



GET THINKING

GET TOGETHER

GET INSPIRED





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GET THINKING

Hilary's keen observations and passion for nature highlight important themes that often get overlooked in discussions around climate change – biodiversity and ecosystems.

Bude looks very different now to 200 years ago, when it was a salt marsh bustling with biodiversity. This is a very common story all over the globe, with 77% of the world's land having been claimed from wilderness, predominantly for farming and industry. Our need to feed a growing population has led to exploitative practices that have degraded our land and significantly damaged many ecosystems.

“

I feel we are hypocritical, we expect the Amazon rainforest to be saved, we expect the people of Africa to save all the lions, tigers, elephants, but we won't do the same here.

”



WHAT IS AN ECOSYSTEM?

Hilary captures the essence of an ecosystem perfectly when she describes an area of nature with animals, insects and plants that each rely on having the correct food and environment.

Within an ecosystem, all living things are interdependent. An ecosystem also includes non-living things (such as rocks) and the environment (such as temperature, altitude, weather), with everything working together to

form a bubble of life, which is why it's so important not to disturb ecosystems by, for instance, taking rocks and seaweed home from the beach. The number of different species contained in the ecosystem denotes its biodiversity.

The entire surface of our planet is made up of a series of interconnected ecosystems. They come in countless different forms. Here in Bude we have a diverse range, including our dunes, rockpools, ancient oak woodland, river, canal, salt marshes and seashore.



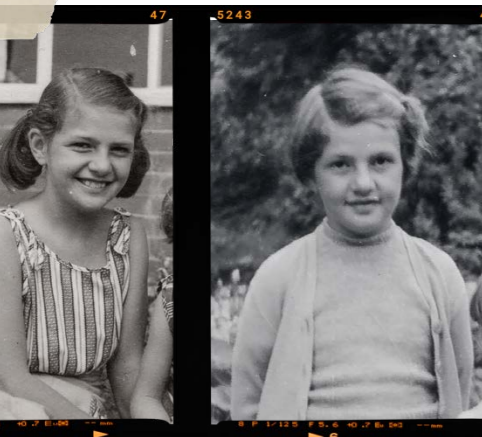
Since the 1970s, 21 breeding birds, 4 vascular plants and 8 bumblebees have become extinct in Cornwall. The Kittiwake is one of the breeding birds on the brink of disappearing in the UK.

Each ecosystem has a range of living things in it and needs a favourable set of conditions to thrive. All the organisms within an ecosystem work together to try and maintain balance, even as external conditions change. The more biodiverse an ecosystem is, the more capable it is of maintaining balance, as diversity leads to resilience.

ECOSYSTEMS AND CLIMATE CHANGE

Ecosystems play a key role in regulating our climate, and water, carbon, and nutrient cycles. They protect our coastline from erosion and reduce flooding through trapping water in the landscape. Ecosystems also remove harmful toxins from our soils, air, and water. They provide immune support to plants and pollinate our food. So, the more we destroy our ecosystems the harder it is for nature to maintain a hospitable climate and meet our needs for water and food.

In a nutshell, ecosystems provide all the necessary conditions and materials for



life, and without them it would be like trying to survive on a barren planet, such as Mars, so they really are critical!

OUR ROLE

The UK is the most nature-depleted nation in Europe, so our struggling ecosystems need our help. Because ecosystems are so complex, scientists cannot always predict how they will respond to stresses, such as pollutants, invasive species or climate change. Sometimes they can adapt and evolve to new conditions, and sometimes the stress can cause them to collapse.

The more we understand our ecosystems, the more able we

are to support them and help nature recover. If we look after our ecosystems, they will help protect us from some of the more extreme effects of climate change, particularly flooding, extreme heat and drought.

Did you know?

In Cornwall 12% of our principal species, such as natterjack toads, long horned bees, and corn buntings, are at risk of local extinction.

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GET TOGETHER

If you're part of a local group and would like to explore this theme more through additional activities, then you might like to use our 'Hands On' toolkits. Contact the Bude Climate Partnership to find out more.

