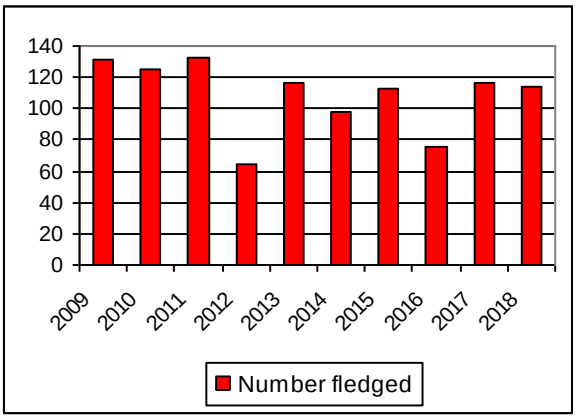
NERF regional summary

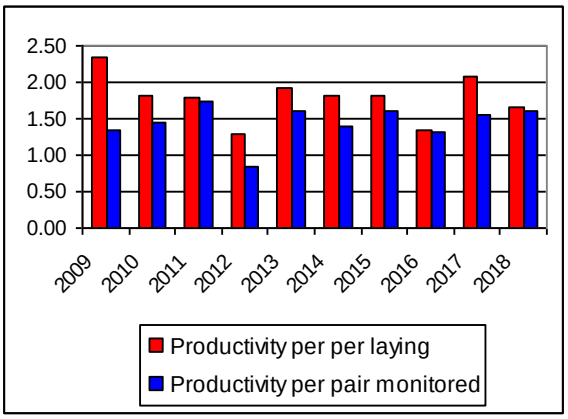
The low temperatures in spring followed by the very hot weather in summer were probably the cause of the lower numbers of fledged chicks this year, notably in urban areas where the lower altitude meant that the temperature in sheltered parts of buildings would have been very high. In at least one case, a metal tray may have contributed to failure. However, human disturbance and persecution, including shooting either on the nest or when lured away by recordings, and theft of eggs or chicks, was as usual worryingly prevalent. All of these failures occurred at moorland sites or disused quarries, and it is important to liaise with the helpful British Mountaineering Council as well as the police and the Mineral Products Association's Biodiversity and Nature Conservation Group or the local police. A list of MPA members can be found at: http://www.mineralproducts.org/cont_members01.htm
Urban sites where cameras have been installed continue to attract much public interest and provide opportunities for excellent PR which can only be beneficial for this species.

Comparative data 2009-2018









Common Raven *Corvus corax*

Judith Smith

UK population estimate

In 2009 the population was estimated at 7000 pairs in the UK (Musgrove *et al.* 2013, APEP 3: *British Birds* 106: February 2013). The 2018 BTO Breeding Bird Survey Report showed that there was a 44% increase in population between 2007 and 2017 and an 8% increase 2017-18.

Conservation status

UK	Green
European	Least concern
Global	Least concern

National and regional threat assessment

Nationally the Raven population has been slowly recovering in recent years, excluding a small dip in 2016 - 2017. However, persecution remains a serious problem in some of the NERF study areas, particularly where they come into perceived conflict with the game shooting industry and sheep farmers who assert that they can be a threat to new born lambs. There are no scientific, peer reviewed, data to show that Raven are having a significant negative impact on breeding waders such as Golden Plover or Curlew despite claims to the contrary constantly perpetuated by representatives of the grouse shooting industry. Rarely new born lambs may be at risk, however the numbers affected are likely to be extremely low and in normal circumstances there are methods and systems available to hill farmers to prevent, or significantly reduce such losses. Nonetheless Natural England retain the authority to issue licences to kill Ravens in extreme circumstances where non-lethal methods have allegedly failed.
Unfortunately the Natural England licensing process has historically lacked transparency and therefore it has not been possible to know:
-what the procedures are by which NE decides that lethal control is necessary, and that a cull will not have a negative impact on the local, or national population?

-what non-lethal methods were tried before the licences were issued?
-why did the non-lethal methods fail?
-how many licences have NE issued?
-the total number of birds involved?
-having issued licences will there be a rolling program of annual renewal?
This is a serious issue and will need careful monitoring for the foreseeable future.

NERF Data

RAPTOR STUDY GROUP	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	Known Pairs laying eggs	Known pairs hatching eggs	Known pairs fledging young	Mimimum number of fledged young	Young fledged per pair laying	Young fledged per territorial pair monitored
BRSG	2	2	0	0	2	2	2	2	8	4.00	4.00
CRSG	3	3	0	1	2	2	2	2	9	4.50	4.50
DUBSG	7	1	2	1	1	0	0	0	0	0.00	0.00
MRG	6	6	NC	3	3	3	3	3	13	4.33	4.33
NRG	34	25	1	3	22	19	19	19	38	2.00	1.73
NYMUBSG	1	0	0	0	0	0	0	0	0	0.00	0.00
PDRSG	15	10	0	0	10	8	8	8	28	3.50	2.80
SPRSG	30	30	0	0	5	5	5	5	18	3.60	3.60
YDNP	18	7	0	0	7	5	5	5	18	3.60	2.57
TOTAL	**116**	**84**	**3**	**8**	**52**	**44**	**44**	**44**	**132**	**3.00**	**2.54**

Group Reports

Bowland Raptor Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Two pairs were found to have bred successfully in 2018, compared to one pair in each of the previous few years. It is possible that further pairs may breed undetected elsewhere in Bowland; however it is likely that persecution continues to suppress the local population.
A flock of approximately 15 non-breeding birds was seen regularly during the breeding season, and a large roost in winter consisted of about 50 birds.

