

Dear residents and permit holders of Needs Ore,

I do hope you are all enjoying the start of summer as this newsletter gets to you.

We are now coming to the end of the bird breeding season (even though there are still a few nesting) and this year on the reserve we have had a good selection of wading species and seabirds nesting again, highlighting how important the habitat and site is for these birds.

This year saw wading bird species such as Lapwing, Redshank, Oystercatcher, Avocet, Ringed Plover and Little Ringed Plover all nest again, with many of these species red listed as nationally in decline and some of which are schedule 1 protected species.



Lapwing by Chris Button

I will not go into details on outcomes as we are still surveying but I will put a detailed breeding summary together in the next newsletter.

This year we have had the Game and Wildlife Conservation Trust (GWCT) on site putting cameras on many of the wader nests to collect more detailed evidence on breeding success, the findings will help us develop strategies to protect more breeding birds next season.

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Also, we have had the RSPB on site helping to monitor Ringed Plover on our shorelines. We have now developed several nest cage designs to protect these birds from predation. As mentioned more will be revealed in the next newsletter.



Ringed Plover by Chris Button



Ringed Plover Cage photo by Graham Giddens

The works on De L'Orne last winter creating new scrapes within the lagoon were a success with Avocet, Oystercatcher, and Black-headed Gull all nesting here. There are more planned works this coming autumn to create and enhance better habitat, with more islands, scrapes and pools being created.



Black-headed Gull on the nest by Chris Button

The monitoring of Gull Island and Warren Shore every weekend and Bank Holiday was another great success, this helped to deter illegal landings or disturbance to the breeding birds.

Volunteers on site make a huge difference to the reserve outcomes, volunteers doing various forms of work, from wardening presence on site interacting with visitors, practical work parties, butterfly transects, breeding bird transects, WeBS surveys, avian influenza surveys, the list just goes on.

As always, a massive thank you to all my volunteers, the reserve would not be the place it is without you all, and as always if anybody wishes to be involved in volunteering please do get in touch with me.

That's it from me for now, if you have any queries, please feel free to get in contact with me.

For the rest of the newsletter I will hand over to volunteer wardens Chris Button and Ian Williamson.

Many thanks,

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Bird Sightings - Spring 2022

Produced by Natural England Voluntary Wardens Ian Williamson and Chris Button. All photos taken on the reserve by Ian & Chris ©

March 2022 Round Up

Early spring is a time of year when summer migrants overlap with our soon to depart winter visitors. The weather did not suggest favourable conditions however a singing Chiffchaff on the 1st of March gave us some optimism.



Chiffchaff

One of the highlights on the sea was a Velvet Scoter which spent most of the morning on the 26th drifting offshore straight out from the Shore Hide. Also early in the month a Scandinavian Rock Pipit (*littoralis*) was presumably about to leave while 40 Eider graced the sea.

On the 4th a Merlin was noted. Formally a regular raptor on the reserve in winter, sightings have tailed off in recent years. It was great to see an adult male Peregrine back the same day and he has subsequently paired up with the younger bird that was present (confirming her to be a young female). Whether they breed successfully or not remains to be seen but this certainly bodes well for the future. Red Kites also began to be seen regularly from the 6th with individuals being noted throughout the month on their spring passage.



Merlin

A brutish and dark-mantled Scandinavian Herring Gull drifted past the Sailing Club on the 6th, considered the same species as our Herring Gulls but interesting nonetheless.



Scandinavian Herring Gull

A surprising sight on 23rd was two Black Swans on Venner. Their population is self-sustaining and well established in the wild and so are likely to be officially added to the British Avifauna at some stage soon.



Black Swans

An early spring passage of White Wagtails happened on queue, most are heading to Greenland and Iceland.



White Wagtail

Some of our key resident species started to display mid-month including Lapwings, Redshank & Goshawk. A male Dartford Warbler was in full song trying desperately to locate a mate. Hopefully his endeavours will bear fruit for this enigmatic warbler.



Dartford Warbler

Our Avocets were showing positive intentions in terms of courtship with one ringed adult having a fascinating history:- ringed as a chick at Needs Ore July 2014, seen in North Kent September 2014, bred in Suffolk in 2018, 19 & 20, then seen back at Needs Ore in May 2021 and now again in March 2022 (info courtesy of Graham Giddens).



© Ian Williamson

Avocet

An "Avon Valley" colour-ringed Redshank which has wintered with us has also returned to the field in which it hatched while another individual noted, was originally ringed as a juvenile on The Wash, Lincolnshire in September 2021.

The 19th proved to be an exciting day when no less than three Garganey (2 males, 1 female) were discovered. These cracking birds are our only summer-visiting ducks and this year the UK has had exceptional numbers with over 275 different sites noting at least one bird.



© Ian Williamson

Garganey

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The 25th was also a very promising day as one of the Little Ringed Plover that bred successfully last year returned from its wintering grounds in Senegal (!) His mate subsequently arrived four days later. The mind boggles with how these diminutive waders manage to travel so far and navigate so successfully.



Little Ringed Plover

The 30th proved to be a fine example of "crossing-over" in terms of migration with sightings of Black Redstart, Green Sandpiper, Swallow, Brambling & the long-staying Pale-Bellied Brent Goose. Each bird having a completely different itinerary in terms of their imminent future travel plans.



Black Redstart

The WeBS (Wetland Bird Survey) this month on the 6th provided an impressive count of 400 Mediterranean Gulls along with 38 Common Gulls (a misnomer). There were still 500 plus Brent Geese hanging on while double figure counts of Spoonbills were still possible with numbers tailing off towards the end of the month.

April 2022 Round Up

With unfavourable weather, April took a while to get going with many of our summer migrants held up on the Continent waiting for the wind direction to swing away from the North. A Black Redstart was a good start to the month on the 1st while the first Wheatear graced the reserve on the 3rd.



Wheatear

A small influx of Swallows were noted in the first week as were two Green Sandpipers. A Willow Warbler made landfall on the 11th while the first Cuckoo was heard on the 15th.



Cuckoo

Birds of prey were well represented as is usual on the reserve; a female Merlin on the 9th, up to 4 Marsh Harriers and the Peregrine pair along with Kestrel, Common Buzzard, Sparrowhawk, Red Kite and newly arrived Hobbies. Towards the latter half of the month migrants started to trickle through with some such as Reed Warbler, Sedge Warbler, and Whitethroat showing signs of setting up territories on the reserve.



Whitethroat

Our Little Ringed Plovers & Dartford Warblers continued to show positive signs of potential breeding while our Ringed Plovers & Oystercatchers have decided to make life stressful for all concerned by nesting in very public places again!

