

ANNEX D. ORNITHOLOGICAL SURVEY RESULTS

D.1 Flight Activity Records: Target Species

In accordance with NatureScot guidance (2017), target species are those which may be considered to be at risk from the potential effects of wind farms. All flights of target species within the turbine area and the surrounding area were mapped and are detailed in **Table D-1**.

Table D-1 Details of target species recorded during flight activity surveys (sorted chronologically)

Date	Observer	VP	Flight start time	Species	No. of birds	Duration (s)	Inside CRAA (seconds)						Outside CRAA (seconds)					
							0-20 m	21-40 m	41-100 m	101-150 m	151-200 m	>201 m	0-20 m	21-40 m	41-100 m	101-150 m	151-200 m	>201 m
18/04/2022	SK	1	1103	Red kite	1	114	0.00	0.00	0.00	0.00	0.00	0.00	69.00	45.00	0.00	0.00	0.00	0.00
19/04/2022	TH	1	1552	Golden plover	14	45	0.00	0.00	0.00	0.00	0.00	0.00	15.00	30.00	0.00	0.00	0.00	0.00
21/04/2022	SK	4	1523	Golden plover	14	245	4.18	4.70	3.92	0.00	0.00	0.00	75.82	85.30	71.08	0.00	0.00	0.00
12/05/2022	SK	1	1404	Red kite	1	204	0.00	7.63	7.63	19.06	17.54	0.00	0.00	22.37	22.37	55.94	51.46	0.00
12/05/2022	TH	1	1158	Red kite	1	20	0.00	0.00	14.31	0.00	0.00	0.00	0.00	0.00	5.69	0.00	0.00	0.00
12/05/2022	TH	1	1158	Red kite	1	150	0.00	0.00	38.27	25.51	63.78	0.00	0.00	0.00	6.73	4.49	11.22	0.00
12/05/2022	TH	1	1355	Red kite	1	120	0.00	0.00	0.00	0.00	0.00	0.00	30.00	60.00	30.00	0.00	0.00	0.00
02/06/2022	SK	3	1217	Red kite	1	120	0.00	0.00	79.85	26.62	0.00	0.00	0.00	0.00	10.15	3.38	0.00	0.00
03/06/2022	SK	2	1031	Red kite	1	118	8.96	20.67	51.69	0.00	0.00	0.00	4.04	9.33	23.31	0.00	0.00	0.00
03/06/2022	EB	4	1033	Red kite	1	110	0.00	2.42	2.90	0.00	0.00	0.00	0.00	47.58	57.10	0.00	0.00	0.00
08/08/2022	MW	1	1114	Hen harrier	1	75	8.50	0.00	0.00	0.00	0.00	0.00	66.50	0.00	0.00	0.00	0.00	0.00
06/10/2022	MW	2	1011	Red kite	1	65	0.00	0.00	0.00	0.00	0.00	0.00	35.00	30.00	0.00	0.00	0.00	0.00
06/10/2022	MW	2	1206	Black grouse	3	15	5.81	0.00	0.00	0.00	0.00	0.00	9.19	0.00	0.00	0.00	0.00	0.00
06/10/2022	MW	2	1320	Curlew	1	60	0.00	3.37	10.12	0.00	0.00	0.00	0.00	11.63	34.88	0.00	0.00	0.00
31/10/2022	MW	1	1307	Merlin	1	40	7.82	0.00	0.00	0.00	0.00	0.00	32.18	0.00	0.00	0.00	0.00	0.00
01/11/2022	MW	2	1048	Hen harrier	1	45	4.51	0.00	0.00	0.00	0.00	0.00	40.49	0.00	0.00	0.00	0.00	0.00
01/11/2022	MW	2	1048	Hen harrier	1	80	29.67	0.00	0.00	0.00	0.00	0.00	50.33	0.00	0.00	0.00	0.00	0.00
03/11/2022	MW	4	0920	Hen harrier	1	75	0.00	0.00	0.00	0.00	0.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00
03/11/2022	MW	4	1340	Red kite	2	60	0.00	31.74	10.58	0.00	0.00	0.00	0.00	13.26	4.42	0.00	0.00	0.00
12/12/2022	EB	3	1147	Red kite	1	130	0.00	100.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/12/2022	EB	1	1341	Red kite	1	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	120.00	0.00	0.00	0.00
14/12/2022	EB	1	1352	Red kite	1	72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.00	15.00	0.00	0.00	0.00
14/12/2022	EB	1	1416	Red kite	2	142	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.00	90.00	0.00	0.00	0.00
15/12/2022	EB	4	1122	Lapwing	5	132	0.00	8.37	28.47	0.00	0.00	0.00	0.00	21.63	73.53	0.00	0.00	0.00
15/12/2022	EB	4	1254	Red kite	1	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	75.00	0.00	0.00	0.00
19/01/2023	EB	1	1239	Red kite	1	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00
19/01/2023	EB	1	1316	Red kite	2	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.00	60.00	0.00	0.00	0.00
19/01/2023	EB	1	1351	Red kite	2	112	0.00	12.21	24.74	0.00	0.00	0.00	0.00	24.79	50.26	0.00	0.00	0.00
19/01/2023	EB	1	1358	Merlin	1	72	0.00	0.00	0.00	0.00	0.00	0.00	42.00	15.00	15.00	0.00	0.00	0.00
19/01/2023	EB	1	1411	Red kite	1	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	15.00	0.00	0.00
19/01/2023	TH	4	1403	Merlin	1	20	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
19/01/2023	TH	4	1454	Red kite	1	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00
21/03/2023	JB	5	1214	Greylag goose	3	34	0.00	0.00	0.00	22.12	0.00	0.00	0.00	0.00	0.00	11.88	0.00	0.00
21/03/2023	TH	7	1216	Red kite	1	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	30.00	15.00	0.00	0.00
22/03/2023	JB	9	1532	Red kite	1	79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	34.00	0.00
25/04/2023	JB	8	1455	Red kite	1	21	0.00	0.00	14.50	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00
26/04/2023	JB	9	1146	Red kite	1	96	0.00	8.53	12.80	5.97	0.00	0.00	0.00	21.47	32.20	15.03	0.00	0.00
26/04/2023	JB	9	1300	Red kite	1	45	0.00	0.00	10.67	21.33	0.00	0.00	0.00	0.00	4.33	8.67	0.00	0.00
24/05/2023	ENS	9	1027	Red kite	1	38	0.00	0.00	0.00	24.71	0.00	0.00	0.00	0.00	0.00	13.29	0.00	0.00
24/05/2023	ENS	9	1051	Red kite	1	57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00	30.00	15.00	0.00
24/05/2023	ENS	9	1101	Red kite	1	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	36.00	0.00
24/05/2023	ENS	9	1202	Red kite	1	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00	30.00	0.00	0.00

