

AGENDA ITEM 6

APPENDIX 14

2018/0151/DET

BREEDING BIRDS SURVEY

Breeding Bird Surveys

at

Dalwhinnie Quarry

Dalwhinnie

Highland

April - June 2018

Prepared by Acorna Ecology Ltd.

for JPB Ltd. on behalf of Leiths Scotland Ltd.

Executive Summary

Acorna Ecology Ltd. was commissioned by JPB Ltd. in April 2018 to carry out a series of breeding bird surveys on land at Dalwhinnie Quarry, Dalwhinnie, Highland as part of the supporting information for an extension to the quarry.

A series of four site walkover visits identified 24 - 26 males/breeding pairs of four species present within the Application Site. This short report details the findings of the surveys and the proposed methodology to minimise potential for adverse impacts on breeding birds as a consequence of the site preparation that will be required. The subsequent daily operation of the quarry is considered to have negligible potential for any significant impact on breeding birds adjacent to the Application Site.

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1. Introduction

Acorna Ecology Ltd. was commissioned by JPB Ltd. in April 2018 to carry out a series of breeding bird surveys on land at Dalwhinnie Quarry, Dalwhinnie, Highland (NN 63685 86403, Figure 1.) as part of the supporting information for a planning application for an extension to the quarry. The Application Site lies immediately to the east of the A889 and immediately north of the active quarry and is currently an area of grazed moorland managed for Red Grouse.

2. Legislation

All breeding birds have basic statutory protection under the Wildlife & Countryside Act 1981. In addition, a number of species that are rare or uncommon are afforded enhanced statutory protection during the breeding season by inclusion on Schedule One of the Wildlife & Countryside Act 1981, which protects adults in places of rest, their eggs, and young.

- All breeding birds in the UK are protected through Sections 1-8 (referring to Schedules 1 to 4) of the Wildlife & Countryside Act [WCA] (enacting the Bern Convention and the Birds Directive), and subsequent amendments through the Nature Conservation (Scotland) Act 2004. With certain exceptions, all wild birds, their eggs and dependent young are protected from intentional killing, injuring and taking; they cannot be in anyone's possession, whether live or dead, and nests (whilst being built or in use) cannot intentionally be taken, damaged or destroyed. A general licence permits control of some species with landowner consent.
- Schedule 1 of the WCA is a list of nationally rare breeding birds for which all offences carry special (higher) penalties. The legislation also makes it an additional offence to intentionally or recklessly disturb adults or the dependent young of these species, at any stage of their breeding.
- Schedule 2 is a list of traditionally hunted birds for which protection does not apply outside a "close season".
- European legislation provides additional legal protection as European Protected Species for a number of species of high conservation concern.

'The Population Status of Birds in the UK' was originally produced in 2002, and listed the UK status of 247 species of bird. Of these 40 were "red-listed" and 121 "Amber-listed" as species of conservation concern, and 86 species "Green-listed". This listing did not provide additional legal protection for these species but highlighted those of concern for nature conservation purposes. The lists have been updated several times and were updated a fourth time in 2015 (Eaton et al. 2015), resulting in re-designation of the UK status of 247 species of bird: 67 are now "red-listed" and 96 "Amber-listed" as species of conservation concern, while only 81 species are "Green-listed".

3. Survey Methods

A reduced Common Bird Census (CBC) style mapping survey methodology was used to record species and behaviour within the Application Site with the four visits completed as one in April, one in May, and two in June (due to timing constraints for planning submission in late June 2018), rather than the 10-12 survey visits recommended by the British Trust for Ornithology and spread over a four-month period. The rationale for the timing was that the open habitat present was in use by species such as Skylark and Meadow Pipit, which are in their peak of breeding during May and June, when field evidence of breeding behaviour is easiest to collect. Note: Brown & Shepherd (1993) methodology was not considered appropriate for the small survey area as it can result in almost half of the resident birds being missed (Buckland et al. 1998) and is also designed for surveying upland waders not moorland passerines in particular. Instead the survey mapping of all birds present within the Application Site and within the 500m buffer zone around it as far as access permitted was considered much more suitable. The more recently developed Breeding Bird Survey methodology (BTO) was also not considered suitable as it is a methodology designed for monitoring trends.

