NEWSLETTER

Welcome young naturalists!
Issue: Winter 2022/2023

Where do Flies go in Winter?

by Trish MacDuff ABNA

Why don't we see flies in winter - where do they go? Once the weather gets colder, it is quite unusual to see the flies that annoy us in summertime.

- A fly has four stages to its lifecycle: egg, larvae, pupa and adult. Many adults will have died when the cold temperatures arrive.

- Some flies will survive winter by hiding in a crack in a wall, or some other warm nook and cranny. Their bodies enter a state of diapause - similar to hibernating, where body functions slow down and when temperatures warm up again, they will resume their normal state.

- When a fly lays eggs, these eggs can stay dormant for up to three months. After this stage, an egg can take a further 6 - 42 days to finish developing.

- The eggs change to larvae, and can remain in the soil until the weather warms up, the maggots become the adult flies.

Although flies often get a bad press and are not well liked, they are extremely important. As well as bees and butterflies, they are important as pollinators. They are also scavengers which help get rid of dead animal carcasses and other rubbish.

Greenbottle (Lucilia sericata)
Photograph by P Rutherford

Soldier Fly (Chloromyia formosa)
Looks like a greenbottle.
Photograph by S Rutherford

The importance of leaf litter

by Trish MacDuff ABNA

When leaves fall from the trees in autumn, they become very important to wildlife over winter. Along with bits of twigs and other plant matter, it becomes what we call leaf litter.

- This layer of fallen leaves can provide a warm safe place to shelter from the cold winter weather. Hedgehogs hibernate over winter, and they use leaf litter to build their nests. Their breathing rate and heart rate slows down, their body temperature falls. They need a good layer of insulation to protect them from the cold until spring comes again.

- Toads bury themselves in a deep layer of leaves, saving their energy. When its spring again, they will emerge for the mating season and find their way back to the pond where they were spawned.

- As well as providing a home and shelter for the winter, leaf litter is very important for some insects as a food source. Detritivores are a group of insects that feed on old plant matter. Woodlice are detritivores, and you can often find them under decaying leaves and rotting wood. Millipedes, centipedes, earthworms and dung beetles also belong to this group that feed on decaying leaf litter.

- Leaf litter is very important for butterflies and moths to overwinter. Their caterpillars and pupae can spend the coldest season of the year insulated from the cold, and hiding from their predators.

Fungus absorbs nutrients from the leaf litter, breaking it down into nutrients that go back into the soil.

When we hear the word “litter” we can often think of it as a bad thing, but leaf litter is definitely a really good thing so try not to clear all the fallen leaves from your garden, the wildlife depends on it.

Sieving leaf litter produces all the insects hiding in it.

Pauline's Page

Have you had snow or frost this winter?

Next time there is snow or ice go out with your camera and snap some photos of birds, leaves, berries etc they look so pretty in winter! Can you do better?

Frosty leaves and berries - photographs above by Pauline Rutherford.

Oak tree buds - photograph by Pauline Rutherford.

Teasel - photograph by Di Farrar

Robin on ice (left) and pheasant in the snow (right) - photographs by Di Farrar

Tracks in the Snow

These animals have been out overnight after a snowfall, can you guess what they are?

ANSWERS

1 - Chaffinch
2 - Fox
3 - Pheasant
4 - Rabbit

Wood Ants in the New Forest by Aerin Ansell

I enjoyed seeing these Southern Wood Ants in the New Forest, in Hampshire, in August.

They are also known as red wood ants and (my favourite name) horse ants, which I think reflects their strength.

These formidable creatures live in woodland and eat insects and invertebrates (like caterpillars and spiders), and honeydew made by aphids.

They need to avoid birds (their main predator) and badgers (which may take their eggs and larvae).

They are native to Britain and the Queen ants are about 10-12 mm long, whilst the Worker ants are about 4-6mm long. They have large mandibles and spray formic acid as a defence and can spray this up to 5cm or more.

There are lots of wood ants in southern England and Wales, so look out for their nests of twigs, pine-needles and grass, which the ants build into a tall dome-shape up to 1 metre high. It's amazing to see the nests gently undulating as the ants move.

Forest Shield bugs by Archie Ansell

These interesting shield-shaped creatures were once restricted to Southern England but are now found further North due to climate change.

They can be seen from May-November. Adults overwinter and emerge in Spring, laying their eggs on the underside of leaves; the nymphs then appear in June and new adults can be seen in early Autumn.

