



2025

# Mount Falcon Bat Survey



Mary Roberts

29/09/2025

# Foreword

*This project was delivered with the support of Mayo County Council and National Parks and Wildlife Service through the Local Biodiversity Action Fund 2025 in partnership with Bat Conservation Ireland and Mary Roberts of Mayo Bat Group. It is an action of the National Biodiversity Action Plan 2023 – 2030.*

Cover photos: Mount Falcon by Michael Pajkert and Leisler's bat by Mary Roberts



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# Introduction

My name is Mary Roberts, I am a member of Bat Conservation Ireland, Mayo Bat Group, a bat rehabber and live in County Mayo.

In July 2025, I was provided with a Song Meter Mini Bat 2 by Mayo County Council Biodiversity Officer – Sheila Murphy, to allow some bat surveying to be conducted on behalf of Mayo County Council and the National Parks and Wildlife Service.

This detector is specialist equipment and is invaluable, as it allows bat surveys to be carried out without the need for a person to be present. The detector was set to record between sunset and sunrise. Recording is triggered when bat calls, mammal sounds, leaves rustling and other noises are detected.



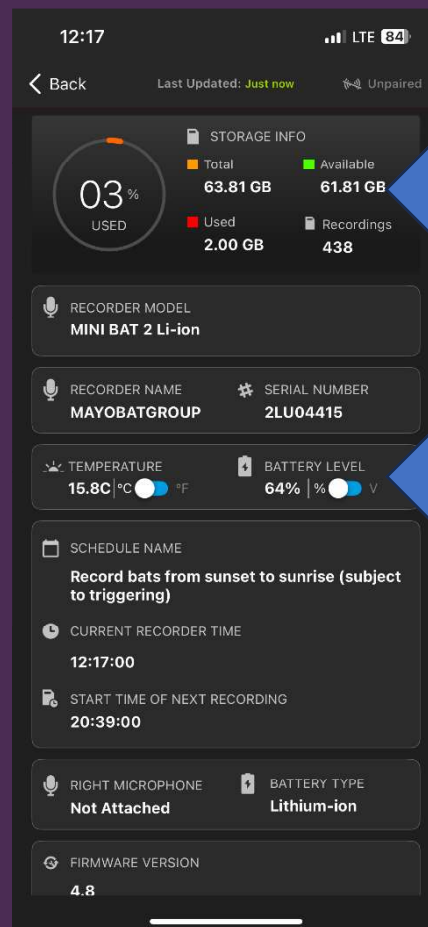
Figure 1: Song Meter Mini Bat 2

The chosen location was Mount Falcon on Foxford Road in Ballina. The detector was deployed near the trout fishing pond, set up and left in situ for 4 weeks' duration from 19/08/2025 to 16/09/2025.

During this time, weekly checks were performed by using an App on a mobile phone. The App connects directly with the detector and allows the user to ensure that the batteries still have power and the SD card has enough recording space remaining, to complete the task in-hand.

When the detector is retrieved, specialist software, is required to analyse the sound files collected on the SD card. This software is Wildlife Acoustics' Kaleidoscope, the licence used was courtesy of Bat Conservation Ireland. The software enables the analyst to see the sound files collected throughout the survey period. Enabling the analysis of the results and the removal of any non-bat sounds. The equipment is sensitive and can record rustling leaves, mammals, birds and other nearby sounds, which have to be eliminated from the files.

As with any software, it is not 100% accurate and the analyst has to read the files and use their expertise and knowledge to correctly identify the species recorded. The results are then collated to make a coherent set of results.



Storage left on SD Card

Battery power level

Figure 2: Mobile phone reading from Song Meter Mini Bat 2

Below are examples of bat sounds from this survey as they appear on the Kaleidoscope software.

