

LIMESTONE LANDSCAPE PROJECT
Coastal Bird Survey
Task – 206, 207

Winter Survey

1.0 Introduction

This report details the results of winter bird surveys undertaken during November 2012 to March 2013 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 have been carried out in accordance with standard guidance Bibby *et al.* 1992¹ and Gilbert *et al.* 1998²

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 could 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, and are listed with their BTO Code and their Conservation Status³. If they have red or amber status, they are listed as species of conservation concern (SCC) whilst 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.

Previous Surveys: One survey per month was undertaken over the breeding season - May to June 2012. Information obtained from the Breeding Surveys will help build a picture of the general use of the site and surrounding area by all bird species, which will then be confirmed during the non-breeding months.

4.0 Results

Desk Study

Durham Bird Club records available when requested.

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

² Gilbert *et al.* (1998) *Bird Monitoring Methods*. RSPB. Sandy.

³ 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.

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 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.

Winter Bird Survey 2012-2013

Winter bird surveys were undertaken over one season Nov 2012 to March 2013, 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
14-11-2012	10.00	12.00	2	1	Dry sunny spells 9°C
14-12-2012	10:00	12:00	2	1	Dry overcast snow showers 3°C
14-01-2013	10:00	12.00	2	3	Cold overcast snow showers 0°C
14-02-2013	10:00	12.00	2	1	Dry misty 4°C
14-03-2013	10:00	12:00	2	3	Dry/sunny spells 5°C

During the 2012-2013 winter bird survey periods, 41 bird species were recorded. 10 red listed, 13 amber listed and 18 green listed. See Table 3 below for details. Please note that birds on the foreshore were not recorded as this was not required for the purposes of this survey.

Table 3: Species recorded during the winter season 2012-2013

Species	Latin name	BTO Code	No. Of Birds Recorded					Conservation Status
			Nov	Dec	Jan	Feb	March	
Cormorant	<i>Phalacrocorax carbo</i>	CA		1				Green
Mallard	<i>Anas platyhychos</i>	MA					6	Green
Kestrel	<i>Falco tinnunculus</i>	K.	1		1		1	Amber
Snipe	<i>Gallinago gallinago</i>	SN		1				Red, UK BAP
Curlew	<i>Numenius arquata</i>	CU				7	15	Amber
Redshank	<i>Tringa totanus</i>	RK				1		Amber
Lapwing	<i>Vanellus vanellus</i>	L				1		Red, UK BAP

Woodcock	<i>Scolopax rusticola</i>	WK					1	Amber
Oystercatcher	<i>Haematopus ostralegus</i>	OC				1	1	Amber
Pheasant	<i>Phasianus colchicus</i>	PH	1				2	Green
Grey Partridge	<i>Perdix perdix</i>	P	7					Red, UK BAP
Barn Owl	<i>Tyto alba</i>	BO					2	Red, UK BAP
Wood Pigeon	<i>Columba palumbus</i>	WP	1	5	2	2	2	Green
Green Woodpecker	<i>Picus viridis</i>	G				1	2	Amber
Skylark	<i>Alauda arvensis</i>	S	1			16	14	Red, UK BAP
Meadow Pipit	<i>Anthus pretensis</i>	MP				1	1	Amber
Wren	<i>Trogladites trogladites</i>	WR	3	2			2	Green
Dunnock	<i>Prunella modularis</i>	D	5	2		6	4	Amber
Robin	<i>Erithacus rubecula</i>	R	1			5	2	Green
Song Thrush	<i>Turdus philomelos</i>	ST	2		2	3	2	Red, UK BAP
Fieldfare	<i>Turdus pilaris</i>	FF				5		Red, UK BAP
Mistle Thrush	<i>Turdus visciforus</i>	M				3		Amber
Blackbird	<i>Turdus merula</i>	B	2	2		3	1	Green
Long Tailed Tit	<i>Aegithalos caudatus</i>	LT	1					Green
Great Tit	<i>Parus major</i>	GT	3			3	4	Green
Coal Tit	<i>Parus ater</i>	CT	1				1	Green
Blue Tit	<i>Cyanistes caeruleus</i>	BT	1				3	Green
Magpie	<i>Pica pica</i>	MG	2	4		6	4	Green
Jackdaw	<i>Corvus monedula</i>	JD	3	6			4	Green
Carrion Crow	<i>Corvus corone</i>	C	4	9	1	1	2	Green
Starling	<i>Sturnus vulgaris</i>	SG	1	10	90	2		Red, UK BAP
Goldcrest	<i>Regulus regulus</i>	GC	1					Green
Linnet	<i>Carduelis cannabina</i>	Li	4					Red, UK BAP
Bullfinch	<i>Pyrrhula pyrrhula</i>	BF	1	2		6		Amber
Chaffinch	<i>Fringilla coelebs</i>	CH	4			5	4	Green
Greenfinch	<i>Carduelis chloris</i>	GR	3					Green
Goldfinch	<i>Carduelis carduelis</i>	GO	11	30			1	Green
Yellowhammer	<i>Emberiza citrinella</i>	Y					2	Red, UK BAP
Snow Bunting	<i>Plectrophenax nivalis</i>	SB	4					Amber
Lapland Bunting	<i>Calcarius lapponicus</i>	LA		1				Amber
Reed Bunting	<i>Emberiza schoeniclus</i>	RB	3				4	Amber, UK BAP