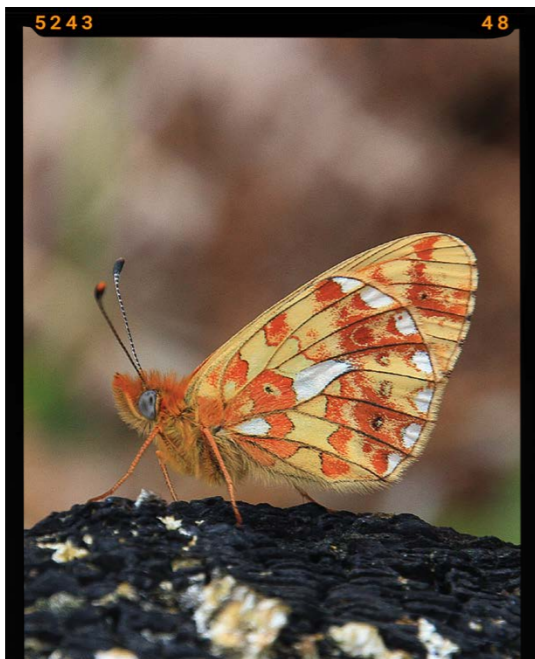
Teachers wanting to use these stories in the classroom can download additional resources for Vicko's Story, Lochy's Story, Simon's Story, Hilary's Story, Jan's Story and Alex's Story, via the 'Local Voices' pages on the Bude Climate Partnership website.



GET INSPIRED

We have put together some tips on what we as individuals and collectively as a community can do to have the greatest positive impact.

These changes will not only improve the quality of life for everyone in our area, but also reduce contributions to worsening climate change.



BALANCE

We often hear the notion of living in harmony or in balance with nature. By understanding the critical role of balance to ecosystems, we can help look after them. Finding the right relationship with nature requires giving back as well as taking. It means being aware of and caring for the nature around us and never taking more than we need.

LOOK OUT FOR WILDLIFE

We are lucky in Bude to have a diverse range of wildlife that helps keep our environment healthy, but it needs





our help. So, tread lightly on the land and seashore, keep your eyes peeled and give animals space. For instance, seals on beaches and land can seriously injure themselves if disturbed by humans. If you spot beached seals, please do

not approach them and keep noise to a minimum.

REPORT WILDLIFE SIGHTINGS

If we know what's out there, then it's easier to protect it. A number of charities, organisations and

projects encourage people to submit wildlife sightings. Your valuable information will help improve our understanding of local natural history, as well as contribute to decision-making, education, research and other public-benefit purposes.

GO WILD!

If you have room, leave a wild patch or create a wildlife area in your garden. Let nature take over this small (or large!) space and it will soon attract wildlife visitors and gradually many wildflowers. You may well find that weeds are the first thing to colonise your patch, but don't worry, weeds are nature's first step to restoring health to an interrupted ecosystem. Have a look at what Knepp farm has done on a grand scale. Known as rewilding, it really is amazing how nature can rebound.



PROVIDE WATER

Ponds, bird baths or even an old container of water can greatly help local wildlife. It's also a magnet for various species such as dragonflies, frogs, newts and even otters! If you have space for a pond then avoid putting fish in, as they eat many insects, and make sure you have a way for animals to climb out.

THINK DIVERSITY

The wider the variety of plant species in your garden, the more likely you are to attract different insects and wildlife. Think about when things flower and fruit so that you have a yearly cycle of plants to benefit wildlife.

LEAVE TREES, HEDGES AND SHRUBS

Large plants are great for encouraging biodiversity, as they provide nesting places and shelter for wildlife. Many species (such as hawthorn, alder and crab apple) also produce fruit, seeds or flowers which provide food for wildlife. Larger trees, particularly, support fungi, lichens and insects.

FEED THE BIRDS

Our feathered friends need help, particularly in winter when other food is scarce. Different seeds and nuts attract different birds, so offer a mix of food. A clean, unfrozen water source for birds is also important.

WATCH WHERE YOU TREAD

Life is everywhere, and nature has a wonderful way of holding things together with plant roots. Our clumsy footing can disturb ecosystems and kill plants and insects, so please be mindful of where you choose to walk.

PICK UP PLASTIC

Whether on the beach or inland, picking up plastic, big and small, helps remove harmful substances from our ecosystems. If you can recycle it then please do, and make sure anything else is disposed of properly – we don't want it making its way back into the ocean!





THINK ABOUT HOW YOU GET AROUND

Air pollution is a much bigger problem for little insects than it is for us. Toxins build up quicker in their system, which has contributed to the huge decline in their populations. Anything you can do to reduce your contributions to air pollution helps. For example, instead of driving your car, walk, cycle, car share, use public transport or switch to an electric car.

TURN OUT THE LIGHTS!

Light pollution from streetlamps and patio lights confuses our nocturnal insects and is contributing to their decline, so if you have any outdoor lights, only use when necessary.

BUILD UP YOUR SOIL

Soils contain essential ecosystems that form the foundations for all life on land. You can improve your soil by not leaving any bare soil and adopting a no-dig approach. It saves on time and effort, reduces weeding and protects the structure of the soil.

