



BTO Research Report No. 119

**Ornithological Survey of
Application Site for
Proposed Rock
Characterisation Facility**

by

J Callion

**Report by the British Trust for Ornithology
to RPS Cairns, on behalf of Nirex**

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The British Trust for Ornithology, The National Centre for Ornithology, The Nunnery,
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CONTENTS

LIST OF FIGURES	1
EXECUTIVE SUMMARY	2
GENERAL INTRODUCTION	3
1. METHODS	4
2. RESULTS	5
3. DISCUSSION AND CONCLUSIONS	6
RECOMMENDATIONS	7
REFERENCES	8
FIGURES	9
APPENDIX I	11

LIST OF FIGURES

FIGURE 1 Map of study site, showing areas already under
construction 9

FIGURE 2 Map of study site showing habitat types 10

EXECUTIVE SUMMARY

This document reports the findings of a two-day ornithological survey of the proposed Rock Characterisation Facility (RCF) at Longlands Farm, Gosforth, Cumbria.

The survey was carried out on the 10th and 11th July 1993 and so was late in the year for a breeding season survey. Additionally, it was found that construction work was already underway on the site. These factors may well have modified the findings of the survey.

No bird species of national or international importance, nor listed on Schedule 1 of the Wildlife & Countryside Act or Annex 1 of the EC Directive on the conservation of wild birds 79/409/EEC were recorded during the survey.

The site was generally considered to be moderate to poor in a local, Cumbrian context. The inter-connecting system of hedgerows and woodland was identified as offering the best habitat for birds on the site.

It is considered that the surface construction work on the site is unlikely to have any serious impact on the avifauna breeding or summering there. It is envisaged that there will be similarly little impact on wintering birds.

GENERAL INTRODUCTION

The British Trust for Ornithology was commissioned to carry out this ornithological survey by RPS Cairns, on behalf of Nirex. Two days were assigned to the survey which was undertaken on 10th and 11th July 1993 on the designated area, comprising Longlands Farm, Gosforth, Cumbria and much of the land surrounding the farm (Figure 1). The brief was for a 'skilled eye' survey plus incorporation of any existing base data to prepare a list of resident and breeding birds. In particular, this work was intended to locate any rare or specially protected species, or provide evidence of their presence.

1. METHODS

The study area is highlighted on Figure 1, with habitat features shown on Figure 2.

The lateness of the commission in relation to the breeding season deemed it unlikely that all species present would be either visible or audible, thus increasing the possibility that some individuals would be undetectable. As a result, it was not possible to establish proof of breeding for all species recorded. For most species breeding was complete, whilst others, *i.e.* those that are double-brooded, were in the latter stages of their second brood.

On arrival at the site, at approximately 0630, it was obvious that construction work was well underway and had been for some considerable time, possibly weeks. Earthmovers were active on my arrival, and continued throughout the survey period. Several hedgerows had been uprooted and piled in heaps awaiting disposal. Approximately twelve large construction vehicles were on site, either working or parked. Temporary hard-core roads were laid on the southern perimeter and through the site stretching to the A595 (T). Much of the road was bounded by a 2 metre high fence either erect or laid out on the ground awaiting erection. To the west of the survey area, a large compounded area was already built and found to be human proof. Spoil had been deposited over a large proportion of enclosed land by earth-moving machinery (Figure 1).

Most of the area consisted of improved permanent pasture or land under construction. Neither of these habitats had many bird species associated with them. Additionally, there were the remaining hedgerows, several narrow strips of woodland and two cereal enclosures. For the purpose of the survey, most effort was concentrated on the woodland and hedgerow systems and Longlands Farm which was of interest for some additional species.

Visits were made in early mornings and evening, recognised as the peak time for bird activity. As well as the access restrictions due to the construction compound, a loose Alsatian in the woodland to the west of the survey area may have prevented collection of a minimal amount of data.

2. RESULTS

A complete, systematic list of species, recorded during the survey, is appended (Appendix 1).

