

**LIMESTONE LANDSCAPE PROJECT**  
**Coastal Bird Survey**  
**Task – 206, 207**

**Breeding Bird Survey 2012**

**1.0 Introduction**

This report details the results of winter bird surveys undertaken during April to June 2012 at Blackhall Rocks, Durham. The site is situated at grid reference NZ 466392 (approximate central point), and exists mainly as a Durham County Council nature reserve within the Countryside Estate. The site has primary and improving magnesium limestone grassland along cliff-tops and extensive permanent “neutral” grasslands which were reverted from arable production during the “Turning the Tide” project of some 15 years ago. The site has a number of newly planted and more mature hedgerows with small areas of developing scrub. There are two small blocks of semi-mature woodland and there are three grazing compartments with a mixture of horse and winter cattle grazing. There is a newly formalised coastal footpath, a series of permissive desire-line paths and access tracks for service vehicles. Blackhall Rocks has a picnic area including a car park, seats, signage and interpretation. There is a current plan within the Limestone Landscape Project, to develop the infrastructure associated with the car park, install a new easy access path and improve seating and way marking.

**2.0 Legislation and policy background**

Birds are afforded various levels of protection and given conservation status on a species by species basis. Also, a number of species are worthy of inclusion within the following legislation or lists of conservation concern:

- Wildlife and Countryside Act 1981 (as amended) [Department of the Environment (1981)].
- EC Birds Directive 1979 (79/409/EEC).
- UK Biodiversity Action Plan (1995) lists of globally threatened or declining species
- Royal Society for the Protection of Birds (RSPB) Red and Amber Lists of species of conservation concern (RSPB, 2002).

The most significant general legislation for British birds lies within Part 1 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built.
- Take or destroy an egg of any wild bird.

In addition to the above protection for breeding birds under the Wildlife and Countryside Act, Schedule 1 of the Act lists a number of species which are protected by special penalties at all times.

Annex 1 of the EC Birds Directive also lists rare and vulnerable species of wild birds that are subject to special conservation measures.

The RSPB (2002) has published Red and Amber Lists of species of conservation concern. Red List species are those whose breeding population or range is rapidly declining (50% or more in the last 25 years), recently or historically, and those of global conservation concern. Amber List species are those whose breeding population is in moderate decline (25 – 49% in the last 25 years), rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

#### *The UK Biodiversity Action Plan*

The UK Biodiversity Action Plan (BAP) (2007) lists 59 bird species as priority species requiring conservation action, and consequently action plans have been developed for the conservation of these species.

#### *[Local] Action Plan*

The Northumberland Biodiversity Action Plan (BAP) (1999) lists 37 bird species as priority species requiring conservation action.

### **3.0 Methods**

Survey design, methodology, fieldwork and assessment has been carried out in accordance with standard guidance Bibby *et al.* 1992<sup>1</sup> and Gilbert *et al.* 1998<sup>2</sup>

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<sup>1</sup> Bibby, C.J., N.D. Burgess & D.A. Hill (1992): Bird Census Techniques. London: Academic Press.

## Data Search

A data search was carried out for all faunal/ floral groups and statutory and non-statutory protected sites. This included the following contacts with respect to birds:

- Durham Bird Club

Information from the Survey Area and the surrounding area (up to 500m distance from the survey boundary) was requested.

## Walkover Surveys

During survey visits, a predetermined transect route, was walked at a slow pace so that all birds can be located, identified and recorded using standard British Trust for Ornithology (BTO) notation. Binoculars and telescopes were used throughout to scan the open for the presence of birds. All species are identified by their common name followed by their Latin equivalent. Bird species are listed with their BTO Code and their Conservation Status<sup>3</sup>, if they have red or amber status they are listed as species of conservation concern (SCC). UK Biodiversity Action Plan Species (UKBAP) and Local Biodiversity Action Plan Species (LBAP) are also identified. All birds that were observed during the surveys were recorded including passing individuals and species on migration.

One survey per month was undertaken over the breeding season April to June 2012. Information obtained from the surveys will help towards building a picture of the general use of the site and its surroundings by all bird species during the non-breeding months.

## 4.0 Results

### Desk Study

Durham Bird Club records available when requested.

