



Number **17** SUMMER 2019

BIRD DETECTIVES

The magazine for Junior Members of BirdWatch Ireland



CLIMATE
CHANGE

SPRING ALIVE -
FOCUS ON
SAND MARTINS

MAKE WINDOWS
BIRD-SAFE

STARS OF THE
DAWN CHORUS





Welcome!

Hi everybody!

The summer is probably my favourite time of the year.

The days are long, the weather is (usually!) warmer and there seems to be life everywhere you look. Flowers are in bloom, butterflies are on the wing and the woodlands, meadows and parks are wonderfully green.

If you ask me, though, the very best thing of all about summer is the gorgeous birdsong that fills the air. You can hear birds singing throughout the whole day, but they sing most very early in the morning and then again just before they settle down for the night.

Every May my friends in BirdWatch Ireland run lots of fantastic **dawn and dusk chorus events** so that people can enjoy hearing all of this lovely birdsong when it is at its very best. Maybe you and your families would like to go along on one. It might involve a very early start or a late bedtime, but it is well worth it, I promise!



Michael Finn

The tiny Wren is one of the most vocal songsters during the dawn chorus

The events are all free of charge and are open to everyone: you will find full details of all of them in the What's On Guide pages of the Summer 2019 issue of *Wings* magazine, which was posted out with this copy of *Bird Detectives*.

Dawn and dusk chorus events are great fun, and experts will be there to tell you more about the birds you are hearing and how you can tell them all apart. Here's a tip: when you learn to recognise even just a couple of birds by sound, people act like you have some sort of magic power! It isn't

magic, of course – it just takes a little practice – but I promise you that people will be very impressed.

To help you get ready, I have prepared a special pull-out poster **The Stars of the Dawn Chorus** in the centre pages of this magazine. Why not put your Bird Detective skills to work and see how many of these birds you can learn to identify this summer?

Paddy Dwan



Welcome back, Sand Martins!

Another reason I like summer so much is that it is when I get to see all of my bird friends who migrated south for the winter, to places like Africa and southern Europe. Now they have flown back here to Ireland again to nest, and it's fun to watch out for them.

Every year I ask all good Bird Detectives to keep a special eye out for certain migrant birds in particular – namely Swifts, Swallows and Cuckoos – and report them to our Spring Alive website: www.springalive.net. This year, another migrant bird species has joined them in the Spring Alive family: the Sand Martin. You can learn more about **Sand Martins** on pages 4 and 5. When you see them in real life, please don't forget to enter them on the **Spring Alive** website for me. We need records from as many people as possible...

if you are reading this, then that means you!

Shelduck Holmes

Editorial Address: Bird Detectives, Unit 20, Block D, Bullford Business Campus, Kilcoole, Greystones, Co. Wicklow, A63 RW83.

Edited by Niall Hatch, with special thanks to our contributors this issue: Ricky Whelan, C il n MacLochlainn, Niamh Fitzgerald, Barbara Sullivan & Hannah Keogh. Design by Michael O'Clery.

Cover pic: Long-tailed Tit by Brian Burke.



Interview: Jensen Lowe



Ricky Whelan interviews Jensen, from Laois

Ricky Whelan

My name is Jensen Lowe and I am 9 years old.

I am from Laois and I am home educated. I have one sister and lots of animals including dogs and horses. I like all kinds



Primroses - Jensen's favourite snack!

of nature from all around the world, from Primroses (which I love to eat), elephants and starfish to Giraffe-necked Weevils and Buzzards.

Hi Jensen, so it's safe to say you have a big interest in nature. When did that all start for you?

I have always had an interest in nature. It really all started with our family dog Sparkle. She was a great friend and that inspired me to want to find out about other animals.

What's your favourite wild animal or plant, and what is it you like about it so much?

My favourite wild animal is the Giraffe. They have long necks that help them reach tree branches. They also have puncture-proof tongues that help them eat spiky leaves. I like their coat as it helps them to be camouflaged. I would like to be able to do that myself.

How do you learn about nature? Do you read books, research online, learn it in school or what?

A mix of all of these really. I watch a lot of videos on YouTube: *Brave Wilderness* is

my favourite. My local library also has a lot of good nature books. I regularly go to Forest School where we do lots of nature-based activities, and most of all I love spending time outdoors.



Jensen having fun at Forest School

It's coming into the summer. Is there something nature-related you like to do in the summer and could suggest to other kids your age?