Calderdale Raptor Study Group
Extent of coverage: Part upland & part lowland areas.

Level of monitoring: Good coverage; at least two monitoring studies or large representative study area.
Despite committing significant resources to surveying for Raven annually during late winter and early spring historically, the Group regularly only located one breeding pair. The Group continued with the program of winter / spring surveys into 2018 and during this period 151 sightings were reported, an increase of 33% over the previous survey in winter 2016 and spring 2017.
Three pairs were located in spring, 2 on local upland crags and a 3rdin the process of building a tree nest. Unfortunately the birds using the tree abandoned their nest early in the breeding season. The 2 successful pairs fledged a combined total of 9 chicks.

Cheshire Raptor Study Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
No comprehensive monitoring of Raven is undertaken in the study area. However, it is known that locally nests occur in a variety of sites, including in trees, on cliffs, on power pylons and other tall man-made industrial structures. Regrettably the outcomes at these sites are unknown.
Some intra-guild conflict occurs at sites containing other raptor species occupying close nest sites particularly Beeston Castle where conflict occurs between Raven and Peregrine.
The Group is aware that 6 pulli were ringed in lowland Cheshire; however these records are outside of the Cheshire Raptor Study Group monitoring area and are not included in the table.

Durham Upland Bird Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Good coverage; at least two monitoring studies or large representative study area.
Ravens have a presence in the Durham uplands throughout the year. They are most prominent over the autumn and winter months, when they are typically found in parties of 2 – 4; however a gathering of 8 was seen together in Lunedale in February and 6 in Teesdale in October. Unfortunately Ravens manage to breed only very irregularly, with just a handful of confirmed successes over the last 30 years despite the apparent availability of suitable habitat and food supplies.
In 2018 an old nest was rebuilt and lined at a traditional site but no eggs were laid. Although examples of direct persecution are rarely confirmed, the paucity of breeding records point to illegal persecution as being the major factor in limiting the population.

Manchester Raptor Group
Extent of coverage: Whole County.
Level of monitoring: Poor coverage; casual monitoring of a few pairs.
During 2018 confirmed breeding records came from a quarry in the east of the study area where 3 young were ringed, and a quarry in the north of the study area where 6 young were ringed. In addition, 4 young fledged from the Morrison's clock tower in Wigan town centre. One of these chicks landed on the roofs of the market stalls beneath the clock tower where it spent a few days. During the time it was there it continued to be fed by its parents when the market was closed. (see photo above)
Nest building was noted 21st April on a pylon on Ludworth Moor, but no further observations were made at that site. Pairs were also noted displaying at Lostock 4th February and on Holcombe Moor 23rd February. Again no further observations were made at these sites.

Although sightings were reported from 32 other locations during the period from January to March, when Ravens are most likely to exhibit breeding behaviour, there were no further records of breeding taking place.
Given that there were 62 records from the mosslands, 11 from the Elton Reservoir area, and 9 from the Shell Nature Reserve during the year, it seems likely that breeding went unnoticed in these areas. The nests can be located in a wide variety of habitats and they are therefore easily overlooked. A record received of 5 birds on Smithills Moor on 9th June may well have been a family party from a regular site at Montcliffe Quarry, a site that could not be checked during 2018.
A record of 37 birds moving south in several flocks, including one containing 17 individuals, observed at the Scout Rd 'vismig' site on Smithills Moor, 28th September, was notable.

Northumbria Ringing Group
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
The Study Group recorded a slight increase in the number of the home ranges occupied during 2018, up from 22 in 2017 to 25. However, the number of pairs fledging young remained the same as 2017 at 19.
In 2017 the Group reported that *'in excess of 30 Raven chicks had fledged'*, however we were unable to quantify the exact total accurately and therefore restricted the number to 30 in the productivity table. In 2018, 38 Raven chicks fledged from 19 nests. In all probability there was an increase in the number of fledged chicks in 2018; however, because of the uncertainty surrounding the actual number of chicks fledging in 2017 it is thought that any actual increase in 2018 is unlikely to be statistically significant.
Whilst there are records of Ravens taking over Buzzard nests and vice versa [Ratcliffe D, The Raven 1997, *p. 131*] it is rarely witnessed. In 2018 the Study Group recorded 2 such events when a pair of Buzzards took over a Raven nest and in a different location a pair of Ravens ousted the territorial Buzzards and occupied their nest.

North York Moors Upland Bird (Merlin) Study Group
Extent of coverage: Upland areas only.
Level of monitoring: Very occasional breeding species, nests monitored when found.
Disappointingly, for a second year in succession there were no signs of birds at the Ravenscar site during 2018. It is possible that a pair may have bred southwards along the coastal cliffs as there are ample nesting ledges available along the stretch of the coast; however this could not be confirmed.
Elsewhere, individual birds were recorded occasionally in the Harwood Dale area and at the Wykeham raptor viewpoint with 2 birds also seen at Sleddale on 9th November.
Although no breeding was recorded in 2018 it is encouraging that birds are still being observed, albeit infrequently.