### Habitats

The site is dominated by grassland with primary limestone assemblages on the beach banks and cliffs, and large areas of semi natural grassland, which have been

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<sup>2</sup> Gilbert et. al. (1998) *Bird Monitoring Methods*. RSPB. Sandy.

<sup>3</sup> The UK's birds can be split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green.

created as part of an arable-reversion scheme. There are numerous wet flushes close to the cliff edge with other areas of damper grass scattered over the whole site. A number of small ponds exist, some of which have been stocked with fish by unknown people. Small areas of patchy scrub exist, some of which are managed on annual basis and some left to develop suitable successional habitat. There are also, two small blocks of young woodland, which are predominately softwood.

### Breeding Bird Survey 2012

Breeding bird surveys were undertaken over one season April to June 2012, Details of dates, times and weather conditions, are given below in table 2. The number of hours detailed below is listed per surveyor, for example four hours x two surveyors = total of eight hours survey undertaken.

**Table 2: Walkover Survey Details**

Date	Start Time	End Time	Hours	Surveyors	Weather Conditions
10-04-2012	08.00	12.00	4	1	Overcast-showers 10°C
15-05-2012	08:00	12:00	4	1	Overcast / Dry 11°C
13-06-2012	08:00	12:00	4	1	Dry/sunny spells 14°C

During the 2012 breeding bird survey period, 32 bird species were recorded. 8 red listed, 9 amber listed and 15 green listed. See Table 3 below for details

**Table 3: Species recorded during the Breeding season 2012**

Species	Latin name	BTO Code	No. Of Birds Recorded				Conservation Status
			April	May	June		
Kestrel	<i>Falco tinnunculus</i>	K.	2	3	2		Amber
Herring Gull	<i>Larus argentatus</i>	HG	2				Red UK BAP
Snipe	<i>Gallinago gallinago</i>	SN	1				Red,UK BAP
Barn Owl	<i>Tyto alba</i>	BO	1	2	1		Red,UK BAP
Wood Pigeon	<i>Columba palumbus</i>	WP	2	1	2		Green
Great Spotted Woodpecker	<i>Dendrocopus major</i>	GS			1		Green
Skylark	<i>Alauda arvensis</i>	S	21	31	59		Red, UK BAP
Barn Swallow	<i>Hirundo rustica</i>	SL	2	4	10		Amber
Sand Martin	<i>Riparia riparia</i>	SM	2				Amber
Meadow Pipit	<i>Anthus pretensis</i>	MP	17	21	34		Amber
Wren	<i>Trogladites trogladites</i>	WR	1	1			Green
Dunnock	<i>Prunella modularis</i>	D	5		4		Amber
Robin	<i>Erithacus rubecula</i>	R	4				Green
Wheatear	<i>Oenanthe oenanthe</i>	W		3			Amber
Song Thrush	<i>Turdus philomelos</i>	ST		1			Red, UK BAP
Blackbird	<i>Turdus merula</i>	B	4	2	6		Green

Blackcap	<i>Sylvia atricapilla</i>	BC	1					Green
Whitethroat	<i>Sylvia communis</i>	WH		4	17			Amber
Willow Warbler	<i>Phylloscopus trochilus</i>	WW	3	4	3			Amber
Chiffchaff	<i>Phylloscopus collybita</i>	CC	3					Green
Grasshopper Warbler	<i>Lucestella luscinioides</i>	GW		1				Amber
Long Tailed Tit	<i>Aegithalos caudatus</i>	LT	2					Green
Great Tit	<i>Parus major</i>	GT	1					Green
Magpie	<i>Pica pica</i>	MG	2		1			Green
Jackdaw	<i>Corvus monedula</i>	JD	27	4	8			Green
Carrion Crow	<i>Corvus corone</i>	C	2	1	2			Green
Starling	<i>Sturnus vulgaris</i>	SG	2	22				Red, UK BAP
Linnet	<i>Carduelis</i>	Li	23	20	34			Red, UK BAP
House Sparrow	<i>Passer domesticus</i>	HS	6	2	2			Red, UK BAP
Chaffinch	<i>Fringilla coelebs</i>	CH	2	1	3			Green
Goldfinch	<i>Carduelis carduelis</i>	GO			2			Green
Yellowhammer	<i>Emberiza citrinella</i>	Y	3	1	3			Red, UK BAP
Reed Bunting	<i>Emberiza schoeniclus</i>	RB	4	2	3			Amber, UK BAP

## Breeding species accounts 2012

See plan 1 for breeding walkover map.