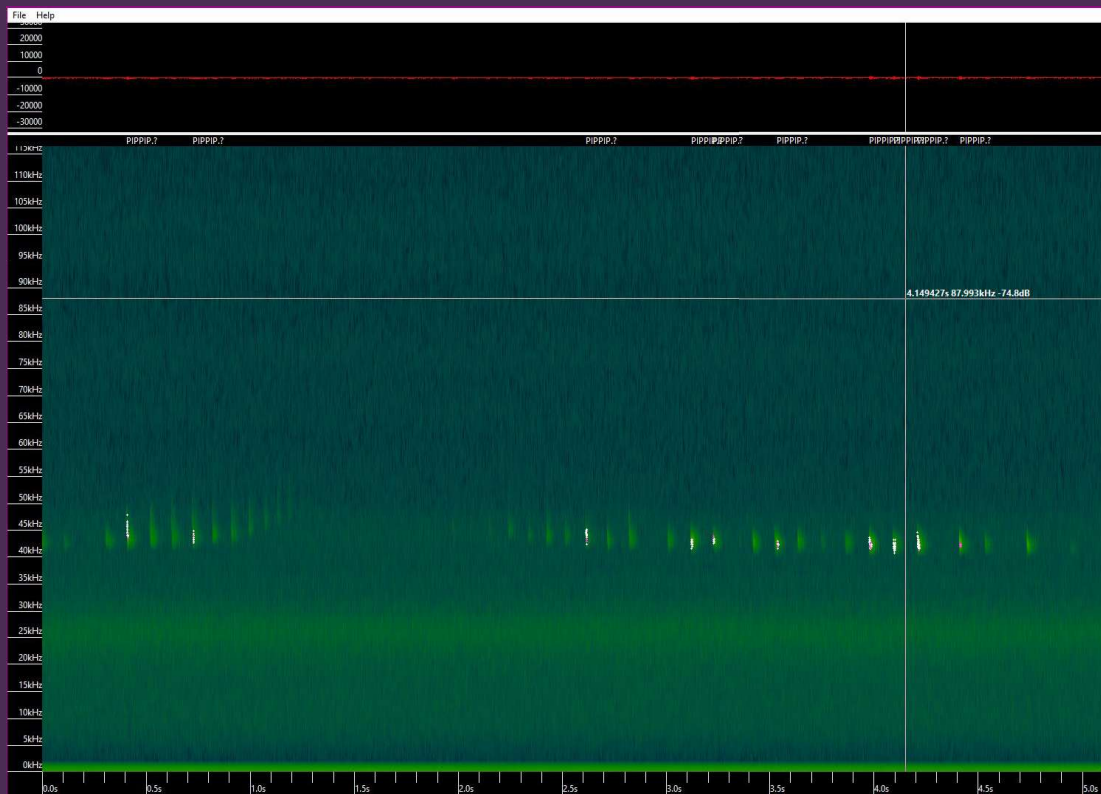


Figure 3: Common Pipistrelle - *Pipistrellus pipistrellus*

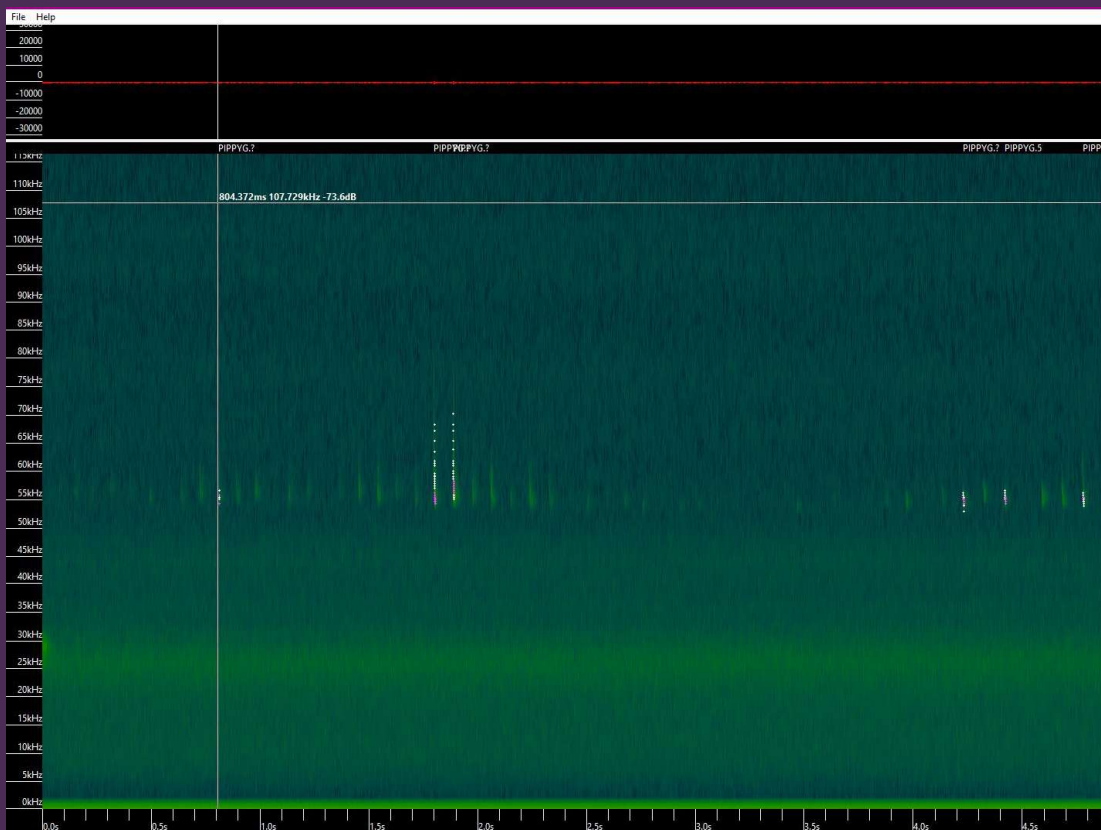


Figure 4: Soprano Pipistrelle - *Pipistrellus pygmaeus*

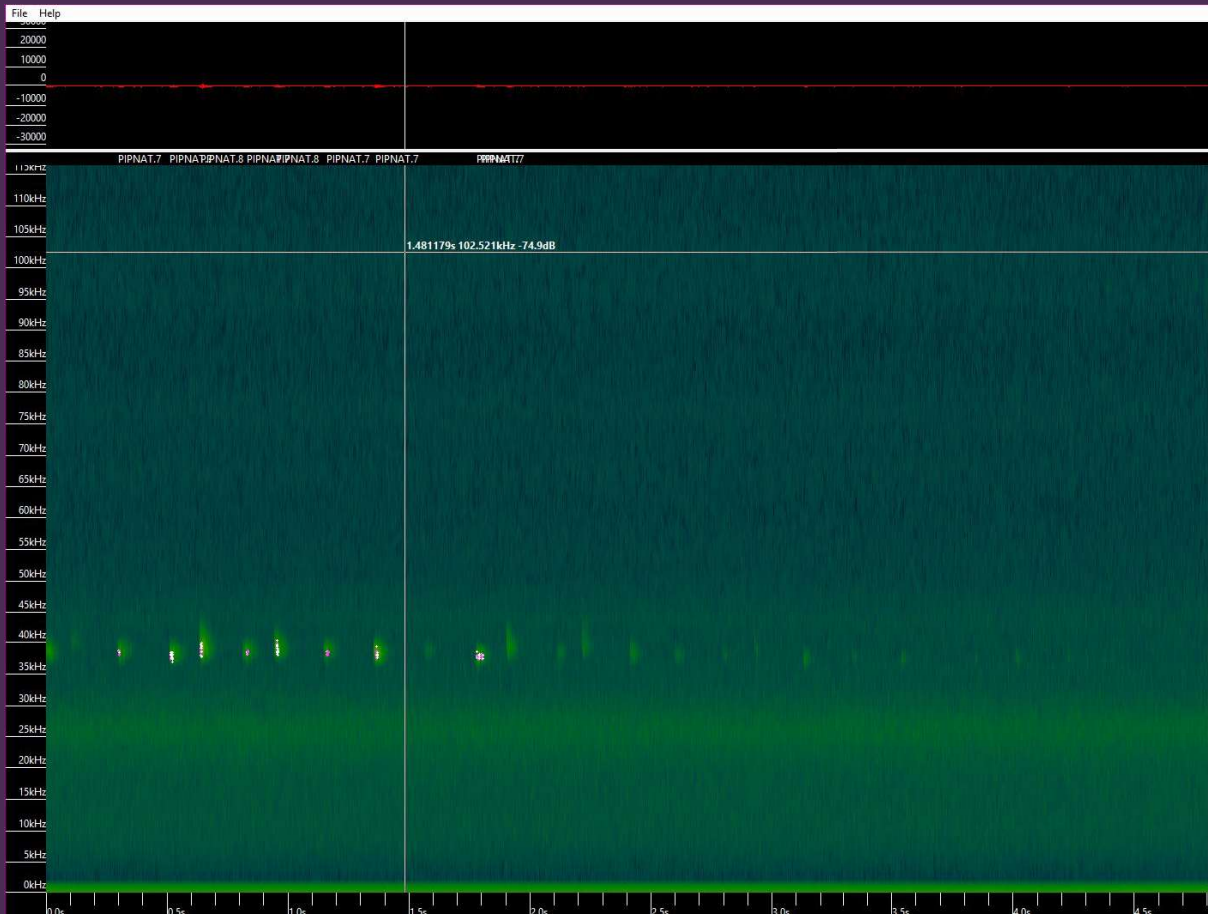


Figure 5: Nathusius' Pipistrelle - *Pipistrellus nathusii*

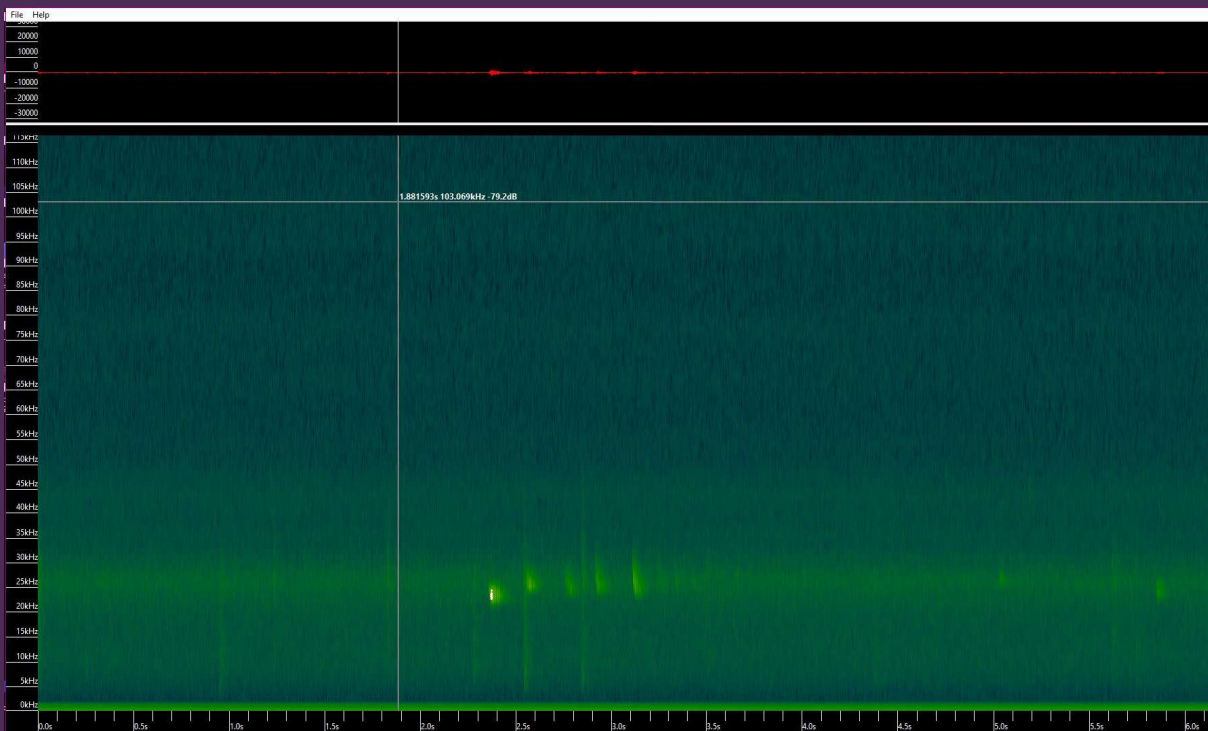


Figure 6: Leisler's Bat - *Nyctalus Leisleri*

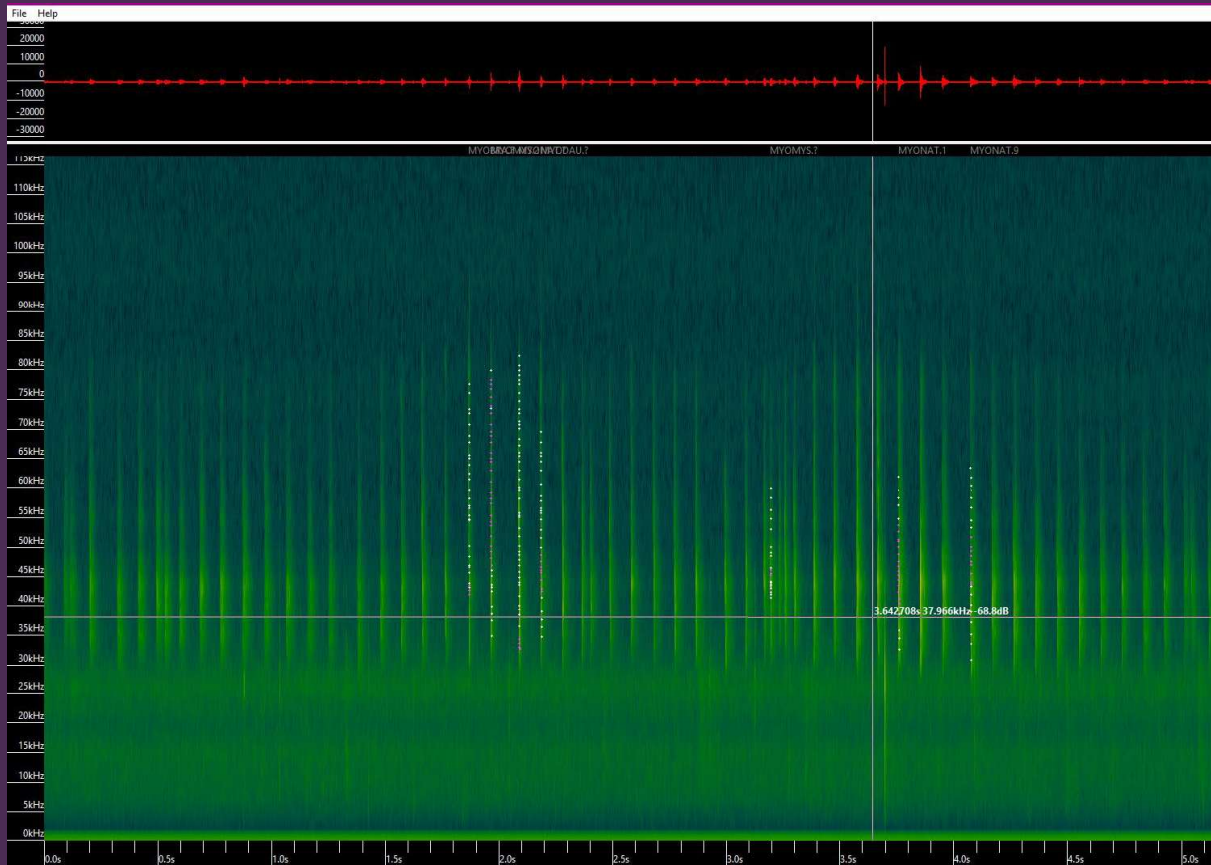


Figure 7: Daubenton's - *Myotis Daubentonii*

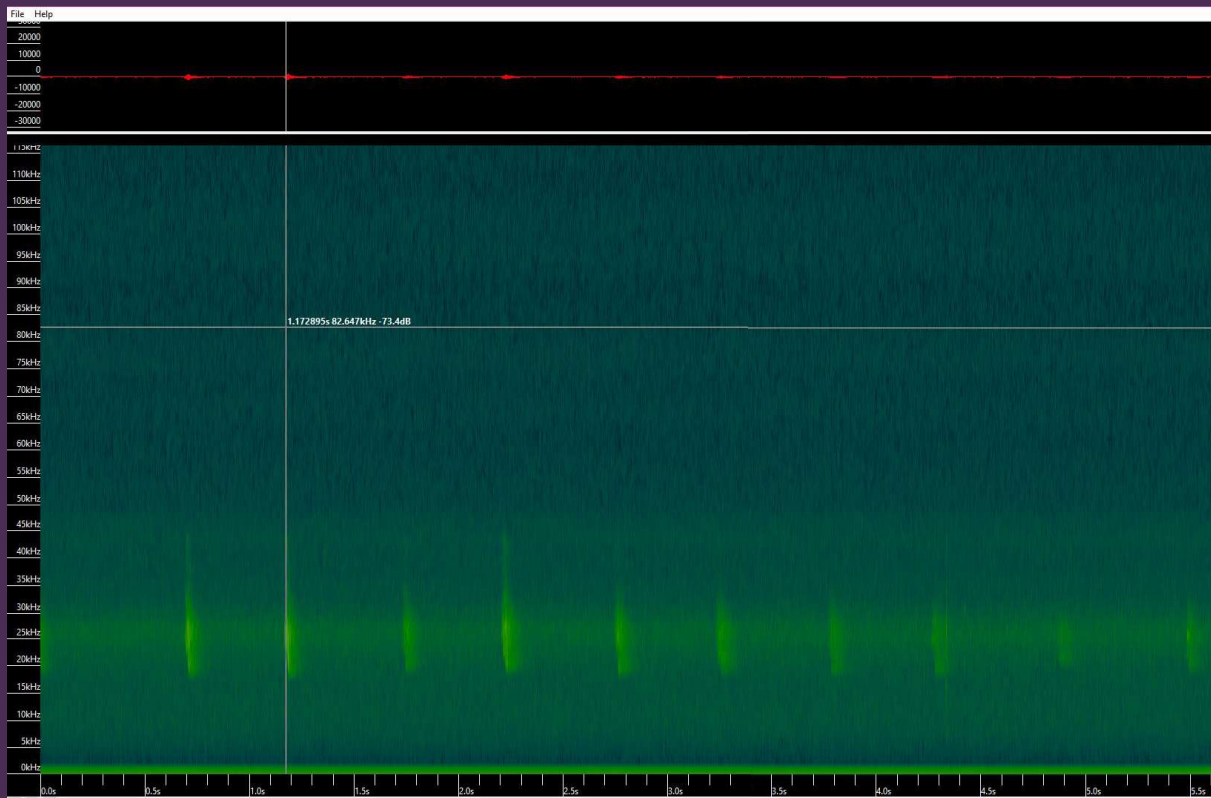


Figure 8: Pipistrelle Species Social Call – All Pipistrelle social calls look similar and so are given the generic name.

Each bat sound file is known as a bat pass. A single bat species makes many different sounds from hunting to social calls; these are many and varied. Some calls cannot be directly associated with one species only and is then designated as Pipistrelle Species or Myotis Species.

5 of the 9 bat species which live in Ireland were recorded at the Mount Falcon location. This location is too far North for Lesser Horseshoe bats to be expected. All files were analysed, including all of those designated as "Noise" or "No ID" and discarded if proven to be non-bat sounds

Upon inspection, some of the files which were identified as a single species of bat by the software, contained 2, 3 or even 4 species on the same file. The Auto ID only designates a single species to each file, so these extra bat calls would have been missed if not analysed manually.

The recent inclement weather took its toll on the bat species passes detected.

If insects cannot fly, such as when it is too cold, windy or wet, then there is no food for the bats and they conserve energy by sitting it out until the weather is suitable for insects. This is reflected in the results of the project.



