

East Lothian Council Countryside Rangers

January 2021

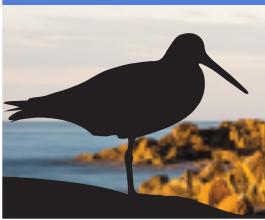


MUD in your EYE



Wildlife
Wildlife updates
Pages 4 and 5

Quiz



Heavens above



Sanderling





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Welcome to the 49th Edition of
'Mud in Your Eye'

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

 @ELCrangers

 East Lothian Countryside
Ranger Service

Published by East Lothian Council's
Countryside Rangers

Editorial

As we enter the coldest part of the year, spring can seem a long way off. There are some wildlife sites worth looking out for though, many of which can bring a sense of the ongoing cycle of life apparent even in the darkest days of winter. Some of our smallest, often overlooked groups are where it's at – the mosses and lichens bringing a much needed splash of colour. A guide to a few of the easier to find species can be found in two of our articles in this issue.

The seashore is a good place to see flocks of wintering wading birds and wildfowl just now. Each species has its own feeding technique, but possibly the most interesting to watch is that of the sanderling as it dashes here and there along the edge of the retreating tide. We also have an article from the British Divers Marine Life Rescue (BDMLR) reminding us of what to do when we see seal pups on the beach.

Finally, after the excitement of the Great Conjunction of Jupiter and Saturn (well I was excited anyway), it's time to take a look at a couple of this seasons stand out features of the night sky; the red giant star Aldebaran and the Pleiades, the closest and most spectacular star cluster in the heavens. Have those binoculars ready.

Mud in your eye New Year quiz

Something to occupy the little grey cells over the new-year period

The following are ten anagrams of bird names.

All can be found in East Lothian – but what are they?

- | | |
|-------------------|----------------------|
| 1. Lit tube | 6. Hugs thorns |
| 2. Later Sherwood | 7. Piggery trader |
| 3. Must Wane | 8. Diego foot spoken |
| 4. Ayers crotchet | 9. Dating Elliott |
| 5. Par shark wow | 10. Ego win |



Answers can be found on page 4

Wildlife Updates

Although we attempt to make the articles in this publication seasonal as well as informative, it's not often that we give updates of recent wildlife sightings of a more unusual nature. It just so happens that there have been some interesting finds that we feel are worth sharing.

Aequorea vitrina

This is a transparent jellyfish, and like many marine creatures does not have an English name, although a number of related species are known as Crystal Jelly's. It is bioluminescent, which means it will glow in the dark with a bluish colour. It is normally found out in open seas, so it was unusual to find it washed up in the Firth of Forth on the East Lothian Coast, particularly as it has not been recorded that often in the North Sea area.



Crystal Jelly - A.Marland.

Goneplax rhomboides

Also known as the angular crab because of the shape of its body, as well as the mud runner – it's pretty fast when disturbed. Although it may be fairly common, it is difficult to see as it is generally found below low water mark in muddy areas, where it builds quite extensive burrows to hide away in. It is relatively small, being only up to 4cm across. The male has long chelipeds (the front legs with the claws on). These are much smaller in females.



Angular crab.

New Year quiz answers

- | | |
|--------------------|----------------------|
| 1. Blue Tit | 6. Song thrush |
| 2. Short-eared owl | 7. Grey partridge |
| 3. Mute swan | 8. Pink-footed goose |
| 4. Oystercatcher | 9. Long-tailed tit |
| 5. Sparrowhawk | 10. Wigeon |



Wildlife Updates Continued



Snowgoose amongst others - A.Marland.

Snow Geese

East Lothian is a popular destination for wild, migratory geese, with it having a good combination of food sources (particularly waste grain after the harvest) and safe places to rest. The keen-eyed can sometimes pick out more unusual geese among the several thousand strong flocks and, during November, this included two snow geese. Snow geese nest in Greenland and Arctic Canada and are rare visitors to Scotland, however they are also kept here in (and escape from) captivity. These particular geese arrived sporting rings on their legs but no one was able to read them to tell where the birds had come from. The last we heard they had made it down to Norfolk.



Holly Blue Butterfly - A.Marland.

