ACHA-BHEINN, KILMARTIN: PROPOSED WOODLAND CREATION

UPLAND BIRD SURVEYS

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A report to:
SCOTTISH WOODLANDS Ltd

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1 INTRODUCTION AND METHODS

This report presents the results of upland bird surveys by Lawrence Environmental Consultants in relation to the woodland proposal at Acha-bheinn, Kilmartin, Argyll (grid reference NR 850 980). This included a three visit moorland bird survey and a small sample of three vantage point watches. The main aim is to provide a baseline audit of summer breeding birds for the landowner and agent and to advise on the SRDP proposals under the remit of FCS. This report is not an impact assessment.

Surveys were undertaken during the near-dawn periods on the March 25th & May 18th, with a 07:00 morning start on the 25th June (N F0-1 10% -2°C 0% cloud; W F1-2 20% cloud 10°C & WF3 100% cloud 10°C respectively). The methodology of Brown & Shepherd (1993) was followed with amendments that included a third survey visit in the summer season and two near dawn start times to increase the detection of songbirds. The bird survey area encompassed a buffer of c. 100-150 m beyond the boundary marked in Figure 1 to cover c. 370 ha. There have been similar bird surveys around this location in 2010 & 2014/15 (Lawrence 2010; Haworth Conservation 2014/15). There are records of black grouse leks on or around this site (RSPB, Lawrence 2010 & John Halliday pers. comm.). The first dawn visit of the 2017 surveys was also designed to confirm lek locations but there were no second surveys in April/early May.

There were no significant disturbance effects concurrent with the surveys and no other site-specific shortcomings of the surveys. The generic short-comings relate to timings for some waders (Hoodless et. al. 2006) and a single year sample which might over or under-represent migrants. The moorland bird survey technique is not designed to provide accurate or complete verification of the locations of raptor nest sites or territories. Nocturnal species such as owls & nightjar are not covered. The interpretation of bird registrations over three site visits enables the identification of probable nest territories for most species with a moderate degree of confidence. However, repeat breeding attempts over successive survey visits in different locations by species such as willow warbler and whitethroat may over estimate the number of territories.

Due to golden eagle breeding activity in the wider area (FSC) a small sample of three vantage point watches (each of three hour duration) were undertaken from the same location as used by Howarth Conservation in 2014/15 (Figure 1). These took place on 16th May, 7th & 26th June 2017 under bright, dry conditions with wind

speeds sufficient for large raptors to be active. The limitation of these surveys relates to a small nine hour combined sample of watches within the summer nesting season of golden eagles (statistically a sample of 36h is more representative: Douglas et. al. 2012). The target species were golden eagle, hen harrier and short-eared owl.

The setting of the survey area is low altitude moorland (at 130m- 230m a.s.l) surrounded by recently established mixed/conifer woodlands at Barmolloch to the east and mature conifer plantations along the south western edge. There is one sector of sheep grazed hill ground to the north, but otherwise the sheep stock have been removed for about a decade. The habitats include a mosaic of rough grassland, low & moderate density bracken cover, species-rich rush & sedge flushes & springs[1] and small patches of calcareous and neutral grasslands. There are patches of blanket mire in various basin areas, dry and wet heath on steeper slopes and scattered native scrub and trees along small ridges (Black 2017). A small number of cattle and ponies were present and other grazing animals include red deer in groups of c. 30, with roe deer.

2 RESULTS

BLACK GROUSE

The late March survey showed an absence of a lek at one of the local population's previously known sites (NR 856 983) and a probable lone male calling south east of another previously know lek location at NR 854 974. The absence of lek display activity at the former location is likely to have been the presence of the golden eagle at only 400m that dawn. Observations during the mid May vantage point watch showed four blackcock feeding above the former site and these were recorded lekking there in March April & May by John Halliday. There was an increase to between 6 and 8 attending a lek on Stroneskar Farm 1km north east the boundary of this proposal during March and April 2017 (John Halliday pers. comm.). Single cocks were lekking in the Barmolloch plantation 650m SE of Lochan Add and to the SW in April 2017 (John Halliday pers. comm.).

MOORLAND BIRDS 2017

The only wildfowl detected within the survey area were mallard on the burn above Kilmartin (Figure 1).

[1] The conservation-priority marsh fritillary butterfly (*Euphydryas aurina*) was recorded at NR 851 984.

