



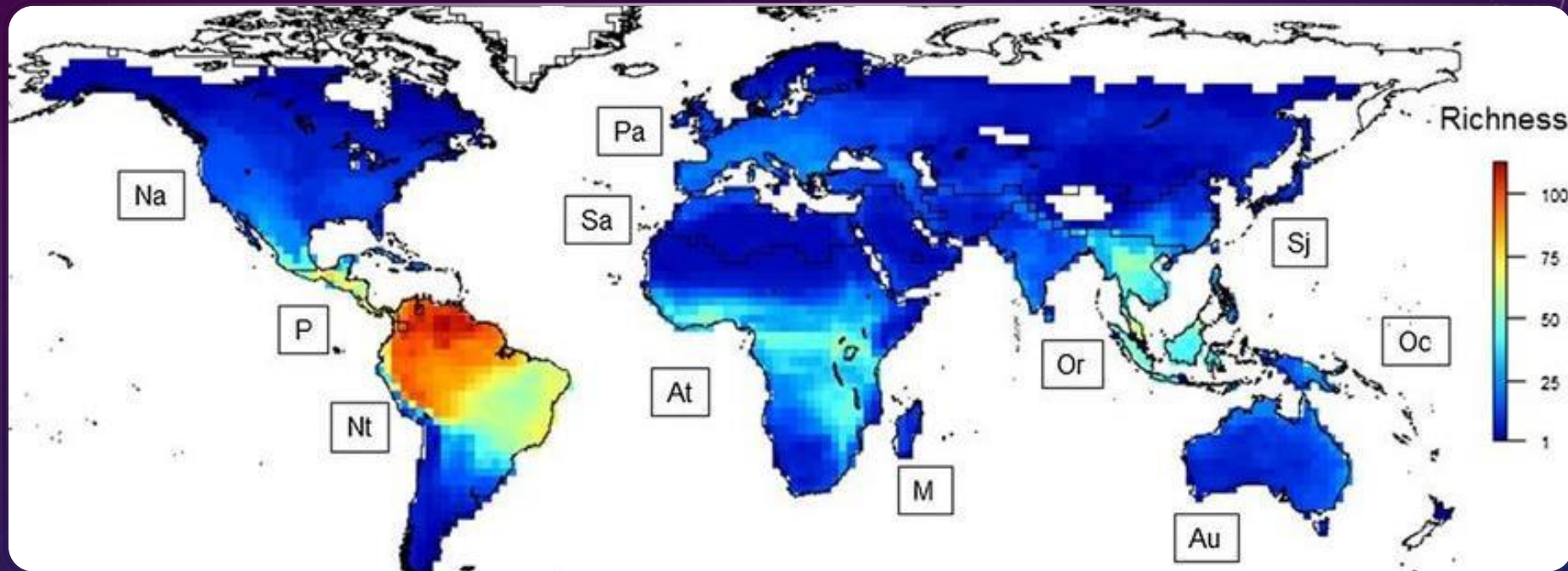
CREATING OPEN, VERIFIABLE, ACOUSTIC  
OBSERVATIONS OF BATS

TOM AUGUST – SEPTEMBER 2022









SHOULD WE EXPECT TO HAVE LOTS OF BATS DATA?

1) Bats are widely distributed



# ECHO METER TOUCH 2

Turn your phone into a bat detector

SHOULD WE EXPECT TO HAVE LOTS OF BATS DATA?

2) Bats are now fairly easy to record



SHOULD WE EXPECT TO HAVE LOTS OF BATS DATA?

