

East Lothian Council Countryside Rangers

September/October 2020



MUD in your EYE



Wildlife

**The wonderful world of
Funky Fungi** Pages 6 to 7

Poetry



Heavens above



Grasshoppers





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Welcome to the 47th Edition of
'Mud in Your Eye'

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 East Lothian Countryside
Ranger Service

Published by East Lothian Council's
Countryside Rangers

Editorial – Autumn

It's autumn, one of my favourite times of the year. There is a certain joy in watching the leaves changing colour, feeling the cool damp air, listening to geese calling overhead and walking through misty woodlands. It's a poetic time; and with that in mind we begin this publication with the musings of one of our ex members of staff, followed by some lines of verse from an 18th century poet.

We also have our usual series of articles to hopefully entertain and inform. Learn how to distinguish between curlews and whimbrels; marvel at the behaviour of grasshoppers; find out why ivy is so important to wildlife at this time; and take another look at fungi, a group of organisms that is neither plant nor animal, but occupies a kingdom all of its own.

2017
2018
2019

When the wind blows

Some musings on autumn

Autumn is usually a blustery season; good for blowing the cobwebs away, getting out in the fresh air and feeling bashed about by gusts and squalls. If the skies are clear, autumn can be a really exciting time of year.

I am not sure wildlife is quite so excited: there is a lot to be done if you are a hibernating animal. You need to find a suitable spot to hide for the winter, usually cool and sheltered, not too wet, not too dry. Food stores need to be stocked up with grasses, seeds, nuts or fungi, whatever is available and whatever is edible. Then you fall asleep. Other animals perish.

In East Lothian, autumn winds bring in geese and other birds. They fly in from the uplands and the northern lands, to enjoy our relatively mild winters: roosting along the coast and feeding in the stubbles.

Sometimes we get the odd curiosity: the occasional blow-in from further afield. Birds that should have migrated south from Canada to Central America can be blown off course to follow a skein or two to our shores. This will attract a flock of twitchers to our coast. Once the rarity is spotted, the twitcher migrates back to its normal habitat. The refugee bird, however, may have no means of return, and must take its chances in a new homeland.

It is a busy time for plants also. Autumn can be quite mild and there is often an end of season sale of late blooms and a harvest of fresh wild flower seed.

Woodland plants can have a second spring, with violets and primroses dappling the forest floor. Seeds that fell earlier in the year may have germinated and need to reach sufficient maturity to survive the rigours of winter.

Perhaps the most iconic totem of autumn is the tree, with its magical leaves that meld from green to every shade of orange. Leaves eventually fall in a cascade of colour, finally resting on the ground in an upside-down canopy: an ever-pleasing random mosaic of tone and texture. This is the place for children, big and small, to play in the leaves and with the leaves; to collect chessies and play conkers; to look up and watch the silhouetted twigs and branches swimming in the sky. Autumn is a time of abundance. Abundant air, abundant weather, abundant colour and abundant pleasure.



Poets' Corner

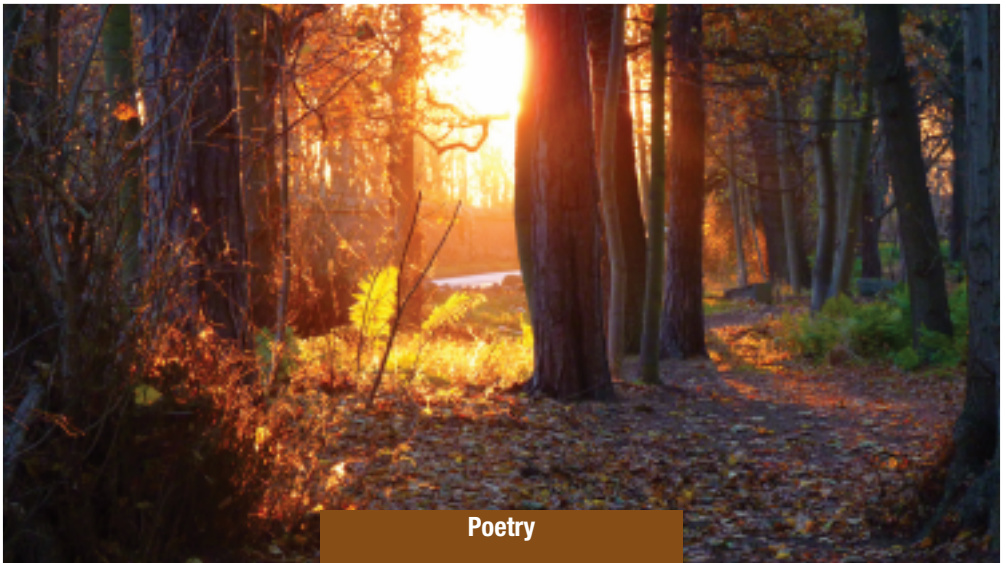
Given that we appear to be in a poetic mood, I thought it would be good to add some verse from a proper poet. John Clare was a poet from a rural community, delighting in the countryside around him. Often known as The Peasant Poet, he lived in the 19th century during times of great change. He was saddened by what we now know as the agricultural revolution that led to bigger fields, the removal of trees and hedgerows and the migration of many farm workers to the cities to work in the factories. He expressed much of this in his poetry, but as we are now entering autumn, I thought I would offer up this contribution from him.

