

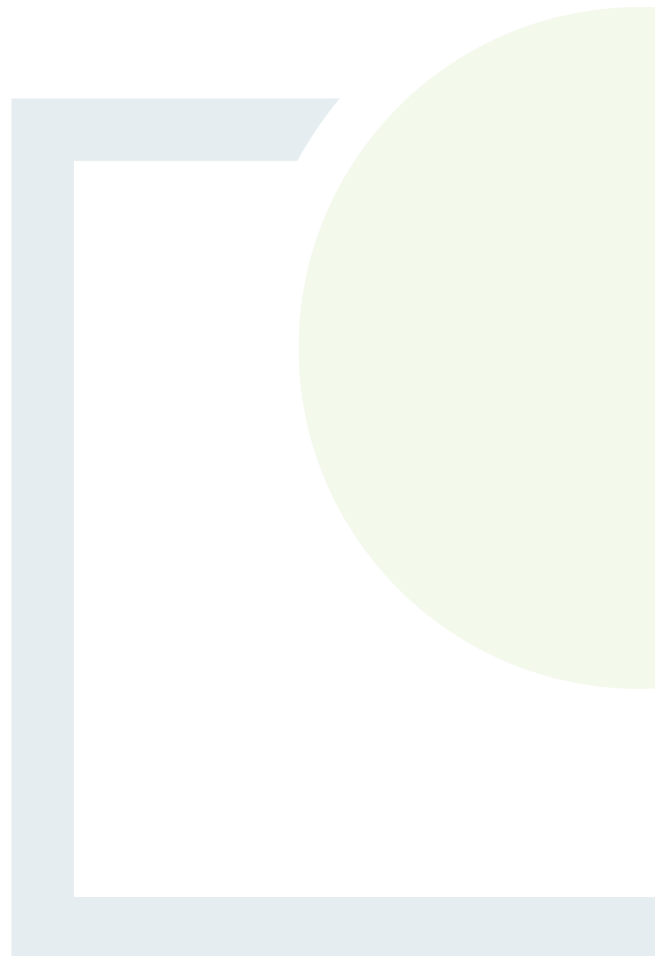


**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING**

Appendix 8.A1

Biodiversity Terrestrial
Ecology Appendices



Appendix 8A

Biodiversity Terrestrial Ecology Appendices

Ballinagree Wind Farm



January 2022

List of Appendices

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Appendix 8A.1
Terrestrial Biodiversity Survey Schedules & Statement of
Competence

Avifauna Vantage Point (VP) and Hinterland Survey Schedules (March 2017 – March 2020)

VP Survey Schedule Ballinagree, Breeding Season Survey 2017.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
30.03.17	1	10.00 - 13.30	3hrs 30 mins	Dry initially then Mist/Rain; F3-4; Good to Poor Visibility;8/8 Okta
30.03.17	2	11.30 - 12.45	1hr 15mins	Dry initially then Mist/Rain; F3-4; Good to Poor (from 12.15hrs) Visibility;8/8 Okta
30.03.17	3	n/a	0hrs 0mins	Mist/Rain; F4; Moderate to Poor Visibility;8/8 Okta
30.03.17	4	10.45 - 13.30	2hrs 45mins	Dry initially then Mist/Rain; F3-4; Good to Poor (from 12.55hrs) Visibility;8/8 Okta
30.03.17	5	11.05 - 13.30	2 hrs 25mins	Dry; F3; Good Visibility;8/8 Okta
30.03.17	6	11.20 - 12.00 & 12.50 - 13.25	1hr 15mins	Dry initially then Mist/Rain; F1; Moderate to Poor Visibility;8/8 Okta
20.04.17	1	09.30 - 16.15	6hrs 45mins	Dry; F0-3; Good Visibility; 0-7/8 Okta
20.04.17	2	09.35 - 16.20	6hrs 45 mins	Dry; F0-1; Good Visibility; 3-7/8 Okta
21.04.17	3	09.45 - 16.30	6hrs 45mins	Dry; F1-2; Good Visibility; 1-8/8 Okta
21.04.17	4	09.45 - 16.50	7hrs 5mins	Dry; F1-3; Good Visibility; 1-6/8 Okta
21.04.17	5	09.45 - 16.50	7hrs 5mins	Dry; F2; Good Visibility; 2/8 Okta
21.04.17	6	10.00 - 16.55	6hrs 45mins	Dry; F1; Good Visibility; 4/8 Okta
26.04.17	2	10.00-11.00	1hr 0mins	Dry; F3-4; Good Visibility; 6-7/8 Okta
26.04.17	3	11.20-13.35	2hrs 15mins	Dry; F3-4; Good Visibility; 6-7/8 Okta
26.04.17	6	15.30-16.30	1hr 0mins	Dry; F3-4; Good Visibility; 7/8 Okta
12.05.17	1	09.25 - 15.50	6hrs 25mins	Dry; F3; Moderate - Good Visibility; 7/8 Okta
12.05.17	2	09.35 - 16.20	6hrs 45mins	Dry; F2-4; Moderate - Good Visibility; 8/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
12.05.17	3	09.45 - 16.30	6hrs 45mins	Dry; F3-4; Good Visibility; 7/8 Okta
12.05.17	4	09.45 - 16.15	6hrs 30mins	Dry; F3-4; Moderate - Good Visibility; 6-8/8 Okta
12.05.17	5	10.05 - 16.40	6hrs 35mins	Dry; F4; Good Visibility; 8/8 Okta
12.05.17	6	09.40 - 15.40 & 16.00 - 16.45	6hrs 45mins	Dry; F2-3; Moderate - Good Visibility; 8/8 Okta
15.06.17	1	09.40 - 14.05	6hrs 25mins	Light rain; F2-3; Good Visibility; 7/8 Okta
16.06.17	2	10.00 - 16.45	6hrs 45mins	Dry; F3; Good Visibility; 2-7/8 Okta
15.06.17	3	09.50 - 16.35	6hrs 45mins	Dry; F5; Good Visibility; 7/8 Okta
15.06.17	4	09.45 - 16.15	6hrs 30mins	Dry with occ. showers; F4; Good Visibility; 8/8 Okta
16.06.17	5	10.40 - 17.15	6hrs 35mins	Dry; F2-4; Good Visibility; 7-8/8 Okta
16.06.17	6	10.05 - 16.50	6hrs 45mins	Dry; F2-3; Good Visibility; 3/8 Okta
13.07.17	1	10.30 - 16.55	6hrs 25 mins	Dry; F0-1; Good Visibility; 6/8 Okta
12.07.17	2	09.25 - 16.10	6hrs 45mins	Dry; F0-3; Good Visibility; 0-6/8 Okta
13.07.17	3	10.45 - 17.30	6hrs 45mins	Dry; F1-3; Good Visibility; 8/8 Okta
13.07.17	4	11.00 - 17.30	6hrs 30mins	Dry; Good Visibility; 6/8 Okta
12.07.17	5	09.55 - 16.30	6hrs 35mins	Dry; Good Visibility; 2-3/8 Okta
12.07.17	6	09.30 - 16.15	6hrs 45mins	Dry; F1; Good Visibility; 1-2/8 Okta
23.08.17	1	09.40 - 16.10	6hrs 30 mins	Occ. light mist); F1-2; Good Visibility; 6-8/8 Okta
23.08.17	2	09.40 - 16.25	6hrs 45mins	Occ. Rain; F3; Good Visibility; 8/8 Okta
24.08.17	3	11.05 - 17.50	6hrs 45mins	Occ. Light Mist; F2-4; Moderate - Good Visibility; 4-8/8 Okta
23.08.17	4	09.45 - 16.20	6hrs 35mins	Occ. Light Mist; Good Visibility; 4-8/8 Okta
23.08.17	5	09.50 - 16.30	6hrs 40mins	Occ. Showers; F3; Good Visibility; 6-8/8 Okta
23.08.17	6	09.45 - 16.30	6hrs 45mins	Occ. Showers; F1-2; Good Visibility; 7-8/8 Okta

Hinterland Survey Schedule Ballinagree, Breeding Season Survey 2017

Date	Time (24hrs)	Survey Effort (hrs & mins)	Weather
15.04.17	10.00 - 16.10	6 hrs 10 mins	Dry (one shower); F2-4; Good Visibility; 6-8/8 Okta
26.04.17	15.00-15.15	0hrs 15mins	Dry; F3-4; Good Visibility; 8/8 Okta
13.07.17	10.20 - 17.20	7 hrs	Dry; F3; Good Visibility; 4-7/8 Okta

VP Survey Schedule Ballinagree, Winter Season Survey 2017/2018.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
24.10.17	1	09.55 - 15.55	6 hrs	Dry initially, showers from 13.00, light rain for last 45 mins; F1-2; Good to Moderate Visibility (last 45 mins);8/8 Okta
24.10.17	2	09.50 - 15.50	6 hrs	Showers; F3-4; Good to Moderate Visibility; 8/8 Okta
24.10.17	3	10.03 - 16.03	6 hrs	Showers; F3; Good to Moderate Visibility; 8/8 Okta
24.10.17	4	09.50 - 15.50	6 hrs	Occ. Drizzle; F2-3; Good Visibility; 8/8 Okta
24.10.17	5	09.58 - 15.58	6 hrs	Dry; F2-3; Good to Moderate Visibility; 8/8 Okta
24.10.17	6	10.00 - 16.00	6 hrs	Occ. Showers, light rain after 14.00; F3; Good to Moderate Visibility; 8/8 Okta
09.11.17	1	08.10 - 14.10	6 hrs	Dry; F3; Good Visibility; 3-6/8 Okta
09.11.17	2	09.15 - 15.15	6 hrs	Occ. Light mist; F5; Good Visibility; 8/8 Okta
09.11.17	3	09.15 - 15.15	6 hrs	Dry; F2-4; Good Visibility; 2-7/8
09.11.17	4	09.10 - 15.10	6 hrs	Dry; F4-5; Good Visibility; 2-8/8

