WHAT IS LIFE ON THE EDGE?

Life the Edge (LotE) will be a 5 year project which aims to work with farmers, landowners and the local community to make a difference for rare and endangered invertebrates on the South Devon Coast.

If we are successful with our funding bid to the National Lottery Heritage Fund for a grant of £2.2 million towards a project cost of around £4 million, Life on the Edge will run from April 2024 until March 2029.

We will work with landowners and land managers to restore wildflower rich meadows, giving these bugs, and other nature, space to thrive.

We will help local people to improve their wild spaces, discover more about these amazing creatures, take part in arts activities, volunteer their time and learn new skills.

We will provide learning opportunities across all ages, within education establishments from early years to university. As well as this we will run workshops for local people, land managers and volunteers, offer trainee placements, host interns and run three apprenticeship schemes.

We will run two small grant schemes to help people deliver LotE aims: Conservation grants to help enhance the landscape and improve habitats and Community grants to help run events, raise awareness, deliver training, and host celebrations.

We will work with our partners at Buglife, National Trust, South West Coast Path Association and Doorstep Arts. We have secured additional support from external funders including Devon Environment Foundation and Natural England, but still have more to find! It is this amazing team of people and agencies, along with local community, landowners, businesses and organisations which will pull together to make a difference for nature and people, climate and place.

If you would like to join us and be part of the action – please do get in touch!
enquiries@southdevonaonb.org.uk

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BROWN-BANDED CARDER BEE

Bombus humilis

The Brown-banded Carder Bee is an all ginger bumblebee species, that requires open flower-rich grasslands where wildflowers such as clovers, Bird's-foot Trefoil and knapweeds are plentiful. It has declined due to the loss of this habitat, including along the South Devon coast, where wildflower-rich grasslands are now few and far between. It was thought to be extinct in Devon but was found near Prawle Point in the South Devon AONB last summer, recorded for the first time since 1978.

Brown-banded Carder Bee Adult © Steven Falk

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DOTTED BEE FLY

Bombylius discolor

This isn't a bee, it is a fly in disguise! It protects itself by looking like a bee, which would put off some predators. You can tell that it is a fly because it has two separate compound eyes and only 1 set of wings which rest away from the body.

Its body is around 8–12 mm long and it has beautiful spots on its delicate wings. It flies from late March to mid–june and likes to feed on primroses, violets and green alkanet. It is a parasite on other solitary mining bees. She rolls her abdomen in the sandy soil, scooping it up to coat the eggs for camouflage. She then flies up to the entrance of the bees nest and flicks the eggs into the tunnel. The larva when hatched can feast on the nectar and pollen stores, as well as the bee larvae.

Dotted Bee Fly Adult © Steven Falk

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GLOW WORM

Lampyris noctiluca

These creatures are not worms but actually a beetle. The adults are only found for a short time in June and July and are about 15–25mm long. They are found in meadows, edges of scrub and hedge bottoms. Numbers are falling due to loss of habitat and possibly artificial lighting making it hard for the females to be seen.

A typical Glow worm larva takes two years to grow up, hunting in the summer and passing two winters in hibernation below ground or under logs or stones. The larva feed on slugs and snails, killing them by biting them and injecting digestive proteins that paralyse and eventually dissolve the soft body of the slug or snail. While they are waiting for this process to happen it might ride on the snails back, keeping away from the sticky mucus it produces!

When it pupates and emerges as an adult, females climb up plant stems and glow to attract a male. Males can fly and have large photosensitive eyes, perfect for scanning the vegetation at night, looking for a female. Neither the male nor the female Glow worm have any mouthparts, so they can't feed and their brief adult lives are a race to meet, mate and lay eggs. Having mated she lays 50–150 small faintly glowing eggs which hatch a month later.

Glow Worm Female Adult

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GREAT GREEN BUSH CRICKET

These agile creatures are almost completely green, with an orange–brown strip running down their body. They are 3–4 cm long and live in grasslands, meadows, woods and hedges. You can tell it's not grasshopper by its massive antennae, which can be up to three times longer than the body.

The males make a distinctive chirruping sound by rubbing their forewings together to produce a very loud, long 'song' to display to females. To make a quick getaway they have a 'hearing bubble' on their forelimb to help them feel vibrations and escape before a predator arrives.