Date	Observer	VP	Flight start time	Species	No. of birds	Duration (s)	Inside CRAA (seconds)						Outside CRAA (seconds)					
							0-20 m	21-40 m	41-100 m	101-150 m	151-200 m	>201 m	0-20 m	21-40 m	41-100 m	101-150 m	151-200 m	>201 m
24/05/2023	ENS	9	1242	Red kite	1	144	0.00	0.00	0.00	90.35	41.07	0.00	0.00	0.00	0.00	8.65	3.93	0.00
24/05/2023	ENS	9	1314	Red kite	1	46	0.00	0.00	0.00	45.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24/05/2023	ENS	9	1505	Red kite	1	50	0.00	0.00	2.81	8.42	16.84	0.00	0.00	0.00	2.19	6.58	13.16	0.00
25/05/2023	ENS	6	0830	Red kite	1	87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	72.00	0.00
25/05/2023	ENS	6	0929	Red kite	1	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.00	15.00	0.00	0.00	0.00
25/05/2023	HC	6	0941	Red kite	1	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.00	0.00	0.00	0.00	0.00
16/06/2023	HEC	7	1212	Red kite	1	96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.00	0.00	0.00	0.00
16/06/2023	TH	8	1003	Herring gull	4	105	0.00	19.24	28.86	19.24	0.00	0.00	0.00	10.76	16.14	10.76	0.00	0.00
25/07/2023	ENS	8	1249	Merlin	1	11	0.00	7.69	0.00	0.00	0.00	0.00	0.00	3.31	0.00	0.00	0.00	0.00
25/07/2023	ENS	8	1601	Red kite	1	62	0.00	0.00	47.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26/07/2023	ENS	7	0932	Merlin	1	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.00	15.00	0.00	0.00	0.00
26/07/2023	ENS	7	1357	Red kite	1	128	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.00	90.00	0.00	0.00
26/07/2023	ENS	7	1406	Red kite	1	197	0.00	0.00	0.00	0.00	0.00	0.00	0.00	122.00	75.00	0.00	0.00	0.00
27/07/2023	ENS	7	0948	Merlin	1	40	0.00	0.00	4.56	0.00	0.00	0.00	0.00	0.00	35.44	0.00	0.00	0.00
27/07/2023	ENS	7	1325	Red kite	1	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	75.00	0.00	0.00
09/08/2023	MW	5	0917	Hen harrier	1	65	50.28	0.00	0.00	0.00	0.00	0.00	14.72	0.00	0.00	0.00	0.00	0.00
16/10/2023	MW	5	1317	Merlin	1	60	28.37	28.37	0.00	0.00	0.00	0.00	1.63	1.63	0.00	0.00	0.00	0.00
17/10/2023	MW	6	1300	Merlin	1	45	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
18/10/2023	MW	7	1002	Hen harrier	1	70	0.00	0.00	0.00	0.00	0.00	0.00	70.00	0.00	0.00	0.00	0.00	0.00
20/11/2023	MW	5	1104	Peregrine falcon	1	120	8.21	32.85	16.43	8.21	0.00	0.00	6.79	27.15	13.57	6.79	0.00	0.00
20/11/2023	MW	5	1200	Merlin	1	38	21.69	0.00	0.00	0.00	0.00	0.00	16.31	0.00	0.00	0.00	0.00	0.00
20/11/2023	MW	5	1406	Red kite	2	65	0.00	25.76	0.00	0.00	0.00	0.00	0.00	39.24	0.00	0.00	0.00	0.00
21/11/2023	MW	6	1020	Red kite	1	60	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00
22/11/2023	MW	9	0840	Hen harrier	1	55	55.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22/11/2023	MW	9	1150	Hen harrier	1	100	31.67	0.00	0.00	0.00	0.00	0.00	68.33	0.00	0.00	0.00	0.00	0.00
12/12/2023	JB	5	1039	Hen harrier	1	31	0.00	9.27	0.00	0.00	0.00	0.00	0.00	21.73	0.00	0.00	0.00	0.00
14/12/2023	JB	9	1009	Hen harrier	1	60	0.00	7.94	23.83	0.00	0.00	0.00	0.00	7.06	21.17	0.00	0.00	0.00
14/12/2023	JB	9	1117	Pink-footed goose	27	52	0.00	0.00	0.00	51.49	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00
15/12/2023	JB	8	1147	Red kite	1	76	0.00	0.00	13.51	54.96	0.00	0.00	0.00	0.00	1.49	6.04	0.00	0.00
22/01/2024	EB	7	1318	Red kite	1	35	0.00	0.00	10.87	0.00	0.00	0.00	0.00	0.00	24.13	0.00	0.00	0.00
24/01/2024	TH	9	1428	Red kite	1	150	45.00	75.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05/02/2024	EB	6	1138	Red kite	1	157	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.00	90.00	30.00	0.00	0.00
05/02/2024	EB	6	1344	Goshawk	1	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00
06/02/2024	LS	9	1025	Hen harrier	1	42	12.70	0.00	0.00	0.00	0.00	0.00	29.30	0.00	0.00	0.00	0.00	0.00
06/02/2024	LS	9	1039	Hen harrier	1	48	48.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06/02/2024	LS	9	1147	Red kite	2	52	0.00	36.91	14.96	0.00	0.00	0.00	0.00	0.09	0.04	0.00	0.00	0.00
06/02/2024	LS	9	1436	Red kite	1	173	53.62	82.79	0.00	0.00	0.00	0.00	14.38	22.21	0.00	0.00	0.00	0.00
07/02/2024	LS	6	1347	Goshawk	1	23	0.00	0.00	0.00	0.00	0.00	0.00	15.00	8.00	0.00	0.00	0.00	0.00
07/02/2024	EB	9	1327	Red kite	1	108	0.00	31.28	39.10	0.00	0.00	0.00	0.00	16.72	20.90	0.00	0.00	0.00

