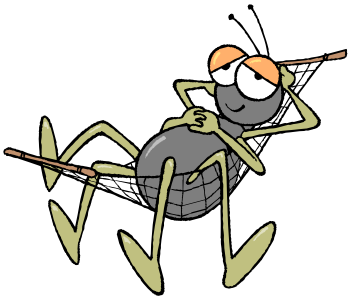

Nature's Web

Issue No. 43 Autumn 2016

Inside This Issue...

Seasonal Spin

A garden spider—the Orb Weaver, by Robbie Murphy

Editor's Page

A Visitor with a Sting in the tail!

At the end of September 2016, Irish Water Safety alerted the public to be on the lookout for the venomous jellyfish—the Portuguese Man o'war— along the south, west and northwest coastline. These jellyfish are not native to Irish waters. Tropical maritime air for almost two months and very little northerly winds, together with sea water temperatures of approximately 15oC, saw one of the largest influxes of the Portuguese Man o'war land on Ireland's western seaboard in over a hundred years.

A Portuguese Man o'war on Silver Strand, Sherkin Island, Co. Cork.

They asked surfers, kite surfers, swimmers, kayakers, divers and walkers to keep a vigilant eye open for these creatures which give a very strong sting and to some people can cause anaphylactic shock or seizures. Local Authorities from Cork, Kerry, Clare, Galway, Mayo and Donegal reported them on their shores mainly in south and southwest facing bays. There have been reports of in excess of 80 landing on the South Harbour in Cape Clear and in excess of 20 on Keel Bay in Achill. They have been known to kill people such is the severity of their stings.

To download a Jellyfish photo identification Card and First aid treatment information click on http://www.iws.ie/beach/jellyfish-safety.321.html

As Gaeilge! We are delighted to have teamed up with An Gúm, who are translating Nature's Web into Irish. Issues are now available, as gaeilge, at: http://www.gaeilge.ie/maidir-le-foras-na-gaeilge/an-gum/lion-dulra/

Seafood Recipe

Mussel, Hake and Tomato

WHAT'S NEEDED:

- 1kg mussels
- Knob of butter
- 150ml white wine
- 400g hake, skinned and cut into 3cm pieces
- 1 tablesp. olive oil
- 3 large leeks, thinly sliced, washed
- 2 garlic cloves, thinly sliced
- 500 mls water or stock
- 3 fresh thyme sprigs
- 400g tin chopped tomatoes
- Freshly ground black pepper
- 1 tblsp. chopped flat leaf parsley

To Serve:

- French or sourdough bread

What to do:

To Cook

Place the mussels in a large bowl of cold water. Use a small knife to remove any barnacles and pull away the beard. Discard any mussels that are damaged or won't close when tapped.

Heat the butter in a large saucepan, add the mussels and white wine, cover tightly. Allow the mussels to cook for 3-4 minutes, shaking the pan from time to time to ensure they cook evenly. Discard any that have not opened.

Tip the mussels into a colander set over a bowl to collect the cooking liquid. When they are cool enough to handle remove the mussel meat from the shells of about half of the mussels. Cover and set aside. Discard the empty shells.

Return the saucepan to a medium-low heat, add the olive oil then add the leeks. Cook, stirring occasionally, for 5 minutes or until soft, add the garlic and thyme, cook for another minute.

Pour the white wine mixture into a measuring jug (except the last tablespoon or two which may be gritty), add the water or stock to the jug to make up to 700ml, add to the leek mixture along with the chopped tomatoes and simmer for about 10 minutes for the flavours to infuse.

Add the hake to the sauce and simmer for a minute or two until the fish is just cooked through. Add the mussel meat and the mussels in their shells to the saucepan and cook for another 1-2 minutes. Taste and season with some black pepper. As the mussels are naturally salty you shouldn't need any salt.

Ladle the soup between 4 bowls, sprinkle over parsley. Serve with crusty bread.

Courtesy of Bord Bia – Irish Food Board.

Serves 4

Welcome to the Autumn Edition of Nature's Web!

Dear Reader,

Welcome everyone to the Autumn 2016 issue of Nature's Web. In this issue we read about Anthony Toole's interesting life as a travel writer and how much he enjoys what he does. We learn about an animal that is unique to the Galapagos Island, the Marine Iguana. With the arrival of autumn, many plants are now producing seeds, which need to find somewhere suitable conditions in which to grow. Discover how different seeds travel in the hope of finding these conditions, including the seeds of the featured plant—the Spear Thistle. Check out nature news from around the world on page 10 and enjoy a giggle with the jokes on page 14.

We would love to hear your views and comments and suggestions for future articles. Have a good read!

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Michael Ludwig

Spear Thistle

Scientific Name: *Cirsium vulgare*

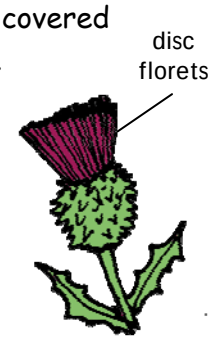
Irish Name: Feochadán colgach

Photo courtesy of Robbie Murphy

Spear Thistle is a large plant that is usually found on waste ground. It is biennial, which means it takes two years to grow from seed to flower to fruit - and then the plant dies.