3) Free analysis software is available



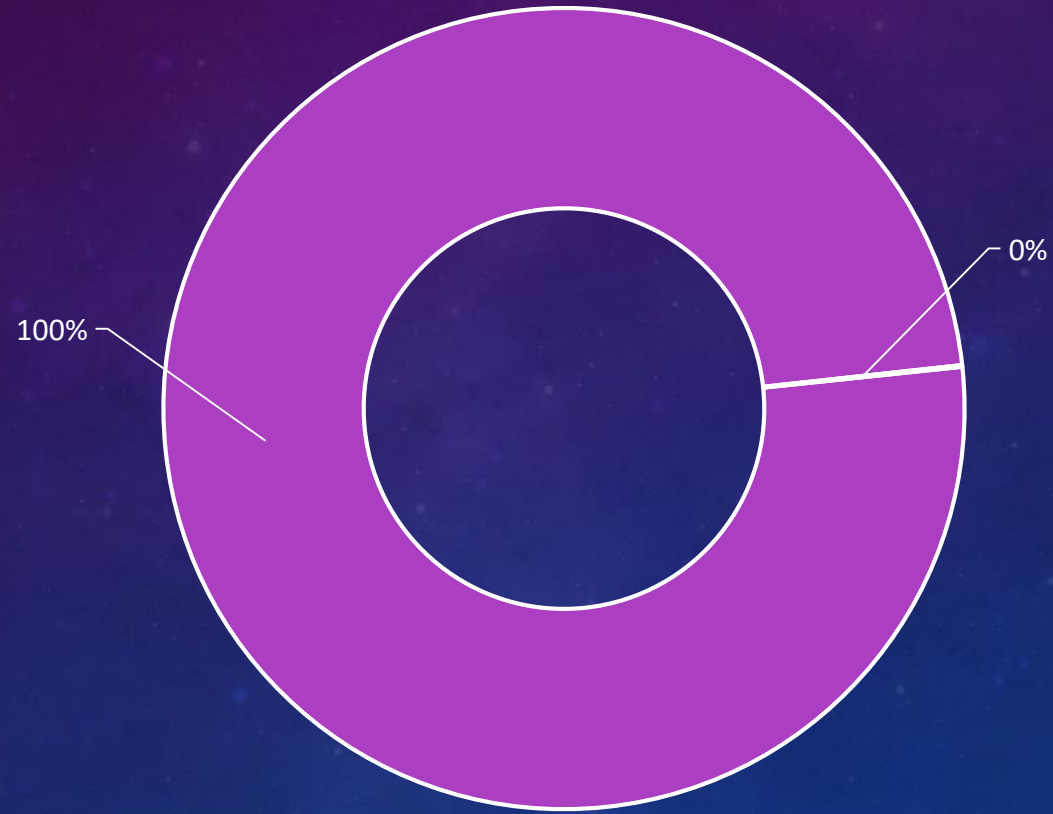


SHOULD WE EXPECT TO HAVE LOTS OF BATS DATA?

