

East Lothian Council Countryside Rangers



# MUD in your EYE

July/August 2022



**Summer star gazing**  
**Page 7-8**

## Geology



## Bootlace worm



## Climate



Cover: *The Summer Triangle.*



<b>Ranger News</b>	<b>3</b>
<b>The Bootlace Worm</b>	<b>4</b>
<b>A Little Bit of Devon in East Lothian</b>	<b>5-6</b>
<b>Heaven's Above - Summer Star Gazing</b>	<b>7-8</b>
<b>Climate Stories in East Lothian</b>	<b>9-13</b>
<b>Poetry Corner</b>	<b>14</b>
<b>Water Safety</b>	<b>15</b>
<b>Confusion corner – A thorny issue</b>	<b>16</b>
<b>Volunteers - Diary Dates</b>	<b>17</b>

Welcome to the 58th Edition of  
'Mud in Your Eye'

We'd love to hear from you!  
Email: [ranger@eastlothian.gov.uk](mailto:ranger@eastlothian.gov.uk)  
or follow us...

 @ELCrangers

 East Lothian Countryside  
Ranger Service

Published by East Lothian Council's  
Countryside Rangers

## Editorial

It's the summer, and as well as changes in the season there are changes in the Ranger Service too. A retirement, new posts for some and a group of seasonal staff joining us for the summer. You can read about all the changes in the first article of this publication.

I'm pleased to say that there are more articles than usual this time. As well as our traditional wildlife posts, we also have a timely reminder of our need to take on the challenge of Climate Change and an article on how to stay safe when on or near the water. Also, see if you can find the key features of the moon, as on August 13th it will be full and at its closest position to the Earth in its orbit. Something to do on a balmy summer evening – depending on the lottery of the Scottish weather of course.



# Doing The Ranger Shuffle!

**No not a new dance, although I'm sure you can come up with one. Instead you may notice some changes to the make-up of the Ranger Service.**



*Alexander (Robbie) Macewen.*

Firstly, after 30 years with East Lothian Council, Roger Powell is taking what is best described as early retirement and is moving down to South Yorkshire. We already have a new Senior Ranger in post. Laura Douglas has been promoted from

within the Ranger Service and is now responsible for keeping the rest of the group on their toes!

Dave Wild is moving from his role at Yellowcraig and Archerfield to become the Dunbar Area Ranger, which means we have a new Ranger taking up the Yellowcraig post.

Alexander Macewen (better known as Robbie) joins us on 4th July. He has been a ranger at Historic Environment Scotland since 2016 and an assistant ranger prior to that. He is particularly keen on the educational aspects of the job and will be a welcome addition to the team.

In addition, thanks to the Better Places fund from the Scottish Government, we have been able to take on eight Seasonal Rangers this year. They are taking up posts at our busy coastal sites so be sure to look out for them.



# The Bootlace Worm

The bootlace worm is aptly named, although you would need some very large boots to accommodate the laces a worm of this length can reach. Its Latin name *Lineus longissimus* gives a clue to its size. It can reach sizes of between 5 and 15 metres in length, with some specimens recorded over 30 metres long.



*The Bootlace worm.*

Size can be difficult to determine, as these worms can stretch their bodies to more than their usual length. Bootlace worms are marine flatworms that can be found in rockpools amongst seaweed, or on some beaches in moist areas under rocks.

Longniddry beach is a good example where it can sometimes be found lurking under the rocks at low tide. If you do come across it, it will usually be coiled up into a red-brown blob. It only reveals its true length once you pick it up and it begins to uncoil itself into the long thin worm that it is. When handled, it produces a thick, slimy mucus. It feeds by using a proboscis that has sticky filaments that attach onto small prey items.

It is worth looking at the term worm, which we use to describe almost any creature that is long and thin. There are, however a great many varieties.

Most fall into three main groups:

*Platyhelminthes* – These are the flatworms, of which the bootlace worm is a member. They have no segmentation and often have a triangular shaped head with many small eyes. The parasitic tapeworms are also in this group.

*Nematoda* – Roundworms and threadworms. These are usually very small and rounded. Many are parasites, of both plants and animals.

