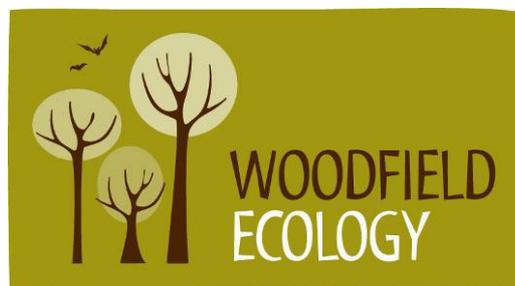


Appendix 10.1d

Extension Area – Breeding Bird Survey Report

LINHAY HILL QUARRY: EXTENSION AREA

BREEDING BIRD SURVEY REPORT



On behalf of E & JW Glendinning Ltd.

MARCH 2016

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SUMMARY

E&JW Glendinning Ltd. is proposing an extension of their existing operation at Linhay Hill limestone quarry, near Ashburton. The site being considered for the extension lies immediately north-east of the existing quarry and is currently managed as mixed farmland associated with Alston Farm.

The Extended Phase 1 Habitat survey identified suitable feeding and nesting habitat for birds within field boundaries (hedgebanks and occasional mature trees), scrub and woodland edges to the north of the site. Potential nesting opportunities were also recorded within the buildings at Alston Farm and Alston Cottage, with potential noted for species such as Swallow and possibly Barn Owl within larger barns.

A survey method based on the Common Birds Census (CBC) technique was carried out across the Site and comprised of four field visits between April and June 2014. On each visit a transect incorporating habitats across the entire Site was walked to identify the presence and distribution of all bird species and record the breeding assemblage.

All buildings on Site were also assessed for their suitability to be used as potential nesting or roosting sites for Barn Owls, which included a detailed search for any evidence to indicate presence in June 2014.

A total of 35 bird species were recorded within or adjacent to the Site during the CBC survey, and of these, 27 were either confirmed or considered likely to be breeding within the Site. A total of nine species of national conservation concern including two Schedule 1-listed species (Peregrine and Hobby, neither of which were confirmed as breeding on Site) were recorded, with five of these species found breeding within the Site (Bullfinch, Dunnock, House Sparrow, Mistle Thrush and Song Thrush).

No evidence indicating the presence of a Barn Owl nest or roosting site was found during the building inspections, neither were any incidental sightings of this species made over the course of other ecological survey visits, either around the farm complex or elsewhere within the Site.

Given both the diverse assemblage of breeding birds recorded as well as the presence of species of conservation concern; overall the breeding bird population within the Site is assessed as being of Local (District) value.

1.0 INTRODUCTION

1.1 OVERVIEW & SURVEY OBJECTIVES

Woodfield Ecology was commissioned to carry out a breeding bird survey on behalf of E&JW Glendinning Ltd. of land to the north-east of Linhay Hill Quarry near Ashburton, Devon. The area of land is being proposed for a quarry extension to extend the operational lifespan of this working limestone quarry.

The land for the proposed extension (hereafter referred to as “the Site”) is owned by E&JW Glendinning Ltd., which together with associated screening, infrastructure and mitigation, covers an area of c. 47 hectares situated within the south-eastern edge of Dartmoor National Park, in and around Alston Farm (centred on NGR SX776717).

The purpose of this assessment was to record the breeding bird assemblage within the Site in order to evaluate its importance with regards the bird populations it supports.

The results of the breeding bird surveys are detailed within the following report.

1.2 CONSERVATION STATUS & PROTECTION

1.2.1 Conservation Status

Overall, breeding bird populations in the UK have declined compared with 40 years ago. In 2013, the all-species index was 12% below its 1970 level, and there was a small but significant decline of five per cent from 2007 to 2012¹. However, the overall pattern of decline is complex as trends vary between individual bird species, between habitat types and between groups of species that share the same habitat type.

The UK’s leading bird conservation organisations published the fourth quantitative review of the status of the birds that occur regularly here in 2015 (Eaton M.A. et. al. 2015). A total of 244 species were assessed and assigned to the Red, Amber or Green list of conservation concern. The assessment criteria include conservation status at global and European levels and, within the UK, historical decline, trends in population and range, rarity, localised distribution and international importance. There are now 67 species on the Red list, 96 on the Amber list, and 81 on the Green list. The Red list has grown by 15 since the last review in 2009. Twenty species have been added, but three have moved to Amber and two are now no longer assessed as they have ceased breeding in the UK. The main trends reported during this latest review are listed below:

¹ <https://www.gov.uk/government/statistics/wild-bird-populations-in-the-uk>

- Farmland birds are still a major concern with 12 farmland species remaining on the Red list and some, such as the Turtle Dove *Streptopelia turtur*, are continuing to decline alarmingly.
- There are more birds of woodland on the Red list than of any other habitat. The Woodcock *Scolopax rusticola*, Nightingale *Luscinia megarhynchos* and Pied Flycatcher *Ficedula hypoleuca* are the latest additions.
- The largest growth in the Red list was in upland species, with five new species including Curlew *Numenius arquata* and Dotterel *Charadrius morinellus*.
- There is cause for concern for our breeding seabirds with the addition of Puffin *Fratercula arctica*, Kittiwake *Rissa tridactyla* and Shag *Phalacrocorax aristotelis* to the Red list.
- The number of long-distance migrants on the Red list continues to grow.

A total of 59 bird species are listed as Priority Species under the UK Biodiversity Action Plan (UK BAP) and receive targeted national conservation efforts through individual Species Action Plans (SAPs). In addition, the Devon BAP includes SAPs for Barn Owl *Tyto alba*, Cirl Bunting *Emberiza cirlus*, Curlew *Numenius arquata* and Nightjar *Caprimulgus europaeus* whilst Living Dartmoor² includes delivery plans for Red-backed Shrike *Lanius collurio*, Dunlin *Calidris alpina* and Ring Ouzel *Turdus torquatus*.

Under Section 40 of the Natural Environment and Rural Communities (NERC) Act (2006) public bodies, including local planning authorities have a duty to have regard for the conservation of biodiversity in England when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 41 of the Act the Secretary of State has published a list of species considered to be of Species Principal Importance (SPIs) for conserving biodiversity in England. A total of 49 bird species are listed as SPIs and as such are afforded priority when public bodies apply the requirements of the NERC Act (2006) to maintain, restore and enhance species and habitats.

