

Ring Ouzel
Survey & Monitoring Report
2022

Eastern Moors & Burbage

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Report to:

**Eastern Moors
Partnership**



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1 Introduction

1.1 Overview

This report details the results of Ring Ouzel surveys and monitoring carried out in 2022 across the Eastern Moors Partnership estate.

This work is part of a project covering the wider area of the Eastern Edges (predominantly Stanage and Bamford edges to the north of EMP).

1.2 The Ring Ouzel

The Ring Ouzel *Turdus torquatus* is a migrant summer visitor to the UK, returning to upland areas from North Africa each spring. Ring Ouzels are typically associated with rocky moorland habitat, such as that found on the gritstone edges of the Peak District.

On the Peak District's eastern edges, the Ring Ouzel population is characterised by its close association with areas popular for recreation uses such as rock climbing and walking, and areas of high visitor numbers more generally.

The Ring Ouzel is of significant conservation concern in the UK due to severe breeding population declines, and moderate breeding range decline, over the last 25 years (Eaton et al., 2015).

1.3 Nest Monitoring and Protection

Each year I lead a team of volunteers who help to locate and monitor Ring Ouzel nests along the Eastern Edges. Nests which are considered at risk of disturbance are identified and, where necessary, signs are erected – either to temporarily restrict access to climbing routes, or divert people away from the nest area. The work is carried out in conjunction with EMP staff, and with Peak District National Park Authority staff at Stanage-North Lees.

This builds on the work of Bill Gordon, the former Stanage-North Lees estate warden, who began signing nests in the early 2000s, and developed a collaboration with the British Mountaineering Council (BMC) to protect nests. BMC volunteers continue to play a key role in the nest monitoring, along with members of Sheffield Bird Study Group and other local "ouzelers". Nest monitoring and nest protection for 2022 is reported in Section 5.

2 Survey

2.1 Methodology

The survey methodology is based on that used in the full Eastern Edges survey in 2016, and used for EMP surveys in subsequent years. See also Appendix A. Transects nominally spaced 200m apart were walked along features of likely Ring Ouzel habitat, and all activity recorded on paper maps using standard BTO notation (Appendix B).

Three survey visits were carried out for each transect, timed to correspond with every other visit of the intensive 6-visit survey of 2016 (Appendix A).

2.2 Survey Area & Transects

The survey area comprises the whole of the Eastern Moors Partnership landholdings (including the Burbage area). The transects are shown in Figure 1, and have been used (mostly) annually to monitor Ring Ouzel numbers. They cover areas originally surveyed in the wider Eastern Edges survey (Leyland, 2016).

The transects cover:

- Burbage area – including the main valley, Higger Tor, Carl Wark, Millstone and Houndkirk Tor.
- White Edge – including adjacent valley just on Longshaw Estate side of boundary.
- Curbar Edge.
- Barbrook Valley.

2.3 Analysis

All fieldwork data was digitised using QGIS. Territories were assessed using standard BTO categories to determine breeding evidence as possible, probable or confirmed breeding.

Territory analysis was carried out on the combined data from all three visits using QGIS. Territories were identified by clusters of records containing at least one of the “probable” or “confirmed” breeding registrations (in the case of singing males, at least two registrations). Registrations of pairs/activity from different visits were considered to represent different territories (in the absence of other evidence) if they were greater than 200m apart.

Where nest finding work was also undertaken, breeding evidence was assessed independently of this work (i.e. only data from the transect survey results were taken into account).

3 Results & Analysis

3.1 Survey Results

The survey results are presented in Table 1 below, with the total number of pairs for each area indicated – and taken as the combined total of “probable” and “confirmed” breeding records from the data analysis. The location of territories is also shown in Figure 2.

The survey covered the areas of Burbage, Hathersage and Houndkirk Moors (collectively Burbage Moors) together with White Edge, Curbar Edge and Barbrook Valley (Eastern Moors).

Table 1. Survey Results

Survey Area	Possible breeding (PO)	Probable breeding (PR)	Confirmed breeding (BR)	Total breeding (PR+BR)
Burbage Moors	2	3	2	5
Eastern Moors	1	0	1	1
Total	3	3	3	6

Three pairs were recorded in the main Burbage Valley area, with a further two territories possibly occupied but no strong evidence of breeding. A pair were confirmed breeding at Higger Tor, and a pair were recorded at Carl Wark for the first time since 2019.