See plan 2 breeding distribution maps.

**Kestrel** (*Falco tinnunculus*): noted on all visits hunting the site; *farmland / upland*; **(SCC)** high site value; two distinct territories were noted one to the south and to the north close to Alice's meadow. It is likely the pairs are nesting on the cliff edge and regularly utilising the grassland to hunt. By June there was no evidence of successful breeding as no juveniles were noted.

**Herring Gull** (*Larus argentatus*): noted on one occasion flying over the site; *farmland / urban / coastal*; **(UKBAP, SCC)** moderate site value; two juvenile birds flew over the site it was surprising that this number was so low but many birds tended to be either on the shore line and moving along this line.

**Snipe** (*Gallinago gallinago*): noted on one occasion disturbed; *wetland / coastal / upland*; **(UKBAP, SCC)** low site value; a single bird was disturbed flying out of a ditch to the north of the site during the April visit.

**Barn Owl** (*Tyto alba*): breeding close to the site; *grassland / farmland*; **(UKBAP, SCC)** high site value; no birds were seen during the site survey however Durham

Bird Club records report that the pair in the nest box situated on North Blackhall Farm successfully raised two to three young to fledging and were seen hunting the grassland areas on a regular basis during dusk.

**Wood Pigeon** (*Columba palumbus*): noted on all visits flying over; *farmland / woodland*; moderate site value; birds were restricted to the small blocks of conifers bordering the western edge of the site or in the dene areas.

**Great Spotted Woodpecker** (*Dendrocopus major*): noted during the June visit; *woodland / farmland*; low site value; a single bird was noted flying north close to the allotments.

**Skylark** (*Alauda arvensis*): noted during all visits; *farmland / grassland / heathland*; (UK BAP, SCC) high site value; an important population exists across the site with up to thirty territories noted. This maybe at the lower limit as the poor weather during the breeding season would have had a significant impact on food availability thus not allowing pairs to settle and raise young to fledging. Some pairs were successful but juvenile numbers tended to be very low.

**Barn Swallow** (*Hirundo rustica*): noted on all visits; *farmland*; moderate site value; two to three pairs frequented the allotment area with birds utilising the grassland to hunt for insect food. Numbers increased by June with one or two juveniles noted close to the allotments.

**Sand Martin** (*Riparia riparia*): noted on two occasions: *wetland / farmland / quarries*; low site value. Two possible passage birds were located close to Blue House Gill, birds do breed along the coastal cliffs within the more sandy sections, so these birds could also be local breeders.

**Meadow Pipit** (*Anthus pratensis*): noted on all visits; *grassland / heathland / farmland*; high site value; in important site for the species with up to twenty to thirty territories notes. This seemed low considering site size to pair ratio however with the species having the same requirements to skylark breeding would have very limited due to the spring to early summer poor weather conditions.

**Wren** (*Trogladites trogladites*): noted on two occasions; *woodland / farmland*; moderate site value; only single birds were recorded singing close to the scrub and woodland bounding the western edge of the site.

**Dunnock** (*Prunella modularis*): noted on two occasions; *farmland / woodland / urban*; moderate site value; up to three pairs were located across the site typically utilising the gorse on Alice's Meadow and boundary scrub.

**Robin** (*Erithacus rubecula*): noted on both visits; *woodland / urban*; moderate site value; birds were noted singing within the wooded and scrub areas of the site breeding was not proven but very likely.

**Wheatear** (*Oenanthe oenanthe*): noted on one occasion; *montane / upland*; moderate site value; three passage birds were typically noted during the May visit. Short sward grassland along the coast is very attractive for the species during spring passage stopping to feed in these areas ready for their journey northward.

**Song Thrush** (*Turdus philomelos*): noted on one occasion; *woodland / farmland*; **(UKBAP, SCC)**; moderate site value; a single was noted within the small linear woodland to the south west of the site. No breeding was confirmed but possible as the species can be very difficult to locate during June.