*Annelida* – These are the segmented worms such as the familiar earthworms, and the bristleworms, such as the ragworms often found on the beach. These groups are not closely related to each other. They just happen to share a similar body plan. Their internal biology is quite different however and far too complicated to discuss in this article!

# A Little Bit of Devon in East Lothian

**Anyone familiar with the geology of East Lothian will have heard of the Carboniferous Period. This was the time, between (roughly) 299 and 359 million years ago (mya) when many of the rocks around us were formed. The coalfields of the west of the county and the fossil-filled limestones of the east all date from this time.**



*Gifford Hall.*

However, there are also rocks from before the Carboniferous Period.

The Devonian Period (359-419 mya) is so called because rocks of this age were first studied in depth in Devon (no surprises there). The rocks found in the south west of England were formed from marine sediments and contain a tremendous diversity of fossils. These include brachiopods, corals, trilobites and many species of fish – some armoured, some huge, some both. This has led to the Devonian Period being known as “the age of fishes”. The end of the Devonian saw one of (at least) five great mass extinctions that have occurred throughout the Earth’s history. This is thought to have led to the demise of at least 70% of species alive at the time.

Unfortunately for local fossil hunters, East Lothian’s Devonian rocks are very different

to those from down south. They were formed in much more arid conditions and, although occasional fish remains can be found, they are few and far between. The rocks are certainly a far cry from our Carboniferous sediments, which indicate either shallow marine environments or lush tropical swamps.



*Bilsdean Boulders.*

The Devonian saw the end of a period of mountain building known as the Caledonian Orogeny. This resulted from the collision of three continental plates, which included most of modern-day Europe and North America. So, the bit of rock that now makes up East Lothian found itself far from the sea, in a large continental landmass. It’s thought to have been in a dry, desert basin between high mountains to the north and south. As these mountains were eroded the debris was carried into the basin by either wind or flash floods.



## A Little Bit of Devon in East Lothian - continued



*Dunbar Cliff.*

These sediments eventually formed sandstones and conglomerates – the latter consisting of large pebbles in a finer sandy matrix. They have the characteristic red colour of desert rocks, caused by the presence of iron oxide. Devonian rocks of this type are often referred to as the Old Red Sandstone – as opposed to the New Red Sandstone, which is, well, newer (by over a hundred million years).

Devonian rocks are mainly found to the east and south of the county and the stones used in buildings can indicate their presence. Compare Ormiston and Stenton – the former is built largely of sandstones which are some combination of yellow/brown/grey. Essentially, they are sand-coloured. Stenton, on the other hand, is red; geologically, if not politically.

Similar stone can be seen in Gifford, Garvald, Dunbar and elsewhere.

So, as you travel around East Lothian, have a look at the rocks, building stone and soils in the area. It may just be that you're standing in the middle of a four hundred million year old desert.