Autumn - by John Clare

The thistledown's flying, though the winds are all still,
On the green grass now lying, now mounting the hill,
The spring from the fountain now boils like a pot;
Through stones past the counting it bubbles red-hot.

The ground parched and cracked is like overbaked bread,
The greensward all wracked is, bents dried up and dead.
The fallow fields glitter like water indeed,
And gossamers twitter, flung from weed unto weed.

Hill-tops like hot iron glitter bright in the sun,
And the rivers we're eying burn to gold as they run;
Burning hot is the ground, liquid gold is the air;
Whoever looks round sees Eternity there.



Confusion Corner: Curlew v's Whimbrel

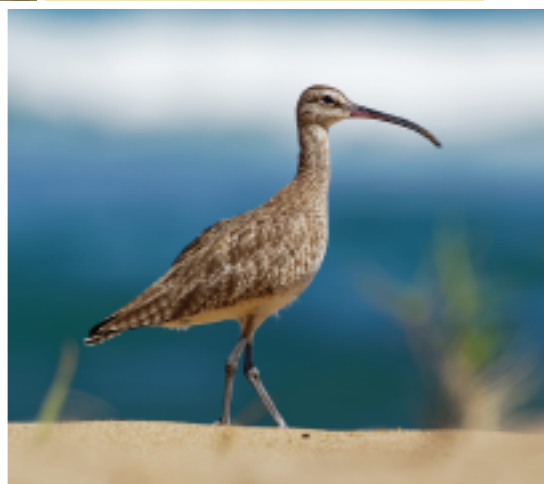
Robert Burns once wrote that he had 'never heard the loud solitary whistle of curlew on a summer noon, without feeling an elevation of soul'. The haunting, bubbling calls of curlew are a characteristic sound of uplands and farmland in spring and early summer, and one that many of us hold dear. During autumn, curlews migrate to coastal areas and are often seen roosting with other wading birds.



Curlew (A Marland).

The whimbrel breeding song is a much rarer sound, restricted to the north, where around 500 pairs breed. The whimbrel's old name of 'seven whistler' may help recall the repeated monotone notes that are heard in flight along our coasts. Peak movements occur in early autumn and to a lesser extent spring, as they move between breeding grounds and wintering grounds in Iberia and Africa.

Curlews are around the size of a herring gull, they are more plain in the face with gently, consistently curved beaks used to probe for invertebrates and molluscs in coastal habitats. Superficially similar, the whimbrel is smaller, and more 'determined' looking thanks to its prominent eye stripe. Whimbrels also have a strong head pattern.



Whimbrel.

The crown has two dark bands separated by a narrow pale stripe. The bill is also an important distinguishing feature. It differs from that of the curlew in that it is often (but not always) shorter, and is curved only nearer the tip.

The best chance of encountering whimbrels in the autumn is to take a trip out along the coast near Dunbar, where they stop off to refuel on their relatively epic journeys south.

Funky Fungi

We humans like to categorise things, we like to put them into groups. You know the sort of thing – “that’s a tree; that’s a bird” etc. It seems to make the world a more manageable place somehow. Biologists are no different; in fact they’ve got it down to a fine art – or more accurately a science, called taxonomy.



Fly agaric.