Millstone and Houndkirk areas remained unoccupied, with no sightings recorded at either location this year (and no sightings outside of survey transects either).

Further south, two birds (unsexed) on White Edge on the first visit, which flew off north, were the only records here, and it is unlikely breeding occurred. At Curbar Edge one pair was recorded and confirmed breeding.

Further details on the breeding pairs is provided in the nest monitoring section – in summary the six pairs were all confirmed as breeding, and no further pairs were identified outside of the surveys.

3.2 Comparison with Previous Years

As can be seen from Table 2 below, the survey results do not show any significant change over the last three years, with numbers lower than the 2016-2018 period.

Table 2. Survey – comparison with previous years

Burbage & Eastern Moors	Possible breeding (PO)	Probable breeding (PR)	Confirmed breeding (BR)	Total breeding (PR+BR)
2022	3	3	3	6
2021	4	4	2	6
2019	5	4	1	5
2018	8	5	4	9
2016 *	3	8	3	11

* 6 survey visits rather than 3.

4 Nest Monitoring

Nest monitoring work was carried out alongside the survey transects across the Eastern Moors by myself and volunteer nest monitors.

This year all the probable or confirmed breeding pairs from the survey data were confirmed as breeding by the nest monitoring work. No additional pairs were found breeding, though two possible pairs highlighted in Burbage Valley included numerous sightings through the season but unfortunately no conclusive evidence of breeding.

The nest monitoring results are summarised in Table 3 below together with results from previous years.

Table 3. Nest success analysis – Eastern Moors & Burbage

Year	Pairs	Nests	Clutches hatched	Broods fledged	Fledged young	Fledged young per successful nest	Fledged young per pair	Nests fledging young	Hatched nests fledging young
2022	6	9	8	7	24	3.43	4.0	78 %	88 %
2021	5	7	7	6	21	3.5	4.2	86 %	86 %
2020	7	9	7	6	22	3.67	3.14	67 %	86 %
2019	6*	7**	5	4	13	3.25	2.17#	57 %	80 %
2018	5*	6**	5	5	19	3.83	3.8	83 %	100 %
2017	10	15	10	9	32	3.56	3.2	60 %	90 %
2016	10	17	11	9	31	3.44	3.1	53 %	82 %
2015	7	8***	7	6	21	3.5	3.0	75 %	86%

* Other pairs known to have bred but nests not found. ** Other nests fledged young but inaccessible. *** Two further nests likely to have fledged young, but not monitored. # Likely higher

Both number of pairs and breeding success was largely on par with recent years, with three pairs confirmed to have two broods, though one of these was unsuccessful. Table 4 below provides details of the outcomes for each of the territories recorded.

Table 4. Ring Ouzel territories & outcomes

Territory	Breeding	Outcome
Burbage Oaks	Confirmed	1: Fledged 4. 2: Fledged 1 (clutch of 3, 2 failed to hatch).
Burbage South	Confirmed	1. Failed (chick stage, predation). 2. Fledged 4.
Burbage Quarries	Confirmed	Failed (egg stage, probable accidental disturbance)
Higger Tor	Confirmed	1: Fledged 4. 2: Fledged 4.
Carl Wark	Confirmed	Fledged 3.
Curbar	Confirmed	Fledged 4.
Burbage West	Possible	Singing male and activity through season.
Burbage Fenced Area	Possible	Singing male and activity through season.
White Edge	Possible	Two birds (unsexed) early season but no sightings after.
Houndkirk		No activity recorded this year.
Millstone		No activity recorded this year.
Barbrook		No activity recorded this year.

At Burbage Oaks, two new nesting locations were used, one close to a previous nest site and another in an area where breeding has been suspected in the past but not proven. The second nest was unusual in that two of the three eggs failed to hatch. This nest was located close to popular climbing routes, and was not found until after hatching, and it may be that disturbance during incubation contributed to the reduced hatching success. The pair were very sensitive to people being in the area of the nest, much more so than typical, with a lot of alarm calling and swooping response during nest visits.

