

## Bringing people, wildlife and wellbeing together

Hello all, as always we hope we find you well this week. We also hope those of you with children at home have had a lovely half term holiday and enjoyed the breather from home-school work!



This week, Warwickshire Wildlife Trust Development Director, Amanda, reminds us of the benefits of slowing down and taking notice...

Last Friday 12<sup>th</sup> February marked the end of the half term for me and my 4 year old and was very welcome. It has been a busy 6 weeks juggling working from home and home schooling but, as you will know from my previous articles, running has been one way that I have tried to maintain my wellbeing through all three lockdowns. Unfortunately, last week it was way too icy to be running anywhere so I took the opportunity for some early morning walks and they really made me take notice and connect! The first thing that cheered me up and was definitely my 'win' for the week was realising that we are now approaching lighter mornings meaning more opportunities for me to get a walk in before the busy day starts and prepare my mind for the day ahead. My walks also meant that I went to places I haven't been for ages and boy I am glad I did as I saw two beautiful Redwings flitting between the trees. I know this is a great time of year to see them but have never seen them before and I got home and excitedly told my husband and daughter. So, when I finally got out for a run on Saturday I realised that just slowing down and walking rather than running had made me take much more notice – it also it made me realise that my 'wins' of the week had all been connected to nature. Walking really helped me to pay attention to the Five Ways to Wellbeing – I was active, taking notice, connecting (to myself and nature), learning (double checking my ID skills by making sure that what I had seen were Redwings) and giving back by sharing pictures with my daughter and sharing my excitement. All little things in the grand scheme of what's going on right now but all things which helped me last week and made me look with optimism towards the Spring.

Take care and have a good week, Amanda



### Caption This...

### Down the plot...



Working hard sifting compost for potting veg seeds this week. There's always time for a rest, a brew and a natter about the wee mousy spotted hoovering up the seed

under the bird feeder or the teeny caterpillar discovered in a bed!



Images: J Fisk

An extract for the day...

*THE WOOD: The Life and Times of Cockshutt Wood* By John Lewis-Stempel

**23rd February:** Thaw, due to the sunshine. The seasons steal days from each other. Today it is summer in winter. Along the ride, my footprints fill slowly with water; the Anglo-Saxon word *rode* meant woodland ride. The display flight of the woodcock, 'roding' is derived from *rode* because the birds often seek and follow rides or the edges of clearings.

**27th February:** Sitting in my chair. Mist. 2°C. A blade of light appears in the east and the brightness grows over the pool. The fusion of wood and water. Watching the dawn is the never-diminishing privilege of the early riser. The birds of the wood can wait no longer. The desire to mate is stronger than the gravity of returned winter. A great tit raises his voice in confirmation.

# WILD-WORDSEARCH

## Snow and Ice

- Crystal
- Drift
- Flake
- Floe
- Freeze
- Frost
- Glacier
- Glisten
- Iceberg
- Igloo
- Polar
- Powder
- Sheet
- Slush



M Adams

E	H	P	O	L	R	A	G	E	P	R	P	S	I	F
H	D	S	C	H	O	O	L	S	E	O	O	G	E	N
S	R	T	U	R	F	G	A	E	T	A	L	Z	H	R
E	I	S	I	L	G	L	H	K	B	O	E	A	C	I
T	F	R	O	L	S	S	A	F	O	E	K	N	R	N
S	R	E	I	C	A	L	G	R	R	T	R	G	Y	E
P	O	D	E	C	B	E	R	Y	E	F	R	O	S	T
E	T	W	L	Z	E	G	D	S	R	I	C	G	T	S
H	S	O	G	I	C	B	R	E	G	D	I	A	A	L
R	O	P	S	I	D	E	E	C	D	S	L	O	L	I
E	C	Y	C	W	E	Z	T	R	H	A	H	U	O	G
I	R	E	O	K	E	E	I	L	G	L	S	E	K	H
C	R	P	A	H	H	F	L	A	D	O	N	E	E	N
F	G	L	I	S	T	E	N	K	E	P	O	R	H	T
A	F	R	D	I	R	N	T	T	R	E	D	B	E	F

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

"You've seen the sun flatten and take strange shapes just before it sinks in the ocean. Do you have to tell yourself every time that it's an illusion caused by atmospheric dust and light distorted by the sea, or do you simply enjoy the beauty of it?" *John Steinbeck*

## Name It!

Can you identify the wildlife in these photos?