## Location and Weather

The Song Meter Mini Bat 2 was located near the trout pond in Mount Falcon, in the morning, on 19/08/2025 and secured to a tree on the peninsula. The equipment was discreetly installed so that it was non-intrusive.



*Figure 9: Location of Song Meter Mini Bat 2*

Weather for Mount Falcon for the duration of the project.

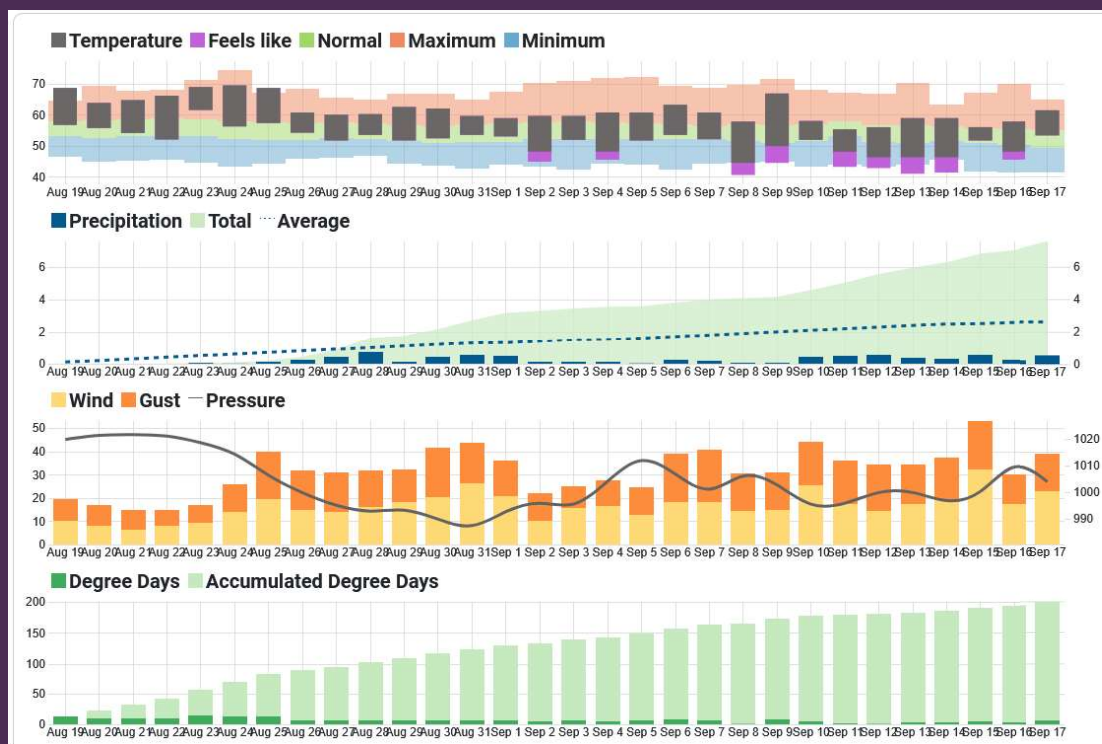


Figure 10: Weather from 17/08/2025 to 19/09/2025 – courtesy of visualcrossing.com

### Total Species Count for Mount Falcon

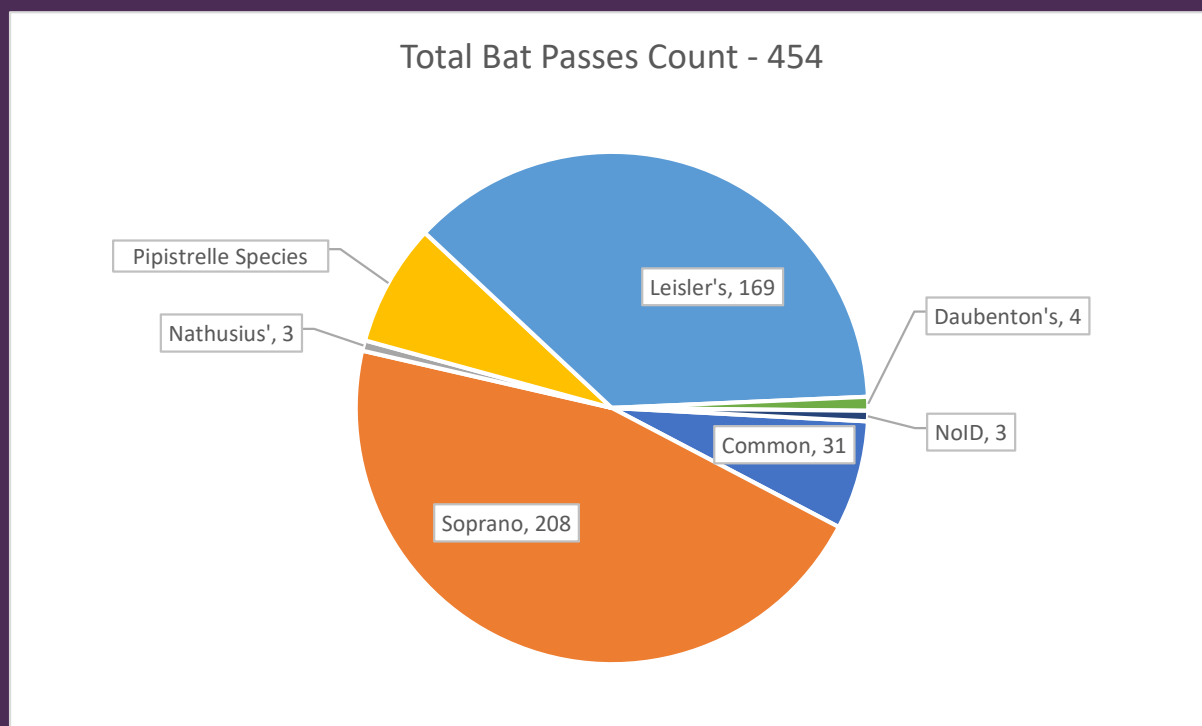


Figure 11: Total Species passes recorded

Total Bat Passes	
Common	31
Soprano	208
Nathusius'	3
Pipistrelle Species Social Call	35
Leisler's	169
Daubenton's	4
Natterer's	1
Whiskered	0
Brown Long-Eared	0
NoID	3
	454

