

Oweninny Wind Farm Phase 3

Environmental Impact Assessment Report

Appendix 8.3 Red Grouse Survey Report



OWENINNY WINDFARM

Red Grouse Tape Lure Survey

2021

APRIL 29TH, 2021

TOBIN

Eire Ecology, Moyglass, Loughrea, Co. Galway

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1 INTRODUCTION

This report details the results of a tape lure survey undertaken through lands within Oweninny, County Mayo. Surveys were undertaken under licence (06/2021). A copy of the licence can be found as Appendix A. The local conservation ranger; Sam Birch was contacted prior to the survey. The survey was conducted by John Curtin and Shane O'Neill.

1.1 STATEMENT OF AUTHORITY

The survey was undertaken by John Curtin (B.Sc.) and Shane O'Neill. John is an experienced ecologist with a high skillset over several disciplines. Primarily a field worker with experience in ornithological surveys & monitoring, botanical & habitat identification, and mammal surveys. In addition, he has prepared numerous stage 1 and 2 Natura Impact Statements and Environmental Impact Statements.

Shane has over ten years of experience as an ornithologist. Principally focusing on raptor ecology (Co-author Hen Harrier Survey, NPWS 2015) he also has experience with breeding birds and waders.

2 SITE DESCRIPTION

Oweninny is located in North Mayo, west of Crossmolina and east of Bangor Erris, just north of the N59 road. It lies to the south of Knockmoyle Sheskin Nature Reserve; an intact lowland Atlantic Bog. The site has been extensively stripped of peat by Bord Na Mona however this activity has stopped. Large tracks of peat are exposed with little vegetation although some sections are recolonising with a variety of species. In addition, some remnant bog sections remain in a variety of conditions. Areas of intact, active bog can be found to the north and north-east while another section of intact blanket bog can be found outside the site boundary to the south. The site also contains a variety of lakes, conifer plantation, small sections of grassland and built lands including tracks, roads, buildings and the Oweninny Windfarm.

for birds as the tape was being played and immediately after the tape had finished. If no response has been elicited after 30 seconds, the tape was played again for another 30 seconds and the observer waited and scanned for another 30 seconds before continuing on the route.

3 RESULTS

Red Grouse surveys were undertaken in suitable habitats throughout the site inclusive of a 500m buffer. Occasional sections of cutover peat were excluded when the surveyor felt the habitat had no potential for hosting red grouse.



Figure 3-1: Site Outline (red) and sections of bog with highest potential to host red grouse populations (blue shaded areas)

3.1 GROUSE SURVEY RESULTS

The survey was undertaken from the 23rd to the 26th of April 2021. Weather conditions were good (see table 3-1) below. Results are displayed in tables 3-2 to 3-10 with maps of sightings and search areas outlined in Figures 3-3 to 3-12.

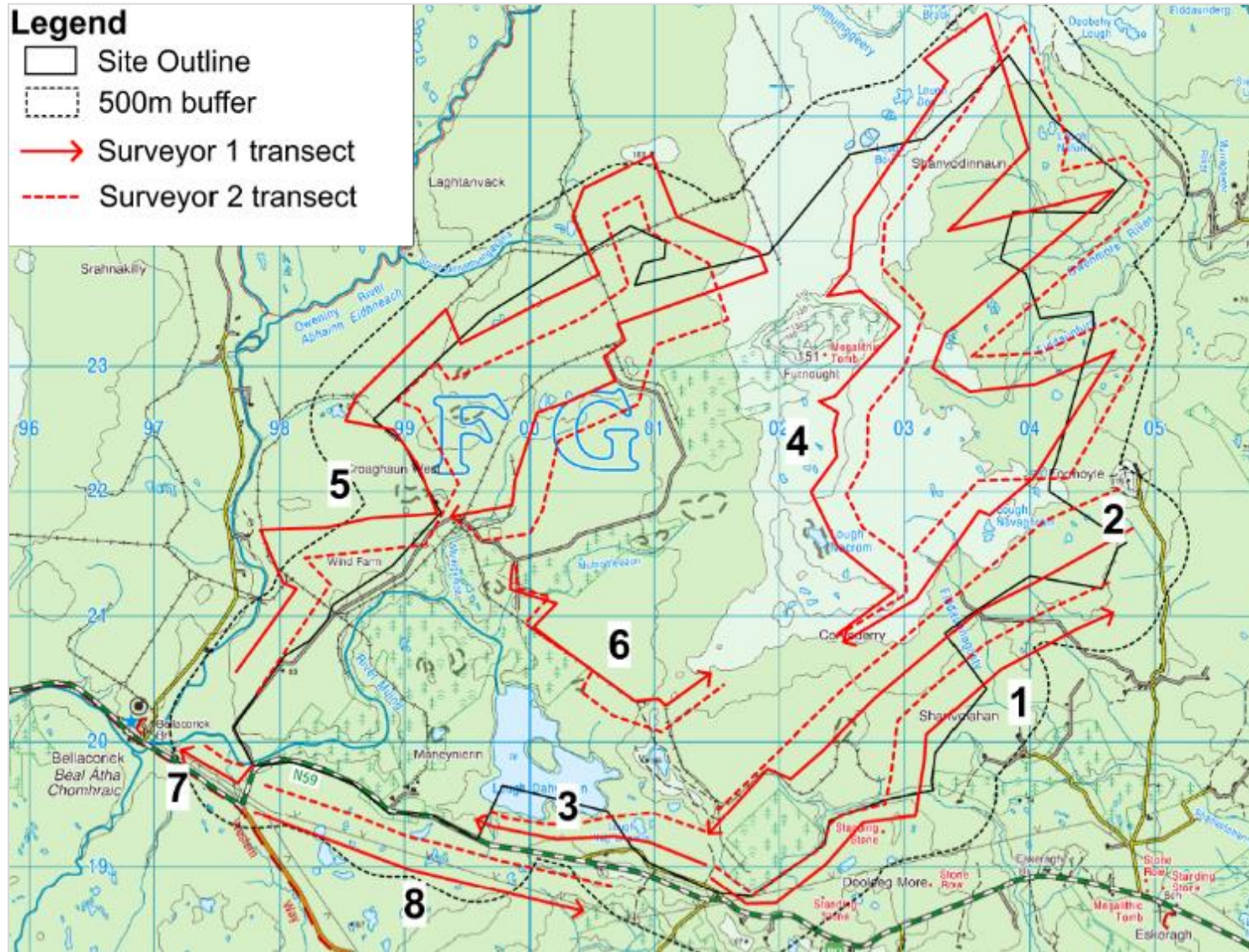


Figure 3-2 Transect locations.

Table 3-1: Weather data

Transect	Date	Start Time	Finish Time	Wind	Direction	Rain	Cloud
1	23/03/2021	10:15	14:05	F3-4	S	Light showers	66-100%
2	23/03/2021	14:15	15:55	F3	S	Dry	66-100%
3	23/03/2021	16:20	17:50	F2	S	Dry	66-100%
4	24/03/2021	08:00	15:49	F2-4	SW	Occasional light showers	66-100%
5	25/03/2021	08:30	13:15	F3-5	SW	Occasional light showers	66-100%
6	25/03/2021	14:00	16:00	F3-5	SW	Dry	66-100%
7	26/03/2021	07:00	07:45	F3-4	SW	Dry	66-100%
8	26/03/2021	08:00	11:00	F3-4	SW	Dry	33-65%
Short transects	26/03/2021	11:30	14:00	F3-4	SW	Dry	33-65%

Table 3-2 Red Grouse transect 1 survey findings

Observations	Easting	Northing	Findings
Transect conducted on bog located at the western end of the site through the townland of Shanvolahan. The southern section of bog appears of moderate suitability however no evidence was found. The central section of the transect traversed previously cutover bog of low potential. The NW end of the transect showed highest potential for Red Grouse.			
1	104433	320987	At 13:31 a red grouse flew away south from the surveyor, not calling. The bird was dark in colour.

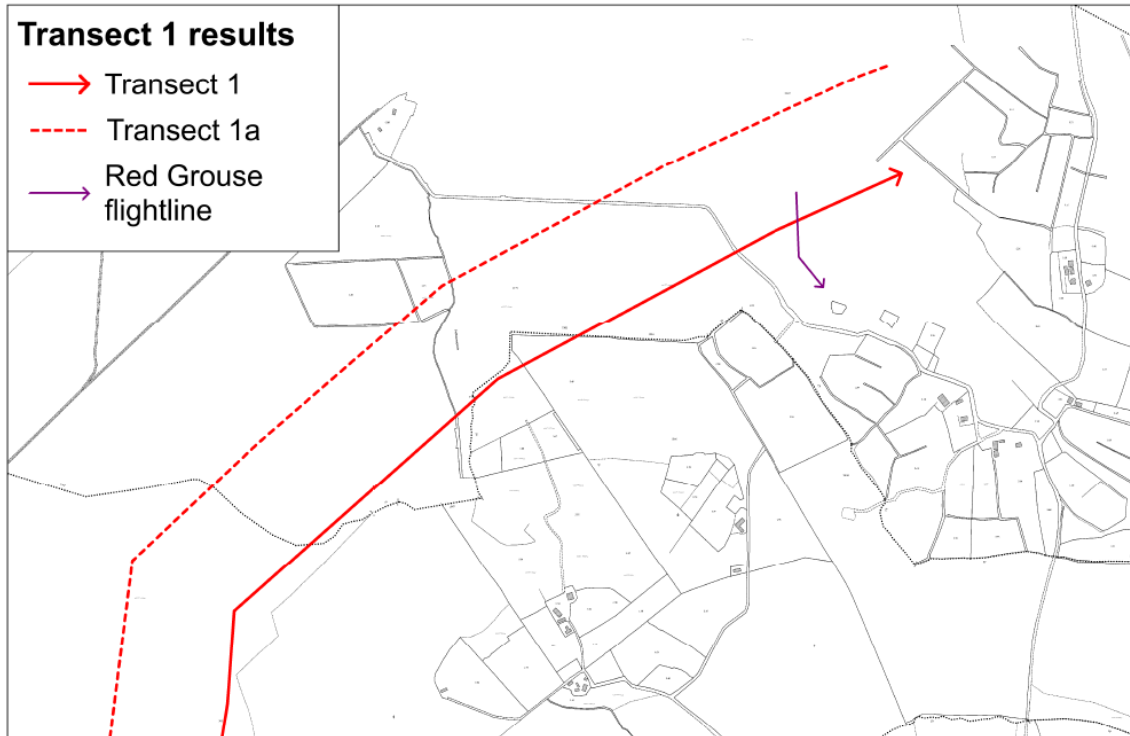


Figure 3-3 Red Grouse transect 1.