1.2.2 Legal Protection

All birds, their nests and eggs are protected in the UK under the Wildlife & Countryside Act 1981, as amended. This makes it an offence, with certain exceptions, to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

Bird species listed under Schedule 1 of the Act (which includes species such as Barn Owl and Peregrine *Falco peregrinus*) are afforded additional protection when breeding. It is an

² <http://www.dartmoor.gov.uk/lookingafter/laf-naturalenv/living-dartmoor>

offence to intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

1.2.3 Planning Policy

The National Planning Policy Framework (NPPF) forms the basis for planning decisions with respect to conserving and enhancing the natural environment. The ODPM circular 06/2005 provides supplementary guidance, including confirmation that the presence of a legally protected species may be a material consideration in the making of planning decisions.

The NPPF sets out, amongst other points, how at an overview level the 'planning system should contribute to and enhance the national and local environment' by:

- *recognising the wider benefits of ecosystem services; and*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...'*

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF. They include the following:

- *'if significant harm resulting from a development cannot be avoided...adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *...opportunities to incorporate biodiversity in and around developments should be encouraged.'*

In addition, the Dartmoor National Park Core Strategy and Development Management and Delivery Development Plan Document (DPD) include a number of policies which include for protected and notable species:

- *'protect, maintain or enhance the biodiversity interests, and seek opportunities to restore or recreate habitats or linkages between them;*
- *further the conservation and enhancement of nationally protected species or habitats;*
- *conserve, enhance or restore priority habitats and species;*
- *protect and where appropriate enhance other defined sites, features, habitats, species, networks or natural processes of ecological importance;*
- *ensure that effective avoidance or mitigation measures are implemented (which may include off-site compensation); and*
- *result in no net loss of biodiversity.'*

1.3 PRE-EXISTING SURVEY INFORMATION & RECORDS

In April 2014, an Extended Phase 1 Habitat Survey was completed by Woodfield Ecology which was supported by an ecological desk study exercise.

No statutory nature conservation sites designated specifically for their bird interest (Special Protection Areas (SPAs) - classified under the EU Directive 2009/147/EC on the Conservation of Wild Birds (the Birds Directive)) were identified within a 10km radius surrounding the Site. In addition, no statutory or non-statutory sites which included bird species (or assemblages) as part of the listed reasons for designation were found within the 2km study area.

As part of the desk study, records of legally protected species and species of conservation concern were requested from Devon Biodiversity Records Centre (DBRC) for the Site and within a 2km radius. Records of 13 different notable bird species within 2km of the Site were returned by DBRC and included two species protected under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (Barn Owl and Redwing *Turdus iliacus*).

Barn Owl records were provided as four figure grid reference only (in the interests of keeping nest sites confidential) and included the following:

- A record from the year 2000 for a Barn Owl seen in a field in Bickington, approximately 1.4km north-east of the Site; and
- Records from between 2006-2011 from an undisclosed location 1.9km to the north-west of the Site.

In addition, anecdotal evidence was also provided (Adam Somerscales, E&JW Glendinning Ltd. pers. comm) of a long-established nest site for Schedule 1-listed Peregrine within the adjacent working quarry at Linhay Hill to the south-west.

Of the remaining notable bird species identified within the study area, eight are Red-listed (Eaton MA et. al., 2015) and included a mixture of woodland / scrub species (Cuckoo *Cuculus canorus*, Spotted Flycatcher *Muscicapa striata* and Wood Warbler *Phylloscopus sibilatrix*), farmland species (Lapwing *Vanellus vanellus*, Skylark *Alauda arvensis* and Yellow Wagtail *Motacilla flava*) as well as garden birds (Starling *Sturnus vulgaris* and House Sparrow *Passer domesticus*).

Amber-listed bird species (Eaton MA et. al. 2015) recorded within the study area included House Martin *Delichon urbicum*, Mallard *Anas platyrhynchos* and Snipe *Gallinago gallinago*.

The Extended Phase 1 Habitat survey identified suitable habitat for nesting and foraging birds within field boundaries (hedgebanks and occasional mature trees), scrub and woodland edges to the north of the Site. Habitat for ground-nesting species such as

Skylark, Lapwing and Snipe was considered limited within the Site given the intensive use of fields for turf production, grazing and / or hay crops, although rush-pasture in the immediate surrounds was assessed as potentially suitable for these species.

Potential nesting opportunities for birds were also recorded within the buildings at Alston Farm and Alston Cottage, with potential noted for species such as Swallow and possibly Barn Owl within larger barns. None of the trees present within the Site were found to contain suitable cavities for roosting and / or nesting Barn Owls.

2.0 METHODOLOGY

2.1 COMMON BIRD CENSUS

The survey method employed territory mapping techniques based on the Common Birds Census (CBC) technique devised by the British Trust for Ornithology (Marchant, 1983). A total of four field visits took place between April and June 2014, representing a thorough survey effort in keeping with the quality of woodland edge and hedgerow habitats present. Three of the surveys took place in the morning and one in the evening, the latter timed to detect species which are more active at that time of the day, such as Song Thrush which often sings more actively in the evening than the morning.

Visits were spread throughout the main breeding season to obtain as comprehensive a picture as possible of breeding bird activity and to allow time for later arriving summer migrants to occupy territories. On each visit a transect incorporating habitats across the entire Site (refer to Figure 1) was walked at a steady pace with frequent stops made to identify the presence of all bird species. All bird contacts (registrations) were recorded and mapped, allowing the generation of a broad estimate of relative abundance across the Site. Morning surveys commenced within an hour of dawn in order to capture the period of main territorial activity, whilst evening surveys were timed to end in the hour before sunset. Days with optimal weather conditions for detecting song activity were chosen i.e. winds of less than Beaufort Force 5 and no persistent rain. Details of weather conditions and survey dates are provided in Section 2.4 below.

All species considered to be using the Site were recorded and their locations mapped, with particular care being taken to record behaviour indicative of breeding. Birds seen flying over and not directly making use of the Site were not recorded, unless feeding/hunting in the air space above. Species were treated as breeding if they exhibited any of the following behaviour:

- song;
- alarm call;
- territorial disputes;
- pair present in suitable breeding habitat;
- carrying food; and
- nest located

Birds recorded just outside the boundaries of the defined survey area were also included in this assessment as it is likely that part of their breeding territory extended onto the Site, if indeed their nests were not located there.

The bird activity registrations from each field visit were then plotted onto a single map per species to allow approximate estimation of territorial boundaries and thus the approximate number of breeding territories present across the Site.

One additional incidental record of a Peregrine, which was made during an invertebrate survey, is also included within this assessment as this is a species of particular conservation significance.

2.2 BARN OWL SURVEY

All buildings on Site were assessed for their suitability to be used as potential nesting or roosting sites for Barn Owls. The survey methodology was based on best practice guidance (Shawyer, 2011 and Barn Owl Trust, 2012).