The picture from our garden shows a Forest Shield Bug which has sharper 'shoulders' than other species and lives on the sap of deciduous trees, they use their mouthparts to pierce the veins of the tree and draw out sap; some adults also feed on fruit or may even prey on other creatures' larvae and eggs. All this makes sense, as from the photo you'll see that this Forest Shield Bug is on a bramble and we have a lot of oak trees behind our garden.

Close-up of a Forest Shield Bug
Photo by Di Farrar

Young Naturalists' News!

Congratulations to Ethan Carroll who has now become an official BNA Young Naturalist. Here he is, picture left, sporting his new badge.

Congratulations to both Rose and Freddy Scoble, and Aerin and Archie Ansell who upon the publication of this newsletter, will receive their BNA Wildlife Reporter Badge. They now have three articles published in the Young Naturalists newsletters. Aerin and Archie will also receive their BNA Young Naturalist Badges for their 1st years membership.

Well done to all of them, and well done to all of our Young Naturalists for their commitment to nature.

Jays by Arthur Tweed

I live in Wendover, England. My 2nd favourite bird is a Jay. My garden is the perfect environment for Jays because my garden has many bushes and trees and we often see a Jay sitting in the crab apple tree. We also live near woods which Jays like too. They can be shy birds so we are lucky to see them.

I like Jays because they are colourful - including black, white, grey, blue and a slight pink - my favourite colours. They like to store acorns in the Autumn and then eat them in the Spring! If you are wondering what my first favourite bird is, it is a red kite, which I will write my next article about!

Photo by Di Farrar

A Note from Uncle Willow -
Look how beautiful the Jays feathers are.

An old saying goes;
Wear a jays feather in your cap and you'll never be without a penny.

Sometimes you will find one on the ground - all birds molt because they can't change their clothes like people.

The Chaffinch By Freddy Scoble

I live in the north west of Ireland and have been observing and feeding all the birds that visit our land. I have grown particularly fond of the Chaffinch. They are fun to watch as they love to chase each other, darting in and out of the hedgerows.

The common Chaffinch (Fringilla coelebs) is a common bird in the finch family. They are found mainly in woodland, farmland and gardens.

They are beautiful looking birds. The male's breast, face and underside are a pinkish, orange-brown, which becomes a darker shade in winter. The nape and crown are blue-grey. The upper back is brown and the lower back is a beautiful green shade, which is usually hidden by the birds folded wings when not in flight. The female is much greyer with warm grey under parts. Both sexes have large white patches on their blackish wings. They have a long tail with a dark center and white outer feathers.

They are songbirds, their song starts from a high pitch and decends.

They live for approx 3 years. They breed only a single brood each year. The male will stay in his territory but often the female will head south for warmer weather during the winter.

They feed manly on seeds, buds and shoots plus insects, spiders and earthworms.

Freddy bird watching

Chaffinch by Di Farrar

The Robin by Rose Scoble

In our garden, we have a resident Robin who has lived here throughout the year, as well as a new mate for him who has recently appeared. We feed them and they follow us around the garden and sing to us. They do this in the hope of us giving them more potential food. They like to eat bugs, crushed peanuts and especially sunflower hearts. They also love raisins and other fruits.

Their actually known as the European Robin and their Latin name is Erithacus Rubecula.

They are very territorial and defend their patch from other Robin's, but will live and feed alongside other birds quite happily.

Male and female Robin's eventually pair up by Christmas and then have chicks of 5-6 in a clutch by January. Robin's live for about 1 to 2 years, but the average is 13 months. They nest in hedges or bushes and often reuse old nests. The Robin is the only bird who is able to sing all the notes of the musical scale. They can sing for half an hour without repeating the melody, unlike other birds.

We love Robin's so much that we have even included it in our house name!

Here is our little Robin. (Photo by Rob Scoble.)

Rose nature watching

Dragonflies and Damselflies by James Wilkins

* We have seen lots of dragonflies and damselflies in our garden around the pond.

* We collected their cases from the reeds where they had climbed out of the pond.

* We collected 25 cases this year!