At Burbage South the pair first nested on the ground, in a relatively exposed location in dead bracken, with the chicks reaching just over a week old before they were presumably predated. The second nesting attempt was well hidden in bilberry and fledged successfully.

At Burbage Quarries, the nest suffered repeated disturbance from passers-by on a weekend soon after laying. While its location was not in an area I would have considered as likely to be approached by lots of people, the presence of a small “cut-through” path and the interest-feature of the quarry wall seemed to draw people in. Despite the best efforts of a volunteer nest monitor, and putting signs up the following day (once the level of disturbance had been realised), the female had been off the nest for up to an hour during early incubation, and despite continuing to incubate, the eggs failed to hatch.

At Higger Tor, the second brood nest site was the same spot as last year’s (failed) nest, and the first-brood was only about 20m from there. Both were tricky spots in terms of disturbance as they were in a boulder-strewn area where scrambly routes led up the crag, but away from defined climbs. Both locations were encircled with signs, including at the top of the crag, to divert people away from the nests. Local outdoor education groups were also contacted as

the first nest in particular was near a popular “weaselling” spot. Happily both nests succeeded, with the pair thus fledging 8 chicks in total.

At Curbar, a new nest site at the base of a climbing buttress was used successfully.

Table 5 below shows the number of pairs found through nest monitoring this season, and in previous years by way of comparison, showing that confirmed nesting pairs remain on a par with recent years.

Table 5. Breeding pairs from nest monitoring

Year	Nesting possible (A)	Nesting likely (B)	Nesting confirmed (C)	Total nesting pairs (B+C)
2022	3	0	6	6
2021	4	0	5	5
2020	2	3	7	10
2019	4	1	6	7
2018	4	3	8	11
2017	2	2	10	12
2016	2	0	11	11
2015*	5	0	8	8

*Less intensive monitoring this year

5 Signing and Disturbance

Signing of nests was carried out as in previous years, with nests assessed on a case-by-case basis as to the potential for significant disturbance to occur. As always, a balanced judgement on the benefits of signs, versus the increased attention signs may also bring, is made. Table 6, below, details those territories where signs were used.

Table 6. Ring Ouzel territories where signs erected

Territory	Outcome	Notes
Higger Tor, first brood	Successfully fledged.	Bouldery area, signs above and below and to divert weaselling groups away.
Higger Tor, second brood	Successfully fledged.	Bouldery area, signs above and below.
Burbage Oaks, first brood	Successfully fledged.	10m from climbing routes – “please climb quietly, no groups” sign used.
Burbage Oaks, second brood	1 chick fledged, 2 eggs unhatched.	At base of climbing routes. Signs up from chick just hatched. Routes climbed on a number of days prior to nest being found.
Burbage Quarries	Failed (egg stage).	Signs up but only after unintentional disturbance by passers-by one day.
Curbar	Successfully fledged.	At base of climbing buttress. Signs up from egg stage.

Signs were used at six of the nine nests this year, with five nests fledging young and one failing – considered most likely due to disturbance prior to signs being placed.

As discussed previously in Section 4, the two nests at Higger both required a number of signs to divert people around a rambling boulder field where the nest were located, with a number of potential routes where people may have ended up close to a nest. A popular weaselling spot near to the first nest was also signed (and contact made with local outdoor education centres) to keep groups away from the nest.

At Burbage Oaks, the first nest was near a buttress which has been signed in previous years (though the nest was in a different location). This year climbing was not restricted entirely but people were asked to climb quickly and quietly and for groups to go elsewhere. As previously discussed, the second nest was near to some relatively popular climbing routes, and signs would ideally have been put up sooner if the nest had been found earlier.

At Burbage Quarries, the nest was tucked in a corner, near to some rarely-climbed routes and, I thought, out of the way from passing foot-traffic. No signs were used initially but, as discussed in Section 4 above, observations by a monitoring volunteer found that people were exploring that part of the quarry frequently (ironically possibly displaced from the second quarry where “no access” signs were present due to nesting Kestrels). Signs were introduced the following day, however the damage had likely already been done.

The nest location at Curbar (a new location to us, however the nest-cup was next to an old cup, so had likely been used in recent years unknown) was at the base of some moderately popular climbing routes, and a single sign restricted access to the whole (small) buttress.