At the end of the first year, the thistle plant looks like a wheel-like rosettes of large, wavy leaves. These leaves are cut into lobes that end in a sharp spine and are covered beneath with cotton-like hairs.

The spear thistle has purple flower-heads, made up of loose clusters of disc florets. The flower heads, which are armed with spines, are on branched flowering stems, with spiny wings.



Each 'petal' is an individual floret

The plant is good for wildlife, its flowers provide food for nectar-loving insects, such as bees, as it also provides shelter for other insects. Many people consider thistles to be weeds.

Family

Thistles are related to daisies and dandelions, all of which belong to a large family known as **Composite** flowers.

This is one of the largest groups of Irish wild flowers. Each 'flower' is in fact a dense cluster of florets or tiny flowers in flat or domed heads – imitating a single flower.

FACT FILE

Habitat: Pastures, roadsides and waste ground.

Colour: Purple.

Height: 50–180 cm.

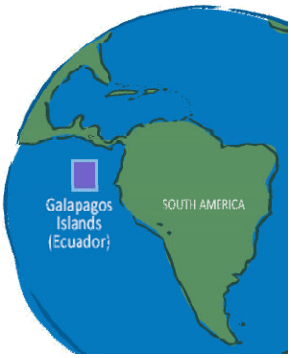
Seeds that travel...

The seeds of the spear thistle are like a parachute of hair, holding a 1-seeded fruit. These are known as 'thistledown'. These parachutes are carried great distances by the wind and when it lands in suitable conditions, it grows into a new plant. Each flower head produces over 100 seeds.

Marine Iguana

By Vicky West

Scientific Name: *Amblyrhynchus cristatus*
Irish Name: Ioguána mara oileáin Galápagos



The marine iguana is the world's only marine lizard and can only be found on the Galapagos Islands, which are located off the coast of South America. They are believed to have evolved from land-dwelling iguanas that drifted to the islands on logs 10 to 15 million years ago.

There are several sub-species of marine iguana, which have evolved depending on the island on which they live, and this leads to variation in size and colour among the species, ranging from 60cm up to 1.5m in size and weighing between 1-12kg, with males being larger in size than females.

Marine Iguanas and their Young

Marine iguanas live, on average, between 5 to 12 years in the wild. Mating usually occurs between January and April, during which time males become more brightly coloured with patches of red or green, in order to attract a mate. Males are often selected by females based on their body size, with larger strong males winning the females.

One month after courtship, females will lay between 1 to 6 eggs in a nest which she will have dug in either sand or volcanic ash. She may then watch over the eggs for a few days but after this will leave, allowing them to incubate for 3 months. When the young hatch they look and act like miniature adults and will have no parents to look after them.

Their Predators

The marine iguana's main predators are the native Galapagos hawk, and non-native species such as rats, which tend to feed on the eggs, cats, which can feed on the young iguanas and even dogs which can feed on the adults. Due to the rise in these non-native species on the islands, marine iguana are classed as vulnerable to extinction and so are a protected species.

Photo courtesy of Diego Delso, Wikimedia Commons, License CC-BY-SA 4.0

Marine Iguanas are herbivores, feeding exclusively on underwater algae and seaweed, and as such have developed a range of adaptations to achieve this. They have a short, blunt snout and razor-sharp teeth to allow them to scrape algae off the rocks, their tail is flattened to allow them to swim easily through the water, like a crocodile, and they have long, sharp claws so they can cling to the rocks whilst underwater or in strong currents. They also have special glands which are connected to their nostrils which allow them to remove the excess salt, taken in during feeding, from their blood. To remove the salt they then sneeze, however, when sneezing salt often lands on their heads giving the appearance of a 'white wig'.

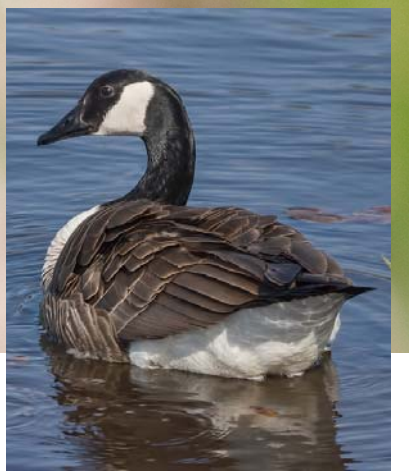
When feeding the iguana can dive down to depths of 15m, however shorter, shallower dives are more common. As a cold-blooded animal, the marine iguana can only spend a limited time in cold water diving for food, and afterwards it must lie in the sun to warm up. Their dark grey colouring helps them to better absorb sunlight, speeding up the warming process, because until it can warm up it is unable to move effectively, making it vulnerable to predation.

Canada Goose

The Canada Goose has a black head and neck, with white cheeks.

Images courtesy of Alan D. Wilson www.naturespicsonline.com

Teeth-like ridges along the outside edges of the Canada Goose's beak, helps it cut grasses and other vegetation that makes up a large part of its diet.



Right: Canada Geese need to live near a water source.

Scientific Name: *Branta canadensis*
Irish Names: Gé Cheanadach

Canada Geese are native to North America. It breeds in such places as Canada, Alaska, Northern parts of the United States and Greenland. Some stay in the same place all year round while others migrate south for the winter. If weather is favourable, they can travel up to 2,400 km in 24 hours, flying in an impressive V-formation.