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
09.11.17	5	09.40 - 15.40	6 hrs	Occ. Showers; F3-4; Good Visibility; 2-7/8
09.11.17	6	09.50 - 15.50	6 hrs	Dry; F3-4; Good Visibility; 6-8/8
05.12.17	1	11.01 - 16.31	5.5 hrs	Occ. Drizzle; F3-4; Good - Moderate Visibility; 8/8 Okta
05.12.17	2	11.00 - 16.30	5.5 hrs	Dry but low cloud last 30 mins; F4; Good - Poor Visibility (last 30 mins); 8/8 Okta
05.12.17	3	11.00 - 16.30	5.5 hrs	Mist after 12.15; F3-5; Good - Poor Visibility; 8/8 Okta
05.12.17	4	11.00 - 16.30	5.5 hrs	Occ drizzle & low cloud; F3; Moderate to Poor Visibility; 8/8 Okta
05.12.17	5	10.50 - 16.35	5 hrs 45 mins	Occ. Showers & low cloud; F1-2; Good - Poor Visibility; 8/8 Okta
05.12.17	6	10.55 - 16.30	5 hrs 35 mins	Dry; F1; Good- Moderate Visibility; 8/8 Okta
25.01.18	1	11.30 - 17.30	6 hrs	Occ. Showers; F2-4; Good Visibility; 6-7/8
25.01.18	2	11.40 - 17.40	6 hrs	Occ. Showers; F4-5; Good - Moderate Visibility; 8/8
26.01.18	3	11.40 - 17.40	6 hrs	Light rain in last hour; F1-2; Good - Moderate Visibility (last 20 mins); 8/8
25.01.18	4	11.30 - 17.30	6 hrs	Occ. Showers; F3-4; Good - Moderate Visibility; 7/8
25.01.18	5	11.15 - 17.15	6 hrs	Occ. Showers; F2; Good Visibility; 7/8 Okta
26.01.18	6	11.30 - 17.30	6 hrs	Light rain last 1.5hrs; F1; Good Visibility; 7/8
21.02.18	1	10.17 - 16.17	6 hrs	Dry; F1; Good Visibility; 4-8/8 Okta
21.02.18	2	09.38 - 15.38	6 hrs	Dry; F2; Good Visibility; 1-7/8 Okta
21.02.18	3	10.15 - 16.15	6 hrs	Dry; F1; Good Visibility; 1-8/8 Okta
21.02.18	4	09.30 - 15.30	6 hrs	Dry; F1; Good Visibility; 2/8 Okta
26.02.18	5	09.45 - 15.45	6 hrs	Dry; F3-4; Good Visibility; 8/8 Okta
26.02.18	6	09.45 - 15.45	6 hrs	One light snow shower; F3; Good Visibility; 4-8/8 Okta
16.03.18	1	09.30 - 15.30	6 hrs	Occ. Showers; F2-3; Good Visibility; 8/8
16.03.18	2	09.30 - 15.30	6 hrs	Occ. showers; F2-3; Good to Moderate Visibility; 7/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
16.03.18	3	09.50 - 15.50	6 hrs	Occ. showers; F1-2; Good to Moderate Visibility; 7-8/8 Okta
16.03.18	4	09.50 - 15.50	6 hrs	Occ. showers; F3-4; Good Visibility; 8/8 Okta
21.03.18	5	10.05 - 16.05	6 hrs	Dry; F2-3; Good Visibility; 1-8/8 Okta
22.03.18	6	10.00 - 16.00	6 hrs	Dry; F1-2; Good Visibility; 4/8 Okta

VP Survey Schedule Ballinagree, Breeding Season Survey 2018.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
16.03.18	1	09.30 - 15.30	6 hrs	Occ. Showers; F2-3; Good Visibility; 8/8
16.03.18	2	09.30 - 15.30	6 hrs	Occ. showers; F2-3; Good to Moderate Visibility; 7/8 Okta
16.03.18	3	09.50 - 15.50	6 hrs	Occ. showers; F1-2; Good to Moderate Visibility; 7-8/8 Okta
16.03.18	4	09.50 - 15.50	6 hrs	Occ. showers; F3-4; Good Visibility; 8/8 Okta
21.03.18	5	10.05 - 16.05	6 hrs	Dry; F2-3; Good Visibility; 1-8/8 Okta
22.03.18	6	10.00 - 16.00	6 hrs	Dry; F1-2; Good Visibility; 4/8 Okta
11.04.18	1	09.00 - 15.00	6 hrs	Dry; F0; Moderate Visibility; 8/8 Okta
19.04.18	2	08.30 - 14.30	6 hrs	Dry; F2-3; Moderate - Good Visibility; 3-8/8 Okta
11.04.18	3	09.30 - 15.30	6 hrs	Dry; F1; Moderate - Good Visibility; 8/8 Okta
11.04.18	4	09.53 - 15.53	6 hrs	Dry; F2-3; Moderate Visibility; 8/8 Okta
19.04.18	5	09.45 - 15.45	6 hrs	Dry; F2-3; Moderate - Good Visibility; 3/8 Okta
19.04.18	6	09.35 - 15.35	6 hrs	Occ. Drizzle; F1-2; Moderate - Good Visibility; 4-8/8
10.05.18	1	09.55 - 15.55	6 hrs	Dry; F3; Good Visibility; 5/8 Okta
10.05.18	2	09.48 - 15.48	6 hrs	Dry; F3-5; Good Visibility; 5/8 Okta
25.05.18	3	09.20 - 15.20	6 hrs	Dry; F3; Good Visibility; 1-5/8 Okta
10.05.18	4	10.12 - 16.12	6 hrs	Dry; F2; Good Visibility; 6/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
25.05.18	5	09.45 - 15.45	6 hrs	Dry; F3-4; Good Visibility; 1-4/8 Okta
25.05.18	6	09.30 - 15.30	6 hrs	Dry; F3; Good Visibility; 3/8 Okta
08.06.18	1	09.35 - 15.35	6 hrs	Dry; F1-2; Good Visibility; 5/8 Okta
11.06.18	2	09.00 - 15.00	6 hrs	Dry; F3; Good Visibility; 7/8 Okta
08.06.18	3	09.20 - 15.20	6 hrs	Dry; F3; Good Visibility; 7/8 Okta
08.06.18	4	09.15 - 15.15	6 hrs	Dry; F2-3; Good Visibility; 3/8 Okta
11.06.18	5	09.10 - 15.10	6 hrs	Dry; F3; Good Visibility; 7-8/8 Okta
11.06.18	6	09.30 - 15.30	6 hrs	Dry; F3-4; Moderate - Good Visibility; 4-6/8 Okta
06.07.18	1	09.12 - 15.12	6 hrs	Dry; F2; Good Visibility; 4-8/8 Okta
06.07.18	2	09.21 - 15.21	6 hrs	Occ. Showers; F3; Good Visibility; 3-8/8 Okta
06.07.18	3	09.24 - 15.24	6 hrs	Dry; F2; Good Visibility; 5/8 Okta
06.07.18	4	09.05 - 15.05	6 hrs	Dry; F2-3; Good Visibility; 4-7/8 Okta
06.07.18	5	09.30 - 15.30	6 hrs	Occ. Mist; F0-1; Good Visibility; 4-8/8 Okta
06.07.18	6	09.10 - 15.10	6 hrs	Occ. Mist; F1; Good Visibility; 4-8/8 Okta
22.08.18	1	09.25 - 15.25	6 hrs	Light mist initially; F2-4; Moderate - Good Visibility; 5-8/8 Okta
22.08.18	2	09.15 - 15.15	6 hrs	Light mist initially; F3; Moderate - Good Visibility; 5-8/8 Okta
22.08.18	3	09.30 - 15.30	6 hrs	Light mist initially; F4; Moderate - Good Visibility; 5-8/8 Okta
22.08.18	4	09.15 - 15.15	6 hrs	Light mist initially; F3-4; Moderate - Good Visibility; 5-8/8 Okta
22.08.18	5	09.30 - 15.30	6 hrs	Light mist initially; F4; Moderate - Good Visibility; 6-8/8 Okta
22.08.18	6	09.20 - 15.20	6 hrs	Light mist initially; F2-4; Moderate - Good Visibility; 4-8/8 Okta

Hinterland Survey Schedule Ballinagree, Breeding Season 2018.

Date	Time (24hrs)	Survey Effort (hrs & mins)	Weather
11.04.18	09.48 - 16.00	6 hrs 12 mins	Dry; F1; Good Visibility; 8/8 Okta
18.04.18	08.00 - 12.20	4hrs 20 mins	Occ. Showers; F5; Poor - Good Visibility; 8/8 Okta
20.07.19	09.27 - 17.59	8 hrs 30 mins	Dry; F2-3; Good Visibility; 5/8 Okta

