

PEAK DISTRICT BIRD OF PREY INITIATIVE – 2019 REPORT

Overview of Results 2019 Season

The 2019 season continued without the benefit of a Field Officer. The Initiative has therefore been entirely dependent for monitoring data on the local Raptor Groups, partner staff and volunteers, and on those gamekeepers who report sightings to the Raptor Groups, and the partners on the Initiative would like to record their thanks for the considerable amount of work that goes into this.

2019 saw continuing improvements in the relationships between raptor fieldworkers and gamekeepers/shooting estates. There was also a welcome reduction in the number of confirmed or suspicious incidents. In areas where co-operation has improved, the fortunes of some of the larger raptor species also improved.

In terms of bird numbers and breeding success, 2019 showed mixed fortunes for different species. Two items of particular note were the return of a pair of **Hen Harriers** to their successful 2018 territory- probably the first time this has happened in the Peak District for over a century. The successful fledging of two young, facilitated by help from National Trust staff, volunteers, raptor workers, the gamekeeper and the shooting tenant, was unfortunately tempered by the subsequent death of at least one of the young birds shortly after fledging, thought to be due to natural causes. It was also particularly notable that, although numbers remain low and the weather affected productivity, all 8 confirmed **Goshawk** nests were successful in fledging at least one young- a very welcome and perhaps unprecedented occurrence. This included two sites which have consistently failed for the last 20 years or more, where co-operation between raptor workers and the local gamekeeper has helped contribute to turning around the fortunes of these birds.

The picture for **Peregrine** remains similar to the 7-year average since 2012, both in terms of the number of occupied territories and the breeding success, which both remain well below the targets based on late 1990s figures and national performance. **Short-eared Owl** numbers were, as in past years, impossible to determine accurately, and the overall picture was mixed with good numbers in some areas, but probably poor overall breeding success related to weather. The Initiative would particularly welcome early reporting of Short-eared Owl sightings to the raptor groups early in the season to help improve future accuracy of figures.

The status of **Merlin** in the Peak District continues to be of concern. Although fledging success per occupied territory remains high (indeed in 2019 it was the highest recorded during the 7 years of the Bird of Prey Initiative), the number of nesting pairs dropped significantly to 14 territories, the lowest number recorded, well below the 2012-19 average of 21.5 nests and the target (based on late 1990s population) of 37 pairs. The reasons for these low numbers, despite high nesting success, remain unclear.

There were two suspected incidences of bird of prey crime during the year. A FERA report following examination of a dead Buzzard found in the north of the Peak District concluded that 'it appears that the abuse of chloralose, using a bird bait has occurred... and at least one buzzard has been poisoned'. A second incident involved the suspected theft of young from a Peregrine nest. There was also one unexplained nest desertion by a pair of Peregrines shortly after egg-laying.

During the 2020 season the Initiative will focus particularly on the following issues:

- Working with the police on measures to deter the theft of Peregrine eggs and young at sites throughout the Peak District
- Continuing to encourage early reporting of raptor sightings to the raptor groups (particularly Short-eared Owl) by moorland managers
- Encouraging more joint site visits between gamekeepers and raptor workers
- Working with partners to clarify and encourage compliance with protocols for reporting of suspected incidents of persecution and theft of eggs/young
- Work with other initiatives to monitor Merlin and understand the reasons for the declining population despite high breeding success.

The Initiative would like to thank the Peak District Raptor Monitoring Group and South Peak Raptor Study Group who work together voluntarily to monitor and record the breeding success of raptors in the Peak District. Their continuing commitment is gratefully acknowledged. The success of the Initiative also relies on all those who have reported their sightings. We would like to particularly acknowledge the gamekeepers and birdwatchers who report their sightings and the National Trust volunteers who have spent their time surveying the National Trust owned land and continue to report any raptor sightings.

2019 Season- Summary

Species	Territories occupied by pairs	Pairs known to have laid eggs	No. of pairs known to have fledged young	No. young fledged	Agreed Targets (based on figs. at SPA designation)*
Peregrine	9**	5	3	7	17 prs
Short-eared Owl	Not accurately determined- appears to have been a good year in terms of numbers but with poor breeding success.				5-yr ave. 25 prs
Merlin	14+	14	11	41	37 prs
Goshawk	9	8***	8	12	None set
Hen Harrier	1	1	1	2	None set

* Targets were originally set for 2015 for the Dark Peak only, but the figures here include an additional 2 pairs of Peregrine and 5 pairs of Merlin for the South West Peak, which was included from 2016 onwards.