Having escaped from waterfowl collections in Ireland, Canada Geese now live in the wild here and are found mainly in Cos. Fermanagh, Down, Leitrim and Cavan.

Canada Geese are herbivores, eating grass, leaves, roots and seeds.

FACT FILE

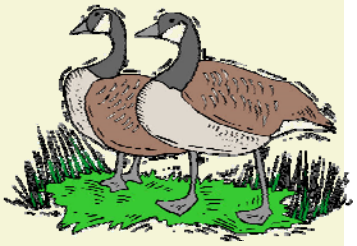
Length: 95-105 cm

Colour: Grey-brown back and wings, paler body. Black head and neck with white cheeks.

Habitat: On grassland near water.

Clutch Size: 2-8 eggs

Family



Geese usually live together in large flocks but when it comes time to breed, a pair will go off to find their own territory.

Canada Geese mate for life and a pair will also spend the whole year together.

After laying a clutch of 2-8 eggs, the female incubates them while the male guards the nest.

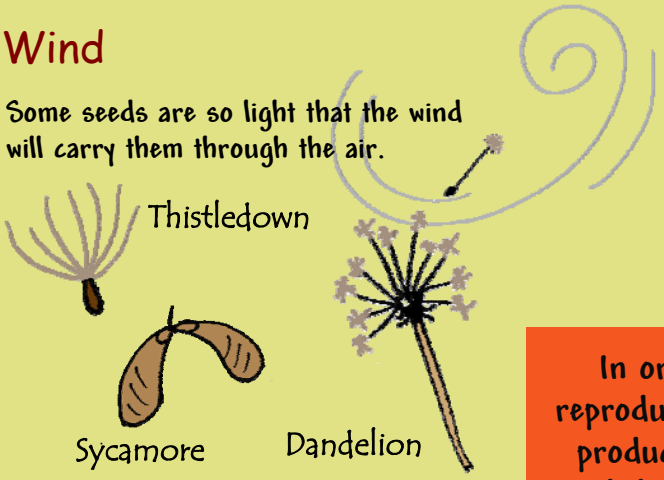
A male goose is known as a **gander**, a female is known as a **goose** and the young a **gosling**.

A gosling

How Seeds Travel

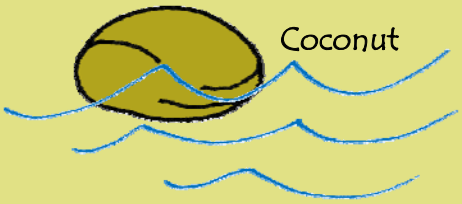
Wind

Some seeds are so light that the wind will carry them through the air.



Water

Some seeds can float and if they find their way to a stream or river or the sea can move considerable distances



In order to reproduce, plants produce seeds and these seeds must find a new place to grow. Different seeds have different ways of moving or being moved.

Look at each seed and think about that features they have that helps them move the way they do.

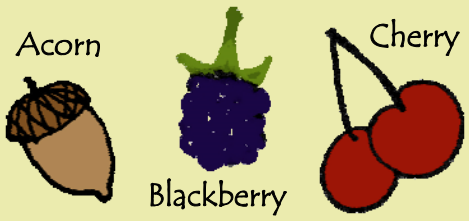
Would any seeds fit into more than one category?

Bursting

Some seeds are produced in seed pods that will eventually explode, propelling the seeds into the air.

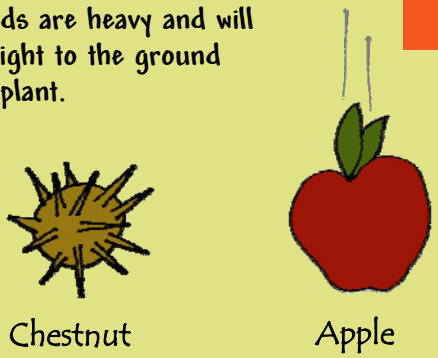
Collecting & Consuming

Some plants produce seeds inside tasty flesh, which are consumed and dispelled in animal droppings. Others, such nuts, are collected by animals for eating later on but may be forgotten.



Drop

Some seeds are heavy and will drop straight to the ground from the plant.



Clinging

Some seeds are covered in spines or tiny hooks which, when animals brush by them, will catch on to their fur or body.

All in a Day's Work

Anthony Toole – Travel Writer

Anthony Toole is a travel writer, particularly interested in writing about nature and the great outdoors. Sometimes he travels to foreign countries, often he visits places near his home. Most of his stories are published in magazines (such as *Sherkin Comment*) or online travel websites.

http://myweb.tiscali.co.uk/anthonytoole

Images courtesy of Anthony Toole

Anthony Toole

What training did you do to get where you are today?

I have no formal training. I always enjoyed writing essays at school, and usually received good marks for them. When I began to write seriously, I made many early mistakes, but I learned from them. I also learned by reading what other successful writers had written and listening to any advice they might give. The learning process never ends.

What is a day in your life like?

