

Bringing people, wildlife and wellbeing together

Hello all!

The first official day of spring is rapidly approaching (Saturday 20th March to be exact) and the winter dormant wildlife is beginning to awaken. I don't know about you, but I've noticed several birds now busy collecting nesting material including a crow trying to take off with a stick as long as itself and blue tits pulling cobwebs from around the window frame. Crocuses and primroses are adding a happy burst of colour to my usual walk routes and there's a lovely warmth from the sun on brighter days - I got overly excited about line drying my laundry over the weekend! What things do you enjoy most about spring? As always, please do keep sharing your nature spots with us - we love to see and hear about the things you've spotted and how spending time in nature helps your wellbeing. You can keep in touch and send us your nature news by emailing rosie.charter@wkw.org.uk

Your Nature News...

These very beautiful photographs were captured by Rosalind on an early morning walk at Quinton Pools. The way the bright, rising sun cuts through the mist and casts long shadows across the frosty grass is just stunning.



Becky took this photo of water droplets on a lupin leaf... Nature's diamonds!

This week we have a really lovely guest article for you written by TEaM member Becky. Have you ever wondered how a queen bee becomes a queen bee? Well you're about to find out...

"What is Royal Jelly?"

We all know that bees make honey but not as many know so much about Royal Jelly. Bee larvae are either destined to be drones (males) or workers (females without ovaries).

The larvae are fed for about three days with royal jelly which is a secretion made in (glands in) the heads of the nurse honey bees. A larvae which will become a queen bee is exactly the same as worker bee except it is placed in a bigger cell and fed more royal jelly and continues to be fed this diet unlike the other bees. They grow bigger and the royal jelly makes them produce ovaries to reproduce and they become a queen bee. Royal Jelly consists of fatty acids, nine different proteins, and many vitamins and completely differentiates the queen from the worker bees. It's amazing!"

It certainly is amazing! After their initial feeding of royal jelly, worker bees are fed something called 'bee bread', a mixture of pollen, nectar and honey. Recent research suggests that it is the switching to a diet of bee bread that prevents worker bees from becoming queens.



Image: Ketan Bhokray, researchgate.net

Caption This...



WILD-WORDSEARCH

Collective Nouns

Band
Charm
Circus
Coalition
Colony
Deceit
Gaggle
Knot
Obstinacy
Pod
Pride
Squadron
Troop
Unkindness



R Charter

N	O	R	Y	N	L	O	L	O	C	R	E	P	O	D
D	R	A	M	A	O	C	K	B	O	H	B	O	D	G
U	E	H	E	S	O	D	N	O	A	S	A	O	P	O
Q	T	C	S	L	P	E	T	E	L	S	N	R	I	B
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N	P	U	U	S	T	C	K	S	L	N	P	G	D	A
A	B	G	Q	S	E	I	T	N	O	N	B	G	L	U
E	G	T	B	U	D	R	O	T	U	T	Y	A	B	Q
E	L	O	P	D	A	T	U	N	K	I	D	G	O	S

Challenge... Find the two hidden words that hint at next week's theme!

"Spring is nature's way of saying, 'let's party'"

Robin Williams

Name It!

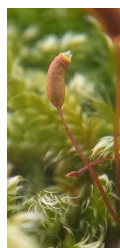
Can you identify the wildlife in these photos?



Issue 33 answers...

Name It!

1. Cyclamen
2. Little egret
3. Swans-neck thyme moss



Bird Idioms

1. A bird's eye view
2. No spring chicken
3. Wild goose chase

The Really Wild Quiz...

Test your nature knowledge... you can always send your answers to us ahead of the next issue if you like?!

1. What is a female donkey called?
2. How many noses does a slug have?
3. On average, how many times a day do parent puffins feed their young? 10, 50 or 100?
4. How many times better is a dog's hearing than a human's?
5. Name three types of dolphin found in the UK?

You can also follow TEaM on social media for a Daily Dose of Nature...