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.
There is a large area of unoccupied suitable habitat in the study area; consequently breeding Ravens appear to be seriously under-represented in the PDRMG study area. Ten sites were found to be occupied; 8 of those pairs were successful, collectively fledging 28 young.
There was evidence that one of the 2 sites that failed had done so due to intentional interference and the other failed as a result of direct persecution when an adult bird was found poisoned. The forensic analysis of the poisoned Raven concluded that it had been killed with

Aldicarb, a highly toxic pesticide that has been banned for more than a decade. Exposure to Aldicarb can cause weakness, blurred vision, headache, nausea, sweating, and tremors in humans. It can be fatal because it can paralyse the respiratory system. Further information about this case can be found at:
https://pdrmg.wordpress.com/2019/03/15/poisoned-raven-found-in-peak-district-national-park/

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.
The SPRSG recording area contains a healthy population of breeding Ravens, with most of the White Peak quarries and those in north-east Derbyshire having successful breeding pairs producing broods of 3 or 4 young. In the Derwentdale area 2 sites were successful. However, because accurate data of the number of successful nests and their outcome were not recorded these nests are not included in the above table.
A record number of 30 occupied tree nests were found in the south of our recording area (south of Carsington Water) – 10 in Corsican Pine, 9 in Scots Pine, 4 in Cedar, 2 in Oak, 2 in Wellingtonia, one in Larch, one in Norway Spruce and one in Sycamore. All were successful; most brood sizes, however, were not recorded. At the 5 sites that were monitored to known outcomes, a total of 18 young (3.6 per nest) was counted. The average spacing between nests was 3.02 km.

Yorkshire Dales National Park
Extent of coverage: Part upland and part lowland areas.
Level of monitoring: Excellent coverage; all or most sites receive annual coverage.
Overall it was a poor year with only 7 sites occupied, the same as in 2017. Only 5 pairs were successful, the lowest number since 2007. Productivity was very similar to previous years. At 2 other sites territorial pairs were present and nests built/re-lined but there was no evidence of any breeding attempt.

NERF regional summary

Raptor Workers in the NERF Study Area have long known that Raven populations have been suppressed year upon year in the northern uplands. Examination of the summary of the decade-long table below reveals the true picture. Of the 132 young fledging in 2018 4 regions, the South Peak, the Dark Peak, the Yorkshire Dales and Northumberland, were responsible for producing 102 (77.27%) of the total. Collectively all the other NERF study group areas only produced 30 chicks. There are huge tracts of unoccupied habitat in the North of England and yet the population is static.
Despite large tracts of eminently suitable habitat in County Durham, geographical area 2576 km^2 (990 square miles), and on the North York Moors, geographical area 1136 km^2 (554 square miles), both of these areas once again have produced no breeding birds. It is inconceivable that a combined land mass of 4012 km^2 (1544 square miles) of suitable habitat should be devoid of breeding Raven unless the population is being intentionally and systematically suppressed.
Where Ravens breed successfully, the productivity is within the annual statistical norms; an indication that it is not habitat or prey availability that is the cause of the variations across the combined NERF study area. There are no doubt fringe issues, including prevailing weather conditions and prey availability, that cause these population differences between the

productive and non-productive study areas, however the main driver of failure appears to be related to land use.
That leaves us with the question: in cases where the lack of suitable habitat and lack of prey are not the causes of absence of breeding Raven, what are? The uplands across the Pennines, the North York Moors and the Forest of Bowland are dominated by grouse moors and it is impossible not to come to the conclusion that Raven populations, along with raptors and owls, are being methodically suppressed by persecution in some areas.
The NERF 10-year Raven data shown in the table below brings the issue into sharp focus once again. During this period NERF has recorded a total of 1179 fledglings, an average of 117.9 per year. Ravens are long-lived birds and yet the breeding population is static, both geographically and numerically. It is self-evident that there are areas of the NERF study area that hold a sink population of Raven and this inevitability means that there is an inability for the species to expand from the core breeding areas. There is no doubt that some birds, both young and old, die naturally. There is no doubt that some are 'moved on' to prevent them from breeding and there is also no doubt that some are killed illegally.

'All NERF' annual Raven data analysis

YEAR	Home ranges checked	Home Ranges occupied by pairs	Single birds	Pairs failing to settle	Territorial pairs monitored to known outcome	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
2017	129	90	3	4	60	57	55	53	84	1.47	1.40
2018	116	84	3	8	52	44	44	44	132	3.00	2.54
Totals	1060	810	15	107	571	504	479	440	1179	2.34	2.06
Av. / year	106.00	81.00	1.50	10.70	57.70	50.4o	47.90	44.00	117.90	2.33	2.06

NERF regional threat assessment

The national threat assessment for this species is applicable in the NERF region. There is no doubt that locally Raven populations are suppressed by persecution. It is essential that Raptor Workers remain vigilant when surveying Ravens and all suspicious activities, including the use of gas guns and banger-ropes in close proximity to Raven nests should be reported to the local Police Wildlife Crime Officer - please ask for an incident number.
The use of lethal control licences, issued to sheep farmers by Natural England, will require close monitoring over the coming years to enable NERF to make appropriate, evidenced-based, well-documented observations and comments when consultations are opened by Natural England.

RARER SPECIES MONITORED BY NERF

Occurrences in 2018

Unfortunately 2018 saw no repeat of the Golden Eagle, Pallid and Montagu's Harriers of 2017, but there was a species new to NERF – Snowy Owl in the MRG area.

Rough-legged Buzzard *Buteo lagopus*

Simon Hitchen

Only 2 Raptor Study Groups recorded Rough-legged Buzzards from their respective study areas in 2018.
Calderdale saw a single juvenile at Buckstones in the SW of the study area on 6th October.
Around the north-western edges of the North York Moors one was filmed on 5th November on Commondale Moor with another seen near Scaling Dam on 13thof that month.
Unchecked reports from bird information services were of another single over various late winter dates to the south of Haltwhistle, Northumberland.
No such reports were made during the breeding season.