Table 3-3 Red Grouse transect 2 survey findings

Observations	Easting	Northing	Findings
<p>This transect was based to the west of transect 1 and was located in the townlands of Formoyle and Corvoderry. Again the north-eastern sections showed highest potential for breeding grouse with sections of intact, active blanket bog. Further south habitats changed to cutover peat however patches of this habitat have regenerated to a dry heath type habitat dominated by ling heather (<i>Calluna vulgaris</i>) somewhat suitable for red grouse occupancy. Further to the south these suitable sections end.</p> <p>Although highest potential habitat was located to the north a single sighting was recorded towards the centre of the site.</p>			
1	103330	320992	A male grouse flew towards the surveyor calling before flying back into cover. The bird was situated within heather adjacent to a path. Recorded at 14:53.



Figure 3-4 Red Grouse transect 2.

Table 3-4 Red Grouse transect 3 survey findings

Observations	Easting	Northing	Findings
Transect conducted on blanket bog (both previously cut and untouched) to the south of Lough Dahybaun grazed by sheep.			
0	-	-	No observations or signs.



Figure 3-5: Red Grouse transect 3.

Table 3-5 Red Grouse transect 4 survey findings.

Observations	Easting	Northing	Findings
Transect 4 was conducted through the townlands of Shanvodinnaun and Corvoderry and looped around a large section of stripped bog. Much of this internal section has had most of the peat removed and is unsuitable for red grouse occupancy. The western section skirts sections of remnant bog, now dried and dominated by ling heather. Although these sections are suitable for grouse they lack connectivity. The north and the east of the transect however are located in both untouched blanket bog or sections that have preliminary drains, presumably where Bord na Mona had planned for peat extraction. These sections of bog are of the a very high quality with multiple wet pools. These sections also have good connectivity with the Knockmoyle Sheskin Nature Reserve and lie partially within the Bellacorick Bog Complex SAC.			
1	103019	325156	Single bird flew up, due to tape lure before dropping back out of sight after 5 seconds. Did not call, probably female. Located close to Lough Doo at 11:43.
2	103300	325215	Single dropping found in heather at 12:02.
3	104054	324570	Single male flew away calling at 13:13.
4	104233	322739	Single male flew towards calling before flying away at 14:49. Dark bird.

Observations	Easting	Northing	Findings
5	104463	322536	Single male flew towards than away not calling. Dark bird recorded at 15:00
6	104285	322516	Light brown to red male calling towards surveyor before flying W. 15:16
7	104334	322296	Male flew away, calling. 15:17

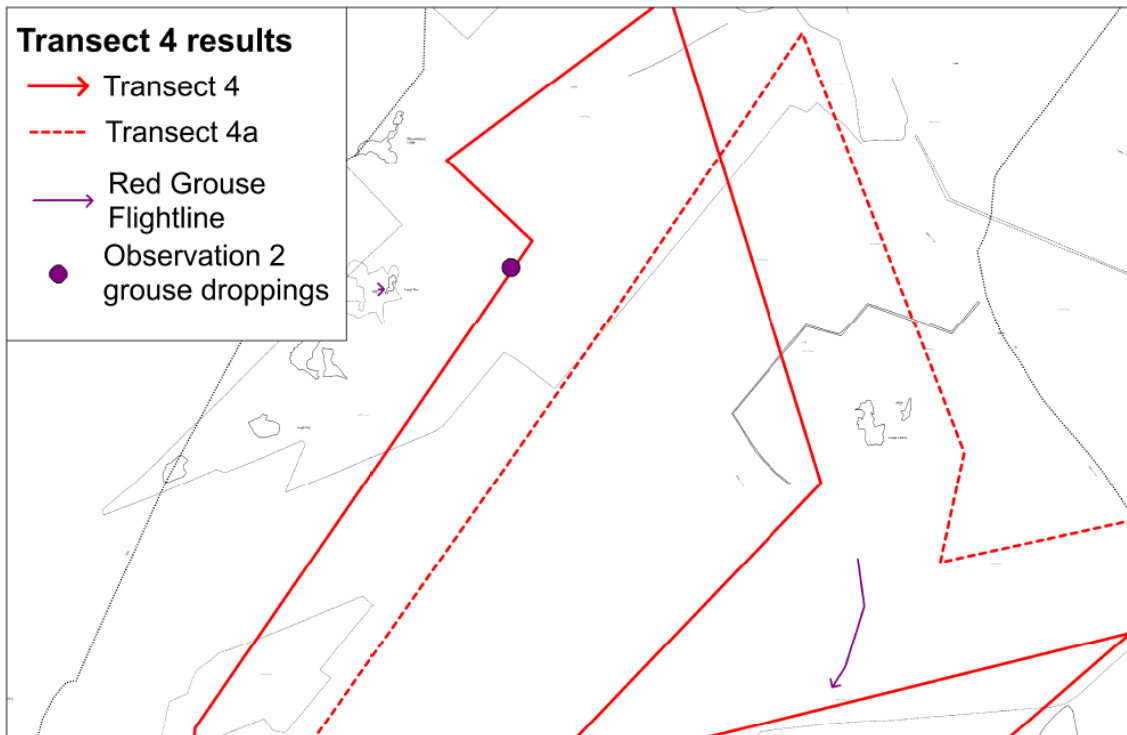


Figure 3-6 Red Grouse transect 4 observations.

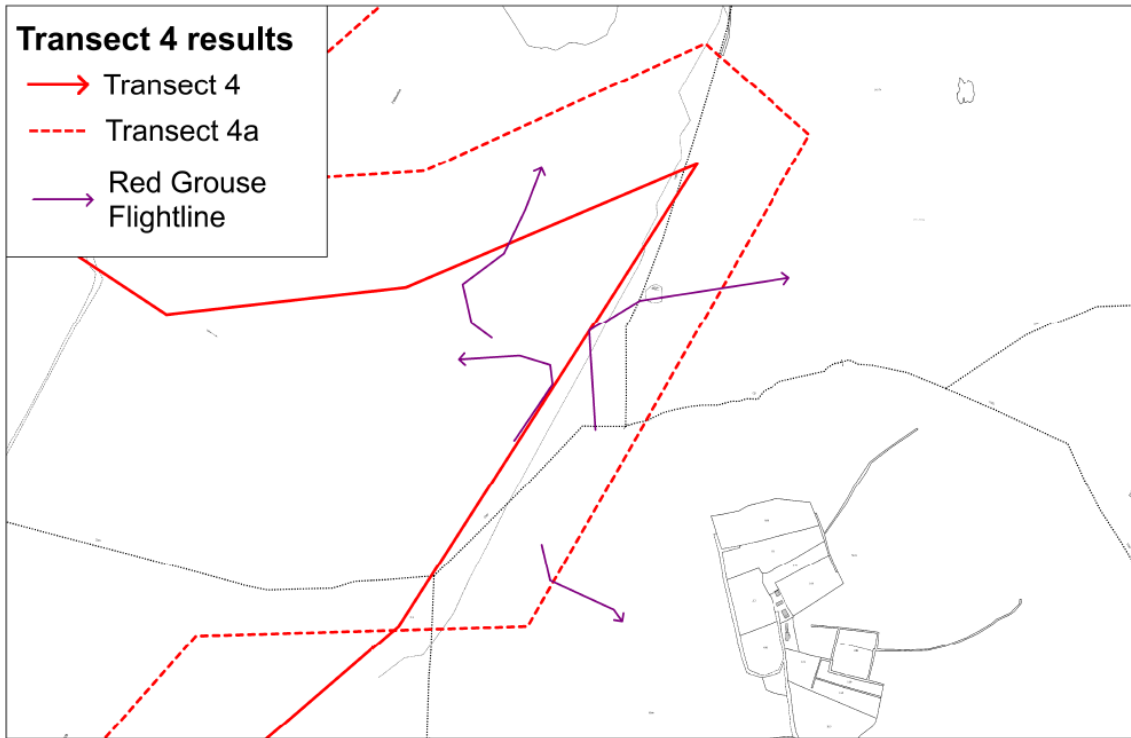


Figure 3-7 Red Grouse transect 4 observations.

Table 3-6 Red Grouse transect 5 survey findings

Observations	Easting	Northing	Findings
0	-	-	No observations or signs of red grouse.

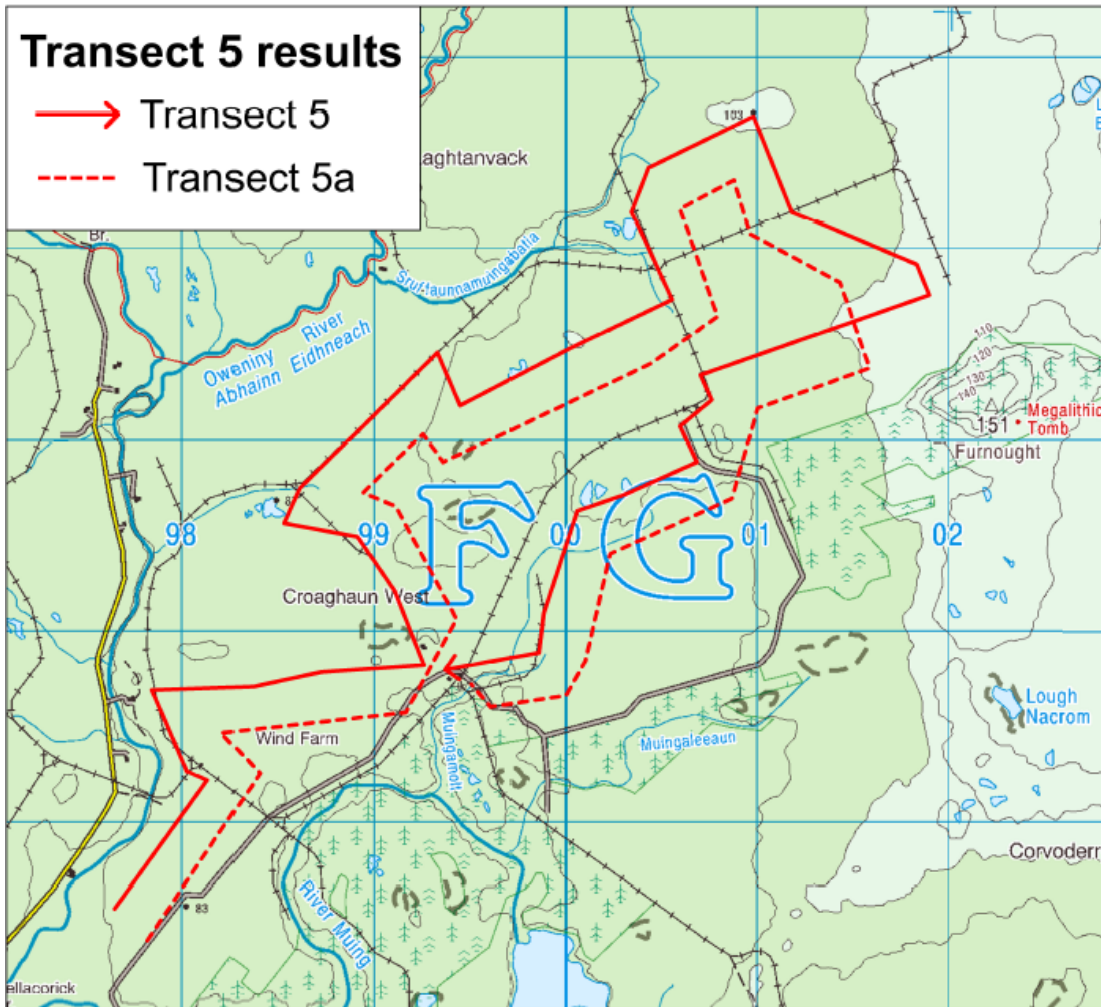


Figure 3-8 Red Grouse transect 5 observations.