A ringed juvenile Spoonbill which was seen regularly throughout the month was traced back to a nest in Holland (Aug 2021), spending time at Somme, Marquenterre, France later that year before moving to Poole Harbour for the Winter (2021/22)



Spoonbill

Lesser Whitethroats also arrived back in good numbers with at least six singing males advertising their presence with their characteristic rattle.



Lesser Whitethroat



Common Tern

Sea-watching was a tough slog at times but eventually a steady passage of migrant Whimbrel and Bar-tailed Godwit were noted along with Common Terns, two Arctic Terns & three Little Gulls.



Little Gulls

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The WEBS Count (Wetland Bird Survey) on the 3rd of the month produced 289 Mediterranean Gull, 75 Shoveler, 158 Brent Geese & a male Garganey. Wader numbers had declined significantly as they depart to breeding areas as far as the Arctic Circle.



Grey Plover



Whimbrel

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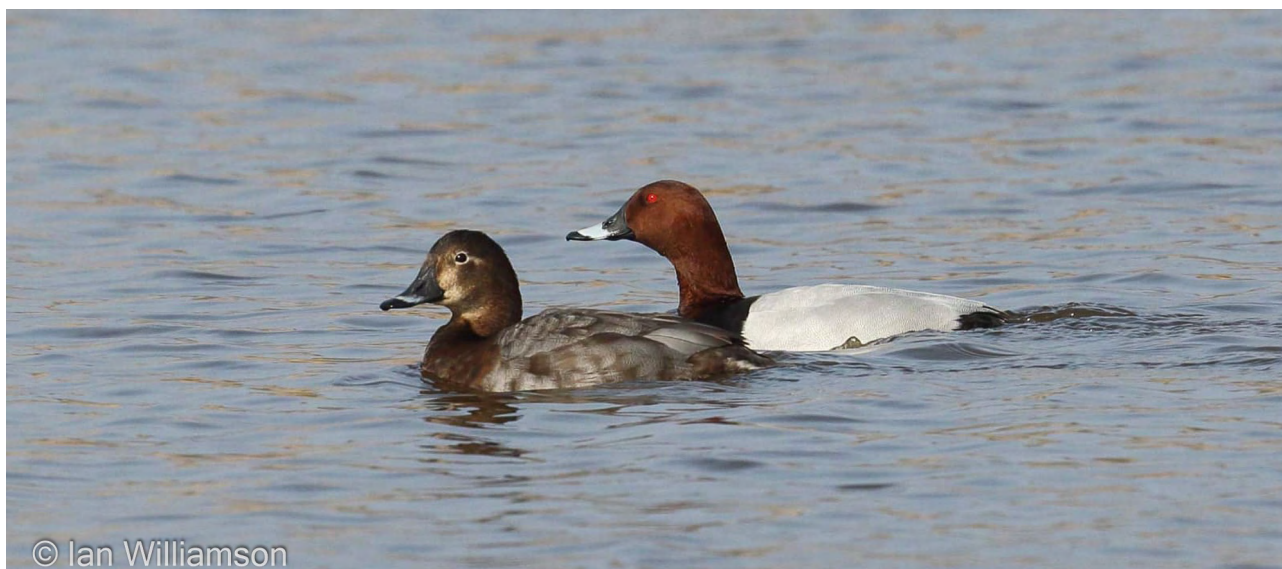
One of the most obvious early season nesting activity comes from the Linnet. The females start gathering nesting material in early April while the male watches and accompanies her everywhere. It's not chivalry it's just making sure she doesn't mate with anyone else!



Linnet

May 2022 Round Up

May is traditionally a very busy month on the reserve with the majority of summer migrants now in the county, passage migrants feeding up before moving north & the hectic and sometimes traumatic breeding season in full flow. It did feel like spring was 2-3 weeks later than last year and this was reflected in the delayed dates of many of our summer arrivals. The 3rd saw a pleasing 12 Pochard on the reserve which we hope might lead to potential nesting of this rare breeder for Hampshire.



Pochard

The next day gave us a male Whinchat and 2 Hobbies while the 7th had at least 104 species available on the reserve for those prepared to put in some serious "binocular & telescope hours" including Osprey, Little Ringed Plover, Arctic Skua, Nightjar, Red-Throated Diver, Barn Owl and Dartford Warbler.



Nightjar



Osprey

A new drake Garganey graced the reserve on the 8th as did a new Little Ringed Plover. Our first Swift also finally arrived while there were promising numbers of Reed & Sedge Warblers in full song.



Sedge Warbler

On the 12th a Common Sandpiper paused briefly on the small islands off NFOC hide.



Common Sandpiper

25 Sanderling and 3 Little Tern on the 13th were followed up two days later by a Curlew Sandpiper, plus several Grey Plover, Whimbrel & Bar-tailed Godwit. All of these are waders are still migrating up to the Arctic for their very short breeding season window.



Curlew Sandpiper (left hand bird)



Sanderling

Small numbers of Turnstone stay to summer here, mainly younger birds.



Turnstone

On the 13th a male Dartford Warbler carrying food and a female carrying a faecal sac provided proof that this species is breeding on the reserve for the first time in five years.

The 19th saw our regular 3 Spoonbills (including the ringed Dutch bird) joined by 3 Great White Egrets, an impressive count for a bird that is usually only an occasional at Needs Ore and almost always on its own.



© Ian Williamson

Great White Egret

The remainder of the month had daily sightings of Peregrine, with occasional visits of Marsh Harrier, Hobby, White-tailed Eagle and Red Kite. There were up to 12 singing Cetti's Warblers, while Chiffchaffs, Whitethroats, Lesser Whitethroats & Blackcaps were present in good numbers. Sadly Willow Warbler seems to no longer breed on the reserve which reflects a similar picture across much of Southern England.



© Ian Williamson

Cetti's Warbler

The WEBS Count (Wetland Bird Survey) on the 15th of the month was notable as confirmation that the main winter wildfowl had left in their entirety with no Brent Geese, Wigeon or Teal recorded.

Wildlife Sightings - Spring 2022

Produced by Natural England Voluntary Wardens Ian Williamson and Chris Button. All photos taken on the reserve by Ian & Chris ©

Mammals

Weasels were reported on two dates in April including one on the road near Shore Hide. A Stoat was seen near Black Water on the 8th March and Brown Hares were obvious throughout the period including a peak count of seven together in the Crop Strip Field.



Stoat

Roe Deer were seen regularly all over the reserve and Grey Seals were seen fairly regularly on the river but a Common Seal on the 22nd March was more unusual. A dead Water Shrew was another unusual find near the Warden's Hut in late April. Another surprising sight was a Grey Squirrel at the base of the mast on the slipway next to the Sailing Club!