D.2 Moorland Breeding Bird Records

Moorland breeding bird surveys were undertaken during the 2022 and 2023 breeding seasons and focussed on recording activity of upland wader species within the survey area (Table D-2). Survey methodology is detailed in Annex B and survey timing/weather conditions in Annex C.

Table D-2 Wader activity recorded: 2022 and 2023 breeding seasons

Date	Survey visit	Observer	Species	Number recorded	Notes
18/04/2022	SBBS 1	JRM	Snipe	1	Singing.
19/04/2022	BBS 1	SK	Snipe	1	Singing; different bird from below
19/04/2022	BBS 1	SK	Snipe	1	Calling; different bird from above
19/04/2022	SBBS 1	JRM	Golden plover	-	Heard only near Black Burn.
20/04/2022	SBBS 1	JRM	Snipe	6	Minimum count of birds singing/displaying south of Nappers cottage.
09/05/2022	BBS 2	SK	Snipe	1	Singing.
09/05/2022	SBBS 2	JRM	Snipe	1	Displaying.
09/05/2022	SBBS 2	JRM	Snipe	1	Singing.
11/05/2022	SBBS 2	JRM	Snipe	1	Displaying.
12/05/2022	SBBS 2	JRM	Snipe	1	Heard only; approximate location.
01/06/2022	BBS 3	EB	Snipe	1	Calling.
01/06/2022	BBS 3	EB	Snipe	1	Calling.
01/06/2022	BBS 3	EB	Snipe	1	Calling.
02/06/2022	BBS 3	EB	Snipe	1	Calling.
28/06/2022	SBBS 3	MW	Snipe	1	Displaying.
28/06/2022	SBBS 3	MW	Snipe	1	Displaying.
29/06/2022	SBBS 3	MW	Snipe	1	Calling.
30/06/2022	SBBS 3	MW	Snipe	1	Displaying.
24/04/2023	BBS 5	HEC	Snipe	1	Singing.
25/04/2023	BBS 5	HEC	Snipe	1	
28/04/2023	VP 7	HEC	Snipe	-	Heard only.
02/05/2023	SBBS 8	MW	Snipe	1	
02/05/2023	SBBS 8	MW	Snipe	1	
24/05/2023	BBS 6	HEC	Snipe	1	Singing.
25/05/2023	BBS 6	HEC	Snipe	1	
25/05/2023	BK 4	HEC	Snipe	1	Singing.
25/05/2023	VP 6	ENS	Snipe	-	Heard only.
14/06/2023	BBS 7	HEC	Snipe	1	Singing.
15/06/2023	BBS 7	TH	Snipe	1	Flushed.
28/06/2023	SBBS 9	MW	Snipe	1	
28/06/2023	SBBS 9	MW	Snipe	1	
28/06/2023	SBBS 9	MW	Snipe	1	
21/07/2023	SBBS 10	MW	Snipe	1	Singing.
09/02/2024	WVO 6	EB	Snipe	1	Flushed.

D.3 Winter Walkover Records

Table D-3 details all the species recorded. Refer to Annex B for survey methodology and Annex C for weather data.