The Environment and Me



theenvironmentandme



TheEnviroandMe



ACTION CALENDAR: MINDFUL MARCH 2021

MONDAY

1 Set an intention to live with awareness and kindness

8 Eat mindfully. Appreciate the taste, texture & smell of your food

15 Stop, breathe and just notice. Repeat regularly during the day

22 Walk a different route today and see what you notice

29 Notice what is working today and be thankful that this is so

TUESDAY

2 Notice five things that are beautiful in the world outside

9 Take a full breath in and out before you reply to others

16 Get really absorbed with an interesting or creative activity

23 Tune in to your feelings, without judging or trying to change

30 Mentally scan down your body and notice what it is feeling

WEDNESDAY

3 Start today by appreciating your body and that you're alive

10 Get outside and notice how the weather feels on your face

17 Look around and spot 3 things you find unusual or pleasant

24 Appreciate your hands and all the things they enable you to do

31 Notice the joy to be found in the simple things of life

THURSDAY

4 Notice how you speak to yourself. Try to use kind words

11 Stay fully present while drinking your cup of tea or coffee

18 If you find yourself rushing, make an effort to slow down

25 Focus your attention on the good things you take for granted

FRIDAY

5 Take three calm breaths at regular intervals during your day

12 Listen deeply to someone and really hear what they are saying

19 Cultivate a feeling of loving-kindness towards others today

26 Notice when you're tired and take a break as soon as possible

SATURDAY

6 Bring to mind people you care about and send love to them

13 Pause to just watch the sky or clouds for a few minutes today

20 Celebrate the International Day of Happiness dayofhappiness.net

27 Have a device-free day and enjoy the space it offers

SUNDAY

7 Have a 'no plans' day and notice how that feels

14 Find ways to enjoy any chores or tasks that need doing

21 Listen to a piece of music without doing anything else

28 Appreciate nature around you, wherever you are



"Mindfulness means that we commit fully in each moment to be present" - Jon Kabat-Zinn



ACTION FOR HAPPINESS

www.actionforhappiness.org

Learn more about this month's theme at www.actionforhappiness.org/mindful-march

Happier • Kinder • Together

ANIMAL SENSES AND SUPER-SENSES

SMELL

Mammals (including humans), fish, reptiles, birds and insects all use their sense of smell to detect prey (food), predators (threats) and communicate things such as territory or a desire to find a mate. This sense of smell is known as the 'olfactory' system. The question is: *'how do we smell?'* The obvious answer is: *'it depends when we last had a bath!'* but seriously how does the 'olfactory system' (smell) actually work?

Both smell and taste are linked in that they are both chemical senses where odours are detected by 'chemoreceptors' which then pass electrical impulses to the brain. The brain then interprets these patterns to produce our perception of smell. One of our most familiar animals that has an enhanced sense of smell and taste which works in a similar way to our own is the domesticated dog. The big difference between humans and dogs is that a dog has 300 million chemoreceptors whereas humans have only 6 million and that the part of a dog's brain that deals with smell is 40 times greater than our own!

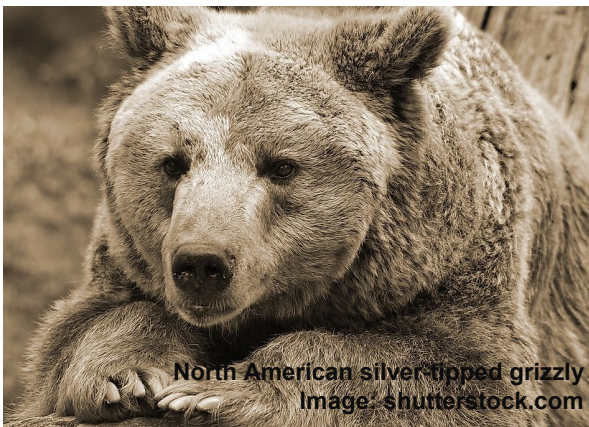
Dogs sense smell by breathing in odours through their nose and then exhaling them through slits in the sides of its nostrils. This allows the dog to expel old scents whilst inhaling new ones. This is why a dog will sometimes exhale noisily whilst also sniffing hard. In support of this the dog has two parallel olfactory systems running in tandem with this second system delivering odours to the 'Jacobson's organ' at the base of the dog's nasal passage. This organ can detect the pheromones of other animals which when working together with the primary olfactory system gives the dog an exceptional sense of smell. These abilities have been put to good use by humans who have trained dogs to sniff out scent-trails, drugs, explosives and even illnesses such as cancer. Perhaps the dog breed most famous for its sense of smell is the Bloodhound which is sometimes referred to as a 'dog attached to a nose.' Bloodhounds can track a scent trail over 13 days old and have been known to follow a scent trail for over 130 miles.

However, enough of humans and dogs, which wild animals have the strongest sense of smell?