The only contacts with waders within the survey area, were three snipe territories (Figure 1). One pair of lapwing established a nest site within the recently planted woodland areas of compartment 2 of Barmolloch 3.

The survey area and surrounding plantations supports a minimum of three to four buzzard territories: one with an active nest on the oak woodland above Lochan Add (Figure 1). There are likely to be a number of sparrowhawk territories in the woodlands and forestry around the application site and two were detected hunting over the survey area in 2017. Kestrel were recorded flying and hunting over the survey site and over the Barmolloch plantation to the south east.

There were two sightings of a female hen harrier hunting over the northern part of the survey area with a suspected nest territory on the north eastern periphery of the application area at c. 0.5km (Figure 1).

A juvenile (2nd summer) golden eagle was displaced from a roost after dawn (Figure 1 yellow circle symbol) and moved to perch on crags to the north west and onto Beinn Bhan.

There were no contacts with or signs of red grouse within the survey boundary despite the recovering heather cover.

The survey area supports a varied range of scrub/moorland songbirds at a relatively high density[2]. This included whinchat (c.31 prs)[3], stonechat (c.9 prs), wheatear (1pr), grasshopper warbler (2prs), whitethroat (21 territories), willow warbler (45 territories), tree pipit (6prs), reed bunting (1pr) and lesser redpoll (Figure 1). Species such as lesser redpoll and siskin were active in flight over the survey site and probably nested in the conifer plantation and native woodland habitats. Cuckoo were present (probably five or more territories) and meadow pipit occurred at a density of c. 27km^{-2} with skylark at c. 7km^{-2}.

The majority of these songbird species were associated with the mosaic of species-rich rush pasture, wet and dry heath, patches of native scrub, calcareous grasslands and slopes with lower density bracken (Figure 1 & Phase 1 habitat map of Black (2017)).

Both barn swallow and house martin foraged over the wet marshy pasture of the site along with occasional sand martins (Figure 1).

[2] Whinchat at 8.4km^{-2}; whitethroat at 6km^{-2} in 2017 – both at similar densities compared to the 2011 Raslie survey area (Kilmartin Glen): Lawrence (2011).
[3] RSPB birds of conservation concern 2015 red list are underlined.

Ubiquitous woodland songbirds occupied the adjacent plantation and woodland plots and included: jay, blackbird, song thrush, mistle thrush, robin, wren, great, blue and coal tits, siskin, dunnock, bullfinch and chaffinch. There was a great-spotted woodpecker territory that utilised the over-mature beech in the shelterbelt north east of Cnoc na h-Eilde.

Raven and hooded crows and were present during the surveys with c. three nests of the latter within the boundary.

HABITAT & FLIGHT ACTIVITY- VANTAGE POINT WATCHES 2017

There were no sightings of golden eagle during the nine hours of watches. This is likely to reflect the switch in eyrie choice by the local pair in 2017 to moorland 6km to the west. This nesting attempt is currently successful with one nestling (John Halliday pers. comm.). During the moorland bird survey in May one of the adult golden eagles was recorded in flight over the 2017 eyrie area 6km to the west. Activity by the local breeding female hen harrier was recorded during the June VP watches.

3 CONCLUSIONS

3.1 The breeding birds within the Acha-bheinn survey area represents an above average example of the farmland songbird community on such low-altitude, pastoral farm units in Mid Argyll. Locally it is part of similar community of open-habitat birds that occupy the terrain from Raslie to Carnassarie & Tibertich Farms (Lawrence 2011) and north to Stroneskar Farm in Kilmichael Glen.

3.2 The ornithological diversity includes a high proportion of UK songbird species of the highest conservation concern that occur within the mosaic of open-habitats (species-rich rush pasture and calcareous grassland). This rich songbird assemblage is supported by the invertebrate populations of the rush and grassland pastures combined with moderate to low density bracken cover. In turn, this habitat mosaic is based on the twin factors of (a) the underlying limestone ridges and soils with associated springs and (b) is maintained by the recent destocking of the area (residual cattle, ponies and a relatively large influx of red deer remain). The grass-dominated hill summits support a moderate density of skylark (also of conservation concern in the UK). The eastern half of the survey area supports part of a regionally significant black grouse population of c. 10-14 cocks. As such the bird community represents a relatively scarce feature both in Mid Argyll & wider in Natural Heritage Zone 14.