Table 3-7 Red Grouse transect 6 survey findings

Observations	Easting	Northing	Findings
Transect 6, conducted through a variety of modified bog habitats, was located to the north of Lough Dahybaun. The main section of bog located to the north of the transect now consists of willow and birch scrub with lake and wetlands.			
0	-	-	No observations or signs of red grouse.

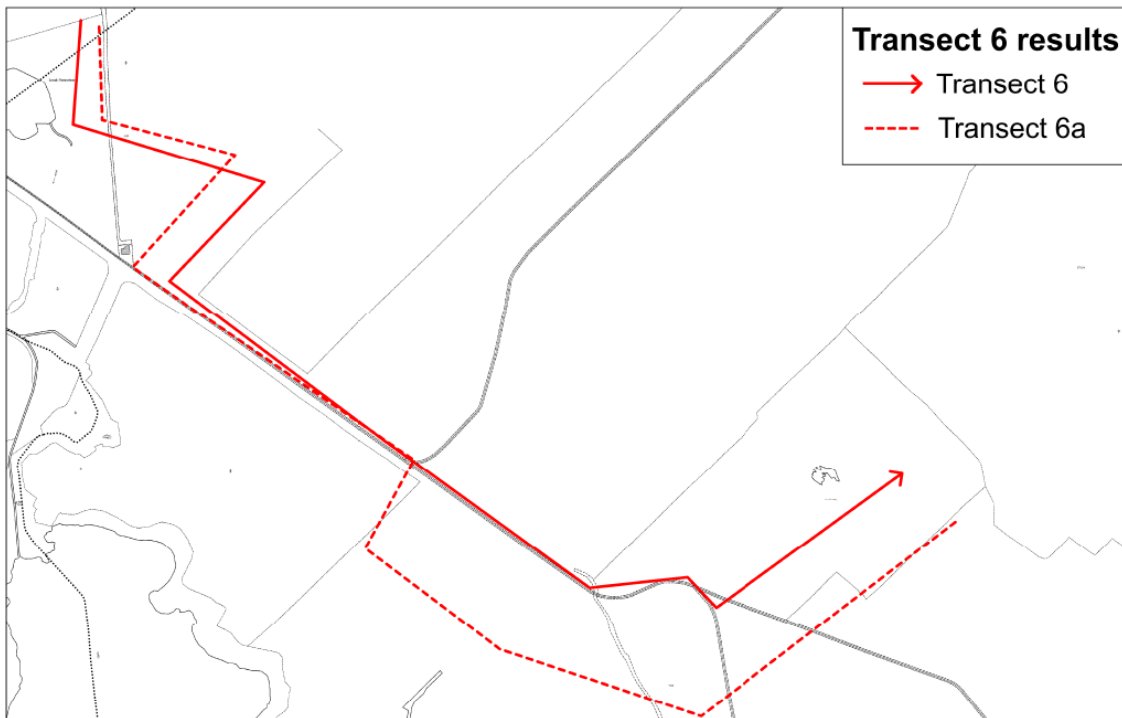


Figure 3-9 Red Grouse transect 6 observations.

Table 3-8 Red Grouse transect 7 survey findings

Observations	Easting	Northing	Findings
0	-	-	No observations or signs of red grouse.

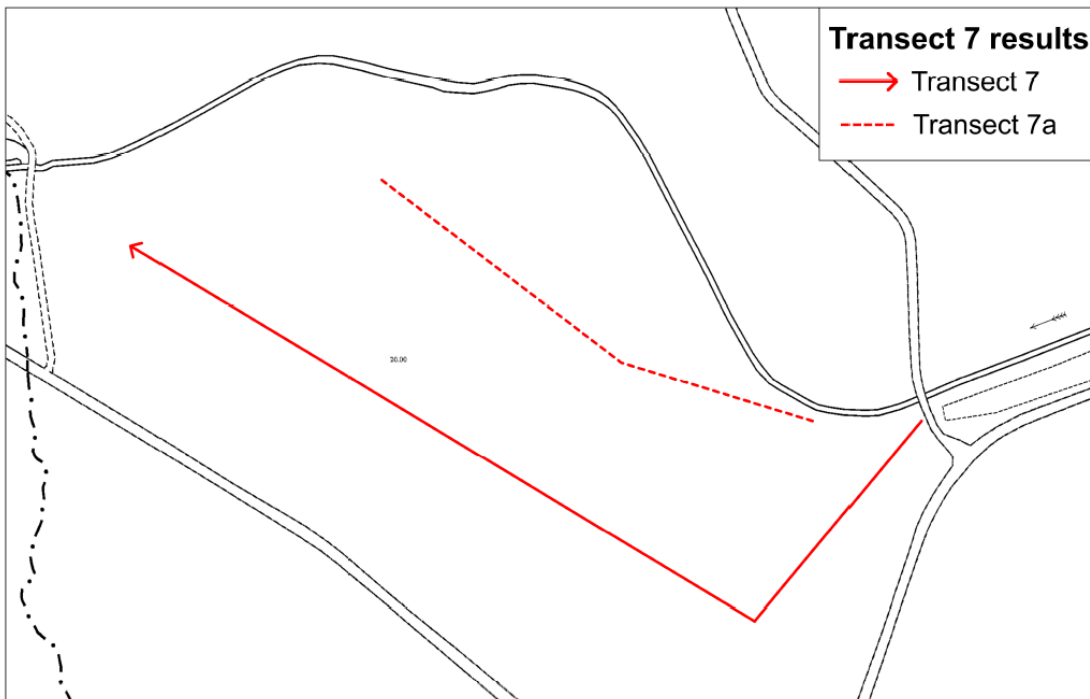


Figure 3-10 Red Grouse transect 7 observations.

Table 3-9 Red Grouse transect 8 survey findings

Observations	Easting	Northing	Findings
Transect 8 is located to the south of the site through intact blanket bog within the Bellacorick Bog Complex SAC. The habitat consists of high quality lowland blanket bog with numerous pools and wet sections. The transects were situated to the south of the N59 road.			
0	-	-	No observations or signs of red grouse.

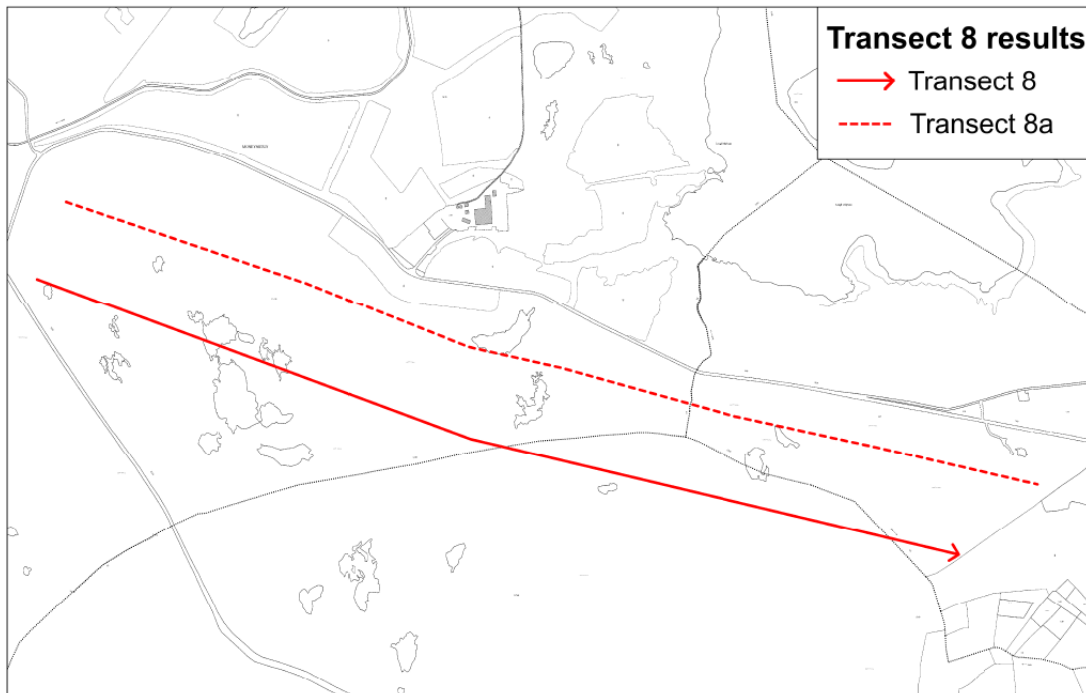


Figure 3-11 Red Grouse transect 8 observations.

Table 3-10 Red Grouse point counts and short transects.

Observations	Easting	Northing	Findings
Additional short transects were conducted on the evening of the 26 th of March. A transect was conducted to west of Lough Nacrom and to the NW of Lough Dahybaun.			
0	-	-	No observations or signs of red grouse.