Holly Blue Butterfly

A few of our UK butterfly species have expanded their range northwards to the extent that they are becoming more common in East Lothian. The holly blue is one such species, and although still quite rare, has been seen in a number of locations in the county in 2020. They have two generations. The larvae feed on the buds, berries and ends of leaves of holly in the spring generation and on ivy in the summer generation. It is the earliest of the blue butterflies to emerge in spring and tends to fly around bushes and trees, distinguishing it from other blue butterflies which tend to fly low over grasslands.

Seal Pups around our Coastlines & Beaches

An article from British Divers Marine Life Rescue (BDMLR)



Weaned pup.

We are now into the Grey Seal Pupping Season with fluffy white seal pups being born on our beaches and around various islands. You'll come across grey seal pups in the winter months whereas the common seals pup during the summer (sometimes we get visits from exotic species but you are most likely to encounter these two). It seems strange to us that they have pups in the harsh winter but after a summer of feeding, mother seals are in good shape to support a pup and interestingly the pups white coats indicate they were once adapted to be born in snow. Pups are often left resting on the beach

while their mothers hunt. The mother seal will recognise their young by smell so please don't touch it as the mother will not recognise it and it will be abandoned. Seal pups are not waterproof with their white coat and will not go into the water until they shed this coat around 4 weeks old so please do not put pups in the water. It's important if you see one of these cuties to be mindful that they bite so keep your distance, keep children away and put dogs on a lead. You don't want to ruin a magical moment with an unscheduled trip to the vet/hospital. While it's a special thing to see wildlife, remember these are just babies

Seal Pups around our Coastlines & Beaches – Continued

sometimes only a few days old and our attention is very stressful for them so please do not take selfies.

While most of these seal pups are absolutely fine, sometimes they are injured, tangled or in a ridiculous place. As well as this, sometimes a young pup is obviously underweight and will have rolls of skin and prominent hip bones instead of being a healthy rounded sausage shape. If you are concerned for a pup call BDMLR who have experienced medics in the area working 24/7, 365 days a year attending rescues of seals as well as beached porpoises, whales and dolphins.

Remember don't attempt to touch or move the animal, for its safety and yours. You can help by taking photographs from a distance and making a note of its position especially with the apps Grid Ref or What3words as this allows our medics to get to the exact location which is a massive help.



A young underweight pup - Daryl Wilson.

BDMLR run various charity fundraising events and training courses so please check out the website and social media to get involved. If you would like to help us raise funds for vital equipment we require at rescues please donate at

www.justgiving.com/campaign/BDMLRedinburgh.

We are sincerely grateful for any donations especially as this year it's not been possible to fundraise as usual.

**www.bdmlr.org.uk Tel 01825 765546
Registered charity Scotland SC039304
and 803438 in England and Wales.**



A healthy seal pup at Barns Ness.

Heaven's Above – Orion Taurus and Pleiades

The constellation of Orion is quite prominent now in the southern night sky and because it's quite easy to identify, it makes a good starting point to find other nearby features. If you take a line through Orions Belt and continue out to the right you should reach a bright red star. This is Aldebaran, which forms the big red eye of Taurus the Bull.

Aldebaran is the Arabic word for 'The Follower', as it appears to follow The Pleiades in the night sky (more of them later). Aldebaran is a red giant about 44 times the radius of our sun and 400 times brighter. It is only 65 light years away – very close in cosmology terms. The Pioneer 10 probe is heading roughly towards it, although it will be two million years before it gets there! Observations suggest that there is a massive planet, about five times the size of Jupiter, orbiting the star in what would be the habitable zone; so a candidate for life outside of our own solar system, either on the planet or any orbiting moons. Continuing along the same line to the right of Aldebaran you should notice a white smudge like object. Further observation should reveal a group of stars quite close together. These are the Pleiades, named after the seven sisters, daughters of the Titan god Atlas and the sea nymph Pleione. In the Greek legend, Atlas rebelled against Zeus, the chief of the gods, and was punished by having to carry the weight of the heavens on his shoulders for ever. Apparently the sadness of Atlas's daughters moved Zeus enough that he placed them in the heavens to be near to their father. The nine brightest stars represent the seven sisters and their parent Atlas and Pleione.