COMPOST

Nourish your soil with carbon-rich materials like compost, animal or green manure. Fungi, bacteria and resident earthworms that keep your plants healthy will love the organic matter in compost. And better soils hold more water and are more drought resistant.

If you have space, make a compost heap in your garden,

and place all your peelings and unused fruit and veg here. Not only will it give you a free source of compost for your garden, but it will also provide an ideal habitat for species such as slow worms.

AVOID CHEMICALS

Whenever possible it's always best to avoid using artificial fertilisers and pesticides. They damage biodiversity and turn living soil into dead mud. And whatever goes on your land will eventually find its way into the river and sea, so consider what damage it may do. This goes for the food we buy too, so if you can, help nature out and go organic.

GROW PERENNIALS AND ATTRACT POLLINATORS

Our insect populations are under serious threat, so we need to support them as the climate changes and their natural cycles become disturbed. Bees, butterflies, moths, wasps and other insects pollinate many of our crops. Pollinators depend on flowers so a diverse species of plants in your growing area will attract the insects you need to enable your crops to grow. Native species are always best and perennials come back year after year.

Think about planting nasturtiums, marigolds, lavender, geraniums, sunflowers and borage amongst your crops and find out more about companion planting where certain

combinations of plants protect each other by attracting pollinators, repelling pests and increasing plant productivity – think about growing sweet peas amongst your runner beans or cosmos with your cucumbers. If you have space for your food growing, think about having a selection of perennial plants, which don't need sowing every year so they are low maintenance. Perennials cause less soil disturbance and they can be harvested in ways that allow the plant to sustain growth. They are also very delicious. Think perennial kale all through the winter or perpetual spinach or delicious rhubarb.



DIVE DEEPER

If you would like to understand more about what our ecosystems do for us, this United Nations site offers a good overview:

www.fao.org/ecosystem-services-biodiversity/en/

If you want to know more about our local area, and what needs to be done, Cornwall Wildlife Trust has an in-depth assessment called 'The State of Nature Cornwall 2020 Report':

www.cornwallwildlifetrust.org.uk/what-we-do/about-us/state-nature-cornwall-2020-report

If rewilding captures your imagination, and you would like to know more, please visit:

www.rewildingbritain.org.uk/explore-rewilding/what-is-rewilding/why-we-need-rewilding

GET INVOLVED

Bude is buzzing with wildlife enthusiasts like Hilary who help monitor the state of our nature. This helps us to understand nature and nurture it back to good health. Bude is bursting at the seams with enthusiastic environmental groups and great initiatives if you want to get involved. Here's a few relevant to the theme of Hilary's story.

If you want to help record wildlife sightings there are numerous groups, including the **Environmental Records Centre for Cornwall** and the **Isles of Scilly (ERCCIS)** the **Cornwall Wildlife Trust**, the **Sea Watch Foundation**, the **Cornwall Marine and Coastal Code Group** and the **National Biodiversity Network (NBN)**.

BUDE'S FRIENDS OF THE EARTH GROUP

Working towards creating a flourishing environment and healthy food locally and globally.
www.friendsoftheearth.org/groups/budedefriendsoftheearth



2 MINUTE FOUNDATION

Help reduce plastic waste in the marine environment with a two-minute beach clean.
www.beachclean.net

WIDEMOUTH TASK FORCE

A group that gathers to litter-pick and rescue marine life on beaches between Widemouth and Millook. Find them on Facebook.

CLEANER SEAS PROJECT

A long-standing community project that cleans up pollution in our seas.

BUDE CLEANER SEAS PROJECT works with the local community to give Bude the cleanest water quality and the cleanest beaches in Cornwall.
www.cleanerseasproject.co.uk

Keep an eye on **FARM CARBON TOOLKIT**, for Cornwall specific advice, on how you can get involved with citizens science projects, aimed at regenerating our gardens in conjunction with our farms.
www.farmcarbontoolkit.org.uk/farm-net-zero/citizen-science-project/

THANK YOU.

We hope our suggestions and advice leave you feeling inspired. Climate change can be challenging to think and talk about, so if any of your questions haven't been answered or you need support or you have an idea you want to pursue, then please get in touch with the Bude Climate Partnership. We're here to help you.

Email info@budeclimate.org

SUPPORTED BY:



This toolkit has been developed by Storylines, a Community Interest Company who use the common language of story to bring people together to share, celebrate, learn and connect.

For more visit www.storylines.org.uk. Designed by Georgia Byron.