4) There are lots of people doing it

# Observations on iNaturalist global

■ Not-bats ■ Bats



# Observations on iNaturalist UK

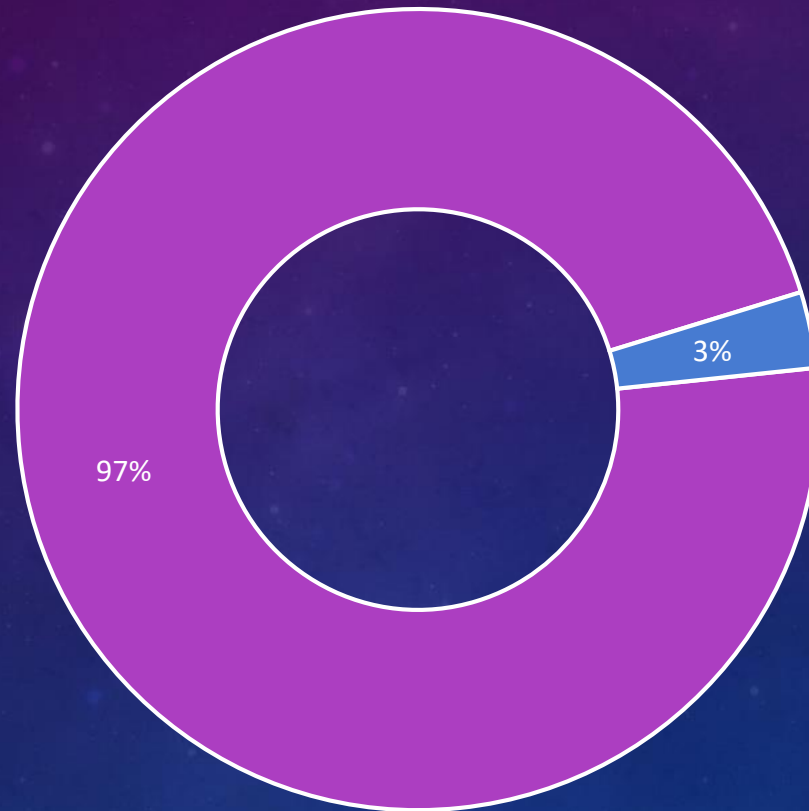
■ Not-bats ■ Bats





## Observations of mammals on iNaturalist UK

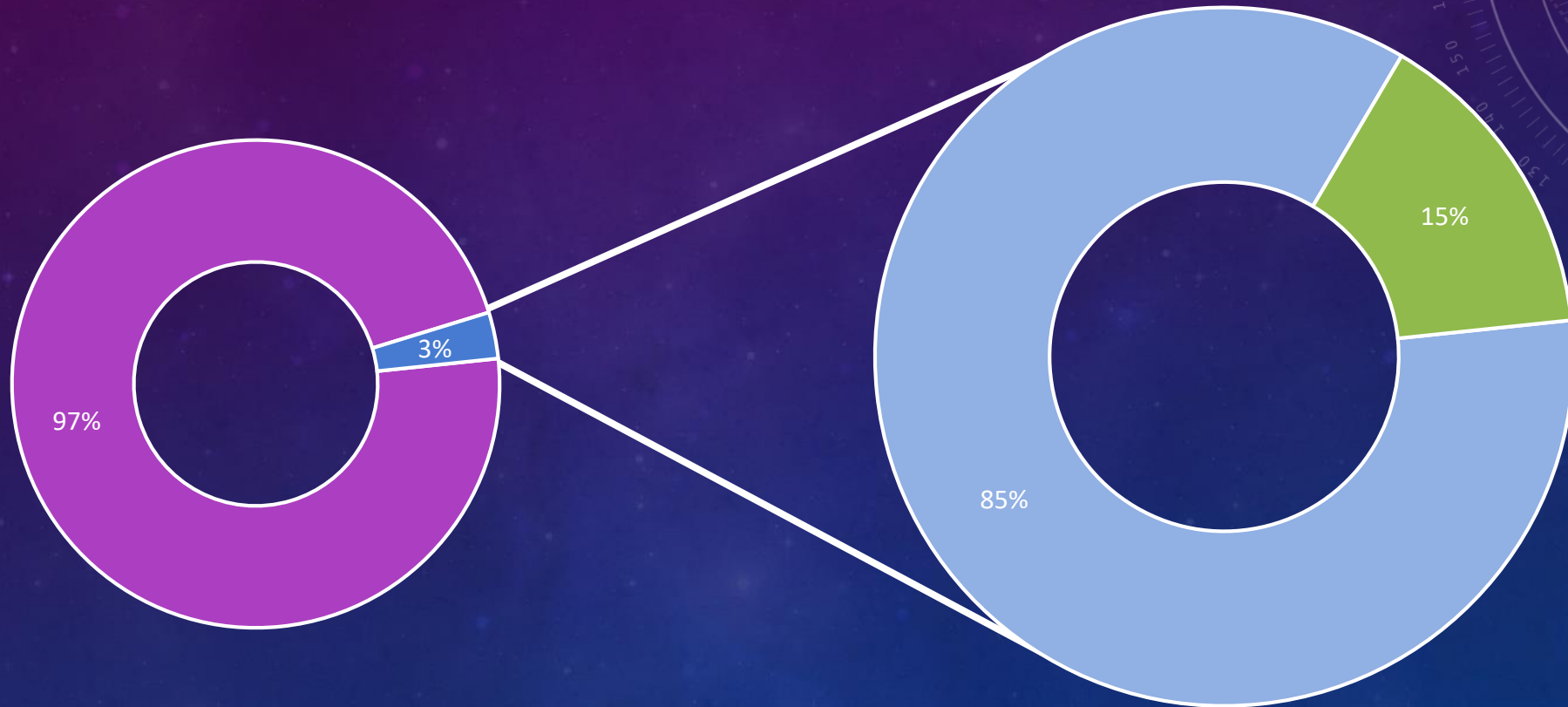
■ Not-bats ■ Bats



Bats make up ~20% of UK mammals

# Verifiable observations of bats in the UK

■ Not verifiable ■ Verifiable





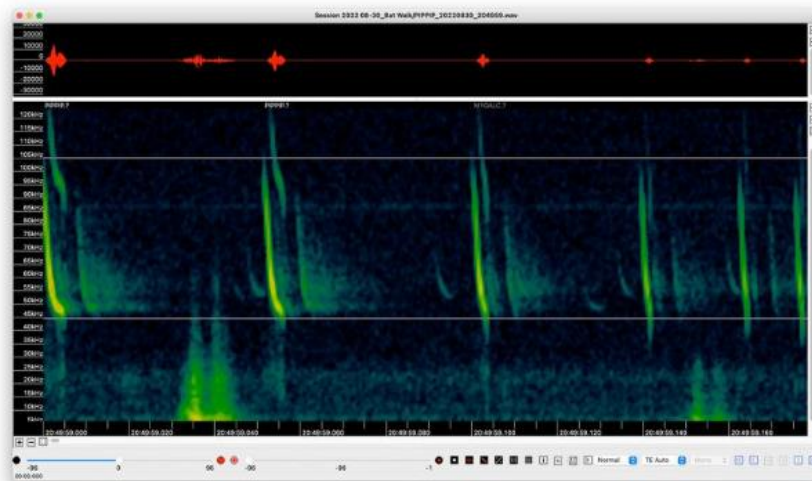
So what's going on?



## Bat Call Sound Analysis Workshop



I'm trying to confirm the species of this call detection. The pulse freq. is from 45kHz to over 100kHz. I think these are Alcatloe Whiskered bat. The Pipistrelle's in the same recording are a lot shorter. Recording taken in London. Many thanks Ray.



👍🤔 13

16 comments 1 share

👍 Like

💬 Comment

➦ Share



### Username

Enter your iNaturalist username

### Password

Enter your iNaturalist password

## Agreement

Bat2iNat lets you upload lots of data, quickly. Which is great, unless you are uploading rubbish. Please follow these three simple rules:

1. **Manually verify** all of your recordings before you upload them, don't blindly trust the classifier
