

## Welcome young naturalists! Issue: Autumn 2022



Winkles

### The wrack line

By Trish McDuff ABNA

Illustrations and picture by Endymion



Mermaid's Purse



Cockle Shells

When you go to the beach, you will see a line of seaweed, shells, litter etc which marks how high the tide has been. This is called the wrack line. It is a very important source of food for many creatures that live on the beach.

- Wrack is usually made up of eel grass, seaweed, feathers, small pieces of wood, parts of dead animals such as crabs or fish, shells and any litter washed up by the tide.
- Wrack can provide a food source for creatures that live in and on the sand, and these creatures in turn will become food for other living things, such as birds. It is a very important part of the food chain in coastal areas.
- As the organic matter in wrack rots down, it releases all kinds of nutrients into the beach and acts like a fertiliser. Any plants near wrack on the beach have been shown in a study to grow 70% faster than plants without any nearby wrack.
- If you poke around in the wrack you will see all sorts of flies, beetles and hoppers that take advantage of this food source: sea slaters, dune chafer, snail hunter, rove beetle, sand hopper, springtail.
- In some seaside areas, the wrack is cleared away regularly to keep the beach neat, tidy and flat for humans to enjoy. This destroys the natural habitat and food for millions of tiny creatures.



Magpie Feather



Mussel Shells



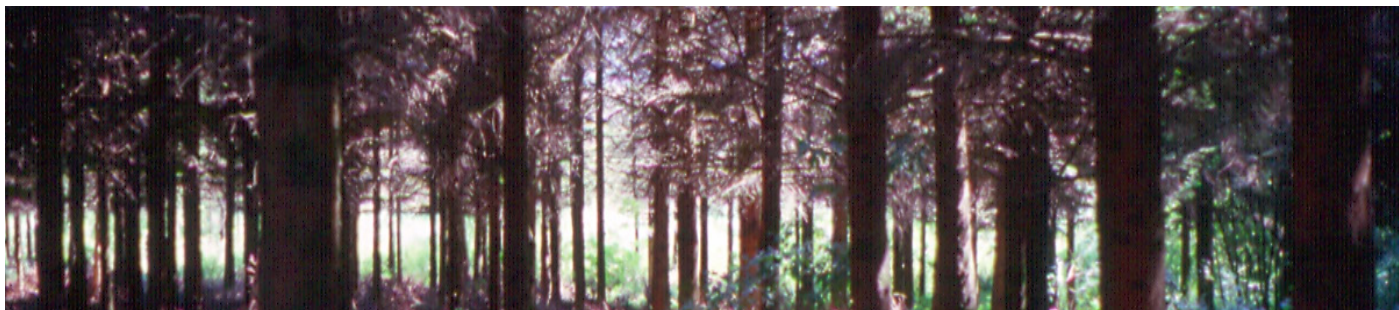
Cuttlebone

**Just for fun** - Next time you search a wrack line, record how many different species you can find.

Example of a Wrack Line or Strandline







## **Cones and Conifers**

**By Trish MacDuff ABNA**

Photographs and illustrations by Endymion



Above: Red Squirrel in a pine tree.

Trees that bear cones are called conifers. Cones are the fruit of those trees. In the UK you will be able to find cone bearing pine, fir, cedar, juniper and spruces. The purpose of the cone is to keep the seeds safely. The cone's scales close up to protect the seed from cold, wind or from animals trying to eat it. When it is warm and the seeds are likely to germinate and grow into a new tree, the scales will open and the seeds are able to come out.

- All conifers produce male and female cones, the male cones are not so noticeable as the female cones, but they produce pollen needed to fertilise the female cone.
- Red squirrels, pine martens, siskins, common crossbill, all enjoy eating the seeds found in a pine cone.
- The scales on a cone open in warm dry weather. It responds to water vapour in the air, so closes up in the damp. When it's warm and sunny again, the scales will open up.
- Some cones can stay on the tree for up to ten years, but most will mature in six to eight months.
- Look for some cones. Look at how the scales open up when it's warm, and closed when it's cold and damp. When it has opened up, see how many seeds you can find in one pine cone.