When I visit a place I want to write about, I always bring a camera, digital voice recorder, notebook and pen, all tucked away in the camera bag. In fact I bring them everywhere, just in case I see something unexpected that I might wish to write about later. I make notes, record anything a guide says about the place and take plenty of photographs. On returning home, I write up my notes and recordings on my computer to make them easy to understand. When I start work on an article, which may take me two or three days to complete, I write longhand and edit as I go, finally typing it onto the computer when I am satisfied with it.

What is the best thing about your job?

Sometimes I have been lucky enough to be invited on a trip for which someone else, such as a tourist board, may pay all my travel and accommodation expenses. This might vary from a local day trip to a week abroad, or simply free entry to a tourist attraction. Visiting new places and learning about them is always fun. Each time I go on holiday, I research beforehand to see if there is any place nearby that I might be able to write about. I find that by writing about these places I learn more than if I was just visiting to see them. There is also the wonderful pleasure of seeing my work published and knowing that many people will read it, and I hope enjoy it.

Anthony on top of Mt Ngungun, Glass House Mountains, Queensland, Australia.

Bruny Island, Tasmania.

The superb fairy wren.

What is the worst thing about your job?

I can't think of anything bad about it. Writing the first paragraph often requires time, effort and a lot of thought. Sometimes, while travelling, I have to get up early in the morning, but this usually just adds to the adventurous nature of the trip.

What is the best piece of advice you were ever given?

An older, more experienced writer once told me, "If it has your name on it, then it has to be good. Every piece you write, if it is to be published, must be the best you can possibly do."

Black John - the Bogus Pirate

Avast there, Mateys! Today I'm going to hand over to Amos, our ship's cat to talk about the Fourth Principle of Ocean Literacy which says that "The Ocean has made our planet a habitable place to live" and here's how . . .

Images © John Joyce

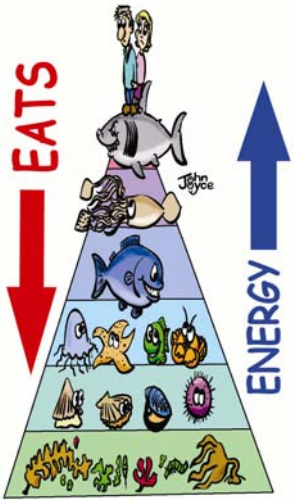
By John Joyce

Black John the Bogus Pirate

A habitable place to live

One theory offered for the origin of all life on Planet Earth is that it started around hydrothermal vents at the bottom of the deep ocean. Hydrothermal vents occur when seawater seeps down through cracks in the seabed, along mid-ocean ridges at junctions between the vast 'tectonic plates' that cover the Earth. This seawater is heated to boiling point and vented back into the ocean above, taking dissolved and suspended minerals with it. It is thought that these dissolved minerals then combined to form increasingly complex compounds until eventually 'organic' proteins known as DNA (deoxyribonucleic acid) were created.

Then, protected by the walls of microscopic pockets in the volcanic rock around the vents, which acted as 'cell walls' these DNA proteins split, reproduced and formed the first 'living cell', which would have resembled a modern bacterium. Over millions and millions of years, these primitive 'cells' grew more and more sophisticated, became mobile, and began the evolutionary process that created the vast variety of living things on Planet Earth – including you and me.



The Marine "Food Web"

One vitally important step in the development of life on Earth was evolution of the organic chemical 'chlorophyll' which uses the energy of sunlight to create oxygen and a variety of other chemicals from carbon dioxide and water.

This led to the creation of 'phytoplankton' – tiny cells that between them produce around half of all of the oxygen in Earth's atmosphere.

Not only do phytoplankton and other ocean plants produce half the oxygen in the air we breathe, they also form the foundation of the 'Food Chain' in the ocean that gives us the fish and other marine food products we need to eat.

Phytoplankton and larger seaweeds convert energy from the sun and chemicals from the ocean into plant tissue which is eaten by 'herbivores' such as limpets, winkles and sea urchins or filtered out of the water by shellfish such as mussels and cockles. These 'herbivore' animals are then eaten by predators such as jellyfish, starfish, crabs and small fish in the next level up what scientists call 'The Marine Food Pyramid'.

Follow 'Black John the Bogus Pirate' on Facebook at https://www.facebook.com/BlackJohntheBogusPirate/