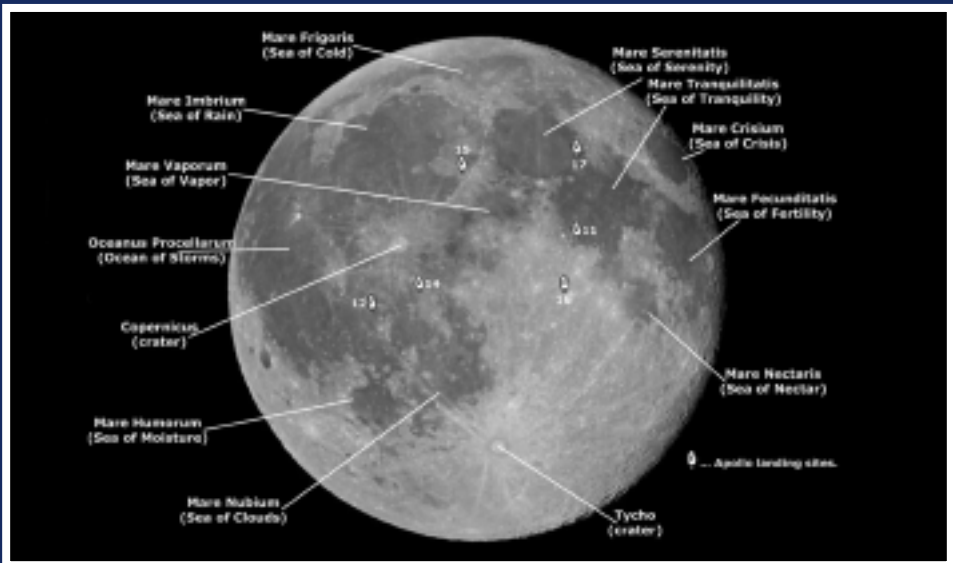
*Devonian Conglomerate.*

# Heavens Above - in the summer.

There is not a great deal of dark sky to work with over the summer months, although the nights are starting to lengthen again now (it will soon be Christmas!). This doesn't mean that there is nothing to see however. Staying up late to watch the stars on a balmy summer evening can be very therapeutic, and at least you don't need to don multiple layers of clothing that is the normal requirement for star gazing in the winter.

For example, on July 13th you can witness only the second Supermoon of the year. This is when the full moon coincides with the part of its orbit that is closest to Earth. The moon's orbit is elliptical, and in July it will be just over 357,000 km away and will appear 30% brighter and 14% larger.

This makes it a great time to observe some of the moon's many features. Because the sun is shining directly onto the moon's surface, there are no shadows, so it is not possible to determine structure. The way that different areas reflect light however means that you can nonetheless pick out different areas. The dark areas, once thought to be seas, are made of lava flows, much like those on Earth. The light areas are the highlands which are made of aluminium rich rocks. If you have binoculars or a small telescope you may also be able to pick out small dark patches of volcanic rock. Rays from craters are also easy to see. One of the most spectacular is Tycho (see picture) which was thought to have been created by a rock about 6 miles in diameter crashing into the moon about



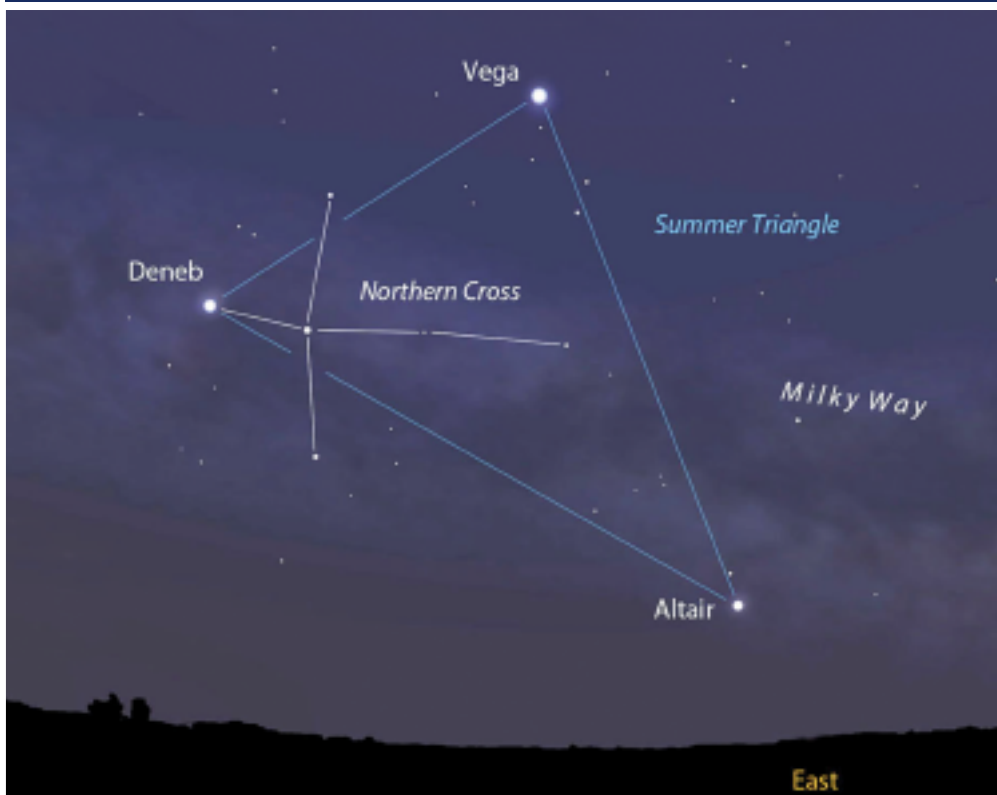
# Heavens Above – in the summer

## – Continued

108 million years ago. Even small rocks can cause an impact on the moon due to its lack of atmosphere. Here on Earth, the atmosphere causes the smaller rocks to vaporise on entry.