6 Colour Ringing

6.1 Background

A proposal was submitted to, and accepted by, the BTO and Natural England, with the backing of three landowners across the Eastern Edges (EMP, PDNPA and the Moscar Estate), to individually colour-ring Ring Ouzel chicks in the nest. This will enable us to establish how many of the ringed birds return to breed in subsequent years, providing data on juvenile survival/return rates, and enable us to track how birds use the area during the breeding season once colour-ringed adults are present within the population.

6.2 Ringing

Ringing was carried out by licenced ringers from Sorby Breck Ringing Group.

Across Eastern Moors and Burbage, seven of the nine nests found reached ringing age, and 24 chicks in total were ringed, all of which subsequently fledged successfully.

A further 30 chicks were ringed at other sites, of which 27 successfully fledged, giving a total of 51 colour-ringed chicks for the Eastern Edges area as a whole.

6.3 Re-sightings

Table 7 below shows (as of 31st July 2022) sightings of birds either ringed in EMP nests, or birds ringed elsewhere and seen on EMP land.

Table 7. Sightings of colour-ringed juvenile Ring Ouzels

Ring combo	Date seen	Location seen	Location ringed	Days since ringed	Distance travelled
BYO	2/6/22	Higger Tor East	Higger Tor	21	230 m
BYR	6/6/22	Higger Tor	Higger Tor	25	24 m
BBR	10/6/22	Burbage Bridge	Bamford Edge	32	5 km
BBY	10/6/22	Burbage West	Bamford Edge	32	5 km
BYW	15/6/22	Curbar	Curbar	26	380 m
BYP	15/6/22	Curbar	Curbar	26	380 m
BBR	17/6/22	Carl Wark	Bamford Edge	39	5.5 km
BBP	17/6/22	Carl Wark	Bamford Edge	39	6 km
BBO	17/6/22	Carl Wark	Bamford Edge	39	6 km
BRG	30/6/22	Higger Tor	Stanage (Cowperstone)	35	1.2 km
BRR	9/7/22	Burbage South	Stanage (Cowperstone)	44	2.5 km

The table indicates juvenile birds were found within 400m of their nest up to around a month after fledging, with birds then found up to 6km further south in the following weeks. All the movements greater than 1km were in a southerly direction.

Late addition – on Monday 8th August at least three un-ringed juvenile Ring Ouzels were at Burbage South boulders. These may have arrived from further afield (they were fully-tailed so not recently fledged) or may indicate a further successful brood in the area.

7 Discussion

7.1 Season Overview

The season began slowly, with small numbers of Ring Ouzels arriving steadily through early April. By mid-April birds still appeared to be arriving, with small groups of birds still being recorded, and one notable group of 15 at Winyards Nick on 13th April. The first nest building was recorded on the same date at Higger Tor.

The second half of April was noticeably quiet in terms of territorial activity, with little singing or further evidence of nesting activity – though pairs had been recorded in a number of territories. Discussions within the Ring Ouzel Study Group suggested this quiet period was replicated across wider areas of the country.

By the first week in May a second (in addition to the Higger pair) early pair at Burbage South were also incubating and other pairs were at the laying stage. More singing males were noted in May, though further nesting attempts proved tricky to find – and in two areas of Burbage birds remained elusive and breeding was not proven. A nesting attempt was not found at Carl Wark until the second half of June, though an earlier attempt was surely made.

By June second broods/attempts were underway in Burbage, though no second brood was found at Curbar despite success in recent years. The final nest known to fledge was at Carl Wark in early July.

7.2 Survey

The survey results show numbers of pairs have remained low but stable for the previous three years, despite the drop in numbers from the 2016-2018 period.

Records in areas outlying the main Burbage stronghold were disappointing this year, with only the one brief sighting on White Edge, and no sightings (either during or outwith the survey) at Millstone, Houndkirk or Barbrook Valley.

One report of a singing male in the Sandyford Brook area on 5th May was followed up with subsequent visits but, with no further sign, appears most likely to have been a late bird passing through.

7.3 Nest Monitoring

Numerically, in terms of number of young fledged, this was the most successful year on Eastern Moors since 2017. Productivity, in terms of young fledged per pair, was also good, and only just below last year's high point, at four young fledged per pair.