Breeding species accounts 2012

See plan 1 for winter walkover map.

See plan 2 winter distribution maps.

Cormorant (*Phalacrocorax carbo*): noted on a single visit; inland water / sea; low site value: a single bird flew over the site seaward.

Mallard (*Anas platyhychos*): noted on one visit; wetland: low site value; a group of six circled the site then out to sea.

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.

Snipe (*Gallinago gallinago*): noted on one visit; wetland / upland; moderate site value; a single bird lifted from a damp patch in the large cut field close to the car park north.

Curlew (*Numenius arquata*): noted on two occasions; wetland / farmland / upland; moderate site value; groups of seven during February and fifteen in March are good numbers considering the number of people who utilise the site.

Redshank (*Tringa totanus*): noted on one occasion; wetland / coastal / upland; low site value; a single bird fed with curlew during the February visit.

Lapwing (*Vanellus vanellus*): noted on one occasion; wetland / coastal / farmland; low site value; a single was noted with the curlew during February.

Woodcock (*Scolopax rusticola*): noted on one occasion; wetland / woodland; moderate site value; a single bird lifted from Blue House Gill onto the large field south.

Oystercatcher (*Haematopus ostralegus*): noted on two occasions; wetland / coastal / farmland; low site value; a single bird with curlew during the February and March visits.

Pheasant (*Phasianus colchicus*): noted on two occasions; moderate site value; farmland / woodland; a single was noted during November with two during March.

Grey Partridge (*Perdix perdix*): noted on one occasion; farmland; moderate site value; a covey of seven birds was noted during November not seen subsequently throughout the survey but could certainly still be on site.

Barn Owl (*Tyto alba*): breeding close to the site; *grassland / farmland*; **(UKBAP, SCC)** high site value; two birds were noted in the nest box at the farm during March. They have been noted hunting the site during the evening over winter.

Wood Pigeon (*Columba palumbus*): noted on all visits flying over; *farmland / woodland*; moderate site value; small numbers were noted overflying the site and within the boundary woodland.

Green Woodpecker (*Picus viridis*): noted on two occasions; *woodland / farmland*; high site value; males were heard calling during February and March the mosaic of short and long sward grassland with copses is helping the species hold territory and possibly breed.

Skylark (*Alauda arvensis*): noted on three visits; *farmland / grassland / heathland*; **(UK BAP, SCC)** high site value; a single was noted during the November visit with good numbers back singing by February and March.

Meadow Pipit (*Anthus pratensis*): noted on all visits; *grassland / heathland / farmland*; high site value; very few noted during the survey with singles only during February and March.

Wren (*Trogladites trogladites*): noted on two occasions; *woodland / farmland*; moderate site value; typically noted foraging within the scrubby areas during November and December with two in March.