A variety of cues may be used to assess residency and breeding based on the British Trust for Ornithology Common Bird Census and Breeding Bird Survey methodologies (<http://www.bto.org/birdtrends2004/>), although the reduced version of CBC commonly used for proposed development sites and for general baseline data sets is more appropriate for use than the recently developed Breeding Bird Survey (BBS). The locations of all birds observed or heard were mapped, any evidence of breeding behaviour noted, and a list of species present recorded. Only birds physically using the Application Site, or close enough at boundaries to use the Site were recorded, those flying over were omitted. The survey day was selected to follow survey method guidance, with weather conditions dry, and with light/no wind to optimise count data.

Class	Category of Evidence
<i>Possible Breeding</i>	<ul style="list-style-type: none"> Species observed in breeding season in possible nesting habitat Singing males present or breeding calls heard in breeding season – The number of singing males taken to be indicative of the number of breeding pairs Collection of nest material
<i>Probable Breeding</i>	<ul style="list-style-type: none"> Pairs observed in suitable nesting habitat in breeding season Permanent territory presumed through registration of territorial behaviour (song etc.) on at least two different days, a week apart, at the same place Display and courtship Visiting probable nest site Agitated behaviour or anxiety calls from adults Building nest or excavating nest hole
<i>Confirmed Breeding</i>	<ul style="list-style-type: none"> Nest containing eggs Used nest or egg shells found (occupied or laid within the survey period) Nest with young seen or heard Adults carrying food for young or faecal sacs Distraction display/injury feigning/alarm calling by adults

4. Results

The surveys were completed as follows:

- Survey 1: 24th April 2018: weather dry with occasional showers later, cold (5°C), wind 2 from southwest, cloud cover 8/8;
- Survey 2: 17th May 2018: weather dry (9°C), wind 1 - 2 northeasterly, light cloud cover 4/8;
- Survey 3: 1st June 2018: weather dry, no wind/light breeze from east, hot and dry (16 - >20°C), light cloud cover 2/8;
- Survey 4: 17th June 2018: weather dry, wind 2 – 3 southwest, dry (12°C), 8/8 cloud cover

No Schedule 1-listed species of breeding bird were detected during the surveys. A total of four species of breeding bird were present within the Application Site [Common Gull (17+ pairs), Meadow Pipit (1 - 2 pairs), Red Grouse (3 males), and Skylark (2-3 males), Figure 1.], of which three species were within the proposed extension area (all except Common Gull – breeding colony in extant quarry). Of the four

species identified, Skylark was a UK Red-listed species of conservation concern and the other three were all UK Amber-listed species of conservation concern (see Table 4.). The most frequent indicators of breeding were display behaviours by males (singing), aggression, and in a few cases adult birds were observed carrying food for young. No nest building was observed.

The survey buffer area included open moorland as well as conifer plantation margins and small stands of native deciduous trees including willow and rowan, had a higher diversity of habitats present and was much larger in extent than the Application Site so had a wider range of breeding bird species present (12 species, Table 4., Figure 1.). Of the 12 species identified, two were UK Red-listed species of conservation concern (Skylark and Lesser Redpoll) and four were UK Amber-listed species of conservation concern (Meadow Pipit, Red Grouse, Snipe, and Willow Warbler).

Table 4. Breeding birds detected April - June 2018

Species	# males displaying/pairs in Application Site	# males displaying/ pairs in areas up to 500m adjacent to Application Site	UK status
Common Gull	17+	0	A
Meadow Pipit	2-3	10 - 12	A
Red Grouse	3	7	A
Skylark	2 - 3	4 - 5	R
Blackbird	0	2	G
Chaffinch	0	8	G
Coal Tit	0	1	G
Lesser Redpoll	0	2 - 3	R
Robin	0	3 - 4	G
Siskin	0	1	G
Snipe	0	1	A
Wheatear	0	1	G
Willow Warbler	0	6	A

Where G = UK Green-listed

A = UK Amber-listed species of conservation concern

R = UK Red-listed species of conservation concern

Note a small number of other species passed over or through the survey buffer zone area including Buzzard, Kestrel Oystercatcher, Mistle Thrush, and Black Grouse (Greyhen) but were not breeding within the survey area. Of note is the solitary Greyhen (Black Grouse female) – females of this species are highly mobile and may travel 10km to meet males at lek sites to mate. The Greyhen was observed to the south of the Application Site in the buffer zone surveyed on 17th May 2018. This was the only occasion the species was detected during the surveys.