VP Survey Schedule Ballinagree, Winter Season Survey 2018/2019.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
17.10.18	1	08.11 - 14.55	6 hrs	Dry; F1-2; Good Visibility; 3/8 Okta
17.10.18	2	09.24 - 15.24	6 hrs	Dry; F4; Good Visibility; 2/8 Okta
17.10.18	3	09.20 - 15.20	6 hrs	Dry; F2-3; Good Visibility; 1-6/8 Okta
17.10.18	4	09.30 - 15.30	6 hrs	Dry; F5-6; Good Visibility; 1-6/8 Okta
17.10.18	5	09.30 - 15.30	6 hrs	Dry; F4-5; Good Visibility; 3/8 Okta
17.10.18	6	08.55 - 14.55	6 hrs	Dry; F3; Good Visibility; 2/8 Okta
16.11.18	1	09.15 - 15.15	6 hrs	Occasional drizzle; F5; Moderate to Poor Visibility; 8/8 Okta
22.11.18	2	09.00 - 15.00	6 hrs	Showers for last hour; F4; Good Visibility; 7/8 Okta
16.11.18	3	09.00 - 15.00	6 hrs	Mist; F4; Poor Visibility; 8/8 Okta
16.11.18	4	09.00 - 15.00	6 hrs	Mist; F3; Moderate to Poor Visibility; 8/8 Okta
22.11.18	5	09.00 - 15.00	6 hrs	Showers for last hour; F3-4; Good Visibility; 7-8/8 Okta
22.11.18	6	09.00 - 15.00	6 hrs	Showers for last hour; F3; Good Visibility; 5/8 Okta
07.12.18	1	09.02 - 15.02	6 hrs	Showers ; F4-5; Good Visibility; 5/8 Okta
10.12.18	2	08.30 - 14.30	6 hrs	Occ. Light rain; F2; Good Visibility; 8/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
07.12.18	3	09.15 - 15.15	6 hrs	Occ. Showers; F4-6; Good Visibility; 1-7/8 Okta
07.12.18	4	09.18 - 15.18	6 hrs	Occ. Showers; F4-6; Good Visibility; 1-7/8 Okta
10.12.18	5	08.48 - 14.48	6 hrs	Occ. Drizzle; F1-2; Moderate to Poor; 8/8 Okta
07.12.18	6	09.40 - 15.40	6 hrs	Showers; F4-5; Good Visibility; 3-8/8 Okta
11.01.19	1	09.00 - 15.00	6 hrs	Occ. Mist; F1-2; Good to Moderate Visibility; 7-8/8 Okta
11.01.19	2	09.00 - 15.00	6 hrs	Occ. Mist; F1-2; Good to Moderate Visibility; 7-8/8 Okta
11.01.19	3	08.55 - 14.55	6 hrs	Occ. Mist; F1; Good Visibility; 4/8 Okta
11.01.19	4	09.00 - 15.00	6 hrs	Dry; F3; Good Visibility; 5/8 Okta
11.01.19	5	08.55 - 14.55	6 hrs	Dry; F2; Good to Moderate Visibility; 4-7/8 Okta
11.01.19	6	08.50 - 15.50	6 hrs	Occ. Light drizzle; F1; Good Visibility; 4/8 Okta
15.02.19	1	09.00 - 15.00	6 hrs	Drizzle after 13.00; F3; Good to Moderate Visibility; 8/8 Okta
15.02.19	2	09.00 - 15.00	6 hrs	Drizzle after 12.50; F5; Good to Moderate Visibility; 8/8 Okta
15.02.19	3	09.00 - 15.00	6 hrs	Drizzle after 12.50; F5; Good to Moderate Visibility; 8/8 Okta
15.02.19	4	09.00 - 15.00	6 hrs	Drizzle after 13.00; F3-4; Moderate - Poor Visibility; 8/8 Okta
15.02.19	5	09.25 - 15.25	6 hrs	Drizzle after 12.50; F3-4; Moderate - Poor Visibility; 8/8 Okta
15.02.19	6	08.40 - 14.40	6 hrs	Drizzle after 12.50; F1-3; Moderate - Poor Visibility; 8/8 Okta
28.03.19	1	09.40 - 15.40	6 hrs	Dry; F1-3; Good Visibility; 1/8 Okta
29.03.19	2 (new)	09.15 - 15.15	6 hrs	Dry; F1-3; Good Visibility; 4-8/8 Okta
28.03.19	3	10.15 - 16.15	6 hrs	Dry; F2-3; Good Visibility; 6/8 Okta
28.03.19	4	09.10 - 15.10	6 hrs	Dry; Good Visibility; 3/8 Okta
29.03.19	5	09.35 - 15.35	6 hrs	Dry; F3; Good Visibility; 8/8 Okta
28.03.19	6	09.45 - 15.45	6 hrs	Dry; F2; Good Visibility; 1/8 Okta

VP Survey Schedule Ballinagree, Breeding Season Survey 2019.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
28.03.19	1	09.40 - 15.40	6 hrs	Dry; F1-3; Good Visibility; 1/8 Okta
29.03.19	2 (new)	09.15 - 15.15	6 hrs	Dry; F1-3; Good Visibility; 4-8/8 Okta
28.03.19	3	10.15 - 16.15	6 hrs	Dry; F2-3; Good Visibility; 6/8 Okta
28.03.19	4	09.10 - 15.10	6 hrs	Dry; Good Visibility; 3/8 Okta
29.03.19	5	09.35 - 15.35	6 hrs	Dry; F3; Good Visibility; 8/8 Okta
28.03.19	6	09.45 - 15.45	6 hrs	Dry; F2; Good Visibility; 1/8 Okta
29.03.19	7	09.04 - 15.04	6 hrs	Dry; F2-3; Moderate to Good Visibility; 7-8/8 Okta
29.03.19	8	09.14 - 15.14	6 hrs	Dry; F3-4; Good Visibility; 2-8/8 Okta
17.04.19	1	09.00 - 15.00	6 hrs	Drizzle Initially; F4-5; Moderate to Good Visibility; 8/8 Okta
17.04.19	2 (new)	09.03 - 15.03	6 hrs	Mist Initially; F4; Moderate to Good Visibility; 8/8 Okta
17.04.19	3	10.16 - 16.16	6 hrs	Fog Initially; F3; Poor to Good Visibility; 8/8 Okta
17.04.19	4	09.20 - 15.20	6 hrs	Low Cloud Initially; F4; Poor to Good Visibility; 8/8 Okta
17.04.19	5	09.25 - 15.25	6 hrs	Low Cloud Initially; F3; Poor to Good Visibility; 8/8 Okta
17.04.19	6	08.57 - 14.58	6 hrs	Low Cloud Initially; F3; Poor to Good Visibility; 8/8 Okta
17.04.19	7	09.20 - 15.20	6 hrs	Low Cloud Initially; F5; Poor to Good Visibility; 7-8/8 Okta
17.04.19	8	09.00 - 15.00	6 hrs	Fog Initially; F3; Poor to Good Visibility; 8/8 Okta
13.05.19	1	09.05 - 15.05	6 hrs	Dry; F4-5; Moderate to Good Visibility; 3/8 Okta
13.05.19	2 (new)	09.25 - 15.25	6 hrs	Dry; F4; Good Visibility; 2-3/8 Okta
13.05.19	3	09.05 - 15.05	6 hrs	Dry; F4; Good Visibility; 3/8 Okta
13.05.19	4	09.25 - 15.25	6 hrs	Dry; F3-4; Good Visibility; 2-3/8 Okta
13.05.19	5	09.02 - 15.02	6 hrs	Dry; F4-5; Good Visibility; 3/8 Okta
13.05.19	6	09.50 - 15.50	6 hrs	Dry; F0-1; Good Visibility; 2/8 Okta
13.05.19	7	09.01 - 15.01	6 hrs	Dry; F6; Good Visibility; 1/8 Okta
13.05.19	8	08.59 - 14.59	6 hrs	Dry; F4; Good Visibility; 1/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
12.06.19	1	09.50 - 15.50	6 hrs	Showers; F2-3; Good Visibility; 8/8 Okta
12.06.19	2 (new)	09.30 - 15.30	6 hrs	Showers; F4; Good Visibility; 8/8 Okta
12.06.19	3	09.45 - 15.45	6 hrs	Showers; F3; Good Visibility; 7/8 Okta
12.06.19	4	10.00 - 16.00	6 hrs	Showers; F4; Good Visibility; 8/8 Okta
12.06.19	5	09.15 - 15.15	6 hrs	Showers; F3-4; Moderate Visibility; 8/8 Okta
12.06.19	6	09.26 - 11.50, 12.05 - 15.41	6 hrs	Showers; F3-4; Moderate Visibility; 8/8 Okta
12.06.19	7	09.05 - 15.05	6 hrs	Showers; F4-5; Moderate to Good Visibility; 8/8 Okta
12.06.19	8	09.40 - 15.40	6 hrs	Showers; F4; Moderate to Good Visibility; 8/8 Okta
23.07.19	1	09.00 - 15.00	6 hrs	Occ. Mist; F3-4; Poor to Good Visibility; 8/8 Okta
30.07.19	2 (new)	08.55 - 14.55	6 hrs	Occ. Mist; F4; Poor to Good Visibility; 6-8/8 Okta
23.07.19	3	09.15 - 15.15	6 hrs	Low Cloud; F4; Poor to Moderate Visibility; 8/8 Okta
23.07.19	4	09.00 - 15.00	6 hrs	Low Cloud; F4; Poor to Moderate Visibility; 8/8 Okta
30.07.19	5	09.00 - 15.00	6 hrs	Dry; F5-6; Good Visibility; 7/8 Okta
30.07.19	6	09.15 - 15.15	6 hrs	Dry; F3-4; Good Visibility; 5-8/8 Okta
23.07.19	7	09.01 - 15.01	6 hrs	Occ. Mist; F4-6; Poor to Moderate Visibility; 8/8 Okta
30.07.19	8	09.17 - 15.17	6 hrs	Occ. Mist; F3-4; Moderate to Good Visibility; 6-8/8 Okta
31.07.19	9	10.00 - 16.00	6 hrs	Mist Initially; F1-3; Moderate to Good Visibility; 5-8/8 Okta
31.07.19	10	10.00 - 16.00	6 hrs	Mist Initially; F1-3; Poor to Good Visibility; 8/8 Okta
21.08.19	1	07.49 - 13.49	6 hrs	Light rain initially; F4-6; Good Visibility; 8/8 Okta
21.08.19	2 (new)	07.12 - 13.12	6 hrs	Low Cloud initially; F3-6; Good Visibility; 8/8 Okta
21.08.19	3	07.32 - 13.32	6 hrs	Low Cloud initially; F6; Good Visibility; 8/8 Okta
21.08.19	4	07.55 - 13.55	6 hrs	Dry; F4; Good Visibility; 8/8 Okta
21.08.19	5	07.20 - 13.20	6 hrs	Dry; F3-4; Good Visibility; 8/8 Okta
21.08.19	6	07.20 - 13.20	6 hrs	Dry; F3-5; Moderate to Good Visibility; 8/8 Okta
21.08.19	7	07.45 - 13.45	6 hrs	Dry; F4-5; Moderate to Good Visibility; 8/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
21.08.19	8	07.40 - 13.40	6 hrs	Dry; F4-6; Moderate to Good Visibility; 8/8 Okta
21.08.19	9	07.15 - 13.15	6 hrs	Dry; F4; Poor to Good Visibility; 8/8 Okta
21.08.19	10	07.52 - 13.52	6 hrs	Dry; F3-4; Good Visibility; 8/8 Okta

Hinterland Survey Schedule Ballinagree, Breeding Season 2019.