There were no surprises, every species encountered might have been expected for what was, in general, a fairly poor area ornithologically. The predominance of permanent pasture contributed to an impoverished habitat. Longlands Farm and its environs revealed breeding Swallow, House Martin, House Sparrow, Pied Wagtail, Spotted Flycatcher, Blackbird, Song Thrush and Dunnock; all typical farmstead species, with the exception of House Martin. As thorough a search as possible of the farm and its outbuildings failed to find any evidence of Barn Owls, either recent or historic. The farm had potential nest sites for Barn Owls but the surrounding farmland, with its poor habitat, would be most unlikely to sustain breeding birds.

The woodland, especially the long strip towards the centre of the survey area, held a wide variety of native tree species including Oak, Beech, Scots Pine and Rowan with Willow and Alder in the damper northern portion together with Bramble and the introduced, non-indigenous Rhododendron, which combined to diversify sections of the under-storey. Consequently, this habitat provided the richest section for birds, both numerically and in terms of species richness. Birds recorded here were Wren, Dunnock, Robin, Blackbird, Song Thrush, Blackcap, Chiffchaff, Willow Warbler, Goldcrest, Spotted Flycatcher, Long-tailed tit, Coal tit, Blue tit, Great tit, Chaffinch, Goldfinch and Bullfinch.

The more mature, extensive woodland at the western fringe, though potentially richer, especially earlier in the season, added only one extra species, Great Spotted Woodpecker. At this time of the year the closed canopy inhibits most passerines.

It was abundantly clear that the rich network of hedgerows radiating from the centre strip of woodland provided the routes for most of the birds found there. At all times family parties, small groups or individuals could be observed exploiting this food source and relatively predator safe haven. The hedgerows appeared to be well established with no evidence of 'management', reaching heights of approximately 5 metres with further diversification of plant species including Crab Apple, Gorse, Hawthorn, Holly and several species of Willow. In the nesting season, the hedgerows would provide nest sites for finches and thrushes but not for low or ground nesters, due to heavy grazing and the open basal structure developed in the absence of hedgerow management. This mixed habitat supplies a valuable food source at a critical time, *i.e.* when bird populations are at their peak post breeding. Locally the site is not recognised as being significant ornithologically and the observations gained during the two-day survey might suggest that there are more birds using the habitat after nesting than actually breed there. Certainly, the nesting habitat available couldn't be responsible for the number of birds located. It is likely that there had been some immigration from other breeding areas nearby.

3. DISCUSSION AND CONCLUSIONS

The survey area is fairly typical of this part of Cumbria, situated on the coastal strip between the Irish Sea and the higher ground of the Lakeland Mountains, and appears to have followed the recent trend away from rotational farming towards improved pasture. Ornithologically it holds no more than much of the immediately surrounding habitat, and possibly considerably less than some local areas. No species of national or international importance, nor species listed on Schedule I of the Wildlife & Countryside Act 1981 (plus 1985 amendment) or on Annex 1 of the EC Directive on the conservation of wild birds 79/409/EEC were found on the site during this survey. None of the species recorded was present in unusually large numbers. The centre strip of woodland plus another smaller, enclosed wood, south of Longlands Farm, and the hedgerow networks held over 90% of all birds seen. The grazed fields were totally void of avian activity. Only the soil spoil attracted other species and they would only be transient while the food source was available in freshly turned earth. The farm attracted a range of species generally associated with this habitat.

On the whole, the bird community was reasonably typical of the area and would best be described as moderate to poor. Consequently, the proposed development of the site would be unlikely to have a significant impact either locally or nationally on those bird species present in the breeding season. In the absence of winter survey work, it is not possible to state conclusively whether any conservationally important species are present at that time. However, it is considered to be unlikely that this area is of ornithological importance in winter. In terms of carrying out an effective survey of the site, allowing for constraints imposed by the late stage of the breeding season, it was far from satisfactory that the ornithological survey was commissioned after work had commenced on the area. This has implications for the results of the survey because of the potential disturbance and interference effects arising from the construction work.

RECOMMENDATIONS

Retention of the centre strip of woodland could be recommended, but without the associated systems of hedgerows, it would be isolated and it would therefore reduce its value for birds. Nevertheless, there is scope for sympathetic restoration and habitat creation to produce a more diverse habitat on the site which should be considered.

