

So many of us have found time out in nature to be a much needed respite from the past two years, but with the cold winds and 4pm darkness that winter brings with it, it can feel like the natural world around us has completely vanished. For my January Challenge, I want to show you how nature in Winter can still be found- if you're willing to don your detective hats and get investigating!

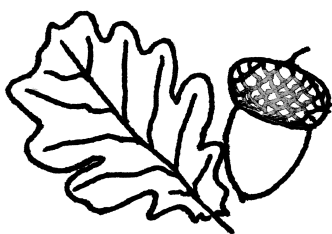
As the lush greenery we loved in summer receded, not only did it make room for new nature residents to move in, but they left behind clues of the wildlife that resided in them before. From graffiti artist moths with the ability to stop winter in its tracks, to the tree dwelling nurseries of baby wasps, with time, patience and a closer look, a whole new world will reveal itself. Whether you have half an hour or half a day, this challenge will give you tips to find nature wherever you are.

This doc pack is designed to help you discover the natural world that is hidden away in winter. You probably won't find everything listed in here, but it is also not an exhaustive list of everything there is to see! It is just designed to point you in the right direction for taking a meditative closer look at nature. I've listed some useful websites for identifying wildlife at the end, and if you're really stuck feel free to DM me on instagram with what you've found!

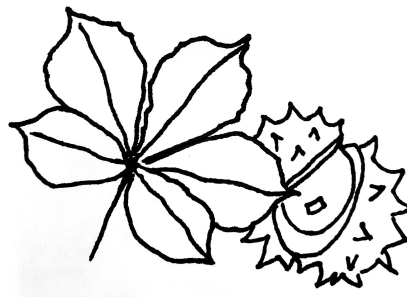
Let's start by heading outside and taking a deep breath. Inhale for 5, exhale for 5. Feel how the air changes now you're outdoors, is it cold? Is it crisp? A few more deep breaths and you're ready to begin.

Now, let's look to the trees. Looking up into the branches around you, the leaves you'd usually use to identify the trees are gone! But fear not, when we can't look up, we look down! Those same leaves are all over the floor surrounding you - and arguably much easier to reach than their summer alternatives... Identify the tree above you using the fallen leaves on the ground. If you don't have time while you're out, collect just one or two leaves and bring them home to ID later on.

Here are some common species to look out for:



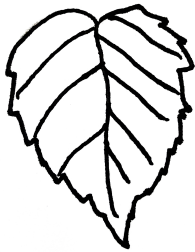
Oak



Horse Chestnut



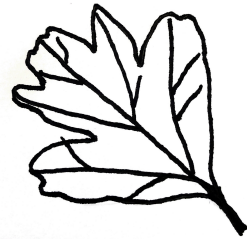
Sweet Chestnut



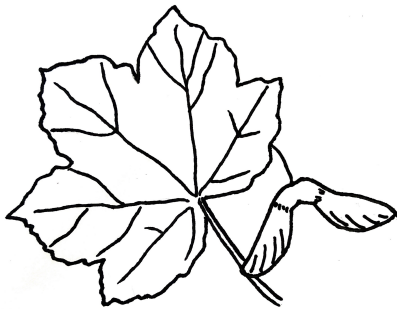
Silver Birch (this should be easy by it's silver bark!)



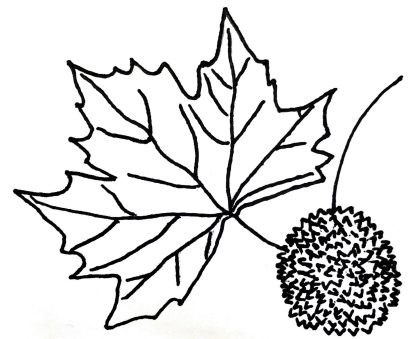
Beech



Hawthorn



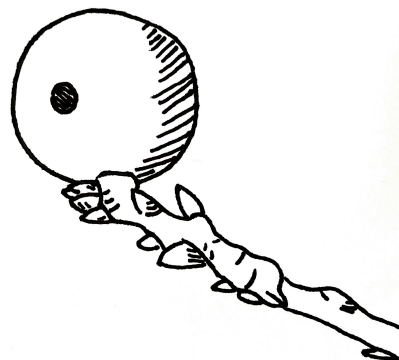
Sycamore

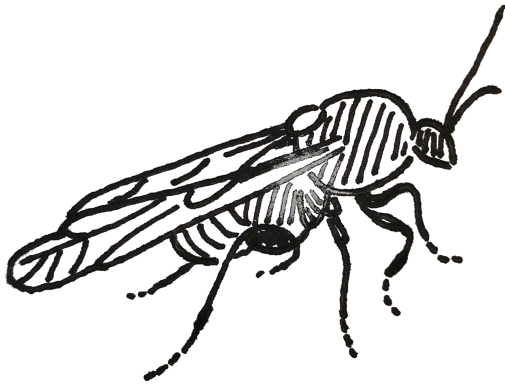


London Plane

It's often a sad feeling to see the trees so bare, but with leaves gone from the branches, you'll be able to see deep into the branches of the tree. Most notably, where creatures lived before. The most initially obvious will be the nests birds created in the spring and early summer, now left waiting for next year's residents to move in. But if you take a closer look at the branches - especially those of oaks (remember to ID them using the leaves on the ground!), you'll see something even cooler...