Grey Seal

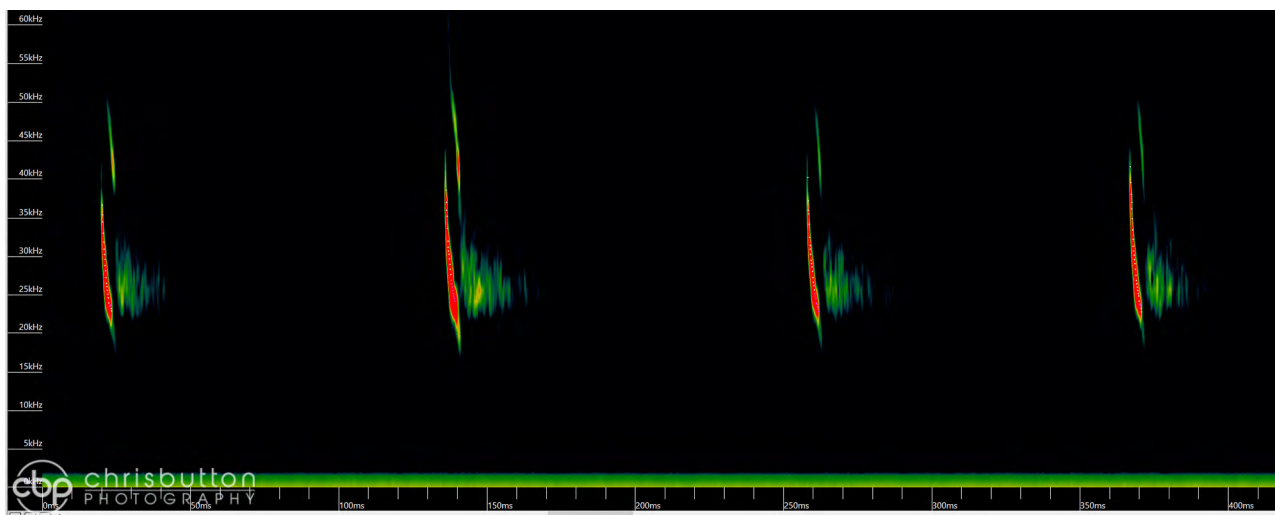
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The commoner bats were recorded in good numbers. Soprano pipistrelle, Common pipistrelle, Noctule, Natterer's bat and Brown long-eared bats were recorded above meadows, along hedgerows and in closed woodland habitats and Daubenton's bats over the water bodies.

Amongst the more unusual bats Nathusius pipistrelles were recorded along the coast again between early April and mid-May on their migration along the south coast to breed in the Baltic. Serotine and Leisler's bats were also recorded in May and a recording which looks perfect for the rare Grey long-eared bat was made around the Pullen Hide on the 13th May, this may lead to trapping to confirm.



probable Grey long-eared bat

Butterflies



Small Copper



Green Hairstreak

The first butterfly sightings were from mid-March. Peacock, Red Admiral, Comma and Small Tortoiseshell were all seen in a spell of warm weather between the 17th and the 25th March. The first Speckled Woods and Brimstones were seen from the 5th April and in the third week of April Small Coppers and Holly Blues were on the wing. From late April the first Green Hairstreaks (including six on the 12th May) were seen favouring Gorse Bushes and an Orange-tip was seen near the Cottages on the 29th April.



Painted Lady

Warm southerly winds brought an influx of Painted Ladies on the 17th May and a Green-veined White settled showing its diagnostic underparts on the 14th May.

Dragonflies

Only two species of Dragonfly were recorded in the spring. Hairy Dragonflies from mid-April including three on 12th May and the first Blue-tailed Damselflies were along Shore Hide Ditch from late April.



Blue-tailed Damselfly



Hairy Dragonfly

Moths

On the 14th April a male Emperor Moth was attracted to a pheromone lure at Park Shore, even landing on the observers head. Other male Emperor Moths were subsequently seen later in the month at the Warden's Hut and then near Mary Monts.



Emperor Moth

Three Moth traps in May produced a combined 18 new species for the reserve, this is partly a reflection of the relatively little moth trapping that has gone on here. Grey Scalloped Bar was a highlight, in four out of the last six years it has not been recorded by anyone anywhere in Hampshire.



Grey Scalloped Bar

Other new moths for the reserve included Clouded-bordered Brindle, Puss Moth, Middle-barred Minor, *Schoenobius gigantella*, Obscure Wainscot, Brown Silver-line, Mottled Pug, Ringed Carpet, Eyed Hawk-moth, Light Brocade, *Incurvaria oehmanniella*, Red Chestnut, Chocolate-tip, White Ermine, Pale Tussock, *Pseudoswammerdia combinella* and *Elachista canapennella*. The Ringed Carpet was only the fourth record in Hampshire in the last seven years.



Ringed Carpet

Day flying moths included the attractive Mother Shipton, you can see the witches face pattern which gives it its name.



Mother Shipton

Bumblebees

Bumblebee sightings included Buff-tailed Bumblebee (*Bombus terrestris*), White-tailed Bumblebee (*B. lucorum*), Red-tailed Bumblebee (*B. lapidarius*) and *Bombus pascuorum* (Common Carder Bee). Not one of the common six and slightly more unusual were several Heath Bumblebees (*Bombus jonellus*) including this worker enjoying Thrift near the Sluice Gate in late May



Bombus jonellus (Heath Bumblebee)

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Map of Needs Ore NNR



Needs Ore Bat Survey 2021

This is the first organised Bat Survey at Needs Ore.

Static bat recorders were set up at various places around the reserve - the Wardens Hut at Needs Ore Point, Black Water Hide, Pullen Hide, the fence line near Mary Monts Bungalow, the Viewing Gate, Shore Hide, Stagg's Wood and Gravelly Marsh. I also set up a detector at Lepe.

More than 30,000 individual bat calls were detected during the nine month recording period (March to October). Software was used to interrogate the .wav files and initial automatic identifications were suggested by the software.

Where I have given a total of recordings for each species (e.g. Soprano pipistrelle 19,192) this is based on the automatic identifications suggested by the software. The auto ID is not 100% reliable, it's not feasible to manually check these identifications but these auto ID totals do give a good idea of the abundance of different bat species across the reserve. For the rarer species these automatic identifications were manually checked and discussed with the County Recorder, Nik Knight.