The main disappointment was the failure at Burbage Quarries likely due to disturbance, and if this location is used again, the knowledge gained this year will hopefully enable this nest to be sufficiently protected.

7.4 Colour Ringing

The colour ringing of pulli in the nests was very successful, with all ringed young on the Eastern Moors and Burbage fledging successfully. The single nest failure at the young stage was the first nest at Burbage South, which failed the day before ringing was due. A limited number of re-sightings have been made already as shown in Section 6, and further sightings may be reported during the autumn period as birds gather before migration. The spring of 2023 promises to be an exciting time as we find out which birds have returned to the area (or possibly others) to breed.

8 References

Leyland, K. (2016) *Eastern Edges Ring Ouzel Survey*. Eastern Moors Partnership.

Eaton *et al.* (2015) Birds of Conservation Concern 4: The population status of birds in the UK, Channel Islands and Isle of Man. *British Birds* 108: 708-746.

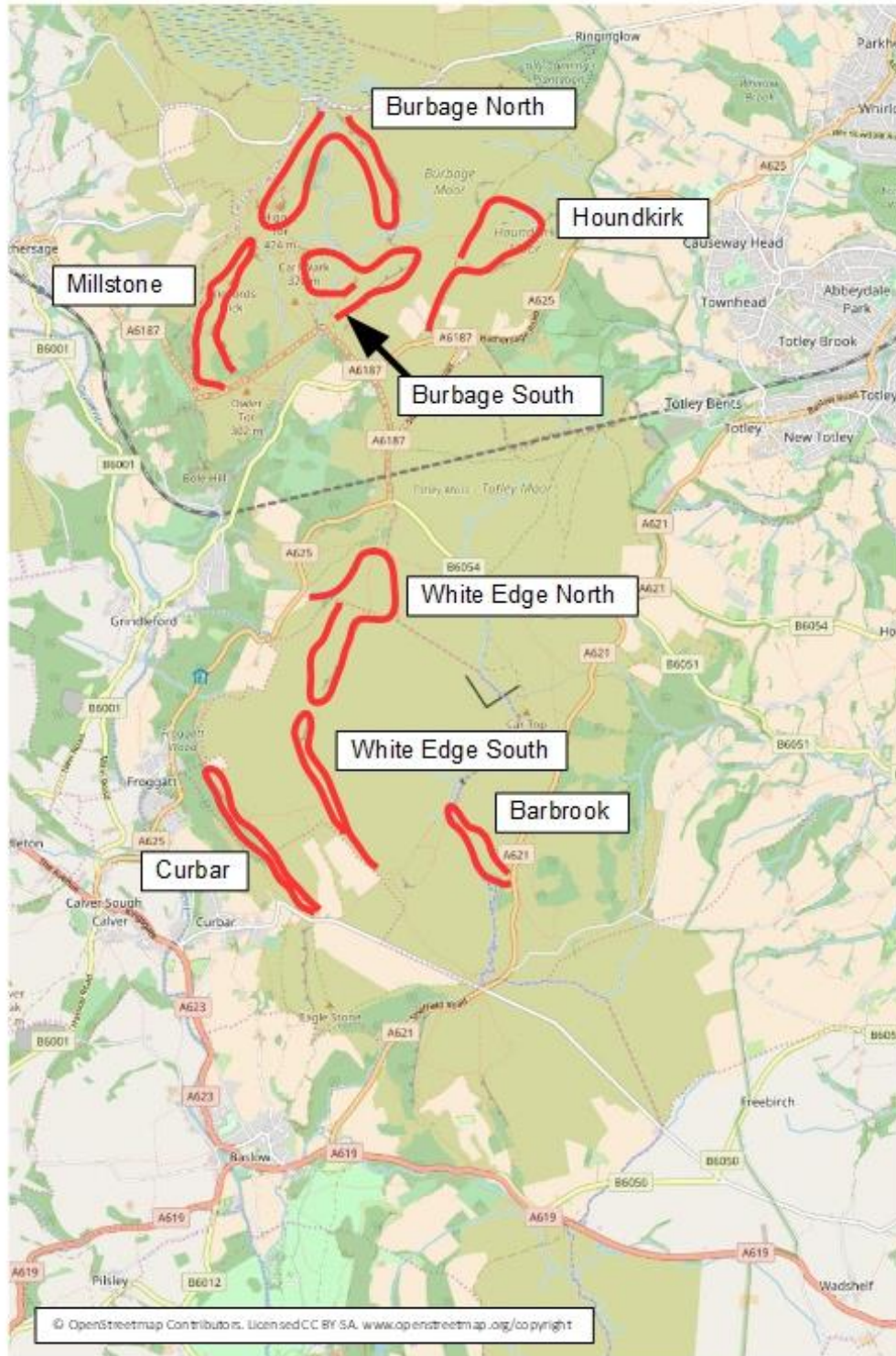


Figure 1. Transect survey routes (indicative)