5. Conclusions

The proposed continuation of and extension to quarrying will clearly have potential for direct impacts on the breeding bird fauna within the Application Site:

1. All breeding bird habitats within the Application Site will be lost (quarry dewatered, and habitats stripped). This will be negligible to each species concerned as a whole but will be a high impact on the individual breeding pairs, with the gull colony being completely displaced from the area (nearest others breed on the River Truim within 3km of the Application Site). Conversely, the grouse, pipits, and Skylarks will be displaced to surrounding habitats. None of

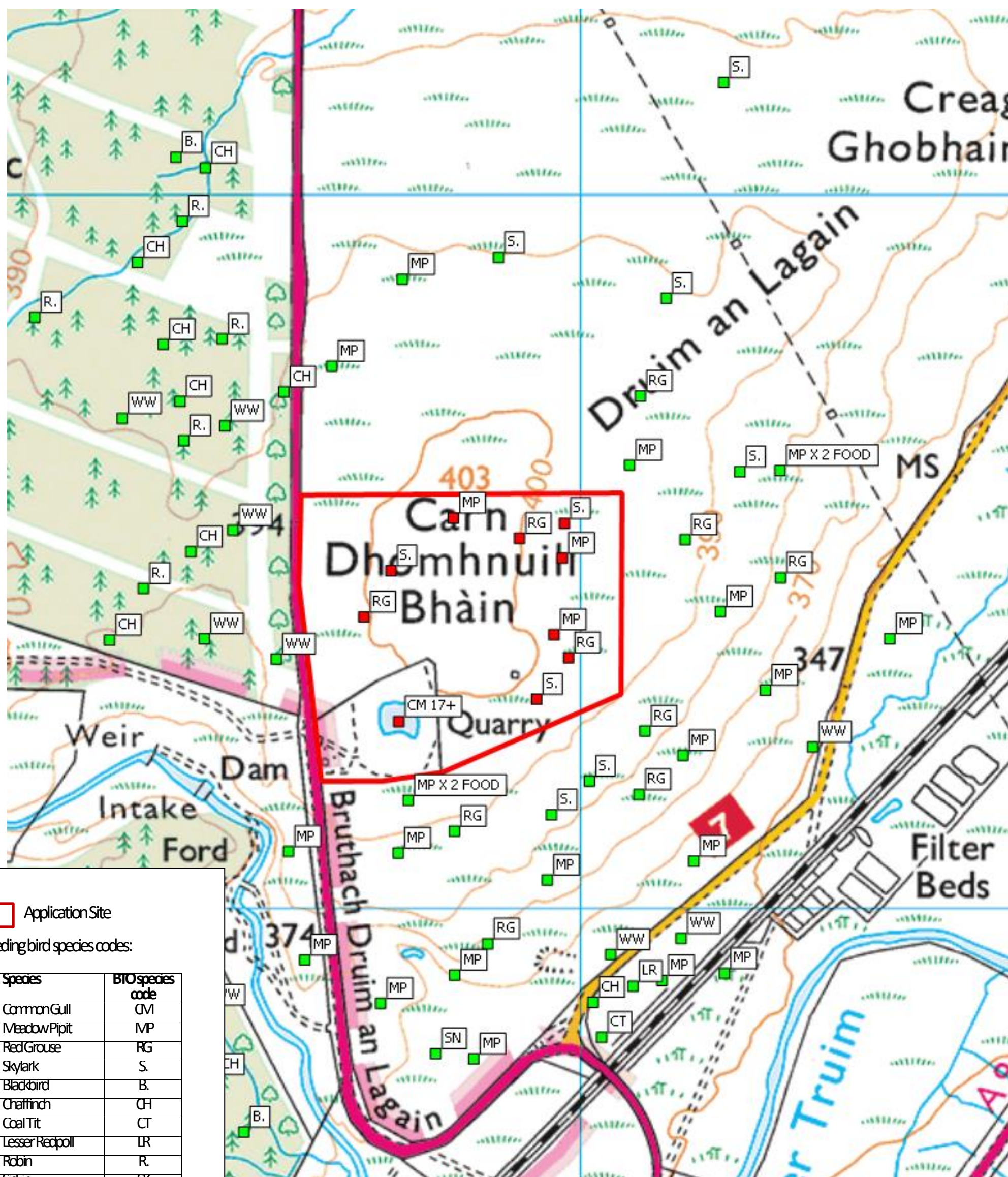
these displacements are considered significant as the surrounding habitats are not at capacity for each species so can accommodate the displaced birds.