Shades of Autumn

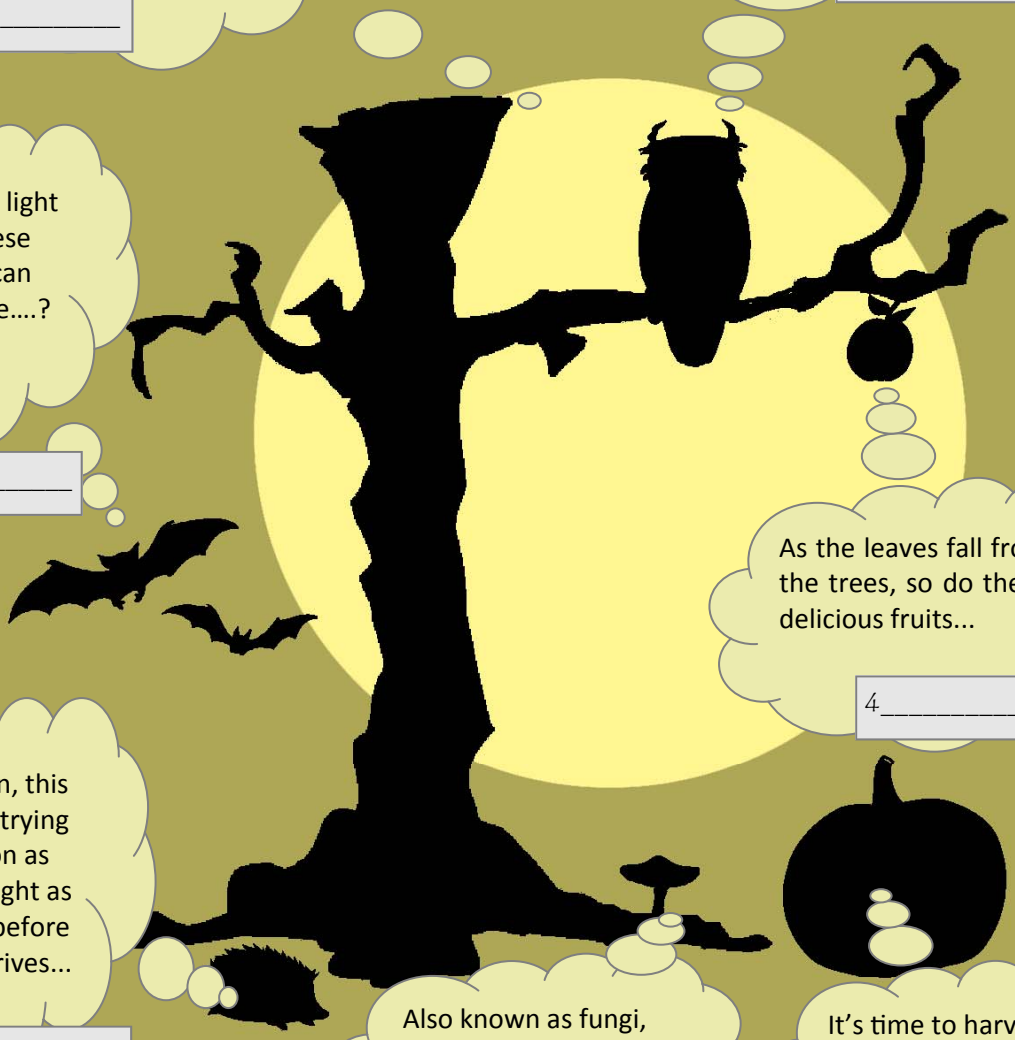
Autumn is here and the daylight is decreasing but nature is still busy in the shadows. Can you identify what is being described in each of these questions:

This celestial body lights up the night sky....

1_____

This bird of prey Is nocturnal, searching for its food at night .....

2_____



Who needs light when these animals can echo locate....?

3_____

As the leaves fall from the trees, so do these delicious fruits...

4_____

In autumn, this animal is trying to put on as much weight as possible before winter arrives...

5_____

Also known as fungi, lots of these appear in the autumn...

6_____

It's time to harvest these giants of the garden...

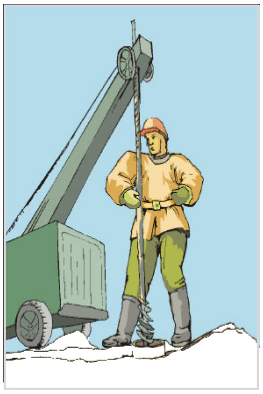
7_____

Answers on page 14...

The World Around Us

"Foreign Correspondent" Michael Ludwig reports on interesting news from the natural world.

Knowledge from Ice cubes!



Glaciers that extend high into the Alps and cover other places in the world are melting due to climate change. These glaciers are time capsules of the thousands of years they took to form.

When they were collecting snow and ice they trapped bubbles of the atmosphere within the ice. By analysing the bubbles scientists can learn a lot about Earth's atmosphere over those millennia.

To preserve samples of ice for future research, scientists are drilling into the glaciers and removing core samples — metre-long columns of ice.

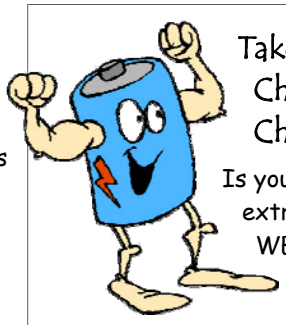
These samples are currently being stored in special freezers but will eventually be moved to a specially constructed snow cave in the coldest place on Earth, the Antarctic. There they will be available for future climate change researchers.

Successful End of a Space Mission

In the Autumn 2014 issue, we wrote about the European Space Agency's 'Rosetta' spacecraft and how after 10 years and traveling some 405 million kilometres from Earth it had finally caught up with Comet 67P/ Churyumov- Gerasimenko.

The mission took lots of pictures but sadly a "lander" probe tumbled on landing and became wedged under rocks. Without sunlight, it eventually lost power and was only located by "Rosetta" just before the mission ended. During the 12 year mission, (two in orbit around it), "Rosetta" has collected enough data to keep scientists busy for decades. The mission ended when the spacecraft was deliberately crashed into the comet at the end of September.