**Blackbird** (*Turdus merula*): noted on all site visits; *woodland / farmland / urban*; moderate site value; typically found within the scrub and woodland bordering the site. It will have been affected as with most species by the adverse weather conditions over the peak breeding period.

**Blackcap** (*Sylvia atricapilla*): noted on one occasion; *woodland*; low site value; a single bird heard within the scrub area to the north of Alice's Meadow.

**Whitethroat** (*Sylvia communis*): noted on all site visits; *scrub / thicket*; high site value; well recorded across the site with territories noted within the scrubby areas over the site. Again breeding productivity would have been affected by the adverse weather conditions; however adults and juveniles were noted close to the car park to the south of the site.

**Willow Warbler** (*Phylloscopus trochilus*): noted on all site visits; *woodland / scrub*; moderate site value; up to four territorial birds sang within the scrubby wooded areas bordering the site.

**Chiffchaff** (*Phylloscopus collybita*): noted on one occasion; *woodland*; moderate site value; three birds were noted singing within the mature woodland areas to the north of the site.

**Grasshopper Warbler** (*Luce Stella luscinioides*): noted on one occasion; *grassland / scrub*; moderate site value; a single bird reeled to the centre of the site in thick grass and scrub. This area holds a small pool and beck and is an important area for a range of species.

**Long Tailed Tit** (*Aegithalos caudatus*): noted on one occasion; *woodland / scrub*; moderate site value; a pair was noted within the woodland edge to the north of the site there was evidence of breeding but possible.

**Great Tit** (*Parus major*): noted on one occasion; *woodland*; low site value; a single bird was noted close to Alice's Meadow during the April visit but not subsequently.

**Magpie** (*Pica pica*): noted on two occasions; *woodland / urban*; moderate site value; birds were seen at two localities breeding was likely within the woodland close to the site.

**Jackdaw** (*Corvus monedula*): noted on two occasions flying over the site; *urban / woodland*; moderate site value; a regular bird seen flying over and feeding on site. A very good population breeds within the cliffs and within the urban area of Blackhall.

**Carrion Crow** (*Corvus corone*): noted on all visits flying and foraging over the site; *woodland / farmland*; moderate site value; birds regularly crossed the site during the survey period probably nesting close the survey area.

**Starling** (*Sturnus vulgaris*): noted on two occasions; *urban / woodland*; (**UKBAP, SCC**); moderate site value; birds were noted in two small groups during May flying across the site. There is a healthy population in urban Blackhall thus it is very likely these birds are from here.



**House Sparrow** (*Passer domesticus*): noted on all occasions; *urban / farmland*; **(UKBAP, SCC)**; moderate site value; a maximum of six birds visited the grassy scrub area to feed close to the main car park to the south of the site. Birds are obviously coming from urban Balckhall to forage food on a regular basis.

**Chaffinch** (*Fringilla coelebs*): noted on all occasions; *woodland / farmland / urban*; moderate site value; found within the wooded and scrub areas bordering the site breeding is likely on and close to the site but was not proven.

**Goldfinch** (*Carduelis carduelis*): noted on two occasions; *scrub / farmland*; moderate site value; a pair was located to the north of the site close to the allotments. There was no proof of breeding on or close to the site.

**Yellowhammer** (*Emberiza citronella*): noted on all occasions; moderate site value; *farmland / heathland*; moderate site value; **(UKBAP)** three territories were located this is rather low; again the inclement weather over the spring may have affected males setting up territories.

**Reed Bunting** (*Emberiza schoeniclus*): noted on all occasions; *wetland / farmland*; moderate site value; **(UKBAP, SCC)**; four territories were located two close to the centre of the site and two the south. It is likely that other territories exist close to the site within the lower cliff areas and local dene's.

## 5.0 Discussion

Durham County Council - Countryside Service was contracted by the Limestone Landscape Project to undertake a bird survey at Blackhall Rocks. The Service determined that it would be most useful to carry out a breeding survey followed up with a winter survey to try to capture a feel of how and what birds were using the site. This would help to direct future management of the site and confirm existing methods.