I like going to my local river where we paddle when the water is low. Sometimes we bring fishing nets and buckets and we see what we can catch, but we always release everything we find. It is great on a warm, sunny day.

If with a click of your fingers you could help wildlife/nature in some way, what would you do?

I would probably help all the endangered species, as a lot of them are on the brink of extinction. The Giant Panda, for example, is highly endangered and if we are losing species, then this signifies that the planet isn't getting any healthier. We all need to try to help the planet, no matter how big or small the contribution is.



Getting up close and personal with a wasp!

Ricky Whelan



FOCUS ON

SAND MARTIN



Mike Langman
rspb-images.com



Our burrow-nesting summer visitor

FACT FILE

Irish name Gabhlán gainimh	World breeding population At least 10,000,000, but declining
Latin name <i>Riparia riparia</i>	Irish breeding population Not known exactly, but likely to be 50,000 to 100,000 and stable
Wingspan 28 cm	Nest At the end of a 50cm to 1m tunnel, dug into a sandy bank or cliff
Average weight 14 grammes	Threats Pollution, lack of nest sites. On migration, shooting and trapping
No. of eggs Typically 4-5	
Incubation of eggs 14 days	
Fledgling period About 19 to 24 days	
Food Flying insects	

If you are on holidays elsewhere in Europe, we've also asked you to tell us about any White Storks or Bee-eaters that you see.

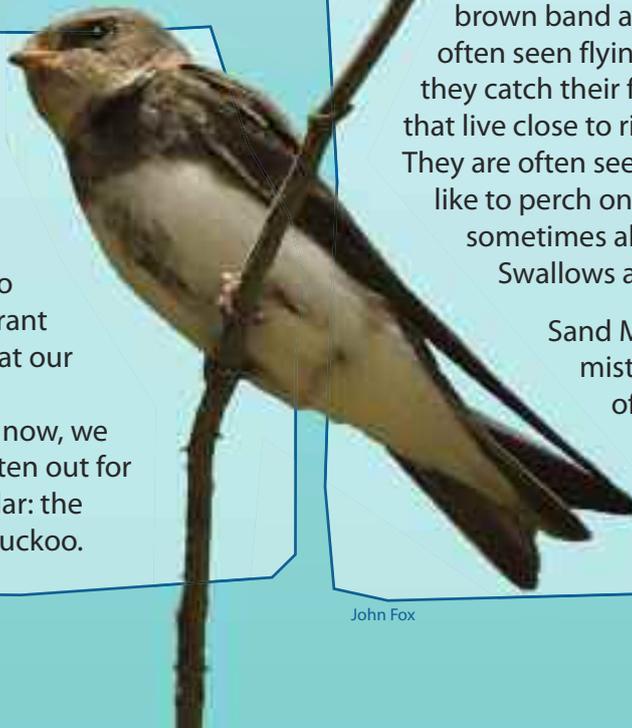
Well, we are delighted to announce that this year the Spring Alive family has a brand new member! The Sand Martin, which is called Gabhlán gainimh in Irish, is a close relative of the Swallow. Rather than nesting in sheds, garages, porches and barns, like Swallows do, Sand Martins like to nest in special tunnels that they dig in riverbanks and sandy cliff faces, as well as in some quarries and gravel pits. They usually like to nest in large groups, or colonies: their nesting tunnels are often packed in quite close together, and unlike many of our birds they really seem to like having neighbours: the more, the merrier!

Sand Martins are smaller and browner than Swallows, with shorter tails that lack long, thin streamers and a brown band across their chests. They are often seen flying low over water, where they catch their favourite food: small flies that live close to rivers, streams and canals. They are often seen in big groups, and they like to perch on overhead electrical wires, sometimes alongside their cousins the Swallows and the House Martins.

Sand Martins can sometimes be mistaken for another member of the Spring Alive family, the Swift. Swifts are bigger and have longer wings, though, and usually fly much higher. They are

Introducing the newest member of the **Spring Alive** family: the Sand Martin!

Every year we ask all of our eagle-eyed Bird Detectives to keep watch for summer migrant birds and to log them for us at our Spring Alive website: www.springalive.net. Until now, we have asked you to look or listen out for three Irish species in particular: the Swift, the Swallow and the Cuckoo.



John Fox

Michael O'Clery

dark all over, so they don't have white bellies and throats like the Sand Martin. They will also never perch on wires or walk on the ground.

The best way to identify a Sand Martin and tell it apart from any other birds is simply keep an eye out for the brown band across the chest. If you see this, you can't go wrong: no other similar bird in Ireland has a band like this.