If you do stay up a little later, look out for the Summer Triangle. This is an obvious elongated triangle made up of three stars from three separate constellations; Deneb, the brightest star in Cygnus the swan; Altair the brightest star in Aquila the eagle and Vega, the brightest star in Lyra the Lyre.

Deneb is the easiest to find, as it sits quite high in the sky at the moment at one end of Cygnus which is one of the few constellations that actually looks a bit like its name. The pattern of stars forms a cross shape that looks like a swan in flight. The constellation of Cygnus lies across the band of stars that form the centre of our galaxy, so that it looks as though the swan is flying along the Milky Way. Of course you will see this only if you happen to be lucky enough to be in a dark sky area.





# Climate Stories in East Lothian

**We have already seen the impacts of climate change through extreme and frequent weather events around the world.**



*River Tyne flood in Haddington*

We have seen Australia face increases in wildfires, and recently in India and Pakistan we have watched them suffer extreme heatwaves with flash floods. Watching these events happen far away can lead us into a false sense of security. As we are in the global north we may think we won't see the effects of temperature increase on the level that the global south has experienced. Unfortunately that is not the case.

Scotland's climate is projected to become hotter and drier in summer and warmer and wetter in the winter. East Lothian has seen varying extreme weather events over the last 10 years, with them being predicted to increase and intensify in the future. Like the heavy rainfall causing flooding to the heavy storms carrying strong winds at the end of 2021 and the beginning of 2022.

But don't panic! To help us understand the situations we have faced in the past and in the future, we can tell our climate stories. Climate storytelling can be presented in varying different means, from art to film and recounts of people's individual experiences.

They help us to engage with changes in our climate on a personal level and allow us to resonate with each other on similar experiences. Whether it is how you have been affected by a weather event caused by climate change or whether your community has had to adapt. There is no correct way to tell your story as climate change is such a vast topic and it is affecting almost every corner of life.

We have asked some of our East Lothian Countryside volunteers about their stories. Many of these volunteers work closely with the countryside team and have lived and experienced East Lothian's River Tyne flood in Haddington community and environment for years. So their stories are very valuable in understanding how climate change has impacted the area in the past. Some of the volunteers have been asked if they have experienced any changes or situations in East Lothian that may be due to climate change.

# Climate Stories in East Lothian - continued



*Wind-blown trees at John Muir Country Park after 2021 and 2022 storms and high winds.*

Here are some of their stories.

“I am an avid birdwatcher and frequently visit East Lothian for the birds and my volunteering. Something that comes to mind about climate change in East Lothian is how the type of bird species we now see has changed. We are seeing many species we have not seen before, and unfortunately other species have disappeared from the area that were more commonly seen before. This may be due to the warmer drier summers and the warmer winters. For example, Little Egrets are extremely uncommon in Scotland. But climate change has

been driving the species further north every year and we are seeing them more often here.”

---

“40 years ago I was on my way to my auntie’s house by train and I remember it was my first experience of a monsoon like storm. The rain came down in sheets with wild wind. I had never seen anything like it before. But now we get those kinds of storms more often.”

---

“I used to work for a telecommunications company. I worked there for many years. I say this as one thing about the change in climate that stands out to me is

## Climate Stories in East Lothian - continued

the increase in frequency and the intensity of storms. The range of jobs that my work undertook changed. Call outs for storm damage to overhead lines were becoming more and more frequent. We had to work in the heavy wind and rain, getting soaked through. I remember losing a lot of weight because of the amount of times I had to go up and down ladders to fix the overhead cables. There were more overhead damage to cables from storms in the last 15-20 years of working than I can remember happening in the 80s. So this stands out to me, definitely more storms and they lasted a lot longer than before. Something else that I can say that has affected myself is the strength of winds we now get. I stopped sailing on a weekend as the weather out at sea has become less moderate. When the winds are too strong and the weather was less moderate the chance of getting out onto the boat became very small, so much so I decided to stop sailing. It was a personal choice and may be different for others but the change in weather definitely impacted my decision.”