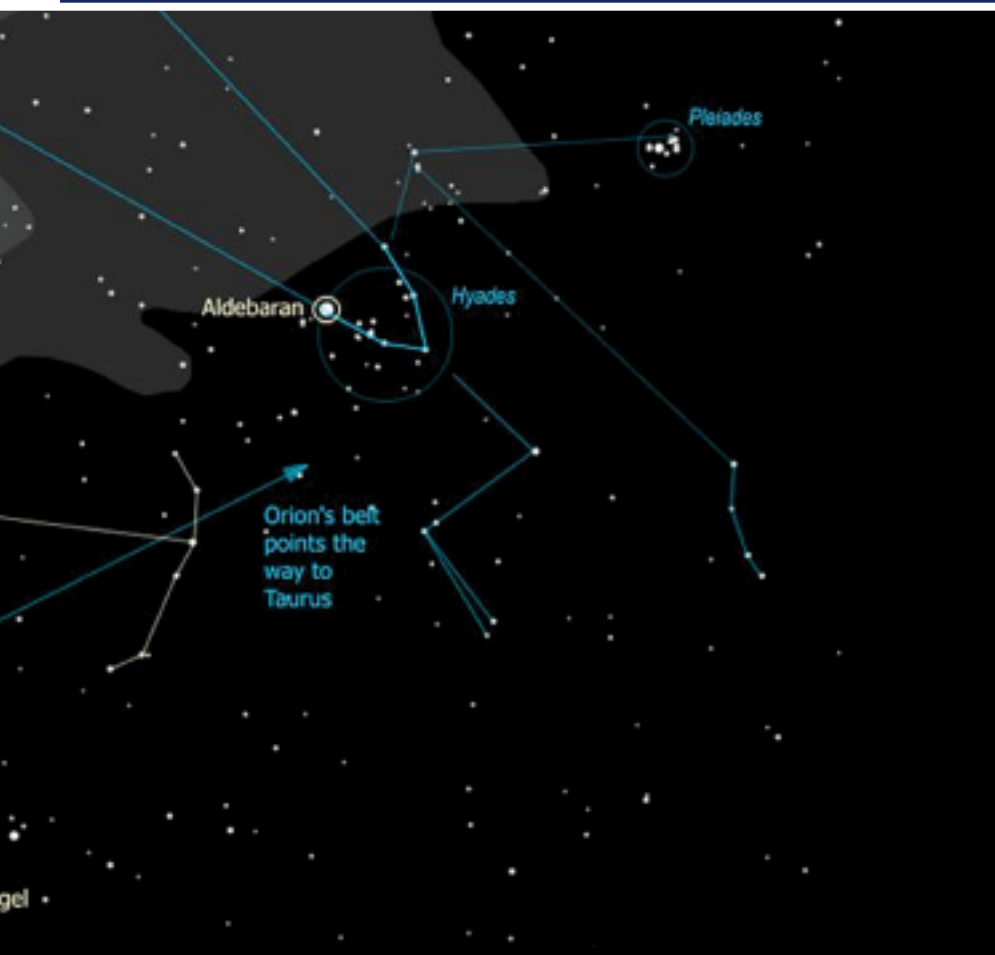
One of the seven sisters was called Merope. The Harry Potter fans will know that this was the name of Voldemort's mother. JK Rowling couldn't resist naming characters after stellar objects!



Orion Taurus and Pleiades – Continued

The Pleiades are an example of an open star cluster, a group of stars born from the same huge gas and dust cloud. Most people can pick out five or six stars with the naked eye, but binoculars will reveal far more. In fact there are over 800 stars in the cluster. Some of them are noticeably bright with a blue tinge. These are burning fiercely and will only last a few hundred million years before they run

out of fuel, unlike our own sun which is already four billion years old and only half way through its life. At 410 light years distant, the Pleiades is one of the closest star clusters to Earth. It is thought that over the next few million years, the stars in the cluster will gradually drift apart. With a dark sky and a pair of binoculars the Pleiades can be a spectacular site. See how many you can count!