Table D-3 Winter walkover survey records: 2022/2023 and 2023/2024 non-breeding seasons

Date	Survey visit	Observer	Species	Number recorded	Notes
04/11/2022	MW	1	Bullfinch	6	
04/11/2022	MW	1	Buzzard	-	
04/11/2022	MW	1	Carrion crow	-	
04/11/2022	MW	1	Chaffinch	-	
04/11/2022	MW	1	Coal tit	-	
04/11/2022	MW	1	Common crossbill	15	
04/11/2022	MW	1	Fieldfare	350	
04/11/2022	MW	1	Goldcrest	-	
04/11/2022	MW	1	Goldfinch	6	
04/11/2022	MW	1	Great spotted woodpecker	-	
04/11/2022	MW	1	Grey wagtail	-	
04/11/2022	MW	1	Jay	-	
04/11/2022	MW	1	Kestrel	2	
04/11/2022	MW	1	Lesser redpoll	-	
04/11/2022	MW	1	Meadow pipit	60	
04/11/2022	MW	1	Mistle thrush	-	
04/11/2022	MW	1	Pied wagtail	-	
04/11/2022	MW	1	Raven	-	
04/11/2022	MW	1	Redwing	80	
04/11/2022	MW	1	Reed bunting	8	
04/11/2022	MW	1	Siskin	-	
04/11/2022	MW	1	Skylark	-	
04/11/2022	MW	1	Song thrush	-	
04/11/2022	MW	1	Stonechat	6	
04/11/2022	MW	1	Wren	-	
20/01/2023	EB	2	Chaffinch	-	
20/01/2023	EB	2	Coal tit	-	
20/01/2023	EB	2	Common crossbill	1	Calling from plantation south of Benaisa.
20/01/2023	EB	2	Goldcrest	-	
20/01/2023	EB	2	Great spotted woodpecker	-	
20/01/2023	EB	2	Meadow pipit	-	
20/01/2023	EB	2	Raven	-	
20/01/2023	EB	2	Red grouse	2	Flushed near Benaisa.
20/01/2023	EB	2	Red kite	1	
20/01/2023	EB	2	Siskin	-	
20/01/2023	EB	2	Wren	-	
20/01/2023	TH	2	Chaffinch	-	
20/01/2023	TH	2	Coal tit	-	
20/01/2023	TH	2	Common crossbill	-	
20/01/2023	TH	2	Kestrel	1	Perched in plantation east of Nappers.
20/01/2023	TH	2	Meadow pipit	-	
20/01/2023	TH	2	Raven	-	
20/01/2023	TH	2	Red kite	1	
20/01/2023	TH	2	Siskin	-	

Date	Survey visit	Observer	Species	Number recorded	Notes
10/02/2023	MW	3	Buzzard	-	
10/02/2023	MW	3	Carrion crow	-	
10/02/2023	MW	3	Meadow pipit	-	
10/02/2023	MW	3	Mistle thrush	-	
10/02/2023	MW	3	Raven	-	
10/02/2023	MW	3	Reed bunting	-	
10/02/2023	MW	3	Skylark	-	
16/11/2023	MW	4	Buzzard	-	
16/11/2023	MW	4	Carrion crow	-	
16/11/2023	MW	4	Chaffinch	-	
16/11/2023	MW	4	Coal tit	-	
16/11/2023	MW	4	Common crossbill	-	
16/11/2023	MW	4	Fieldfare	-	
16/11/2023	MW	4	Goldcrest	-	
16/11/2023	MW	4	Jay	-	
16/11/2023	MW	4	Kestrel	-	
16/11/2023	MW	4	Lesser redpoll	-	
16/11/2023	MW	4	Meadow pipit	-	
16/11/2023	MW	4	Raven	-	
16/11/2023	MW	4	Redwing	-	
16/11/2023	MW	4	Robin	-	
16/11/2023	MW	4	Siskin	-	
16/11/2023	MW	4	Woodpigeon	-	
16/11/2023	MW	4	Wren	-	
17/11/2023	MW	4	Blackbird	-	
17/11/2023	MW	4	Bullfinch	-	
17/11/2023	MW	4	Buzzard	-	
17/11/2023	MW	4	Carrion crow	-	
17/11/2023	MW	4	Chaffinch	-	
17/11/2023	MW	4	Coal tit	-	
17/11/2023	MW	4	Duncock	-	
17/11/2023	MW	4	Fieldfare	30	
17/11/2023	MW	4	Goldcrest	-	
17/11/2023	MW	4	Golden eagle	1	Initially perched on a stump; flew to a nearby tree and perched there until the end of the survey.
17/11/2023	MW	4	Goshawk	1	Perched on tree; likely reacting to the presence of a nearby golden eagle.
17/11/2023	MW	4	Grey wagtail	-	
17/11/2023	MW	4	Jay	-	
17/11/2023	MW	4	Kestrel	-	
17/11/2023	MW	4	Meadow pipit	-	
17/11/2023	MW	4	Mistle thrush	-	
17/11/2023	MW	4	Raven	-	
17/11/2023	MW	4	Redwing	6	
17/11/2023	MW	4	Reed bunting	-	
17/11/2023	MW	4	Robin	-	
17/11/2023	MW	4	Song thrush	-	
17/11/2023	MW	4	Wren	-	
23/01/2024	EB	5	Buzzard	1	
23/01/2024	EB	5	Carrion crow	-	
23/01/2024	EB	5	Chaffinch	-	