Date	Time (24hrs)	Survey Effort (hrs & mins)	Weather
09.04.19	13.00 - 17.00	4hrs	Dry; F2; Good Visibility; Cloud 6/8
11.04.19	14.00 - 17.45	3 hrs 45 mins	Dry; F3; Good Visibility; Cloud 5/8
27.04.19	14.00 - 17.25	3 hrs 25 mins	Dry; F2; Good Visibility; Cloud 4/8
15.07.19	08.30 - 17.00	8 hrs 30 mins	Dry; F3; Good Visibility; Cloud 7/8
23.07.19	09.15 - 17.15	8 hrs	Occ. Showers; F3; Good Visibility; Cloud 4/8
30.07.19	14.00 - 16.50	2 hrs 50 mins	Dry; F3-4; Good Visibility; Cloud 8/8

VP Survey Schedule Ballinagree, Winter Season Survey 2019/2020.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
11.10.19	1	09.33 - 15.33	6 hrs	Dry; F1-3; Good Visibility; 5-8/8 Okta
11.10.19	2 (new)	09.10 - 15.10	6 hrs	Dry; F3; Good Visibility; 5-8/8 Okta
11.10.19	3	09.30 - 15.30	6 hrs	Dry; F4; Good Visibility; 7/8 Okta
11.10.19	4	09.25 - 15.25	6 hrs	Dry; F4; Good Visibility; 4-8/8 Okta
22.10.19	5	09.30 - 15.30	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
22.10.19	6	09.04 - 15.04	6 hrs	Dry; F1; Good Visibility; 8/8 Okta
11.10.19	7	09.30 - 15.30	6 hrs	Dry; F3; Good Visibility; 6/8 Okta
22.10.19	8	09.59 - 15.59	6 hrs	Occ. Showers; F3-4; Good Visibility; 8/8 Okta
22.10.19	9	09.45 - 15.45	6 hrs	Occ. Drizzle; F2-3; Good Visibility; 8/8 Okta
22.10.19	10	09.15 - 15.15	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
19.11.19	1	09.30 - 15.30	6 hrs	Dry; F3; Good Visibility; 1-7/8 Okta
19.11.19	2 (new)	09.34 - 15.34	6 hrs	Dry; F3-4; Good Visibility; 0-6/8 Okta
19.11.19	3	09.14 - 15.14	6 hrs	Dry; F3-4; Good Visibility; 1-6/8 Okta
19.11.19	4	09.30 - 15.30	6 hrs	Dry; F2-3; Good Visibility; 2-7/8 Okta
22.11.19	5	09.15 - 15.15	6 hrs	Dry; F3; Good Visibility; 8/8 Okta
22.11.19	6	09.35 - 15.35	6 hrs	Dry; F3; Good Visibility; 7-8/8 Okta
19.11.19	7	09.06 - 15.06	6 hrs	Dry; F2; Good Visibility; 2/8 Okta
22.11.19	8	09.00 - 15.00	6 hrs	Dry; F4; Poor to Moderate Visibility; 8/8 Okta
22.11.19	9	09.23 - 15.23	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
22.11.19	10	08.55 - 14.55	6 hrs	Dry; F2-3; Poor to Moderate Visibility; 8/8 Okta
17.12.19	1	09.00 - 15.00	6 hrs	Dry; F1; Good Visibility; 2/8 Okta
17.12.19	2 (new)	09.20 - 15.20	6 hrs	Dry; F1-2; Good Visibility; 2-5/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
17.12.19	3	10.05 - 16.05	6 hrs	Dry; F1-2; Good Visibility; 3/8 Okta
17.12.19	4	09.03 - 15.03	6 hrs	Dry; F2; Good Visibility; 2/8 Okta
16.12.19	5	09.25 - 15.25	6 hrs	Dry; F2; Good Visibility; 0/8 Okta
16.12.19	6	09.11 - 15.11	6 hrs	Dry; F1; Good Visibility; 1/8 Okta
17.12.19	7	09.40 - 15.40	6 hrs	Dry; F2-3; Good Visibility; 3-5/8 Okta
16.12.19	8	09.00 - 15.00	6 hrs	Dry; F2; Good Visibility; 3-5/8 Okta
16.12.19	9	09.59 - 15.59	6 hrs	Dry; F2-3; Good Visibility; 1/8 Okta
16.12.19	10	09.55 - 15.55	6 hrs	Dry; F2; Good Visibility; 1/8 Okta
21.01.20	1	09.30 - 15.30	6 hrs	Dry; F1-4; Good Visibility; 8/8 Okta
20.01.20	2 (new)	10.06 - 16.06	6 hrs	Dry; F1-4; Fair to Good Visibility; 1-3/8 Okta
21.01.20	3	09.50 - 15.50	6 hrs	Dry; F1; Good Visibility; 8/8 Okta
21.01.20	4	08.50 - 14.50	6 hrs	Dry; F1; Good Visibility; 7/8 Okta
20.01.20	5	10.10 - 16.10	6 hrs	Dry; F1-2; Good Visibility; 1-2/8 Okta
20.01.20	6	09.50 - 15.50	6 hrs	Dry; F1; Good Visibility; 1-3/8 Okta
21.01.20	7	09.26 - 15.26	6 hrs	Dry; F2; Good Visibility; 8/8 Okta
20.01.20	8	10.15 - 16.15	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
20.01.20	9	09.30 - 15.30	6 hrs	Dry; F1-3; Good Visibility; 0-3/8 Okta
20.01.20	10	09.30 - 15.30	6 hrs	Dry; F3-4; Good Visibility; 1-3/8 Okta
20.02.20	1	09.00 - 15.00	6 hrs	Dry; F2-3; Fair to Good Visibility; 2-8/8 Okta
20.02.20	2 (new)	09.00 - 15.00	6 hrs	Occ. Snow showers; F4-5; Moderate to Good Visibility; 2-8/8 Okta
20.02.20	3	09.10 - 15.10	6 hrs	Occ. Snow/sleet showers; F3-4; Good Visibility; 4-6/8 Okta
20.02.20	4	09.00 - 15.00	6 hrs	Occ. showers; F3-5; Good Visibility; 6-8/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
27.02.20	5	08.58 - 14.58	6 hrs	Dry; F2-4; Good Visibility; 3/8 Okta
27.02.20	6	09.35 - 14.35	6 hrs	Dry; F2; Good Visibility; 4/8 Okta
20.02.20	7	09.00 - 15.00	6 hrs	Occ. Snow showers; F2; Fair to Good Visibility; 2-8/8 Okta
24.02.20	8	09.05 - 15.05	6 hrs	Dry; F3-4; Good Visibility; 2/8 Okta
27.02.20	9	09.30 - 15.30	6 hrs	Dry; F3; Good Visibility; 1-5/8 Okta
27.02.20	10	09.22 - 15.22	6 hrs	Dry; F1; Good Visibility; 1/8 Okta
18.03.20	1	09.05 - 15.05	6 hrs	Dry; F1; Good Visibility; 8/8 Okta
18.03.20	2 (new)	09.10 - 15.10	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
18.03.20	3	09.36 - 15.36	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
18.03.20	4	08.38 - 14.38	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
20.03.20	5	08.50 - 14.50	6 hrs	Dry; F5; Good Visibility; 0-8/8 Okta
20.03.20	6	08.48 - 14.48	6 hrs	Dry; F2-3; Good Visibility; 1-8/8 Okta
18.03.20	7	09.03 - 15.03	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
20.03.20	8	08.55 - 14.55	6 hrs	Dry; F4-5; Good Visibility; 1-8/8 Okta
20.03.20	9	09.10 - 15.10	6 hrs	Dry; F4; Good Visibility; 1-8/8 Okta
20.03.20	10	08.48 - 14.48	6 hrs	Dry; F3; Good Visibility; 0-8/8 Okta

VP Survey Schedule Ballinagree, Breeding Season Survey 2020.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
18.03.20	1	09.05 - 15.05	6 hrs	Dry; F1; Good Visibility; 8/8 Okta
18.03.20	2 (new)	09.10 - 15.10	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
18.03.20	3	09.36 - 15.36	6 hrs	Dry; F1-2; Good Visibility; 8/8 Okta
18.03.20	4	08.38 - 14.38	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
20.03.20	5	08.50 - 14.50	6 hrs	Dry; F5; Good Visibility; 0-8/8 Okta
20.03.20	6	08.48 - 14.48	6 hrs	Dry; F2-3; Good Visibility; 1-8/8 Okta
18.03.20	7	09.03 - 15.03	6 hrs	Dry; F2-3; Good Visibility; 8/8 Okta
20.03.20	8	08.55 - 14.55	6 hrs	Dry; F4-5; Good Visibility; 1-8/8 Okta
20.03.20	9	09.10 - 15.10	6 hrs	Dry; F4; Good Visibility; 1-8/8 Okta
20.03.20	10	08.48 - 14.48	6 hrs	Dry; F3; Good Visibility; 0-8/8 Okta
24.04.20	1	08.20 - 14.20	6 hrs	Dry; F1; Good Visibility; 6/8 Okta
24.04.20	2 (new)	08.56 - 14.56	6 hrs	Dry, F1-2, Good Visibility, 1-5/8 Okta
24.04.20	3	10.00 - 16.00	6 hrs	Dry, F1, Good Visibility, 6/8 Okta
24.04.20	4	08.45 - 14.45	6 hrs	Dry, F1, Good Visibility, 7/8 Okta
27.04.20	5	09.04 - 15.04	6 hrs	Dry, F1-2, Good Visibility, 6/8 Okta
27.04.20	6	08.30 - 14.30	6 hrs	Dry, F2, Good Visibility, 4-8/8 Okta
24.04.20	7	08.50 - 14.50	6 hrs	Dry, F0-1, Good Visibility, 8/8 Okta
27.04.20	8	08.25 - 14.25	6 hrs	Dry, F2-3, Good Visibility, 2-7/8 Okta
24.04.20	9	08.30 - 14.30	6 hrs	Dry, F1-2, Good Visibility, 4-8/8 Okta
24.04.20	10	08.42 - 14.42	6 hrs	Dry, F1-2, Good Visibility, 2-7/8 Okta
11.05.20	1	09.01 - 15.01	6 hrs	Dry, F4, Good Visibility, 3/8 Okta
11.05.20	2 (new)	08.40 - 14.40	6 hrs	Dry, F3-4, Good Visibility, 2/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
11.05.20	3	08.30 - 14.30	6 hrs	Dry, F4, Good Visibility, 0/8 Okta
11.05.20	4	08.20 - 14.20	6 hrs	Dry, F4, Good Visibility, 1/8 Okta
11.05.20	5	09.04 - 15.04	6 hrs	Dry, F2, Good Visibility, 3-4/8 Okta
11.05.20	6	09.10 - 15.10	6 hrs	Dry, F3-4, Good Visibility, 4/8 Okta
11.05.20	7	08.50 - 14.50	6 hrs	Dry, F4-5, Good Visibility, 3/8 Okta
11.05.20	8	09.03 - 15.03	6 hrs	Dry, F2-3, Good Visibility, 3-4/8 Okta
11.05.20	9	08.35 - 14.35	6 hrs	Dry, F2, Good Visibility, 1/8 Okta
11.05.20	10	09.05 - 15.05	6 hrs	Dry, F2-3, Good Visibility, 3/8 Okta
10.06.20	1	08.30 - 14.30	6 hrs	Showers, F3, Good Visibility, 8/8 Okta
10.06.20	2 (new)	08.36 - 14.36	6 hrs	Showers, F3-4, Good Visibility, 8/8 Okta
10.06.20	3	09.09 - 15.09	6 hrs	Showers, F3-4, Good Visibility, 8/8 Okta
10.06.20	4	08.43 - 14.43	6 hrs	Showers, F4, Good Visibility, 8/8 Okta
12.06.20	5	08.36 - 14.36	6 hrs	Dry, F3-4, Good Visibility, 8/8 Okta
12.06.20	6	08.40 - 14.40	6 hrs	Dry, F4, Poor to Good Visibility, 8/8 Okta
10.06.20	7	09.10 - 15.10	6 hrs	Showers, F3, Good Visibility, 8/8 Okta
12.06.20	8	08.41 - 14.41	6 hrs	Dry, F3-4, Poor to Good Visibility, 8/8 Okta
10.06.20	9	08.25 - 14.25	6 hrs	Showers, F2, Good Visibility, 8/8 Okta
10.06.20	10	08.20 - 14.20	6 hrs	Showers, F3, Good Visibility, 8/8 Okta
16.07.20	1	08.30 - 14.30	6 hrs	Dry, F1-2, Good Visibility, 2-7/8 Okta
16.07.20	2 (new)	08.49 - 14.49	6 hrs	Dry, F3-4, Poor to Good Visibility, 2-8/8 Okta
16.07.20	3	09.10 - 15.10	6 hrs	Dry, F1, Good Visibility, 2-6/8 Okta
16.07.20	4	08.40 - 14.40	6 hrs	Dry, F2-3, Good Visibility, 4-8/8 Okta
16.07.20	5	09.20 - 15.20	6 hrs	Dry, F3, Good Visibility, 4-5/8 Okta
16.07.20	6	08.45 - 14.48	6 hrs	Dry, F2, Good Visibility, 5/8 Okta
16.07.20	7	08.45 - 14.45	6 hrs	Dry, F5, Good Visibility, 3-8/8 Okta
16.07.20	8	08.25 - 14.25	6 hrs	Dry, F0, Poor to Good Visibility, 4/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
15.07.20	9	09.00 - 15.00	6 hrs	Occ. showers, F4, Poor to Good Visibility, 4-8/8 Okta
15.07.20	10	08.53 - 14.53	6 hrs	Dry, F4, Good Visibility, 8/8 Okta
26.08.20	1	08.55 - 14.55	6 hrs	Dry, F1, Good Visibility, 3-6/8 Okta
26.08.20	2 (new)	08.45 - 14.45	6 hrs	Mist at first, F3, Poor - Good Visibility, 3-6-8/8 Okta
26.08.20	3	08.39 - 14.39	6 hrs	Dry, F2, Good Visibility, 3/8 Okta
26.08.20	4	09.20 - 15.20	6 hrs	Dry, F2-3, Good Visibility, 6-7/8 Okta
26.08.20	5	08.15 - 14.15	6 hrs	Dry, F4-5, Good Visibility, 6-8/8 Okta
26.08.20	6	09.10 - 15.10	6 hrs	Dry, F1-2, Good Visibility, 6-8/8 Okta
26.08.20	7	08.50 - 14.50	6 hrs	Dry, F4-5, Good Visibility, 4-6/8 Okta
26.08.20	8	08.31 - 14.31	6 hrs	Dry, F3, Good Visibility, 7/8 Okta
28.08.20	9	08.44 - 14.44	6 hrs	Showers, F3-4, Good Visibility, 6-8/8 Okta
28.08.20	10	09.15 - 15.15	6 hrs	Showers, F3, Good Visibility, 8/8 Okta