Poets' Corner

This time we are highlighting not one, but two poems. Aren't you lucky? The poems are inspired by two of the articles in this current edition, with the titles of Moss and The Pleiades. But first, a quick introduction to the two poets.

Anna Wrigley is a modern day poet who won the Poetry Society's Geoffrey Dearmer Prize in 2000 for her poem Beloved Daughter. She often uses the natural world for inspiration and has produced three anthologies to date.

Amy Lowell was born in Massachusetts in 1874 and began writing poetry in the early 20th century. She died in 1925 and was largely forgotten until the 1970s, when her work was rediscovered as part of the women's movement. Her topics are many and varied.

Moss by Anna Wrigley

*I had never seen the colour green
until the Long Mynd moss
lay at my feet in a cold rain,
burning;
as if some temperamental goddess
had turned out her jewel-box
here, on this stubbled heath
then set fire to the lot.
And this was what was left:
the just-cooling embers and coals
still on their necklace-strings,
curling like miniature constellations
in a fern-and-heather heaven.*



Amy Lowell 1874 – 1925.

The Pleiades by Amy Lowell

*By day you cannot see the sky
For it is up so very high.
You look and look, but it's so blue
That you can never see right through.*

*But when night comes it is quite plain,
And all the stars are there again.
They seem just like old friends to me,
I've known them all my life you see.*

*There is the dipper first, and there
Is Cassiopeia in her chair,
Orion's belt, the Milky Way,
And lots I know but cannot say.*

*One group looks like a swarm of bees,
Papa says they're the Pleiades;
But I think they must be the toy
Of some nice little angel boy.*

*Perhaps his jackstones which to-day
He has forgot to put away,
And left them lying on the sky
Where he will find them bye and bye.*

*I wish he'd come and play with me.
We'd have such fun, for it would be
A most unusual thing for boys
To feel that they had stars for toys!*

Sand-yrðling, the “sand-ploughman”

During the cold winter months, it may not seem like it for us, but for some birds the relatively mild East Lothian coastline is the perfect place to spend the winter months before returning to their northern homes in springtime. Sea ducks, waders, thrushes and even owls are some of the visitors that migrate to spend winter with us here in East Lothian.



A winter visitor to our coastline, the Sanderling.

One winter visitor worth looking out for at this time of year is the sanderling. A medium-sized sandpiper that breeds in the high Arctic tundra, the sanderling flies south to escape the harsh winter. To sustain it on its migratory flight south, which for some will be up to 5000km, it can pack on an additional 60% of body weight before setting off on its southern migration. Sanderlings start to appear in Scotland on passage between the end of July and October. Most will continue south but some, not more than about 1200, will remain in Scotland before returning north in springtime.

In its winter plumage it has pale grey and white underparts and dark short-legs. It can be found feeding along the edge of the tide on sandy shores. At the time it needs to feed, most of its winter prey species of

crustacea and polychaete worms burrow deeper, only coming closer to the surface when the tide is beginning to cover or uncover them. The feeding technique of the sanderling is quite distinctive. Often described as a mechanical clockwork motion, it dances on the edge of the tide, stops, probes the sand with its short stout dark bill, then continues as the waves uncover its next quarry.



Sanderlings and golden plover.

Lichens – like a fungus with extra weird added on.

Fungi are a weird bunch – they're not plants, despite the fact that many grow in soil and have root like structures. They're not animals, although taxonomists argue that they're more closely related to us than they are to plants. If you want to get even stranger than that though, how about lichens? They are like a fungus with extra weird added on.



Ramalina polymorpha.

Lichens can be found throughout the year and in all sorts of habitats. They'll grow on trees, soil, gravestones, seashore rocks and pretty much everywhere else. The thing that makes lichens so odd, and so brilliant, is that they are not just one simple organism. Instead, they are two very different species living together for their mutual benefit (a relationship known as symbiosis). Within any lichen the main "partner" is a species of fungus, known as a mycobiont. The other partner, the photobiont, is a green alga, or less commonly a species of cyanobacteria. Incidentally, cyanobacteria are sometimes referred to as blue-green algae, although strictly speaking they are not algae at all. (Confused yet? I know I am).

Occasionally, a lichen containing a fungus and an alga will also have cyanobacteria kicking around in there, thus having all three of the potential partners.