In Africa the African Elephant and African Giant Pouched Rat are the continent's leading 'sniffers'. A recent study found the African Elephant to have the animal kingdom's strongest sense of smell (twice as sensitive than that of a dog). These animals detect smell using nostrils positioned at the end of their trunk. The prehensile trunk allows the elephant to quest in different directions for a smell and raise its nostril high in the air in order to sense smells a long way off. Elephants often use these abilities to find water which they can smell up to 12 miles away whereas I doubt that I could smell a glass of water mere inches from my nose! In parts of central Africa, elephants share their environment with the African Giant Pouched Rat. These cat-sized rodents have such an acute sense of smell that they have sometimes been trained to sniff out unexploded mines and bombs left in ex-war zones such as those in Cambodia and Angola and even detect tuberculosis cells in humans.



African giant pouched rat
Image: cyber-breeze



North American silver-tipped grizzly
Image: shutterstock.com

The bears of north America also have a very strong sense of smell thought to be seven times stronger than that of a Bloodhound. This allows them to track down prey or the carcasses of dead animals at great distances. Humans are aware of this ability and a proven bush-craft survival technique in bear-country is to hang your food-bag from a tree at least 300 feet away from you and downwind from where you are camping. This should help you avoid competing with a Grizzly for your supper!

In the marine environment it is the Great White Shark that has the strongest sense of smell with up to two thirds of the



great white shark
Image: Ramon Carretero

shark's brain given over to detecting smells. It is able to detect the blood of prey from huge distances, sensing one part of blood in ten billion parts of water. This is the equivalent of one teaspoon of blood in an average sized swimming pool!

In the insect world, the Silk Moth is a leader in sensing certain odours. The male silk moth doesn't have a nose but does possess prominent antennae which are elaborately shaped like feathery fronds and are filled with scent receptors. This feathery shape acts as an efficient trap for any odour particles which the receptors can then sense and analyse.



This enables the male silk moth to sense a single pheromone scent particle from a female silk moth from more than seven miles away. Whilst the male moth is able to 'sniff out' a female from great distances the female moth is also using the same system to sense if a male moth is fit to mate with.



An animal with a combination of super-senses is the much maligned Vampire Bat. Vampire Bats have noses that contain super-sensitive nerves which can detect heat (thermal smell). Similar nerves in humans detect hot spicy foods such as chilli peppers. This allows the bat to sense warm-blooded animals through their noses and even identify areas on their prey where blood-flow is strongest and closest to the surface and so also most available to the bat. Vampire bats can not only smell heat and sense blood but also use echolocation to navigate and have an anti-coagulant in their saliva that keeps blood flowing whilst they are feeding. In short Vampire Bats possess a range of senses we do not and therefore surely qualify as a super-sense animal.

In the next issue, we will look at 'taste'; a sense that works in tandem with smell.

...But Which One Is It?!

Ok, so lets be honest, the mention of any bird from the tit family is enough to raise an inappropriate comedy snigger from even the most seasoned of birders at times, but they're also frequently a source of great confusion. Which one is which?!

Here's our whistle stop guide to some of the smallest and prettiest birds you're likely to spot getting busy around parks and gardens this spring...



Blue Tit

(Cyanistes caeruleus)

Length: 12cm

Wingspan: 18cm

Weight: 11g

Diet: insects, caterpillars, seeds, nuts

Habitat: woodland, hedgerow, parks, gardens

Ave Lifespan: 3 years

UK Population:

3,600,000 territories

Nesting: holes in trees, nest boxes

Conservation status:
green

Great Tit

(Parus major)

Length: 14cm

Wingspan: 24cm

Weight: 18g

Diet: insects, seeds and nuts

Habitat: woodland, hedgerow, parks, gardens

Ave Lifespan: 3 years

UK Population:

2,500,000 territories

Nesting: holes in trees, nest boxes

Conservation status:
green

Long Tailed Tit

(Aegithalos caudatus)

Length: 14cm

Wingspan: 18cm

Weight: 9g

Diet: mainly insects and spiders

Habitat: hedges, parks, woodland, gardens

Ave Lifespan: 2 years

UK Population:

340,000 territories

Nesting: domed nest of moss, cobwebs and lichen in shrubs or tree

Conservation status:
green

Coal Tit

(Periparus ater)

Length: 12cm

Wingspan: 19cm

Weight: 9g

Diet: insects, seeds and nuts

Habitat: parks, gardens, coniferous woodland

Ave Lifespan: 2 years

UK Population:

680,000 territories

Nesting: holes in trees, nest boxes

Conservation status:
green

Get close up to nature with Macro photography.

I have found macro photography has really helped me to connect with nature and improve my mental wellbeing.