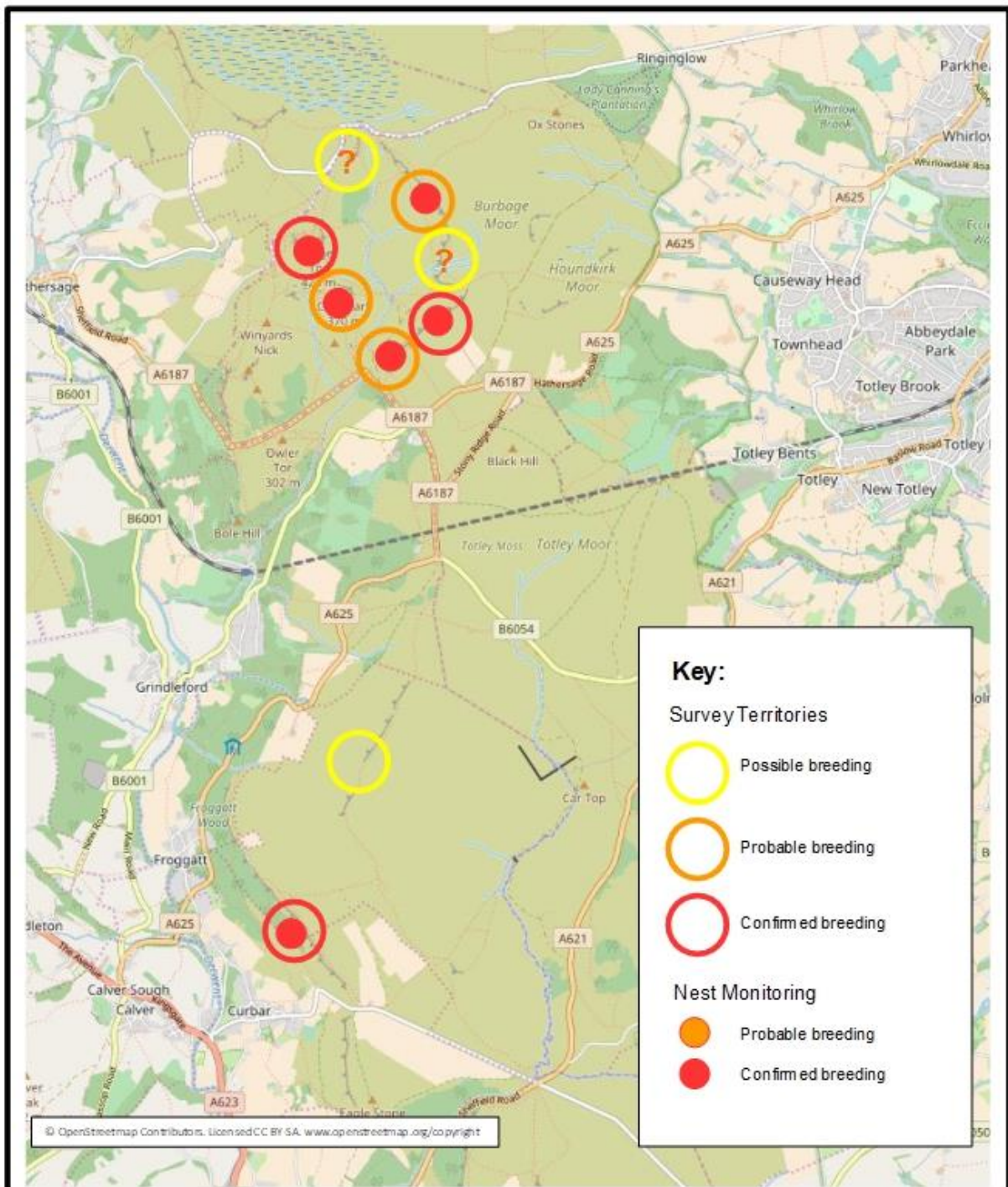


Figure 2. Territories

Appendix A

Ring Ouzel Survey 2022 - Methodology

This methodology has been developed using the “Standardisation of Ring Ouzel Recording” document produced by the Ring Ouzel Study Group, and following discussion with Innes Sim and RSPB staff. The method has mainly been adapted to be used without tape playback.

Defining transect lines

Most sites have known/suspected territories and most are defined by the presence of a crag/rocky edge.

Primary transects should aim to follow these features with secondary and further transect lines added alongside as is necessary/practical to cover potential habitat.

Transects should be spaced approximately 200m apart, following contours where possible (this is also likely to be the most practical route in most cases).

On the first, or recce, visit, mark the transect line on a separate map and use this same route on each subsequent visit.

Method

Walk slowly along transects stopping at regular intervals (at least every 200m) and scan suitable grassy feeding areas and song perches for birds.

Mark all sightings on maps using BTO symbols (see attached sheet), preferably in red ink.

Use dashed or solid lines to distinguish different/moving birds (simultaneous registrations are very useful).

Where multiple birds are heard/sighted, take time to establish locations and numbers.

Especially later in the season, take time to watch foraging birds (especially females) returning to likely nest sites.

Visits should ideally be started within 1 hour of dawn, and completed by 11am.

Visits should be at least one week apart.

Visits should not be undertaken in excessively wet or windy weather.

Number of visits/timing

Minimum requirement is 2 visits, as per “RSPB Standard” below (i.e. Visit 2 or 3 AND Visit 4 or 5 or 6).

The three visit schedule will provide the most useful results – so a rough guide is one visit in the second half of each month (April, May, June).

Any additional visits will improve detection and help locate early/late birds, re-lays and second broods.

Month	Week	Dates	6+ Visit	3 visit	RSPB standard Ring Ouzel 2-visit