Issue 32 answers...

Name It!

Bird Idioms

- squirrel
- female chaffinch
- muntjac deer



An **albatross** around the neck.

As scarce as **hen's** teeth.

"She took him under her **wing**."

**Birds** of a **feather** flock together.

Dead as a **dodo**.

How well do you know your... **Bird Idioms?**



Guess the idiom to replace the expression in the brackets...

We climbed up to the top of the tower to get (a good view) of the new stadium.

My grandmother is (not so young) but still she likes to play tennis.

The motorcycle riders led the police on (an unnecessary journey).

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



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# ANIMAL SENSES AND SUPER-SENSES

## HEARING



*Fox focusing both its eyes and ears forward (image: The Mirror)*

Our second most important sense as humans is hearing (auditory perception) and this is also true for many animals. As with the eyes, the positioning and design of an animal's ears can tell us a great deal about how that animal lives. Predators often have ears that point forward, in the same direction as their eyes, combining sight and hearing trained at a single point (i.e. focusing on their prey). Prey animals however often have ears that can twist in different directions, are positioned on the sides or tops of their heads and often larger than the ears of predators. This enables them to listen in different directions which, when combined in a herd, gives the animals their best chance of detecting a predator early and so evading it.

If we look at predators such as dogs and related species such as wolves, jackals and foxes we see that the ears are arranged as a pair in a forward-facing format with some ability to twist around. If we look at deer and other related prey-species such as gazelle or zebra, we can see that their ears are large, situated on the sides or tops of their heads and are capable of twisting, allowing them to listen in different directions.



*White-tailed Deer twisting one ear forward and one back (image: Musty Musket)*

Another capability that different animals have is the range of sound frequencies that they can hear. Humans can hear frequencies ranging from 64,000 to 23,000 Hertz whilst dogs are able to detect sounds at much higher frequencies (ranging from 67,000 to 45,000 Hertz). This explains why a dog whistle will call a dog whilst the owner cannot hear the whistle's sound.

Some birds also have enhanced hearing. The Barn Owl is a great example of this. Although their hearing range is similar to that of humans, their hearing is particularly acute in certain higher frequencies matched to the sounds emitted by prey such as small rodents. In addition, the ears are located just beside their eyes with one ear slightly higher than the other and surrounded by the owl's facial discs. These discs focus sound onto the ear, similar to the outer ears on humans, but much more effectively. The different positions of the ears allow the owl to hear sounds from above and below and create a comprehensive auditory picture which allows its hearing to focus in on its prey.



*Barn Owl's heart-shaped face and two facial discs centring sound onto its ears adjacent to its eyes (image: Justfunfacts.com)*

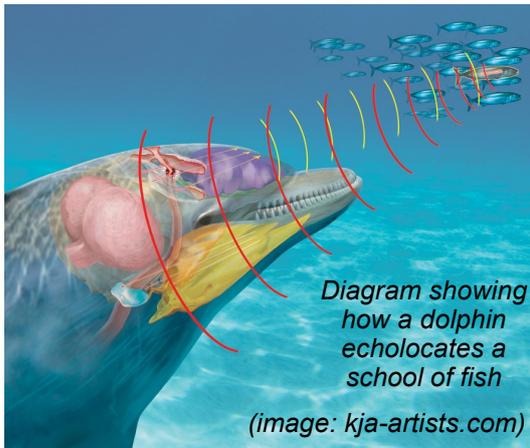
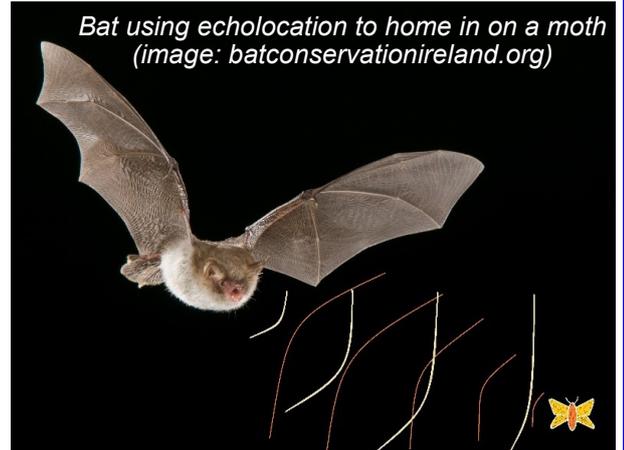


*Barn Owl ears hidden behind its feathers (image: Barn Owl Trust)*

The animal able to hear at the highest frequencies is the Greater Wax Moth. Researchers at the University of Strathclyde discovered that these moths can hear sounds with a frequency of up to 300 kilohertz, 150 times higher than humans, the highest frequency sensitivity of any animal in the natural world. They are believed to have developed this ability in order to avoid falling prey to bats that hunt them at night using echolocation (a form of radar further explained as today's super-sense). This evolutionary process wherein both predator (bats) and prey (moths) continually develop their senses is known as a 'predator-prey' relationship, common throughout the animal kingdom.