Dunnock (*Prunella modularis*): noted on two occasions; *farmland / woodland / urban*; moderate site value; good numbers noted around the scrub and woodland areas with a maximum of six noted during the February visit.

Robin (*Erithacus rubecula*): noted on both visits; *woodland / urban*; moderate site value; well recorded with a maximum of five noted during the February visit.

Song Thrush (*Turdus philomelos*): noted on one occasion; *woodland / farmland*; **(UKBAP, SCC)**; moderate site value; recorded on every visit except for December particularly noted within the woodland areas of the site.

Fieldfare (*Turdus pilaris*): noted on one occasion; woodland / grassland / farmland; moderate site value; five birds fed in the large fields during the January visit to the centre of the site.

Mistle Thrush (*Turdus visciforus*): noted on one occasion; woodland / grassland / farmland; moderate site value; three were noted feeding with the Fieldfare during the January visit.

Blackbird (*Turdus merula*): noted on four of the visits; *woodland / farmland / urban*; moderate site value; regularly noted on the site particularly within the scrub and woodland areas.

Long Tailed Tit (*Aegithalos caudatus*): noted on one occasion; *woodland / scrub*; moderate site value; only a single was noted during the November visit.

Great Tit (*Parus major*): noted on one occasion; *woodland*; low site value; good numbers were noted within the woodland and scrub areas of the site.

Coal Tit (*Parus ater*): noted on two occasions; woodland; moderate site value; a single bird was heard calling in the conifers on the access track and one further north in trees.

Blue Tit (*Cyanistes caeruleus*): noted on two occasions; woodland / urban; moderate site value; small numbers noted at the beginning and end of the survey period.

Magpie (*Pica pica*): noted on four of the five visits; *woodland / urban*; moderate site value; a regular species across the site with birds noted in every month except for January.

Jackdaw (*Corvus monedula*): noted on three occasions flying over the site; *urban / woodland / quarries and cliffs*; moderate site value; a regular bird seen flying over and feeding on site.

Carrion Crow (*Corvus corone*): noted on all visits flying and foraging over the site; *woodland / farmland*; moderate site value; regularly noted across the site with up to five pairs within the area.

Starling (*Sturnus vulgaris*): noted on four occasions; *urban / woodland*; (**UKBAP, SCC**); moderate site value; noted during the first four visits with a good group of ninety birds feeding in the fields during the January visit.

Goldcrest (*Regulus regulus*): noted on one occasion; *woodland*; moderate site value; a single bird was heard calling in the conifers close to the old railway walk.

Linnet (*Carduelis cannabina*): noted on one occasion; *coastal / farmland / heathland* (**UKBAP, SCC**); high site value; a group of four birds were noted during the November visit.

Bullfinch (*Pyrrhulla pyrrhulla*): noted on three occasions; *woodland / scrub*; (**UKBAP, SCC**); moderate site value; good numbers were noted on the eastern edge scrub and woodland. Three pairs were noted here during the February visit.

Chaffinch (*Fringilla coelebs*): noted on three occasions; *woodland / farmland / urban*; moderate site value; birds were noted within the conifer woodland and scrub areas next to the old railway walk.

Greenfinch (*Carduelis chloris*): noted on one occasion; *woodland / scrub*; moderate site value; three birds were noted during the November visit.

Goldfinch (*Carduelis carduelis*): noted on three occasions; *scrub / farmland*; moderate site value; a good charm of thirty birds were noted during the December visit after this date birds were in low numbers.

Yellowhammer (*Emberiza citronella*): noted on one occasion; *farmland / heathland*; moderate site value; (**UKBAP**); only two birds were noted during the March visit.

Snow Bunting (*Plectrophenax nivalis*): noted on one visit; *montane / coastal*; moderate site value; a small flock of four birds were noted during the November visit but soon left the site.

Lapland Bunting (*Calcarius lapponicus*): noted on one occasion; *montane / coastal*; low site value; a single bird was noted on the cliff path during the December visit.