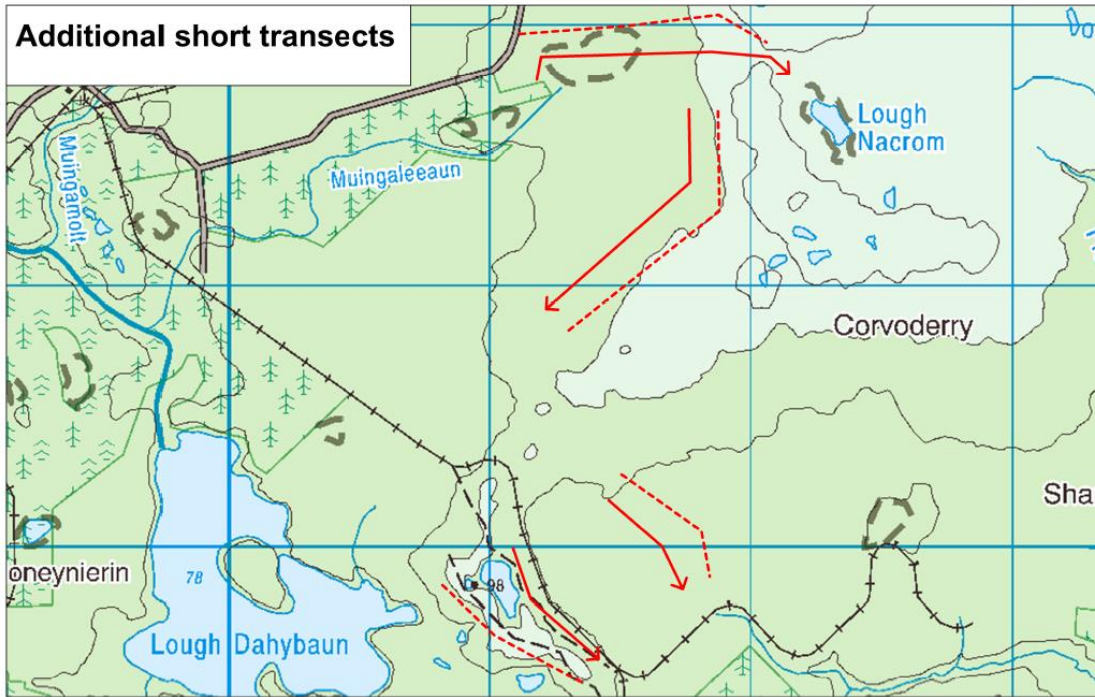


Figure 3-12: Additional transects

3.2 INCIDENTAL OBSERVATIONS

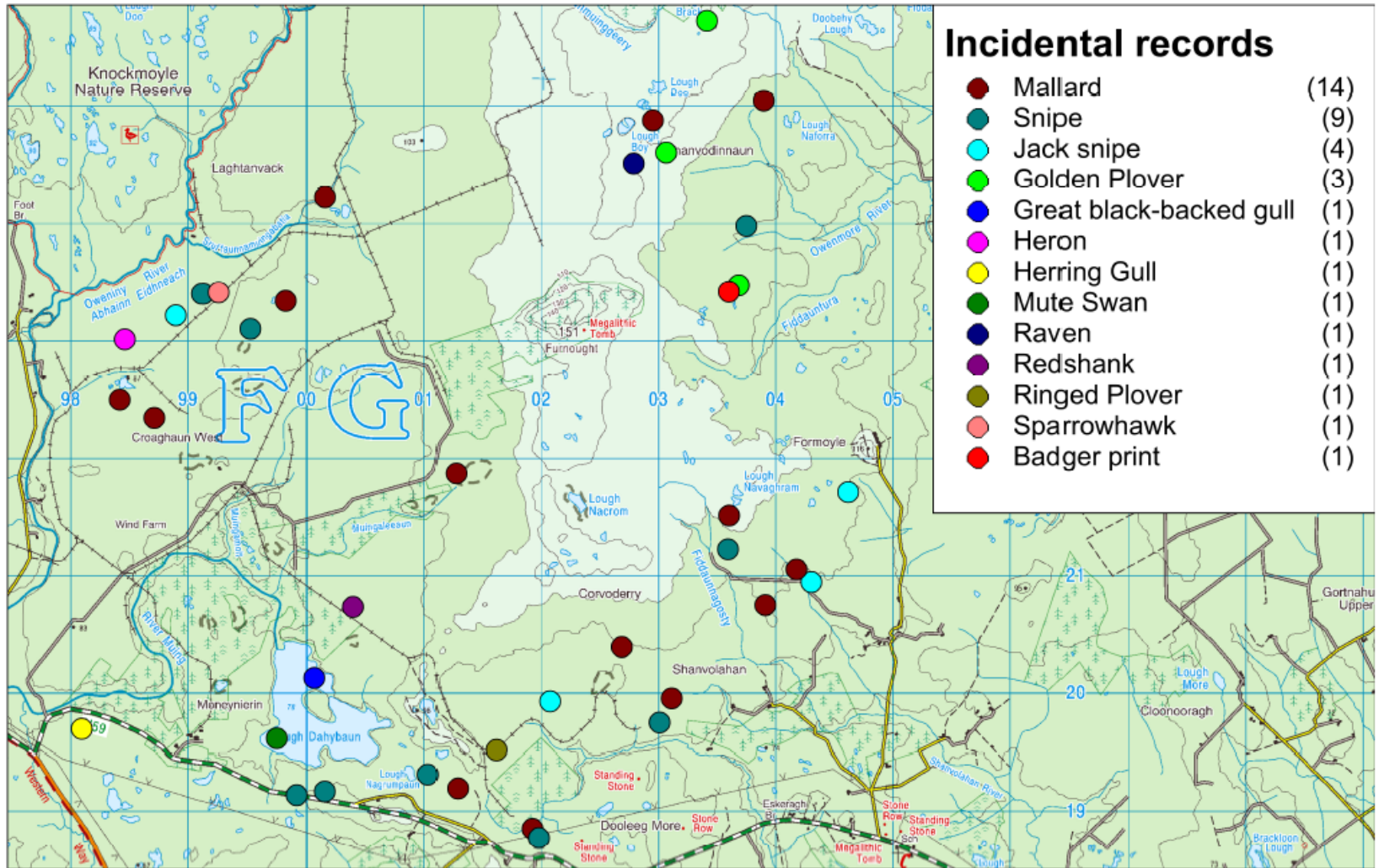


Figure 3-13: Incidental observation locations

Table 3-11: Incidental observations

Observation No.	X	Y	Habitat	BTO CODE	Number of birds	Transect no	Note
1	101924.3	318848.7	Freshwater	Mallard	2	1	Pair
2	101979.1	318771.3	Wet grassland	Snipe	1	1	-
3	103009.4	319746.3	Peatland	Snipe	1	1	-
4	103112.7	319951.5	Peatland	Mallard	1	1	-
5	103912.5	320748.6	Peatland	Mallard	1	1	-
6	104305.7	320944.1	Peatland	Jack snipe	1	1	
7	104178.6	321053.1	Peatland	Mallard	2	1	Pair
8	104620.3	321711.7	Peatland	Jack snipe	1	1	
9	103602.7	321511.5	Peatland	Mallard	2	2	-
10	103594	321225.4	Peatland	Snipe	2	2	-
11	102685.4	320391.3	Freshwater	Mallard	4	2	Pair
12	102074.7	319926	Peatland	Jack snipe	1	2	
13	101615.7	319516.1	Gravel heap by water	Ringed Plover	1	2	
14	101288.7	319192.8	Peatland	Mallard	1	3	-
15	101029.2	319310.7	Peatland	Snipe	1	3	-
16	100152.1	319167.8	Peatland	Snipe	1	3	-
17	100061.4	320127.1	Freshwater	Great black-backed gull	2	3	Pair
18	99742.21	319613.4	Freshwater	Mute Swan	2	3	Pair
19	99911.4	319137.8	Peatland	Snipe	1	3	-
20	102787.4	324511	Peatland	Raven	1	4	-
21	103065.8	324605.9	Peatland	Golden Plover	22	4	-
22	102952.9	324879	Peatland	Mallard	1	4	-

Observation No.	X	Y	Habitat	BTO CODE	Number of birds	Transect no	Note
23	103413.2	325729.9	Peatland	Golden Plover	70	4	-
24	103898.1	325046.3	FW	Mallard	2	4	-
25	103748.7	323979.5	Wet grassland	Snipe	4	4	-
26	103684.4	323472.9	Peatland	Golden Plover	32	4	-
27	103602	323419.4	Peatland	Badger print	1	4	-
28	98707.83	322345.4	Peatland	Mallard	1	5	-
29	98412.44	322500.6	Peatland	Mallard	3	5	-
30	98455.77	323011.5	Peatland	Heron	1	5	-
31	98891.46	323217.1	Peatland	Jack snipe	1	5	
32	99113.54	323400.6	Peatland	Snipe	1	5	-
33	99245.6	323413.6	Peatland	Sparrowhawk	1	5	-
34	99516.46	323102.1	Peatland	Snipe	1	5	-
35	99818.08	323340.1	Peatland	Mallard	1	5	-
36	100153.8	324223.2	Peatland	Mallard	3	5	-
37	101275	321871.2	Freshwater	Mallard	1	6	-
38	100392.8	320731.9	Freshwater	Redshank	1	6	Single bird alarm calling human disturbance
39	98088.38	319693.3	Peatland	Herring Gull	1	7	Second year

4 CONCLUSIONS

Much of the subject site consists of former peatland habitats now unsuitable for red grouse occupancy. Sections of stripped peat form habitats slowly succeeding into willow and birch woodland. Some conifer plantation has also been planted here. Some remnant strips of heather dominated bog can be found dispersed through the site. These however, lack connectivity thus showed little potential to host red grouse populations. One section of transect 2 located within the site had a red grouse. This was located within previously stripped peatland however heather had regenerated through a strip adjacent to a track. All other sightings of red grouse were noted from the north and east of the site close to and within unmodified blanket bog. Habitats to the NE are of high quality and suitability for red grouse. Southern transects were also located in good quality bog however no evidence of red grouse were found here. It is possible disturbance from the N59 road and sheep grazing reduces potential in this area.

Allowing for a 250 metre zone on either side of the transect routes, the area of land surveyed totaled 31.42 sq km.

1 grouse was found on transect 1, while a male was recorded from transect 2. Transect 4 had 5 male sightings and a female. This equates to 14 birds when additional associated females are taken into account plus the two probable females. This is equivalent to a figure of 0.45 birds per square kilometer.

These figures compares unfavorably to a national average of 1.11 birds per square kilometre for all one kilometre squares with potentially suitable habitat surveyed during the 2006-2008 national Red Grouse Survey. The national average for squares that were surveyed and which were positive for Red Grouse (i.e not including squares where no birds were recorded) was 2.35. Thus it would appear that the density of grouse found in the subject site is lower than the average for sites with potential grouse habitat.