So, why do these various organisms bother to get together like this? Well, each brings something different to the party. The fungus can derive mineral nutrients from the surrounding environment and provides a sheltered habitat for the alga. In turn, the alga can produce chemical food for the whole organism through photosynthesis. Lichens come in four main categories, each of which has a superb title. They can be Crustose (crusty), Squamulose (scaly), Foliose (leafy) or Fruticose (branched or bushy).



Verrucaria on the seashore.

Lichens – like a fungus with extra weird added on – Continued



Xanthoria on bark.

Xanthoria is a genus of foliose lichens which can be found growing on rocks and trees. Some species of Xanthoria favour seashore rocks, which has led to them being called “shore lichens”. They take the form of bright yellow splodges, sometimes with orangey cup-like structures dotted throughout. These cups generate the spores by which the lichens reproduce. This lichen’s name is derived from xanthos, the Greek for “yellow”. On a cold, grey winter’s day the appearance of Xanthoria can definitely brighten things up. A much less obvious, but equally fascinating lichen genus is Ramalina. These are fruticose lichens, taking the form of grey-green flattened branches usually growing on rocks. They can take the appearance of slightly dodgy-looking pasta (actually, make that very dodgy-looking). Some species are particularly fond of coastal rocks on which seabirds perch. The birds, or rather their guano, produce a high level of nutrients on the rock surface and the lichen’s fungal element is able to exploit this to the full. Another lichen found on the seashore is Verrucaria.

There are two commonly occurring species – *V. maura* and *V. mucosa*. Both take the form of black (or very dark green) blotches on rock surfaces, which are very easy to overlook. They are often found in a band which stretches from above high water to well into the intertidal zone. Their dark colour forms a clear contrast to the Xanthoria on the upper shore.

Lichens may not be the most obvious or glamorous of organisms, they may also be very difficult to identify. They do form a vital part of a healthy environment however. Lichens are used for food and shelter by a range of insects and other invertebrates. In some cases they are also eaten by much larger animals, including reindeer. Small birds such as long-tailed tits and goldcrests use lichens as camouflage or decoration when building their nests. They can also help to break down the rocks on which they grow, which enables the formation of soils and thus enables the early stages of plant succession. Perhaps their most important use (for us at least) is as indicators of air quality. Many species are very intolerant of pollution and so will only flourish in areas with clean air.



Xanthoria on rock.

Confusion Corner - Mosses

Often overlooked, Scotland's myriad of moss and liverwort communities are of international importance both in terms of sheer biodiversity (c.1000 species) and with regard to carbon storage given their role in the creation of peat.



Where minibeasts roam.

Our east coast woodlands may not be dripping with the luscious splendour of the 'Celtic rainforest' but the range of habitats in East Lothian, and diversity of species in the space of a few miles from sea to summit, provide a great opportunity for an eye-opening micro-adventure. Mosses are regularly encountered in town and country but can be difficult to identify, with even the keenest amateur sometimes finding it impossible to attach an accurate name to a moss without a dissection kit and a microscope. Even telling a moss from a liverwort can be a challenge. There are however a few quite easily identified mosses out there and winter is the ideal time to look.



Sand screw moss with capsules.

One such moss is the sand screw moss (compresses in a corkscrew formation as it dries) which colonises quickly as its spores land on disturbed ground (all bryophytes bear spores, separating them from flowering plants).

Confusion Corner - Mosses - Continued



A receptive tuft of big shaggy moss.

A canopy of capsules.

This pointy leaved moss is easily (yes, easily) found in the short rabbit nibbled coastal grassland, or weirdly also on asbestos roofs if you harbour an utter disregard for personal safety. In the course of this search you may find yourself planting your behind on a luxurious carpet of 'big shaggy moss' whereby adding another tick to your mossing list (you won't find this ID tip in a serious moss book!). Easy as that.

Once you've got your confidence up, with more than a little help from guide book and the indispensable hand lens, head inland to the damper woodland habitats or river valleys on your way to take in the rainbow shades of the Lammermuir bog flora, and get knee deep, often literally, in this beguiling and at times surprisingly colourful world.