2. Once uploaded, **check all of your recordings** on iNaturalist to ensure no errors have been made during upload
3. **Support the community** by helping to verify **other people's records**

Abuse of Bat2iNat may result in your access being suspended

I agree

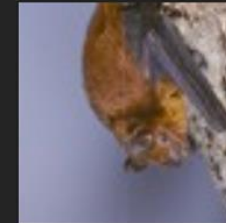
Choose files (max 10MB each)

Browse...

PIPPIP\_20220718\_222807

Upload complete

PIPPIP\_20220718\_222807



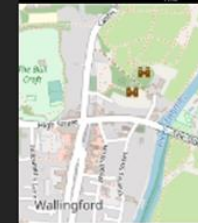
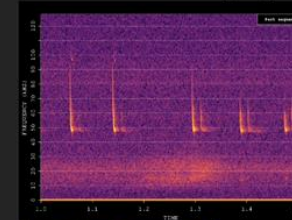
**Species:** *Pipistrellus pipistrellus*

**Date & time:** 2022/07/18 22:28:07

**Number of good quality calls:** 14

**Av. Peak Frequency (kHz):** 48

**Av. Call Duration (ms):** 3.4



View on iNat



Denmark

41  
OBSERVATIONS

6  
SPECIES

1  
IDENTIFIER

1  
OBSERVER

Map

Grid

List

Places of Interest

Redo search in map



Mouse-eared Bats

(Genus *Myotis*)

Århus, DK-MJ, DK • Sep 15, 2022



2d



Suborder Yangochiroptera

Århus, DK-MJ, DK • Yesterday

1



19h



Particoloured Bat

(*Vespertilio murinus*)

Århus, DK-MJ, DK • Yesterday

1



19h



Pygmy Pipistrelle

(*Pipistrellus pygmaeus*)

Århus, DK-MJ, DK • Yesterday

1



19h



Pygmy Pipistrelle

(*Pipistrellus pygmaeus*)

Århus, DK-MJ, DK • Yesterday

1



19h



Pygmy Pipistrelle

(*Pipistrellus pygmaeus*)