** 9 Peregrine territories were occupied by pairs for at least part of the breeding season. The number of pairs which firmly settled on territory may have been less.

*** One pair of Goshawks was seen displaying in March-April but no nest was located.

Peregrine Falcon (*Falco peregrinus*)

2019 results

- 9 territories were occupied by pairs for at least part of the breeding season (the number of pairs which firmly settled on territory may have been less).
- 5 pairs are known to have laid eggs, 3 of which were successful and fledged a total of 7 young.

Measurement against the Initiative's targets

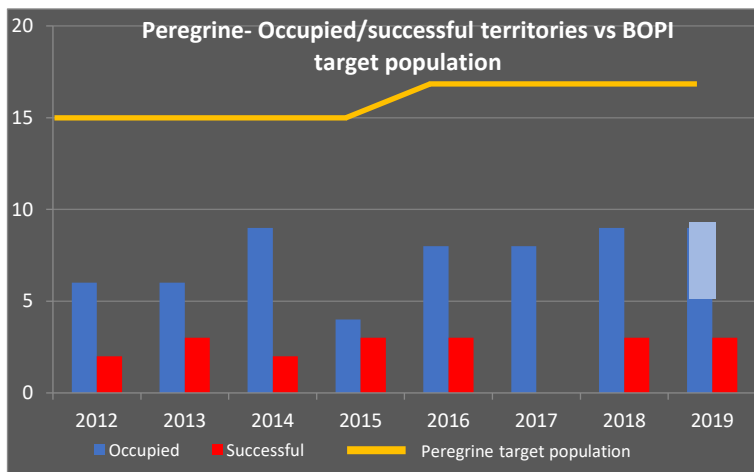
- The number of pairs (9 occupied territories or less) remains well below the target of 17 pairs.
- The success of those pairs that did establish territory is also below target, with somewhere between 0.78-1.4 young fledged per occupied territory (based on a maximum of 9 territories and a minimum of 5). This compares with the target of 2.07 young fledged per occupied territory.

Trend

During the lifetime of the Initiative the number of occupied territories has averaged around 7 pairs* (range 4-9 pairs) (Fig. 1). The 2019 figures (minimum 5 and maximum 9 pairs) fall within this range. There is therefore no discernible trend. The number of pairs which successfully fledged at least one young has remained constant at 2-3 pairs with the exception of 2017 when there were no successful nests.

**But note this average excludes the SW Peak prior to 2015.*

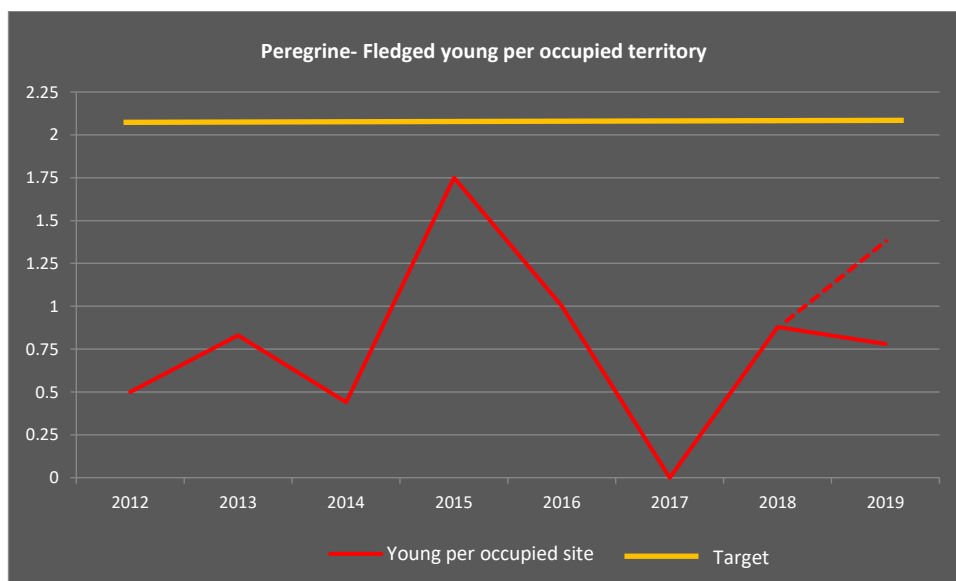
Figure 1



Note- The figure given for occupied territories in 2019 shows both maximum and minimum numbers, based respectively on number of territories with pairs present at some point during the season, and the number known to have laid eggs.