The site is linear in nature at approximately 3 km in length to 1km in width. Altitude is from 30 to 60m above sea level, managed for its regenerating limestone grassland which covers the majority of the site. There is a good footpath network which made monitoring of the site relatively easy. The birdlife across the area has been well documented by Durham Bird Club for a number of years and is regularly utilised by

amateur ornithologists especially during peak migration periods. However a targeted survey has not been carried out since the completion of the Turning of the Tide Project, which facilitated the large scale transition from arable farmland to the present day of rotationally - managed meadow grassland, which enjoys support from Natural England and Higher Level Stewardship scheme which covers most of the surveyed area.

Survey periods were carried out monthly over the pre determined transect route to give the best results however the weather conditions can have a negative impact and this was very much the case over the whole of the survey period visits proved frustratingly awkward due to the overcast cool and occasionally damp conditions.

Blackhall Rocks is now an important grassland habitat supporting a diverse community of birds, with many species showing high population numbers. However, when compared to the last two to three years (DBC records), the numbers recorded were lower than before. This is almost certainly due to the inclement weather conditions throughout the breeding season. Three species dominated sightings during the survey; skylark, meadow pipit and linnet. The two former species rely heavily on grassland habitat within which to breed, and can be seen in high densities across the site. Linnet relies on a mixture of scrub, especially favouring gorse which is abundant within Alice's Meadow and in other smaller areas which provide ideal conditions.

Other species such as yellowhammer, blackbird, whitethroat, willow warbler, swallow and starling were found in good numbers across the site during the survey, although their requirements are very different, with the swallow mainly foraging for insect prey. Starlings were mostly visiting the site feeding in the short grass early in the season whereas whitethroat, willow warbler and blackbird are breeding within the woodland and scrub areas.

Jackdaw was another species regularly noted in good numbers. These birds breed on the cliff faces and urban areas close to the site, spending a lot of time foraging and commuting across the site. Blackhall Rocks has been noted for many years as a good passage site especially for wheatears. This species relies on a short grass sward during the spring and it was no surprise to see up to three moving through during May. The site also saw two pairs of kestrel and an important grassland indicator species - barn owl. It was not noted during the survey period but utilises the

grassland on a regular basis breeding in a nest box at North Blackhall farm with young and adults noted during July and August hunting the site (DBC). Another regular visitor was the house sparrow it was noted feeding within the grassland and short scrubby areas.

The survey was to establish species diversity and distribution and to give an indication of the breeding population of all species. Breeding productivity can be measured, but this needs to be specifically targeted to given species which would be outside the scope of this work. It can be said however, that productivity for the three dominant species (skylark, meadow pipit, linnet) was low, with few juveniles being noted by July. Skylark can triple brood over a good season, although this was certainly not the case during this survey period. This lack of productivity may impact on breeding in 2013. It would also be very difficult to give accurate breeding figures for all breeding species utilising the site. However table 1 below (appendices) gives us an indication of selected species which hopefully will help if further survey work is carried out. It would be recommended to carry out further surveys when weather conditions are more favourable in future years, which may allow a more accurate indication of the sites carrying capacity.

This survey can only be a snapshot of the birdlife that utilises the site. Species and diversity will inevitably change over the longer period. However, it is likely that the keystone breeding species such as skylark and meadow pipit will remain dominant due to the key grassland habitat. Blackhall has now become a very important site for some of those species showing worryingly speedy declines. Grassland of this scale is very scarce across the lowland half of the County, and it is hugely important that the site continues to be managed in a way that supports a rich and diverse community of birds.

The key to achieving this is to ensure that as much habitat diversity as possible is maintained and managed for as long as possible.

John Olley – Countryside Ranger

## Appendix 1

See attached survey routes and results

## Appendix 2

Table 1

Common Species breeding pairs and fledging

<b>Species</b>	<b>Code</b>	<b>Pairs</b>	<b>Fledged young</b>
Skylark	S	30-32	20
Meadow Pipit	MP	21-25	14
Linnet	Li	20-25	16
Whitethroat	WH	10	7
Willow Warbler	WW	5	10
Reed Bunting	RB	4	-
Blackbird	B	4-5	6
Yellowhammer	Y	5	-
Dunnock	D	3	2