Reed Bunting (*Emberiza schoeniclus*): noted on two occasions; *wetland / farmland*; moderate site value; **(UKBAP, SCC)**; a small number of birds were noted during the early and late months.

5.0 Discussion

Durham County Council - Countryside Service was contracted by the Limestone Landscape Project to undertake a wintering bird survey at Blackhall Rocks.

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 which proved frustratingly difficult due to prolonged cold and snow conditions. See table 2 above.

Blackhall Rocks is now an important grassland habitat supporting a diverse community of birds across the site. The winter survey programme proved to show a higher avian diversity compared to the breeding season surveys. This is due to the site holding a specialised grassland breeding community of birds. Of particular note was the improved availability of habitat for wader species through having cut grassland with a short damp sward which allowed small numbers to forage and rest. Snipe, Woodcock, Curlew, Lapwing, Redshank and Oystercatcher were noted in the latter months, and most were noted together feeding in these areas. Starlings were very evident feeding within the short cut grassland fields with a sighting of seven Grey Partridge. The Bunting family was well represented in very small numbers, and

although no winter stubble now remains, the site did attract two scarce species - Lapland and Snow Bunting both staying only for short periods before moving on.

There is a good breeding population of Reed Bunting across the site, which unsurprisingly leads to the small numbers that were noted over the winter. Other species noted over the grassland were Kestrel, Pheasant and Skylark returning to their territories by February and March.

It was obvious that the majority of the species noted were found on the fringes of the grassland areas within the scrub and wooded boundary. In particular, Bullfinch, Yellowhammer, Goldfinch, Chaffinch, Blackbird, Song Thrush, Dunnock, Robin, Wren and Great Tit were constantly observed in good numbers, this is very typical of the resident populations holding onto loose territories over the winter period.

Overflying the site but not mapped were large numbers of Gulls. Although none were noted feeding on the site, presumably offering little value to them, it was quite evident that there was good regular passage especially in storm conditions out to sea. Large groups of Herring Gulls were noted with smaller numbers of Black Headed Gulls and the occasional Common Gull crossing the site.

As winter is very much a transient period for many species especially Skylark and Meadow Pipit (these having the highest breeding numbers), this survey has shown however, that a diverse community of birds were in fact found. The majority of these birds are residents which will move into breeding territories across the site when suitable.

It was mentioned within the breeding season report, a discussion that considered that the conversion from arable to grassland has probably benefited many bird species. This is particularly true when considering the effect of pesticide removal within an intensive farming unit. However, prior to the Turning the Tide Project, large flocks of farmland birds were noted across the area when stubble was available after crops were taken in late summer.

It may be beneficial to look at installing one or two winter bird food strips, as this would assist a wide range of species with survival over the difficult winter period and bolster the breeding population. This is a highly successful method used across HLS schemes nationally, and locally a number of inland farms who have utilised this

system, attracted many visitors (both avian and human), to the sites and perhaps due to this very visual and obvious increase in bird numbers and species, a corresponding increase in visitors wanting to assist with voluntary work was experienced.

Although this has only been a single winter survey, the results have shown that the site has a rich avifauna, however it would be difficult to draw solid ecological conclusions because a single survey omits long term changeable weather patterns. The relatively short time limit does not account for changes in population dynamics. A good mild winter with a warm settled summer would see different results again, such as an increase in fledging success and survival to the winter. It can be confidently said that breeding habitat has very much improved with a more diverse range of habitats being managed, which in turn will support a wider range of wintering birds.

Blackhall Rocks is certainly a very important site. Very few areas in the lowland parts of the County have large open managed grasslands which are ideal for high densities of species such as Skylark and Meadow Pipit. It is also likely that the pair of Barn owls that breed close by are supplying much of the coastal grassland and inland sites with young birds forming new territories.. Ecological constraints on avifauna as with any area will see changes but good grassland management with the possibility of a winter food project should continue to see Blackhall nature reserve holding a high stable bird community and continue to be a prime wintering site.

John Olley – Countryside Ranger

Appendix 1

Winter distribution maps.

See separate maps for:

November 12

December 12

January 13

February 13

March 13