Because the spacecraft was solar powered and moving away from the sun, it was dying by losing power. Crash-landing it into the comet allowed scientists to take and record very clear and upclose images of the comet's surface, just before the crash. Great photos AND a bittersweet ending!



Take part in the WEEE Pledge 2 Schools Recycling Challenge to help the planet & the Laura Lynn Charity!

Is your school in search of a green flag or just looking for an extra initiative for your school to participate in? Then the WEEE Pledge schools battery recycling challenge is just the thing for you and your pupils. It is free and easy to implement. All you have to do is sign your school up to take the WEEE Pledge to recycle waste batteries and WEEE can help you do it! By recycling batteries through the schools recycling programme you will be helping to raise vital funds for LauraLynn, Ireland's Children's Hospice (www.LauraLynn.ie) and also helping to protect the environment. Check out www.weeepledge.ie for more details and useful tips!

Birds of a feather, flock together?

As Hurricane Matthew was wreaking havoc throughout the Caribbean and along the southern east coast of the United States, meteorologists made an interesting observation when viewing radar images of the violent storm. Right in the eye of the hurricane, where the weather is calm and clear, flocks of birds could be detected.

It seems that some of the birds caught up in the storm managed to reach its centre and took shelter within the hurricane! They moved along with the storm rather than trying to make their way back through the violent storm winds.

They left their "shelter" when the winds died down. Nice thinking and flying!

Activity Page

Here's how to make a noticeboard for hanging your photographs or drawings.

Bats Hangout!

YOU WILL NEED:

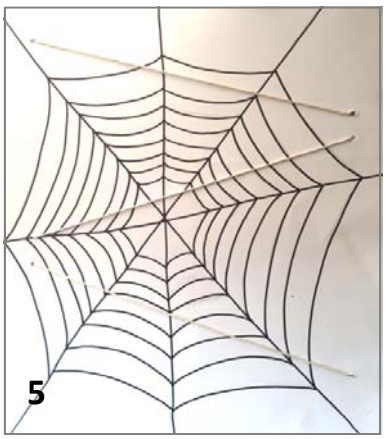
Six wooden clothes pegs
Six paper bats
Scissors
Black paint or marker
Large piece of Cardboard
2 metres of string
Tape or glue

1. Colour the wooden peg with the black paint or a marker and allow to dry.

2. Print or trace the bat template above and cut out the shape. If there are any white edges, colour with a black marker.

3. Colour all six pegs and cut out the six paper bats.

4. Attach a paper bat to the top half of each peg, using tape or glue.



5. Draw a design on the cardboard (a spider's web, a haunted house, a pumpkin or whatever you fancy). Make holes as shown above and weave the thread through them and tie at the back. Peg on bats!

Colour In

The Creaky House

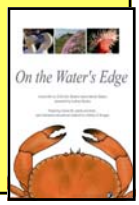
Learn More

Only €2.10 each including postage or €11.00 (plus €2.00 p&p) for all seven!

Sherkin Island Marine Station has published a range of colouring books, guides and activity books for children. Each 32-page *Colouring & Guide Book* gives you the chance to colour, identify and learn about the wildlife around Ireland. *My Nature Diary* contains lined pages to fill in a daily record of sightings and nature news.

Sea Life DVD: *"On the Water's Edge"*

Produced by Sherkin Island Marine Station, the DVD '*On the Water's Edge*', features a short film on life beside the sea. Presented by Audrey Murphy, it includes 6-10 hours of interactive material for children of all ages. *Only €6.00 plus €1.30 p&p.*



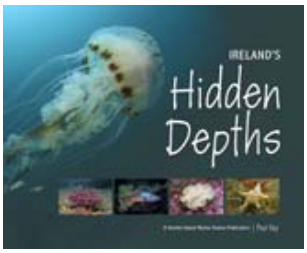
A Beginner's Guide to Ireland's Seashore is a pocket-sized guide, suitable for beginners of all ages. This book will help you to explore the wonders of marine life found on the shores around Ireland. *206pp*

Only €8.00 inc postage

A Beginner's Guide to Ireland's Wild Flowers With the help of this pocket-sized guide, beginners of all ages will be introduced to the many common wild flowers found around Ireland. *206pp*

Only €8.50 inc postage

Ireland's Hidden Depths is another Sherkin Island Marine Station publication. Ireland's amazing marine life, glorious kelp forests and spectacular undersea scenery are featured in over 200 spectacular photographs by nature photographer Paul Kay. 277 x 227 mm 160 pps
Only €13.00 including postage



"An A to Z of Geology" explores the fascinating world of rocks and geology – a world of volcanoes, tsunamis, earthquakes, diamonds, gold and even dinosaurs! Produced by Sherkin Island Marine Station, in association with the Geological Survey of Ireland.

Only €5.99 plus €1.00 postage

To order books, send your name and address along with a cheque or postal order made payable to Sherkin Island Marine Station to: Sherkin Island Marine Station, Sherkin Island, Co.Cork. Ireland. Or visit: **www.sherkinmarine.ie** and pay by Paypal.