What you're looking at here is a 'gall' - more specifically an **Oak Marble Gall**. A gall is a growth on a plant that is made of that same plant tissue (don't worry, they don't usually cause any harm to the tree), but was caused by another creature. These might be insects, bacteria, fungi or viruses, but today we are focussing on insects - in this case, wasps! These wasps aren't your classic yellow and black picnic visitors, these are gall wasps, and they're absolutely amazing!





Oak Marble galls are caused by a wasp called *Andricus kollari*. In late spring, a female lays an egg into an oak bud. Chemicals from the hatching of the egg cause the oak to distort around the baby wasp, creating a perfect little gall home for it to grow up in! By September, the wasp bores its way out of the gall - that's the little hole you'll probably notice in the side!

Here's some other examples of galls you might spot:



Oak Knopper Gall: found on oak trees, formed from the acorns!

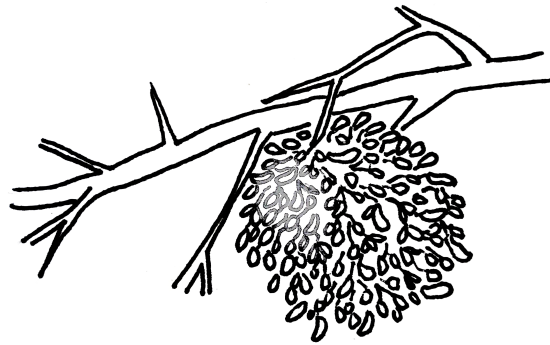


Robin's Pin Cushion: found on dog and field roses

Other residents you might be able to spot now the branches have cleared are mistletoe and witches broom!



Looking like a dense, tangled, spherical bird's nest, witches' brooms are a growth distortion that results in bunches of stem, leaf or root material growing from one point on a tree. They're easily spotted dotted about in the branches of bare trees. Technically, they're galls! Although often much bigger than the oak marble galls we visited earlier...

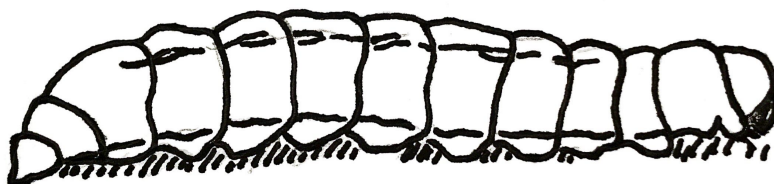


Green all year round, mistletoe is finally visible in the bare branches of winter. You'll spot it as beautiful green pom poms draped with white berries, parasitising the canopy of trees such as apple, lime, poplar and other broadleaf trees. The berries are an important winter food source for birds, most notably the mistle thrush!

Next to leafless bushes, evergreens like bramble are impossible to miss. We don't often pay attention to bramble unless we're pinching off blackberries or cursing its thorns, but it's one of the absolute superstars of winter!

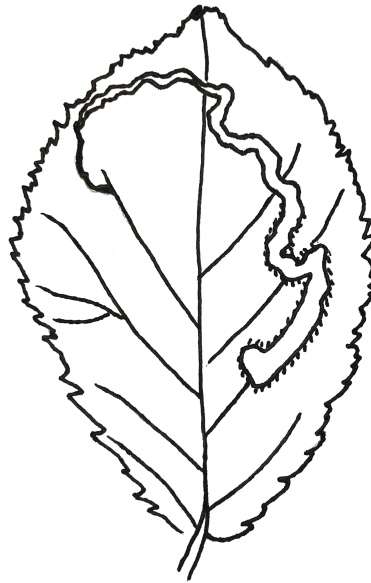
Bramble is incredibly common in both the countryside and cities, so if you find some on your walk, here's some things to look out for...

First of all, it hosts caterpillars galore over the winter months. The most likely one you'll spot is the caterpillar of the Angle Shades Moth (*Phlogophora meticulosa*). Big, juicy and unmistakably green, these love to feed out in the open in mild weather.

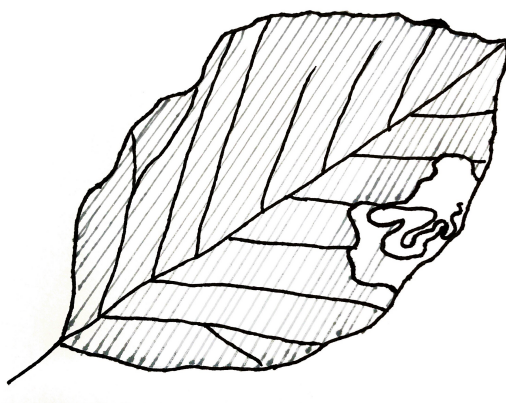


Now let's take a closer look at the leaves, you might notice some very interesting patterns on some! Those squiggly pale lines you might find on some leaves are the vacated tunnels of insects we call leaf miners!