April	1	4 th – 17 th April	Visit 1		
April	2				
April	3	18 th April – 1 st May	Visit 2	Visit (1)	Visit 1 mid-April - mid-May
April	4				
May	1	2 nd – 15 th May	Visit 3		
May	2				
May	3	16 th – 29 th May	Visit 4	Visit (2)	Visit 2 mid-May - June
May	4				
June	1	30 th May – 12 th June	Visit 5		
June	2				
June	3	13 th – 26 th June	Visit 6	Visit (3)	
June	4				
July	1	Early July	(Visit 7)		
July	2				
July	3	Late July	(Visit 8)		
July	4				

Nest finding

If it is possible to locate nests without deviating significantly from the survey method, then please do so, and let me know as soon as possible.

Please don't record any birds which you “know” are there (e.g. from nest monitoring activities) but which you do not see on the survey day. You can make an additional note that a pair is known to be present but were not seen.

Appendix B

BTO Breeding Status Codes

Possible breeder

- H Species observed in breeding season in suitable nesting Habitat
- S Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat

Probable breeding

- P Pair observed in suitable nesting habitat in breeding season
- T Permanent Territory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more apart at the same place or many individuals on one day
- D Courtship and Display (judged to be in or near potential breeding habitat)
- N Visiting probable Nest site
- A Agitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby
- I Brood patch on adult examined in the hand, suggesting Incubation
- B Nest Building or excavating nest-hole

Confirmed breeding

- DD Distraction-Display or injury feigning
- UN Used Nest or eggshells found (occupied or laid within period of survey)
- FL Recently FLedged young). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.
- ON Adults entering or leaving nest-site in circumstances indicating Occupied Nest (including high nests or nest holes, the contents of which cannot be seen) or adults seen incubating
- FF Adult carrying Faecal sac or Food for young
- NE Nest containing Eggs
- NY Nest with Young seen or heard

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