Useful Web Addresses

There are lots of websites to be found on the internet that will give you further information on topics we have covered in this newsletter. Here are a few that may be of interest:

Portuguese Man o'War: http://www.iws.ie/beach/jellyfish-safety.321.html
http://oceanservice.noaa.gov/facts/portuguese-man-o-war.html

Spear Thistle: http://www.wildflowersofireland.net/plant_detail.php?id_flower=282

Marine Iguana: http://www.galapagos.org/about_galapagos/about-galapagos/biodiversity/reptiles/#marine

Canada Goose: https://www.allaboutbirds.org/guide/Canada_Goose/lifehistory
http://www.birdwatchireland.ie/IrelandsBirds/Geese/CanadaGoose/tabid/155/Default.aspx

How Seeds Travel: http://www.mbgnet.net/bioplants/seed.html

Anthony Toole—Travel Writer: http://myweb.tiscali.co.uk/anthonytoole http://www.sherkinmarine.ie/sherkincomment.htm

Black John the Bogus Pirate: https://www.facebook.com/BlackJohntheBogusPirate/

Shades of Autumn: http://www.noticenature.ie/Autumn.html

Preserving Ice from Glaciers: http://www.bbc.com/news/science-environment-37245768
https://nsidc.org/cryosphere/glaciers/questions/what.html

Hurricane Matthew: http://www.nasa.gov/feature/goddard/2016/matthew-atlantic-ocean
http://www.met.ie/climate-ireland/rainfall.asp

"Rosetta" Spacecraft: http://www.esa.int/Our_Activities/Space_Science/Rosetta

WEEE Pledge: http://www.weeepledge.ie/

We cannot be responsible for the content of external websites, so please observe due care when accessing any site on the internet.

Fun Page

How much did you learn?

The answers to all these questions can be found in the newsletter...see if you can remember!

1. Which charity would you be helping if you took part in the WEEE Pledge 2 Schools Recycling Challenge?
2. What does Anthony Toole work at?
3. Which bird of prey is nocturnal?
4. For which type of jellyfish did Irish Water Safety recently issue a warning?
5. How do the seeds of the thistle usually travel?
6. In the photograph on page 7, Anthony Toole is standing on top of Glass House Mountains. In which country is he standing?
7. What is a male goose called?
8. From what does the organic chemical "chlorophyll" get energy to create oxygen and other chemicals?
9. Where are scientists planning on storing ice samples from ancient glaciers?
10. How did the "Rosetta" spacecraft mission end?
11. On which islands are Marine Iguana found?
12. What animals stayed in the eye of Hurricane Matthew for safety?
13. Are Canada Geese native to North or South America?
14. Around which type of vents on the deep ocean floor might life on earth have begun?
15. What colour are the flowers of the Spear Thistle?
16. Which shellfish are in the Bord Bia Recipe?

HOW MUCH DID YOU LEARN: (1) LauraLynn Children's Hospice; (2) He is a travel writer; (3) Owl; (4) Portuguese Man o'war; (5) With the wind; (6) Australia; (7) Gander; (8) Sunlight; (9) Antarctica; (10) It was crashed into the comet; (11) Galapagos Islands; (12) Birds; (13) North America; (14) Hydrothermal vents; (15) Purple; (16) Mussels.
SHADES OF AUTUMN (Page 9): 1. Moon; 2. Owl; 3. Bats; 4. Apple; 5. Hedgehog; 6. Mushroom; 7. Pumpkin.

What a

Have fun with your friends making up a caption for this picture of a Musk-Ox in Quebec, Canada.

Courtesy of Alan D. Wilson www.naturespicsonline.com

Nature Jokes

What do you get if you cross a trout with an apartment?
A flat fish.

What's an iguana's favourite movie?
The Lizard of Oz.

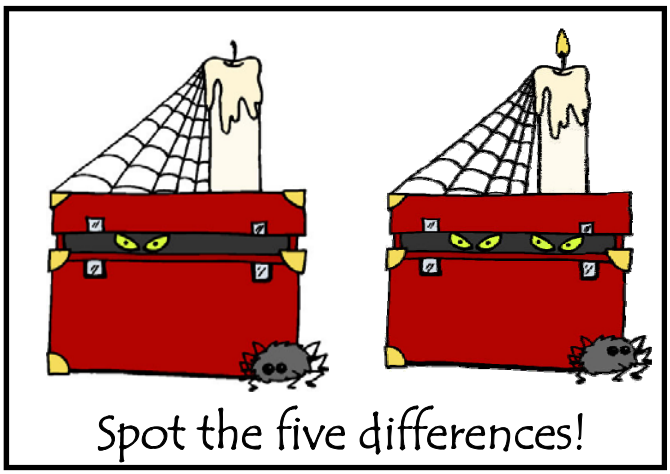
What do you call an alligator who is a thief?
A crookedile

What steps do you take if a tiger is running towards you?
Big ones!

How do astronomers organise a party?
They planet.

What is a knight's favourite fish?
A swordfish.

What do you call a cat with eight legs that likes to swim?
An octopuss.



Spot the five differences!

Nature's Web Wordsearch

Nature's Web Autumn 2016

Try out this giant wordsearch containing words found in this issue of the newsletter.