The productivity has averaged 0.77-0.85 young per occupied territory during the 8 years of the Initiative, ranging from no successful nests in 2017 to 1.75 young per occupied territory in 2015. The 2019 figure of 0.78-1.4 young per occupied territory in 2019 falls within the upper end of this range. There are no discernible trends (Fig. 2).

Figure 2



Note- The figure for 2019 shows both maximum and minimum figures based on 5 and 9 occupied territories respectively

Comparison with national data

- The proportion of nests which successfully fledged young (33.3-60%) is at best comparable to the national average of 63% (Wilson et al, 2018) and at worst significantly lower. It is significantly lower than the figure of 71% for the Peak District as a whole during the period 1984-2006 (Amur et al, 2011).
- The number of young successfully fledged per occupied territory (0.78-1.4) is also at best comparable to the national average of 1.35 (Wilson et al, 2018) and at worst significantly lower. The minimum figure falls within the range of 0.71-0.83 young per occupied territory which Ratcliffe (1993) gives as an indication of the level needed to sustain existing population levels, suggesting that current recruitment on the Peak District moors may be sufficient to maintain the current population (based on 9 pairs) but insufficient to allow recovery to 1990s levels without recruitment from elsewhere. The maximum figure suggests recruitment in 2019 would allow population expansion, but from a low base of 5 pairs.

Additional Notes

Both population and nesting success remain low with no sign of improvement over the last 7 years, contrary to national and wider Peak District trends. The failure of pairs to establish territory and reach the egg-laying stage remains a particular concern. Of the two pairs that failed after egg-laying in 2019, one failed at the early egg stage for unexplained reasons and the second showed evidence of young being stolen soon after hatching.

Short-eared Owl (*Asio flammeus*)

2019 results

- No population estimate, though considered a better year in terms of overall numbers.
- No estimate of breeding success. Final fledging numbers thought to be poor due to weather.

Measurement against the Initiative's targets

- Not determined.

Trend

Numbers of Short-eared Owls fluctuate considerably from year to year, with high numbers in “good vole years” and sometimes with no birds in “poor vole years”, making it impossible to identify short-term trends. During the lifetime of the Initiative numbers appear to have followed this fluctuating pattern 2015 and 2018 good years, 2012 and 2014 moderate years and 2013, 2016 & 2017 were poor years. Although total figures are unavailable, 2019 appears to have been a good year in terms of numbers but with relatively poor breeding success.

Additional Notes

Monitoring of Short-eared Owls continues to prove difficult as it has throughout the Bird of Prey Initiative due to the nocturnal habits and remote nesting locations. In addition breeding success is largely thought to be related to the wide annual fluctuations in the populations of short-tailed voles. The cyclical changes in vole populations and the nomadic behaviour of Short-eared Owls means they are less associated with traditional nesting sites than the other species. Establishing comparative population figures therefore relies more on comprehensive survey coverage of the entire open moorland area, which is beyond the scope of the Initiative.

During 2019 Short-eared Owl had a mixed season with a patchy distribution- for example one hot-spot had 5 nests in a valley from which 24 young were ringed; however final fledging numbers were probably poor due to the weather. Elsewhere there were several confirmed reports of successful nests. There were no reported incidents of illegal persecution of Short-eared Owl.

Better reporting of birds in breeding habitat early in the season would be very helpful to establish more accurate numbers of breeding pairs.

Merlin - (*Falco columbarius*)

2019 results

- 14 territories were found to be occupied by pairs. Birds also were seen at several other historical sites but insufficient evidence of any breeding attempts so probably birds moving around or failing to pair up. There were 2 further reports which could not be verified.
- Of the 14 territories known to be occupied by pairs, a total of 41 young fledged from 11 successful nests.