2. Without mitigation in place there is a high degree of risk that a breach of the Wildlife & Countryside Act 1981 could result (nest loss, destruction of eggs, young, or dependent fledglings. It is therefore recommended to commence site preparation activities such as dewatering, surface stripping, and bunding, etc. between mid-August and mid-April outwith the bird breeding season.
3. If it is not possible to commence site preparation between mid-August and mid-April then a pre-start of works briefing of contractors should be completed by an ecologist on legal obligations, signs to watch out for that may indicate breeding bird presence, and appropriate course of action to take if the contractor believes a nest or young may be present. The ecologist should then complete a site walkover of the works area to look for evidence of any breeding bird activity. If none is present then works may proceed. If any active nest was present or dependent young then a suitable works stand-off zone must be established until such time as the breeding is complete.

6. References/relevant reading

Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R.D., Lock, .L, Musgrove, A.J., Noble, D.G., Stroud, D.A., and Gregory, R.D., 2015. Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, 708–746.

Figure 1. Summary of breeding bird distribution 2018 determined from all surveys April – June 2018



Key

Application Site

Breeding bird species codes:

Species	BTO species code
Common Gull	CM
Meadow Pipit	MP
Red Grouse	RG
Skylark	S.
Blackbird	B.
Chaffinch	CH
Coal Tit	CT
Lesser Redpoll	LR
Robin	R.
Siskin	SK
Snipe	SN
Wheatear	W.
Willow Warbler	WW

Food = Birds carry food for young
 X2 (etc.) = more than one adult bird

Appendix 1. Bird locations during Surveys

Table 1. Breeding bird locations April - June 2018

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
24/04/2018	Common Gull	CM 17+	NN 63752 86274	Display/breeding in Application Site – nests and eggs present
24/04/2018	Red Grouse	RG	NN 63984 86352	Display/breeding in Application Site
24/04/2018	Red Grouse	RG	NN 63697 86409	Display/breeding in Application Site
24/04/2018	Red Grouse	RG	NN 63934 86515	Display/breeding in Application Site
17/05/2018	Meadow Pipit	MP	NN 63975 86491	Display/breeding in Application Site
17/05/2018	Meadow Pipit	MP	NN 63963 86384	Display/breeding in Application Site
17/05/2018	Common Gull	CM 17+	NN 63746 86262	Display/breeding in Application Site – nests and eggs present
01/06/2018	Skylark	S.	NN 63923 86449	Display/breeding in Application Site
01/06/2018	Skylark	S.	NN 63742 86411	Display/breeding in Application Site
01/06/2018	Common Gull	CM X 17 +	NN 63754 86272	Display/breeding in Application Site – nests and eggs present
17/06/2018	Common Gull	CM 17 +	NN 63744 86272	Display/breeding in Application Site – nests and eggs present
17/06/2018	Skylark	S.	NN 63942 86302	Display/breeding in Application Site
17/06/2018	Skylark	S.	NN 63742 86454	Display/breeding in Application Site
17/06/2018	Meadow Pipit	MP	NN 63822 86547	Display/breeding in Application Site
17/06/2018	Skylark	S.	NN 63978 86540	Display/breeding in Application Site
24/04/2018	Chaffinch	CH	NN 63368 86378	Display/breeding in buffer zone
24/04/2018	Robin	R.	NN 63505 86777	Display/breeding in buffer zone
24/04/2018	Robin	R.	NN 63431 86943	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 64248 86468	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 64176 86302	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 63923 85968	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 63792 86105	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 64147 86517	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 64084 86718	Display/breeding in buffer zone
24/04/2018	Red Grouse	RG	NN 64082 86160	Display/breeding in buffer zone
24/04/2018	Snipe	SN	NN 63797 85797	Display/breeding in buffer zone
17/05/2018	Blackbird	B.	NN 63433 87053	Display/breeding in buffer zone
17/05/2018	Blackbird	B.	NN 63528 85687	Display/breeding in buffer zone
17/05/2018	Chaffinch	CH	NN 64038 85863	Display/breeding in buffer zone
17/05/2018	Chaffinch	CH	NN 63439 86711	Display/breeding in buffer zone
17/05/2018	Chaffinch	CH	NN 63454 86500	Display/breeding in buffer zone
17/05/2018	Chaffinch	CH	NN 63340 86376	Display/breeding in buffer zone
17/05/2018	Chaffinch	CH	NN 63485 85761	Display/breeding in buffer zone
17/05/2018	Coal Tit	CT	NN 64030 85820	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63751 86882	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63652 86760	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 64260 86306	Display/breeding in buffer zone