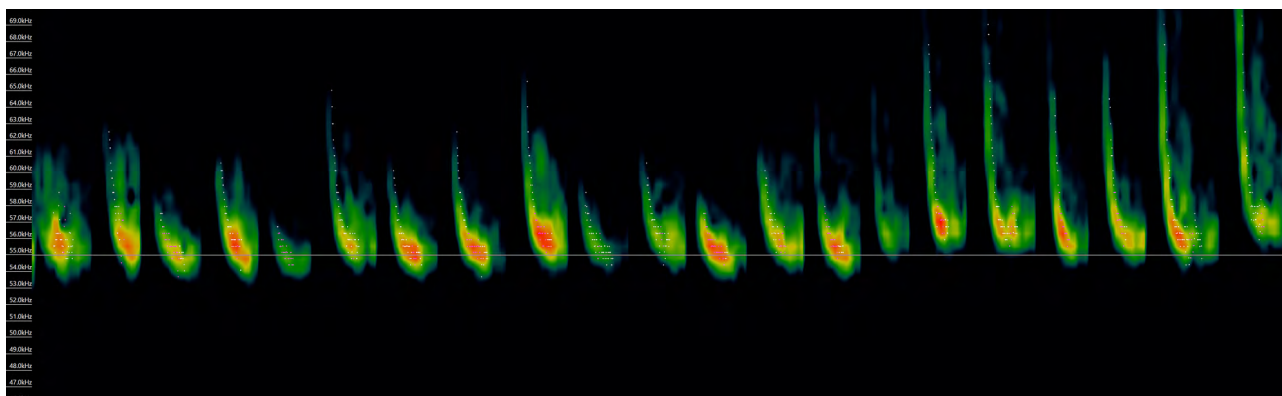
Eleven species of bat were recorded on the reserve including rarities Greater horseshoe bat, Barbastelle, Nathusius' pipistrelle, Leisler's bat and the intriguing probability that Grey Long-eared bats are also here. Another three myotis species of bat were also recorded but are too difficult to separate on call.

Soprano pipistrelle

The two commonest bat species found in the UK are Common and Soprano pipistrelle. Pipistrelles appear fast and jerky in flight as they dodge about pursuing small insects which the bats catch and eat on the wing. A single pipistrelle can consume up to 3,000 insects in one night! They generally emerge from their roost around 20 minutes after sunset and fly 2-10m above ground level searching for their insect prey, which they catch and eat on the wing by 'aerial hawking'.

Populations of pipistrelles have declined dramatically in the last few decades, partly as a result of modern agricultural practices. Soprano pipistrelle is the commonest species of bat at Needs Ore with more than twice as many recordings (19,192) as the Common pipistrelle (7,443). This may well be because Soprano pipistrelles prefer wetland habitats including lakes and rivers as well as woodland edges, tree lines and hedgerows.

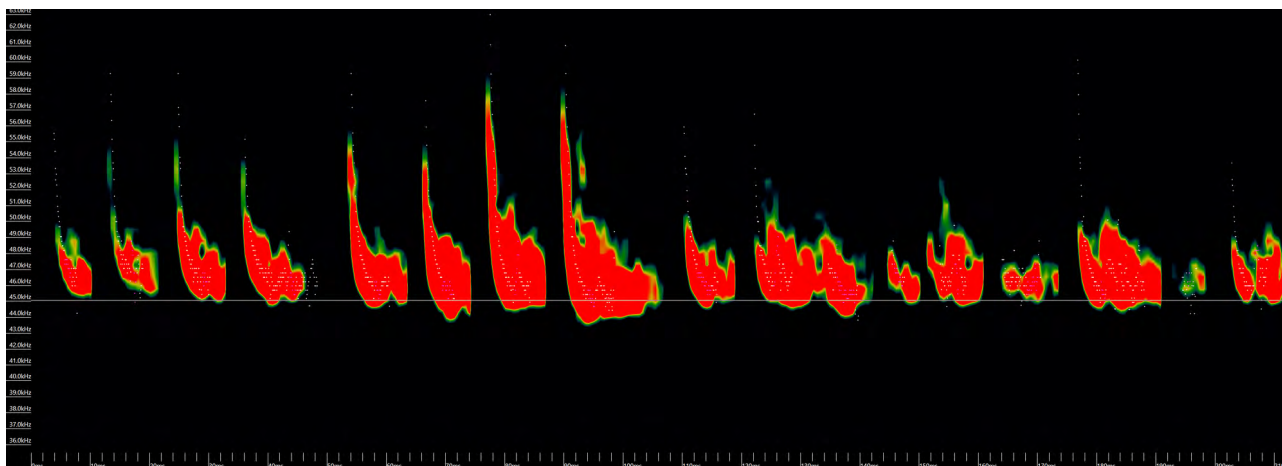
Soprano pipistrelles were recorded regularly from all of the detectors. Common and Soprano pipistrelle were only identified as separate species in the 1990s. With a bat detector the peak intensity of the call is around 55kHz for Soprano pipistrelle and 45kHz for Common pipistrelle.



Common pipistrelle

The second most common species of bat at Needs Ore with 7,443 recordings spread across all of the bat detectors. Compared to the Soprano pipistrelle they are more generalist feeders found in a wide range of habitats comprising woodland, hedgerows, grassland and farmland.

The peak intensity of the call is around 45kHz.



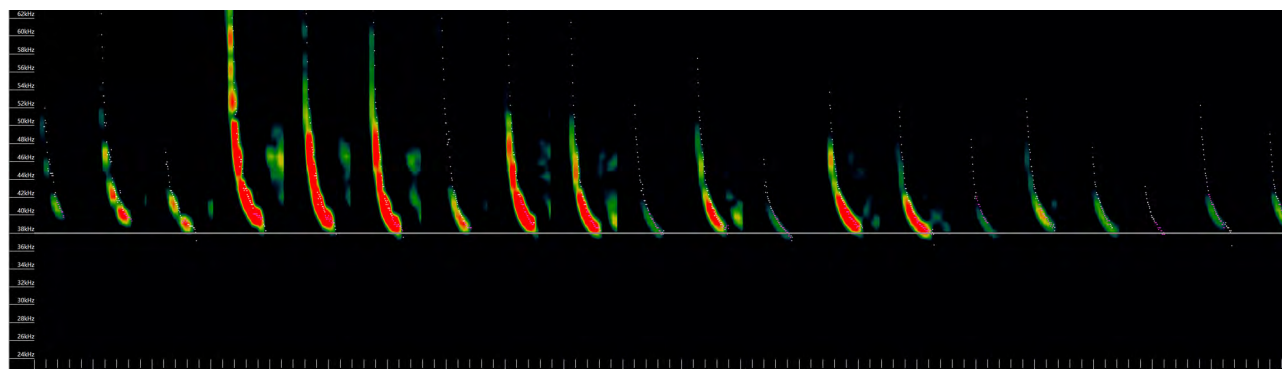
Nathusius' pipistrelle

Nathusius' pipistrelle is a rare bat in the UK.