Above: Siskin



Pine Cone





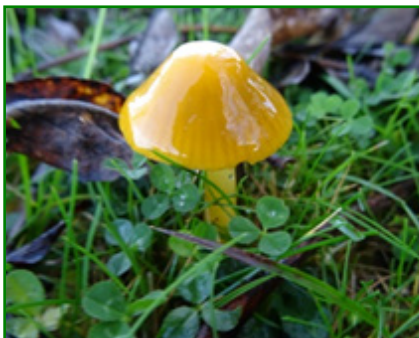
## Wonderful Waxcaps

- Waxcaps are a fungi found on short unimproved grassland, this means grass which is poor in nutrients, such as old pastures, heathlands or non-agricultural land.
- They are a conical shape, with a shiny, waxy cap.
- They come in bright colours – red/pink, yellow/orange, green, white, brown/buff and black.
- They are an indication of ancient pastureland and therefore are quite rare.
- The more species you find in a single area, indicates an area of special importance – Local, Regional or National

**Black Waxcaps** – The common name is Blackening Waxcap or “Witches Hats” as that’s what they look like in the black form!



**Yellow Waxcaps** – the cap can be shades of yellow/orange – Golden, Heath, Honey, Glutinous, Oily.



**Red Waxcaps** – bright red cap, sometimes with a yellow/orange edge. There are several different species in this colour range – Crimson, Splendid, Scarlet, Ballerina and Pink.



**White Waxcap** – there is only Snowy Waxcap in this colour form



**Green Waxcap** – Only one colour form in this group, which is the species Parrot. This starts off green, turning yellow with age.





**Coming soon** from Chairman Steve - news on a new weather project which we hope to launch in the New Year! This will be something interactive for our Young Naturalists to get involved in.

In the meantime - Chris Page, ITV Weatherman, has kindly written an inspiring article which tells us how and why he became interested in the weather! Here's what he has to say.....



I've always been interested in the weather since a young age. In fact I made my first ever rain gauge with my dad when I was six. From there I took a huge interest in the environment and the natural world around us and how it impacts our lives. But it wasn't until secondary school when my Geography teacher inspired me and my passion grew to study geography at A-Level and later degree. From there I trained to become a meteorologist with the Met Office and soon joined ITV as a weather presenter.

Weather impacts every single one of us from the clothes we wear, to the food we eat and drink. And now as the planet's climate continues to change and global temperatures rise due to increased levels of man made Carbon Dioxide in the atmosphere, we're seeing the impacts in real time.

Summers are becoming hotter; causing droughts and wildfires; meanwhile rainfall is becoming heavier and more intense leading to flash flooding. And we're not just seeing this here in the UK, but right around the globe.

Climate change not only impacts us but it's taking its toll on the natural world too. Here in the UK we're seeing changes in the growing season. When the first leaf arrives in the Spring to falling off the tree in the Autumn, this has increased by a whole month in the last 30 years. This shift has caused earlier flowering times, meaning fewer caterpillars are available for birds to feed their young in the Spring.

And just this year, after such a hot and dry summer, farmers are noticing a reduction in their crop size. Carrots aren't growing big enough for the winter. And autumn berries are ripening earlier meaning winter birds will run out of food sooner.

Our understanding of the current weather and climate has never been more important. So by setting up your own mini weather station and sending in your weather reports from your local area, you could help. Plus - you never know how building a rain gauge might inspire you for the future.





# The Young Naturalists' Hub

## News

### Newts

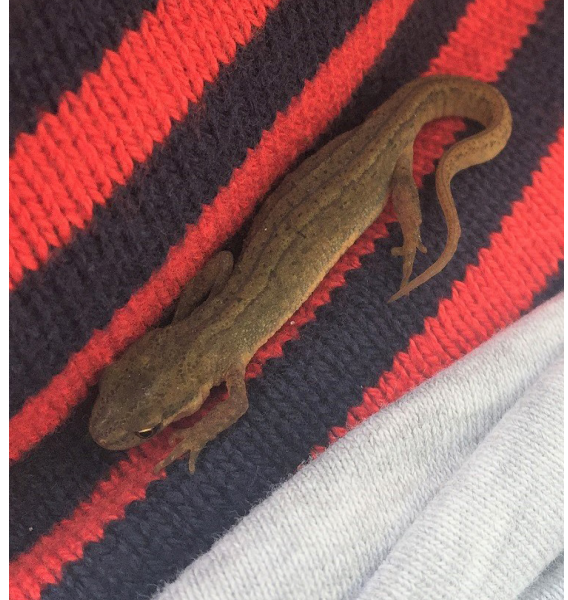
By Arthur Tweed

I live in Wendover, Buckinghamshire. I love exploring my garden and I usually find loads of wildlife there. I recently found a newt hiding in a flower pot!