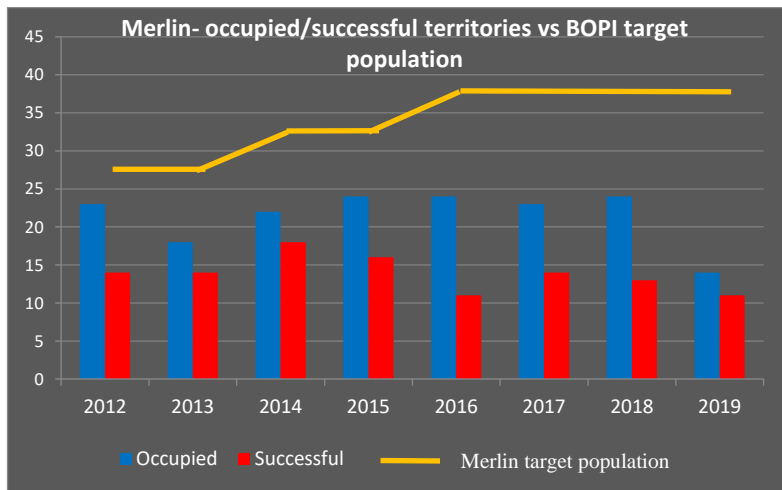
Measurement against the Initiative's targets

- The number of pairs (14 occupied territories) remains well below the target of 37 pairs.
- The success of those pairs that did establish territory however was well above target, with 41 young fledged- an average of 2.93 young fledged per occupied territory compared to the target of 2.1-2.4.

Trend

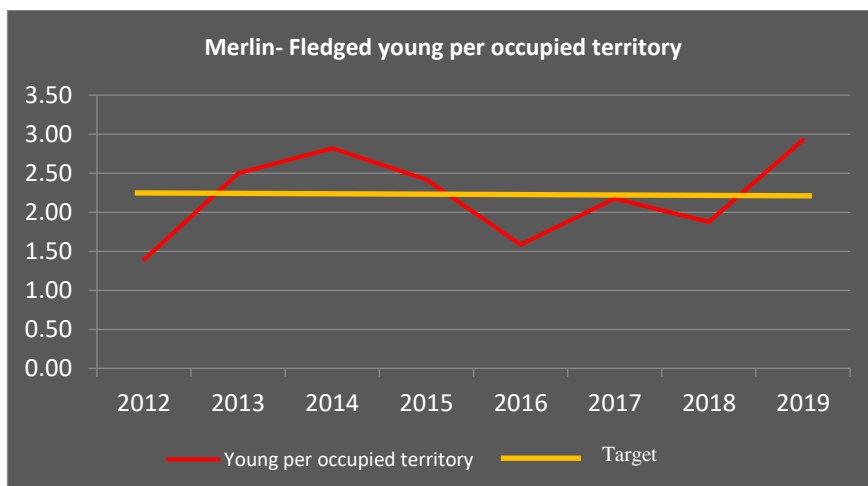
The number of occupied territories declined to 14 pairs, the lowest number recorded during the lifetime of the Initiative and well below the 2012-19 average of 21.5. This reflects a sharp drop from 24 territories in 2018 (Fig. 3).

Figure 3



In contrast the breeding success of those pairs which did establish territory was the highest it has ever been during the 7 years of the Initiative. (Fig. 4).

Figure 4



Comparison with national data

- The proportion of nests which successfully fledged young (78.5%) is significantly higher than the national average of 65% (Bibby & Nattress, 1986).
- The number of young successfully fledged per occupied territory (2.93) is also significantly higher than the national average of 2.25 (Bibby & Nattress, 1986). National data suggests that an average of less than 2 young fledged per pair may be associated with a declining population (Bibby & Nattress, 1986).
- Merlin are known to have declined over a long period nationally. Throughout the 7-year period of the Initiative the Peak District population has remained broadly stable in the low

20s, albeit at a much lower level than in the 1990s. The drop in numbers in 2019 is therefore of particular concern.

Additional Notes

There were 2 additional breeding reports which could not be verified, in at least one case despite many hours of observation. These may represent additional breeding attempts but it is also possible that they arise from dispersal of young birds from successful nest sites elsewhere post-fledging.

The trend for Merlin is worrying in that overall numbers are down with several traditionally very successful sites not occupied. This despite the fact that fledging success from successful nests is still very good and should be producing surplus birds to recruit into the breeding population.

There were three interesting ringing recoveries - an adult female found dead on the nest near Holmfirth had been ringed as a pullus in 2014 on one of the Ilkley moors; and there were 2 recoveries in the autumn from a brood ringed this year on the Langsett Moors - one killed itself flying into a conservatory window near Oxford and one was captured and released alive on the North Norfolk coast.