REFERENCES

Cumbria Bird Report 1972 - 1992, various editors

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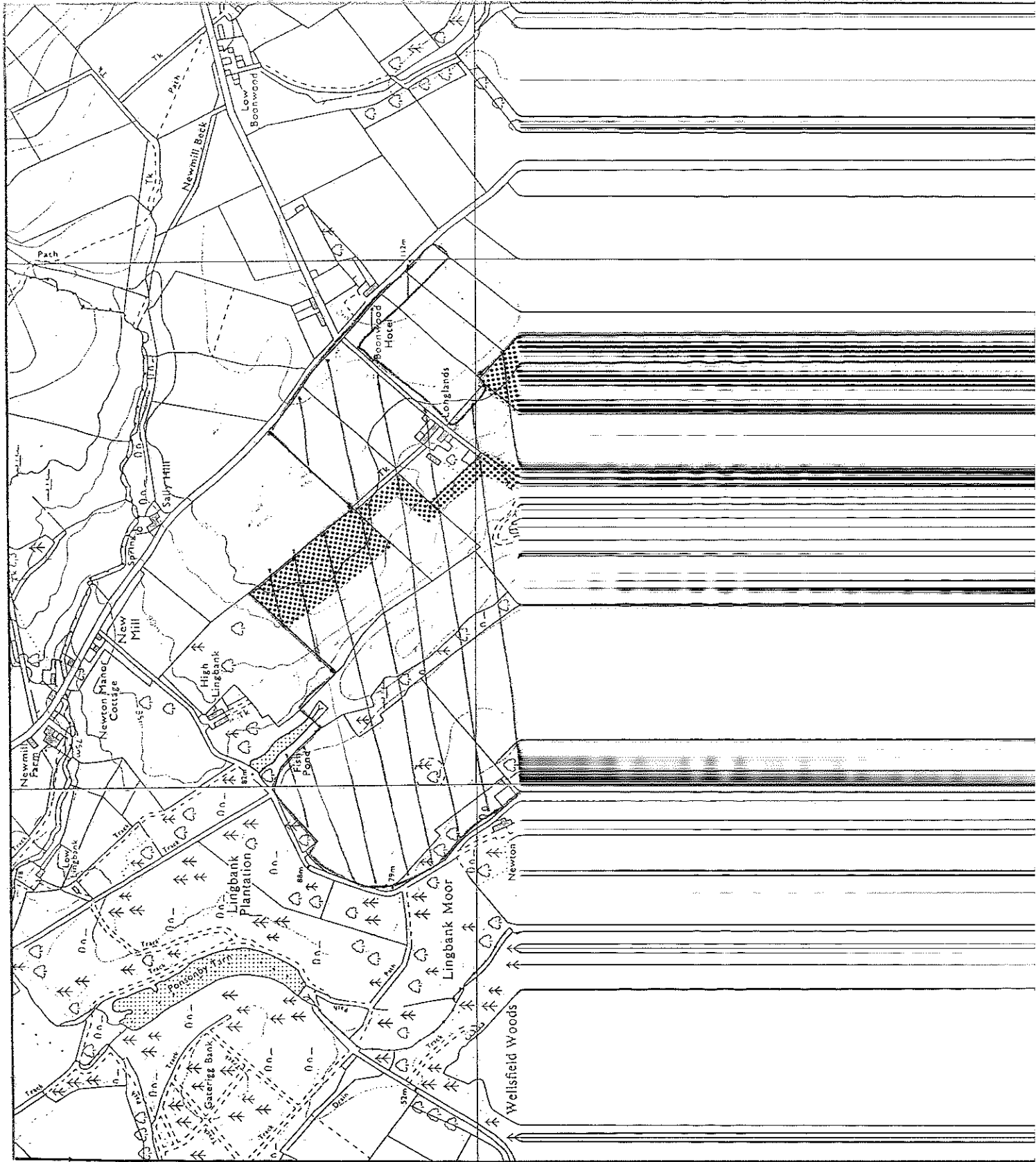