It is a migratory species with the first confirmed record of Nathusius' pipistrelle at Needs Ore flying past the Warden's Hut on 9th April, six minutes later the same bat was recorded off the car park at Lepe, that's 28kph for the 3km. They migrate back to their breeding areas in Latvia using this stretch of the coastline.

There were 30 recordings with most during the peak migration period of August to October (bats heading west) and with most recordings from the Warden's Hut at Needs Ore Point reflecting their migration route along the coastline.

Echolocation calls of Nathusius' pipistrelle are similar to those of the other pipistrelles, however, the peak intensity of the call is lower than the other two pipistrelle species (see above) at about 38kHz.

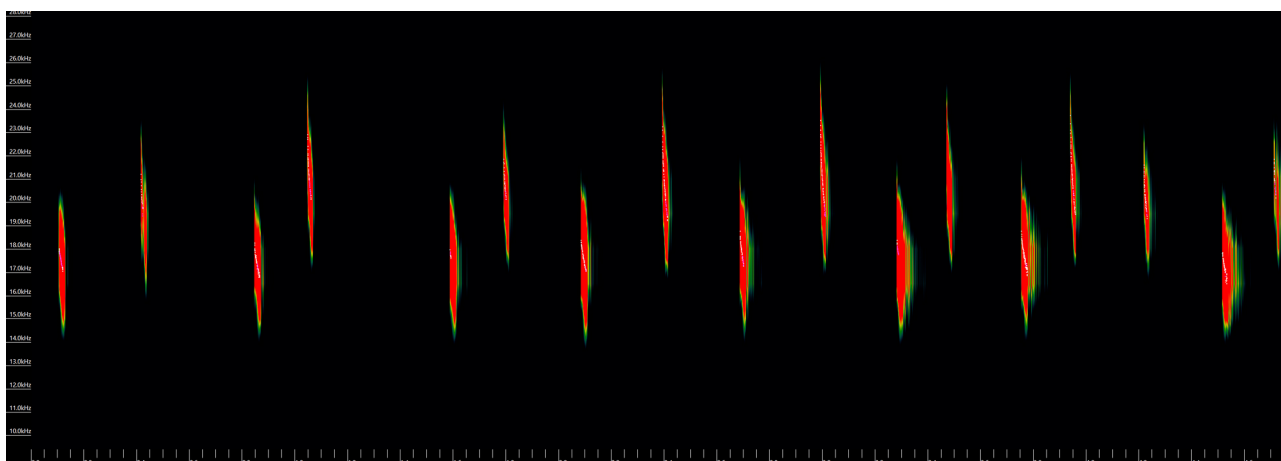


Noctule

The Noctule is the largest British species and is usually the first bat to appear in the evening, sometimes even before sunset. They have a characteristic powerful, direct flight on narrow pointed wings. They fly in the open, often well above tree-top level, with repeated steep dives when chasing insects. Noctule bats can fly at 50kph.

The Noctule is still a relatively widespread species in much of England and Wales but has declined owing to modern intensive agricultural practices resulting in the loss of suitable feeding habitat such as permanent pasture and woodland edge/hedgerows. The recording software suggested 1,606 recordings during the survey period making it the third most common species at Needs Ore. Noctules were regularly recorded from all of the detectors.

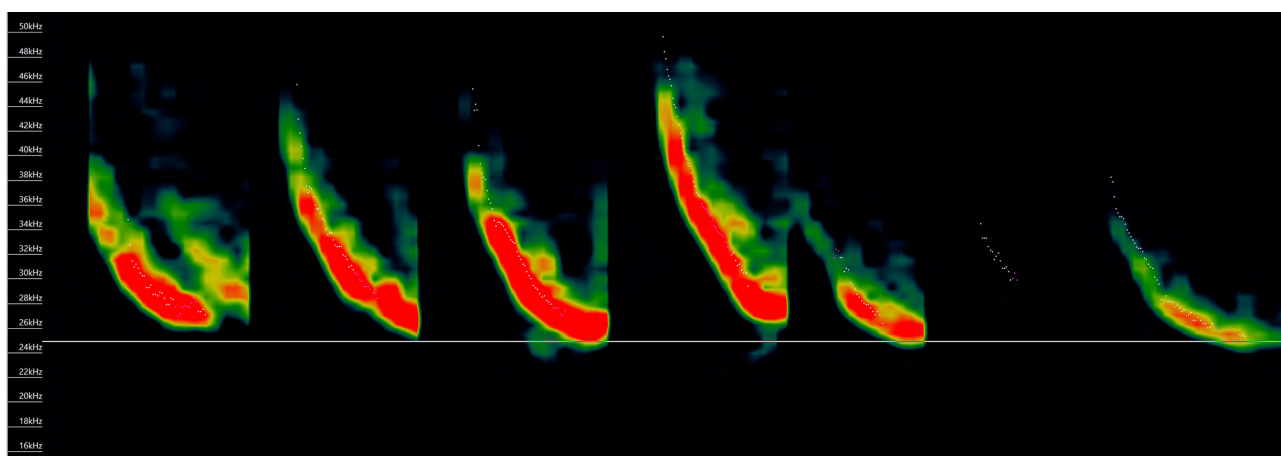
They echo locate with a characteristic alternating of two call types with peak frequencies of 24kHz and 19kHz.



Serotine

Closely related to the Noctule the Serotine is one of Britain's largest bat species and usually one of the first to appear in the evening, often emerging in good light. The serotine is far less common than the Noctule. 27 recordings were made mainly from around Black Water Hide and Shore Hide.

The spectrogram below was made near the Viewing Gate and in open situations like this the peak frequency is around 25kHz, unlike the Noctule it does not produce alternating calls of two frequencies.