There were no reported incidents of illegal persecution of Merlin.

Goshawk (*Accipiter gentilis*)

2019 results

- Nine sites were occupied by pairs, with 8 nests located.
- All eight located pairs were known to have laid eggs and successfully fledged 12 young.

Measurement against the Initiative's targets

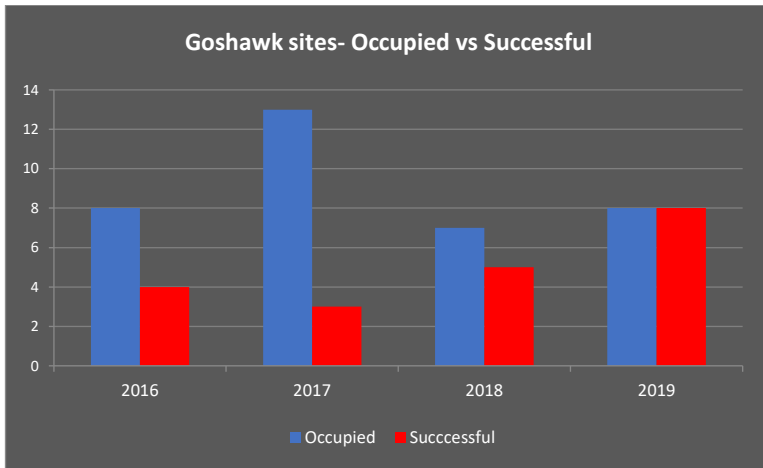
No quantitative targets were set for Goshawk; however in 2016 the Initiative added Goshawk to its remit, and agreed that we wished to see “*sustainable breeding population of Goshawks present at traditional moorland-edge breeding sites, with no illegal persecution*”. It is difficult to assess progress against this ambition, other than to note the population and breeding trends, and the *Additional Notes* below.

Trend

Of the 4 years in which the Initiative has included Goshawk in monitoring figures, the eight or nine pairs in 2019 is similar to the average though below the maximum of 13 pairs in 2017 (Fig. 5).

Of particular note was the fact that all 8 located nests were successful (i.e. fledged at least 1 young)- the first time this has occurred for many years, and possibly unprecedented. This included 2 sites which fledged young for the first time in at least 20 years.

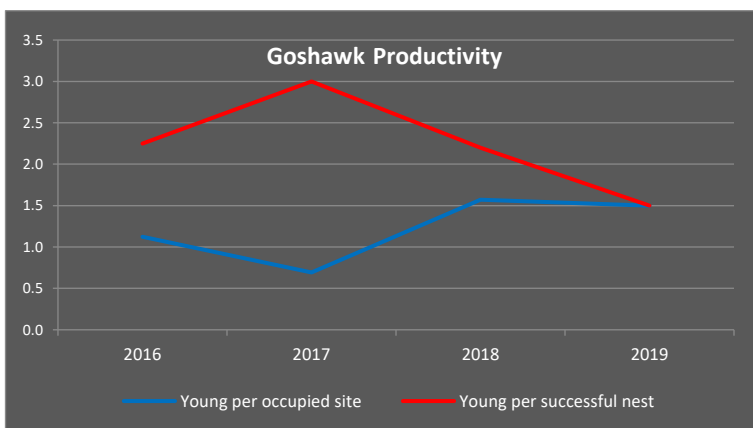
Figure 5



Note- One further territory was occupied in 2019 but no nest was located

Although the number of young fledged per successful nest was the lowest of the last 4 years (1.5 young per successful nest), the fact that all 8 nests fledged at least one young meant that the overall productivity was relatively high (1.5 young per occupied territory, compared to the 4-year average of 1.22), resulting in more young fledged overall (12 in 2019, compared to 9-11 in each of the last 3 years) (Fig. 6).

Figure 6



Comparison with European and national data

- The proportion of confirmed nests which successfully fledged young in 2019 (100%) compares with an average of 77% across Western Europe (Kenward et al, 2007).
- The number of young successfully fledged per occupied territory (1.5) is lower than the average of 1.8 for Western Europe and is below the range of 1.68-1.71 young per clutch which Kenward et al. (2007) give as an indication of the level needed to sustain existing population levels.