The female lays eggs into the soil which hatch out as adults between 2 and 7 years later, this helps them to survive variable climates.

Great Green Bush Cricket Adult © Karim Vahed

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LONG-HORNED MINING BEE

Eucera longicornis

This bee is one of the UK's largest solitary bees, the male is striking for its extraordinarily long antennae. It feeds on a variety of flowers including bramble and comfrey but has a particular preference for pea family flowers - birds foot trefoil, clover and everlasting pea. Although solitary, they dig their own tunnels but nest in aggregations, making small communities.

These aggregations have been found along the South Devon coast around Prawle to Start Point and Wembury. The species is in decline due to loss of habitat and forage sites.

The adults emerge in May and forage until early July. The female digs a burrow in bare ground or soft sandy cliffs, lays her eggs and fills the tunnel with stores of pollen and nectar, then seals it up. The larva hatch out, eat the stores and emerge as an adult the next year.

This bee is the host for the Six-banded nomad bee - the rarest bee in the UK.

Long Horned Bee Adult © John Walters

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LARVA ON UNDERSIDE OF SWOLLEN-THIGHED BLOOD BEE

MEDITERRANEAN OIL BEETLE

Meloe mediterraneus

The Mediterranean oil beetle was thought to be extinct in the UK for around 100 years, until it was rediscovered in South Devon in 2012.

Like all Oil Beetles, they produce a bitter oil-like fluid from the knee joints when disturbed. This gives them their name and the nasty taste deters predators. They are nest parasites of solitary mining bees and found on coastal grasslands.

The adults are nocturnal, coming out at night to mate during late Autumn and Winter. They dig burrows in bare ground so are often seen on or around the Coast Path. The female can lay up to 40,000 eggs in her life time, which is about 2 months.

In Spring the eggs hatch out into tiny larva which then climb up a nearby flower and wait patiently for a bee to come along to collect nectar. When the bee lands, the larva uses hooked feet to attach to the underside of the bee and gets carried back to the nest. Once there it feasts on the nectar and pollen stores before emerging as an adult again in the Autumn.

Mediterranean Oil Beetle Adult © John Walters

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SILVER-STUDDED BLUE BUTTERFLY

Plebejus argus

This beautiful butterfly gets its name from the metallic blue reflective scales on its wings. The adults only live for 4–5 days and rarely fly more than 50m from the nest site – so they need good supplies of their favourite food plants nearby!

They live in close knit communities and have a strong relationship with Black ants. The female lays her eggs close to the ants nest and when the caterpillars hatch, the ants carry them inside the nest and 'milk' them for sugars and amino acids. They then escort them outside at dusk to feed.

The caterpillars pupate in the tunnels of the nest and the ants accompany the emerging butterflies back up, protecting them from predators until the butterflies wings have pumped up and they are ready to fly off.

Silver Studded Blue © Rob Skinner

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SIX-BANDED NOMAD BEE

Nomada sexfasciata

This is Britain's rarest bee. It is only found at one place in whole UK, around Prawle Point on the South Devon coast.

We are told that if nothing is done to help protect this bee, along with its host the Long-horned bee and the habitat they both need, it will be extinct in the next five years.

It is a cuckoo bee. Just like the bird, it lays its eggs in another nest. This bee lays them in the burrow of the Long-horned bee - rare in itself. When the Six-banded bee larva hatches it feasts on the pollen and nectars stores the host bee gathered for its own young, sometimes eating the larva too.

This relationship has evolved over millions of years. Whilst there is a large enough population of the host bee, the two species can survive, but they need plentiful nest sites and supplies of flower rich meadows to provide food for a healthy population.

Six Banded Nomad Bee Adult © Steven Falk

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THRIFT CLEARWING

Synansphecia muscaeformis

This nationally scarce moth can be identified by three or four narrow and yellowish white bands on its abdomen (end body) and vertical stripes on its thorax (front body).

They are quite small moths with a wingspan of 15–18n mm. The wings have narrow clear spaces on the blackish or bronzey forewings. They can be found on rocky coastlines and sunken lanes leading to the coast, where its food plants occur. The moths fly in June and July.

The adults feed on thrift and thyme and lay their eggs on the foodplant. The caterpillars hatch out and feed inside the roots and stems of the food plant from August to the following May, overwintering as a part-grown larvae.

Thrift Clearwing Adult © Rob Skinner

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