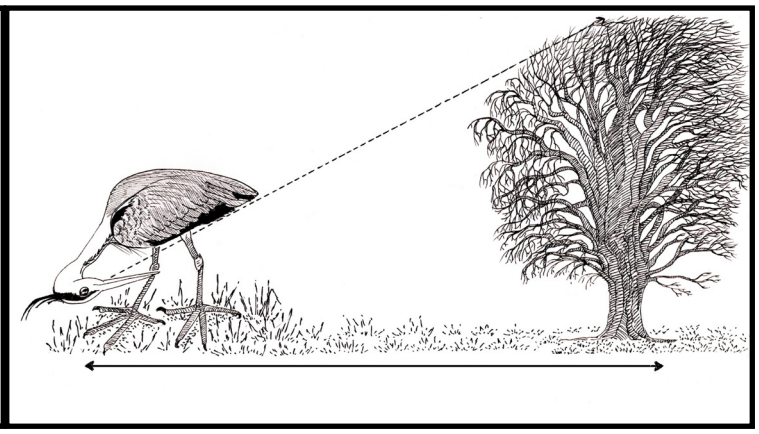
* We learnt how to tell the difference between a dragonfly and a damselfly.

* Damselflies have a very narrow body and dragonflies have a very fat body!

* Dragonflies hold their wings, which are the same size, out at rest but damselflies, which have different sized wings, close them.

* The dragonfly larvae live in the pond for two years before emerging, they love eating our tadpoles!

Animal Antics!



Spuggie Sparrow and Hal Heron have been talking. Spuggie has had a lovely time in a tree all day over in the field.

Spuggie Sparrow wonders how tall the tree is.

Hal and Spuggie fly to the field to find the tree. Hal knows a neat trick on how to measure the tree. Can you guess what he is doing?
Read Uncle Willow's column next to find out.....

Uncle Willow's Fact File

Hi, I'm Uncle Willow the border collie dog. So Hal the Heron is teaching Spuggie Sparrow how to measure the height of a tree using trigonometry! Let me explain.
This is something you can try if you are in a safe place to experiment. Here are the steps;

1. First stand with your back to the tree.

2. Walk way from the tree but stop every so often to bend down and look at it upside down between your legs... like Hal is doing in the picture above. Doing this means he can view the tree top at a 45 degree angle.

3. Keep walking away until you can only just manage to view the top and you can now see the whole tree. It is important to keep stopping and checking so you don't walk away too far.

4. If you measure the distance you have walked from the tree, this will be roughly equal to the tree's height.

5. If there are two of you, this will make measuring the distance easier, because you can stand still and hold the tape measure while your companion measures the distance. If you run out of tape measure, you'll need to run forward to mark the end measurement by holding the tape measure again for a second measurement. Add the measurements together to find your estimated height.

6. However, you can do this without a tape measure if you like. It will take a little bit longer but you can measure how many steps you take to walk back to the tree by placing one foot in front of the other neatly, so that with each step your heel touches your toes. Remember how many steps you took to walk back to the tree and then measure the length of your shoe when you get home. Multiply the length of your shoe by the number of steps you took to walk back to the tree, to roughly find the height of the tree.

A neat project you can experiment with - might need your wellies at this time of year though. Have fun!

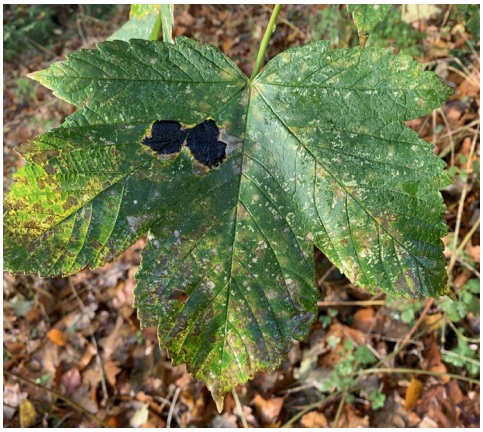
Uncle Willow signing off..... *woof!*

Animal Antics!

Louie Dewey says;

I've been collecting photographs of leaves. Sometimes I collect big ones and bring them in through the cat door for my pet human. Some of them have silvery trails caused by leaf miner insects. They really interest me. I've made a picture gallery of my finds below.

A **bramble** leaf. (Rubus fruticosus) The leaf miner here is probably caused by the larva of the bramble leaf miner moth or golden pigmy moth (Stigmella aurella) although there are other species which use bramble, this is one of the most common.



The black spots are Tarr Spot fungus (Rhytisma acerinum) on a **sycamore** leaf. (Acer pseudoplatanus)

A **holly** leaf (Ilex aquifolium) The leaf mine here is potentially the holly leaf miner, a leaf mining fly (Phytomyza ilicis).

A **holm oak** leaf. (Quercus ilex) Leaf mine possibly caused by the holm-oak pygmy moth (Ectoedemia heringella)

Spangle galls (Neuropterus quercusbaccarum) on **sessile oak** (Quercus petraea) Sessile oak have stalkless acorns.

Three leaves here from bottom to top:

Large leaved lime (Tila platyphyllos) There are 12 different species of leaf miner that host lime trees.