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
17/05/2018	Meadow Pipit	MP	NN 64144 86215	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 64159 86067	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63720 85867	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63954 86040	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63745 86078	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63591 86080	Display/breeding in buffer zone
17/05/2018	Meadow Pipit	MP	NN 63614 85928	Display/breeding in buffer zone
17/05/2018	Robin	R.	NN 63498 86798	Display/breeding in buffer zone
17/05/2018	Robin	R.	NN 63388 86449	Display/breeding in buffer zone
17/05/2018	Red Grouse	RG	NN 64281 86464	Display/breeding in buffer zone
17/05/2018	Red Grouse	RG	NN 63870 85951	Display/breeding in buffer zone
17/05/2018	Red Grouse	RG	NN 64091 86249	Display/breeding in buffer zone
17/05/2018	Skylark	S.	NN 63886 86912	Display/breeding in buffer zone
17/05/2018	Skylark	S.	NN 64201 87157	Display/breeding in buffer zone
17/05/2018	Skylark	S.	NN 64224 86612	Display/breeding in buffer zone
17/05/2018	Skylark	S.	NN 63960 86131	Display/breeding in buffer zone
17/05/2018	Skylark	S.	NN 64013 86179	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 64055 85896	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 63502 86677	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 63513 86530	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 63473 86378	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 63574 86350	Display/breeding in buffer zone
17/05/2018	Willow Warbler	WW	NN 63475 85858	Display/breeding in buffer zone
01/06/2018	Chaffinch	CH	NN 63499 86451	Display/breeding in buffer zone
01/06/2018	Lesser Redpoll	LR	NN 63536 86319	Display/breeding in buffer zone
01/06/2018	Lesser Redpoll	LR	NN 64061 85888	Display/breeding in buffer zone
01/06/2018	Lesser Redpoll	LR	NN 64051 85867	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63856 86880	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63698 86806	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63644 86710	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 64276 86389	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63949 85969	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63790 85774	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63719 86103	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63584 86157	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63595 85990	Display/breeding in buffer zone
01/06/2018	Robin	R.	NN 63505 86661	Display/breeding in buffer zone
01/06/2018	Skylark	S.	NN 63904 86172	Display/breeding in buffer zone
01/06/2018	Willow Warbler	WW	NN 63421 86361	Display/breeding in buffer zone
01/06/2018	Willow Warbler	WW	NN 63580 86442	Display/breeding in buffer zone
01/06/2018	Willow Warbler	WW	NN 63431 86523	Display/breeding in buffer zone

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
01/06/2018	Willow Warbler	WW	NN 64025 85854	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63474 87038	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63376 86905	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63416 86791	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63585 86724	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63573 86601	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63583 86445	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 63461 86374	Display/breeding in buffer zone
17/06/2018	Chaffinch	CH	NN 64027 85841	Display/breeding in buffer zone
17/06/2018	Lesser Redpoll	LR	NN 64056 85888	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63674 86821	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63664 86730	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64196 86416	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64434 86378	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64202 85909	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64105 86023	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63851 85789	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63824 85907	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63740 86099	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 63600 86002	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64069 86621	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP	NN 64115 85899	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP X 2 FOOD	NN 63797 86126	Display/breeding in buffer zone
17/06/2018	Meadow Pipit	MP X 2 FOOD	NN 64280 86614	Display/breeding in buffer zone
17/06/2018	Robin	R.	NN 63427 86954	Display/breeding in buffer zone
17/06/2018	Robin	R.	NN 63501 86802	Display/breeding in buffer zone
17/06/2018	Robin	R.	NN 63433 86671	Display/breeding in buffer zone
17/06/2018	Skylark	S.	NN 64120 86855	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 63379 86701	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 63575 86354	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 63362 86544	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 64326 86226	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 64043 85936	Display/breeding in buffer zone
17/06/2018	Willow Warbler	WW	NN 64141 85958	Display/breeding in buffer zone
01/06/2018	Meadow Pipit	MP	NN 63685 86335	"perched" or seen in Application Site but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63856 86338	"perched" or seen in Application Site but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63898 86553	"perched" or seen in Application Site but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63832 86392	"perched" or seen in Application Site but not showing breeding behaviours