Hinterland Survey Schedule Ballinagree, Breeding Season 2020.

Date	Time (24hrs)	Survey Effort (hrs & mins)	Weather
27.04.20	09.00 - 15.40	6 hrs 40 mins	Dry; F2; Good Visibility; Cloud 6/8
20.05.20	12.15 - 14.15	2 hrs	Dry; F3-4; Good Visibility; Cloud 4-6/8
26.07.20	09.30 - 17.05	7 hrs 35 mins	Occasional light showers; F3-4; Good Visibility; Cloud 7-8/8

VP Survey Schedule Ballinagree, Winter Season Survey 2020/2021.

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
15.10.20	1	09.00 - 15.00	6 hrs	Dry; F1; Poor to Good Visibility; 8/8 Okta
15.10.20	2 (new)	08.50 - 14.30	6 hrs	Dry; F2; Poor to Good Visibility; 8/8 Okta
15.10.20	3	09.22 - 15.22	6 hrs	Dry; F3; Poor to Good Visibility; 8/8 Okta
15.10.20	4	09.00 - 15.00	6 hrs	Dry; F2-3; Poor to Good Visibility; 7/8 Okta
13.10.20	5	08.31 - 14.31	6 hrs	Dry; FX; Poor to Good Visibility; 4-8/8 Okta
13.10.20	6	08.25 - 14.25	6 hrs	Dry; F3; Poor to Good Visibility; 8/8 Okta
15.10.20	7	10.05 - 16.06	6 hrs	Dry; F3; Poor to Good Visibility; 6-8/8 Okta
13.10.20	8	09.10 - 15.10	6 hrs	Drizzle at first; F3; Poor to Good Visibility; 7-8/8 Okta
13.10.20	9	09.14 - 15.14	6 hrs	Drizzle at first; F3-4; Poor to Good Visibility; 8/8 Okta
13.10.20	10	09.03 - 15.03	6 hrs	Drizzle at first; F2-3; Poor to Good Visibility; 3-6/8 Okta
27.11.20	1	08.30 - 14.30	6 hrs	Dry; F0; Poor to Good Visibility; 4/8 Okta
25.11.20	2 (new)	09.20 - 15.20	6 hrs	Dry; F2-3; Poor to Good Visibility; 1/8 Okta
27.11.20	3	09.30 - 15.30	6 hrs	Dry; F2; Good Visibility; 8/8 Okta
27.11.20	4	09.11 - 15.11	6 hrs	Dry; F1; Poor to Good Visibility; 8/8 Okta
25.11.20	5	08.30 - 14.30	6 hrs	Dry; F3; Good Visibility; 2/8 Okta
25.11.20	6	08.30 - 14.30	6 hrs	Dry; F2; Good Visibility; 8/8 Okta
27.11.20	7	09.10 - 15.10	6 hrs	Dry; F3-4; Poor to Good Visibility; 4-8/8 Okta
25.11.20	8	08.57 - 14.57	6 hrs	Dry; F1; Poor to Good Visibility; 2-8/8 Okta
25.11.20	9	08.36 - 14.36	6 hrs	Dry; F2; Poor to Good Visibility; 2/8 Okta
25.11.20	10	09.00 - 15.00	6 hrs	Dry; F3; Poor to Good Visibility; 8/8 Okta
08.12.20	1	08.30 - 14.30	6 hrs	Dry; F2; Good Visibility; 2/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
08.12.20	2 (new)	09.00 - 15.00	6 hrs	Showers; F4; Poor to Good Visibility; 4-8/8 Okta
08.12.20	3	09.05 - 15.05	6 hrs	Dry; F3-4; Good Visibility; 3/8 Okta
08.12.20	4	08.45 - 14.45	6 hrs	Showers; F4; Good Visibility; 4/8 Okta
10.12.20	5	08.45 - 14.45	6 hrs	Showers; F2-4; Poor Visibility; 8/8 Okta
10.12.20	6	08.45 - 14.45	6 hrs	Showers; F1; Poor to Moderate Visibility; 8/8 Okta
08.12.20	7	08.30 - 14.30	6 hrs	Showers; F2; Poor Visibility; 8/8 Okta
08.12.20	8	08.46 - 14.46	6 hrs	Dry; F4; Good Visibility; 4/8 Okta
10.12.20	9	08.39 - 14.39	6 hrs	Showers; F3; Poor to Moderate Visibility; 8/8 Okta
10.12.20	10	08.28 - 14.28	6 hrs	Showers; F2-3; Poor to Moderate Visibility; 8/8 Okta
22.01.21	1	09.00 - 15.00	6 hrs	Snow showers; F3; Moderate to Good Visibility; 4-8/8 Okta
22.01.21	2 (new)	10.05 - 16.05	6 hrs	Snow showers; F2-3; Poor to Good Visibility; 8/8 Okta
22.01.21	3	09.30 - 15.30	6 hrs	Showers; F3-4; Good Visibility; 3-8/8 Okta
22.01.21	4	09.08 - 15.08	6 hrs	Showers; F1-2; Good Visibility; 4/8 Okta
21.01.21	5	08.55 - 14.55	6 hrs	Showers; F3; Good Visibility; 1/8 Okta
22.01.21	6	08.50 - 14.50	6 hrs	Dry; F3; Poor to Good Visibility; 8/8 Okta
22.01.21	7	09.35 - 15.35	6 hrs	Snow showers; F5; Poor to Good Visibility; 8/8 Okta
21.01.21	8	09.13 - 15.13	6 hrs	Showers; F1-3; Moderate to Good Visibility; 4/8 Okta
21.01.21	9	09.25 - 15.25	6 hrs	Showers; F3-5; Poor to Moderate Visibility; 1-8/8 Okta

Date	VP	Time (24hrs)	Survey Effort (hrs/mins)	Weather
21.01.21	10	08.50 - 14.50	6 hrs	Showers; F2; Good Visibility; 1-8/8 Okta
22.02.21	1	09.00 - 15.00	6 hrs	Dry; F1; Good Visibility; 7/8 Okta
25.02.21	2 (new)	08.52 - 14.52	6 hrs	Dry; F3-4; Good Visibility; 1-3/8 Okta
22.02.21	3	09.10 - 15.10	6 hrs	Dry; F4; Good Visibility; 8/8 Okta
22.02.21	4	09.00 - 15.00	6 hrs	Showers; F2; Good Visibility; 4/8 Okta
25.02.21	5	09.03 - 15.03	6 hrs	Dry; F2-3; Good Visibility; 2/8 Okta
25.02.21	6	09.20 - 15.20	6 hrs	Dry; F1-3; Good Visibility; 1-5/8 Okta
22.02.21	7	09.16 - 15.16	6 hrs	Dry; F5-7; Moderate to Good Visibility; 8/8 Okta
25.02.21	8	09.10 - 15.10	6 hrs	Dry; F2; Good Visibility; 2/8 Okta
25.02.21	9	08.58 - 14.58	6 hrs	Dry; F2; Good Visibility; 2/8 Okta
25.02.21	10	09.14 - 15.14	6 hrs	Showers; F2; Good Visibility; 1-8/8 Okta
16.03.21	1	08.55 - 14.55	6 hrs	Dry; F3; Good Visibility; 1-8/8 Okta
16.03.21	2 (new)	09.09 - 15.09	6 hrs	Dry; F2-3; Moderate to Good Visibility; 4-8/8 Okta
16.03.21	3	08.52 - 14.52	6 hrs	Dry; F3; Good Visibility; 3/8 Okta
16.03.21	4	09.15 - 15.15	6 hrs	Dry; F3-5; Moderate to Good Visibility; 2-8/8 Okta
30.03.21	5	08.37 - 14.37	6 hrs	Dry; F1; Poor to Good Visibility; 0-8/8 Okta
30.03.21	6	09.10 - 15.10	6 hrs	Dry; F1; Poor to Good Visibility; 3-8/8 Okta
16.03.21	7	09.15 - 15.15	6 hrs	Dry; F3; Poor to Good Visibility; 3-8/8 Okta
30.03.21	8	09.00 - 15.00	6 hrs	Dry; F2; Poor to Good Visibility; 3-8/8 Okta
16.03.21	9	08.45 - 14.45	6 hrs	Showers; F2; Poor to Good Visibility; 8/8 Okta
16.03.21	10	08.40 - 14.40	6 hrs	Mist at first; F2-3; Poor to Good Visibility; 0-8/8 Okta

