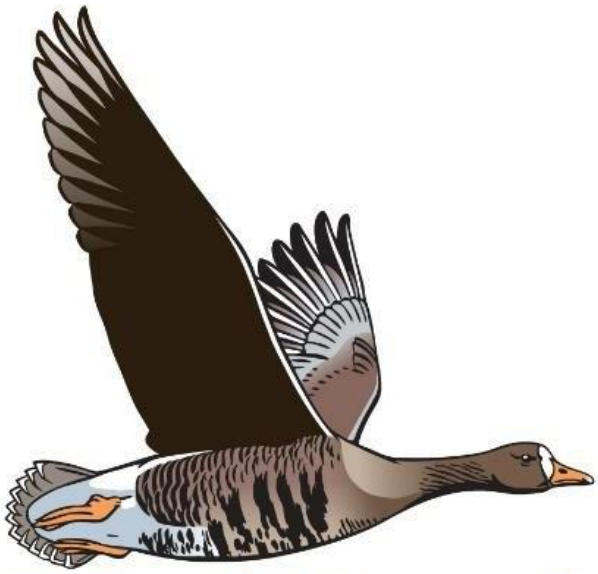

BirdWatchIreland
protecting birds and biodiversity

BirdWatch Ireland response to the North Irish Array application Offshore Renewable Energy

A submission by staff at BirdWatch Ireland

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Introduction

BirdWatch Ireland is Ireland's leading charity focused on the conservation of wild birds. Established in 1968, we currently have over 15,000 members and supporters and a local network of over 30 branches nationwide. As an organisation, our conservation team is actively involved in seabird conservation, research, and monitoring. Our policy and advocacy team are active stakeholders contributing to marine conservation at a national and EU level. We are proud members of Birdlife International, the Irish Environmental Network, Stop Climate Chaos, and the Sustainable Water Network, and a founding partner of the Fair Seas coalition.

Our vision is that Ireland should become a world leader in marine conservation and the sustainable management of our marine environment. As an island nation, Ireland could be a pioneer in ocean protection within the EU by putting in place ambitious legislation to protect at least 30% of Ireland's sea by 2030, with at least 10% strictly protected. BirdWatch Ireland is calling on the government to expand Ireland's network of Marine Protected Areas to protect our seabirds, marine life, and ecosystems. An ecologically coherent network of well-managed and well-resourced MPAs will enable Ireland to meet its commitments under the Marine Strategy Framework Directive, the OSPAR Convention, and the Kunming-Montreal Agreement under the UN Convention on Biological Biodiversity (COP15). In addition, it is critical that existing coastal and marine Special Protection Areas (SPAs) have complete Conservation Objectives and management plans put in place to restore to favourable conservation status of many declining seabirds and waterbirds.

Where the protection and restoration of Irish ecosystems is vital, so too is rapid decarbonisation. The Intergovernmental Panel on Biological Diversity (IPCBD) and the Intergovernmental Panel on Climate Change (IPCC) make it clear that we face twin climate and nature emergencies.
BirdWatch Ireland therefore supports the production of renewable energy and offshore wind; however, ORE devices and infrastructure must be sensitively located to minimise negative impacts on seabirds, marine and terrestrial ecosystems, and other biodiversity including terrestrial bird species.

BirdWatch Ireland's marine science background

For many years BWI has been working to gather data and information on the importance and usage of the Irish sea for seabirds and waterbirds. Our work includes tagging and tracking of seabirds at key sites, Digital Aerial Survey (DAS) work and observations on the daily movements and flight lines of a range of seabirds in the Irish sea, as part of our annual monitoring and management of key seabird colonies in the Irish Sea more than the past 20 years. We have been one of the lead partners in the last two national censuses of breeding

seabirds in Britain and Ireland, namely Seabird 2000 (1998-2002) and Seabirds Count (2015-2021) which have set the population baselines and trends of the 24 seabird species that breed in Ireland (Mitchell et al. 2004; Burnell et al. 2023).

General comments on the impacts of ORE windfarm projects

The main impacts of ORE windfarm projects on seabirds and waterbirds are outlined below. Although reports on Displacement and Collision Risk have been submitted by the company behind the NISA development, we do not believe that all of the potential impacts of Displacement and Collision Risk have been comprehensively assessed.