Hazel (Corylus avellana) The leaf miner could be the coarse hazel pygmy moth (Stigmella floslactella)but there are 26 different species of leaf miner which host hazel.

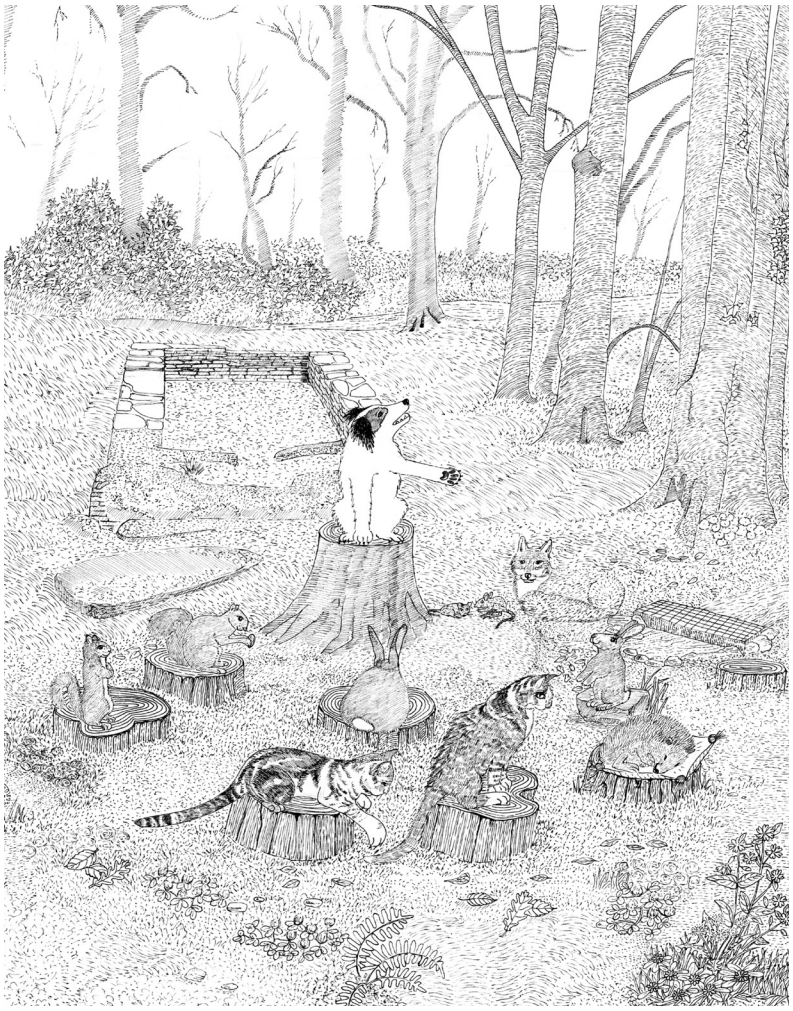
Snowberry (Symphoricarpos alba) 2 recoded species of leaf miner.

Animal Antic illustrations and Photograhs©EndymionBeer2023

Animal Antics!

Sootie Soots says.....

Earlier this autumn Uncle Willow talked to all the animals about his life as a naturalist. They enjoyed it very much. Here is a picture of our day. Colour over the line work if you wish. Enjoy!



Picklette says.....

We all love grass to lay on. Nothing better, but couch grass is also important for wildlife. Within the soil, birds can find worms and creatures on which to feed. Some species of worms pull down leaves to eat, thus recycling it as organic matter after is passes through their digestive system. But what of the grass itself?

Couch grass (Elymus repens) is a resilient species with flat blade like leaves. If left wild it will grow quite tall, up to 1.5m, but most of us are used to seeing it neatly cut for lawns.It flowers between June to August. This is when, in the wild where the grass is left to grow wild, we see the delicate, flower spikes on thin stems.

The muslin moth (Diaphora mendica) is one of many moth species which uses couch grass to feed on. So do garden ants and field ants. Green woodpeckers like to use such locations to encourage the ants to climb up over their wings and onto their bodies. The ants use formic acid which helps to get rid of pests and parasites on the woodpecker. This practice is known as ‘anting’. Chafer grubs, other bugs, mites, beetles, slugs and snails and many other species can be found living in a common lawn. All are potential food for birds and mammals so vitally important! So get your hand lenses out and see what you can find living in your lawn, ideally from spring after the hibernation period. Or have a look on a nearby grass verge or in a field if it is safe for you to do so.

Do you have a query?
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