I identified it as a smooth newt. It has a bright orange belly with black spots. It is a grey-brown colour on the top. It has pitch black eyes. Smooth newts hibernate in the winter and come out in February or March. They are nocturnal and spend most of the day hiding under rocks or flower pots.

The female lays up to 300 eggs near ponds or lakes and these turn into larvae when they hatch. After that, during the next 10 weeks they change completely and turn into newts. They grow up to 10 cms but the females are smaller than males.

They eat insects, slugs and worms, tadpoles and water snails.



### Pond Skaters

By Aerin Ansell

This is another article that I have written! We saw them earlier today in the New Forest and took this photograph.



Pond skaters (also known as water striders) can skate, jump, and often fly – they are like the athletes of the insect world.

I hadn't realised that pond skaters use their back legs to steer, their middle legs to push onto the surface of the water, and their front legs to grab prey and to sense movement on the water from drowning prey. Pond skaters are carnivorous and stab their prey with their beak-shaped mouth. In turn, pond skaters get eaten by fish, birds, and greater water boatmen.

#### Pond skater life cycle:

They hatch at the end of summer/ beginning of autumn and hibernate in winter before awakening in spring to lay eggs. As winter approaches pond skaters produce young to have wings and can fly, so they can move to warmer areas to hibernate.

There are 10 different types of pond skaters. The common garden type are all great fliers, but some types can't fly!



# Sloths, Dart Frogs, and Pit Vipers - Exploring Costa Rica's Rainforest

By Pippa Woodley, Aged 12, London – September 2022

My family and I recently went on holiday to Costa Rica to explore the country's beautiful landscape and natural wildlife. One of the highlights of our trip was going on a sloth tour near La Fortuna in the Northern Highlands to look for the elusive three-toed and two-toed sloths that inhabit the Costa Rican rainforest. Even though the tour turned out to be more of a guide-led nature walk along a jungle trail, we ended up seeing lots more wildlife than anticipated.

Almost as soon as we stepped out of the air-conditioned minibus, the guide spotted a sleeping three-toed sloth high in a tree. We knew this sloth was female because it did not have the noticeable orange and black patch of fur on its back unlike the males. The male's patch is used to signal to other males that they are entering their territory, they also let out a whistle to signal their presence to other males. The guide then showed us how to take photos using our mobile phone cameras and a telescope – the images came out so well that we felt like wildlife photographers!

As we moved along the trail, we noticed a bright green splash on one of the highest branches of a tree. It turned out that it was a juvenile green iguana. Later, on our return, we noticed the iguana hadn't moved its position once!

Shortly after, we heard a quiet buzzing coming from the bushes. As we stepped closer, we saw that the noise came from a tiny strawberry poison dart frog that was only 2cm long! Their hindlimbs and forearms are black and are patterned with purple-blueish spots and their bodies can vary from orange to scarlet in colour.

As we ventured further, we came across many more strawberry poison dart frogs but also some colourful postman and monarch butterflies. We also were treated to several more sleeping sloths high in the canopy. Our guide was excited to point out a raccoon scrambling down a tree right in front of us - apparently, it's quite hard to see in this area.

Later we came across a tree where a sloth was hanging quite low down and was giving itself a long and slow itch – once again this was a three-toed sloth. Sadly, we didn't see any two-toed sloths during the tour, however we did manage to see one later in our Costa Rican trip.

As we were looking at the sloth, there was suddenly a rustle and out of the undergrowth appeared a nine-banded armadillo that then trotted along the trail towards us. It was around 3 metres away from where we were standing, when it looked up, saw us, and then - looking rather startled by the unexpected guests in the way of the path - decided to quickly head back into the safety of the rainforest.

As we began to slowly head back down to trail to our start point, we saw a little leaf path in front of us that we had previously missed. It was a line of leaf cutter ants carrying home leaves to help provide the colony with food.

Just before it was time for us to get back on the minibus, we spotted laying in a bush a yellow eyelash pit viper. At around 50cm long, it is one of Costa Rica's most venomous snakes! They use their long-hinged fangs, that are positioned on the upper jaw, to inject venom into their prey. This venom is not only used to immobilise their prey but also to help them digest the animal.