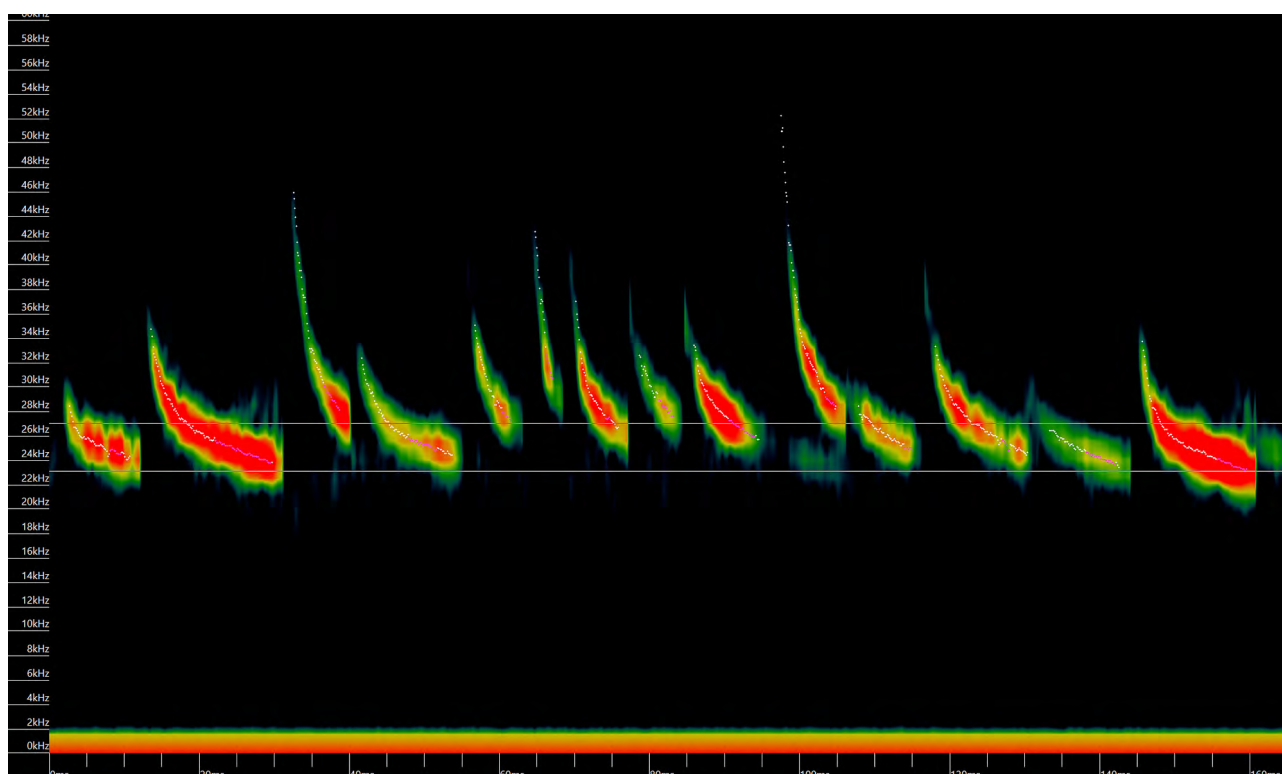


Leisler's bat

Very similar to Noctule but slightly smaller. Rare in the UK.

There were 455 Leisler's bat recordings made during the survey with the bulk of the recordings from around Black Water Hide. This number significantly over estimates the population here as they are very difficult to separate from Noctule and Serotine by call and a good number of the auto identifications are probably incorrect and likely refer to Noctules.

Nevertheless it is possible to confirm Leisler's bat with a long enough recording to show a clear alternation between two call types peaking at 27kHz and 23kHz, which are above those for Noctule.



Myotis species

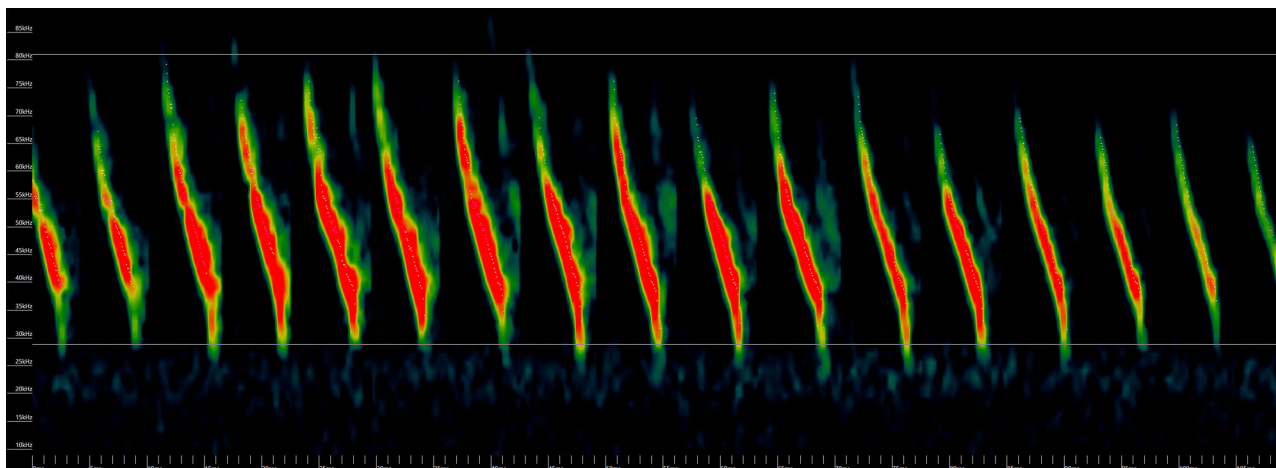
The myotis genus of bats are very difficult to identify in the field. While it is possible to identify Daubenton's bats and Natterer's bats from echo location calls (see the next two species) it is more difficult to identify other myotis bats. There were many recordings which were auto identified as Bechstein's, Whiskered or Brandt's bats but these are best recorded as myotis species given how difficult they are to separate.

Daubenton's bat

Also known as the water bat it has a steady flight, often within a few centimetres of the water surface where they take insects, sometimes directly from the water surface using their large feet as a scoop. Daubenton's bat is fairly widespread up to northern Scotland.

There were 352 recordings making it the fourth most abundant bat on the reserve although there is the distinct possibility that some of these records may be other myotis bats. A positive identification of Daubenton's is best confirmed by seeing the bat flying low over the water catching their insect prey. A classic echolocation includes a rapidly descending frequency modulation sweep from 81kHz to 29kHz.

Records were mainly from the water bodies at Black Water and Pullen.