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
01/06/2018	Oystercatcher	OC	NN 63695 86198	"perched" or seen in Application Site but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63708 86416	"perched" or seen in Application Site but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63866 86373	"perched" or seen in Application Site but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63917 86392	"perched" or seen in Application Site but not showing breeding behaviours
24/04/2018	Chaffinch	CH	NN 64043 85880	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Coal Tit	CT	NN 64025 85848	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64062 85972	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64044 86008	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64160 86040	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64155 86082	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64233 86042	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64176 86023	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64107 86165	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64143 86177	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63889 85846	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63820 85877	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63740 85844	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63773 85742	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63695 86124	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63739 86072	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64006 86416	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 64430 86743	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63668 86838	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63699 86811	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Meadow Pipit	MP	NN 63607 86008	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Mistle Thrush	M.	NN 64067 86080	"perched" or seen in buffer zone but not showing breeding behaviours
24/04/2018	Mistle Thrush	M.	NN 64100 86088	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Black Grouse	BG	NN 63863 85971	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Chaffinch	CH	NN 63406 86541	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Greylag Goose	GJ X 8	NN 64331 86005	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Mallard	MA	NN 64418 86046	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64124 86961	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64370 86770	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64084 86502	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64318 86436	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64255 86133	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64127 86043	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64169 85984	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 64087 86125	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63791 86065	"perched" or seen in buffer zone but not showing breeding behaviours

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
17/05/2018	Meadow Pipit	MP	NN 63802 85966	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63811 85858	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63919 85855	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63749 85755	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63818 85996	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Meadow Pipit	MP	NN 63848 86011	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Red Grouse	RG	NN 64100 86245	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Teal	T. X 2	NN 64526 86173	"perched" or seen in buffer zone but not showing breeding behaviours
17/05/2018	Wheatear	W.	NN 63728 85972	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Chaffinch	CH	NN 63522 86768	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Chaffinch	CH	NN 63493 86568	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Greylag Goose	GJ X 5	NN 64474 86179	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Mallard	MA X 2	NN 64531 86158	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63993 86944	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64039 86908	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64046 86789	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63773 86895	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63674 86640	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63701 86686	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63691 86734	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63583 86036	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63742 86063	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 63763 85858	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64096 86019	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64136 86055	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64206 86088	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64284 86158	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64046 86089	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64202 86251	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64250 86312	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64284 86561	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Meadow Pipit	MP	NN 64252 86623	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Red Grouse	RG	NN 64084 86150	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Robin	R.	NN 63989 85875	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Robin	R.	NN 64033 85814	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Siskin	SK X 2	NN 63488 86374	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Teal	T.	NN 64556 86222	"perched" or seen in buffer zone but not showing breeding behaviours
01/06/2018	Tufted Duck	TD	NN 64557 86188	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Buzzard	BZ	NN 63512 86361	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Greylag Goose	GJ X 4	NN 64544 86205	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Kestrel	K.	NN 64341 86460	"perched" or seen in buffer zone but not showing breeding behaviours

Date	Common name	British Trust for Ornithology Species Code	Grid reference	Activity
17/06/2018	Meadow Pipit	MP	NN 64016 86905	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63936 86787	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63701 86792	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63653 86663	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 63590 86640	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 64424 86325	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 64145 86051	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Meadow Pipit	MP	NN 64120 86209	"perched" or seen in buffer zone but not showing breeding behaviours
17/06/2018	Teal	T. X 2	NN 64415 86053	"perched" or seen in buffer zone but not showing breeding behaviours

Key

Numbers are numbers of displaying males or pairs. If no number then it's a single or lone bird

X = times two birds of the species

FOOD = parent birds carrying food to chicks/dependent young – indicates breeding confirmed.