Figure 12: Table with Total Species Passes

## Daily Species Counts

Counts are from Sunset on the date given to Sunrise the following morning, i.e. Sunset 19/08/2025 to sunrise 20/08/2025

19/08/2025		20/08/2025	
Common	8	Common	9
Soprano	18	Soprano	49
Pipistrelle Species Social Call	1	Leisler's	19
Leisler's	14	Daubenton's	1
Total	41	Natterer's	1
		Total	79
21/08/2025		22/08/2025	
Common	10	Soprano	13
Soprano	41	Pipistrelle Species Social Call	5
Pipistrelle Species Social Call	3	Leisler's	4
Leisler's	28	Total	22
Total	82		

<b>23/08/2025</b>		<b>24/08/2025</b>	
Common	2	Soprano	7
Soprano	30	Nathusius'	1
Pipistrelle Species Social Call	7	Pipistrelle Species Social Call	3
Leisler's	10	Leisler's	3
Daubenton's	1	NoID	2
NoID	1	Total	16
Total	51		
<b>25/08/2025</b>		<b>26/08/2025</b>	
Common	1	Soprano	2
Soprano	4	Pipistrelle Species Social Call	1
Nathusius'	1	Leisler's	4
Leisler's	8	Total	7
Daubenton's	1		
Total	15		
<b>27/08/2025</b>		<b>28/08/2025</b>	
Soprano	4	Soprano	3
Leisler's	3	Pipistrelle Species Social Call	2
Total	7	Leisler's	10
		Total	15

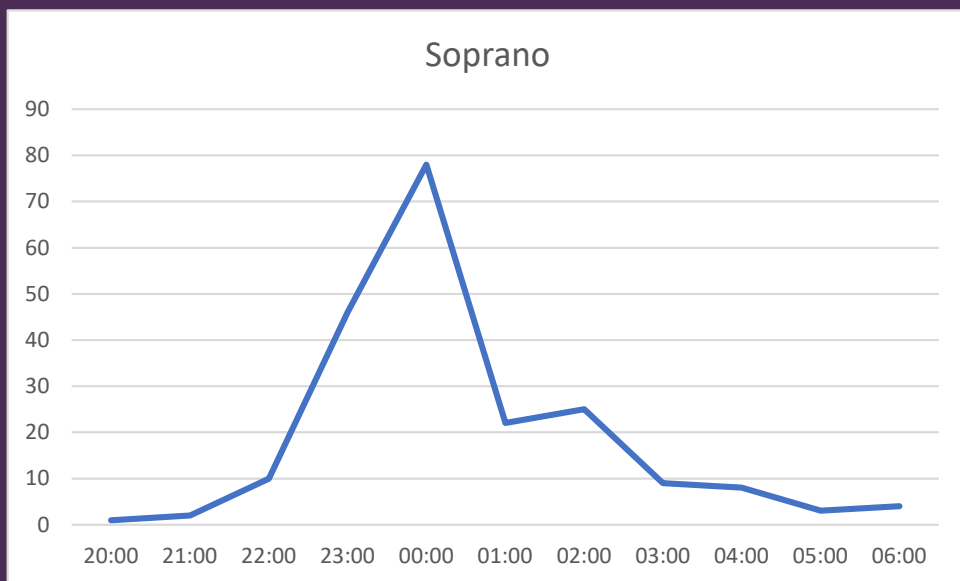
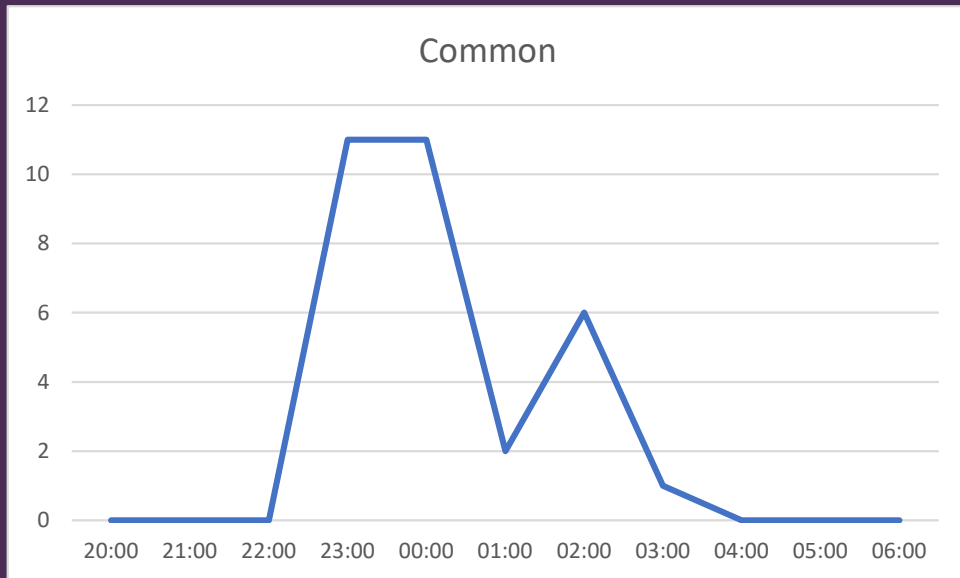
<b>29/08/2025</b>		<b>30/08/2025</b>	
Soprano	4	Soprano	2
Leisler's	10	Pipistrelle Species Social Call	5
Total	14	Total	7
<b>31/08/2025</b>		<b>01/09/2025</b>	
Soprano	4	Soprano	1
Pipistrelle Species Social Call	1	Pipistrelle Species Social Call	3
Leisler's	2	Leisler's	4
	7		8
<b>02/09/2025</b>		<b>03/09/25</b>	
Soprano	4	Leisler's	2
Leisler's	1	Total	2
Total	5		