Avifauna – Red Grouse Tape Lure Survey Schedule

Red Grouse Survey Schedule Ballinagree, March 2019

Date	Survey	Time (24 hrs)	Red Grouse Transects	Weather
27.03.19	Red Grouse Tape Lure	11.58 - 12.16	1-3	Dry; F1-2; 1-3/8 Okta; Good Visibility

Avifauna Transect and Point Count Survey Schedules

Breeding Bird Transect and Point Count Survey Schedule Ballinagree, Breeding Season 2017.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
11.05.17	T1 - T5, PC1 - PC6	10.00 - 14.25	1	Dry; F1; 0-6/8 Okta; Good Visibility
29.06.17	T1 - T5, PC1 - PC6	09.45 - 13.30	2	Dry; F3-4; 8/8 Okta; Good Visibility

Breeding Bird Transect and Point Count Survey Schedule Ballinagree, Breeding Season 2018.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
08.06.18	T1 - T5, PC1 - PC6	08.25 - 13.00	1	Dry; F1; 2/8 Okta; Good Visibility
06.07.18	T1 - T5, PC1 - PC6	09.25 - 13.35	2	Dry; F1; 4/8 Okta; Good Visibility

Breeding Bird Transect and Point Count Survey Schedule Ballinagree, Breeding Season 2019.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
27.05.19	T1 - T7, PC1 - PC8	07.59 - 15.45	1	Occ. Showers; F3-4; 4-8/8 Okta; Good Visibility
01.07.19	T1 - T7, PC1 - PC8	07.18 - 14.42	2	Dry; F4; 6/8 Okta; Good Visibility

Breeding Bird Transect and Point Count Survey Schedule Ballinagree, Breeding Season 2020.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
11.05.20	PC1 - PC8	10.10 - 14.40	1	Dry; F2; 2/8 Okta; Good Visibility
20.05.20	T1 - T7	06.55 - 11.30	1	Dry; F3-4; 4-6/8 Okta; Good Visibility
26.06.20	PC1, PC2, PC6, T1, T5, T6, T7	08.06 - 11.00	2	Dry; F0-1; 2/8 Okta; Good Visibility
26.06.20	T2, T3, T4, PC3, PC4, PC5, PC7, PC8	07.49 - 11.00	2	Light drizzle; F1; 8/8 Okta; Good Visibility

Winter Bird Transect and Point Count Survey Schedule Ballinagree, Winter Season 2017/2018.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
23.11.17	T1 - T5, PC1 - PC6	09.51 - 13.30	1	Dry; F1-3; 2-8/8 Okta; Good Visibility
25.01.18	T1 - T5, PC1 - PC6	09.34 - 14.00	2	Showers; F1-2; 4/8 Okta; Good Visibility
21.02.18	T1 - T5, PC1 - PC6	09.34 - 14.00	3	Dry; F0-1; 1-8/8 Okta; Good Visibility

Winter Bird Transect and Point Count Survey Schedule Ballinagree, Winter Season 2017/2018.

Date	Transect & Point Count	Time (24hrs)	Survey	Weather
16.10.19	T1 - T7, PC1 - PC8	09.30 - 11.30	1	Dry; F1-3; 1-5/8 Okta; Good Visibility
04.02.20	T1 - T7, PC1 - PC8	08.30 - 11.58	2	Dry; F3-4; 6/8 Okta; Good Visibility

Habitat & Flora Survey Schedule

Date	Time (24hrs)	Activity	Weather *
30.08.2018	10.00-18.00	Habitat Walkover	C:5/8-8/8, R: Showers, F:2-3, V: Medium
06.09.2018	10.00-17.00	Habitat Walkover	C8/8, R: Drizzle, F3-4, V: Poor
14.09.2018	10.00-17.00	Habitat Walkover	C:8/8, R:0, F:2, V: Good
25.09.2018	10.00-17.00	Habitat Walkover	C:8/8, R:0, F3-4, V: Good
13.08.2019	10.00-16.00	Habitat Walkover	C:2/8, R:0, F2, V: Good
22.08.2019	10.00-17.00	Habitat Walkover	C:8/8, R:0, F:1-2, V: Good
28.08.2019	09.30-17.00	Habitat Walkover	C:3/8, R:0, F3, V: Good
13.09.2019	10.00-17.00	Habitat Walkover	C:3/8, R:0, F2, V: Good
22.10.2019	10.00-15.00	Habitat Walkover	C:8/8, R: 0, F1-2, V: Good
22.10.2020	09.00-17.00	Quadrat Survey/Grid Route/Habitat Checks (e.g. Grid Route Directional Drilling etc.)	C:3/8, R:0, F1-2, V: Good
13.11.2020	09.00-16.00	Grid Route Surveys	C:8/8, R:0, F 1-2, V: Good

*C = cloud cover; R = rain/precipitation; F = wind force; V = study site visibility

Non-Volant Mammal Survey Schedule

Survey Description	Dates
Walkover recording field sightings & signs	February (21-23rd) 2018
Field walkover of extended study area recording field sightings and signs	November (29-30) 2018
Walkover of sections of woodland and woodland edge at north of study area	February (12th) 2019
Walkover recording field sightings and signs (two ecologists)	September 13 th 2019
Walkover and camera deployments recording field sightings & signs	October (23rd) 2019

Trail Camera Deployment Locations and Dates (IDs linked to Mapping)

Deployment ID	Deployment Date	Recording Days	Latitude	Longitude
CM1	20-May-17	57	52.0009	-8.93791
CM2	20-May-17	21	52.0037	-8.93676
CM3	12-May-17	60	52.0025	-8.9398
CM4	12-May-17	18	52.0034	-8.9229
CM5	17-May-17	42	52.0009	-8.94337
CM6	12-May-17	42	52.0024	-8.94307
CM7	12-May-17	18	52.0035	-8.92291
CM8	12-May-17	18	52.0025	-8.91543
CM9	11-Jul-17	23	52.0003	-8.93657
CM10	12-May-17	19	52.0034	-8.92299
CM11	12-Jun-19	39	52.0104	-8.91791
CM12	12-Jun-19	25	52.0232	-8.95055
CM13	12-Jun-19	247	51.9931	-8.9317
CM14	12-Jun-19	177	52.0027	-8.96085
CM15	22-Feb-19	110	52.0069	-8.96346
CM16	12-Feb-19	120	51.993	-8.93527
CM17	12-Feb-19	120	51.9994	-8.93564
CM18	12-Feb-19	293	52.0002	-8.94363
CM19	03-Oct-18	58	52.0025	-8.94057
CM20	03-Oct-18	58	51.9925	-8.93205
CM21	03-Oct-18	55	52.0138	-8.95396
CM22	03-Oct-18	58	52.0024	-8.9619
CM23	03-Jun-18	8	51.9903	-8.93224
CM24	10-Mar-18	134	52.0134	-8.96817
CM25	10-Aug-18	54	52.0035	-8.91267
CM26	12-May-17	150	51.9963	-8.91248
CM27	15-Dec-17	96	51.9999	-8.91624
CM28	13-May-19	102	51.9965	-8.91243
CM29	21-Sep-20	67	52.0188	-8.94115
CM30	21-Sep-20	67	52.0247	-8.91952
CM31	21-Sep-20	67	52.0283	-8.90433
CM32	07-Aug-20	45	52.0113	-8.90556
CM33	07-Aug-20	45	52.0222	-8.90091
CM34	07-Aug-20	112	52.0299	-8.8891
CM35	23-Oct-19	37	52.0248	-8.90292

Bat Survey Schedule

Active Bat Surveys – dates and schedule

Active Surveys	Start Time	End Time	Weather	Notes
16-Jun-17	21:50	01:20	Mild, Dry, Wind F2, Cloud 2/8, 12-14 °C	Driven and walked transects
05-Aug-17	22:45	02:40	Mild, Dry, Wind F2, Cloud 1/8, 10-13 °C	Emergence checks (2 structures in area with roost potential), Driven and walked transects
18-Jun-18	21:40	02:05	Mild, Dry, Wind F2-3, Cloud 6/8, 11-16 °C	Emergence checks (Structure in area with roost potential), Driven and walked transects
25-Jul-18	22:00	01:15	Mild, Dry, Wind F1-2, Cloud 2/8, 13-17 °C	Driven and walked transects
24-May-19	21:00	00:55	Mild, Dry, Wind F2, Cloud 8/8, 10-15 °C	Driven and walked transects
30-Jul-19	21:45	01:25	Dry, Wind F3, Cloud 4/8, 10-12 °C	Emergence checks (Structure in area with roost potential), Driven and walked transects

Passive Bat Detector Deployment schedule (non SNH deployments) – ID linked to mapping