The survey involved a thorough search of all buildings to look for potential nest and roost sites such as ledges, tops of walls, loft spaces, old water tanks, end of roof beams and wall cavities. The survey (which involved use of a high-powered torch, endoscope and ladders as required) also involved a search for any evidence of past or current use by Barn Owls such as feathers, eggs, pellets, droppings, nest debris, nestling fluff, feathers or carcasses.

In conjunction with the building survey, the occupants and farmer were interviewed regarding any sightings they may have had of Barn Owls either in / around buildings or elsewhere within the Site.

Incidental records made of any Barn Owls seen during other ecological survey visits, in particular bat emergence and activity surveys were also noted, with any results included in this report.

2.3 BASELINE EVALUATION CRITERIA

The ecological valuation is based on the guidelines set out in Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal (CIEEM, 2016). The known or potential value of an ecological resource or feature is determined within the following geographical context:

- International and European;
- National;
- Regional;
- County;
- Local.

To assess the overall breeding bird assemblage, Fuller (1980) describes a method for assessing the ornithological interest of sites, whereby the importance is defined by the number of breeding species present as shown in Table 1 below and referenced during this assessment.

Table 1: Criteria used to evaluate importance of breeding bird assemblage adapted from Fuller (1980)

Level of Importance	Number of Breeding Species Fuller (1980)
Local	25-49
County	50-69
Regional	70-84
National	85+

2.4 SURVEY DATES, WEATHER CONDITIONS & PERSONNEL

The dates for each of the survey visits and summary weather conditions are shown in Table 2 below.

Table 2: Bird Survey Dates and Weather Conditions

Visit No.	Date	Time of Visit	Weather
CBC Visit 1	29/04/2014	15.00-20.00	2/8 cloud cover, dry, Beaufort Force 2 southerly, maximum temperature 14°C
CBC Visit 2	21/05/2014	05.35-10.15	3/8 cloud cover, Beaufort Force 3 southerly, dry, maximum temperature 14°C
CBC Visit 3	06/06/2014	06.00-11.00	5/8 cloud cover, Beaufort Force 3 south-westerly, dry, maximum temperature 18°C
CBC Visit 4	14/06/2014	06.00-13.00	3/8 cloud cover, Beaufort Force 2 south-westerly, dry, maximum temperature 16°C
Barn Owl Survey	17/06/2014	N/A	

All CBC survey visits were carried out by Mark Tunmore MCIEEM, a consultant ecologist with 25 years' experience of working on ornithological projects.

The Barn Owl survey was conducted by Becky Prudden MCIEEM who holds a Natural England Schedule 1 disturbance licence for Barn Owls.

2.5 LIMITATIONS

2.5.1 Common Bird Census

Though four field visits is considered to have given an adequate assessment of the range of species present and their relative abundance, it is inevitable that repeat visits may have

confirmed additional species to breeding and the species lists provided in Section 3 should be treated as representative rather than exhaustive.

Due to the complexity of avian behaviour some degree of subjectivity is inevitably involved in the assessment. However, the surveyor was trained to BTO standards in interpreting CBC data. Overall the survey is considered to offer a high degree of accuracy in assessing the range of species breeding within the Site and their relative abundances.

2.5.2 Barn Owl Survey

No significant limitations were encountered whilst carrying out the Barn Owl survey.

The upper floor of a small barn was not accessible for health and safety reasons given that the roof had partially collapsed but given the resulting exposure levels and ingress of weather, this area was considered unsuitable as a potential Barn Owl nest / roost site and therefore this is not considered to have reduced confidence in the overall assessment.

3.0 RESULTS

3.1 COMMON BIRD CENSUS

A total of 35 bird species was recorded, of which 27 showed evidence of breeding. The full species list appears in Table 3 below.

Table 3: All bird species recorded during the breeding bird survey

Bird Species		Estimated Number of Territories
Vernacular Name	Scientific Name	
Blackbird	<i>Turdus merula</i>	12
Blackcap	<i>Sylvia atricapilla</i>	4
Blue Tit	<i>Cyanistes caeruleus</i>	12
Bullfinch	<i>Pyrrhula pyrrhula</i>	3
Buzzard	<i>Buteo buteo</i>	0
Carrion Crow	<i>Corvus corone</i>	1
Chaffinch	<i>Fringilla coelebs</i>	5
Chiffchaff	<i>Phylloscopus collybita</i>	8
Coal Tit	<i>Parus ater</i>	0
Collared Dove	<i>Streptopelia decaocto</i>	1
Dunnock	<i>Prunella modularis</i>	14
Goldcrest	<i>Regulus regulus</i>	1
Goldfinch	<i>Carduelis carduelis</i>	2
Great Tit	<i>Parus major</i>	3
Greenfinch	<i>Carduelis chloris</i>	1
Great-spotted Woodpecker	<i>Dendrocopos major</i>	1
Green Woodpecker	<i>Picus viridis</i>	0
Hobby	<i>Falco subbuteo</i>	0
House Martin	<i>Delichon urbicum</i>	0
House Sparrow	<i>Passer domesticus</i>	8
Jackdaw	<i>Corvus monedula</i>	2
Kestrel	<i>Falco tinnunculus</i>	0
Long-tailed Tit	<i>Aegithalos caudatus</i>	1
Magpie	<i>Pica pica</i>	2
Mistle Thrush	<i>Turdus viscivorus</i>	1
Peregrine	<i>Falco peregrinus</i>	0
Pheasant	<i>Phasianus colchicus</i>	1
Pied Wagtail	<i>Motacilla alba</i>	1
Robin	<i>Erithacus rubecula</i>	14
Siskin	<i>Carduelis spinus</i>	0
Song Thrush	<i>Turdus philomelos</i>	2
Swallow	<i>Hirundo rustica</i>	1
Whitethroat	<i>Sylvia communis</i>	2
Woodpigeon	<i>Columba palumbus</i>	3
Wren	<i>Troglodytes troglodytes</i>	21

Nine of the species recorded are of conservation concern as detailed in Table 4 below.

Table 4. Bird species of conservation concern recorded during the surveys (bold text indicates proved breeding within the Site).