A bigger question is that of Cumulative Impacts. How are the cumulative impacts of this proposed development being examined? We believe it is not enough to state the cumulative impacts will be assessed as part of the site assessments for each project currently in the planning system off the east coast of Ireland. If the North Irish Sea Windfarm development proceeds along side the other two submitted to date (Oriel and Arklow Bank 2), and those expected soon (Codling and Dublin Array), collectively, **there will be a near continuous chain of turbines stretching from Dundalk to north Wexford.** This will likely precipitate changes at an ecosystem level to both the biotic and abiotic environments. Offshore sandbanks, geomorphology and coastal erosion will all be impacted with knock-ons to the benthos and small prey-fish populations on which our seabirds and cetaceans are dependent.

-Wider ecological impacts on fish stocks/prey base, particularly during construction. Knowledge of the impact on the prey base/fish stocks is essential to be able to fully assess the impacts on seabirds. This is not adequately addressed in any of the reports.
-Impacts on fishing effort and location – how will fishing efforts be shifted by the proposed windfarm and what is the likely impact of such a shift? This has also not been addressed.
- Impacts on non-seabird species, waterbirds and other larger birds using the air space. The flight heights are not known for key species and this data has not been collected, as the digital aerial surveys do not collect flight height data. This impact has therefore not been fully assessed.

General comments on Protected Areas in the North Irish Sea

The proposed NISA development lies completely within the North-west Irish Sea SPA (004236). The designation comes with a list of 'Activities Requiring Consent', one of which, ARC 30, states "Any activity intended to disturb birds, including by mechanical, air gas, wind powered or audible means". This is a somewhat obtuse statement and in our opinion a large wind powered generating station operating within the SPA is highly likely to 'disturb birds'. These ARCs need to be defined by Government in a much more comprehensive manner going forward to ensure proper protection for seabirds.

BirdWatch Ireland and BirdLife International have been working together over the last year to identify Marine Important Bird and Biodiversity Areas in Irish waters. Although the project has not been officially uploaded to the global IBA database, the interim findings are available (see Figure 1) and these concur closely with the boundaries of the state's SPA. This area of the north-west Irish Sea is critically important for a suite of seabirds, some of which are globally threatened (Kittiwake, Puffin) and others for which the area supports the largest colony of Roseate Terns in Europe and the north Atlantic (Rockabill) and the largest Irish colonies of Shag, Herring Gull, Kittiwake, Guillemot, Razorbill (Lambay Island) and Common Tern (Rockabill).

