

**Threestoneburn Plantation
Wooler, Northumberland**

Breeding Bird Survey 2007

Prepared
for
Scottish Woodlands Ltd

by
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1 Introduction;

1.1 The Site

This former 700Ha Forestry Commission plantation lies in a broad upland basin within the eastern flank of Cheviot Hills. The site is situated at an elevation of between 300m and 714m above sea level with the majority of its aspect being north easterly on steeply sloping ground. Hedgehope Hill at 714m, the second highest hill in the Cheviot range, is located at the site's south western corner. Its high southern boundary is completed by Dunmoor Hill (569m) and Cunyan Crag (473m).

Small scale planting commenced in 1967 with the majority of the planting done in between 1971-75 followed later by peripheral planting between 1979 and 1982. The bulk of the trees planted were of Sitka Spruce with small pure and mixed stands of largely Lodgepole Pine and Japanese Larch, the latter often being planted in 15m wide edges to the Sitka blocks adjacent to rides in the central area of the site.

Extensive open areas exist within the site amounting to approximately 100Ha. These are largely confined to the high ground on the southern boundary and are of wet and dry heath communities with a small amount of blanket bog. Other smaller areas exist in the form of the river corridor of the Threestone Burn, the rides and road verges and the in-bye grazing land adjacent to Threestoneburn House. Several 1-2 Ha blocks were cleared of trees in 2002 for conservation purposes.

Three ponds and several wetland habitats have also been created on site since the planting was concluded.

Small scale planting of deciduous trees within the main river corridor was carried out in 2003.

2 Project Brief and Method

2.1 Project Brief.

To undertake a survey of the visiting and breeding birds within the site boundaries.

To assess the potential re-colonisation of other moor land species once felling is completed.

2.2 Method.

Due to the nature of the dense, predominantly Sitka spruce woodland structure, standard woodland survey techniques were adapted to assess the species present on the site.

Most rides and roads were walked over 7 days (17 April, 4, 9, 14, 22, 23 May, 13 June.) and all species seen and heard using these open areas and the adjoining trees were noted on 1:10000 scale maps.

In the open larch and pine areas surveyed, regular point counts were used in assessing occupation.

Large open areas were walked along a 200 metre interval transect line that fully traversed each area. Where the external boundaries of the site were being surveyed, birds out with the site on adjacent moor land were also noted.

Their potential breeding status was also assessed by noting territorial behaviour, nests, fledged young etc.

3 Results

3.1 Site Survey Map

A map is appended detailing the locations of specially protected species (Schedule 1 of the Wildlife and Countryside Act 1981 as amended) and Red Listed species (Birds of High Conservation Concern).

3.1.1 Schedule 1 species

Goshawk. One breeding pair present.

This species have successfully bred on site between 1999 and 2005 (personal observation). The nest was not located in 2006 but birds were present. The site is occupied this season (2007) but at the time of writing the breeding outcome is unknown. Formerly unknown old nests have been found during this survey within 1 km of the usual nest location, indicating that breeding was probably attempted prior to 1999.

Common crossbill. 6 family parties, 4 individuals, totalling 21 birds seen.

This species is often a very early nester coinciding with cone abundance.

The survey revealed newly fledged young which would indicate probable breeding on site given the isolation of the coniferous habitat locally. Most birds were seen in the north east corner of the site but this does not necessarily indicate the proximity of breeding locations due to the mobility of groups.

Hen harrier. One non breeder

An immature male bird was near Dunmoor Hill.

Peregrine. One non breeder

An immature bird flew south across the site.

Merlin. One adult male, possible breeder.

An adult male was seen near Hedgehope Hill attacking a cuckoo and then flew north across the site. No territory holding birds have been found this year. The site has held at least one breeding pair each year during 1980's to the late 1990's but none latterly (personal observation). Nest sites have been in old crows nests located on the eastern edge of the site as well as on ride edges at the base of Hedgehope Hill.

Barn owl. One bird found dead.

An individual roosted in the plantation edge for some time near the southeast corner before being predated by a bird of prey.

3.1.2 Red listed Species

Song thrush. At least 26 individual birds were seen or heard.