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

SOLUTIONS: *(Over,Down,Direction)* Anthony Toole (16,13,W); Bats Hangout (2,1,S); Black John (3,9,N); Bord Bia Fish Recipe (17,1,SW); Canada Goose (15,1,SW); Glaciers (9,10,E); Hurricane (4,9,NE); Irish Water Safety (1,16,NE); Marine Food Web (13,1,SW); Marine Iguana (1,12,N); Matthew (4,1,S); Portuguese Man o' war (18,17,W) Rosetta Spacecraft (17,18,N); Seeds (6,10,SW); Shades of Autumn (3,16,E); Spear Thistle (3,12,NE) The Creaky House (18,1,S); Travel Writer (5,14,E); WEEE Pledge (16,12,W).

Anthony Toole

Bats Hangout

Black John

Bord Bia Fish Recipe

Canada Goose

Glaciers

Hurricane

Irish Water Safety

Marine Food Web

Marine Iguana

Matthew

Portuguese Man o'war

Rosetta Spacecraft

Seeds

Shades of Autumn

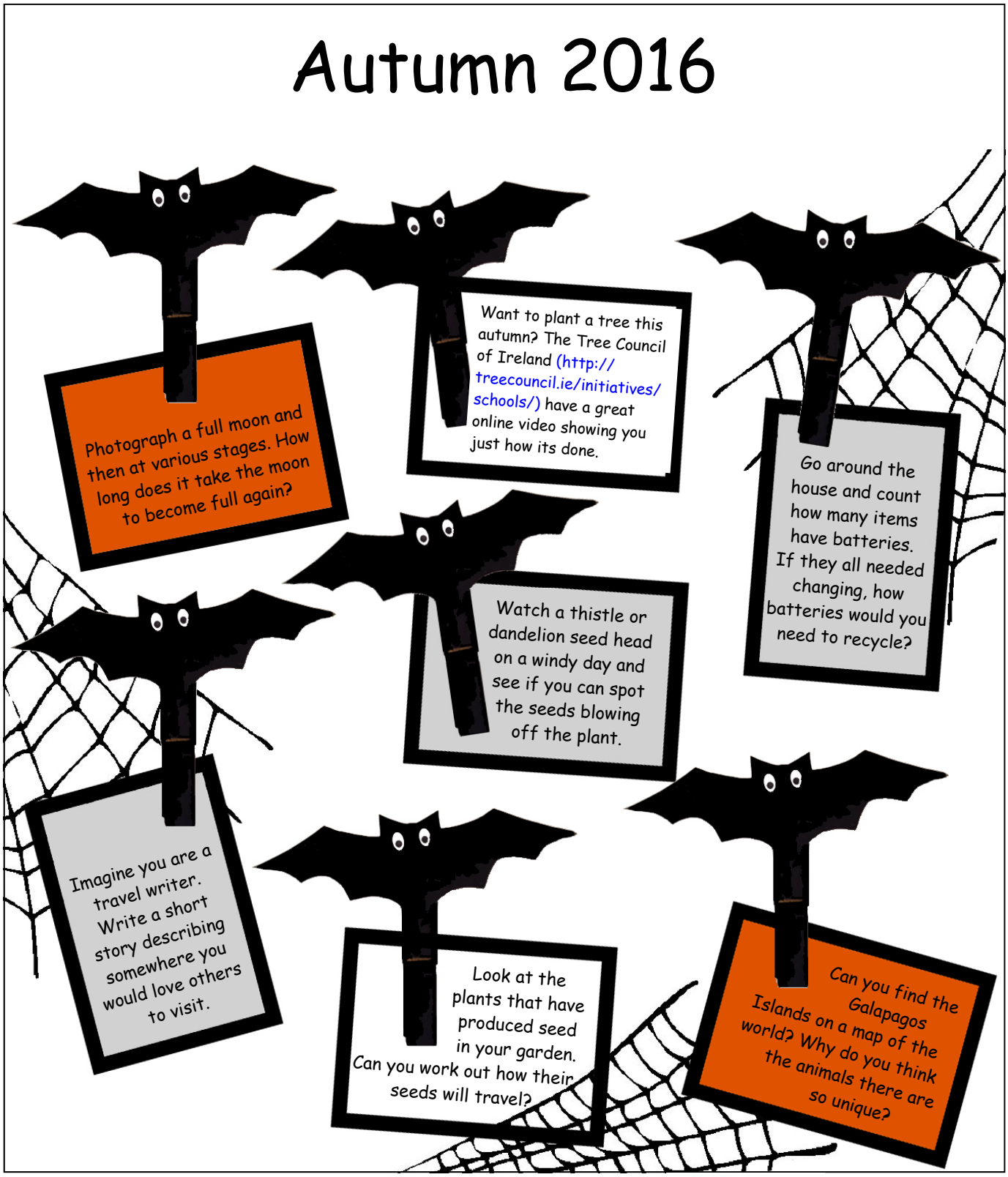
Spear Thistle

The Creaky House

Travel Writer

WEEE Pledge

Nature's Noticeboard



Sherkin Island Marine Station would like to thank those who have helped with this newsletter, particularly John Joyce, Michael Ludwig, Robbie Murphy, Anthony Toole, Vicky West , Alan D. Wilson and Jez Wickens.

Visit the Sherkin Island Marine Station website at www.sherkinmarine.ie

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