

Looking into the past for a sustainable future



Award-nominated bus stop, made from timber sourced from Slapton Wood, by Eddie Church and his team.

Slapton Wood is mentioned in the Domesday Book which suggests it's probably at least 1000 years old. A woodland is classed as 'ancient' if it has existed since the 17th Century, but like ours at Slapton, many have been around for much longer. Ancient Woodland is one of the most valuable and threatened habitats in the country. No amount of tree planting can replace ancient woodland; its value lies in its age, which cannot be replicated.

The reason woods like Slapton Wood have been around for so long is because they were highly valuable to people living in the area. Firewood, timber for building, charcoal for smelting and making gunpowder, as well as for fattening up pigs on acorns, beech masts and chestnuts (a practise known as 'pannage') are some of the uses people had for woodlands.

We don't tend to use woodlands for these uses anymore; we heat our homes with gas, we build with concrete and metal, and if we want something wooden, we make it out of fast growing softwood. This has a number of downsides: softwood is much less resistant to rotting than hardwoods like oak and chestnut and need to be treated with chemical

preservatives like Tanalith E. In many cases, softwood plantations are located on valuable wetland or upland habitats. There are dozens of tree diseases threatening our native species, from ash die-back to *phytophthora* and Dutch elm disease and countless other diseases that may reach the UK in the future like 'bronze birch borer' and 'emerald ash borer'. Many of these diseases are spread through imported timber, which also comes at a huge carbon cost in terms of transportation.

Part of the problem is that we've lost the skills required to turn our native trees into

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usable timber without sawing them into neat, oblong planks. Skills such as riving, shaving and turning, using hand tools like froes, drawknives, wedges and hammers; working *with* the wood rather than *against* it. The added benefit of these techniques is that the final product displays the characteristics of the tree it was made from. The shape of the branch or trunk is preserved; splits travel around knots rather than through them. Fortunately in Devon, we have retained a lot of these skills; the Devon Rural Skills Trust is a thriving organisation that aims to preserve these traditional skills.



Another example of Eddie Church's work on the nature reserve.

Much of the infrastructure on the nature reserve is made by Eddie Church and a team of committed volunteers. Eddie specialises in creating products using these techniques. There are gates, post-and-rail fences, path

revetment, boardwalks and an award-nominated bus stop, made from timber sourced from Slapton Wood. These products are made to be functional and durable but through the processes used to make them,

they have a beauty and authenticity that is becoming rare in an age of wood-effect plastic and inbuilt obsolescence.

Tom Pinches Ranger

Start Bay Centre

Located on the outskirts of Slapton village the Start Bay Centre is available to hire and is the perfect location for families, friends and groups to meet and have a great weekend together.

The centre is also a fantastic venue for hosting wedding receptions. There is ample space for parking in the yard and in the field opposite.

There is an extensive garden with a fire pit, chalet and a low ropes course. The centre offers plenty of space in the large yet cosy sitting room for the whole party. Cooking for large parties is easy in the commercial kitchen, with seating in the dining room for up to 40. If cooking is not your thing then there are two pubs a short walk down the hill in the village.

The centre is in close proximity to the beach and is an ideal location if you would like to explore the nature reserve, with access to the ancient woodland or further afield to the South Hams, Dartmoor or the local towns and villages.