It used to be that people talked in terms of two taxonomic kingdoms, plants and animals, and all living things fitted into these. Things are a bit more complicated than that however. There are now thought to be five kingdoms (or possibly seven depending on which taxonomist you speak to), one of which is the fungi. All of this is a very long-winded way of saying now is a good time to look for mushrooms. As we have mentioned before, the mushroom/toadstool thing that we see is only a part of the fungus as a whole. The main body of the fungus is formed of the mycelium, a fine network of thin threads (or hyphae if we're being technical). This is hidden underground, in dead wood or whatever medium it is growing in. The mushroom itself is the fruiting body of the fungus, which emerges from the ground allowing the spores to develop and disperse on the wind. Fungi come in a variety of shapes and sizes, and have a fantastically diverse range



Russula.

of lifestyles. Some are parasitic - on trees, insects or even other fungi. Many live on dead wood or leaf-litter and help to recycle nutrients from these back into the soil, providing a valuable service to plants. Some even enter into symbiotic, or mutually beneficial, relationships with trees. In this case the fungus feeds on the products of the tree's photosynthesis, whilst the plant gains chemicals such as nitrogen from the fungal action in the soil. It's a win-win situation really, and a good example of the sort of co-operation that can occur in nature.

The fly agaric is one such fungus. It forms a mutually beneficial relationship with trees such as birch or pine. It's one of our most familiar mushrooms, being the classic red and white spotty one that garden gnomes like to sit on. The white spots are actually the remains of a veil which completely covers the young mushroom as it emerges. This veil gradually breaks up and can eventually disappear altogether.

Funky Fungi – Continued



Scarlet elf cups.

This is why older fly agarics may be found with no spots at all.

The fungus' name is thought to be derived from its former use as an insecticide. The cap of the mushroom was crumbled in milk to form a toxic soup irresistible to flies, which would then succumb to the poison, or simply become a bit dozy and drown. Fly agarics are also toxic to humans although fatalities are rare. In the past they were used, in low doses, by Siberian shamans to induce a trance –like mystical state (don't try this at home).



Orange cups.

One mushroom common to our grasslands is the shaggy ink cap. A very distinctive fungus, growing up to 25cm tall, it can be found in parks, fields, roadsides and woodland edges

The young mushrooms first appear as white cylinders, but soon open into scaly, bell-shaped caps - hence the "shaggy" part of the name. The "ink cap" bit is derived from the fact that the mushroom gradually dissolves into a thick, black liquid which is filled with spores. This process is known as deliquescence – a brilliant word! Shaggy ink caps are edible, but have to be eaten when they are young. They also need to be used shortly after picking, as the caps will turn to liquid soon after.

The colours that we often associate with autumn are reflected in the variety of fruiting bodies of the fungi. From the classic mushroom shape of a purple-headed russula to the smaller tangerine coloured orange cups and deep red of the scarlet elf cups.

So, fungi are a wonderful, weirdly fascinating bunch of organisms. Perhaps the best things about them are their names. Who couldn't love blueleg brownies, lacquered brackets, hairy earthtongues or scurfy twiglets? Not to mention cramp balls.



Ink caps.

Heaven's Above – Andromeda galaxy

This autumn is a good time to spot Mars in the evening sky. It will be visible for many weeks, but will be at opposition and at its nearest to the sun on October 13th, when it will be the third brightest object in the night sky after the moon and the planet Venus. It won't appear this large again until the year 2035. Look for it in late evening, in the southern sky, in the constellation of Pisces. Its brightness and red colouration should make it fairly obvious even without the aid of binoculars.

If you want to try and observe something much further away, see if you can spot Galaxy M31, otherwise known as the Andromeda galaxy. On dark nights with little or no light pollution, it appears to the naked eye as a tiny smudge just below the constellation Cassiopeia. It is, in fact, the furthest object in space that can be seen without optical equipment, being over 2.5 million light years away. To find it, first look for the w-shape of Cassiopeia almost overhead in the late evening sky. The right hand v shape, formed by its brightest stars, acts as an arrow pointing almost directly to the position of the galaxy a short distance from it. Andromeda is a spiral galaxy like our own milky way, but is somewhat larger, containing over one trillion stars. It is on a collision course with us, but that won't happen for another four billion years!

It is interesting to note that the existence of other galaxies wasn't realised until 1924, when Edwin Hubble discovered that Andromeda was further away from us than first thought, and contained its own stars.