Bird Species		Protection / Conservation Status (refer to key)		
Vernacular Name	Scientific Name	International	National	County
Bullfinch	<i>Pyrrhula pyrrhula</i>		A, B, S	
Dunnock	<i>Prunella modularis</i>		A, B, S	
Hobby	<i>Falco subbuteo</i>		1	
House Martin	<i>Delichon urbicum</i>		A	
House Sparrow	<i>Passer domesticus</i>		R, B, S	
Kestrel	<i>Falco tinnunculus</i>		A	
Mistle Thrush	<i>Turdus viscivorus</i>		A	
Peregrine	<i>Falco peregrinus</i>	1	1	
Song Thrush	<i>Turdus philomelos</i>		R, B, S	

Key

International 1 = EC Birds Directive Annex 1

National R = Red listed species (Eaton et al., 2015)

National A = Amber listed species (Eaton et al., 2015)

National B = UKBAP Priority Species (Anon, 1995)

National S = Species of Principal Importance (SPI) under Section 41 of NERC Act (2006)

National 1 = Legally protected under Schedule 1 of the Wildlife and Countryside Act (1981, as amended)

County B = Devon Biodiversity Action Plan Priority Species (The Nature of Devon: a Biodiversity and Geodiversity Action Plan (2009))

Of the nine species considered to be of conservation concern, five of these were confirmed to be breeding within the Site. The distribution of CBC registrations made for these species are shown on Figures 2a-2e.

- Bullfinch – estimated 3 territories recorded, with all sightings made in the northern part of the Site;
- Dunnock – estimated 14 territories recorded with registrations widely distributed across the entire Site;
- House Sparrow – estimated 8 territories recorded which were primarily associated with the farm buildings and hedgerows along the lane;
- Mistle Thrush – single territory recorded, close to farm buildings;
- Song Thrush – estimated 2 territories recorded associated with the woodland and hedgerows, with optimal open feeding areas provided by the network of fields;

With regards bird species of conservation concern not recorded breeding but seen using habitats within the Site for hunting etc. the most significant species recorded was Hobby *Falco subbuteo*, an individual being seen hunting a Blue Tit *Cyanistes caeruleus* on 21st May 2014 close to the woodland on the northern boundary of the Site. This Schedule 1-listed summer-visitor to the UK nests in a variety of open wooded countryside, primarily in southern England, where it uses old crow nests in open countryside, often on the edge of woodland. Suitable nesting habitat was therefore present along the woodland blocks on the northern boundary of the Site, although no evidence of breeding was noted. The Hobby is however a powerful flier and will travel significant distances to hunt so any

occupied nest site could be a long way from the Site. Alternatively this may have been a returning spring migrant passing through the Site.

A Peregrine was observed flying north-east over the Site on 27th July 2014 (incidental record) and alarm calling suggests the possible presence of a breeding pair nearby, most likely associated with Linhay Hill Quarry based on anecdotal evidence of a long-established breeding site within this working quarry.

3.2 BARN OWL SURVEY

The Barn Owl survey found no evidence to indicate current or historic use of any of the buildings present within the Site by this species. The tenant farmer at Alston Farm confirmed he had never seen Barn Owls in / around any of the buildings (nor elsewhere within the Site). No incidental records of Barn Owls were made on any of the frequent ecological survey visits to the Site made between April – October 2014, including numerous dusk and nocturnal surveys for bats.

Notwithstanding the above, several of the old stone barns associated with Alston Farm were found to offer both potential roosting and nesting sites for Barn Owls. The two-storey stone barns immediately north of the farmhouse in particular were noted to contain numerous openings which could provide access to open joists and upper floors / loft rooms with wide wall plates suitable for nest sites. Other more contemporary agricultural buildings within the complex were also found to contain numerous potential roosting sites, although most lacked suitable ledges / cavities for nesting Barn Owls. Further detailed descriptions and photographs of the buildings are provided within the Extended Phase 1 Habitat Survey and Bat Survey Reports.

The majority of the Site was assessed as providing sub-optimal foraging habitat for Barn Owls (or Type 2 Habitat as defined by Shawyer, 2011) given the intensive improvement and management of fields for turf, livestock grazing and / or hay and lack of unmanaged tussocky grassland with a deep layer of 'thatch' or leaf litter.

4.0 VALUATION AND CONCLUSIONS

The overall assemblage of bird species present during the breeding season was considered typical of woodland, farmland and hedgerow communities in this part of Devon and reflects the presence of mature woodland (off-site), semi-improved fields, farm buildings, a well-managed network of hedgerows and associated field margins, and a high degree of habitat connectivity. Combined, these provide ideal nesting habitat and foraging grounds for a wide variety of bird species, reflecting also an abundance of insects within the Site, the south-facing aspect being a further influencing factor here.

The occurrence of two red-listed bird species (House Sparrow and Song Thrush) which were confirmed to be breeding on Site is of particular interest. Both species have undergone significant population declines and are of national conservation concern. House Sparrows are thought to have suffered declines of 71% between 1977 and 2008³. Latest research suggests that this is as a result of pollution levels, insect abundance, nest site availability and the presence of predators (Shaw et al., 2011). Long-term monitoring carried out by the British Trust for Ornithology shows that the Song Thrush population in England declined by more than 50% between 1970 and 1995. This decline was most pronounced on farmland, where the population decreased by about 70% and has probably been caused by the loss and degradation of preferred feeding and nesting habitats³.