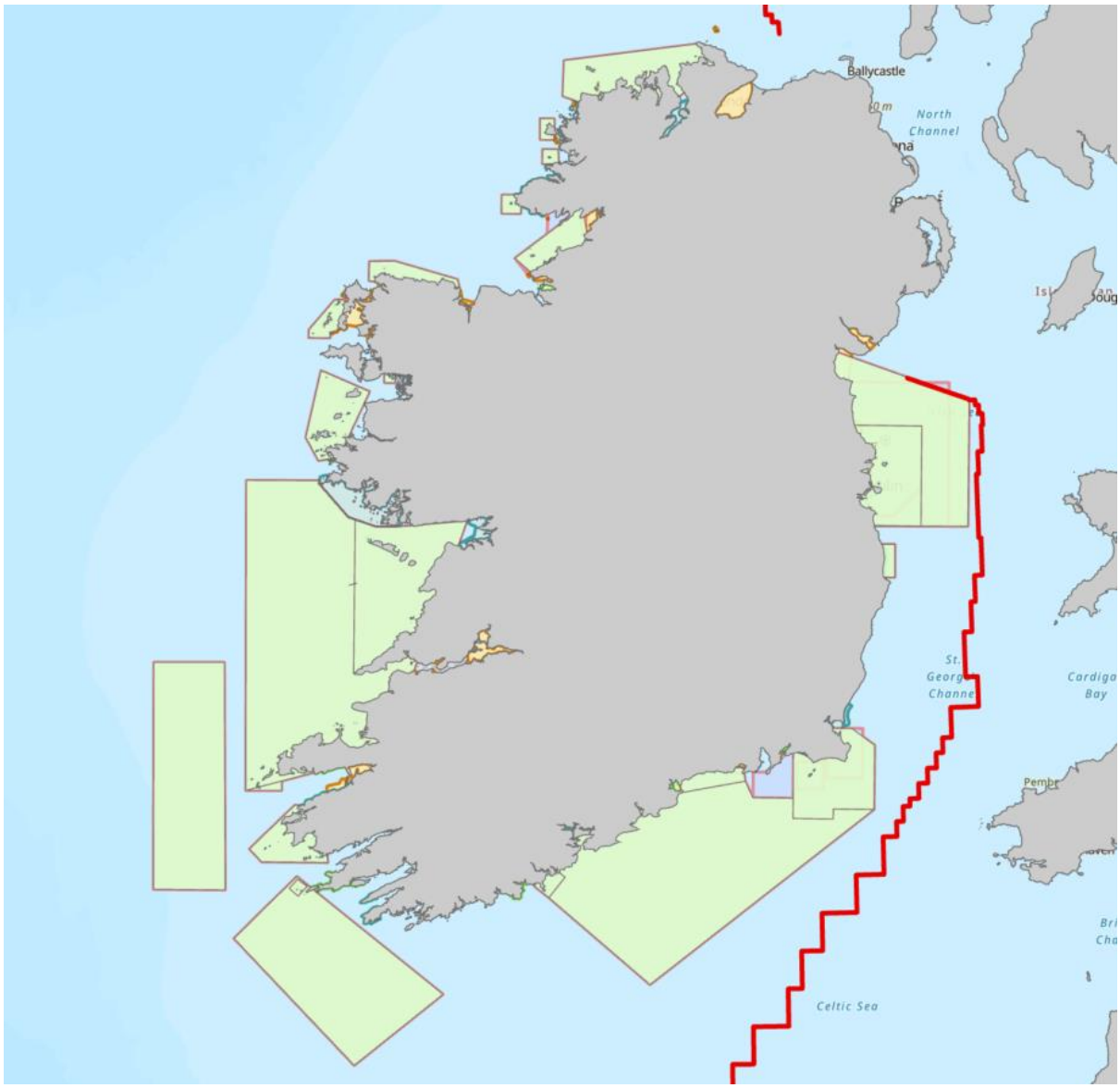

Figure 1. Draft map showing recently identified Marine Important Bird Areas in Ireland (BirdLife International/BirdWatch Ireland/Flotilla Foundation).

BWI concerns about overlap with the distribution and foraging areas of key species

We are very concerned that there are key data gaps and questions remaining on the impact of the windfarm on important species, that have been omitted from the many ornithological reports which have been submitted in the NISA application. We set out some of these concerns below, but due to a lack of capacity within our organisation and the very tight timescales for scrutiny of the large number of reports submitted, there may well be other questions.

The seasonal distribution and abundance of seabirds in the whole Irish Sea is described in Jessopp et al. (2018), on the basis of the Government funded ObSERVE Programme. This also shows high usage of the north-west Irish Sea area year-round for many species (see Figure 79) including Kittiwake, a globally threatened species (IUCN/BirdLife International).

It has long been known that one of the key foraging areas for the internationally important colonies of Manx Shearwater in Wales (Skomer and Skokholm, Pembrokeshire) is the North-west Irish Sea (see Guilford et al. 2008). In summer 2024, BirdWatch Ireland rediscovered a colony of this species nesting on Lambay Island (Newton et al., unpublished report). Given these birds are likely to forage in the NISA development area, and they are highly threatened by rat depredation on the island, GPS-tracking work should be conducted urgently before any construction activity commences.

Tagging work, using geolocators (GLS) as part of the Seatrack Project (see link below) shows that Kittiwakes breeding at Irish sea colonies (Rockabill, Dublin and Skomer Island, Wales) tend to remain in the Irish Sea year-round making any offshore windfarm a potential threat.

https://seatrack.seapop.no/diversitymap/

This type of tagging work should be extended to a greater range of the breeding seabirds of Lambay Island so that the annual movements of Fulmars, Cormorants, Shags, Gannets, Guillemots, Razorbills and Puffins are better understood. Indeed, numbers and breeding success of all seabirds at Dublin colonies should also be monitored over the longer term; if ORE projects progress, the impacts over time need to be assessed.