White-tailed Eagle Haliaeetus albicilla

Stephen Daly

White-tailed Eagle does not yet occur as a breeding species within the NERF recording area.
A single juvenile was recorded headed south over Moss Moor, Calderdale on 7th December,

and an immature bird was observed between Sleddale and Baysdale in the North York Moors National Park between 6th November and 31st December.

Snowy Owl *Nyctea scandiaca*

Videograb by Dave Bickerton from footage taken by Steve Dawber

Steve White,, Lancashire and North Merseyside County Recorder, has kindly supplied this account below, which was part of the submission to BBRC, who accepted it. The location is within the Manchester Raptor Group's recording area.

For some weeks in early 2018 rumours had been circulating that a Snowy Owl had been seen and filmed earlier this year somewhere in the West Pennine Moors, a large area of grass and heather moorland recently designated as SSSI. Eventually a copy of the video became available and I was able to get in touch with the observer who agreed that I should submit the record on his behalf after a detailed phone conversation.
Steve Dawber was fell-running with his son on 25th March 2018 in the Spitler's Edge/Great Hill area of the West Pennine Moors west of Belmont Reservoir, an area of grass moorland. Initially the bird was seen at quite close range apparently eating prey behind a wall but it got up as the runner approached and sat briefly on a dry-stone wall, before flying off and beginning to hunt. He concentrated on taking the enclosed video footage on his phone.
The overall impression was of a very large, essentially white, owl, clearly much larger than either Barn or Short-eared Owls, which the observer is very familiar with from his experience of running over the moors.
He described it as being quite heavily streaked black or dark grey and subsequently identified it as a female.
It is not possible to be definitive about provenance but our enquiries have not uncovered any reports of any escaped birds. Although the one previous record of the species in Lancashire in 2004 was a known escape there seems no reason to think that this record refers to anything other than a wild bird, a conclusion supported by the habitat in which it was found and its behaviour.

LONG-DISTANCE BARN OWL MOVEMENTS RECORDED BY NERF

Judith Smith

The NERF Annual Review, now in its 10th edition, has contained an appendix of ringing recoveries for 9 of these years. In 2018, the movement of a Barn Owl in my own Group, from Norden in Rochdale to Chudleigh Knighton in Devon (353km) led me to examine previous Reviews to see how many other long-distance movements (over 100km) had been made by what is usually a fairly sedentary species.

Seven records came to light and these are shown in the table below.

Bunn *et al.* made an in-depth study of Barn Owl movements, drawing on continental and American statistics as well as British ones. They came to the following conclusions:

- a reduction in prey availability in the autumn after fledging forces newly-fledged owls to move further away from their natal area.
- the proximity of the sea in the UK limits the distance that can be travelled compared with other countries.
- continental first-year birds tended to move SW or SSW (to escape severe winter weather) whereas British movements were predominantly NE or SE.

Bunn *et al.* concluded that British Barn Owls (*T.a.alba)* were much more sedentary than their continental counterparts (*T.a.guttata*) and that notable movements were most likely to occur in the birds' first year.

The possibility of mechanical assistance (owls becoming trapped in vehicles or even trains) was not considered by Bunn *et al.* -perhaps because most of the statistics they used were pre-1950 when traffic densities were far less than today. The occurrence of birds recovered dead having been impaled on lorries and trains is quite common, and it is not beyond the bounds of credibility that some birds do actually survive this experience.

The fates of the three birds most recently recovered are known. The owl from Norden, Rochdale, was found exhausted by John Walters, a well-known entomologist, and taken to the Barn Owl Trust at Ashburton nearby. After some initial reluctance to feed, it quickly recovered its weight and was able to be soft-released on 1st January 2018.

The bird from Red Row, Northumberland was taken to a local vet, who passed it to the Wiltshire Wildlife Hospital. Unfortunately, despite enquiries, it has been impossible to find out whether it survived or not. Finally, a female from Langleeford, also Northumberland, was controlled near Ayr, where it was found to be breeding.

Reference

Bunn, D.S., Warburton, A.B. and Wilson, R.D.S. 1982. The Barn Owl. Poyser.

First-winter male from Norden, Rochdale, in Devon John Walters

RAPTOR STUDY GROUP	Ring number	Date ringed	Location ringed	Date recovered	Location found	Age	Distance from ringing site (km)	Direction	Comments
-	GR00689	04.08.10	Lothian	20.07.11	Doveridge, Derbs	11 months	349	S	RTA: dead
MRG	GR83523	19.06.14	Pilsworth, Bury	25.12.14	Brandesburton E. Yorks	189 days	134	ENE	Dead
NYM	GC82493	10.07.14	Guisborough, Cleveland	16.10.15	Addlethorpe, Lincs	Adult	177	SSE	RTA: dead
-	GV41048	05.08.16	Landbeach, Cambs	15.01.17	Holy Island	164 days	401	N	Dead
NRG	GV38463	31.05.16	Red Row, Northumb'd	12.12.17	Kingston Deverill, Wilts	7 months	462	S	Into care
NRG	GR95098	18.06.15	Langleeford, Northumb'd	19.06.18	Auchmannoch nr Ayr	3 yrs	130	W	Controlled, female, breeding
MRG	GV43477	18.06.18	Norden, Rochdale	22.11.18	Chudleigh Knighton, Devon	157 days	353	SW	Into care, released

FRIENDS OF RED KITES

NERF welcomed a new group this year – FoRK (Friends of Red Kites). Ken Sanderson, their Chairman, has written the article below describing their aims and objectives:

The Friends of Red Kites (FoRK) is a constituted, membership-based, community organisation which was formed by volunteers in 2009 to encourage an active interest in the conservation of the Red Kite population in Gateshead's Lower Derwent Valley and to continue to monitor their health and welfare.
FoRK is the successor to the funded Northern Kites Project which was responsible for the re-introduction of 94 young Red Kites in the core area between 2004 and 2009. [In 2006 Red Kites began to breed in the region for the first time after an absence of over 170 years.]