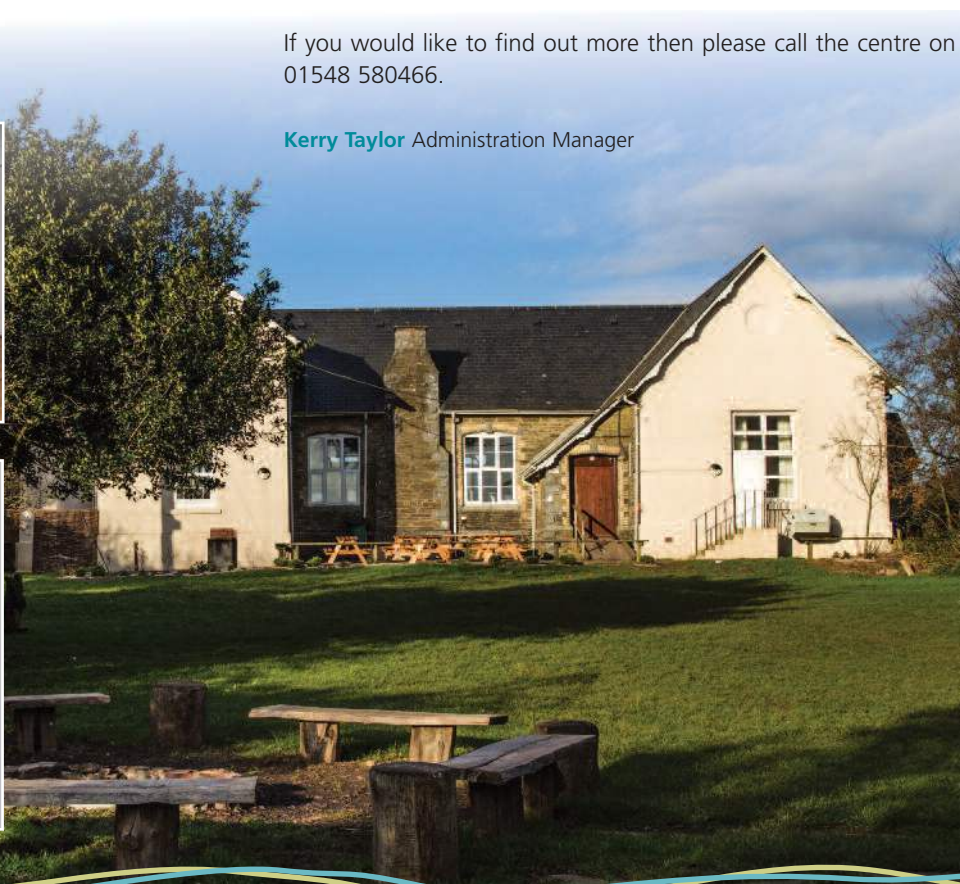
If you would like to find out more then please call the centre on 01548 580466.

Kerry Taylor Administration Manager

Available for
exclusive hire!



The dining room and communal area.



Start Bay Centre.

A glimpse into the reserve

The unique shingle environment that lies between Torcross and Strete Gate is home to a variety of unusual shingle loving plants and is one of the reasons the area is designated as Site of Special Scientific Interest. These plants are the pioneer species that first grow and colonize areas of in-hospitable ground. Plants such as Vipers Bugloss and the Yellow Horned Poppy are some of the flowers that brighten up the area during the summer months. Due to encroachment by scrub and the battering the shingle ridge receives from the sea, these diverse habitats are under threat.

If you take a stroll around the nature reserve this summer you might notice some new features appearing on the shingle ridge. Starting this year and continuing over the next decade, new scrapes will be formed to replenish habitats for these pioneer plants. These diverse habitats are also vital in providing food and homes for insects such as bees and hoverflies as well as reptiles such as lizards and snakes. The new scrapes will also provide educational benefits, with monitoring to be carried out yearly to research the progress of the new colonisation and succession.

Tucked in behind Slapton Ley is a completely different type of habitat. Wetland fen is a marshy and often flooded habitat loved by invertebrates such as dragonflies and damselflies as well as marsh loving plants such as marsh orchids. Reeds are a member of the grass family and are an important part of freshwater

wetlands, forming the sheltered margins around much of the Ley. However, in some areas the reeds have developed over large swathes of the fenland, catching much of the sediment that washes down in the streams and creating dry land where trees have started to grow. A fen restoration project has been underway to restore the wet fen. Removal of some of the trees and new scrapes have opened up this area so that the diverse range of plants, invertebrates and birds can once again thrive. A new viewing platform created from local windblown trees gets you in amongst this new habitat, so look out for Southern Marsh Orchids, Beautiful Demoiselles and the elusive Water Rail.