Deployment ID	Deployment Date	Number of Nights Recorded	Latitude	Longitude
BD1	17-Aug-18	49	51.992232	-8.933674
BD2	12-Jun-19	10	52.003394	-8.923238
BD3	30-May-17	17	52.005478	-8.918066
BD4	12-Feb-19	26	51.99932	-8.90283
BD5	06-Jul-18	19	52.00338	-8.933736
BD6	06-Dec-17	15	51.99571	-8.91258
BD7	16-Jan-19	27	52.00621	-8.91723
BD8	03-Oct-18	22	52.00339	-8.92324
BD9	12-May-17	17	52.00115	-8.94338
BD10	12-Nov-17	23	52.0035	-8.93334
BD11	26-Jan-18	28	51.99975	-8.91635
BD12	06-Jul-18	18	52.01005	-8.91758
BD13	19-Oct-18	12	52.01106	-8.943538
BD14	16-Jan-19	5	52.00197	-8.93994
BD15	26-Jun-19	27	52.02708	-8.91982
BD16	13-Jun-19	25	51.98777	-8.93256
BD17	16-Jun-19	56	52.00101	-8.93825
BD18	16-Jun-19	25	52.00649	-8.95594
BD19	12-Jun-19	18	52.00342	-8.96033
BD20	12-Jun-19	18	52.00235	-8.9616
BD21	17-Jul-19	23	52.00584	-8.95381
BD22	17-Jul-19	24	51.99651	-8.91236
BD23	17-Jul-19	23	52.02771	-8.92798
BD24	09-Aug-19	17	52.02834	-8.91933
BD25	09-Aug-19	17	52.03019	-8.89902
BD26	09-Aug-19	17	51.99187	-8.9335

SNH Bat Surveys details

Autumn 2019

Date [night of]	Sunset	Sunrise	Temp. °C*	Wind km/h*	Precipitation*	Bat_01c	Bat_01a	Bat_01b	Bat_09a	Bat_08b	Bat_03b	Bat_08a	Bat_06a	Bat_04	Bat_05b	Bat_07	Bat_12a	Bat_13	Bat_13b
28/08/19	20:32	06:41	13	4	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
29/08/19	20:30	06:43	15	11	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
30/08/19	20:28	06:45	15	15	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
31/08/19	20:25	06:46	11	7	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
01/09/19	20:23	06:48	12	6	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
02/09/19	20:21	06:50	13	6	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
03/09/19	20:19	06:51	15	7	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
04/09/19	20:16	06:53	11	9	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
05/09/19	20:14	06:55	10	6	Dry	☐	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
06/09/19	20:12	06:56	12	11	Dry	☐	✓	✓	✓	✓		☐	✓	✓	✓	✓	✓	✓	✓
29/10/19	17:13	07:24	9	17	Overcast	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
30/10/19	17:11	07:26	10	15	Light rain	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
31/10/19	17:09	07:28	12	6	Light rain	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
01/11/19	17:07	07:30	12	15	Light rain	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
02/11/19	17:06	07:31	8	11	Dry	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	

Date [night of]	Sunset	Sunrise	Temp. °C*	Wind km/h*	Precipitation*	Bat_01c	Bat_01a	Bat_01b	Bat_09a	Bat_08b	Bat_03b	Bat_08a	Bat_06a	Bat_04	Bat_05b	Bat_07	Bat_12a	Bat_13	Bat_13b
03/11/19	17:04	07:33	8	4	Light rain	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
04/11/19	17:02	07:35	9	13	Overcast	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
05/11/19	17:00	07:37	8	6	Dry	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
06/11/19	16:59	07:39	6	15	Dry	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
07/11/19	16:57	07:40	6	17	Dry	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
08/11/19	16:55	07:42	5	4	Dry	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
09/11/19	16:54	07:44	6	19	Light rain	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
10/11/19	16:52	07:46	7	11	Overcast	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	

Note: Light blue highlight indicates the 10 nights chosen for assessment of bat activity.

* <https://www.timeanddate.com/weather/@7869965/historic?month=6&year=2020>

Spring 2020

Date [night of]	Sunset	Sunrise	Temp °C	Wind k m/h	Precipitation	Bat_01c	Bat_01a	Bat_01b	Bat_09a	Bat_08b	Bat_03b	Bat_08a	Bat_06a	Bat_04	Bat_05b	Bat_07	Bat_11a	Bat_12a	Bat_13	Bat_13b	Met Mast [Ground] [Bat_03a]	Met Mast [High] [Bat_03a]
30/04/20	20:59	06:05	8	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
01/05/20	21:01	06:03	7	9	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
02/05/20	21:03	06:01	8	7	Light rain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
03/05/20	21:04	05:59	9	4	Overcast	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
04/05/20	21:06	05:57	11	17	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
05/05/20	21:08	05:56	9	15	Rain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
06/05/20	21:09	05:54	10	11	Light rain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
07/05/20	21:11	05:52	11	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
08/05/20	21:12	05:50	11	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
09/05/20	21:14	05:49	15	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10/05/20	21:16	05:47	8	15	Overcast	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: Light blue highlight indicates the 10 nights chosen for assessment of bat activity.

Summer 2020

Date [night of]	Sun set	Sunrise	Temp. °C	Wind km/h	Precipitation	Bat_01	Bat_03	Bat_02	Bat_04	Bat_05	Bat_06	Bat_07	Bat_08	Bat_09	Bat_10	Bat_11	Bat_12	Bat_13	Bat_14	Bat_15	Met Mast [Ground]	Met Mast [High]
06/06/20	21:51	05:17	10	19	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
07/06/20	21:52	05:17	11	9	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
08/06/20	21:53	05:16	11	7	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
09/06/20	21:54	05:16	11	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10/06/20	21:54	05:16	9	13	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11/06/20	21:55	05:15	12	15	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12/06/20	21:56	05:15	14	11	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13/06/20	21:56	05:15	13	4	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14/06/20	21:57	05:15	13	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15/06/20	21:57	05:15	13	6	Dry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: Light blue highlight indicates the 10 nights chosen for assessment of bat activity.

Turbine Areas, Habitats & TDR/GCR Schedule 2021

Date	Start Time	End Time	Weather	Notes
18-Jun-21	09:30	17:00	Sunny spells, dry, CC 4/8, Good vis	Walkover of Turbines 16, 17, 15, 14, 13, 20, 19, 18 re mammals, invasive plants and any other points of interest
29-Jun-21	09:00	15:45	Sunny, dry, CC 0/8 - 2/8, Good vis	Walkover of Turbines 3, 2, 1, 12, 11, 10, 6, 4 re mammals, invasive plants and any other points of interest
30-Jun-21	08:15	12:15	Sunny, CC 1/8, dry, good vis	Walkover of Turbines 9, 8, 5 re mammals, invasive plants and any other points of interest. Walkover of three small areas near VP5 to confirm habitats present.
21-Jul-21	13:30	14:15	Sunny, CC 4/8, dry, good vis	Walkover of Turbine, 7 re mammals, invasive plants and any other points of interest.
24-Jul-21	c. 10.00	c. 17.00	Sunny, CC 0/8, dry very calm	Windscreen survey of TDR and GCR routes re points of interest.
6-Oct-21	c. 14.00	n/a	Overcast, dry	GCR – potential river/bridge crossing, biodiversity points of interest.

Statement of Competence – Ecology Ireland Field Team

Aidan Duggan (Avian Surveys, Bat Surveys, Marsh Fritillary Surveys)

Aidan has 16 years of experience working as a self-employed field surveyor specialising in bird surveys. As part of this work he has undertaken Vantage Point surveys, Hen Harrier surveys (nest monitoring and winter roost watches), Red Grouse surveys, Merlin Surveys, White tailed Eagle surveys, breeding and wintering wader and wildfowl surveys, common bird census, countryside bird surveys, intertidal bird surveys, as well as transects and hinterland surveys. He has considerable experience conducting bird surveys on wind farms and power grid routes. Aidan has a lifelong interest in Ornithology and was a voting member of the Irish Rare Bird Committee (IRBC) from 1999 to 2005.

Athena Michaelides (Avian Surveys, Grid Route and TDR Walkovers, GIS Mapping)

Athena Michaelides (BSc Zoology & Animal Biology) has over five years of experience as a professional ecological consultant. She is a former secretary of the Irish Wildlife Trust with particular experience in field surveys and reporting as part of Ecological Impact Assessments. Athena formerly was employed by Ryan Hanley Consulting Engineers and now works as an independent ecologist.

Austin Cooney (Avian Surveys)

Austin has over 40 years birdwatching experience in Ireland and abroad. He has over six years of experience as a self-employed sub-contractor to various Environmental and Ecology companies in Ireland where he has carried out VP Surveys, Breeding Surveys, Roost watches, Estuary Surveys, Red Grouse and Merlin Surveys and Hinterland Surveys.

Dr. Allan Mee (Avian Surveys)

Allan has 35 years of experience as a professional ornithologist in Ireland, UK and US working on threatened bird populations and species reintroduction projects including California condor and White-tailed Eagle as project manager since 2007. Allan has been working as a self-employed ecological consultant over the last six years including organising a number of national surveys for National Parks & Wildlife Service (hen harrier, ring ouzel), EU LIFE Nature and EIP projects (RaptorLIFE, Duhallow EIP) as well as waterbird and raptor surveys in relation to road and wind farm project. These included writing Appropriate Assessment and Natura Impact Statements.

Barry O'Mahony (Avian Surveys)

Barry O'Mahony has a life-long interest in birds and birdwatching and is a licensed Bird Ringer. He is a graduate of UCC with a B.Sc (General) in Zoology and has been a self-employed freelance bird surveyor since 2007. He has worked as Research Assistant on studies of Hen Harrier, Dipper and a variety of seabirds involving wing-tagging, the attachment and retrieval of data loggers and radio tracking. His survey work has included shorebird distribution monitoring, IWeBS, VP watches at windfarm sites, harrier roost watches, hinterland surveys and Vantage Point selection and Assessment.

Ciaran Cronin (Avian Surveys)

Ciaran has been an active naturalist and birdwatcher for over 30 years with a particular passion for birds. Working as a professional ornithologist and ecologist for over 20 years, he has a wide range of experience along with a postgraduate qualification in 'Ecological Assessment' from University College Cork (1st Class Honours). He is an expert in both bird and marine mammal identification, runs bird identification courses nationally for professional ecologists, is a trainer/assessor for the international ESAS seabird group, former member of the Irish Rare Birds Committee and international wildlife tour guide with National Geographic/Lindblad Expeditions. He is also a full member of the Chartered Institute of Ecologists and Environmental Managers (CIEEM). His highly expert level knowledge of bird identification, both by sight and sound, allows for maximum detection of bird species through all habitats, at all times of year and he combines this with many years of experience at implementing rigorous survey protocols, consistent with guidance and to the highest standards. Although he has particular expertise with birds of prey and seabirds, his ornithological skills extend at high level across the complete range of Irish bird species.