Andromeda galaxy – Continued

The Hubble space telescope was named after him, and its observations have discovered over 100 billion other galaxies in the known universe.

Finally, if you can wait until after two o'clock in the morning of the 22nd October, and the skies are cloudless, then you may be lucky enough to see the peak of the Orionid meteor shower. The

meteors are trails of dust from the comet Halley which the Earth is passing through. The Orionid meteor shower is so named, because the meteors appear to radiate from the constellation of Orion. They can be observed almost anywhere in the night sky though and can appear as much as one a minute.



Grasshoppers

It might seem like an odd topic to put into an autumn edition. Grasshoppers remain one of those creatures we can recall from childhood memories of warm sunny days. From chasing them as they leap through the long grass to lazing about listening to their soporific calls. If the weather remains mild, they can be found in their grassland habitats right through early autumn.



Grasshopper - around for over 250 million years.

Grasshoppers and Crickets belong to a very successful group of insects that have been around for over 250 million years. They are one of the earliest groups of chewing insects to have evolved. Most people know grasshoppers for two things; they can jump using their large back legs and they sing by rubbing parts of their body together.

The latter is known as stridulation (such a great word!) and is achieved by different means in different groups. Most grasshoppers have pegs on their hind legs which they rub against their wings to produce the well-known chirruping sound. In some grasshoppers though, the pegs are on the wings. They can detect sound through sense organs in their abdomen.

Grasshoppers - Continued

Crickets on the other hand produce a similar sound by rubbing their wings together, and detect sound by sense organs in their front legs.

The Common Field Grasshopper is the most widespread species in the UK. It can be found in many habitats, including gardens if you are able to maintain some areas of long grass for them to live in. Although they will begin singing in earnest from about mid-July, they will often carry on well into autumn, and can be quite easy to spot. It is mostly the male who stridulates, trying to attract a female with which to mate. Each species produces its own distinctive song, which is obviously useful to ensure that you attract the right species of female! The males do face a dilemma when calling though.

The sound that they make may also attract predators and parasites, so they put themselves at risk every time they sing.

One parasite of grasshoppers, a type of hairworm, is able to change the grasshopper's behaviour. Once inside the grasshopper, it grows until it is big enough to emerge. At this point it causes the grasshopper to jump into freshwater, where it drowns and the worm emerges to live as an adult in the water.

The female lays eggs in autumn which overwinter before hatching in the spring into nymphs that resemble the adults. The nymphs will go through a series of moults before they reach the final adult stage.



Common Field Grasshopper

Ivy – symbol of immortality

There are very few plants that flower this late in the year and produce significant quantities of nectar, but the ivy is one of them. It can produce nectar rich flowers right through autumn. This provides an important food source vital to many insect species before they go into hibernation for the winter. It is easy to miss the flowers at a casual glance, due to their small green appearance.



Ivy spreading up tree trunk

The small black berries that follow are very rich in fat. This makes them a useful food source for birds such as blackbirds, song thrushes and winter visitors such as fieldfare and redwing. Be warned though, they are poisonous to humans! Ivy often receives a bad press, with accusations that it strangles trees. In actual fact, it causes no problem to mature trees

and can be very beneficial to wildlife. It can support at least 50 species, as well as providing nesting places for birds and even roosting sites for bats. Where it can cause a problem is among newly planted trees, where the weight of ivy can cause the young tree to fall over.

Ivy – Continued



Bee on ivy flowers.

Being evergreen, ivy became a symbol of immortality and the promise of renewal of life, rather like holly, with which it is often associated. It is also a sign of fidelity. In the past, newly married couples were presented with ivy wreaths by priests, and it is often included in bridal bouquets today. Ivy was also associated with the Roman god Bacchus, the god of wine. He is often depicted with a wreath made of intertwining vine and ivy leaves. It was once believed that wearing a wreath of ivy would prevent drunkenness. Please don't try this at home!



Autumn Quiz

Autumn is a time of productivity. See how many of the following trees you can identify from the fruits of their labours.



A



B



C



D

Autumn Quiz – Continued



E



F

Autumn Quiz – Continued



G



H

Mud in your eye autumn quiz - answers

- | | |
|---|----------------|
| A | rowan |
| B | hawthorn |
| C | sweet chestnut |
| D | ash |
| E | holly |
| F | alder |
| G | hornbeam |
| H | elder |