What is macro photography? It is close up photos of small objects such as insects and flowers but actually anything that you want to capture close up in detail. These two photos are of willow buds, you can see the results difference between standard lens and macro lens.



Photo taken with standard lens



Photo taken with macro lens



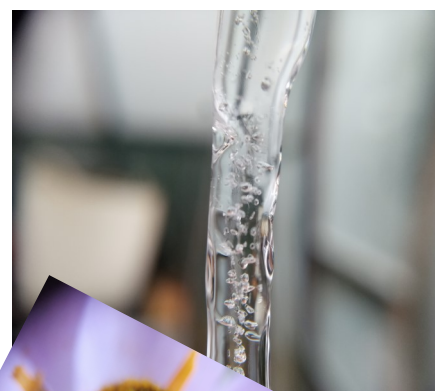
You do not need to buy an expensive camera or lens, the only equipment you need is a mobile phone with a camera and a simple accessory. The accessory is the macro lens, which you can purchase online prices range from £5 to £12.

It is an easy hobby to take on and it is a brilliant way to engage with nature. You only need a bit of patience and curiosity. The nice thing about digital is you can always delete the blurred pictures. It is a very rewarding form of photography capturing amazing images. Good results comes with practice.

Light is important for taking photos, daylight is the best but bright sunlight can be tricky as it create shadows. The good thing about macro photography is that you can sometimes move your subject by bending a flower stem or putting a hand over the subject to reduce glare. If your subject is too large to capture completely, you can focus on part of it, like the centre of the flower or one of the petals. Have fun experimenting by taking the subject from different angles.

Any breeze or movement whilst taking the picture can be a nightmare because it often results in blurriness. You will need to try and remain as still as possible, and keep your subject from moving. Try and steady your phone with two hands. Sometimes you can not help it when your insect decides to go for a wander! If your phone can take a 'burst' of shots then this is worth using when your subject is moving, or just take many photos while staying still.

I do find macro photography is a wonderful way of exploring and connecting with nature. It shows up the details of the insects, flowers or icicles. Sometimes the detail is not visible by just looking at it with your eyes. As spring is approaching fast there will be plenty of tree buds, emerging flowers and insects for you to take pictures of. A few of my macro photos for you to enjoy. Please do email us your photos if you decided to give this a go. Happy Snapping! Take care, Man Lan



During the spring and summer months, birds of all shapes and sizes are busy nest building and feeding their young. It is quite an exhausting time for the adult birds but there is plenty we can do to help them out! Over the next couple of pages you will find plenty of top tips directly from The Wildlife Trusts website for providing healthy food and water for a whole host of birds - and other garden visiting wildlife and insects too!

“Five ways of providing food for birds:

1. **Hanging seed feeders** - these will attract robins, tits, goldfinches, house sparrows, greenfinches and siskins.
2. **Niger/Nyjer seed feeders** - designed to hold tiny niger seeds, these attract goldfinches, siskins and redpolls.
3. **Mesh peanut feeders** - these allow birds to take only small chunks of peanut, rather than whole nuts that they might choke on. They will attract sparrows, starlings, chaffinches and tits.
4. **Ground and table feeding** - birds such as blackbirds, collared doves, thrushes, dunnocks and robins will not use feeders, preferring to feed off the ground or a bird table.
5. **Home made** - half coconuts or a pine cone covered in fat or vegetable suet can be hung from a tree or bird table. They will attract tits, greenfinches and house sparrows.”



The Wildlife Trust's Top Tips...

- **Keep feeders clean** - this stops the spread of diseases.
- **Make sure food is available at all times** - food shortages can occur both in winter and summer, and birds have different needs throughout the year, such as feeding young.
- **Keep feeding stations away from predators** - feeders near shrubs make it easy for cats to pounce.
- **Plant food sources** - if your garden plants have fruit, berries, hips, seeds and nuts, they'll be a larder for birds, particularly in late summer and autumn. Holly, hawthorn, ivy, rowan, honeysuckle and dogwood all provide tasty treats or attract tasty insects.
- **Only put out what gets eaten** - this way you won't attract unwanted guests.



“Remember!

Water is as important as food to most garden birds, and not just for drinking but bathing as well. So put out a bird bath along with your feeders, and always ensure the water is kept clean.

Water is essential for wildlife to thrive, but it isn't just for drinking. Amphibians like newts, frogs and toads use water as shelter and breeding grounds. Butterflies get valuable minerals and salts from slightly muddy water, and birds use water to bathe and remove parasites.