The lower northern section of the plantation contained the greatest concentration of territorial birds. Birds throughout the remainder of the site were widely spread right up to the highest levels but were always associated with open areas or wide rides.

Reed bunting. One male bird

This was seen outside the site in an area of rank rushes *Juncas sp.* at a high level of 470m.

Grey partridge. One pair.

These were seen 300m east of the site in a grass/heather mosaic.

Black grouse.

Although none were seen during the survey, one has been regularly seen by the beat keeper this year within 2 km of the site. Historically the site has held small numbers in the 1970's and individuals up to the late 1990's (personal observation). A former lec site is located 300m northwest of Threestoneburn House in the in-by field.

Skylark One singing bird heard.

A bird of open grazed grassland. This one was seen in typical habitat near Cunyan Crag.

Bullfinch. One female seen.

A bird of varied woodland but invariably found in the county in upland plantations with some broad leaved trees and heather present. It was seen by the main pond and nearby tree planting.

3.1.3 Other Birds of Prey species.

Buzzard. Six individual sightings over several days. It is thought that at least two nesting territories are within the plantation. Nesting was indicated by alarm calling birds from the edge of the clearing near Kitty's Crag in the southeast and similar behaviour from a bird in the mixed woodland block on the northern boundary.

Sparrowhawk. Three were seen. At least two territories exist within the site. A food carrying bird was seen in the southeast corner and a nest with 5 large young was found in mixed conifers on the northern boundary.

Kestrel. One was seen within 200m of the eastern boundary.

Historically kestrels bred in nest boxes provided for them near Threestoneburn House but have not done so for at least 8 years (personal observation).

Shorteared owl. One was seen carrying food adjacent to the eastern boundary, indicating a breeding attempt. Historically this species has bred within 1km of the plantation in at least 3 other locations within the last 12 years (personal observation).

Longeared owl. A feather from this species was found on the northern boundary. No birds were seen or heard. The survey dates were not conducive to locating this allusive species, but it is known to use the edges of large upland plantations to breed, so it must be assumed to be a resident breeder on the site.

Tawney owl. Moulded feathers were found in mixed conifers on the northern boundary. It has to be assumed that small numbers breed on the site despite the lack of suitable tree holes.

3.1.4. Other Species.

23 additional species were recorded on the site and are listed below.

Grey heron. One flew over the site .Not breeding.

Mallard. Two males were together on the burn indicating breeding nearby.

Red grouse. Seven birds were seen on the high open southern edge of the site between Dunmoor and Hedgehope Hills.

Pheasant. Two pairs were seen during the survey. One pair had at least 6 chicks.

Golden plover. One was heard calling on the flank of Hedgehope and possibly breeding.

Woodcock. Two roding birds were located near the ponds and in the southeast corner.

The predated remains of at least 4 individuals were found on open rides in the plantation.

Snipe. At least 3 were heard calling in alarm outside the site but within 300m of the eastern boundary.

Woodpigeon. An extremely common breeding/roosting species on the site Over 70 per hour were seen to be flying into the site around midday on one survey date. The mobility of the species and their use of the inaccessible central areas of compartments meant that only a fraction was able to be recorded. Individuals seen or heard amounted to 350 but this must be regarded as a gross underestimation of the population.

Cuckoo. A pair were seen in courtship on the northern slope of Hedgehope Hill.

Tree pipit. Two were seen near the maturing trees around Threestoneburn House.

Meadow pipit. 21 individuals were seen, all on the open ground near the southern boundary. Two nests with eggs were found.

Wren. 23 alarming birds were seen and heard during the survey. An adaptable nesting species with most associated with the thick conifer edge with rides adjacent but with others in the large open areas in tall heather.

Dipper. No birds were seen during the survey. Between 1970 and 2000, birds nested annually under the bridge near the ponds but have not done so for approximately 6 years (personal observation).

Duncock. One bird seen.

Robin. This bird is a common breeder with at least 29 seen and heard along ride edges.

Redstart. An adult male was seen hawking insects from the northern boundary. This is an early season record of a migrating individual.

Mistle thrush. Two birds were seen at different widely spaced locations carrying food indicating breeding.

Willow Warbler. 19 individuals were counted. They were mainly to be found in areas of undeveloped Lodgepole Pine.