An adult Sand Martins gathers nest material

Shay Connolly

The Sand Martin is one of the very earliest migrant birds to arrive in Ireland each year. The first ones usually appear in the middle of March, a few weeks before our Swallows arrive. They stay here throughout the whole summer to nest, then fly south in the autumn to spend the winter months in Africa.

When you see Sand Martins this summer, please take a few seconds to go to www.springalive.net to let us know about them, and please ask your friends and families to do the same. Children and families all

rspb-images.com

over Europe, Africa and Central Asia will be helping us to keep track of them, and the more information you can give us about them, the better we will be able to protect them and help them to keep returning to nest here every year.



John Fox

Young Sand Martins wait to be fed

While you're at it, don't forget to log your Swallows, Cuckoos and Swifts too. We need records from as many people as we can get... if you're reading this, then that means you!

HEIDELBERGCEMENT



VISIT www.springalive.net



Sand Martins excavate nest burrows in sandy cliffs, often near water





How Can I Make My Windows Bird-Safe?



Jef Poskanzer

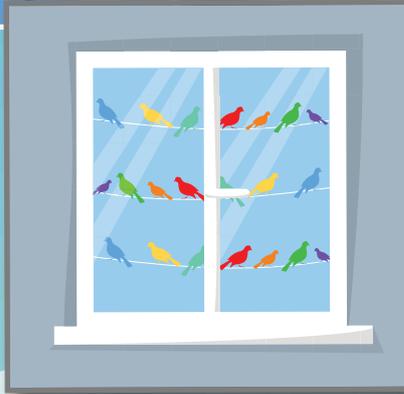
Have you ever heard a bang on your window and run to find a bird has flown into it?

Glass is dangerous to birds because it appears invisible, or reflects outdoor scenery that they think they can fly into.

But don't worry! All you need to do is put something on the glass to show birds that there is something in the way. Stickers are a great option – you can even make your own!



When birds hit a window, they often leave faint traces of their outline, made by tiny particles of dust from their feathers.



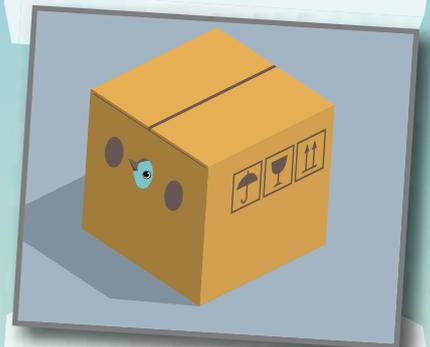
How to make the best window stickers

Use bright colours. These will stand out against the background of the window. Red and orange are the most eye-catching colours for birds. Put stickers close together: Birds are used to flying through very small spaces, such as gaps between branches. So we recommend that stickers are placed 10 to 15 centimetres apart. If you are able to, put your stickers on the outside of the glass, where they are far better at breaking up reflections.

Get creative! There are countless different designs that you can try: Schools have even held competitions to create the best-decorated local bus stop. Maybe your school could have a go!

Other things you can do

Put in net curtains or slatted blinds - these let light in, but also make your windows visible to birds. Make sure you close your curtains, blinds or shutters when you go out. Switch your lights off when you don't need them - birds that migrate at night can become confused by artificial light and lose their way, or fly into the glass.

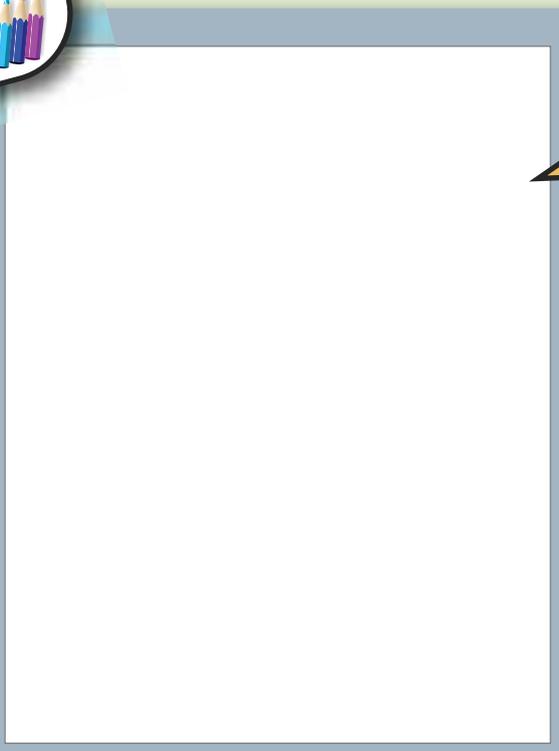


What to do if you find a bird below a window

If a bird hits your window and is lying motionless, it may not be dead, but merely stunned. Put it in a darkened box for an hour, and it may calm down and recover enough to fly back out into the world.