Date	Survey visit	Observer	Species	Number recorded	Notes
23/01/2024	EB	5	Great spotted woodpecker	-	
23/01/2024	EB	5	Great tit	-	
23/01/2024	EB	5	Jackdaw	-	
23/01/2024	EB	5	Kestrel	1	
23/01/2024	EB	5	Meadow pipit	-	
23/01/2024	EB	5	Raven	-	
23/01/2024	EB	5	Red kite	1	
23/01/2024	EB	5	Robin	-	
23/01/2024	EB	5	Woodpigeon	-	
23/01/2024	EB	5	Wren	-	
23/01/2024	TH	5	Chaffinch	-	
23/01/2024	TH	5	Raven	-	
23/01/2024	TH	5	Robin	-	
23/01/2024	TH	5	Woodpigeon	-	
23/01/2024	TH	5	Wren	-	
07/02/2024	EB	6	Buzzard	2	
07/02/2024	EB	6	Carrion crow	-	
07/02/2024	EB	6	Chaffinch	-	
07/02/2024	EB	6	Coal tit	-	
07/02/2024	EB	6	Fieldfare	15	
07/02/2024	EB	6	Goldcrest	-	
07/02/2024	EB	6	Great spotted woodpecker	-	
07/02/2024	EB	6	Great tit	-	
07/02/2024	EB	6	Jackdaw	-	
07/02/2024	EB	6	Jay	-	
07/02/2024	EB	6	Mistle thrush	-	
07/02/2024	EB	6	Pheasant	-	
07/02/2024	EB	6	Raven	-	
07/02/2024	EB	6	Red kite	1	
07/02/2024	EB	6	Reed bunting	-	
07/02/2024	EB	6	Robin	-	
07/02/2024	EB	6	Sparrowhawk	1	
07/02/2024	EB	6	Stonechat	-	
07/02/2024	EB	6	Woodpigeon	-	
07/02/2024	EB	6	Wren	-	
09/02/2024	EB	6	Buzzard	2	
09/02/2024	EB	6	Chaffinch	-	
09/02/2024	EB	6	Goldcrest	-	
09/02/2024	EB	6	Great spotted woodpecker	-	
09/02/2024	EB	6	Jay	-	
09/02/2024	EB	6	Raven	-	
09/02/2024	EB	6	Snipe	1	Flushed.
09/02/2024	EB	6	Stonechat	-	
09/02/2024	EB	6	Woodpigeon	-	
09/02/2024	LS	6	Buzzard	1	
09/02/2024	LS	6	Great spotted woodpecker	-	
09/02/2024	LS	6	Jay	-	
09/02/2024	LS	6	Kestrel	1	
09/02/2024	LS	6	Meadow pipit	-	
09/02/2024	LS	6	Raven	-	
09/02/2024	LS	6	Starling	-	
09/02/2024	LS	6	Stonechat	-	

D.4 Scarce Breeding Bird Records

Table D-4 details all records of raptors and owls recorded during surveys, however only Annex 1¹ or Schedule 1² species are considered to be scarce breeding birds (i.e. target species). Refer to **Annex B** for survey methodology, **Annex C** for weather data and **Confidential Technical Appendix 9.2** for confidential data relating to barn owl and merlin.

Table D-4 Raptor and owl records: 2022 and 2023 breeding seasons

Date	Species	Number recorded	Sex	Age	Notes
18/04/2022	Buzzard	-	-	-	
18/04/2022	Buzzard	-	-	-	
18/04/2022	Goshawk	1	Male	Adult	Gained a lot of height whilst being pursued by ravens then descended rapidly until lost to sight.
18/04/2022	Buzzard	1	-	-	In flight, Moor of Drannandow; adult calling.
18/04/2022	Buzzard	5	-	-	In flight, Benailsa.
18/04/2022	Buzzard	3	-	-	In flight, Nappers cottage.
18/04/2022	Buzzard	3	-	-	In flight, Nappers cottage.
18/04/2022	Sparrowhawk	1	-	-	In flight, Benailsa.
19/04/2022	Sparrowhawk	1	-	-	In flight; plantation south-west of Garlick Hill.
19/04/2022	Buzzard	2	-	-	In flight, Knockman Wood.
19/04/2022	Buzzard	2	-	-	In flight; Craigenteasy; displaying.
19/04/2022	Buzzard	1	-	-	In flight; Glenshalloch hill; displaying.
19/04/2022	Buzzard	2	-	-	In flight, Garlick hill.
19/04/2022	Sparrowhawk	1	-	-	In flight; south-west of Garlick Hill; female.
19/04/2022	Buzzard	2	-	-	In flight, Benailsa; pair.
19/04/2022	Buzzard	1	-	-	In flight, Nappers cottage.
20/04/2022	Sparrowhawk	1	-	-	In flight; Glenshalloch; male.
20/04/2022	Sparrowhawk	1	-	-	In flight, south of Black Burn.
21/04/2022	Buzzard	2	-	-	In flight, Nappers cottage.
21/04/2022	Kestrel	1	-	-	In flight; Nappers cottage; male; hunting.
21/04/2022	Sparrowhawk	1	-	-	In flight; east of Nappers cottage; female; displaying.
22/04/2022	Buzzard	-	-	-	In flight; east of Nappers cottage; hunting.
22/04/2022	Sparrowhawk	-	-	-	In flight; east of Nappers cottage; male; hunting.
09/05/2022	Buzzard	1	-	-	In flight; circling; Nappers Cairn.
09/05/2022	Red kite	1	-	Adult	Interaction with another red kite.
09/05/2022	Red kite	1	-	Immature	Missing two primaries; interaction with another red kite.
09/05/2022	Buzzard	1	-	-	In flight, Black Burn.
09/05/2022	Red kite	1	-	Adult	Quickly dropped out of view.
10/05/2022	Buzzard	-	-	-	
10/05/2022	Red kite	1	-	Adult	
10/05/2022	Red kite	1	-	Adult	Possibly the same bird as previous record.
10/05/2022	Buzzard	-	-	-	In flight, Garlick Hill.
10/05/2022	Buzzard	1	-	-	In flight, Blair Hill.
10/05/2022	Buzzard	1	-	-	In flight, Threave Cairn; mobbed by crows.
11/05/2022	Buzzard	5	-	-	In flight, over northern part of survey area.
11/05/2022	Red kite	1	-	Adult	