Additional Notes

The poor weather in June impacted on fledging success, reducing the number of young fledged from each nest. However the fact that all 8 located nests fledged at least one young, including the

success of two nests which have consistently failed for many years is very welcome, albeit the total population remains well short of historical numbers of breeding pairs.

There were no reported incidents of illegal persecution of Goshawk.

Hen Harrier (*Circus cyaneus*)

2019 results

- A single pair returned to the same site where they bred in 2018.
- The pair bred successfully, fledging two young from an initial brood of 4 (5 eggs laid).
- Despite this initial success, one sat-tagged youngster was recovered dead shortly afterwards (results of post mortem inconclusive) and it is suspected that the second fledged bird and possibly one or both of the adults failed to survive, probably due to natural causes.

Measurement against the Initiative's targets

No quantitative targets were set for Hen Harrier; however in 2016 the Initiative added Hen Harrier to its remit, and agreed that we wished to see Hen Harrier “*return as a regular breeding species*”. 2019 was the second year in a row that harriers have bred, but the subsequent fate of the birds may impact on future nesting attempts, at least in the short term.

Trend

Hen Harriers are regularly sighted in low numbers in the Peak District, but breeding remains sporadic with only six successful nesting attempts in the last 23 years since they returned to the Peak District. It was particularly significant that birds bred for the second consecutive season in 2019, the first time this has occurred in the Peak District for over 100 years.

Additional Notes

The death of one of the fledged birds and suspected fate of the second youngster and one or both parents is a very disappointing outcome, particularly after all the hard work put in by NT staff, volunteers, raptor workers, the gamekeeper and the shooting tenant.

There were no reported incidents of illegal persecution of Hen Harriers.

References

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APPENDIX 1- PROJECT BACKGROUND

Five leading land management and conservation organisations in the Peak District National Park got together in 2011 to develop an initiative to boost birds of prey populations in the Dark Peak.

In 2011, the organisations involved - the Peak District National Park Authority, Moorland Association, the National Trust, Natural England and RSPB*- with support from local Raptor Groups and Derbyshire Constabulary, set five-year targets for healthy sustainable breeding populations of three target species - Merlin, Peregrine Falcon and Short-eared Owl- based on population levels in the 1990s, and from 2016 extended to include Hen Harrier and Goshawk (without targets).

Together the five organisations funded an independent field worker from 2012-18 to help ascertain accurate breeding data and to facilitate co-operation between raptor workers and shooting interests. In 2019 data was collated by the two raptor groups- the Peak District Raptor Monitoring Group (PDRM) and South Peak Raptor Study Group (SPRSG)- who work together to monitor and record the breeding success of raptors in the Peak District. This data was collated both from their own fieldwork and from reports from gamekeepers.

The survey methods being used are in line with those documented in *Raptors: A field guide for surveys and monitoring*, Jon Hardey, Humphrey Crick, Chris Wernham, Helen Riley, Brian Etheridge and Des Thompson - Section 2.2.1 Counts of occupied home ranges and active nests.

The report data comprises verified nesting attempts and their outcomes based on the agreed best practice survey methods. Unverified nesting attempts such as isolated reports of fledged birds late in the season have been noted, but are excluded from the totals as they may be dispersing young which have fledged elsewhere. We encourage early reporting of sightings to obtain more accurate figures for confirmed pairs. With the exception of Short-eared Owls (as discussed in the species summary) we are confident a very high percentage of nesting attempts are located, and that the data published is statistically robust.