We then saw group of howler monkeys, one of which was carrying its young. Howler monkeys are known for their loud roars which they do when they're responding to loud noises such as thunder. As we climbed back into the minibus, we realised that we'd been very lucky to see so many of Costa Rica's animals in such a short period!



*Sloth*



*Strawberry Dart Frog*



*Armadillo*



*Yellow Eyelash Pit Viper*





*Photo above:  
Ermine caterpillar webs in the hedgerow.*

## **Ermines By Archie Ansell**

We (Archie and Aerin Ansell) saw these thick cobwebs in a hedgerow near us in Hensting Lane, Owslebury, Hampshire.

We were so surprised and thought the spiders that had spun it must be huge and numerous but we then researched this phenomenon and found that it wasn't the work of spiders at all.

Instead it was created by thousands of Ermine moth caterpillars. The communal web is quite spooky to see and would be perfect for Halloween (rather than Spring). The Ermine moth is considered a minor pest by farmers but it is also a minor pollinator.



*Small Ermine Moth Larvae*



*Bird-cherry Ermine Moth*



# Young Naturalists Badge Reward Scheme

- **BNA Young Naturalist** – this will be sent to young Naturalists upon the renewal of their membership for the first time.

**From the 2nd year of their membership onwards** each young naturalist can apply for the following badges.

- **BNA Wildlife Reporter** – write 3 articles to be published in the YN Newsletter (you can write more!)
- **BNA Nature Recorder** – Visit three different places and record 10 species at each place, three of the species should have more information about them

**Please note** - All articles and lists and any photos you wish to include, should be emailed to;

**Chairman Steve** [chairman@bna-naturalists.org](mailto:chairman@bna-naturalists.org)



Don't forget to send us your pictures!  
Here is Beatrix Womersley holding her BNA  
Young Naturalist badge and certificate.  
Well done to you all!

Congratulations to the following  
young naturalists  
on their achievements!

**Beatrix Womersley** – BNA Young Naturalist badge and certificate, Zoom presentation certificate, BNA Wildlife Reporter Badge.

**Rose Scoble** - BNA Young Naturalist badge and certificate, Zoom presentation certificate.

**Freddy Scoble** - BNA Young Naturalist badge and certificate, Zoom presentation certificate.

**Ethan Carroll** - BNA Young Naturalist badge and certificate, Zoom presentation certificate.

**Isla Rogers** - BNA Young Naturalist badge and certificate.

**Noah Holmes** - BNA Young Naturalist badge and certificate.







## Tiree

by Beatrix Womersley

Tiree is a small island off the West Coast of Mull and is part of the Inner Hebrides. We stayed in a house which was called Kentra next to the beach where we could go every day. One day we saw a pair of otters who were scooping up crabs from the bottom and carrying them on to a rock where they crushed them into pieces before gulping them down in one go leaving only the shell. We only saw them early morning or late at night.

Tiree is known for its Machair. This is fertile grassland that is home to a wide range of plant species and is a unique habitat and one of the rarest in Europe. The Machair is formed on shell sand soil that was deposited thousands of years ago and has been blown and washed inland. The crofters on Tiree graze their cattle on the Machair areas in such a way that it protects this important environment. Tiree is home to a large population of Corncrakes. Unfortunately we were too late in the year to see or hear them.

We saw a pair of Bar-tailed Godwit on the beach in front of our house. A pair of Snipe were seen in the old cemetery at Balemartin just down the road from where we were staying.

One day we were walking along a beach called Tràigh Bhi which is in the South West of the island when mum came across a large spine that was covered by seaweed. We managed to uncover it and we believe that it was the vertebrate of a dolphin. We also found and collected Arctic Cowrie and Spotted Cowrie shells.

We visited a Broch at Dun Mor and watched Porpoise feeding in Salum Bay. A number of Common and Grey Seals were seen all over the island.

On the Calmac ferry back to Oban we saw a pod of Dolphin in the Sound of Mull to end our adventure. We saw around 36 species of birds, Dolphin, Porpoise, Otter, Grey and Common Seal.



*Bar Tailed Godwits*



*Otter*



*Vertebrate of a dolphin*

## Animal Antics!



The Long Tailed Tits are cold and are chattering about the night to come. How will they keep warm?

Spuggie sparrow follows 7 Long Tailed Tits as they all disappear into the same nest box! "Are they having a sleep over?" he asks Hal the Heron.