It is the surveyor's opinion that much of the subject site is unsuitable for breeding red grouse despite appearing to be peatland from aerial photography. When considering just heather dominated peatland, the search area is reduced to approx. 11.7sqkm thus red grouse populations are 1.2 birds per sq km of suitable habitat. When only considering the north-eastern bog, numbers of grouse equate to 2.24 birds per sq km.

APPENDIX A



**An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta**
Department of Housing,
Local Government and Heritage

Licence No. 06/2021

NATIONAL PARKS & WILDLIFE SERVICE

Wildlife Acts 1976 to 2018 - Section 35

The Minister for Housing, Local Government and Heritage, in exercise of the powers conferred on the Minister by Section 35 of the Wildlife Acts 1976 to 2018 authorises:

Applicant: John Curtin (on behalf of Tobin Consulting Engineers)

Address: Moyglass, Loughrea, Co. Galway. H62 T880

Licensee: John Curtin

To use a tape-luring device for the birds specified in Column 2 for the purpose of identifying their presence in the area specified in column 3 during the period

From 15 March 2021 to 31 March 2021

Subject to the conditions listed overleaf.

SCHEDULE

1	2	3
TYPE OF DEVICE	SPECIES	AREA
Tape Lure	Red Grouse <i>(Lagopus lagopus hibernicus)</i>	Oweninny, Co. Mayo.

Dated this the 15 of March 2021

For the Minister for Housing, Local Government and Heritage

Claire Crowley



Conditions

1. This licence shall be produced for inspection on a request being made on that behalf by a member of An Garda Síochána or any person appointed by the Minister for Housing, Local Government and Heritage under Section 72 of the Wildlife Acts 1976 to 2018, to be an authorised person for the purpose of the Acts.
2. This licence may be revoked at any time by the Minister for Housing, Local Government and Heritage.
3. **Note:** Licence must not extend beyond the 31 March 2021.
4. **Note:** Licence only valid to survey at the area stated overleaf.
5. **Note:** License only valid for Licensee's named on licence.
6. **Note:** If looking to enter any National Park/Nature Reserve you will need to get a permit (in addition to this licence).
7. **Note:** The applicant must ensure that landowner permission is received to enter onto private land.
8. **Note:** It is the responsibility of the applicant to ensure compliance with any other necessary permits, licences or permissions from the appropriate authorities are in place before undertaking the survey.
9. **Note:** This survey must be conducted according to NPWS/BWI methodology for red grouse fieldwork.
10. **Note:** The playback duration should be sufficiently short so as not to cause undue distress, there should be a limit of 30 seconds playback in each territory holding area.
11. **Note:** Surveying should only be conducted in favourable weather conditions: i.e. no rain, light winds and good visibility.
12. **Note:** NPWS Regional Staff must be contacted prior to the commencement of survey under the terms of this licence. District Conservation Officer: Sam Birch 087 6378398
13. **Note: (a)** A return of survey results, Should include a map displaying the transects walked, where the tape lure was played and where the birds replied to the calls, no later than the 30th May 2021.
To be forwarded to the Wildlife Licensing Unit ✉ Wildlifelicence@housing.gov.ie
(b) All report(s) must be received by the Wildlife Licensing Unit, for our records, and will then be forwarded onto the Birds Unit and all relevant NPWS Regional Staff.
14. **Note:** Please include a map with each new Section 35 application, with the boundry Outlined and the townland names included on the map, where the survey will be conducted.

The Licencee must adhere to the measures and restrictions relating to public health on Covid-19

Any query in relation to this licence should be made to:

Wildlife Licensing Unit
National Parks and Wildlife Service
Department of Housing, Local Government and Heritage
90 North King Street
Smithfield
Dublin. D07 N7CV



01 888 3236



wildlifelicence@housing.gov.ie





Environmental Consultants

Red Grouse Tape Lure Survey
Oweninny Proposed Windfarm



DOCUMENT DETAILS

Client: Tobin

Project Title: Proposed Windfarm Oweninny

Address: Oweninny, Moneynierin, Co. Mayo

Document Title: Red Grouse Survey Results 2022

Prepared By: John Curtin

Date: July 2022

Eire Ecology, Moyglass, Loughrea, Co. Galway

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1 INTRODUCTION

This report details the results of a tape lure survey undertaken through lands within Oweninny, County Mayo. Surveys were undertaken under licence (28/2022). A copy of the licence can be found as Appendix A. The local conservation ranger; Sam Birch was contacted prior to the survey. The survey was conducted by John Curtin and Louis Peacock.

1.1 STATEMENT OF AUTHORITY

The survey was undertaken by John Curtin (B.Sc.) and Louis Peacock (B.Sc.). John is an experience ecologist with a high skillset over several disciplines. Primarily a field worker with experience in ornithological surveys & monitoring, botanical & habitat identification, and mammal surveys. In addition, he has prepared numerous stage 1 and 2 Natura Impact Statements and Environmental Impact Statements.

Louis has a degree in Wildlife Biology and has been working as an ecologist and ECow since 2021.

2 SITE DESCRIPTION

Oweninny is located in North Mayo, west of Crossmolina and east of Bangor Erris, just north of the N59 road. It lies to the south of Knockmoyle Sheskin Nature Reserve; an intact lowland Atlantic Bog. The site has been extensively stripped of peat by Bord Na Mona however this activity has stopped. Large tracks of peat are exposed with little vegetation although some sections are recolonising with a variety of species. In addition, some remnant bog sections remain in a variety of conditions. Areas of intact, active bog can be found to the north and north-east while another section of intact blanket bog can be found outside the site boundary to the south. The site also contains a variety of lakes, conifer plantation, small sections of grassland and built lands including tracks, roads, buildings and the Oweninny Windfarm.

approximately 30 seconds at each stop. The observers stopped and scanned with binoculars for birds as the tape was being played and immediately after the tape had finished. If no response has been elicited after 30 seconds, the tape was played again for another 30 seconds and the observer waited and scanned for another 30 seconds before continuing on the route.

3 RESULTS

Red Grouse surveys were undertaken in suitable habitats throughout the site inclusive of a 500m buffer. Occasional sections of cutover peat were excluded when the surveyor felt the habitat had no potential for hosting red grouse.



Figure 3-1: Site Outline (red) and sections of bog with highest potential to host red grouse populations (blue shaded areas)

3.1 GROUSE SURVEY RESULTS

The survey was undertaken over several days from the 11th to the 25th of March. Weather conditions were acceptable during the surveys with wind speeds Force 4 or lower and in dry to showery conditions; see table 3-1 below. Results are displayed in table 3-2 with maps of sightings and search areas outlined in Figures 3-2 to 3-4.

Table 3-1: Weather data

Transect	Date	Start Time	Finish Time	Distance	Wind	Rain	Cloud
1	11/03/2022	09:05	11:50	5km	3 to 4	Showers	66-100%
2	11/03/2022	13:30	16:30	4.9km	2	Drizzle	66-100%
3	16/03/2022	09:11	11:18	3.5km	3 to 4	Dry	66-100%
4	16/03/2022	11:22	13:55	3km	3 to 4	Dry	66-100%
5	11/03/2022	11:50	13:20	5.9km	3	Dry	66-100%
6	16/03/2022	14:06	16:01	2.3km	3 to 4	Dry	66-100%
7	16/03/2022	16:10	18:04	3.3km	3 to 4	Dry	66-100%
8	17/03/2022	12:55	14:06	3km	3 to 4	Showers	33-65%
9	17/03/2022	11:14	12:37	2km	3 to 4	Showers	33-65%
10	18/03/2022	09:46	11:19	2.75km	2 to 3	Dry	0-32%
11 ¹	18/03/2022	12:08	12:45	2.29km	3 to 4	Dry	0-32%
12	18/03/2022	14:19	15:00	2.41km	3 to 4	Dry	0-32%
13	18/03/2022	15:05	15:20	0.72km	2 to 3	Dry	0-32%
14	17/03/2022	16:41	16:55	0.45km	3	Dry	0-32%
15	17/03/2022	16:20	16:40	0.65km	3 to 4	Dry	0-32%
16	24/03/2022	11:09	15:23	12.69km	0 to 3	Dry	66-100%
17	24/03/2022	15:47	18:30	11.03km	0 to 2	Dry	33-65%
18	25/03/2022	10:20	11:49	4.12km	0 to 1	Dry	0-32%
19	25/03/2022	12:00	13:16	4.32km	1 to 2	Dry	0-32%
20	25/03/2022	14:58	15:06	0.21km	1 to 2	Dry	0-32%
21	25/03/2022	15:10	15:22	0.28km	1 to 2	Dry	0-32%
22	25/03/2022	15:44	15:51	0.68km	1 to 2	Dry	0-32%

¹ Transect 11, located to the south-west was based just outside the 500m boundary however the sound of the recorded travels 250m either side thus includes sections within the study area. As this habitat appears suitable for red grouse and noighting were recorded on the adjacent t10 or on transects located there during 2021 the surveyor felt it was worth examining for the presence of grouse at this point. It is possible the traffic along main N59 road deters red grouse from occupying further north.