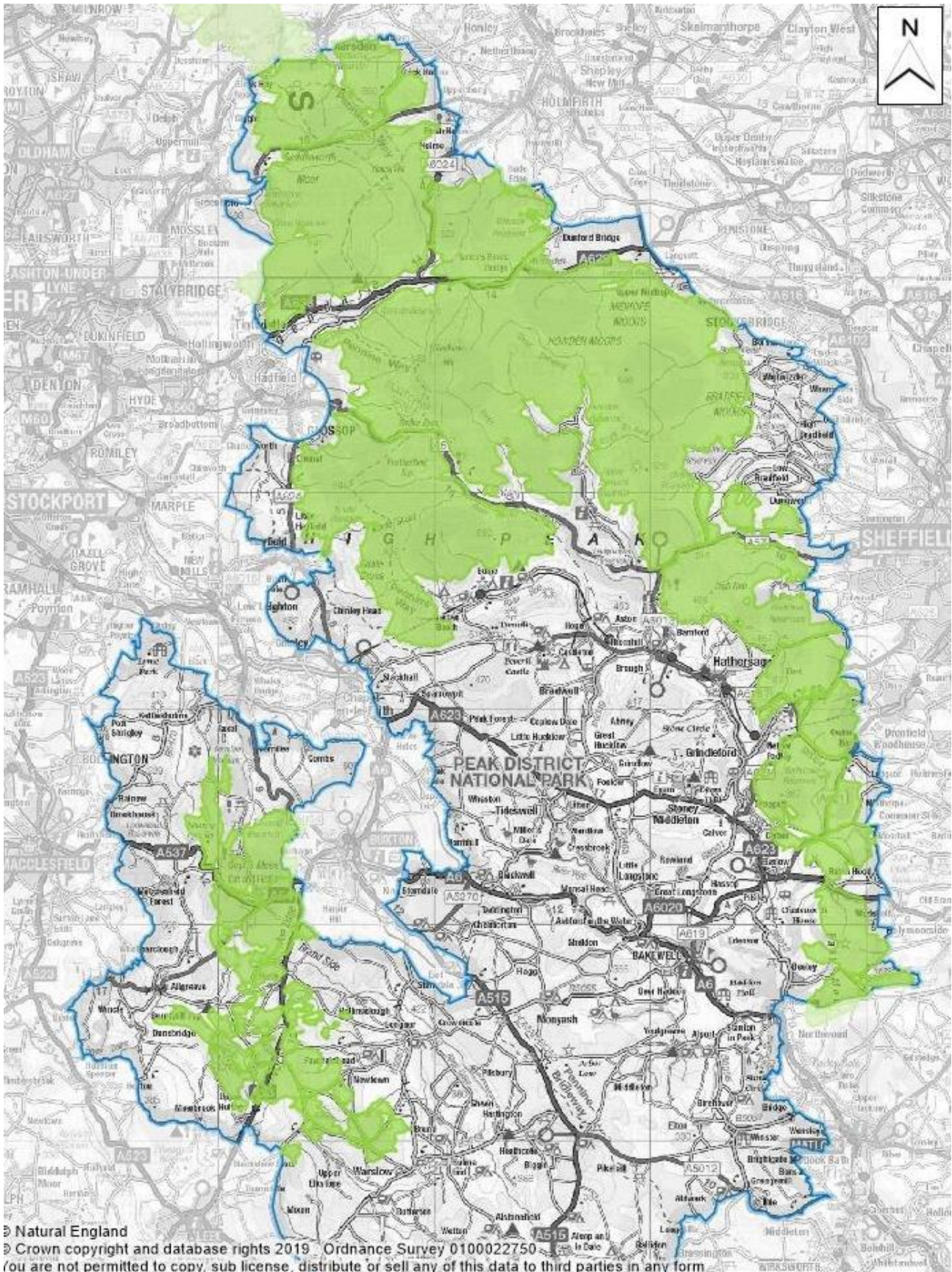
The initial targets were set for the Dark Peak in 2011 based on confirmed numbers in the late 1990s, and average nesting success nationally. These were expanded with the inclusion of the South West Peak in 2016 and are as follows:

- Peregrine- 17 breeding pairs. Target nesting success rate of 2.07 young per occupied territory.
- Short-eared owl- 25 breeding pairs on average. No target nesting success rate.
- Merlin- 37 territorial pairs. Target nesting success rate of 2.1-2.4 young per occupied territory.