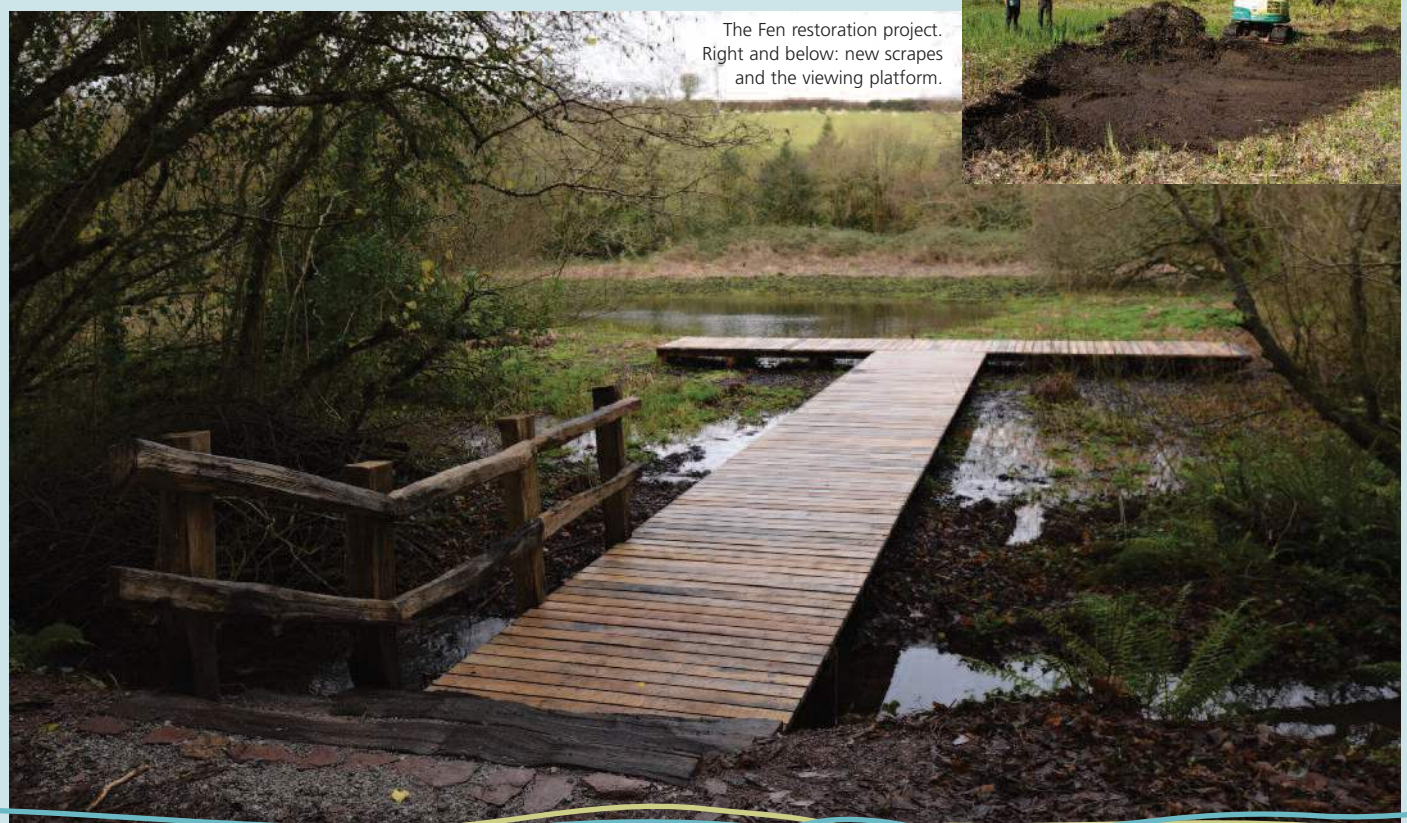
In the nearby fen an ageing board-walk meanders through the wetlands, but this is deteriorating due to the many years of sitting in a damp marsh. Leaves that fall on to the platform from the surrounding trees mulch down to soil creating the perfect

environment for the old wooden structure to decay. We have secured funding to replace the boardwalk in the not too distant future.

The nature reserve at Slapton is not all about shingle and water though; nestled within the nature reserves sanctuary areas are a network of woodlands and meadows. These areas are made extra special by the presence of both Dormice and Cirl Buntings. In early 2020 work to improve conditions for these species got underway, with areas fenced off from grazing and new scrubland planted to create ideal habitats for both of these nationally rare creatures. Monitoring of these species already takes place, but we will continue to measure populations and the impact that these new habitats are having.

We wouldn't get far on the National Nature Reserve without the continued support and dedication of volunteers. If you are interested in joining us please email Alice at volunteer.sl@field-studies-council.org.

Lee Dennison Regional Site Manager



The Fen restoration project.
Right and below: new scrapes
and the viewing platform.



Community Engagement and Events

Great British Beach Clean

At Slapton Sands on Saturday 11th April 10am-12pm

Join us to help clean up Slapton Sands, part of our beautiful coastline.

Meet in Slapton Sands Middle Car Park (free parking) • Gardening gloves useful
• Sensible outdoor clothing and footwear recommended • No booking required

Celebrate Start Bay – a day of festivities

At Slapton Ley Field Centre on Sunday 2 August 11-5pm

This year's event will not be one to miss! A day filled with tunes from local musicians, inspiring words from speakers and story tellers and demonstrations from local organisations. Not forgetting the all-important nourishments on offer with freshly made local foods and drinks through out the day. A Grand Raffle will offer a wide array of prizes from local businesses and organisations and you can get hands on with a wide range activities run by stall holders.