Figure 1 Map of study site showing area



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CONTENTS

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APPENDIX 1

Systematic list of species recorded during survey:-

- SPARROWHAWK *Accipiter nisus*
Seen only once, unlikely to nest locally/on the study area.
- KESTREL *Falco tinnunculus*
Seen only once, little prey habitat on site. Not likely to be nesting on survey area.
- PHEASANT *Phasianus colchicus*
Several individuals encountered. Woodland nester; likely to be no more than a handful of pairs present.
- OYSTERCATCHER *Haematopus ostralegus*
Several birds feeding on areas of newly turned soil. Generally this species would not be found in small enclosures bounded by high hedges. But, occasionally, they feed on pasture or arable fields.
- LESSER BLACK-BACKED GULL *Larus fuscus*
About fifty feeding on soil spoil, following earth movers.
- HERRING GULL *Larus argentatus*
Up to seventy birds feeding on soil spoil.
- STOCK DOVE *Columba oenas*
One individual; possibly nesting.
- WOODPIGEON *Columba palumbus*
Between seventy and eighty birds, some in small flocks; probability of several nesting pairs.
- GREAT SPOTTED WOODPECKER *Dendrocopus major*
Likely to nest in main woodland on site boundary.
- SWALLOW *Hirundo rustica*
One or two pairs nesting in farm outbuildings, also several juveniles present.
- HOUSE MARTIN *Delichon urbica*
One pair nesting on farmhouse.
- MEADOW PIPIT *Anthus pratensis*
Small flock at southwest boundary; site contains no suitable breeding habitat.
- PIED WAGTAIL *Motacilla alba*
One pair feeding nestlings in farm outbuilding, other individuals by cattle drinking trough.
- WREN *Troglodytes troglodytes*
Into teens of individuals using hedgerows and woodland. Several breeding pairs.

- DUNNOCK *Prunella modularis*
Two or three pairs.
- ROBIN *Erithacus rubecula*
Found in every suitable section of habitat.
- BLACKBIRD *Turdus merula*
Two pairs with fledged young near farm, a few individuals elsewhere.
- SONG THRUSH *Turdus philomelos*
One pair with fledged young near farm, another in centre strip, individuals using hedgerow.
- BLACKCAP *Sylvia atricapilla*
One pair nesting in bramble in centre strip.
- CHIFFCHAFF *Phylloscopus collybita*
A singing male in woodland fringe and another bird with mixed species of tits in centre strip woodland.
- WILLOW WARBLER *Phylloscopus trochilus*
Several pairs including some with fledged young; probably ten pairs nesting.
- GOLDCREST *Regulus regulus*
Single bird with Coal Tits, unlikely to be nesting.
- SPOTTED FLYCATCHER *Muscicapa striata*
One pair with fledged young in farm orchard, another pair feeding unfledged young in roots of fallen tree in centre strip woodland.
- LONG-TAILED TIT *Aegithalos caudatus*
A large flock of about twenty birds in canopy of willows in centre strip woodland. Likely to be two family parties; probably bred on site.
- COAL TIT *Parus ater*
Several individuals with other tits.
- BLUE TIT *Parus caeruleus*
Probably ten family groups throughout hedgerow system, lesser numbers elsewhere.
- GREAT TIT *Parus major*
Three or four family parties, plus other older juveniles in mixed tit flock.
- MAGPIE *Pica pica*
One individual seen.
- ROOK *Corvus frugilegus*
Up to thirty birds feeding on soil spoil; no evidence of rookery on survey area.

CARRION CROW

Corvus corone

Several individuals ranging throughout; four or five pairs probably nest.

HOUSE SPARROW

Passer domesticus

Small colony at farmstead; post breeding flock of c 60 using cattle shed.

CHAFFINCH

Fringilla coelebs

Most widespread species using all suitable habitats. Possibly as many as forty nesting pairs.

GOLDFINCH

Carduelis carduelis

One pair nesting in small conifers at edge of centre strip woodland.

BULLFINCH

Pyrrhula pyrrhula

One pair with fledged young in Rhododendrons in centre strip woodland.