This poor Siskin was killed when it hit a window



Imagine this is your window

Now it is invisible to birds and this is truly dangerous for them. Plan and draw in your own colourful decoration of the window pane and make it visible to birds!



One school came up with these brilliant window stickers!

All photos: Ewa Zysk Gorczynska



Many modern buildings have lots and lots of glass, and can be really dangerous for birds



Sheets of glass in some buildings have lines through them: a really good way to prevent bird collisions



Stickers on windows in all sorts of places can help stop bird casualties, like this unfortunate Blackcap



Spring Alive for birds

Spring Alive is an international project to get kids excited about birds and conservation organised by BirdLife International, a world-wide partnership for the conservation of birds. Spring Alive helps European, Asian and African children, their families, friends and teachers to understand, care for, engage with, and take action for birds and nature, and to understand the need for international conservation of migratory species. You can get involved and find more information at www.springalive.net





Shelduck Holmes

Song Thrush: One of Ireland's finest singers, this bird repeats itself: it sings a few notes, sings them again, then sometimes sings them a third time before moving on to a new phrase.



Michael Finn

The Stars of the Dawn Chorus

The dawn chorus is one of the most special experiences in all of nature: a wonderful natural concert that takes place in late spring and early summer each year, made up of many different species of bird all singing together. Here are a few of the most impressive singers that can be heard across Ireland – be sure to keep an ear out for them!



Michael Finn

Chaffinch: A very common bird all over Ireland, with a distinctive descending song that ends with a flourish.

Willow Warbler: This bird might look very like its close relative the Chiffchaff, but it sounds completely different! Its song is a pretty descending melody that seems to run out of steam at the end.



Richard T.Mills

Chiffchaff: This bird's song is easy to recognise: it sings its own name! "Chiff-chaff-chiff-chaff-chaff-chiff-chiff"



Richard T.Mills

Sedge Warbler:

Usually found by water, in sedges and reeds, it has a wonderfully mechanical yet pretty song that keeps changing.



Clive Timmons

Robin: You know this one, right? The Robin's song is sweet and musical, and it is one of the only Irish birds that sings all year round.



Kimberlie Stark

Wren: Very loud and very common, it is hard NOT to hear a Wren in any park, woodland or well-planted garden. A lot of volume for a tiny bird!



Shay Connolly

Coal Tit: The fast, sweet, squeaky two-note song of the Coal Tit is commonly heard in woodlands, especially ones with lots of conifers.



Ronán MacLoughlin

Blackcap: This migratory warbler has perhaps the sweetest and most musical song of any Irish bird.



Blackbird: One of the very first birds to start singing each morning, with a rich, flute-like song.



Grasshopper Warbler: This sounds more like a machine than a bird! Its song is a really fast ticking noise that goes on for ages. Actually seeing the bird can be extremely difficult, as they like to hide.



Dick Coombes



SUMMER ACTIVITIES

By Barbara Sullivan

Summer weather is finally here and nature is full of colour again, so why not explore another way to use this colour?

Last summer I introduced you to 'Hapa Zome', a way of printing with natural pigment; this summer let's investigate how to make nature paints! Hot weather also means that our birds may find it more difficult to find a suitable place to have a drink or a bath, so here's a super simple way of making a bird bath to help them.

Explore natural colours and make some ink!

What you will need

- access to plants that are commonly available and not rare or endangered (garden flowers and foliage are perfect, as are wildflowers) - ask a grown up for help if you are unsure
- clay (from your garden or a stream), charcoal, old brick or broken terracotta pot
- some old pots, bowls or other containers that can take a little bit of a bashing
- sticks to use as a pestle for mashing
- old paintbrushes or natural items you can use as a brush
- water
- card, watercolour paper or old cotton material

How-to

Collect a couple of handfuls of each of the plants you want to use and put them into the bowls you will be using. Make sure to check with an adult that you are allowed to pick the plants first.

Use a stick as a pestle to squish, mash and grind the plant material in the bowl, adding a tablespoon or two of



Making paint with different plants

water as you go. Watch the water turn colourful as you work away. I found that cleavers (sticky weed), dock leaves, dandelion and ferns work well, but the best thing is to experiment with what you have access to, as the plants available will change over seasons and depending on where you live.