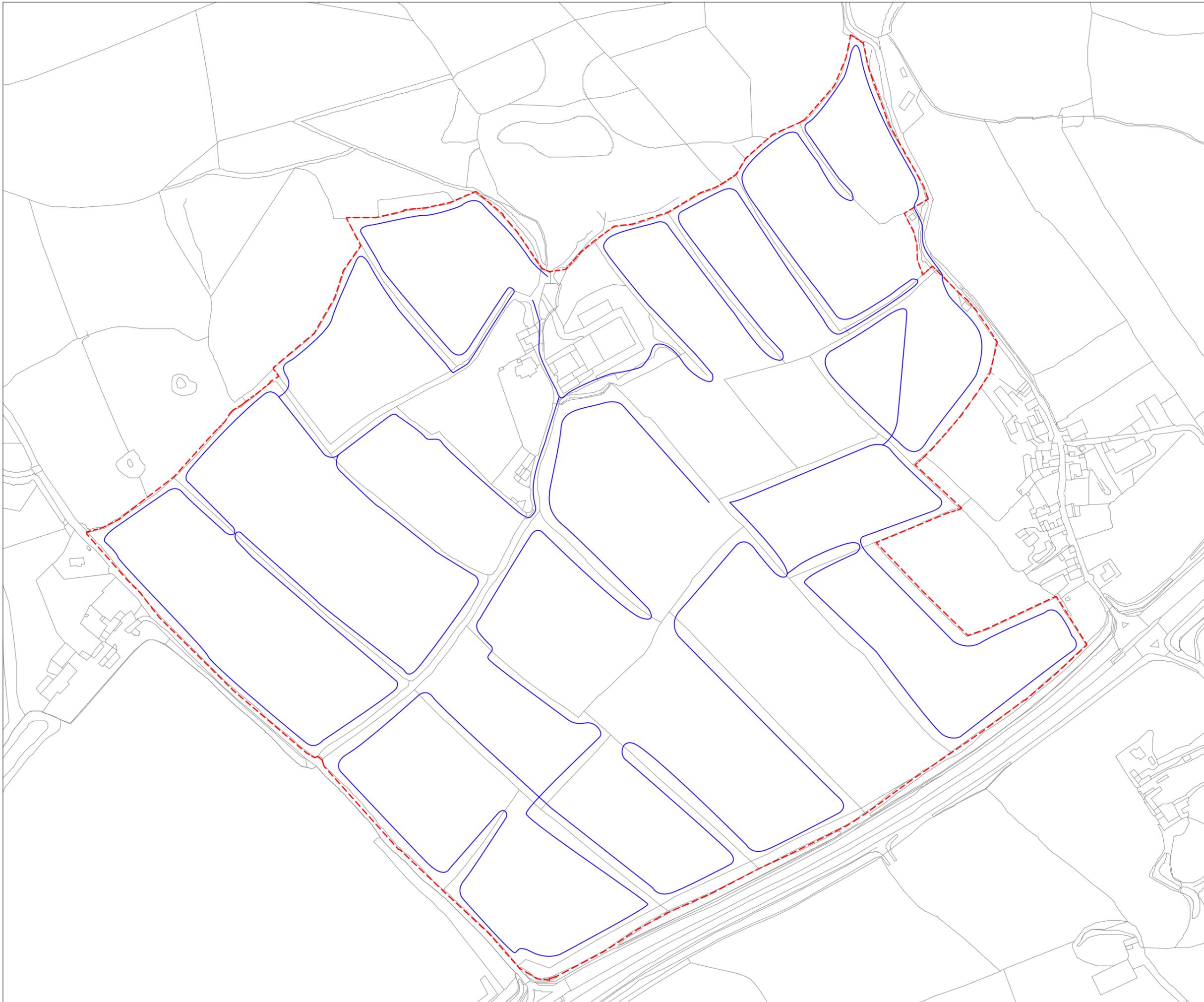
The breeding bird assemblage on Site was evaluated with reference to methods described by Fuller (1980) and the Guidelines for Ecological Impact Assessment (CIEEM, 2016) as detailed in Section 2.3. A total of 35 bird species were recorded within or adjacent to the Site, and of these, 27 were either confirmed or considered likely to be breeding within the Site, which would place it at the lower end of Fuller's range for Local value. The presence of nine species of national conservation concern including two Schedule 1-listed species (not confirmed as breeding on Site) is considered to increase the overall value. For this reason the bird population within the Site is assessed as being of Local (District) value.

³ <http://www.rspb.org.uk/>

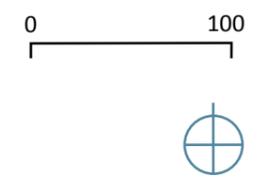
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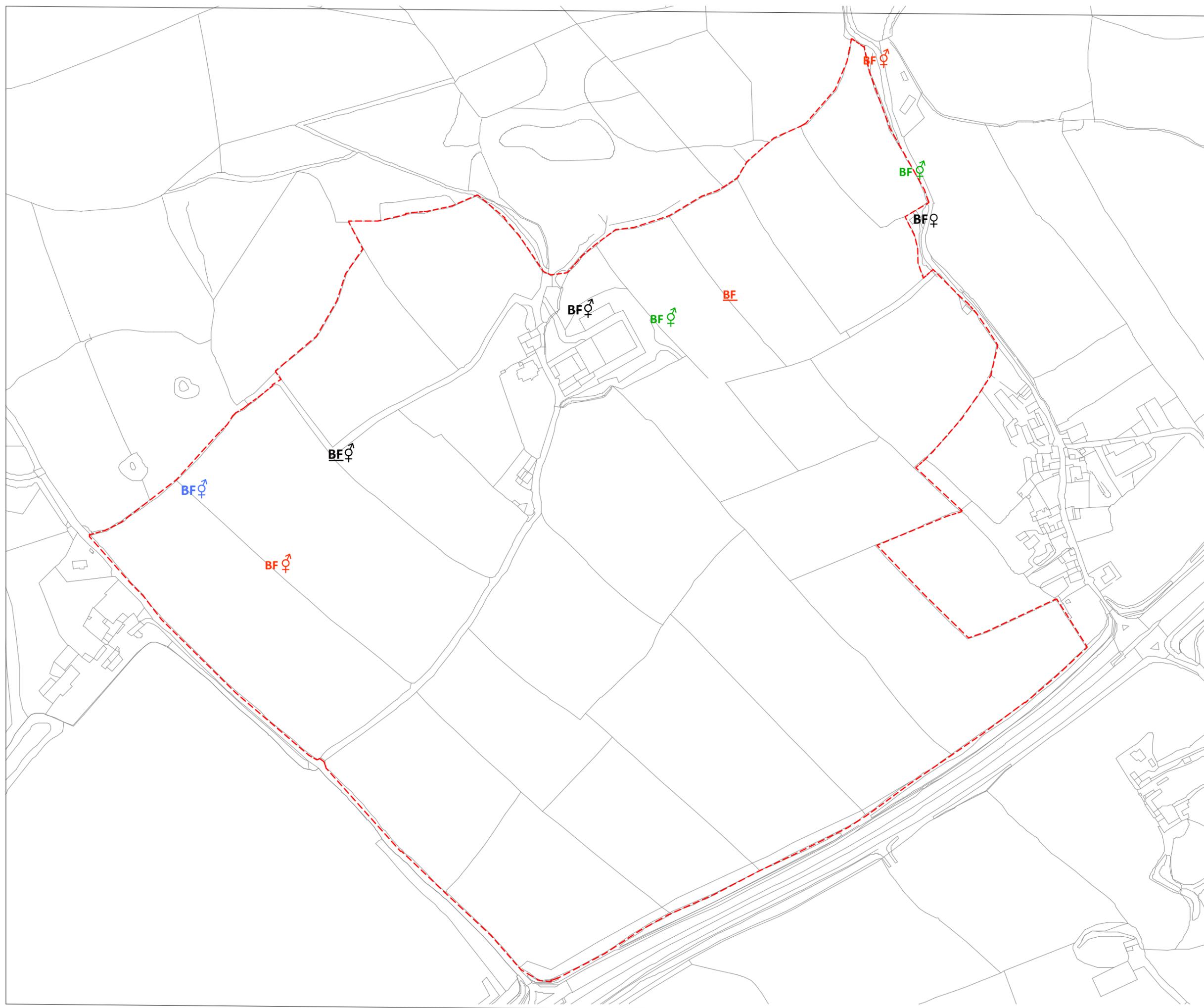
Survey Area
Transect Route