FoRK's aims and objectives are:

-To monitor the population, range and distribution of Red Kites in the north east of England.
- A programme of ringing and wing tagging red kite chicks, carried out under BTO Schedule 1 licences, will assist the activities of our monitoring teams.
- Monitoring, breeding and sightings of red kites will be recorded on a database.
-To use the presence of the Red Kites to continue to engage and inspire as many people as possible. e.g. Health Walks, Kitewatch, Roostwatch, Members' Nights, Presentations, the Red Kite Trail, media releases, the FoRK website & other social media.
-To maintain and develop links with educational and other interested parties e.g. "Befriend a Kite" Scheme, Corporate members, Farmers Packs, RSPB, BTO, Bird Clubs, Gateshead Council, Forestry Commission, Northumbrian Water and the Northern England Raptor Forum (NERF).
-To promote and encourage the "ownership" of the Red Kites in the hands of local populations thereby maintaining the welfare of the birds (through recruitment of new members and keeping them informed via newsletters and information on the FoRK website: www.friendsofredkites.org.uk)

Mandy Hedley

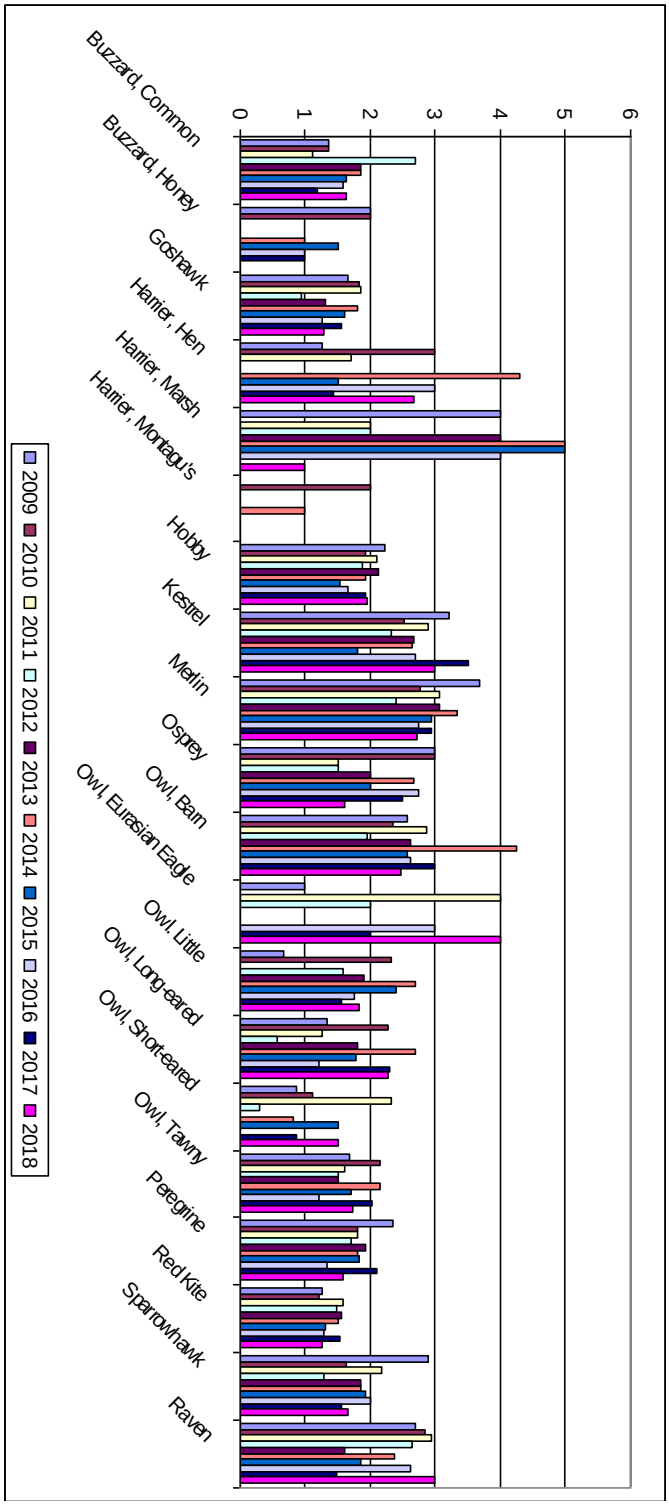
****

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
Osprey	6	6	0	1	5	5	5	4	8	1.60	1.60
Honey-buzzard	10	0	4	0	0	0	0	0	0	0.00	0.00
Sparrowhawk	109	52	0	4	37	35	33	29	58	1.66	1.58
Goshawk	110	73	11	2	68	66	49	44	85	1.29	1.25
Marsh Harrier	2	2	0	0	2	1	1	1	1	1.00	0.50
Hen Harrier	70	13	2	1	12	12	9	8	32	2.67	2.67
Red Kite	53	34	10	1	20	20	16	13	25	1.25	1.26
Buzzard	301	274	9	3	165	113	110	139	184	1.63	1.12
Barn Owl	2260	415	38	28	393	386	369	348	954	2.47	2.43
Tawny Owl	409	147	0	0	135	136	119	115	235	1.73	1.74
Little Owl	75	60	0	0	18	18	17	17	33	1.83	1.83
Long-eared Owl	63	42	1	0	39	36	35	34	82	2.28	2.10
Short-eared Owl	111	54	5	1	44	44	43	43	68	1.5	1.5
Eagle Owl	2	2	0	1	2	1	1	1	4	4.00	2.00
Kestrel	154	71	8	6	64	64	63	63	192	3.00	3.00
Merlin	264	116	12	12	101	95	85	73	257	2.71	2.55
Hobby	56	46	6	2	42	38	38	38	74	1.95	1.76
Peregrine	189	95	4	17	71	69	56	51	114	1.65	1.61
Raven	116	84	3	8	52	44	44	44	132	3.00	2.54
TOTAL	4360	1586	113	87	1270	1183	1093	1065	2538		

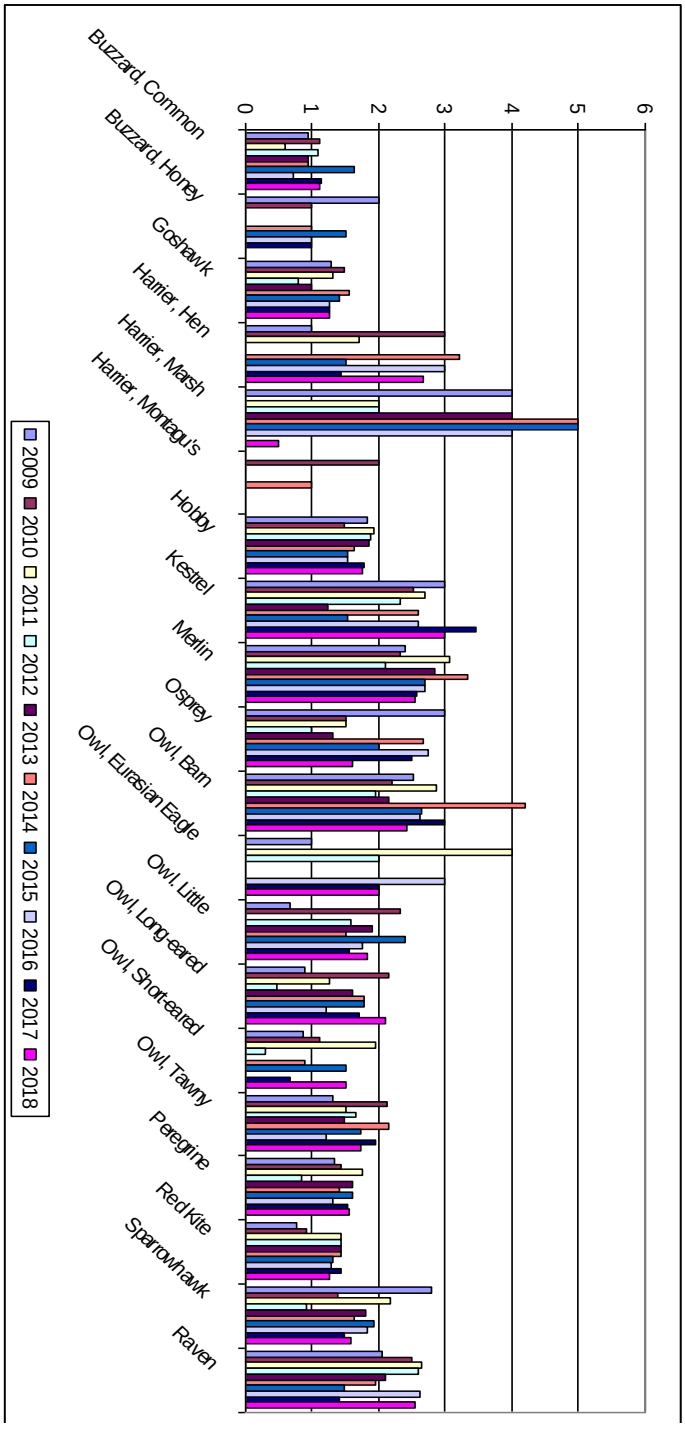
Appendix 2: Combined productivity graphs