Claire Deasy (Avian Surveys)

Claire has over 18 years of experience in ecological and environmental impact assessment including project management, surveying, data analysis and report writing in support of planning applications, EIAR's, Article 6 Appropriate Assessments and planning compliance reporting. She is a self-employed ecological consultant trading as EcoSource Consulting. Claire has experience and training across a wide variety of field skills including; Avian Surveys, Botanical and habitat surveys, Habitat classification and GIS mapping, Invasive Species Surveys, Ecological Clerk of works supervision and Project Management.

Claire has also contributed to the design and implementation of Habitat & Species Management Plans for EU protected species such as the Annex I Hen Harrier and Annex II Marsh Fritillary Butterfly.

Dr Daphne Roycroft (Avian Surveys, EIAR Reporting)

Daphne has over 10 years of experience in the field of Ecological Consultancy and holds a BSc and PhD in Ecology from the National University of Ireland, Cork. She is a self-employed Ecological consultant, trading as Croft Ecology. Daphne is experienced in the preparation of Ecological Impact Assessment Reports and Appropriate Assessment screening appraisals as well as Natura Impact Statements for a variety of projects including wind farms, solar farms, roads, pipelines, residential developments, ports and landfill sites. She has published research papers in several peer-reviewed scientific journals and has lectured on several degree and certificate courses in The National University of Ireland, Cork.

Eamonn Delaney (EIAR Reporting)

Eamonn holds a B.Sc. (Hons) in Science, and M.Sc. in Environmental Science. Eamonn has 14 years' experience in ecological consultancy. Eamonn is a full and Chartered Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Eamonn is a member of the Botanical Society of Britain and Ireland (BSBI) and regularly attends local and regional BSBI field meetings in addition to carrying out recording for the proposed BSBI 2020 Atlas, in north Co. Galway and south Co. Mayo. Eamonn has extensive experience in habitat, botanical, ornithological and mammal surveying, Ecological Clerk of Works, habitat management and site-specific mitigation.

Éinne Ó Cathasaigh (Avian Surveys)

Éinne Ó Cathasaigh recently completed a MSc in Marine Biology at University College Cork, and previously obtained a BA in Zoology from Trinity College Dublin. For his master's dissertation, "Keeping your Distance on Porpoise", Éinne studied data collected from the OBSERVE program, and used spatial distribution modelling to explore the spatial relationship between bottlenose dolphins and harbor porpoises. As an early career researcher, he worked at the Marine Institute as a bursar cataloguing the benthic invertebrate specimen library while carrying out a ten year report into benthic community health in Irish aquaculture farms. Éinne also gave tours at the Zoological Museum during his time at TCD. Currently he is working as a freelance consultant ecologist and established Éinne Ó Cathasaigh Ecological Service in 2020. He primarily works with bats, monitoring their activity at wind farms and other construction redevelopment projects.

Gerard McGrath (Avian Surveys)

Ger Graduated from UCC in 2012 with an honours degree in Zoology, and subsequently in 2013 with a Masters degree in Ecological Assessment. There under the tutelage of current UCC president John O' Halloran, he developed a keen interest in birds and bats. He worked full time as a freelance surveyor for a number of years before moving into education and undertaking a Masters in Education (Biology and Agricultural Science). He currently teaches in St. Augustine's College Dungarvan full time, but still returns to the field to carry out surveys in summertime.

Dr Isobel Abbott (Avian Surveys, Mammal Surveys, Bat Surveys)

Isobel Abbott is a freelance ecological consultant, specialising for over 10 years in bat surveys, monitoring and mitigation. She graduated first in class in 2007 with a BSc in Zoology, and in 2012 with a PhD in Ecology from University College Cork. She has published a number of scientific papers relating to bat ecology and conservation. Isobel has worked on a variety of projects including national bat surveys, wind farms, solar farms, road construction, bridge repairs, quarries, and residential and industrial developments. She has extensive experience of designing and conducting bat surveys, evaluating potential impacts, and designing appropriate mitigation for a range of bat species. Isobel has been granted >35 NPWS bat licenses associated with planning permission applications or research. She currently holds nationwide NPWS licenses to capture/handle bat species, and to disturb bat roosts for the purpose of impact assessment.

Dr Gavin Fennessy (Project Manager, Avian Surveys, Mammal Surveys, Bat Surveys, EIAR reporting)

Dr Gavin Fennessy (BSc PhD MCIEEM) is the Director & Principal Ecologist of Ecology Ireland Wildlife Consultants, a consultant ecologist with over 20 years of experience in environmental consultancy.

Dr Fennessy has contributed to and Project Managed numerous ecological impact assessment projects including EclA, EIA, AA, SEA *etc.* Gavin is also a trained and experienced Expert Witness having presented expert testimony at several An Bord Pleanála Oral Hearings. He is also an experienced lecturer and has regularly contributed to B.Sc. Env. Sc. courses at UCC. Dr Gavin Fennessy has led the ecological impact assessment and associated ecology team regarding terrestrial biodiversity at the proposed wind energy study area here from 2017-2021.

John Deasy (Avian Surveys, Habitat Surveys, Mammal Surveys, Bat Surveys, Marsh Fritillary Surveys)

John is an independent ecological consultant with experience across a range of ecological disciplines including botanical and habitat surveys, bird surveys, mammal surveys and protected invertebrate surveys. He has over 7 years of experience as a professional ecologist and has undertaken a range of botanical and habitat surveys including baseline surveys for renewable energy projects, shared-use greenways and domestic and commercial properties. These surveys have included non-native invasive species surveys, rare species surveys and evaluations of habitats listed on Annex I of the EU Habitats Directive. John holds a MSc. in Ecological Assessment and BSc. in Earth and Environmental Science from University College Cork and is a member of the Botanical Society of Britain and Ireland.

Dr Katherine Kelleher (Avian Surveys, EIAR reporting)

Katherine Kelleher is a graduate of University College Cork with a BSc in Zoology and PhD in Ecology, and established Kelleher Ecology Services in 2011. She has over 15 years of experience in ecological consultancy, acting as project manager on a range of ecological assessments & projects including solar/wind farm, road, gas pipeline, landfill, grid connection, industrial development, retail and housing. Katherine has significant experience of research, evaluative and analytical work in relation to planning applications, planning compliance, commitments, licensing, baseline assessments, scoping studies *etc.*

Mark Shorten (Avian Surveys)

Mark Shorten has been birding activity since 1975 and has been involved in many conservation projects and surveys since then. He has contributed to the Winter Atlas, Breeding Atlas 1988-91 and 2007-11, Chough Survey 1993, Cork Seabird survey 1985, Cork Harbour Counts 1978-2005, country bird survey and Dragonfly Atlas. He was editor of the Cork Bird Report 1990-95 and Cork bird recorder 1990-2021. He is joint author of the forth coming 'The Birds of County Cork'. He wrote the original proposal to create a Harpers Island bird reserve and is involved with its management. Since 2018 he has worked on the BRIDE Project as bird surveyor and scoring Results Based Payments. Since 2019 he has worked as a bird surveyor on windfarm projects in Kerry, Cork, Offaly, Laois and Carlow. Waterfowl monitoring has been carried out for INIS and Atkins. He has a particular interest in bird sound recording and has developed an expertise in Noctuid and bird call identification. He has sound recorded over 130 species in Ireland.

Michelle O'Neill (Avian Surveys, Habitat Surveys, Mammal Surveys, Bat Surveys, EIAR reporting, Grid Route Walkovers)

Michelle (BSc Ecology University of Aberdeen, Diploma Field Ecology UCC) has over 10 years of experience working as an ecological consultant within the public and private sector on projects that include habitat and botanical surveys, breeding and winter bird surveys, mammal surveys, data analysis, assessment and report writing. To date, she has completed habitat and botanical surveys for a range of projects as part of National Surveys, Ecological Monitoring, Ecological Impacts Assessments (Ecia/EIAR) and Appropriate Assessment (AA/NIS). She has a particular interest in botany and habitats and has worked on an Irish semi-natural grassland survey (2009—2012) and a habitat mapping project for the provision of a Teagasc pilot methodology for farmland habitat assessment of sustainability scheme.

Paul Troake (Avian Surveys)

Paul Troake is an experienced ornithologist with excellent fieldwork skills, stemming from a lifelong passion for birds and birding. His career path involved warden positions on several English nature reserves before moving to Ireland over 14 years ago, since when he has been undertaking birds survey work for Birdwatch Ireland, UCC and numerous environmental consultancies. Much of his recent work has focused on vantage point bird surveys for wind farm developments, and to a lesser extent other surveys such as breeding raptors, walkovers, transects and point counts, amounting to over 600 days in total on 40 sites across Ireland. Additional experience has been gained on offshore boat surveys in the Irish Sea following qualification in ESAS (European Seabirds at Sea) survey methodology. He has earned a reputation for reliability with observation and data handling skills.

Tony Nagle (Avian Surveys)

Tony Nagle has a BSc in Environmental Management, an MSc in Ecological Assessment and is a member of the Chartered Institute of Ecology and Environmental Management. He has over 30 years of experience in bird surveying including birds of prey, waders, wildfowl and nocturnal species. He has participated in the Irish Wetland Bird Survey since it began in 1994 and the Countryside Bird Survey since 1999 and continues to be involved in both surveys. He was a regional organiser of the 2005, 2010 and 2015 National Hen Harrier Surveys and a co-author of each of the reports and he was a regional organiser and validator for the *Bird Atlas* (2013). He has been involved in numerous surveys for wind energy, road construction and pipe-laying projects.

Rory Dalton (Avian Surveys, Mammal Surveys, Bat Surveys)

Rory is an ecologist with eight years of experience with a BSc. Hons in Environmental Science from University College Cork. He worked for three years as an ecologist with a consultancy, and for the last five years he has been running his own company. While his expertise is aquatic ecology, he carries out general work in the areas of birds, mammals and habitats. The projects he is involved with range in size from small bridge surveys to the largest wind energy project in the country and the largest water quality project in Europe. He carries out work for a number of County Councils, State Bodies, Semi-State Bodies, Engineering Consultants, Ecology Consultants, Environmental Consultants and Laboratories.

Tom O'Donnell (Bat Surveys, EIAR Reporting)

Tom O'Donnell is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management. He was awarded a BSc in Environmental and Earth System Science [Applied Ecology] from UCC in 2007 and an MSc in Ecological Assessment in 2009, both from UCC. He has gained significant experience in ecological assessment and environmental management over the last 12 years of professional employment. Tom has particular experience in bat survey, bat conservation and bat call sonogram analysis using Kaleidoscope Pro.