Today's animal super-sense is 'echolocation'.

The difference between normal hearing and echolocation is that hearing is a passive process whereas echolocation is active. By this we mean that hearing involves the ears sensing a sound emitting from another source whereas echolocation involves the animal actively emitting a sound and listening for its reflected echoes. Echolocation is used by bats, whales and dolphins, some birds and some shrew-like creatures such as the unusual lowland streaked Tenrec of Madagascar (look it up?). Bats have evolved echolocation in order to enable them to hunt flying insects on the wing in total darkness. The bat emits a high frequency (ultrasound) from its nose or mouth which is then reflected by an object such as a flying moth and received by the bat's enlarged ears. The bat is then able to build a real-time picture of its environment and adjust its flight-path in order to catch the moth whilst also recognising reflections from other objects such as trees and also ultrasound emitted by other bats. Although these emissions are at a frequency above that of human hearing, bat-detectors can pick up these sounds and reproduce them at frequencies we can hear. This enables people to not only hear bats in the area but identify the species of bat using the various frequency of ultrasound unique to each species.



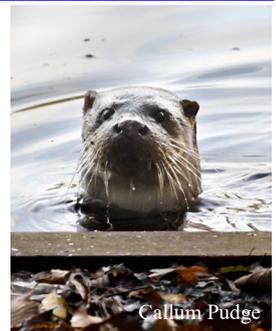
Whales, dolphins and some seals also use echolocation in much the same way as bats but in a marine environment. Water is denser than air and so sound emissions can travel faster and further than in the air. The dolphin emits a focussed beam of sound from its forehead or 'melon' which is then reflected back by objects and other animals such as fish and received by the dolphin's lower jaw and hence to its brain via an inner-ear. These echolocation processes are how humans developed radar and sonar for use in the air and sea. This is similar to how we use satellites to reflect radio waves to and from our satnavs. Imagine how difficult life would be if airplanes, ships, submarines and cars were unable to find out where they are at any given moment. We have the animal kingdom's echolocation super-senses to thank for inspiring us.

**Feature Species**

**Eurasian Otter (Lutra lutra)**

The otter is a member of a family of mammals called mustelids. These are thick-furred, short-legged, long-bodied mammals including badgers and weasels. They are semi-aquatic and very well adapted to suit their environment. Otters have two thick layers of fur, the outer layer is waterproof and the inner layer keeps the otter warm by trapping air. Otters that live in coastal areas also need a supply of fresh water as their coats are not waterproof in salt water. They hunt and play in sea water and then spend time in streams grooming and rinsing off the salt water - much like us having a good wash after a trip to the beach! Otters are well equipped to hunt in murky water. They are able to close their eyes and ears under water and use their highly sensitive whiskers to guide them. Their eyes are positioned on the top of their heads allowing them to see out of the water whilst keeping their bodies submerged below the surface.

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**Key Facts...**

**Length:** 60cm - 80cm, tail length 32cm - 56cm  
From nose to tail they can reach up to 130cm long!!  
**Weight:** 6kg - 12kg  
**Max swim speed:** 3.5mph  
**Diet:** fish, crustaceans (crabs, crayfish), amphibians (frogs), small mammals, birds.  
**Habitat:** coast, lake, river, stream, swamp  
**Conservation status:**  
**UK protected species**



**“Did you know?”**

- Otter-like animals have inhabited our Earth for 30 million years.
- They have adapted to exploit our aquatic habitat, although the cubs are afraid of water!
- There are 13 different otter species that live worldwide.
- Otters can use up to 40km of river or waterway as their territory, using this area to rest, feed and breed.” Marine Conservation Society

**Next Issue...**

A fabulous guest article, Feature Species on blue tits and handy tips on how you can help nesting birds!



**Stay safe**