Date	Species	Number recorded	Sex	Age	Notes
11/05/2022	Red kite	1	-	Adult	Probably the same bird as previous.
11/05/2022	Buzzard	1	-	-	
11/05/2022	Kestrel	1	-	-	
12/05/2022	Buzzard	-	-	-	
12/05/2022	Red kite	1	-	Adult	Different bird than red kite recorded on 11/05/2022; distinguishable by moulted primaries.
12/05/2022	Buzzard	1	-	-	In flight, north-east of Nappers cottage; hunting.
12/05/2022	Buzzard	1	-	-	In flight, north-east of Nappers cottage; hunting.
12/05/2022	Buzzard	1	-	-	In flight, north-east of Nappers cottage; hunting.
12/05/2022	Buzzard	2	-	-	In flight; Garlick Hill; hunting.
01/06/2022	Buzzard	1	-	-	In flight; Cordorcan Burn.
01/06/2022	Buzzard	2	-	-	In flight, Threave Cairn.
01/06/2022	Buzzard	1	-	-	In flight, Nappers cottage; landed near Blair Hill.
01/06/2022	Buzzard	1	-	-	In flight; Nappers cottage; landed.
01/06/2022	Buzzard	1	-	-	In flight, Cordorcan Burn.
01/06/2022	Buzzard	1	-	-	In flight, Threave Cairn; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Moor of Drannandow.
02/06/2022	Buzzard	1	-	-	In flight, Garlick Hill.
02/06/2022	Buzzard	1	-	-	In flight, Garlick Hill; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Sheuchan Craig; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Blair Hill; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Threave Cairn; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Moor of Drannandow; hunting.
02/06/2022	Buzzard	1	-	-	In flight; Dalvaird.
02/06/2022	Buzzard	1	-	-	In flight; Coldstream Burn.
03/06/2022	Buzzard	1	-	-	In flight; Threave Cairn.
03/06/2022	Buzzard	1	-	-	In flight; Threave Cairn.
27/06/2022	Buzzard	-	-	-	
27/06/2022	Kestrel	-	-	-	In flight; west of Threave Cairn.
27/06/2022	Red kite	1	-	Adult	
29/06/2022	Buzzard	-	-	-	
29/06/2022	Red kite	1	-	Immature	
30/06/2022	Buzzard	-	-	-	
30/06/2022	Tawny owl	-	-	-	
25/07/2022	Buzzard	1	-	-	In flight; Moor of Drannandow.
26/07/2022	Hen harrier	1	Female	Adult	Same bird as below.
26/07/2022	Hen harrier	1	Female	Adult	Hunting; landed near Benailsa before gaining height and heading off east.
26/07/2022	Buzzard	3	-	-	North of Dalvard; family.
26/07/2022	Buzzard	3	-	-	Moor of Drannandow; family.
26/07/2022	Buzzard	3	-	-	Threave Cairn; family.
26/07/2022	Kestrel	1	-	-	In flight; Black Burn; male; hunting.
26/07/2022	Buzzard	-	-	-	Heard only; frequent calls north of survey location.
26/07/2022	Buzzard	1	-	-	In flight; Black Burn; hunting.
26/07/2022	Buzzard	1	-	-	In flight; Benailsa.

¹ Annex 1 of the EU Bird Directive

² Schedule 1 of the Wildlife and Countryside Act 1981, as amended by the Nature Conservation Act (Scotland) 2004