Goldcrest. Only 2 heard in the mixed conifers on the northern edge of the site.

Coal tit. 3 were seen in the same location as above.

Carrion crow. One adult was seen flying over the site.

Chaffinch. A universally distributed common breeder along conifer edges. 106 were seen and heard.

Goldfinch. 2 were present by the main pond and possibly breeding.

Siskin. A conifer habitat breeding species that numbered 15 in total during the survey. Both males and females were seen to be involved in courtship display.

4. Evaluation of Ornithological Interest.

4.1 Introduction

Threestoneburn Plantation is a 25-35 year old stand of conifers and has to date provided a succession of habitats during its varied growth and development. This has in turn provided opportunities for a succession of bird communities. The present colonists represent a phase in the shifting fortunes of individual species with some having only recently arrived (eg. goshawk, sparrowhawk, buzzard, woodcock, and crossbill) whereas others have retreated (eg black grouse, red grouse, golden plover, curlew and skylark)

4.2 Schedule 1 species

The plantation itself currently holds Schedule 1 *breeding* species. The species involved are goshawk and common crossbill. They are both specially protected during the

breeding season which therefore carries a greater management responsibility particularly in avoiding disturbance during the breeding cycle. Both of these woodland specialists will be negatively affected by the proposed felling. However, the single goshawk pair would relocate as they have apparently suitable unoccupied breeding habitat within 10km of the site (personal observation). The crossbills being a very mobile species and who respond to the cone productivity in individual woods could utilise the numerous plantations in the surrounding area. It is highly unlikely that the sites ranking in terms of numbers of birds, is of a national or international significance.

4.3 Red listed species

The site holds 2 red listed *breeding* species, the song thrush and bullfinch. The felling of the trees will only significantly affect the former, given the numbers encountered in this survey. Some mitigation will come with any proposed replacement planting on site and elsewhere.

4.4 Amber listed and other species.

Clearly the probable small numbers of woodland breeding species like sparrowhawk, buzzard, longeared owl, siskin, coal tit and goldcrest etc will be displaced to other adjacent conifer woods and will be negatively affected by the proposed felling. However some species like chaffinch, willow warbler and robin will find some territories in the developing hardwood planting schemes in the river corridors. dunnock willow warbler and goldcrest are the only species with an amber listing.

4.5 Open moorland species.

The open country species encountered on the survey will be largely unaffected by the proposed felling as much of the ground concerned is on the periphery on the site and on steep and inaccessible ground for forestry machinery. The species involved include red grouse, meadow pipit and skylark, all of which will greatly benefit from an expansion in available habitat under the proposals.

4.6 Potential re-colonisation of the site following felling.

4.6.1 Introduction

Prior to the acquisition of the farm by the Forest Authority in the mid 1960's the farm was treeless save for a few specimen trees near the farmhouse. Clearly, from local knowledge and the vegetation that remains unplanted, the farm had a mosaic of diverse moorland habitats including blanket bog, wet and dry heath, acidic and neutral grassland with springs, flushes and burns and some rocky outcrops. It is not improbable to suggest that many of these habitats will reappear in modified form for birds to utilise, as has been the case in nearby smaller scale reversion of plantation to moorland.

4.6.2 Potential colonists .

Whilst not part of this survey, certain species were noted on the open moorland adjacent to the site. This would suggest the potential for re-colonisation by them as breeding species, given the recreation of the correct habitat requirements for each species. These include the following amber listed birds; merlin, kestrel, shorteared owl, curlew, snipe, lapwing, red grouse, stonechat and meadow pipit.

In particular the following red listed species would have much to gain; hen harrier, black grouse, grey partridge, skylark, ring ousel and reed bunting.

The use of the area as a feeding area in summer for non breeders should be considered.

Bird species noted in adjoining areas in the past include peregrine, swallow, house martin, swift, starling, linnet and mistle thrush.

Winter and migrant use of the area could involve the following species that have been recorded in adjoining areas to the site by myself and others over the last 25 years; occasional golden eagle, peregrine, shorteared owl, woodcock, northern subspecies of golden plover, redwing, fieldfare and snow bunting.

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