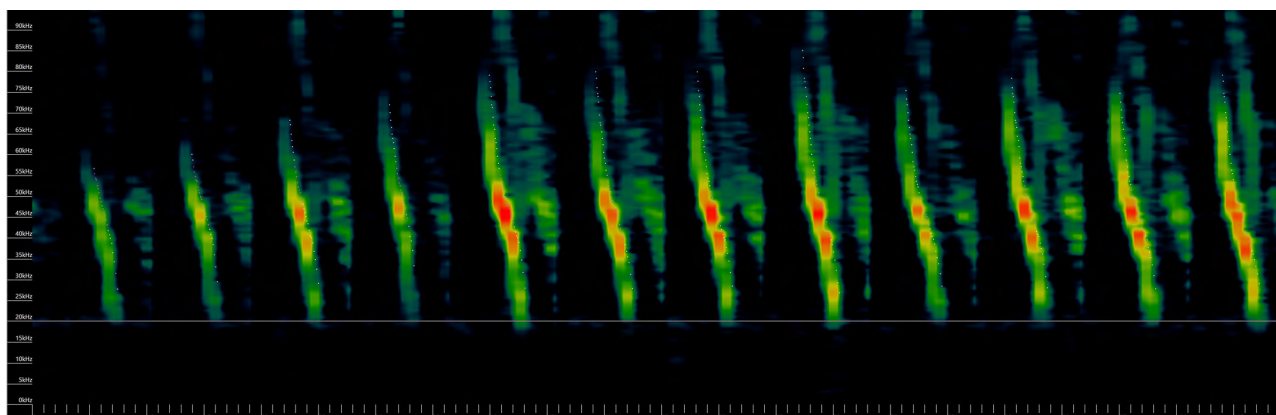


Natterer's bat

Natterer's bats have a slow to medium flight, sometimes over water, but it is more often associated with woodland habitats. Much of the prey is taken from foliage and includes many flightless or day-flying insects. Sometimes larger prey is taken to a feeding perch

Natterer's bat is one of the myotis bats and so identification needs to be made with caution. Natterer's bats can usually be confirmed by the very low end frequency down to 20kHz and the high start frequency of 100kHz plus.

74 Natterer's bat recordings were made from all areas of the reserve.

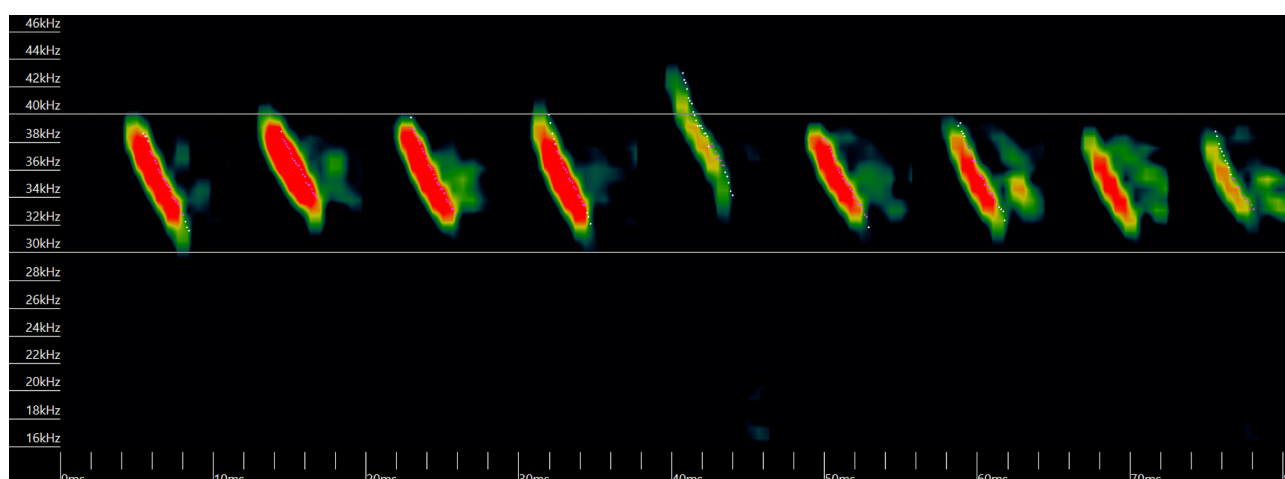


Barbastelle

The barbastelle is very rare, found in southern and central England and Wales. Very few breeding sites are currently known in the UK. They prefer pastoral landscapes with deciduous woodland, wet meadows and water bodies, such as woodland streams and rivers.

The first record for Needs Ore was an individual recorded from Pullen Hide on 26th June. The same individual (or possibly a small number of other Barbastelles) were subsequently recorded along Warren Lane in the early autumn with the main concentration being around Shore Hide.

The spectrogram shows the frequency modulation sweep from 44kHz to 29kHz in around 4.5ms. The records have been confirmed by the County Recorder.

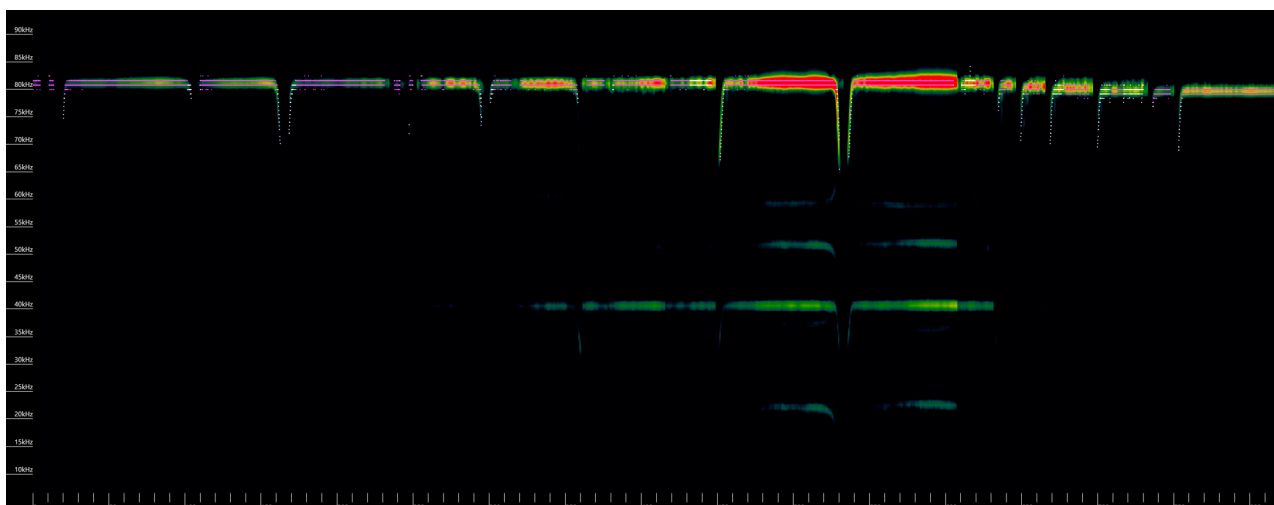


Greater horseshoe bat

The highlight of the year was a Greater horseshoe bat recording flying past the Warden's Hut at 11:30pm on the 19th September. This is a significant record for Hampshire and has been confirmed by the County Recorder.

The Greater horseshoe bat has shown a marked decline and it is rare in Britain confined to the south west and south Wales. It is estimated that the number of Greater horseshoe bats has declined by over 90% in the last 100 years.