**Linhay Hill Quarry:
Extension Area**
Breeding Bird Survey:
Transect Route

Figure 1

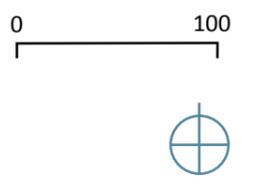




Survey Area

- Visit 1: 29/04/2014 (pm)
- Visit 2: 21/05/2014 (am)
- Visit 3: 06/06/2014 (am)
- Visit 4: 14/06/2014 (am)

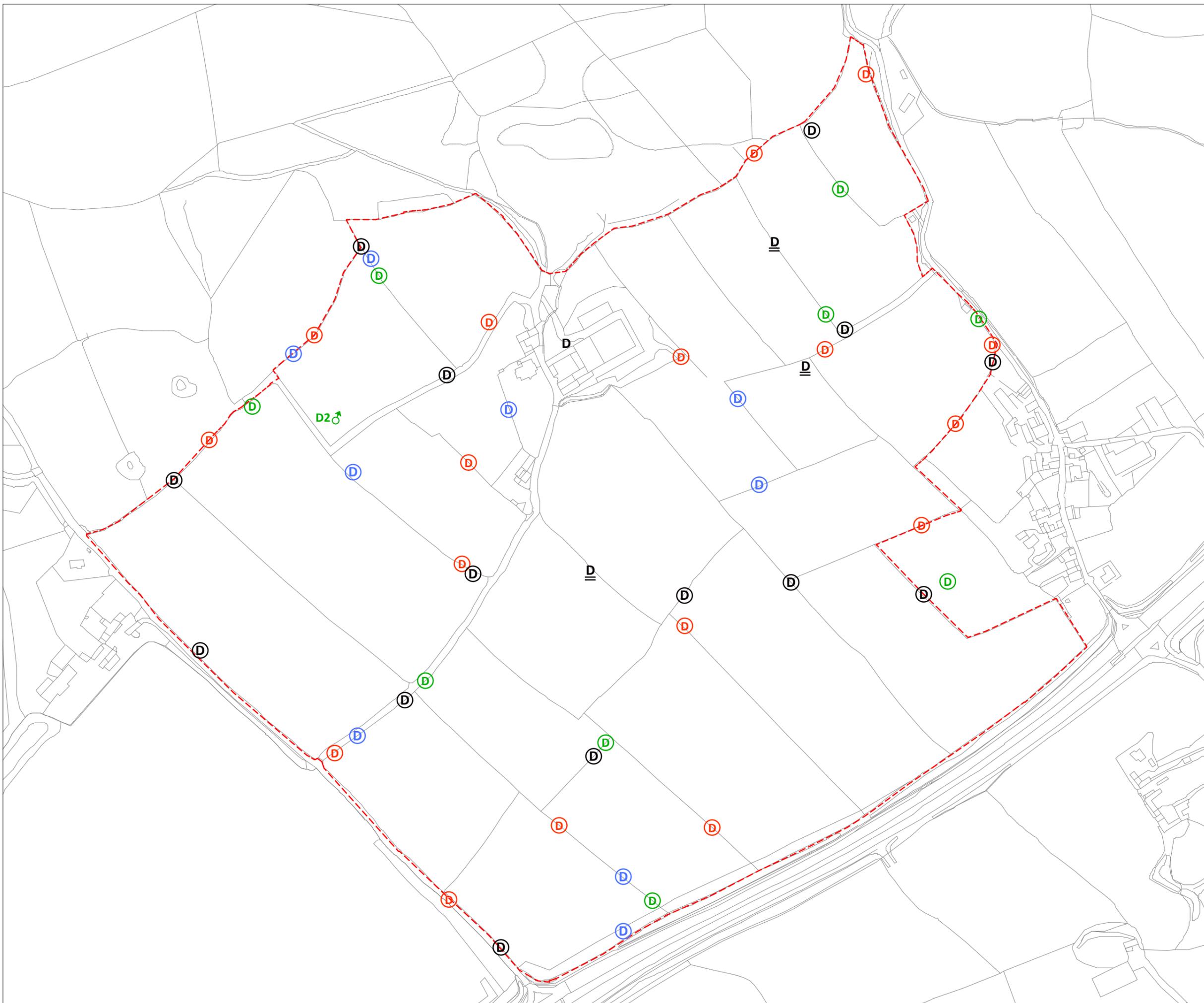
- 2 XX♀ sight records, with number and sex of birds.
- ♀ indicates a pair of birds (one male one female)
- XX a calling bird
- XX a bird giving alarm calls or other vocalisations (not song) thought to have a strong territorial significance
- (XX) a bird in song
- XX mat a bird carrying nest material
- XX→ a bird flying away (not seen to land)
- XX—?—XX registrations probably the same bird



**Linhay Hill Quarry:
Extension Area**
Common Bird Census Results:
Bulfinch

Figure 2a





Survey Area

Visit 1: 29/04/2014 (pm)

Visit 2: 21/05/2014 (am)

Visit 3: 06/06/2014 (am)

Visit 4: 14/06/2014 (am)

2 XX♀ sight records, with number and sex of birds.

♀ indicates a pair of birds (one male one female)

XX a calling bird

XX a bird giving alarm calls or other vocalisations (not song) thought to have a strong territorial significance

(XX) a bird in song

XX mat a bird carrying nest material

XX→ a bird flying away (not seen to land)