Although the NISA consortium's EIAR included GPS-tracking data (mostly from BirdWatch Ireland's work) showing foraging areas for several species, they omitted some easily accessible data for one of the most important species in the area, the Roseate Tern. Using boat-based visual tracking, we have mapped foraging trips of this species from Rockabill (Perrow et al. 2019). This shows regular use of the very area selected for the windfarm several km to the north east of Rockabill (Figure 2) **and failure to address this issue is a serious omission.**

One of the most important colonies we have monitored and managed over many years is Rockabill, which is the closest internationally important seabird colony to the proposed NISA development site. Our staff have over many years observed large numbers of auks

(Guillemots and Razorbills) moving approximately north-south past Rockabill during the summer months, likely to be heading to foraging grounds in the north Irish Sea and which may well include usage of the proposed wind farm area. These birds almost certainly breed on Lambay, and although we have GPS-tracked both species on the island, the feeding areas we typically located were to the east of the island. We are aware of work conducted at other large seabird colonies that showed birds breeding in different sub-colonies on the island used very different foraging areas (Bogdanova et al. 2014). Our previous auk-tracking work probably did not sample the sub-colony(ies) of birds that use the north-south corridor passing Rockabill. More information on the movements of Guillemots and Razorbills from Lambay is needed to show that there is no significant windfarm impact to these species. There is also growing evidence of the avoidance of offshore windfarms by Guillemots during the breeding season (Peschko et al. 2020).

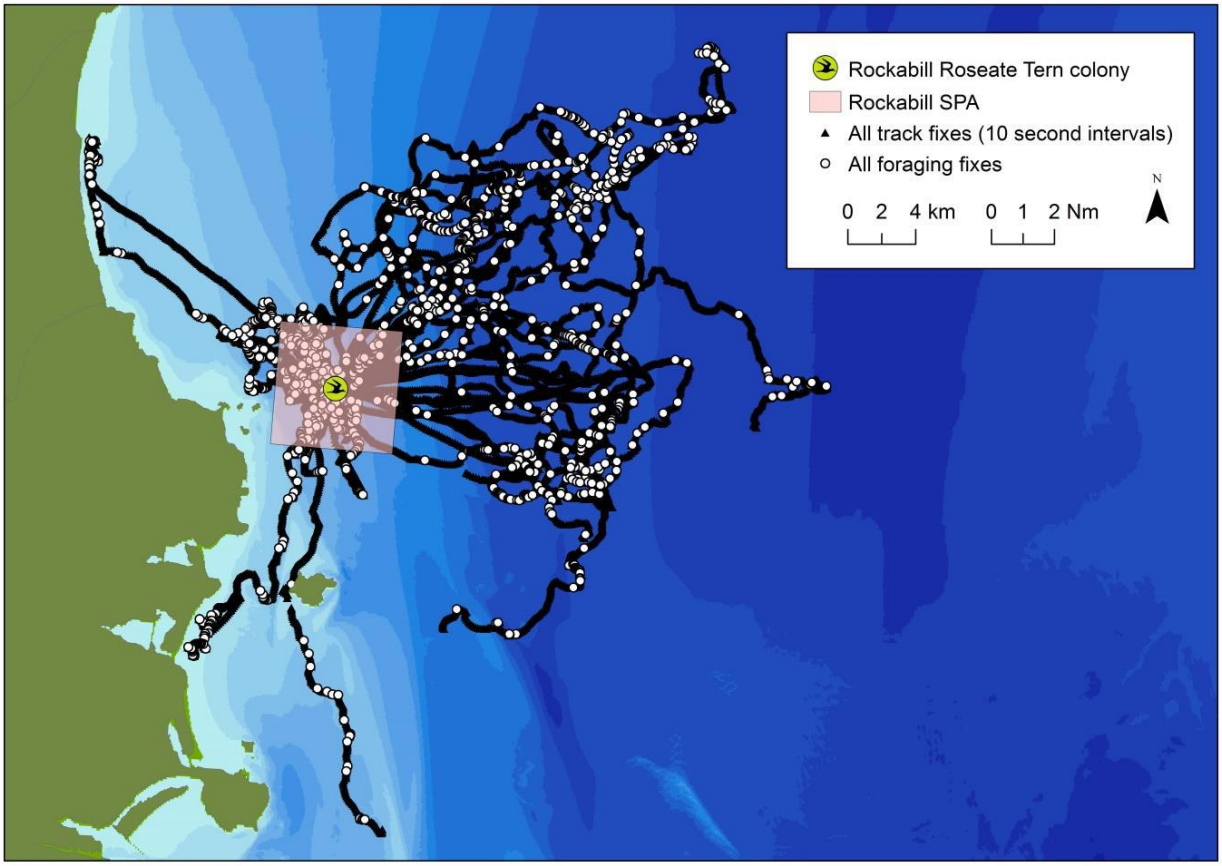

Figure 2. Foraging tracks of Roseate Terns nesting on Rockabill, with the designated SPA shown in shaded box.