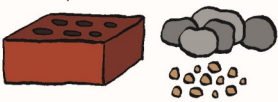
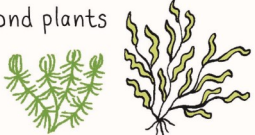
Just about any stand of water in your outdoor space, from a tiny puddle to a pond, will be used by one kind of animal or another. To make it as appropriate as possible, ensure your water source is shallow with gradual and rough-textured edges, so that anything that climbs in can get out again.

Top tips for providing water for wildlife:

- Put water where you can watch the activity as you're not going to want to miss anything!
- Use a specially made bird bath, or just a bowl on the floor – you'll attract different creatures to different settings.
- Place water for birds near a shrub or tree as they like to approach from a place of safety.
- Watch for predators such as cats.
- Leave water where you can easily access it for cleaning and filling.
- Introduce a small, shallow or running water feature and provide water for birds, as well as butterflies and other insects. Even an old sink can be turned into a water feature!
- Dig a pond and attract even more wildlife into your garden, from frogs and toads, to dragonflies and herons! Remember to provide shallow edges so anything that falls in can get back out again.”

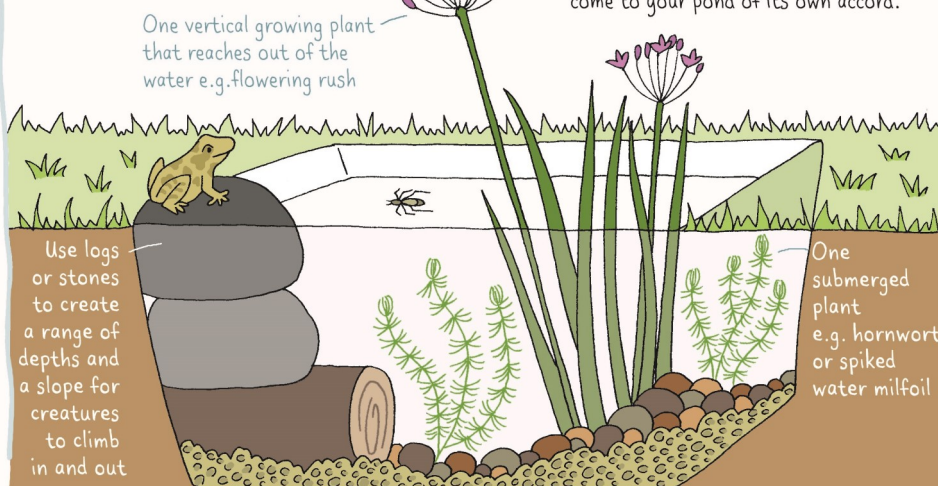
How to build a mini wildlife pond

You will need:

- a watertight container* 
- old bricks, rocks and pebbles 
- pond plants 
- spade 

* Is there anything that you can upcycle? It could be an old washing-up bowl, sink or even a plant pot. Aim for 20-30cm deep.

- 1 Choose a spot. Your pond will need light, but not full sunlight all day. You can dig a hole and sink your container, or just have it sitting on top.
- 2 If the container isn't watertight, e.g. an old plant pot, then add a piece of pond liner.
- 3 Add a layer of gravel and rocks.
- 4 Fill your pond with rainwater (tap water contains chemicals).
- 5 Start planting... you only need two or three plants.
- 6 Now watch and wait! Wildlife will come to your pond of its own accord.



www.wildaboutgardens.org.uk

Don't introduce frogs, fish or even water from another pond as this can spread disease.

How to clean bird feeders

You will need

- Rubber gloves 
- Hot water 
- Veterinary disinfectant 
Only use disinfectant suitable for use with animals. A good version is available from [vinehouse farm.co.uk](http://vinehousefarm.co.uk)
- Bucket 
- Bird feeder brush or a bottle brush 

Make sure you clean your feeders outside - don't bring them inside!

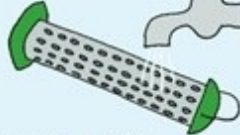
- 1 Empty all food in the feeder into an outside bin. 
Always wear gloves!

Ideally clean every two weeks

- 2 Following instructions on the bottle, mix the disinfectant with hot water to make up a cleaning solution in the bucket. 

- 3 Soak your feeders in the bucket of cleaning solution. 

- 4 Use the brush to scrub the feeders until clean. 

- 5 Thoroughly rinse in cold water (preferably from an outside tap). 

- 6 Leave the feeders to dry outside. 

- 7 Wash your hands and forearms after removing your gloves. 

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