Leaf miners are many species of insects in which the larval form lives inside of and feeds on a leaf. Leaf miners can be moths, sawflies, true flies or even beetles! In the case of brambles, the leaf miners you will find are moths - *Stigmella* moths.



Take a look at the tunnel, if you follow it closely with your finger or a pencil, you can see it grow in size the further along you get, as the little miner chomped it's way through the leaf and grew in size too!



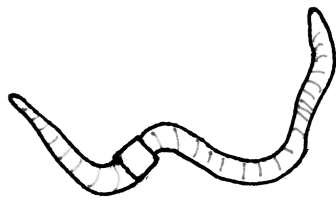
You can also find these little plant graffiti artists in the leaf litter on the floor from earlier. If you've found a beech tree, you might be lucky enough to find two very cool species of leaf miner -

Stigmella tityella and *Stigmella hemargyrella*.

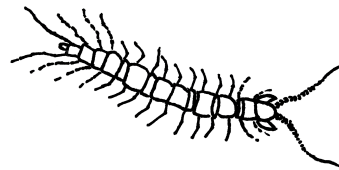
When the leaves turn brown and fall, these little caterpillars are impossible to miss! They have the 'superpower' to stop autumn in its tracks, and keep the leaf tissue surrounding them a beautiful summery green. This is due to bacteria inside them releasing hormones into the leaf to keep it from dying. Although these flashes of green are easy to spot, they're not as common as you'd hope for, so if you're lucky enough to find some give yourself a high five!

A true nature detective knows that you don't just look down, you look under. Logs, bricks, plant pots, you name it - these are the true treasure troves of the natural world. There's a whole ecosystem under every hunk of gnarled wood in your local park, a whole world of critters working together in their own little piece of harmony. Find yourself a log or plant pot to check under and place your hands on it. Feel its temperature, is it cool on your fingertips or was it warmed by the sun? Take a deep breath, and roll back your log (or other object), listen to the leaves crunch underneath it and smell the damp earth it was hiding. Afterwards, be sure to roll the log back gently to exactly where you originally found it, so all the little critters can carry on their day.

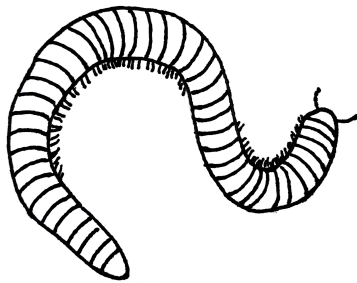
Here's a few of the residents you might see!



Earthworms!



Centipedes!



Millipedes! (january is a particularly good time for millies, they love the cool, damp climate)



Woodlice!

And while you're eyeing up logs and nature's ground dwelling residents - research and look for these stunning winter mushrooms! **Nature detectives are careful! Wash your hands thoroughly, or avoid handling any mushroom that has not been identified by an expert.**



Velvet Shanks



Earthstars



Scarlet Elf Cups

If you can find a bench to sit at, or even just opening your window and listening out, this is a perfect meditative exercise to let nature come to you. Learning birdsong is such a rewarding way to access nature, and it will make you realise just how many species you have around you all the time!

I like to rest my eyes somewhere gentle in the distance, and focus on what I can hear. The longer you sit, the more you'll hear! Right now from my window I can hear the sweet melodic phrases of the robin that lives in my hedge, while the raucous shouts of crows and magpies echo around in the street below. The squawks of ring necked parakeets bounce around in the trees opposite, clearly fighting over whatever snack they've found.

Four species in one minute, without even going outside? Pretty good if you ask me!

Maybe you were able to find all of the wildlife above, maybe you found none at all. Or maybe you even found a myriad of critters not listed here, but spending time in nature and getting creative in the ways we look for it is a perfect way to truly connect us with the life we share this planet with. I hope these are things you can come back to time and time again when you are spending time outdoors! Thank you so much for joining me on this day of The January Challenge,

- Coral

Here are some other useful web links for identifying anything you saw today:

- <https://www.british-birdsongs.uk/>
- Lucy Lapwing's birdsong lessons:
 - ▶ Birdsong Lessons with Lucy Lapwing - Learning British Birdsong -INTRODUCTION
- The Wildlife Trust Websites
 - <https://www.wildlifetrusts.org/wildlife-explorer>
- The Woodland Trust Websites
 - <https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/a-z-of-british-trees/>
 - <https://www.woodlandtrust.org.uk/blog/2018/07/galls-to-spot-this-year/>
- British Leaf Miners (& recording scheme)
 - <https://www.leafmines.co.uk/>
- Naturespot (for any critter or crawly you find)
 - https://www.naturespot.org.uk/species_library
- Butterfly Conservation (for both butterflies & moths!)
 - <https://butterfly-conservation.org/>
- The British Myriapod & Isopod Group (for centipedes, millipedes, & woodlice!)
 - <https://www.bmig.org.uk/page/introducing-taxa>