Engagement on the reserve

July-September various days and times

On a few days throughout the summer you may come across volunteers wandering the nature reserve ready to help you with any inquiries you might have. Some might be based at Slapton Bridge to help you spot some of our native wildlife, others you might find strolling around the nature trails. If you meet a volunteer, they are full of useful info and stories about the local area, so please do say "hi".

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Join us to help clean up Slapton Sands, part of our beautiful coastline.

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Wildlife Canoe Safari

On Slapton Ley Every Wednesday from 24 July-28 August

Join us for a rare opportunity to experience Slapton Ley from the water. You will be escorted on a 2-hour educational canoe trip, learning about its diverse wildlife and rich history along the way.

Three 2 hour trips each day • No age restriction • Cost £30 an adult and £15 a child.

Booking for canoe trips essential: singingpaddles@hotmail.co.uk or 07754426633

Free visits and care farming

For 10 years we have been able to run free public events around the nature reserve thanks to funding from Natural England as part our countryside stewardship agreement.

These events have been well attended over the years and a popular part of the Slapton Summer. However, changes to our countryside stewardship agreement mean that going forward, most visits that we run for free have to be focussed on schools and similar educational establishments along with care farming groups.

"What is care farming?" I hear you ask

According to Natural England, care farming is 'the therapeutic use of farming practices and offers people with a defined health, social or educational need the chance to participate in a variety of farming activities for their therapeutic benefit – from animal husbandry to woodland management'.

This definition is broad in the potential for participants, and the activities they could carry out. The reference to 'defined health, social or educational need' means it can include: adults or children with anything from a mental health problem such as depression, anxiety, PTSD, etc., a physical impairment or illness; people from a deprived background; prison rehabilitation; people with learning difficulties or disabilities.



Forensic fishing

Attendees of last month's research seminar will have heard from Marco Benucci, a PhD student from the University of Hull, about research into environmental DNA he's been conducting since 2015 that brought him down to Slapton Ley last March. His work focuses on the monitoring of fish communities – a standard method for assessing and improving the health and quality of water bodies, which in turn has been a basis for compliance with the EU's Water Framework Directive. The research, supported jointly by the Environment Agency and the University of Hull, has seen Marco investigate the health of some 40 lakes across England – in Cumbria, Yorkshire, Norfolk and the Midlands, as well as here on the South Coast – using environmental DNA as his tool of inquiry.

Established methods for monitoring fish communities (for example, gill netting) tend to be destructive to the fish communities they monitor, but recent advancements in molecular techniques have made it possible to detect species accurately, cost-effectively and non-destructively from DNA the fish release into the water through their mucus or their skin-cells. Now, simply by collecting water samples from a lake, data can be collected that will help us form a picture of fish biodiversity – that is, how many species and what species and roughly how many of each kind there are in that body of water.

Here in Slapton Ley, the findings, according to Marco's tests in 2019, revealed 11 different species, of which the most common was the Common Roach, followed by Perch, Rudd and the European Eel, all of which were detected across most sites on the Ley. The Stone Loach was the least counted and the least widely distributed across the Ley. A significant number of Flounder were also detected, possibly carried across the shingle ridge by gulls. By comparing data across more than 100 different lakes, Marco has been able to develop a sense of which species best indicate good water quality and therefore of the relative ecological health of different lakes around the country. According to Marco, Slapton Ley is on the cusp of good ecological condition.



Marco Benucci's survey team.

Tom Pinches, the Slapton Ley National Nature Reserve's Ranger, says that Marco's research and fish surveys in general form an "important jigsaw piece" in our understanding of the freshwater ecosystem of the Ley which recently has been well supported by data on macrophytes, invertebrates, otters, birds and water chemistry but less so on fish which we once used to monitor through fishing returns by anglers until the moratorium on angling in 2005. Coming up in 2020, a further fish survey, to be conducted by Westcountry Rivers Trust, will be commissioned by FSC to provide ongoing detail on, amongst other things, the relative abundance of Roach to Rudd which is an important indicator of eutrophication (run-off from the land) and the impact of eutrophication on the environmental health of the Ley. The relative population of Roach to Rudd in turn impacts the breeding success of Great Crested Grebes. This collaboration with Westcountry Rivers Trust will involve an aspect of training for volunteers on how to carry out the simple survey so that these tests can be repeated here year-on-year to keep our picture up-to-date.