Transect	Date	Start Time	Finish Time	Distance	Wind	Rain	Cloud
23	25/03/2022	15:59	16:14	0.64km	1 to 2	Dry	0-32%
24	25/03/2022	16:46	17:01	0.79km	1 to 2	Dry	0-32%
25	25/03/2022	17:06	17:21	0.56km	1 to 2	Dry	0-32%
26	25/03/2022	17:30	17:46	0.65km	1 to 2	Dry	0-32%
27	25/03/2022	17:55	18:12	0.65km	1 to 2	Dry	0-32%

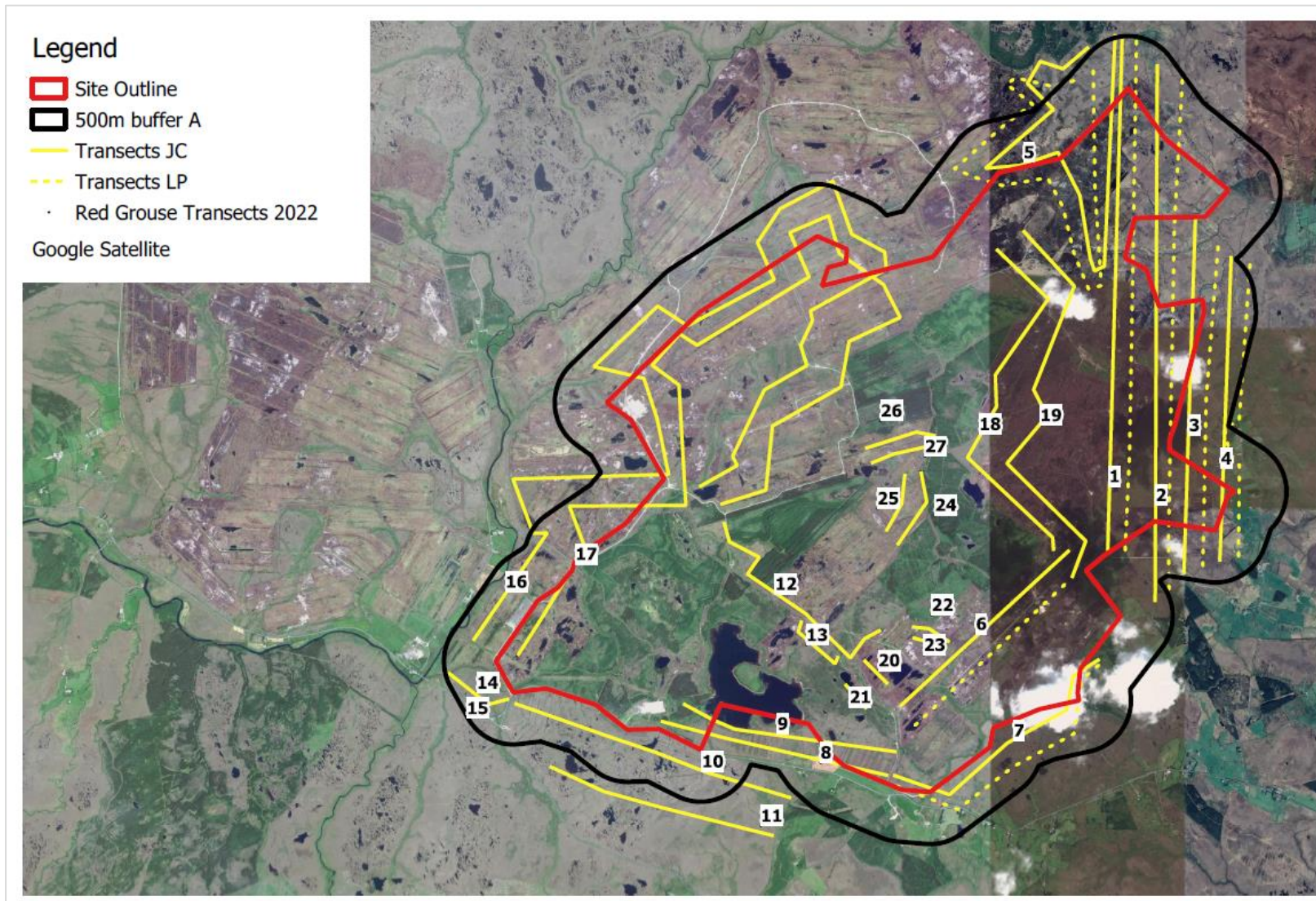


Figure 3-2 Transect locations.

3.1.1 Red Grouse observations

The majority of red grouse observations occurred to the north-east of the subject site (see Figure 3-2) close to and within the Bellacorrick Bog Complex SAC; an area of active blanket bog, particularly suited to red grouse occupation.

Given the transects cut through a variety of habitats results are presented based on observation location rather than per transect.

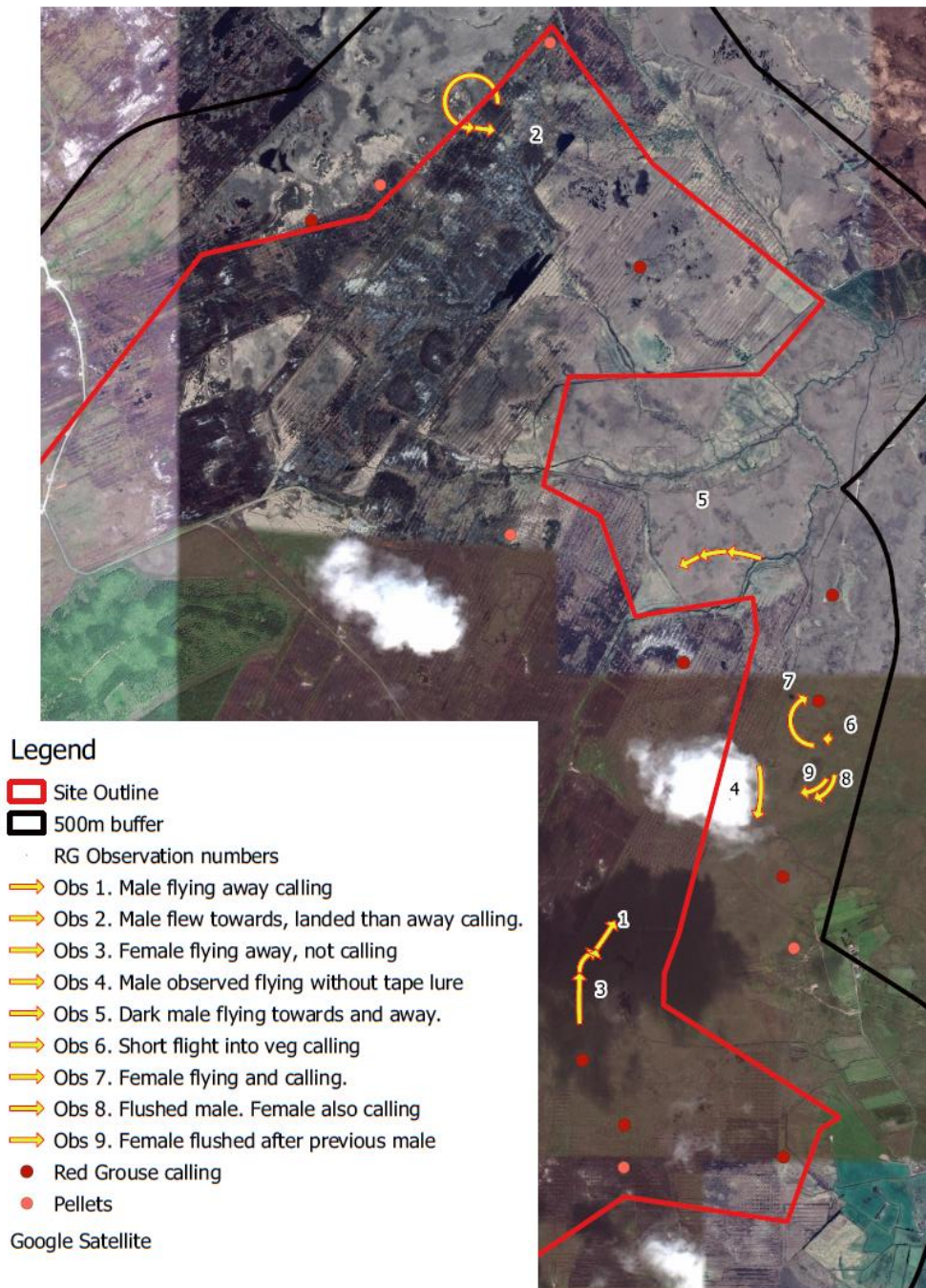


Figure 3-3: North east Red Grouse observations

Table 3-2 Red Grouse survey findings

Transect no	Number of birds	Flight no.	Note	Flight time	Date	Time
1	1	-	Calling from behind hill to east. Over by T3	-	11/03/2022	09:15
1	1	1	Male flying away calling to east by T3. 15sec	15 sec	11/03/2022	09:27
1	-	-	Red grouse pellets x 3 on bare peat	-	11/03/2022	10:34
1	-	-	Red grouse single pellet	-	11/03/2022	11:12
1	1	-	Calling not flying	-	11/03/2022	12:13
5	1	2	Male flew towards landed than away. Calling. Dark brown	30 sec	11/03/2022	12:23
5	-	-	Red grouse single pellet		11/03/2022	12:37
2	1	-	Calling not flying		11/03/2022	13:43
2	1	3	Female flying away. No call.	20 sec	11/03/2022	15:47
-	-	-	Fresh roosting pile of pellets with C		11/03/2022	15:56
-	-	-	Two piles of pellets, one with C, RG pair		11/03/2022	15:57
2	1	-	Calling, no flightline		11/03/2022	16:12
-	-	-	Pellet singular		11/03/2022	16:18
3	1	-	Calling no flightline		16/03/2022	09:44
3	1	4	Male flying without tape lure. South	40 sec	16/03/2022	10:20
3	1	-	Calling		16/03/2022	10:38
3	1	-	Calling		16/03/2022	10:39
3	1	5	Male flying towards and away calling. Dark.	30 sec	16/03/2022	10:52
4	1	-	No flightline, calling		16/03/2022	12:08
-	-	-	Singular pellet		16/03/2022	12:09
4	1	6	Short flightline into veg, calling, no sex ID	3 sec	16/03/2022	12:28
4	1	7	Female, flightline noted, calling, possibly same individual as previous	20 sec	16/03/2022	12:29
4	1	8	Flushed male, calling with female shortly after	10 sec	16/03/2022	12:32

Transect no	Number of birds	Flight no.	Note	Flight time	Date	Time
4	1	9	Female flushed after male, possible pair	10 sec	16/03/2022	12:33
4	1	-	Calling, not seen		16/03/2022	12:49
9	1	-	Calling not seen		17/03/2022	12:07
11	-	-	Pellet with caecal, appears to be quite old. Caecal dried up		18/03/2022	12:19