3.3 Coupled with the outcrops of base rich soils, the low intensity cattle and deer population and lack of management currently provides an optimal mosaic of habitats[4]. Both the diversity and density of these open-habitat songbirds represents an important prey resource for raptors in the local area (such as nesting hen harrier) and as a breeding resource for cuckoo.

3.4 The corvid and buzzard populations along with black grouse and woodpigeon in the surrounding plantations represent an avian prey resource for golden eagles (territory occupants and sub-adult individuals). The use of the area by a juvenile golden eagle correlates with sightings of a similar age bird in late winter 2016/17 over this moorland (John Halliday pers. comm.). One assumption is that this individual is utilising sub-adult range adjacent to its natal site (at one of the range centres 6km west). Based on the likely impacts on avian prey populations alone (and not based on a PAT model) the conversion of the survey area to forestry and native woodland with open spaces may result in a neutral to positive effect on breeding golden eagles.

3.5 Future maturation/expansion of forestry and/or native woodland is likely to increase the density of species such as tree pipit[5] and increase breeding sites for blackcap, lesser redpoll and willow warbler.

3.6 Over the medium term, there would be a reduction in whitethroat and whinchat territories as bracken cover and density increases and birch and willow scrub expands. The snipe, grasshopper warbler and reed bunting territories may remain viable if the rush pasture remains grazed by Roe deer (Figure 1). Meadow pipit, wheatear and the majority of skylark would be lost from the application area and the number of cuckoo territories would decline. The quality of the invertebrate rich-rush pasture is likely to decline for black grouse broods with the exclusion of cattle and red deer, but with possible compensation by the development of blaeberry on the ridges and recovering wet heath/mire. Even with buffer of 50-100m around lek sites these areas may become unattractive, but annual mowing may mitigate this[6].

3.7 The key effect of a woodland/forestry proposal at Acha-bheinn (with the inclusion of open space) would be a cumulative reduction in red-listed

[4] Which under a do-nothing scenario will move in succession to scrub and regenerating native woodland.
[5] On the assumption of open spaces grazed by deer in the medium/long term.
[6] The recent increase in attendance at the Stroneskar lek on sheepwalk and variable use of previous leks on Barmolloch suggests local displacement of this population.

conservation species at the local scale (Kilmartin Glen to Kilmichael Glen). For example on the assumption of 15-20% retention the combined loss of red-listed species from the Barmolloch, Raslie and Upper Largie proposals equates to 110 pairs. This proposal would result in an additional reduction of c.60 red-list pairs of bird. It may result in a neutral impact on the regionally important black grouse population, but with an element of uncertainty that this number of cocks would be supported long term. Similarly the long term presence of hen harrier may depend on the continued grazing on the neighbouring Stroneskar hill ground. The land use change to forestry/woodland at Acha-bheinn represents a relatively significant cumulative land use change in terms of the reduction of extensive livestock grazing and associated management to the remaining three farm units in the local area.

3.8 The do-nothing scenario (of no livestock and associated management, no deer control, nor conversion to forestry/woodland) would also lead to a reduction in the diversity and density of the red-listed songbirds over the medium term.

4

References

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Figure 1. The distribution of breeding birds at Acha-bheinn, Kilmartin in 2017. Indicative locations/territories shown.

Achadh-bheinn woodland proposal
Kilmartin, Argyll

Indicative locations: CONFIDENTIAL

MBS

- other species

Species

- Mallard
- Golden eagle
- Kestrel
- Sparrowhawk
- Buzzard
- Hen harrier
- Black grouse
- Snipe
- Woodpigeon
- Cuckoo
- Great-s-woodpecker
- House martin
- Barn swallow
- Wren
- Dunnock
- Great tit
- Coal tit
- Blue tit
- Tree pipit
- Meadow pipit
- Grey wagtail
- Pied wagtail
- Wheatear
- Stonechat
- Whinchat
- Robin
- Blackbird
- Songthrush
- Mistle thrush
- Grasshopper warbler
- Whitethroat
- Blackcap
- Willow warbler
- Chiffchaff
- Goldcrest
- Hooded crow
- Jay
- Skylark
- Chaffinch
- Greenfinch
- Bullfinch
- Siskin
- Lesser redpoll
- Common crossbill
- Reed bunting
- Barmolloch tree cover
- SRDP area
- Vantage point location 2015 & 2017

1:12,500 Scale @ A3 (04/07/2017)

0 0.5 Km

Figure 1. Breeding birds 2017 indicative locations