Date	Species	Number recorded	Sex	Age	Notes
26/07/2022	Buzzard	1	-	-	In flight; Dalvaired; mobbing kestrel.
26/07/2022	Buzzard	1	-	-	In flight; Benailsa.
26/07/2022	Buzzard	1	-	-	In flight; Dalvaired; mobbing buzzard.
26/07/2022	Kestrel	1	-	-	In flight; Dalvaired; mobbing buzzard.
26/07/2022	Kestrel	1	-	-	In flight; Black Burn.
26/07/2022	Kestrel	1	-	-	In flight; Dalvaired; mobbing kestrel.
27/07/2022	Buzzard	1	-	-	In flight; Glenmalloch Hill.
08/08/2022	Buzzard	1	-	-	In flight; Moor of Drannandow.
09/08/2022	Buzzard	-	-	-	In flight, outside the survey area.
12/08/2022	Buzzard	-	-	-	
12/08/2022	Goshawk	1	-	Juvenile	
12/08/2022	Sparrowhawk	-	-	-	
07/03/2023	Buzzard	3	-	-	
08/03/2023	Buzzard	-	-	-	
21/03/2023	Buzzard	-	-	-	
21/03/2023	Buzzard	1	-	-	In flight; over plantation.
21/03/2023	Buzzard	2	-	-	In flight, Nappers Hill.
22/03/2023	Buzzard	1	-	-	In flight; over plantation.
22/03/2023	Buzzard	1	-	-	
22/03/2023	Kestrel	1	-	-	
22/03/2023	Buzzard	-	-	-	
27/03/2023	Buzzard	-	-	-	
03/04/2023	Buzzard	5	-	-	
03/04/2023	Sparrowhawk	-	-	-	
04/04/2023	Buzzard	-	-	-	
04/04/2023	Goshawk	1	-	-	
06/04/2023	Buzzard	7	-	-	
07/04/2023	Buzzard	-	-	-	
24/04/2023	Buzzard	1	-	-	
24/04/2023	Buzzard	-	-	-	
24/04/2023	Kestrel	1	-	-	Hunting.
25/04/2023	Buzzard	1	-	-	
26/04/2023	Buzzard	3	-	-	
26/04/2023	Red kite	1	-	-	
26/04/2023	Red kite	1	-	-	
26/04/2023	Buzzard	-	-	-	
27/04/2023	Buzzard	1	-	-	In flight, Dalvaired.
27/04/2023	Buzzard	-	-	-	
28/04/2023	Buzzard	1	-	-	In flight, Drumfern.
01/05/2023	Sparrowhawk	-	-	-	
03/05/2023	Buzzard	-	-	-	
04/05/2023	Buzzard	-	-	-	
05/05/2023	Tawny owl	1	-	-	
22/05/2023	Buzzard	2	-	-	
22/05/2023	Red kite	1	-	-	
22/05/2023	Buzzard	2	-	-	
22/05/2023	Kestrel	3	-	-	Hunting.
23/05/2023	Buzzard	1	-	-	
23/05/2023	Buzzard	2	-	-	
23/05/2023	Kestrel	1	-	-	
23/05/2023	Buzzard	2	-	-	
24/05/2023	Buzzard	3	-	-	

Date	Species	Number recorded	Sex	Age	Notes
24/05/2023	Red kite	1	-	-	
24/05/2023	Buzzard	2	-	-	
25/05/2023	Buzzard	2	-	-	
14/06/2023	Buzzard	2	-	-	
14/06/2023	Merlin	2	Male/female	Adult	Pair; alarm calling
14/06/2023	Merlin	2	Male/female	Adult	Pair; alarm calling
15/06/2023	Buzzard	3	-	-	
15/06/2023	Buzzard	2	-	-	
15/06/2023	Buzzard	2	-	-	In flight, Nappers Cottage.
27/06/2023	Buzzard	-	-	-	
28/06/2023	Buzzard	-	-	-	
29/06/2023	Buzzard	-	-	-	
17/07/2023	Buzzard	-	-	-	
17/07/2023	Buzzard	-	-	-	
18/07/2023	Buzzard	-	-	-	
18/07/2023	Kestrel	-	-	-	
20/07/2023	Buzzard	-	-	-	
20/07/2023	Kestrel	3	-	-	Juveniles.
20/07/2023	Kestrel	4	-	-	Juveniles.
21/07/2023	Buzzard	-	-	-	
21/07/2023	Kestrel	-	-	-	
21/07/2023	Sparrowhawk	-	-	-	
25/07/2023	Buzzard	3	-	-	
25/07/2023	Buzzard	2	-	-	
26/07/2023	Buzzard	4	-	-	
26/07/2023	Kestrel	2	-	-	
26/07/2023	Merlin	1	Female	Adult	
26/07/2023	Buzzard	-	-	-	
27/07/2023	Buzzard	3	-	-	
27/07/2023	Kestrel	2	-	-	
27/07/2023	Red kite	1	-	-	
27/07/2023	Buzzard	-	-	-	
08/08/2023	Buzzard	-	-	-	
09/08/2023	Buzzard	-	-	-	
10/08/2023	Buzzard	-	-	-	
11/08/2023	Buzzard	-	-	-	
11/08/2023	Goshawk	1	-	Juvenile	
11/08/2023	Hen harrier	1	-	Juvenile	
11/08/2023	Sparrowhawk	-	-	-	
21/08/2023	Buzzard	-	-	-	
21/08/2023	Buzzard	-	-	-	
22/08/2023	Buzzard	-	-	-	
22/08/2023	Sparrowhawk	-	-	-	
22/08/2023	Buzzard	-	-	-	
22/08/2023	Sparrowhawk	-	-	-	
23/08/2023	Buzzard	-	-	-	
24/08/2023	Buzzard	-	-	-	
13/03/2024	Buzzard	-	-	-	
23/04/2024	Buzzard	-	-	-	
23/04/2024	Sparrowhawk	-	-	-	
01/05/2024	Buzzard	-	-	-	
01/05/2024	Kestrel	-	-	-	

Date	Species	Number recorded	Sex	Age	Notes
01/05/2024	Sparrowhawk	-	-	-	
02/05/2024	Buzzard	-	-	-	
02/05/2024	Kestrel	-	-	-	
03/05/2024	Tawny owl	-	-	-	
11/06/2024	Buzzard	-	-	-	
11/06/2024	Sparrowhawk	-	-	-	
01/07/2024	Buzzard	-	-	-	
01/07/2024	Kestrel	-	-	-	
01/07/2024	Sparrowhawk	-	-	-	
02/07/2024	Buzzard	-	-	-	
02/07/2024	Kestrel	-	-	-	

D.5 Black Grouse Records

Table D-5 details all black grouse records with lek numbers indicated where appropriate. Refer to **Annex B** for survey methodology and **Annex C** for weather data.