Other migratory flying animals

We note that bats are now of concern with respect to offshore renewable energy developments and that work on this theme is presented in the NISA EIAR. We have initiated our own study (see Appendix 1 below) and we demonstrate considerable spring flight

activity of Leisler's Bats over Rockabill. Given the Arklow Bank(Phase 2) developers have recorded both Leisler's and Common Pipistrelle bats in their area to the south, there is growing evidence of widescale migratory movements of these animals across the Irish Sea. We believe further work is required before consents are given for offshore windfarm construction.

Concluding Remarks

In the last few months BirdWatch Ireland staff have agreed a programme of work with four windfarm consortia currently seeking consent off the east of Ireland, including the NISA project, to better monitor breeding seabird numbers and productivity at the key colonies in County Dublin: Lambay, Ireland's Eye, Howth Head, the Skerries Islands and others. This work commenced in May 2024, is ongoing and needs to be repeated in 2025 and beyond. It complements annual wardening and monitoring at the key tern colonies especially Rockabill, but also Baltray and Portrane. In parallel, a targeted programme of GPS-tracking and GLS (geolocator) deployment work on the key species that utlise to NISA development area, namely Manx Shearwater, Gannet, Cormorant, Guillemot, Razorbill and Kittiwake needs to be undertaken. This work should be concentrated on the two closest SPAs, north cliffs of Lambay (all species) and Rockabill (Kittwakes only).

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Appendix 1. Initial results of NGO bat monitoring on Rockabill Island by Bat Conservation Ireland in conjunction with BirdWatch Ireland.

BAT CONSERVATION IRELAND

Investigation of Offshore Bat Activity

Rockabill Island Static Deployment

May to June 2024

DOCUMENT DETAILS

Project Title: Investigation of Offshore Bat Activity Rockabill Static Deployment

Document Title: Static Bat Monitoring at Rockabill Island

Analysis: Fionn O Neill

Prepared By: John Curtin

Date: 22nd July 2024

Abstract: Bat Conservation Ireland and Birdwatch Ireland co-operated in creating a monitoring project at Rockabill Island off the Dublin Coast. Static surveys commenced on the 14th of May and will continue until November 2024. Preliminary results show the presence of Leisler's bats and Unidentified Myotis. Results are being made public in the hope of co-operative sharing of bat data for offshore bats and is part of wider projects investigating the possibility of migration and offshore feeding bats.

Acknowledgements: Thanks to Stephen Newton and Kyle Coughlan of Birdwatch Ireland

1. Introduction

Bat Conservation Ireland in conjunction with the Nathusius Pipistrelle Research Group have started a series of projects examining offshore bat activity with a focus on the eastern and south-eastern coasts. Given the difficulty in accessing offshore islands Birdwatch Ireland Research team at Rockabill were approached to set up a static monitoring program on the Island.

2. Static surveys

Two Wildlife acoustic Song meter mini static detectors were deployed on the island on the 14th of May, and they remained deployed for 38 days until the 21st June. One was deployed to the West, on a weathervane nearer the lighthouse building, and the other was located to the East, nearer the coast.

One bat species was positively identified alongside two unidentified Myotis bat calls. 65 bat registrations were recorded during the survey period from both detectors. Of these, 63 registrations were Leisler's bats. One day of particularly high activity was recorded on the 17th of May, where 50 (80%) of Leisler's calls were recorded between the two detectors. The majority of activity occurred between 23:00 and 00:00, with three additional recordings taken after midnight on this night.

Seabirds were calling constantly, and it is likely that the extra chatter will reduce the sensitivity of ultrasonic detectors to more quiet calls; filters were required to prevent noise below 18kHz as these non-bat recordings consumed data space to quickly.