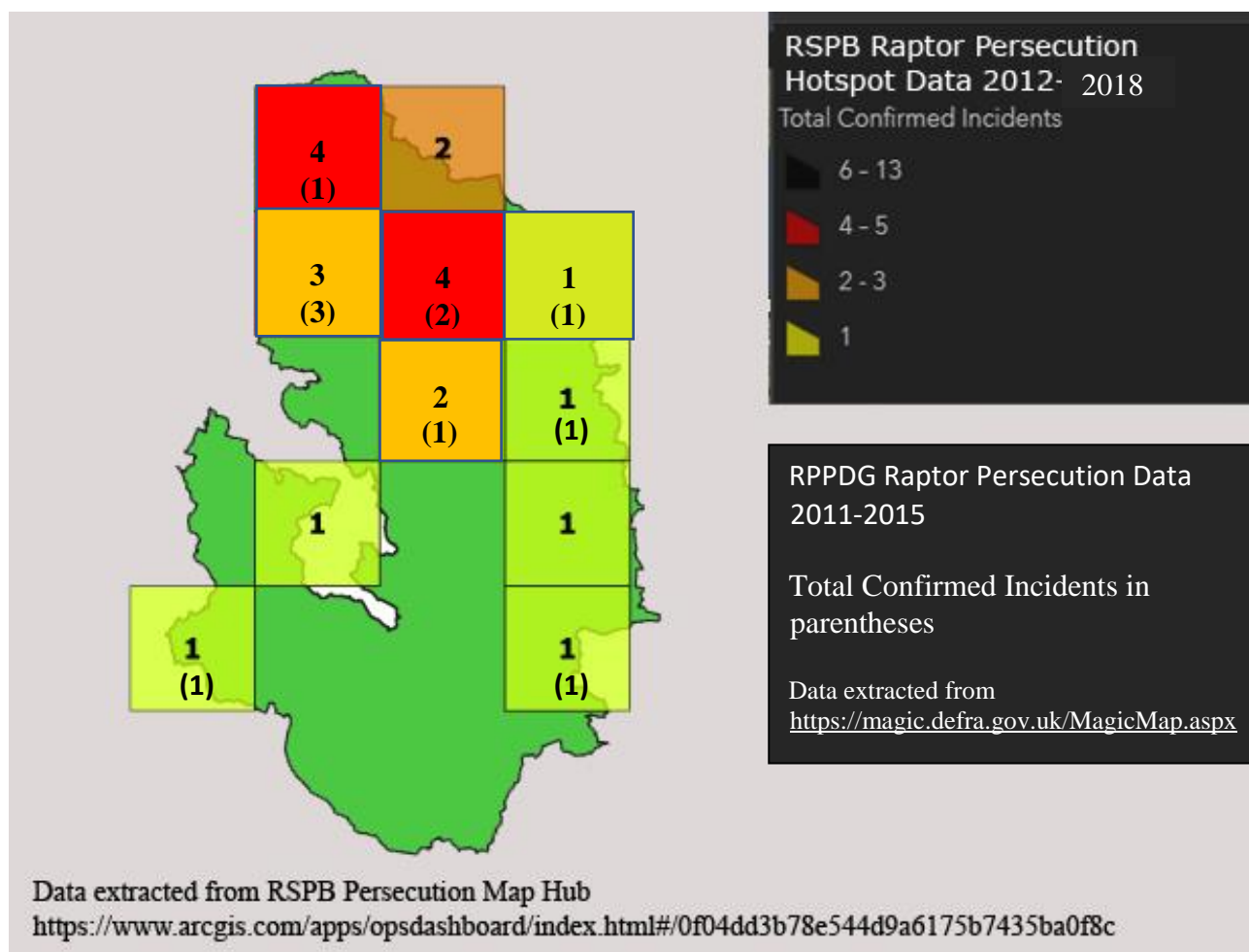
* The RSPB discontinued their involvement in the Initiative in January 2018.

APPENDIX 2- BIRD OF PREY INITIATIVE PROJECT AREA

Project area (also includes adjacent woodland from Moscar north for Goshawk)



APPENDIX 3- CONFIRMED INCIDENTS OF ALL RAPTOR PERSECUTION IN THE PEAK DISTRICT, 2011-15/2012-18 ((includes species not covered by the initiative))



Neither the RSPB nor Raptor Persecution Priority Delivery Group (RPPDG) datasets are fully acknowledged by all Peak District Bird of Prey Initiative partners. Both datasets are therefore included here. The RSPB data has been updated to 2018 with data available online. No update of the RPPDG data beyond 2015 is currently available.

- The RSPB dataset covers the 7-year period 2012-18 and records 21 confirmed persecution incidents (average 3/yr.), including 6 added in 2018 (a shot short eared owl, tawny owl, red kite, 2 goshawks* and a poisoned raven*).
- The RPPDG dataset covers the 5-year period 2011-15 and records 12 confirmed persecution incidents (average 2.4/yr.)

* *These 3 incidents were reported after publication of the 2018 Peak District Bird of Prey Initiative report*

Given the time lag in publicly available data from these sources, we aim for future reporting to be based on local data from incidents reported to the police.