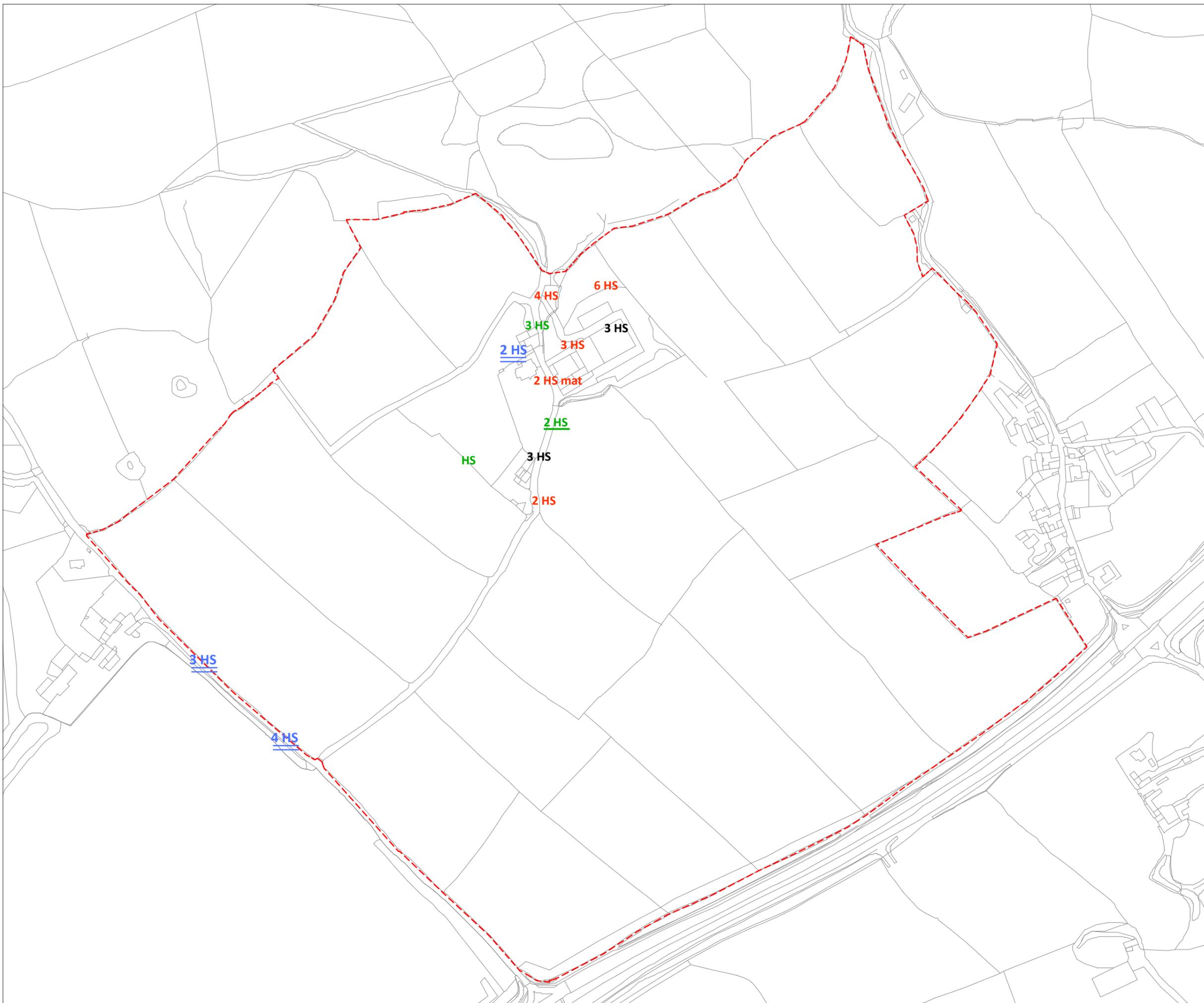
XX—?—XX registrations probably the same bird



**Linhay Hill Quarry:
Extension Area**
Common Bird Census Results:
Dunock

Figure 2b

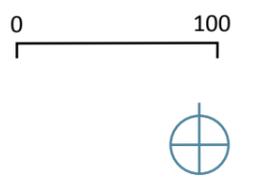




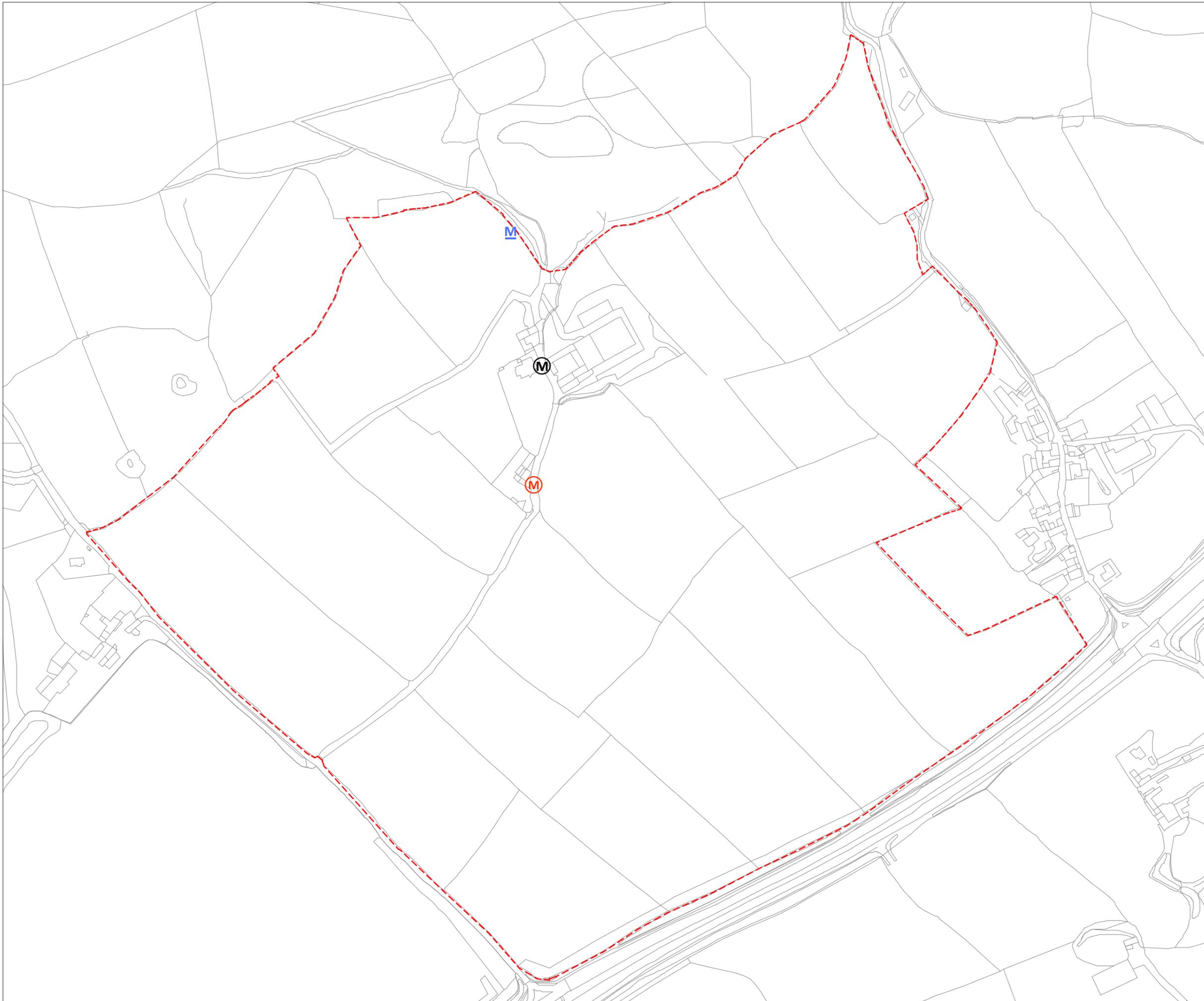
 Survey Area

- Visit 1: 29/04/2014 (pm)
- Visit 2: 21/05/2014 (am)
- Visit 3: 06/06/2014 (am)
- Visit 4: 14/06/2014 (am)