Lots of different shades of green and brown from lots of plants and other natural materials

Try doing the same process with some charcoal and mashing it up with water, and try some clay from your garden or a dried up puddle. Bits of old red brick or terracotta work well too, but you may need to get

an adult to help you with these. When you have made your colours, try painting with them, either on paper or on fabric (ask your parents if they have any old white cotton sheets they don't need any more). You can use normal paint brushes, or you can try to find some paint brushes in nature, for example feathers, or grasses, or sticks. Have fun experimenting!

Colour from dock leaves and potter's clay and painted on paper



Make a bird bath

What you will need

- a large shallow, wide container that will hold water and is no more than 10cm deep
- some stones
- fresh water
- a flowerpot or something else to raise the water container off the ground (e.g. brick)
- (optional) acrylic paints and paint brushes

How-to

You can make this as simple or elaborate as you like! The main thing is that you need to make sure the water dish isn't too deep; and if possible that it has gently sloping edges. If you can't get a dish with sloping edges, make a slope by adding stones into the dish.

We have used a terracotta pot, turned it upside down, and added a lighter plastic dish on the top so it is lighter and easier to move to clean it regularly. The water dish is weighed down with a stone in the middle. If you don't have a terracotta pot, you can use anything stable to prop up your water dish.



Terracotta pot being painted with acrylic colour - let your base layer dry completely before painting on different motifs

Get creative, if you like, or leave it plain. The birds don't mind either way - the main thing is that the water inside the dish is kept clean, water is changed regularly and that you keep filling it up as the birds get used to their new water spot.



The stones in the middle make the dish stable and provide a safe landing place for birds

If you want to allow pollinating insects to use the water too, make sure there is a very shallow area with something sticking out for them to land on.

Now enjoy watching your garden visitors!

All photos: Barbara Sullivan

Barbara Sullivan delivers forest school and nature connection programmes for children, families and adults through her company "Reconnect with Nature". Barbara is also member of the Heritage in Schools specialist panel and is available for school visits. Contact Barbara on reconnectwithnatureirel@gmail.com or visit www.reconnectwithnatureirel.com for more details

Are You Hearing Things?

By C oil n MacLochlainn



MBSanz Wiki Commons

Tiny Pygmy Shrews have such high-pitched voices that many grown-ups cannot hear them!

You may hear things that your parents can not!

Have you ever been out walking with your Mum or Dad on a summer's evening and heard a bat calling?

"Hey, Dad! Mum! Did you hear that?" you say excitedly. "I just heard a bat chirping!"

Your Dad looks puzzled and says, "I didn't hear anything. Are you sure you heard a bat?" And you go, "Yeah, I did. Hey, look, there it is now, flying above that tree!"

Your Dad is amazed. "You have great hearing," he says.

"I can see it alright, but I didn't hear a thing!" Mum goes, "Me neither!"

Singing Goldcrest

There is nothing wrong with your parents' hearing, and no, you don't have super-powers! It is just that young people can hear some things that adults cannot hear. Bats, for one. Because as we grow older our hearing changes and we lose our ability to hear very high-pitched sounds, even if our hearing is still perfect.

Bats chirrup constantly when they are hunting for moths in the air at dusk. They cannot see the moths properly in the fading light, so they chirrup rapidly and their calls echo back from any moth in their path. They can then close in on the moth and capture it. Locating something by echo, or echolocation, is an extraordinary ability of bats. All Irish bats hunt in this way.

Another animal that young people can hear but adults cannot is the Pygmy Shrew. These tiny mammals, resembling small mice with a long snout, live in places with long grass, rushes, heather or other rough ground. If you hear grasshoppers strumming, then you are probably in a good place for Pygmy Shrews. Listen for their high-pitched squeaks as they run around in the grass. Your Mum or Dad probably won't be able to hear them, but you will. If you hear some, look carefully down into the grass. With luck, you will catch glimpses of some shrews as they scurry about.



Ireland's smallest bird, the Goldcrest, is even smaller than the Wren. It has a thin, high-pitched song that you will be able to hear, but it is difficult or impossible for some older people to hear it. The older people get, the harder it is for them to hear Goldcrests singing. If you come across a Goldcrest in song, show it to your Mum or Dad and ask them can they hear it. With luck, they will still be able to, but they should listen and enjoy it now because in later life they might not be able to hear it at all!