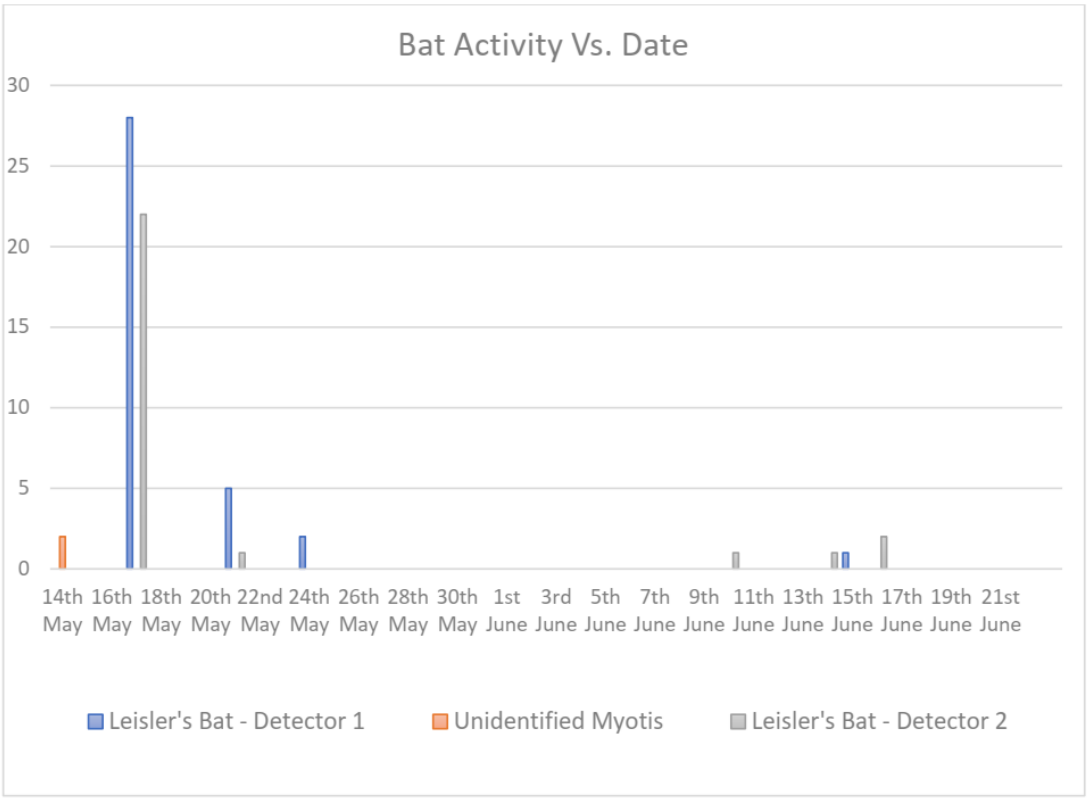

Figure 2-1: Bat activity per day

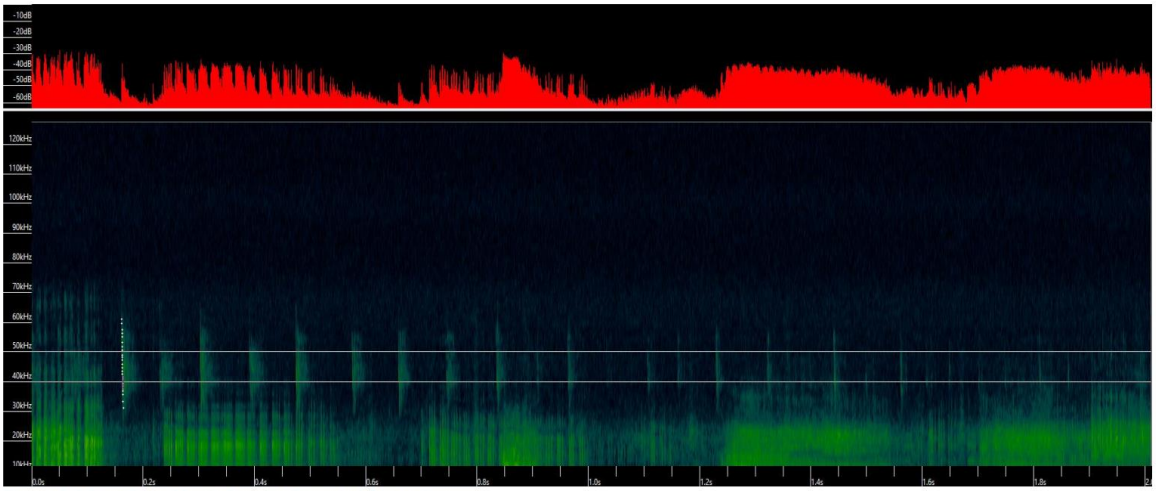

Figure 2-2:One of two Myotis Species Recorded during Surveys

Figure 2-3: Rockabill Static Detector Location

Appendix: Static Survey Data

Table 1: Species Breakdown

Detector	Leisler's Bat	Unidentified Myotis	Total	Minutes recorded	Bat passes per hour	Leisler's	Unidentified Myotis
1	36	2	38	19716	0.12	0.1	0.0
2	27	0	27	19716	0.08	0.1	0.0
Total	**63**	**2**	**65**	**39432**	0.1	0.2	0.0

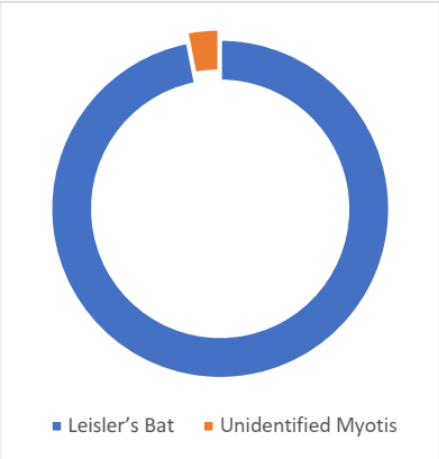

Figure 1: Species breakdown

Table 2: Detector 1, Results Summary

Days per season	Date	Leisler's Bat	Unidentified Myotis	Total
1	14th May	0	2	2
2	15th May	0	0	0
3	16th May	0	0	0
4	17th May	28	0	28
5	18th May	0	0	0
6	19th May	0	0	0
7	20th May	0	0	0
8	21st May	5	0	5
9	22nd May	0	0	0
10	23rd May	0	0	0
11	24th May	2	0	2
12	25th May	0	0	0
13	26th May	0	0	0
14	27th May	0	0	0
15	28th May	0	0	0
16	29th May	0	0	0
17	30th May	0	0	0
18	31st May	0	0	0
19	1st June	0	0	0
20	2nd June	0	0	0
21	3rd June	0	0	0
22	4th June	0	0	0
23	5th June	0	0	0
24	6th June	0	0	0
25	7th June	0	0	0