- 2 XX♀** sight records, with number and sex of birds.
- ♀** indicates a pair of birds (one male one female)
- XX** a calling bird
- XX** a bird giving alarm calls or other vocalisations (not song) thought to have a strong territorial significance
- (XX)** a bird in song
- XX mat** a bird carrying nest material
- XX→** a bird flying away (not seen to land)
- XX—?—XX** registrations probably the same bird



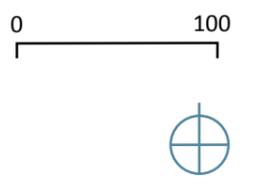
**Linhay Hill Quarry:
Extension Area**
Common Bird Census Results:
House Sparrow



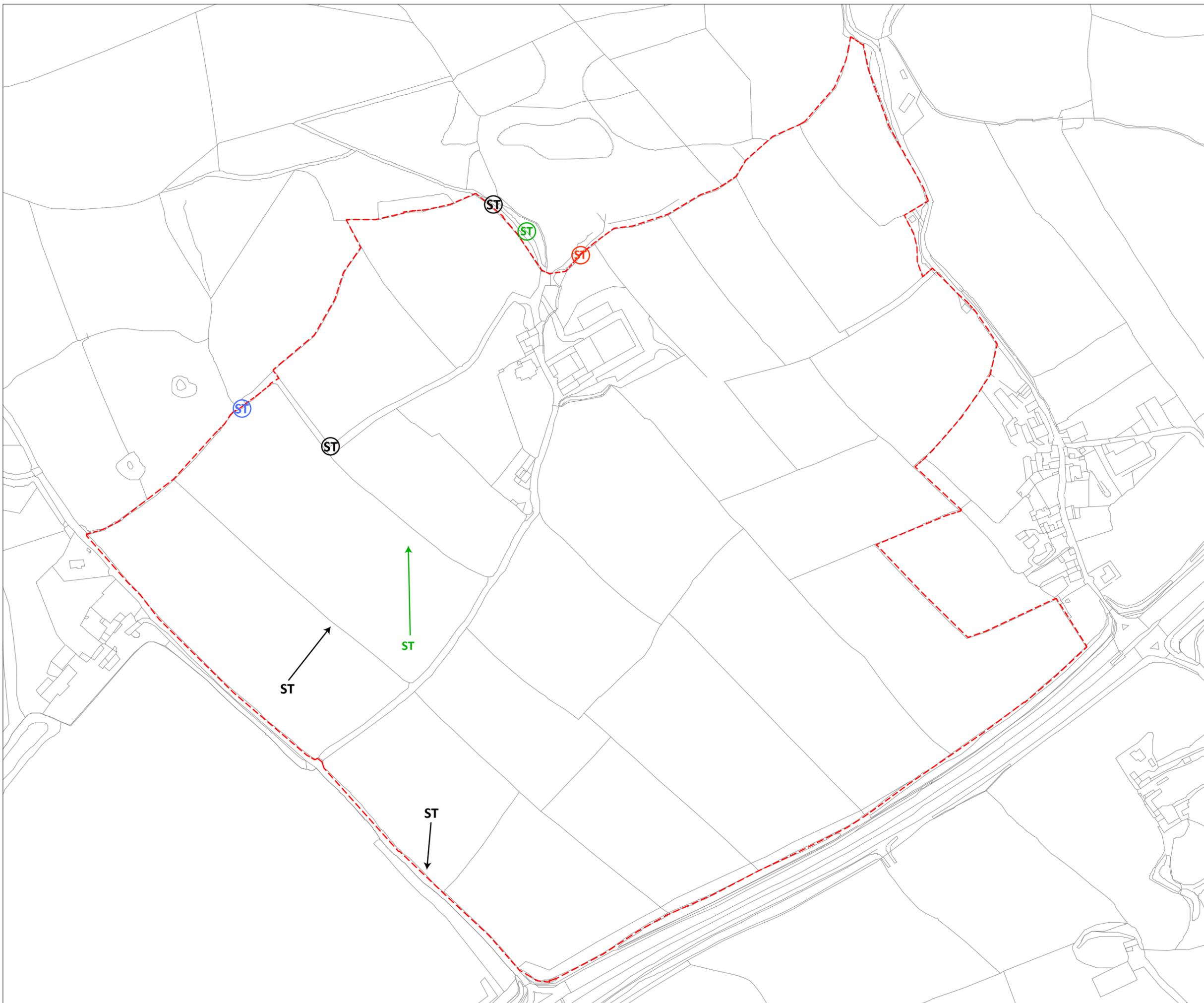
 Survey Area

- Visit 1: 29/04/2014 (pm)
- Visit 2: 21/05/2014 (am)
- Visit 3: 06/06/2014 (am)
- Visit 4: 14/06/2014 (am)

- 2 XX♀** sight records, with number and sex of birds.
- ♀** indicates a pair of birds (one male one female)
- XX** a calling bird
- XX** a bird giving alarm calls or other vocalisations (not song) thought to have a strong territorial significance
- (XX)** a bird in song
- XX mat** a bird carrying nest material
- XX→** a bird flying away (not seen to land)
- XX—?—XX** registrations probably the same bird



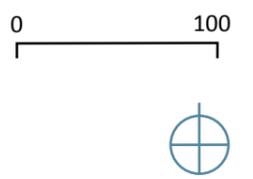
**Linhay Hill Quarry:
Extension Area**
Common Bird Census Results:
Mistle Thrush



 Survey Area

- Visit 1: 29/04/2014 (pm)
- Visit 2: 21/05/2014 (am)
- Visit 3: 06/06/2014 (am)
- Visit 4: 14/06/2014 (am)

- 2 XX♀ sight records, with number and sex of birds.
- ♂♀ indicates a pair of birds (one male one female)
- XX a calling bird
- XX a bird giving alarm calls or other vocalisations (not song) thought to have a strong territorial significance
- (XX) a bird in song
- XX mat a bird carrying nest material
- XX→ a bird flying away (not seen to land)
- XX—?—XX registrations probably the same bird



**Linhay Hill Quarry:
Extension Area**
Common Bird Census Results:
Song Thrush

Figure 2e



DOCUMENT CONTROL INFORMATION

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001	Draft issue to internal project team	January 2015
002	Final issue	March 2016

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