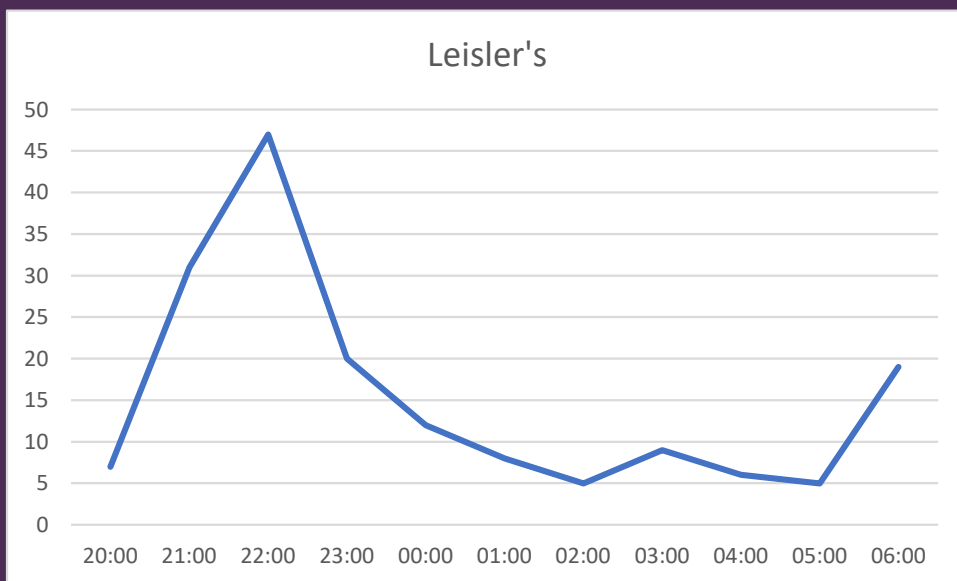
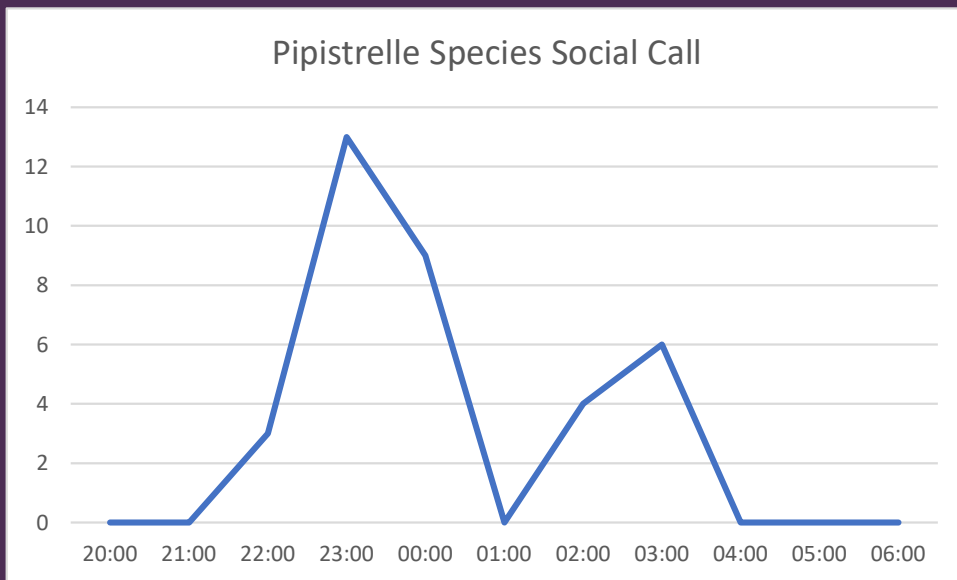
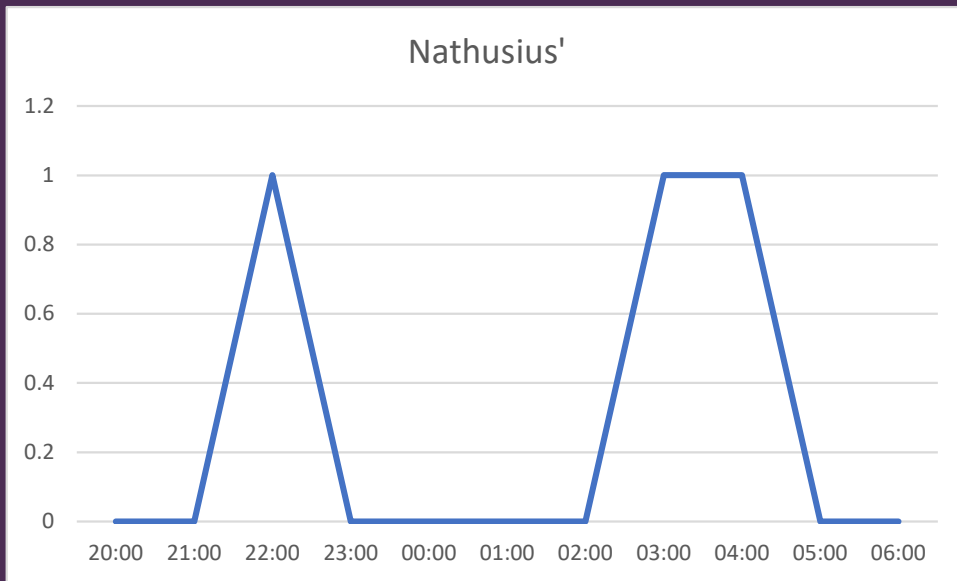
<p style="text-align: center;"><b>04/09/2025</b></p> <p>Nathusius' 1  Pipistrelle Species Social Call 2  Leisler's 3  6</p>	<p style="text-align: center;"><b>05/09/2025</b></p> <p>Soprano 7  Leisler's 2  9</p>
<p style="text-align: center;"><b>06/09/2025</b></p> <p>No passes</p>	<p style="text-align: center;"><b>07/09/2025</b></p> <p>Common 1  Soprano 1  Leisler's 9  11</p>
<p style="text-align: center;"><b>08/09/2025</b></p> <p>Leisler's 3  Total 3</p>	<p style="text-align: center;"><b>09/09/2025</b></p> <p>Soprano 5  Pipistrelle Species Social Call 1  Leisler's 8  Daubenton's 1  Total 15</p>
<p style="text-align: center;"><b>10/09/2025</b></p> <p>Leisler's 1  1</p>	<p style="text-align: center;"><b>11/09/2025</b></p> <p>Leisler's 4  4</p>
<p style="text-align: center;"><b>12/09/2025</b></p> <p>Leisler's 2  Total 2</p>	<p style="text-align: center;"><b>13/09/2025</b></p> <p>Soprano 1  Leisler's 5  Total 6</p>
<p style="text-align: center;"><b>14/09/2025</b></p> <p>Soprano 1  Leisler's 7  Total 8</p>	<p style="text-align: center;"><b>15/09/2025</b></p> <p>Soprano 2  Pipistrelle Species Social Call 1  Leisler's 3  Total 6</p>