You can actually improve your hearing ability through practice. It's like any other activity: the more you do it, the better you get. To train your hearing, sit quietly and listen very carefully to the sounds of nature all around you... the birds, the insects, the secretive mammals sneaking through the undergrowth.

Foxes can be very vocal in spring, if you listen carefully



M.O.Cley

If you sit perfectly still in woodland, a fox or a deer might suddenly walk past you. American Indians used this as a way to hunt: they would sit like a statue and then pounce on a passing deer.

Calm, still days with little or no wind are best for listening to nature. You will see things and get closer to nature than you ever thought possible.



Who Eats Whom?

Dinner is served!

Trees and other plants are living things but, they are also food for others. In fact, most living things are food for something else. Have a look outside at all the different types of food.

What type of 'animal food' can you find around you, and for which animals?

Activity time! Take a look at Who Eats Whom in a simple food chain!

Match the animals with their favourite food.

The Reed Warbler eats insects



The Moorhen picks plants from shallow water



The Little Grebe dives and swims underwater to find food



1

Now match the following animals with their food. In the same way as above.

Grey Heron



Pygmy Shrew



Snail



Garden Spider



Herb Robert



Salmon smolt



Who eats whom?

When we connect animals with their food we form **food chains**. An arrow is used to point from the food to the 'eater', like the blue arrow in the first box.

Food chains often begin with plants, but as you can see, they don't always have to.

Join the four pictures to form a simple food chain.

Helpful definitions

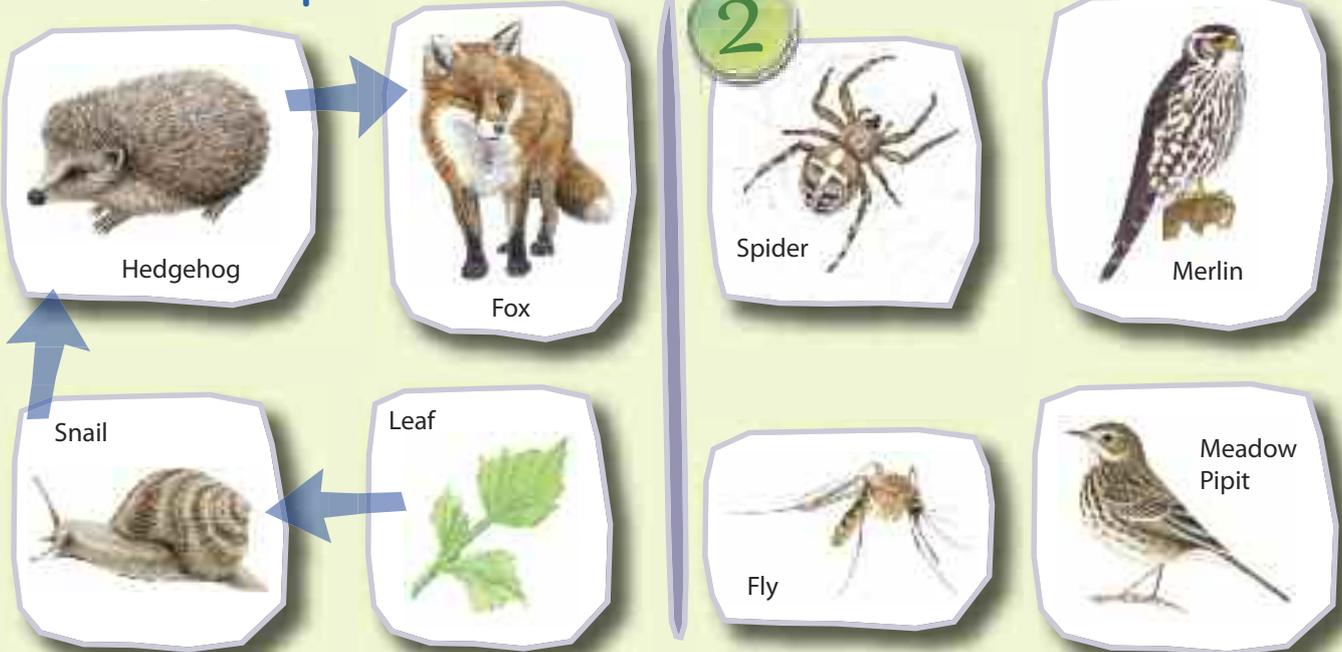
Producer The start of a food chain. These living things can make their own food and are normally plants.

Consumer Feeds on other living things.