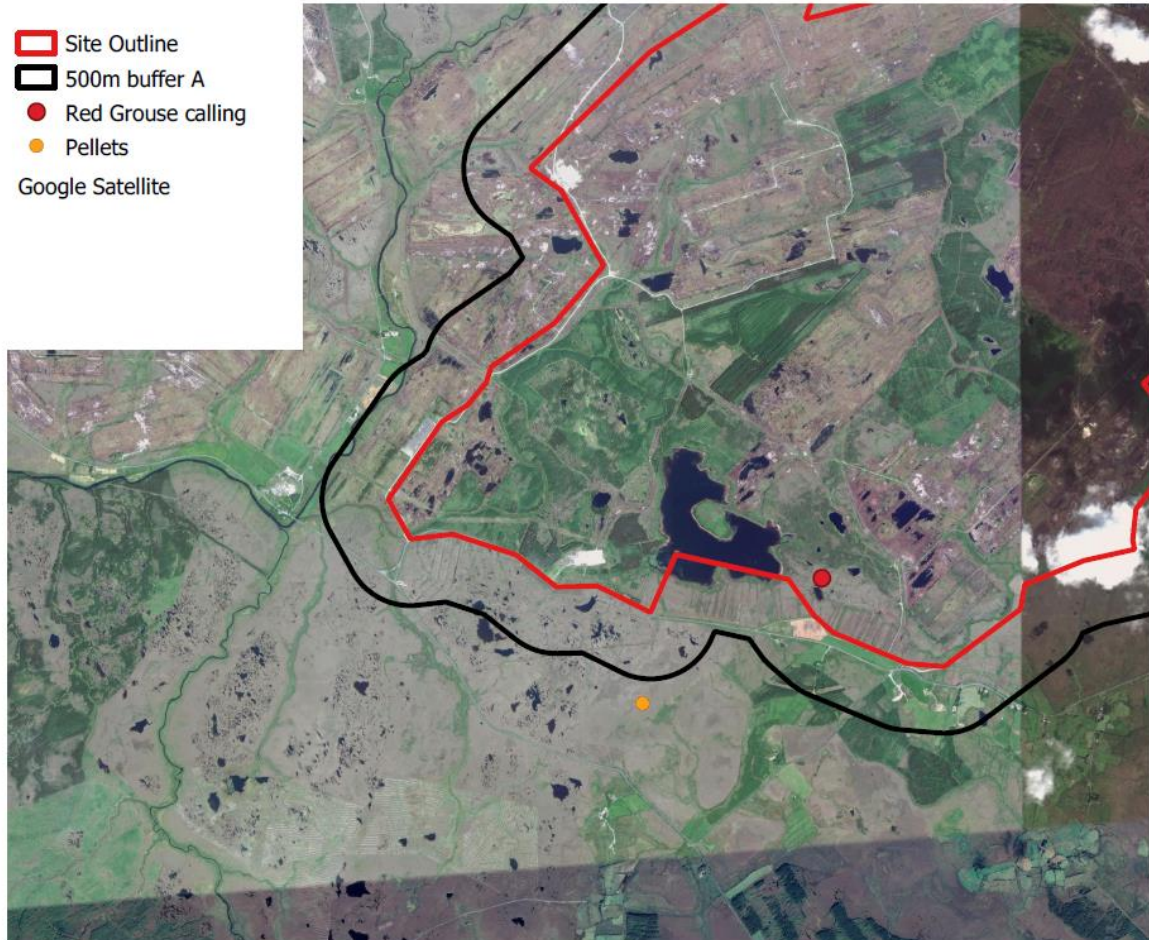


Figure 3-4: Southern Red Grouse observations

3.2 INCIDENTAL OBSERVATIONS

Multiple incidental sightings were noted during the survey. These are recorded in table 3-3 and Figure 3-5. The majority of sightings were of flushed snipe. Highlights include a flock of 155 Golden Plover to the north east, a male hen harrier (east of the site) and a merlin (located outside the 500m buffer to the east).

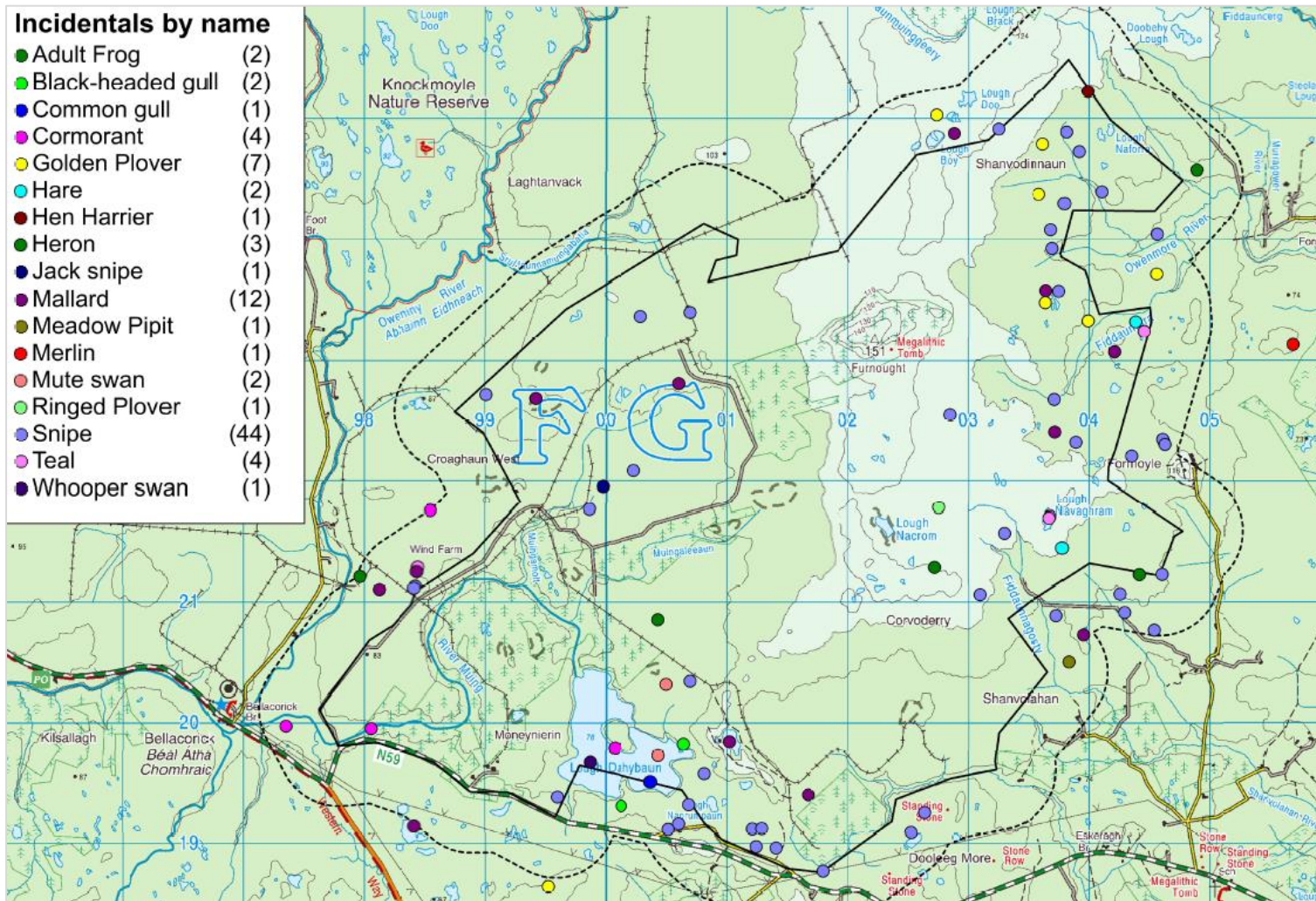


Figure 3-5: Incidental observation locations

Table 3-3: Incidental observations

Observation No.	Lat	Lon	Species	Numbers	Date	Time	Details
1	54.13542	-9.47435	Teal	2	11/03/2022	09:10:56	On water
2	54.13529	-9.47446	Teal	2	11/03/2022	09:13:47	-
3	54.13411	-9.48015	Snipe	1	11/03/2022	09:13:59	-
4	54.13311	-9.4728	Hare	1	11/03/2022	09:34:04	Flushed ran away
5	54.14094	-9.47138	Snipe	1	11/03/2022	09:35:50	Flushed flying high
6	54.14409	-9.47409	Snipe	1	11/03/2022	09:41:07	-
7	54.1522	-9.47562	Mallard	2	11/03/2022	10:12:19	-
8	54.15218	-9.47397	Snipe	1	11/03/2022	10:12:21	Flushed
9	54.15528	-9.47478	Snipe	1	11/03/2022	10:21:49	-
10	54.15668	-9.47501	Snipe	1	11/03/2022	10:24:00	-
11	54.15866	-9.47341	Snipe	1	11/03/2022	10:33:25	-
12	54.16255	-9.47173	Snipe	1	11/03/2022	10:43:53	-
13	54.15931	-9.47663	Golden Plover	-	11/03/2022	10:44:10	Sound of birds
14	54.1513	-9.47563	Golden Plover	-	11/03/2022	10:44:25	Sound of birds
15	54.16305	-9.47642	Golden Plover	2	11/03/2022	10:59:25	-
16	54.16399	-9.47337	Snipe	3	11/03/2022	10:59:26	Flushed
17	54.16507	-9.48993	Golden Plover	155	11/03/2022	11:43:26	Disturbed and circling over bog
18	54.16372	-9.48764	Mallard	2	11/03/2022	12:02:11	-
19	54.16705	-9.47078	Hen Harrier	1	11/03/2022	13:29:55	Male. Quartering
20	54.15957	-9.46875	Snipe	1	11/03/2022	13:51:38	-
21	54.14166	-9.4741	Mallard	1	11/03/2022	14:56:31	-
22	54.16412	-9.48201	Snipe	4	11/03/2022	16:21:55	-
23	54.12664	-9.46992	Mallard	2	11/03/2022	16:22:42	-
24	54.12839	-9.46476	Snipe	1	16/03/2022	09:25:28	-

Observation No.	Lat	Lon	Species	Numbers	Date	Time	Details
25	54.12976	-9.46541	Snipe	1	16/03/2022	09:30:28	-
26	54.13999	-9.46428	Snipe	2	16/03/2022	09:59:35	-
27	54.14775	-9.46673	Mallard	2	16/03/2022	10:27:21	-
28	54.15001	-9.46413	Hare	1	16/03/2022	10:31:26	-
29	54.15	-9.47014	Golden Plover	-	16/03/2022	10:40:13	Sound of a flock of GP in distance. No sighting
30	54.1493	-9.46304	Teal	1	16/03/2022	10:44:30	(Male)
31	54.15354	-9.4616	Golden Plover	34	16/03/2022	10:54:40	34 circling
32	54.1565	-9.46163	Snipe	1	16/03/2022	11:04:51	Flushed
33	54.16135	-9.45678	Heron	1	16/03/2022	11:08:22	-
34	54.14855	-9.44413	Merlin	1	16/03/2022	12:07:26	Flying south on border between bog and conifer plantation
35	54.14103	-9.46019	Snipe	1	16/03/2022	12:46:12	Flushed
36	54.14129	-9.46039	Snipe	1	16/03/2022	12:51:40	-
37	54.14129	-9.46039	Snipe	1	16/03/2022	12:52:18	-
38	54.14092	-9.4601	Snipe	1	16/03/2022	12:53:38	-
39	54.13129	-9.46012	Snipe	1	16/03/2022	13:34:35	-
40	54.12712	-9.46099	Snipe	1	16/03/2022	13:51:27	-
41	54.11433	-9.50429	Mallard	2	16/03/2022	16:01:41	-
42	54.10871	-9.50228	Snipe	1	16/03/2022	16:25:29	-
43	54.11172	-9.49122	Snipe	1	16/03/2022	16:51:40	-
44	54.11321	-9.48954	Snipe	1	16/03/2022	16:52:48	-
45	54.12461	-9.47167	Meadow Pipit	26	16/03/2022	17:43:29	-
46	54.12804	-9.47345	Snipe	1	16/03/2022	17:55:30	-
47	54.13125	-9.463	Adult Frog	1	17/03/2022	10:09:55	-
48	54.11705	-9.52348	Mute swan	2	17/03/2022	10:49:35	On lake
49	54.11752	-9.52894	Cormorant	1	17/03/2022	11:00:55	Flying low over lake