26	8th June	0	0	0

Days per season	Date	Leisler's Bat	Unidentified Myotis	Total
27	9th June	0	0	0
28	10th June	0	0	0
29	11th June	0	0	0
30	12th June	0	0	0
31	13th June	0	0	0
32	14th June	0	0	0
33	15th June	1	0	1
34	16th June	0	0	0
35	17th June	0	0	0
36	18th June	0	0	0
37	19th June	0	0	0
38	20th June	0	0	0
39	21st June	0	0	0

Table 3: Detector 2, Results Summary

Days per season	Date	Leisler's Bat	Unidentified Myotis	Total
1	14th May	0	0	0
2	15th May	0	1	1
3	16th May	0	0	0
4	17th May	22	0	22
5	18th May	0	0	0
6	19th May	0	2	2
7	20th May	0	2	2
8	21st May	1	0	1
9	22nd May	0	0	0
10	23rd May	0	0	0
11	24th May	0	0	0
12	25th May	0	0	0
13	26th May	0	0	0
14	27th May	0	0	0
15	28th May	0	0	0
16	29th May	0	0	0
17	30th May	0	0	0
18	31st May	0	0	0
19	1st June	0	0	0
20	2nd June	0	0	0
21	3rd June	0	0	0
22	4th June	0	0	0
23	5th June	0	0	0
24	6th June	0	0	0
25	7th June	0	0	0
26	8th June	0	0	0
27	9th June	0	0	0
28	10th June	1	1	2
29	11th June	0	0	0
30	12th June	0	1	1
31	13th June	0	0	0
32	14th June	1	0	1
33	15th June	0	0	0
34	16th June	2	0	2
35	17th June	0	0	0
36	18th June	0	0	0
37	19th June	0	0	0
38	20th June	0	0	0
39	21st June	0	0	0