“You can really tell the difference in the wind. We are getting more and it is stronger. You can see this impact at John Muir Country Park and all of the windblown trees. This effected a lot of people as many of them visit the area, recreationally and they loved walking through the trees. Something that also springs to mind is my grandfather whom is a sheep farmer thinks that the change in climate has been affecting the lambing seasons. The extreme weather affects the already challenging lambing seasons.”

---

“Usually the tick season starts when the temperature begins to warm up in the spring and summer. You never saw them around in the winter, but now you see them all year round because the winters are becoming warmer. So now you will have to tuck trousers into your socks and keep an eye out through summer and winter when you’re out and about.”

---

“We have lived in East Lothian for 18 years and it is known that there is less rain here than the West

## Climate Stories in East Lothian - continued

Coast. However, it seems a lot drier in the spring and summer now. Combined with the lack of rain and the increase in wind it really exacerbates the already dry garden. The grass is not doing well year after year and the plants need a helping hand with water. But I don't like using lots and lots of extra water from the house, as in this current climate it is important to preserve the water sources we have left."

---

"My mother used curling ponds almost every winter in her childhood. She is 76 now so this was a very long time ago. But now you will see very few of them used as it's now too warm in the winter for them to freeze over. Which is a shame because it is part of Scotland's culture and for many, a big part of their community"

---

"Being involved with SOS Puffin for 15 years and being a chairman with the Seabird Centre, I have helped run the habitat management project for many years. The project aims to remove tree mallow from the islands along

East Lothian's Coastline. Tree Mallow is an invasive species and is a threat to Puffins as the roots block up their burrows. It was introduced to Bass Rock a long time ago and has spread to the other islands nearby. I have heard that one reason that the tree mallow has been so successful in spreading and establishing itself across the islands, is due to the milder winters. I do not know if this is completely true, however the species does not like frost or very low temperatures with cold wind. I have lived in East Lothian for many years and it does seem that the winters have gradually gotten milder. This may be because of climate change, but I do think that we do not know for sure that every extreme weather event is caused by climate change as we have always had extreme events in the past."

---

"It isn't a weather or event related story. But our local community has created a climate action group. This group was created for local people to be able to join a group of likeminded individuals aiming to

## Climate Stories in East Lothian - continued

help tackle climate change, the nature crisis and support the reduction of emissions on a local level.”

---

“It isn’t directly in East Lothian but it is very close. I live near Joppa and something that I can think of is that the sea defences have been taking a significant amount of battering over the past few years from the more extreme storms and the sea. The concrete has been damaged significantly more recently and there has been a huge shift in the amount of sand coverage over the defences. More of the defence has been uncovered compared to what used to be covered many years ago, about two foot of sand has disappeared. This may not be due to climate change directly, but it is something I have definitely noticed and I don’t think the severity and frequency of storms and wind help. They will have to repair the defences soon. One thing that I can definitely say that climate change has caused is the kind of storms we have been getting. I think they feel more like tropical storms. You now see rain coming down harder, in almost

sheets and more frequently with a lot of wind. When you had extreme storms in the past the reaction from people was always surprise, you would respond with ‘oh wow look at this weather! How unusual’. But now, because we are so used to experiencing it again and again the reaction is more like ‘oh no, not again!’”

---

These are only a few stories that have been told and there will be many more to tell across East Lothian. Some may be positive like the local response of creating a climate action group and coming together as a community. Or they could be negative, like damage to habitat and infrastructure or loss of culture and heritage. Either way these local stories can help people embrace the impacts we are facing in East Lothian and help us understand how we can mitigate and adapt our environment and our communities. We all have a climate story to tell and we need to share them so we can face this situation together.