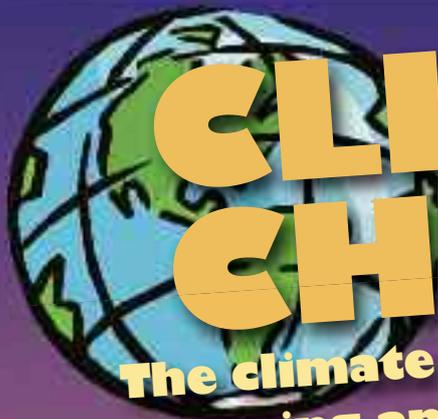
Herbivore Only eats plants.

Carnivore Only eats animals.

Example



Illustrations: Michael O'Clery
www.michaelocclery.blogspot.com



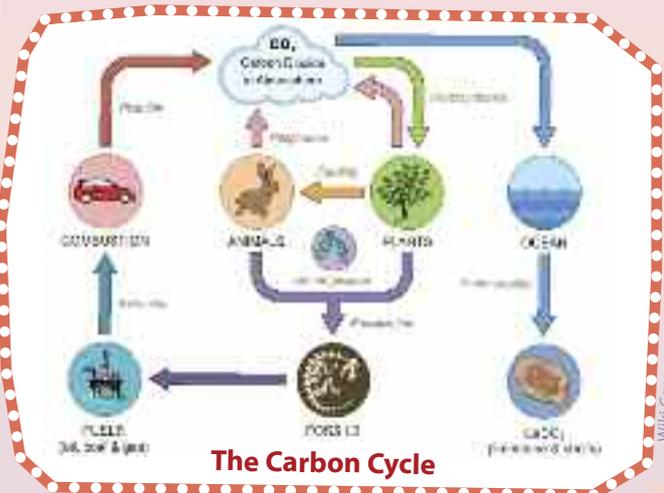
CLIMATE CHANGE

by Hannah Keogh

The climate of our world is changing. What is happening and why, and what can we do about it?

The Carbon Cycle and Greenhouse Gases

Carbon is the backbone of life on Earth and is the fourth most abundant element in the Universe. Humans, the food we eat and the rest of life on our planet are composed of carbon. Carbon is the source of the majority of energy consumed for human use: these are fossil fuels such as coal, oil & gas deposits and turf. About 65,500 billion metric tonnes of Earth's carbon is stored in rocks, and the rest is stored in 'Natural Sinks', such as the ocean, the atmosphere, bogs, plants, soil, and fossil fuels.



Carbon is exchanged from one place to the other through what is known as the Carbon Cycle: much like the Water Cycle, carbon enters the atmosphere through natural ways, one of which is when humans, plants and animals breathe out carbon dioxide gas (CO²). However, when too much CO² and other greenhouse gases enter the atmosphere it results in warmer temperatures, causing a change in the natural climate. The burning of fossil fuels, which took millions of years to form, accelerates the release of CO² into the atmosphere. The atmosphere regulates the Earth's temperature. Greenhouse gases, such as CO², maintain the optimal living temperature on our planet. Without any greenhouse gases the Earth would be completely frozen, and with too much it would be a ball of fire! At present, the Earth is slowly heating up, which is causing some very large problems.

Some Global Effects of a Warming Climate

Humans, birds and other animals are under threat from a warming planet. The increase in temperature is melting polar ice caps quicker than we ever imagined. The melting of ice caps increases the amount of fresh water in our oceans. Warmer oceans cause surface water to expand, which causes sea levels to rise which can lead to flooding of coastal areas. An increase in extreme weather can be seen across the world, resulting just recently in devastating wild fires in California, catastrophic flooding in Beira, Mozambique, increased storms in Ireland, water shortages in South America, drought in East Africa and Asia and heat waves in Australia, to name a few.



Increased ocean temperatures caused by climate change are one of the reasons for coral bleaching. Bleaching of coral, which is when it turns completely white, is caused by the corals expelling the tiny plants called algae which live inside it. The coral and algae both benefit by living together: corals can die without algae photosynthesizing, which generates food for them.



Seabirds like this Fulmar are good indicators of climate change



Brian Burke

Birds and Climate Change

Climate change is also causing bird populations to decline. It can be seen globally that bird species are shifting their ranges in response to change in local climates by changes in their seasonal migrations, as well as by changes to their normal distribution, egg-laying and population numbers. Many birds are shifting their ranges towards higher latitudes as temperatures increase, allowing species to survive in new locations.