Table D-5 Black grouse activity records: 2022, 2023 and 2024

Lek number	Date	Survey visit	No. males	No. females	Notes
1	20/04/2022	BK 1	1	-	Lekking at NX 40894, 70676. Observed from near Napper's Cottage at 05:30. Bird disturbed at 05:45 by arrival of RSPB surveyor and walked out of sight.
1	11/05/2022	SBBS 2	1	-	Feeding/loafing from 06:50 until 07:30, then lekking from 07:30 until 08:00. Bird within 50 metres of lek site found in April.
-	05/04/2023	SBBS 7	-	1	
-	24/04/2023	BBS 5	-	1	
2	01/05/2023	SBBS 8	1	-	Lekking.
2	02/05/2023	SBBS 8	1	-	Lekking.
-	02/05/2023	SBBS 8	1	-	In flight.
2	05/05/2023	SBBS 8	1	-	Lekking; heard only.
1	25/05/2023	BK 4	1	-	Lekking occasionally from 04:45 until 05:30
1	26/05/2023	BK 4	2	-	Lekking from 05:25 until 05:50.
2	25/04/2024	BK 1 (AT)	3	-	At least 3 males lekking.
2	01/05/2024	SBBS 3 (AT)	2	-	Two males lekking.
2	03/05/2024	BK 2 (AT)	2	-	At least 2 males lekking.

D.6 Bird Species Index

A total of 82 bird species or signs was recorded at, or adjacent, to the Site during the ornithological surveys. **Table D-6** comprises a list of all these species along with their conservation status.

Table D-6 All bird species recorded at Blair Hill Wind Farm (April 2022 to July 2024)

Species	Conservation status	Species	Conservation status
Black grouse	BoCC ³ Red	Magpie	BoCC Green
Blackbird	BoCC Green	Mallard	BoCC Amber
Blackcap	BoCC Green	Meadow pipit	BoCC Amber

³ BoCC – Birds of Conservation Concern (Stanbury *et al.* 2021)

Species	Conservation status	Species	Conservation status
Blue tit	BoCC Green	Merlin	Annex 1, Schedule 1, BoCC Red
Bullfinch	BoCC Amber	Mistle thrush	BoCC Red
Buzzard	BoCC Green	Nuthatch	BoCC Green
Carrion crow	BoCC Green	Pheasant	Not assessed
Chaffinch	BoCC Green	Pied flycatcher	BoCC Amber
Chiffchaff	BoCC Green	Pied wagtail	BoCC Green
Coal tit	BoCC Green	Pink-footed goose	BoCC Amber
Common crossbill	Schedule 1, BoCC Green	Raven	BoCC Green
Common redstart	BoCC Amber	Red grouse	BoCC Green
Common whitethroat	BoCC Green	Red kite	Annex 1, Schedule 1, BoCC Green
Cuckoo	BoCC Red	Redstart	BoCC Amber
Dipper	BoCC Amber	Redwing	Schedule 1, BoCC Amber
Dunnock	BoCC Amber	Reed bunting	BoCC Amber
Fieldfare	Schedule 1, BoCC Red	Robin	BoCC Green
Garden warbler	BoCC Green	Rook	BoCC Amber
Goldcrest	BoCC Green	Sand martin	BoCC Green
Golden eagle	Schedule 1, BoCC Green	Sedge warbler	BoCC Amber
Golden plover	Annex 1, BoCC Green	Siskin	BoCC Green
Goldfinch	BoCC Green	Skylark	BoCC Red
Goosander	BoCC Green	Snipe	BoCC Amber
Goshawk	Schedule 1, BoCC Green	Song thrush	BoCC Amber
Grasshopper warbler	BoCC Red	Sparrowhawk	BoCC Amber
Great spotted woodpecker	BoCC Green	Spotted flycatcher	BoCC Red
Great tit	BoCC Green	Starling	BoCC Red
Green woodpecker	BoCC Green	Stonechat	BoCC Green
Greenfinch	BoCC Red	Swallow	BoCC Green
Grey heron	BoCC Green	Swift	BoCC Red
Grey wagtail	BoCC Amber	Tawny owl	BoCC Amber
Greylag goose	BoCC Amber	Tree pipit	BoCC Red
Hen harrier	Annex 1, Schedule 1, BoCC Red	Treecreeper	BoCC Green
House martin	BoCC Red	Wheatear	BoCC Amber
Jackdaw	BoCC Green	Whinchat	BoCC Red
Jay	BoCC Green	Willow tit	BoCC Red
Kestrel	BoCC Amber	Willow warbler	BoCC Amber
Lesser black-backed gull	BoCC Amber	Wood warbler	BoCC Red
Lesser redpoll	BoCC Red	Woodpigeon	BoCC Amber
Linnet	BoCC Red	Wren	BoCC Amber
Long-tailed tit	BoCC Green	Yellowhammer	BoCC Red