# The Moon -

## by Robert Louis Stevenson

The moon has a face like the clock in the hall;  
She shines on thieves on the garden wall,  
On streets and fields and harbour quays,  
And birdies asleep in the forks of the trees.  
The squalling cat and the squeaking mouse,  
The howling dog by the door of the house,  
The bat that lies in bed at noon,  
All love to be out by the light of the moon.  
But all of the things that belong to the day  
Cuddle to sleep to be out of her way;  
And flowers and children close their eyes  
Till up in the morning the sun shall arise.







## Enjoy yourself but above all, keep safe



The finer weather is fast approaching and we will soon see a rise in people enjoying the great outdoors. One of the ELPARC priorities is water safety, so look out for countryside rangers, police and fire officers carrying out joint patrols over the coming months. We will be at the beach in North Berwick (outside the RNLI building) on Saturday the 18 June 2022 from 10am until 2pm along with the RNLI and Coastguard.

Please be responsible and enjoy the seaside this summer by:

- Being aware of the dangers when in the sea. Rip tides and currents can drag you far from shore
- Not using inflatables in the sea – these are designed for the pool and can be easily swept out
- Never underestimating the current, temperature or depth when in the water
- Checking the tides and be aware of rip currents and how to swim out of them
- If you get in trouble in water, **float to live**
- Please, if you lose an inflatable at sea, call the Coastguard and inform them of the description and location it was lost at, as this can prevent a full scale, multi-agency search operation from being instigated.

To get more information about how to enjoy sea sports and Scotland's coastline safely, get advice from the Royal National Lifeboat Institution (RNLI) and HM Coastguard, and general advice about water safety is also available from the Royal Society for the Prevention of Accidents (RoSPA).

**If you see someone in difficulty or at risk at sea or along the coast always dial 999 and ask for the Coastguard.**



*The ELPARC Team - look out for them.*

# Confusion corner – A thorny issue

**With a scent sweet enough to entice cupids nose into being stung by a bee, resulting in the plant having to bare the protrusions of his errant arrows radiating from the stems, a variety of thorny but showy rose species delight in early and mid-summer throughout east Lothian.**



*Rosa canina: hips and sepals.*

Once believed to have soothed the bite of a rabid dog, the dog rose, our commonest wild rose, is a pretty pink or white flowered scrambler that delights along hedgerows and woodland edges. If you have forgotten your weighty ID guide, you might confirm your suspicions by bringing to mind the following riddle when examining the green array of sepals beneath the petals:  
On a summer's day, in sultry weather  
Five Brethren were born together.  
Two had beards and two had none  
And the other had but half a one  
Riddles will only get you so far though and an id guide will help reveal species such as the 'downy rose' species that can be found in East Lothian on which both leaves and rosehips are adorned with bristles. Although they offer a sweet smell, they don't match up to the scents of the *Rosa rubiginosa* group.

Known as sweet briar, these and other similar species offer evocative sweet apple scents from glands in their leaves and stems.

A close relative of sweetbriar, burnet rose is an elegant low growing predominantly white rose which is the wild ancestor from where all 'scotch rose' cultivars stemmed. Common in coastal environments and used in for syrups and tea, it is rich in vitamin c and has long been planted and collected for medicinal purposes to ward off colds. Also in this group is the somewhat thuggish but showy early flowering pink displays of *Rosa rugosa*, or Japanese rose. If left alone by mattock wielding groups, in dune habitats in particular, it is known for dominating and suppressing native vegetation. The very densely spined and thorned stems readily enacting revenge on the hands of marauding volunteers.



*Burnet rose*



## volunteer diary dates

Where	Day	Date	Time	Action
Yellowcraig	Thu	07 Jul	10:00-15:00	Pirri pirri removal
North Berwick	Tue	26 Jul	10:00-12:30	tbd
Levenhall Links	Tue	26 Jul	10:00-13:00	Path maintenance
Dunbar	Wed	27 Jul	09:00-12:30	tbd
Yellowcraig	Thu	04 Aug	10:00-15:00	Path maintenance
North Berwick	Tue	30 Aug	10:00-12:30	tbd
Levenhall Links	Tue	30 Aug	10:00-1300	Site maintenance
Dunbar	Wed	31 Aug	10:00-12:30	tbd

for information on all events please contact [ranger@eastlothian.gov.uk](mailto:ranger@eastlothian.gov.uk)