Århus, DK-MJ, DK • Yesterday

1



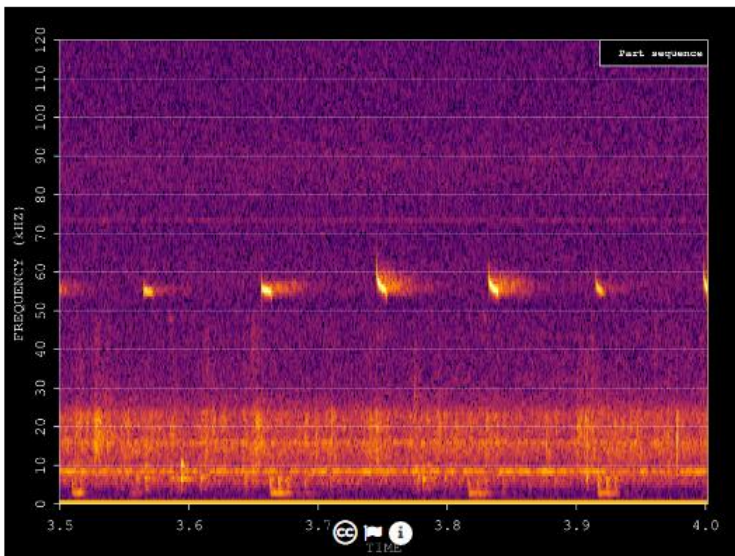
19h

Map Legend



# Pygmy Pipistrelle (*Pipistrellus pygmaeus*) Needs ID

Edit



tomaugust

564 observations



Observed:

Sep 16, 2022 · 11:14 PM CEST

Submitted:

Sep 16, 2022 · 11:07 PM CEST



☆ Be the first to fave this observation!

## Notes

Recorded on Echo Meter Touch 2 Pro Android App 2.8.15

Number of good quality calls: 18

Av. peak frequency (kHz): 55

Av. max frequency (kHz): 56

Av. min frequency (kHz): 54

Call durations (ms): 3.2

Recorder settings

```
[{"rate": "384000", "gain": "0.00", "trig level": "0.00", "trig max len": "0.00", "trig window": "0.00", "trig min freq": "0.00", "trig max freq": "0.00", "prefix": "null"}]
```

Uploaded using Bat2iNat

## Activity

## Community Taxon

Compare · What's this?

The Community ID requires at least two identifications.

## Annotations

Attribute	Value	Agree	Disagree
Alive or Dead	Select		
Evidence of Presence	Select		
Life Stage	Select		

## Observation Fields (4)

### Bat detector model:

Echo Meter Touch 2 Pro Android App 2.8.15

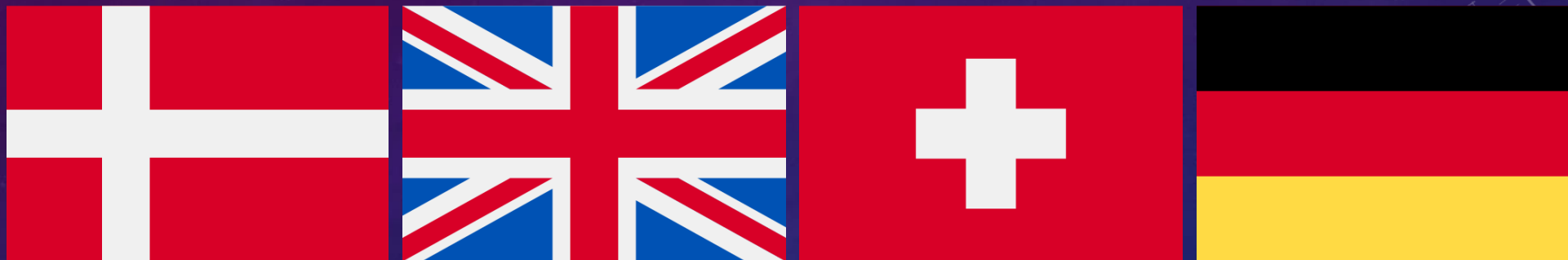
### Echolocation call frequency:

55

### Sampling rate:

384

eventTime: 21:14:56



IT TAKES LITTLE EFFORT TO SUMMIT A MOLE HILL



# CONCLUSION

1. There is lots of bat data out there, its just not easy to share
2. Bat2iNat is designed to make the process of sharing easy
3. This could all be done, more easily and effectively by iNaturalist itself

Anyone who wants to try Bat2iNat should drop me an email