Observation No.	Lat	Lon	Species	Numbers	Date	Time	Details
50	54.11646	-9.53196	Whooper swan	3	17/03/2022	11:04:03	-
51	54.11322	-9.52796	Black-headed gull	1	17/03/2022	11:27:30	Flying over
52	54.11792	-9.52029	Black-headed gull	1	17/03/2022	11:27:52	It flying over lake
53	54.11506	-9.52432	Common gull	2	17/03/2022	11:39:29	Pair roosting on shores of lake
54	54.11341	-9.51946	Snipe	1	17/03/2022	12:00:53	-
55	54.11577	-9.51759	Snipe	1	17/03/2022	12:02:26	-
56	54.11172	-9.51134	Snipe	1	17/03/2022	12:27:50	-
57	54.11177	-9.51013	Snipe	1	17/03/2022	12:28:57	-
58	54.11043	-9.51079	Snipe	1	17/03/2022	12:42:30	-
59	54.11034	-9.50828	Snipe	1	17/03/2022	12:50:51	-
60	54.11197	-9.52067	Snipe	1	17/03/2022	13:22:42	-
61	54.11156	-9.522	Snipe	1	17/03/2022	13:26:55	-
62	54.11377	-9.53604	Snipe	1	17/03/2022	14:03:36	-
63	54.11862	-9.57062	Cormorant	1	17/03/2022	15:55:32	-
64	54.11138	-9.55416	Mallard	1	18/03/2022	09:45:54	Flying over likely from small lakes
65	54.11858	-9.55982	Cormorant	1	18/03/2022	11:55:09	-
66	54.10712	-9.53697	Golden Plover	2	18/03/2022	12:09:42	-
67	54.12229	-9.52263	Mute swan	1	18/03/2022	14:45:58	Pair roosting on shores of lake
68	54.12256	-9.51962	Snipe	1	18/03/2022	14:53:06	-
69	54.12712	-9.52385	Heron	1	24/03/2022	10:50:51	Not during transect but closest to T9
70	54.13813	-9.52735	Snipe	1	24/03/2022	11:41:40	-
71	54.14963	-9.52691	Snipe	1	24/03/2022	13:37:10	-
72	54.14334	-9.53986	Mallard	1	24/03/2022	13:59:17	-
73	54.13067	-9.55443	Teal	8	24/03/2022	15:05:25	-
74	54.13033	-9.55454	Mallard	5	24/03/2022	15:05:37	-

Observation No.	Lat	Lon	Species	Numbers	Date	Time	Details
75	54.12923	-9.55467	Snipe	1	24/03/2022	15:09:01	-
76	54.12907	-9.55482	Snipe	1	24/03/2022	15:11:04	-
77	54.12891	-9.55917	Mallard	2	24/03/2022	15:52:51	-
78	54.12987	-9.56169	Heron	1	24/03/2022	15:53:08	-
79	54.13489	-9.55295	Cormorant	1	24/03/2022	16:10:29	-
80	54.14355	-9.54622	Snipe	1	24/03/2022	16:39:59	-
81	54.15	-9.52061	Snipe	1	24/03/2022	17:35:14	-
82	54.14469	-9.52186	Mallard	2	24/03/2022	17:47:07	-
83	54.13691	-9.53116	Jack snipe	1	24/03/2022	18:20:24	-
84	54.1366	-9.53153	Snipe	1	24/03/2022	18:22:10	-
85	54.1359	-9.48857	Ringed Plover	1	25/03/2022	10:46:36	-
86	54.14279	-9.48739	Snipe	1	25/03/2022	11:16:07	-
87	54.13146	-9.48894	Adult Frog	1	25/03/2022	13:08:16	-
88	54.12949	-9.48315	Snipe	2	25/03/2022	13:28:03	-
89	54.11818	-9.51445	Mallard	2	25/03/2022	15:00:41	2 males

4 CONCLUSIONS

Much of the subject site consists of former peatland habitats now unsuitable for red grouse occupancy. Sections of stripped peat form habitats slowly succeeding into willow and birch woodland. Some conifer plantation has also been planted here. Some remnant strips of heather dominated bog can be found dispersed through the site. These however, lack connectivity thus showed little potential to host red grouse populations. One section of transect 2 located within the site had a red grouse. This was located within previously stripped peatland however heather had regenerated through a strip adjacent to a track. All other sightings of red grouse were noted from the north and east of the site close to and within unmodified blanket bog. Habitats to the NE are of high quality and suitability for red grouse. Southern transects were also located in good quality bog limited evidence of red grouse were found here. A red grouse was noted calling from close to Lough Dahybaun and pellets were noted south of the N59. No evidence of red grouse were noted from here during the 2021 survey.

Allowing for a 250 metre zone on either side of the transect routes, the area of land surveyed totaled 32.71 sq km. The 2021 survey covered 31.42 sq km.

Observation 1 (male) and 3 (female) were located very close to each other thus it is likely these two observations represent a pair. Observation 2 was of a calling male, as was observation 4 and 5. It is likely observations 6 and 7 were the same female while observations 8 and 9 represent a pair. This totals 11 birds when additional associated females are considered. In addition, a further 9 grouse were heard but not seen. Finally, two fresh piles of grouse pellets with caecal were noted at the southern end of Transect 2 thus the total estimated count of red grouse within the site was 22 birds. The pellets found on T11 were dried and outside the site boundary thus not added. This is equivalent to a figure of 0.67 birds per square kilometer for the 2022 survey. This is higher than the 2021 (0.45 birds per square kilometer) however compares unfavorably to a national average of 1.11 birds per square kilometre for all one kilometre squares with potentially suitable habitat surveyed during the 2006-2008 national Red Grouse Survey. The national average for squares that were surveyed and which were positive for Red Grouse (i.e not including squares where no birds were recorded) was 2.35. Thus it would appear that the density of grouse found in the subject site is lower than the average for sites with potential grouse habitat.

It is the surveyor's opinion that much of the subject site is unsuitable for breeding red grouse despite appearing to be peatland from aerial photography. When considering just heather dominated peatland, the search area is reduced to approx. 11.7sq km thus red grouse populations are 1.9 birds per sq km of suitable habitat.

APPENDIX A



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht
Department of Housing,
Local Government and Heritage

Licence No. 28/2022

NATIONAL PARKS & WILDLIFE SERVICE

Wildlife Acts 1976 to 2018 - Section 35

The Minister for Housing, Local Government and Heritage, in exercise of the powers conferred on the Minister by Section 35 of the Wildlife Acts 1976 to 2018 authorises:

John Curtin – John Meade – Tom Kenneally – Tobin Consulting Engineers

Moyglass, Loughrea, Co. Galway. H62T880.

To use a tape-luring device for the birds specified in Column 2 for the purpose of identifying their presence in the area specified in column 3 during the period

From 08 March 2022 to 31 March 2022

[Subject to the conditions listed overleaf.](#)

SCHEDULE

1	2	3
TYPE OF DEVICE	SPECIES	AREA
Tape Lure (MP3, Megaphone of male Grouse call)	Red Grouse <i>(Lagopus lagopus scoticus)</i>	Monitor Grouse Population Oweninny Co. Mayo

Dated 08 March 2022

For the Minister for Housing, Local Government and Heritage



Conditions

1. This licence shall be produced for inspection on a request being made on that behalf by a member of An Garda Síochána or any person appointed by the Minister for Housing, Local Government and Heritage under Section 72 of the Wildlife Acts 1976 to 2018, to be an authorised person for the purpose of the Acts.
2. This licence may be revoked at any time by the Minister for Housing, Local Government and Heritage.
3. If looking to enter any National Park/Nature Reserve you will need to get a permit (in addition to this licence).
4. The applicant must ensure that landowner permission is received to enter onto private land.
5. It is the responsibility of the applicant to ensure compliance with any other necessary permits, licences or permissions from the appropriate authorities are in place before undertaking the survey.
6. Local NPWS staff must be contacted when details of your survey plan have been finalised. Local NPWS staff need to discuss the details of your survey to avoid duplicate disturbances during the National Grouse survey. NPWS staff may wish to meet surveyors on-site. Therefore it is required that you give notice of the survey days (minimum 24 hours before) to local NPWS staff (Sam Birch, District Conservation Ranger Sam.Birch@housing.gov.ie)
7. The licensee must follow the standard tape-playback transect methodology and guidance on using the tape-lure, as set out in the Irish Wildlife Manual No. 50 (*i.e.* Cummins *et al.* 2010¹). The licensee must also adhere to the survey window for using tape-playback methods *i.e.* 1st Dec – 31st March inclusive.
8. End of survey reports are to be provided by each applicant detailing summary results of all grouse tape-playback surveys for each site surveyed (*including sites where grouse were not recorded*). Ideally, these should be submitted no later than April 30th each calendar year at the end of the survey season to this email address: wildlifelicence@housing.gov.ie
9. NPWS Regional Staff must be contacted prior to the commencement of survey under the terms of this licence.

The Licencee must adhere to the measures and restrictions relating to public health on Covid-19

Any query in relation to this licence should be made to:

Wildlife Licensing Unit
National Parks and Wildlife Service
Department of Housing, Local Government and Heritage
90 North King Street
Smithfield
Dublin. D07 N7CV

 wildlifelicence@housing.gov.ie

¹ Cummins, S., Bleasdale, A., Douglas, C., Newton, S., O'Halloran, J. & Wilson, H.J. (2010) The status of Red Grouse in Ireland and the effects of land use, habitat and habitat quality on their distribution. *Irish Wildlife Manuals*, No. 50. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
<https://www.npws.ie/sites/default/files/publications/pdf/IWM50.pdf>