A good example which we have seen in Ireland has been the increase of the Little Egret, a bird mainly seen in Mediterranean and African wetlands which began breeding in Ireland in 1997.

However, while some birds may thrive from changing location, other birds may be limited to specific habitat or food supplies that are only available in a specific area. The number of waterbirds spending the winters in Ireland has declined by 40% in less than 20 years.

Little Egrets have increased in Ireland due to climate change



Michael Finn

The areas where these waterbirds spend their summers may be becoming warmer during winter, which may mean that these birds may not need to leave and migrate to Ireland to spend their winters.

It is suggested that seabirds are good indicators of changes in ecosystems associated with climate and other man-made factors. Seabird populations are plummeting, and climate change is likely to affect seabirds in numerous ways. Direct effects such as nest flooding or indirect ones such as changes in their food supply all mean bad news for them. Much depends on how sensitive their prey is to changes in ocean water temperature and salinity and whether alternative prey is available. Sand-eels, an important food source for many seabirds, are declining in the North Sea and north

Atlantic due to over-fishing and a rise in ocean water temperatures. This decline has been linked to the decline in the breeding success for many seabirds, especially Kittiwakes, Razorbills, Puffins, Guillemots and Fulmars.



Razorbills

John Fox

What Can We Do?

Ultimately a move away from our dependence on burning fossil fuels will curb the damage which has been inflicted by previous generations. The Earth's health depends on us humans acting quickly and changing the way we live. You can make a change by reducing your carbon footprint: this can be done by riding your bike, taking the bus and avoiding using cars; eating less meat - try Meatless Mondays; eating local Irish produce, so that food doesn't need to be transported so far. Communities and families can become self-sustainable by changing to renewable wind and solar power to power houses instead of burning oil and coal.

There is a push from younger generations to tackle this crisis. Greta Thunberg, the founder of the Youth Strike for Climate movement, and hundreds of thousands of other young activists around the world are coming together to protest to their governments every Friday (#fridaysforfuture) for change and action to be taken towards tackling climate change.

This article was written by Hannah Keogh. Hannah works as a Marine Mammal Observer for the Irish Whale and Dolphin Group. She has a passion for the environment, sustainability and the safeguarding of species.

Shelduck Holmes

Competition Page

Competition 1



Solve the Summer Migrant Word Search and win a **My Naturama book**, by Michael Fewer - value €15.00

Prize

Find the following words

Swallow	Swift
Sand Martin	Chiffchaff
House Martin	Willow Warbler
Cuckoo	Whitethroat
Common Tern	Blackcap
Wheatear	Puffin

Competition 2

- Q1** Sand Martins spend the winter in Ireland - TRUE or FALSE?
Q2 The Goldcrest is the smallest Irish bird - TRUE or FALSE?
Q3 There are no birds in Antarctica - TRUE or FALSE?
Q4 Female Cuckoos incubate their eggs for 14 days - TRUE or FALSE?
Q5 Birds are the only animals that lay eggs - TRUE or FALSE?
Q6 A young swan is called a swanlet - TRUE or FALSE?
Q7 Swifts sleep while flying - TRUE or FALSE?

Q8 Birds are the only animals which grow feathers - TRUE or FALSE?

Q9 A group of Goldfinches is called a "charm" - TRUE or FALSE?

Q10 Bats are a kind of bird - TRUE or FALSE?

The **Great Big Book of Irish Wildlife** by Juanita Browne - value €20.00



Prize

Summer Migrant Word Search

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

To enter

- Fill out your age, name and address on a blank sheet of paper.
- Find all the summer migrants in the Word Search and answer the 'true or false' questions (you can photocopy this page if you prefer, and you can enter both competitions).
- Post it to: Bird Detectives Competitions, BirdWatch Ireland, Unit 20, Block D, Bullford Business Campus, Kilcoole, Greystones, Co. Wicklow, A63 RW83. Closing date is 30th September 2019.

Answers to the **Who Eats Whom?** exercises from pages 12 & 13: 1. Grey Heron matched with Salmon smolt, Pygmy Shrew with Garden Spider, and Snail with Herb Robert. 2. Fly to Spider to Meadow Pipit to Merlin. 3. Dead Leaves to Wood Louse to Wood Mouse to Long-eared Owl. 4. Seaweed to Smolt to Pollack to Grey Seal.

The winner of the Winter 2018 Bird Word Search competition is Cathal Gormley, age 12, from Enfield, Co. Meath.

Why not check out the Kids' Zone on www.birdwatchireland.ie for lots more fun activities