"Fish are an important aspect of a freshwater ecosystem like Slapton Ley," says Tom, "the better our understanding of the system as a whole, the better placed we are to make decisions on how to manage it."

Ashish Ghadiali National Nature Reserve Volunteer



Slapton Wood.

What can we do here are Slapton?

The inclusion of 'woodland management' as an example of a potential activity means that work that we carry out on the nature reserve could be covered. From January 2020 our new Countryside Stewardship agreement commences, and we will begin the habitat works set out in the new management plan. This includes a large amount of wetland tree clearance, and from 2021 we will begin our woodland management work. We are currently looking for organisations who might be able to connect us with individuals for whom physical outdoor work would be a benefit.

Do you run a group or know someone who could benefit?

If you run or work with an educational

group or know people who might benefit from this kind of activity please get in touch: reserve.sl@field-studies-council.org

Tom Pinches National Nature Reserve Ranger



Works on the nature reserve.



A day of festivities

Start Bay is a unique and special area that each year we celebrate with a day of festivities at Slapton Ley Field Centre.

This event has been changed a lot over the years, starting out as an open day for the Field Centre, it has developed over more than a decade to become a community and environmentally focussed festival. This fabulous day out, is aimed at helping people understand more about what we do at Slapton, promoting local businesses, food and crafts people and highlighting the many environmental pressures endured by the Start Bay area.

There are always plenty of things going on to keep you and the whole family entertained. Whilst promoting the environment is key, so is the atmosphere and the day is filled with tunes from local musicians, inspiring words from speakers and story tellers and hands-on demonstrations from local organisations. Not forgetting the all-important nourishments in the way of delicious BBQ, freshly made stone baked pizzas and sweet potato curry.

You can get involved in many different activities during the day, with the Field Centre providing the opportunity to delve into the underwater life of Slapton Ley and discover all the different natural treasures from around the national nature reserve. Stalls from many local organisations provide a range of activities for both adults and children, whilst local businesses and crafts people give the opportunity to buy some truly special and local products.



Marine plastic activist, Gary Joliffe, (pictured above) from 'Till the Coast is Clear' brought his specially adapted recyclable boat to the event this year and helped us to recognise some of the significant issues caused by marine litter. He uses the boat to access the most inaccessible places around our coast line to collect rubbish that accumulates there. All of the rubbish that is collected is then recycled or used for energy creation.

Debbie, one of the Field Centre tutors, this year demonstrated how to re-use some of those single use plastics that you would normally just chuck away. An 'eco-brick' is a fairly new invention and a way of utilising many of your single use plastics. It is really quite simple, you take a bottle, like a large lemonade bottle and stuff it tightly packed with plastic packets, wrappers, and any thin flexible plastics you have to hand (pictured, above right). These bottles can



Left: Till the Coast is Clear. Above: eco-bricks, both photos – Finley Dennison.

then be used to create insulated walls in sustainable constructions. If you have any of these 'eco-bricks' we are collecting them at Slapton to create a new bike shed.

Volunteers are involved in the planning and running of the event, expertly preparing raffle, stalls and activities, constructing signage and marketing for the event and co-ordinating stall holders and speakers. They were instrumental in helping to raise the money that we did at the event last year and that has been fed back into the National Nature Reserve and led to the creation of new visitor information signage around Slapton Ley.

The event was a fantastic success last year and Celebrate Start Bay 2020 will be no different. With the promise of many more exciting things to discover and join in with. This year's event will not be one to miss. It will be held on Sunday 2nd August and will continue at Slapton Ley Field Centre each year.

Alice Henderson
Regional Volunteer Co-ordinator

Conservation Grazing

Being a novice farmer with a few acres adjoining the National Nature Reserve (NNR) and keen to do my bit for the environment, I approached the FSC's Slapton Ley Field Centre regarding the way their grasslands are managed. Conservation grazing was the answer, and, in a nutshell, this is livestock grazing that promotes biodiversity.

Many nature reserves are now managed using grazing animals which is less intensive than practices such as prescribed burning. However it still needs to be managed carefully to ensure that overgrazing does not occur. Due to their typically hardy and thrifty nature, small rare and native breeds such as Dexter cattle are generally considered to be the best animals for the job.