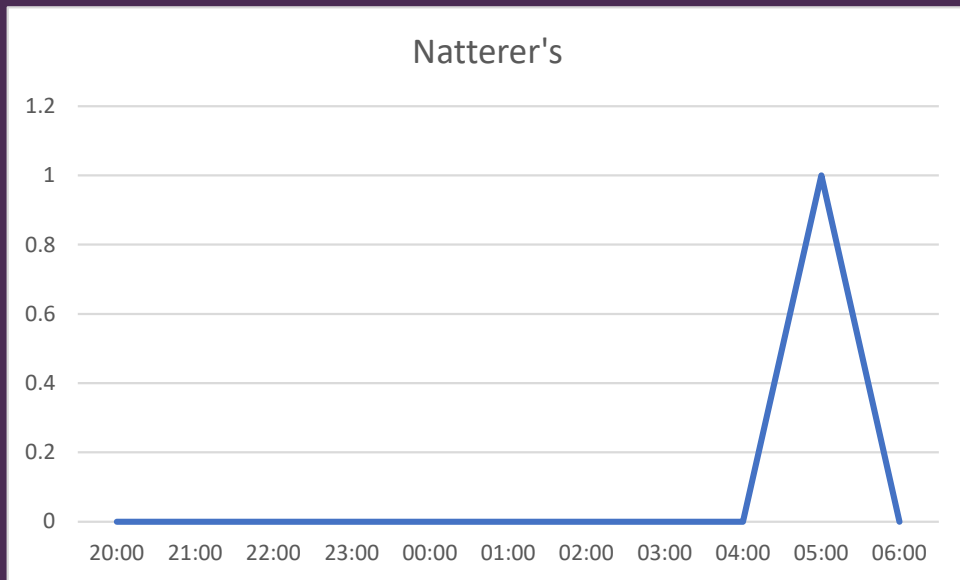
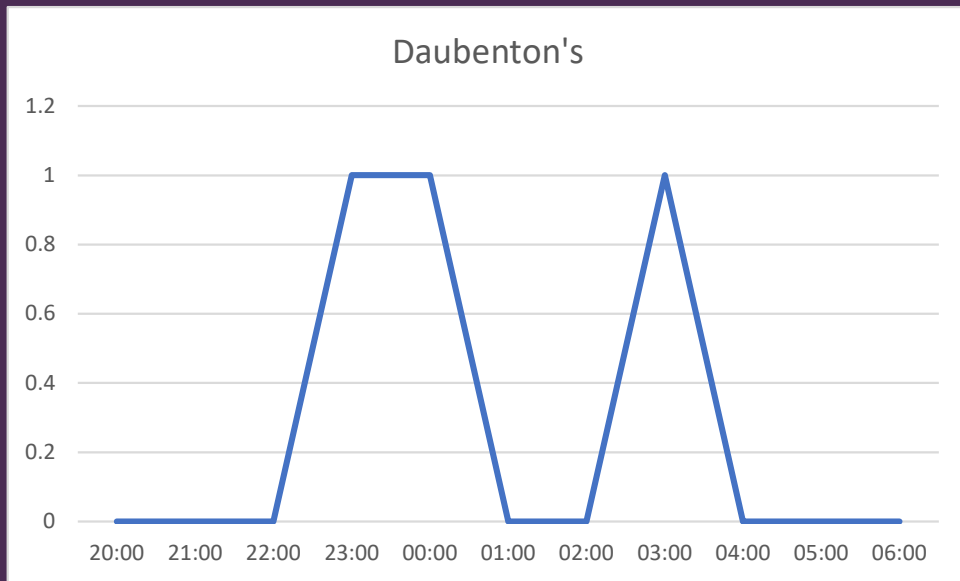
Only one Natterer's Bat was detected throughout the project and there were 3 recordings where the species could not be identified and designated as NoID by the software.



## Hourly Species Activity







3 bats were detected where a species identification was not possible.

## Summary

6 of the 8 possible species were recorded at Mount Falcon with the Lesser Horseshoe and Whiskered bats absent. Lesser Horseshoe Bats were not detected at this location, as there is no scientific evidence of them this far North up to now. The weather was very changeable which in turn affected bat numbers. There are no insects available for the bats to eat if the weather is below 8° Celsius, there is heavy rain or there are windy conditions. Soprano pipistrelles were generally the most abundant species with Leisler's bats also being quite prevalent. There was only one Natterer's and 3 Nathusius' Bat passes recorded. Daubenton's bats were present but in very low numbers, as the pond is open to the elements and this would have affected their feeding in windy conditions. A few pipistrelles were detected where a distinction between species was not possible, they are in the Pipistrelle Species category. The bats recorded with no identification, are normally short recordings where not enough information is available to allocate them to a particular species.

It would be interesting to conduct this experiment further into the woodland area to see which species are present



*Figure 13 Position of Bat Detector*



## Acknowledgements

I would like to thank the National Parks and Wildlife Services and Mayo County Council, in particular the Biodiversity Officer, Sheila Murphy for organising the equipment and facilitating this project.

Thanks also to Bat Conservation Ireland for allowing the use of their licenced version of Wildlife Acoustics Kaleidoscope software and for enabling me to gain experience with bat sound analysis.

Thanks to Ryan Friesen for assistance in location choice and placing the Song Meter Mini 2 Bat in place.