The echo location is pretty unmistakable with calls at around 85kHz with a characteristic hoop shape and similar shaped harmonics at half the frequency, 42.5kHz.

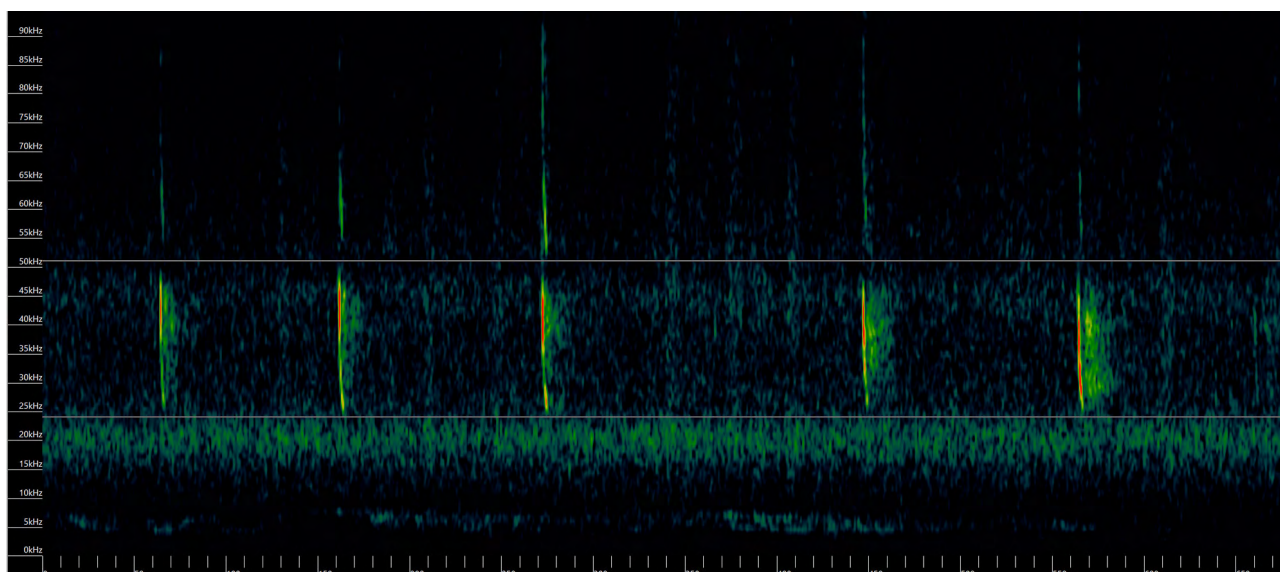


Brown long-eared bat

Brown long-eared bats are gleaners, often flying slowly amongst foliage, picking insects off leaves and bark. They are known as 'whispering bats' because their echolocation sounds are very quiet. The difficulty in picking up these quiet echolocation calls may account for the relatively low number of recordings (49). You typically need to be within 5m of the bat to get anything useable.

Brown long-eared bats were recorded from all areas of the reserve but less so from the more open areas.

Their echolocation calls include two harmonics, the first a sweep from 55kHz to 24kHz and the second a sweep down to around 51kHz.

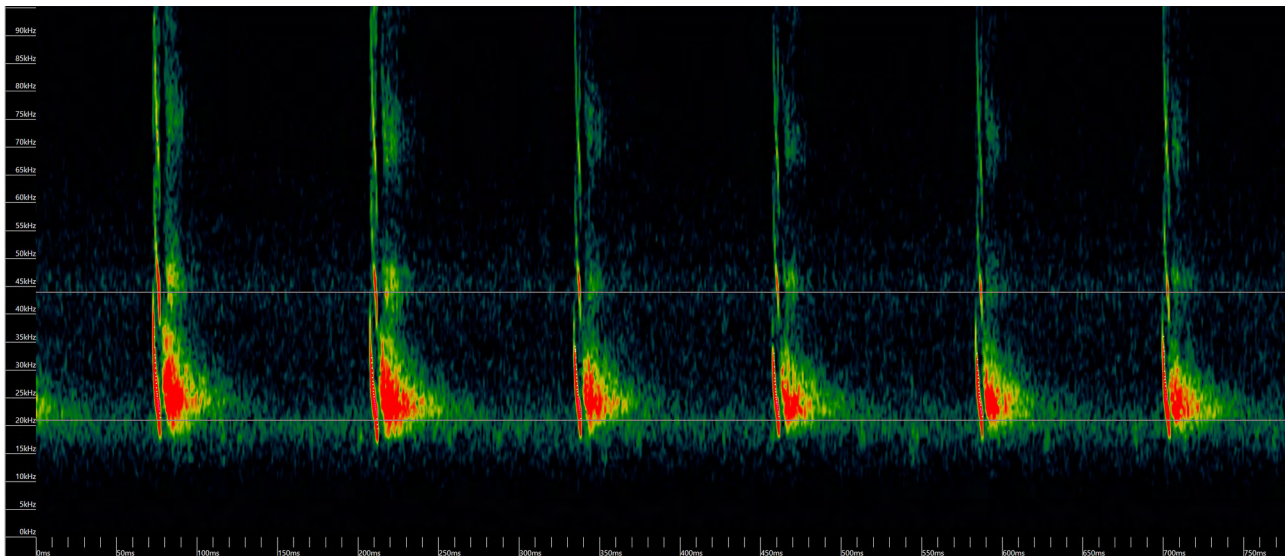


Grey long-eared bat

Perhaps the most intriguing record is the probability that we have Grey long-eared bats at Needs Ore. This species is very rare found only in a few places in southern England.

There were 40 recordings which the auto identification software recorded as Grey long-eared bats. They are very difficult to distinguish from the more common Brown long-eared bat and no doubt most of these recordings will be the commoner species. However, several of my recordings were considered to be probable Grey long-eared bats, including the recording below, but given the rarity it is currently recorded as a plecotus species (non specific long-eared bat).

Their echolocation calls are slightly lower than Brown long-eared bat (although there is overlap) and also include two harmonics, the first a sweep from 45kHz to 21kHz and the second a sweep down to around 44kHz.



The County Recorder has commented that as "Grey long-eared bats are so rare we have to be very cautious. However, we have DNA evidence from droppings recovered from roosts near Lepe so it is possible. Over the years we have had 6 verified records of GLE from the south of the New Forest from Ringwood to Lepe, although two of those were the same ringed bat taken into care on dates 5 years apart!"

If I can build up a substantial database of likely Grey long-eared bat calls then the County Recorder has said that he may commission some trapping to collect DNA, make in the hand measurements or to collect droppings if they can be found.

Chris Button
Natural England Voluntary Warden
March 2022