Increasingly, conservation grazing is being used in a range of farming systems to create sustainable production with reduced inputs for whoever manages the land. This benefits not only livestock and habitats, but also human health through the benefits of consuming meat from animals reared on varied pasture diets on a pretty much organic basis.



Managed grazing at Loworthy

The practice has proven to be extremely beneficial in moderation with the restoration and maintenance of grassland and heathland ecosystems. The optimal level of grazing will depend on the goal of conservation, and different levels of grazing, alongside other conservation practices, can be used to induce the desired results.

Here on the NNR, permission has been given for me to graze sheep and cattle on the grassland meadows at Loworthy. This is on the basis I stick within the time frames of March to April and September to October and I give no supplementary feed to the animals. This will encourage the animals to graze naturally and ultimately promote the density and diversity of vegetation in their historical grasslands where they were once a crucial part of the ecosystem.

Julian Jephson Neighbouring Farmer



Dexter cattle.

Wildlife ID made easy

Have you ever seen a bird and wondered what it is? A colourful flower by the side of a path? Or a shell that has washed up on the beach?

Identifying different kinds of wildlife and natural treasures can seem like a tricky thing to achieve when there are so many different little brown birds or yellow flowers with green leaves!

However there are ways to make it easier. Fold-out identification guides designed by Field Studies Council cover a massive range of things with guides for groups of similar wildlife such as butterflies, birds and ladybirds as well as habitats like rocky shore, hedgerows and freshwater environments.

The guides are very light and easy to carry round with you. As well as having lots of pictures for identifying nature they are full of interesting facts about the creatures and plants that you might find. For example our wild food guides tells you where and when

to pick different plants and even includes recipes! Guides are available from £3.30 at our Field Centre office, or on our events and walks.

Alice Henderson Regional Volunteer Co-ordinator



Brilliant bats

According to folklore, finding a bat in your house is an omen of bad luck and misery to come. If you're planning a loft conversion then this could well be true. Unfortunately, for many, this expensive consequence of the Wildlife and Countryside Act is their only knowledge or interest of bats. Needless to say they are missing out; bats are fascinating animals and the only true flying mammal, with wings made of gossamer skin stretched across their body-length fingers. The diets of the 1,300 bat species worldwide include fruit, nectar, and (famously) blood; the majority though, including our 17 British species, eat insects, plucked from the air with the help of their inbuilt radar system: 'echolocation'.



Flying bat, Frank Greenaway.
Close-up (Greater Horseshoe Bat), Phil Richardson.

Slapton Ley National Nature Reserve is a wonderful place for bats and you can find almost every British species here thanks to Devon's mild climate and varied landscape (which has avoided the worst of agricultural intensification). All bats are protected by law due to population declines. Some species, including the Greater Horseshoe Bat have experienced worse declines than others and have been afforded greater protection as 'priority species'. Greater Horseshoe Bats are named for the semi-circular growth of skin on their face that acts to direct echolocation calls, which they emit from their noses (most bats use their mouth). While it is true that the South West has experienced less agricultural intensification than other parts of the UK, it has still experienced a significant loss of hedgerows, a loss of species-rich grassland and an increase in pesticide use. These three things represent a loss of two important requirements for Greater Horseshoe Bats:

- Species-rich grasslands are havens for insects such as moths, cockchafer, craneflies and ichneumon wasps, which form the bats' diet.
- Widespread use of 'broad-spectrum' livestock worming medicines – i.e. chemicals that kill all invertebrates indiscriminately – such as Ivermectin, have dramatically reduced the abundance of dung beetles: a crucial late-summer food source when young bat pups start flying.
- Hedgerows are the highways these bats use to navigate the landscape. Without these, there is less food and fewer feeding sites, which are more difficult to get to.

Bats rear their young in 'maternity roosts'; for many British species, these are found in tree cavities, but Horseshoes prefer to use caves or disused mines in most of their range and especially roof voids in the cooler climate we experience in Britain. In the absence of natural roost sites both tree and

cave dwellers will opt for buildings. But as old barns are converted and lofts sealed up there are fewer and fewer available maternity roost sites, thus completing the trident of threats: loss of forage, loss of roost sites and loss of connectivity.

It is these threats that the Devon Greater Horseshoe Bat Project aims to address, helping landowners carry out works that benefit these bats and other wildlife, researching the distribution and ecology of this bat in Devon and engaging with local communities who live alongside them. To find out more about our work, visit devonbatproject.org.

Anna David

Greater Horseshoe Bat Project Officer,
Devon Wildlife Trust

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