Hal and Spuggie have chat. Hal says that small birds lose heat rapidly in winter, so it makes sense to huddle together to keep warm. A nest box is a perfect substitute for a tree hole. Perfect!



### Uncle Willow's Fact File

Hi, I'm Uncle Willow the border collie dog. So Spuggie and Hal have been observing 7 long tailed tits keeping warm together in a nest box. I've seen wrens do this too. Let's take a closer look at how small birds keep warm during the cold months of winter.....

Small birds lose heat rapidly during cold weather.

While mammals build up extra body fat and grow a thick winter coat to help keep warm in winter, birds are limited with how much extra body weight they can afford to gain - otherwise they will be over their flying weight. Being grounded and flightless would make them vulnerable to predation.

However, during the Autumn moult, birds grow an extra layer of soft downy feathers to help keep warm. The downy feathers trap warm air between the layers acting as an insulator - in much the same way as we do when we wear layers of clothing.

Birds such as tits and finches will flock together to feed - safety in numbers. They will huddle together in shrubs, tree holes, crevices or nestboxes, if they can find them, to share their body warmth.

Birds feet and legs are covered in tiny scales which are designed to preserve heat, preventing heat loss.

They will sometimes stand on one leg, tucking the other one up for warmth, or crouch down over both legs, keeping both warm at the same time.

Some birds migrate to warmer climes, whilst other birds such as fieldfares and redwings come to the UK from an extremely cold climate to enjoy our considerably milder winters by comparison..

Birds can restrict the flow of blood to their extremities to reduce heat loss.

They may become torpid at night - lowering their body temperature and reducing their metabolism to conserve energy. The draw back to this is that they will be slower to react, and consequently more vulnerable to predators.







## Animal Antics!

**Louie Dewey says;**

I have been looking at cleaning bird feeding stations ready for autumn. It is important to keep them clean to prevent the spread of bacteria and infection. Ours also needed a lick of paint to help protect it from the forthcoming winter weather.

Here I am inspecting the bird table after a good brush down with a wire brush. I think I made a good job of that!

Here is Picklette sitting in front of the finished, newly painted bird table. The main object of the exercise was to give it a good clean.



The birds now have a lovely, clean and tidy feeding station. It will be nice and easy to keep clean now. We only put a small amount of food out for the birds each time, so that it doesn't have a chance to get too wet, old or stale. Currently we are using bird seed, suet and mealworms. We can always top it up later if it runs out. It is good to help the birds through winter and so lovely to watch them enjoying themselves. Blackbirds like fruit and really enjoy apple halves. They also polished off all of the cherries on Picklette's cherry tree earlier this years - and there was a bumper crop for them to eat.

Fresh water is always very important for birds and wildlife at all times of the year. We have bird baths as well as water available at ground level. It is important to keep this fresh and clean too.





## Animal Antics!

### Sootie Soots says.....



I've been watching hedgehogs. Just before the weather turned cold, we cleaned out and replenished with hay, hide-away places that our hedgehogs were likely to choose in which to hibernate. Such a place is called a hibernacula. A never been used cat loo underneath the garden seat which is covered by a tarpaulin, is already in use by a hedgehog, as well as a half buried large terracotta plant pot. The hedgehog in the plant pot has tucked itself in with hay and dried fern fronds and other leaves.

We placed grids each end of the small garden pond, to allow small animals to climb out. This has proven effective. Hedgehogs can swim, but find the slippery sides of ponds difficult to climb out of. This is why they often drown. A semi submerged branch will serve the same purpose.



### Picklette says.....

We cats love our garden. I am 18 years old and whilst I am unable to do very much now, I am still very good at planning what we should be doing for next year.

Water harvesting is very important and this year we used every drop from the two water butts we have installed in the garden. While it is true to say that at this time of year we will use the water butts far less, if at all during winter, it is still a good time to plan to install them if you haven't got them already. That way when the warmer weather arrives, your water butts will be nice and full and ready to use.

At the time of writing this our nasturtiums were still flowering. I have never grown them before from seed but from the moment they began flowering, small white butterflies began to visit. Beautiful to watch. I didn't find any caterpillars this year but isn't nature wonderful!



Do you have a query?

email: [info@bna-naturalists.org](mailto:info@bna-naturalists.org)

write: Youth Officer, British Naturalists' Association,  
27 Old Gloucester Street, London, England WC1N 3AX