a) young fledged per pair laying 2009-2018



Appendix 2: Combined productivity data

b) young fledged per territorial pair monitored 2009-2018



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
BRSG	Barn Owl	GV30939	28/05/17	Newton, Bowland	10/12/18	Staveley, nr Kendal	561 days	50	N	RTA, dead
BRSG	Barn Owl	GV36911	26/06/17	Nr Slaidburn	24/11/18	Fangorn Wood, Bowland	516 days	10	SW	Predated
BRSG	Barn Owl	GV30948	31/05/17	Nr Slaidburn	14/04/19	Pen-y-Ghent, N. Yorks	683 days	23	NE	Freshly dead
MRG	Barn Owl	GV43488	24/06/16	Howe Bridge. Wigan	30/07/18	Abram, Wigan	402 days	8	E	Alive, breeding, stuck on fly paper.
MRG	Barn Owl	GV69432	24/06/17	Lowton, nr Leigh	05/05/18	Mickleover, Derby	315 days	92	SE	RTA
MRG	Barn Owl	GV43477	23/07/16	Newburgh, Lancs	04/10/17	Orrell, Wigan	1y 2m 11days	14	NE	Dead
MRG	Barn Owl	GV72137	18/06/18	Norden, Rochdale	22/11/18	Chudleigh Knighton, Devon	157 days	353	SW	Alive, into care, released 01/01/19
MRG	Barn Owl	GR72941	22/06/14	Sinderland, Trafford	12/11/18	Dunham Massey	4y 4m 20 days	0.5km	S	Controlled
MRG	Barn Owl	GR53473	13/10/17	Irlam	08/07/18	Cadishead Moss	9m	2km	W	Retrap, breeding
MRG	Barn Owl	GV72125	12/06/18	Elton, Bury	16/06/19	Barton Moss, nr Irlam	1y	13km	SW	Controlled, breeding
MRG	Barn Owl	GR53473	13/06/17	Chat Moss	04/08/17	Irlam Moss	1m 22 days	1km	S	Freshly dead in building
NRG	Barn Owl	GV18741	08/06/17	Old Hazelton Rigg, Northumberland	01/02/18	Longframlington, Northumberland	1y	24	SE	Injured
NRG	Barn Owl	GV38462	31/05/17	Red Row, Northumberland	25/02/18	Rosedon Northumberland	1y	37	NNW	Dead, hit window
NRG	Barn Owl	GV67002	25/06/17	High Spen, Tyne & Wear	10/03/18	Chopwell Woods Tyne & Wear	1y	4	SW	Dead
NRG	Barn Owl	GV67151	04/10/17	Alnmouth, Northumberland	23/03/18	Bilton Mill. Northumberland	1y	2	NW	Possibly killed by raptor
NRG	Barn Owl	GC73333	27/05/16	Holy Island, Northumberland	18/05/18	Holy Island, Northumberland	2y	0	-	Controlled
NRG	Barn Owl	GR34922	27/08/16	Alston, Northumberland	01/04/18	Coanwood, Northumberland	2y	17	N	Dead

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment
NRG	Barn Owl	GR81259	01/08/13	Lordenshaw, Northumberland	29/05/18	Whinnyhill, Durham	5y	69	S	Controlled
NRG	Barn Owl	GR95039	27/08/14	Boulmer, Northumberland	24/05/18	Longbank, Northumberland	4y	3.2	W	Controlled
NRG	Barn Owl	GR95098	18/06/15	Langleeford, Northumberland	19/06/18	Auchmannoch, nr Ayr	3y	130	W	Controlled
NRG	Barn Owl	GR95103	18/06/15	Kilham, Northumberland	06/06/18	Morebattle, Borders	3y	15	WSW	Controlled
NRG	Barn Owl	GR95279	15/06/18	Spadeadam, Cumbria	18/09/18	Annan, nr Dumfries	1y	40	W	Dead
NRG	Barn Owl	GV18710	23/05/17	Ingram, Northumberland	01/04/18	Ingram, Northumberland	1y	0	-	Dead
NRG	Barn Owl	GV18737	08/06/17	Newton, Northumberland	01/04/18	Thropton, Northumberland	1y	19	W	Dead
NRG	Barn Owl	GV18995	20/06/17	Tarset, Northumberland	15/03/18	Wark, Northumberland	1y	22	S	Dead
NRG	Barn Owl	GV38489	31/05/17	Coquetdale, Northumberland	22/08/18	Calder, Northumberland	1y	30	SW	Controlled
NRG	Barn Owl	GV67103	28/06/17	Brandon, Northumberland	17/03/18	Wooperton, Northumberland	1y	6	N	Dead
NRG	Barn Owl	GV67104	28/06/17	Brandon, Northumberland	15/05/18	Longhirst, Northumberland	1y	35	SSE	Dead
NRG	Barn Owl	GR10644	22/06/15	Spadeadam, Cumbria	25/11/18	Belsay, Northumberland	3y	60	E	RTA, dead
NYMUBSG	Barn Owl	GC30363	13/06/18	Hinderwell, N. Yorks	08/08/18	Staithes, N.Yorks	56 days	2	NW	Freshly dead in building
NYMUBSG	Barn Owl	GR87417	03/06/15	Egton Bridge, N. Yorks	28/03/18	Ugthorpe nr Whitby	1029 days	8	N	RTA, dead
NYMUBSG	Barn Owl	GV72168	27/06/18	Moorsholm, N. Yorks	23/11/18	Lockwood Beck nr Guisborough	149 days	2	W	RTA,, dead
SPRSG & PDRMG	Barn Owl	GR61830	30/05/14	Staveley, Derbs	31/08/18	Harthill, S. Yorks	4y 93 days	7	NE	RTA,, dead
SPRSG & PDRMG	Barn Owl	GC47420	20/06/14	Staveley, Derbs	31/08/18	Barlborough, Derbs	4y 36 days	6	NE	Dead
SPRSG & PDRMG	Barn Owl	GV00054	31/05/17	Slade Hooton, S Yorks	27/06/18	Heckdyke,N. Lincs	1y 27 days	27	E	Controlled

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment
SPRSG & PDRMG	Barn Owl	GV25344	16/07/17	Rabbit Ings CP, S Yorks	17/02/18	M1, Kirkhamgate	216 days	13	NW	RTA, dead
SPRSG & PDRMG	Barn Owl	GV72515	19/07/17	Greasley, Notts	30/08/18	Hare Edge, Derbs	155 days	58	NW	Dead
SPRSG & PDRMG	Barn Owl	GV53909	21/06/18	Rough Wood, Derbs	23/11/18	Radcliffe-on-Trent	155 days	58	SE	Controlled
SPRSG & PDRMG	Buzzard	GH78995	05/06/05	Nr Belper, Derbs	06/04/18	Benniworth, Lincs	12yrs 305 days	98	SE	Injured, euthanised
SPRSG & PDRMG	Buzzard	GV00047	22/06/17	Whitwell Wood, Derbs	27/02/18	Hardwick Hall, Derbs	250 days	15	SW	Dying,, cold weather
NRG	Goshawk	MA27973	25/06/13	Kielder Forest	09/02/18	Haltwhistle.Northumberland	5y	32	SSE	RTA, dead
SPRSG & PDRMG	Hobby	EZ84275	05/08/17	Nr Eggington, Derbs	31/08/18	Stenson, Derbs	1y 26days	9	E	Freshly dead
MRG	Kestrel	EY02675	03/06/17	Urmston, nr Manchester	12/01/18	Sheffield	7m 7days	61	E	Dead
NRG	Kestrel	EZ83535	29/05/17	Elsdon, Northumberland	06/09/18	Allendale, Northumberland	1y	38	SSW	RTA, dead
NRG	Kestrel	EZ12943	28/05/16	Wallington, Northumberland	10/08/18	Ray Fell, Northumberland	2y	10	W	Wind turbine
NRG	Kestrel	EZ83545	10/06/18	Elsdon, Northumberland	17/12/18	Market Drayton, Shropshire	6m	274	S	Dead
SPRSG & PDRMG	Kestrel	EN50911	03/06/11	Carr Vale, Derbs	10/03/18	Bulwell Hall Park, Nottingham	6y 280 days	26	S	Freshly dead
SPRSG & PDRMG	Kestrel	EZ84345	21/06/17	Thorpe Salvin, S Yorks	02/01/18	Nr Worksop, Notts	6y 280 days	3	SE	Dead
BRSG	Little Owl	EW28854	16/06/17	Bolton-by-Bowland	15/10/17	Tosside,, Lancs	121 days	3	NNE	Injured, dead
DUBSG	Merlin	DT33229	28/06/18	Middleton, Teesdale	28/07/18	Marske, Cleveland	30 days	70	SE	Freshly dead
DUBSG	Merlin	DT33232	29/06/18	Middleton, Teesdale	05/08/18	Scarborough	37 days	110	SE	Freshly dead
DUBSG	Merlin	DT33238	03/07/18	Middleton, Teesdale	30/07/18	Morpeth, Northumberland	27 days	68	NNE	Dead, hit window

Group	Species	Ring No.	Date ringed	Location	Date recovered	Location	Age	Distance from ringing site (km)	Direction	Comment
NRG	Merlin	EZ83550	06/07/18	Elsdon, Northumberland	19/08/18	Twizell, nr Belford, Northumberland	1m	55	NNE	Dead, combine harvester
SPRSG & PDRMG	Merlin	DD47936	27/06/18	Nr Catshaw, S Yorks	31/07/18	Blackpool	34 days	95	WNW	Freshly dead
NRG	Osprey	1497159	17/07/18	Kielder Forest	19/10/18	Tavira, Faro, Portugal	3m	2041	SSW	Colour ring read in field
NRG	Osprey	1463240	28/06/16	Kielder Forest	08/05/18	Kielder Forest	2y	-	-	Colour ring read on natal nest
NRG	Osprey	1463235	16/07/14	Kielder Forest	21/08/18	Kielder Forest	4y	-	-	Colour ring read in field
CaRSG	Peregrine	GF23460	03/07/14	Nr Keighley, W Yorks	24/04/18	Peebles	1391 days	277	NNW	Controlled on nest
MRG	Peregrine	GV72109	10/05/18	Leigh, Wigan	25/08/18 to year end	Audenshaw Reservoirs, Manchester	3m 15 days	27	E	Colour ring read in field
MRG	Peregrine	GV07218	12/03/17	Trencherfield Mill, Wigan	23/04/18	Heaton Park, Manchester	3y	29	E	Born Cheltenham 03/06/15 colour ring read in field-long dead
SPRSG & PDRMG	Peregrine	GC20732	16/05/14	St. George's church,, Netherthorpe, Sheffield	06/04/18	Wakefield Cathedral	3y 325 days	34	N	Colour ring read in field at nest tray
SPRSG & PDRMG	Peregrine	GC20780	22/05/14	Derby Cathedral	01/04/18	Lichfield	3y 314 days	38	NE	Colour ring read in field
SPRSG & PDRMG	Peregrine	GV00085	16/05/16	St. George's church,, Netherthorpe, Sheffield	12/05/18	Buck Park Quarry, Denholme, W Yorks	1y 361 days	55	NNW	Predated by fox
MRG	Tawny Owl	GR24126	13/05/11	Swinton, Salford	25/02/17	Salford	5y 9m 12 days	5	E	RTA, dead
NRG	Tawny Owl	GR34963	05/05/17	Kielder Forest	03/03/18	Wark, Hexham, Northumberland	8y	25	SE	Dead
NRG	Tawny Owl	GR95153	15/05/16	Gibside Hall, Tyne & Wear	22/03/18	Winlaton Mill, Tyne & Wear	2y	2	SSW	Dead
NRG	Tawny Owl	GN19219	10/05/00	Whitbarrow, Cumbria	12/05/18	Grizedale, Cumbria	18y	15	NNW	Controlled
NRG	Tawny Owl	GC09320	09/05/07	Coniston, Cumbria	17/05/18	Grizedale, Cumbria	11y	4	E	Controlled
NRG	Tawny Owl	GC09275	24/04/07	Satterthwaite, Cumbria	12/05/18	Grizedale, Cumbria	11y	4	NNE	Controlled