

Nature's Web

Issue No. 48

Winter 2017

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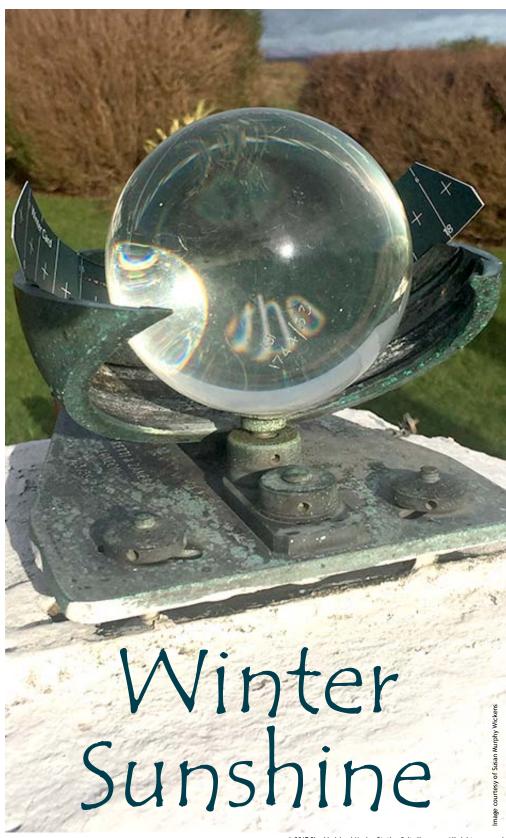
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Editor's Page

Volunteer
Weather
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Appears on
Weather Live!



There was great excitement in the house on Friday 17th November when the third night of RTE's Weather Live programme was aired. I was proud to watch my Dad telling the nation how he has been making weather observations on Sherkin Island—or as we call it "taking the temperatures"—since 1972. Matt is just one of over 400 volunteer weather observers around the country making weather observations for Met Éireann—The Irish Meteorological Service. He is featured in this issue's "All in a Day's Work", to give some idea of what it involves.

For nearly as long as I can remember, taking the temperatures has been a part of our lives. They have to be taken everyday, in sunshine or rain—obviously as that is what's being recorded! When my Dad is unable to take them there is always someone who can help out, though sometimes begrudgingly on very wet days! It doesn't take very long but it has to done at the same time every day. Even though there is now an automated station next door to him, he is still manually making the daily observations. In Winter time this is at 9.00 am and in Summer time (when the clocks go forward) it is at 10.00 am.

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/

Quick Fish Curry with Haddock

What you need:

- 700g haddock, skinned, boned and cut into 3cm chunks
- 1 tablesp. olive oil
- 5 heaped teasp. mild curry powder
- 6 scallions, finely chopped
- 3cm piece of ginger, peeled and grated
- 400ml low fat coconut milk
- 250ml chicken stock or water
- ½ cucumber, peeled, seeded and thickly sliced
- 1 handful coriander, chopped
- Salt and freshly ground black pepper



What to do:

- Heat a little olive oil in a saucepan over a low heat.
 Add the curry powder and cook for a minute or two.
 Then add the scallions and ginger and cook for a further minute.
- Pour in the coconut milk, stock or water, and bring to a gentle simmer and leave to cook for five minutes.
 Don't allow it to boil. Add the fish and cucumber and continue to simmer gently for 3-4 minutes. Add the chopped coriander and season to taste.

Serving Suggestions

Serve with rice and naan bread.

Brought to you by Bord Bia www.bordbia.ie

Serves 4

Welcome to the Winter Edition of Nature's Web!



Dear Reader,

Welcome everyone to the Winter 2017 issue of Nature's Web. In this issue we talk to Matt Murphy, who has been making weather observations for Met Éireann for over 40 years. We also look at the instruments that are used to make these observations. Everyone knows it is very important that when out and about on the water you wear an appropriate lifejacket or personal flotation device. Advice from Irish Water Safety will help you make the right choice. We also look at the Hawthorn tree, which is a major part of the hedgerows, providing food and shelter for wildlife. Check out nature news from around the world on page 12 and enjoy a giggle with the jokes on page 13.

We would love to hear your views and comments and suggestions for future

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Plant Life

Hawthorn

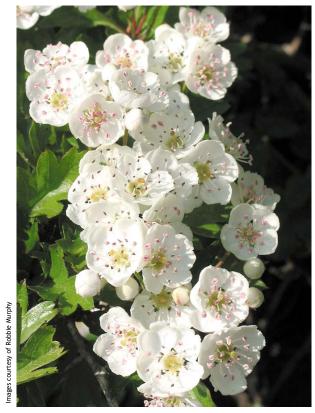
English Names: Hawthorn, Whitethorn, May Tree

Scientific Name: Crataegus monogyna

Irish Name: Sceach gheal

The Hawthorn tree is native to Ireland. In the countryside, Hawthorn trees are an essential part of hedgerows. They are important for wildlife, providing pollen, food and shelter for lots of animals, including birds, butterflies and moths, insects and mammals.

Hawthorn are small hardy trees and are very good in coastal areas, where they can withstand strong winds. Its scientific name *Crataegus* comes from the Greek word *kratos*, which means strength. As they are deciduous trees, they lose their deeply lobed leaves in winter, yet their spiny branches still provide shelter along countryside lanes and in fields.



A Natural Fence!

Hawthorn is a good for controlling domestic animals, as it is makes a natural stock-proof fence. To help with this, the trees need to be trimmed regularly. However, even old straggly trees can be cut back and new growth will soon appear. They can also be laid, a special skill which involves cutting half way through the trunk and laying it down horizontally in the hedgerow, creating a more dense hedge.

A Profusion of Colour

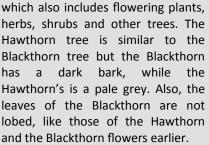
In May, Hawthorns produce clusters of small white flowers and these create a stunning display in the hedgerows. Despite their beauty, the flowers have a sickly-sweet smell. This smell attracts flies, which helps with pollination. Come September the flowers are replaced with red berries, known as haws. Assuming they have been



<u>correctly identified</u>, haws are edible but taste like overripe apples. However the seeds inside the fruit are NOT edible as they contain cyanide, just like the seeds of an apple.

Relatives

The Hawthorn tree belongs to the Rose family (Rosaceae), which also includes flo



FACT FILE

Height: 10-18 metres if left to grow to full size. **Colour:** White flowers &

red berries.

Habitat: Hedgerows, countryside and

gardens.

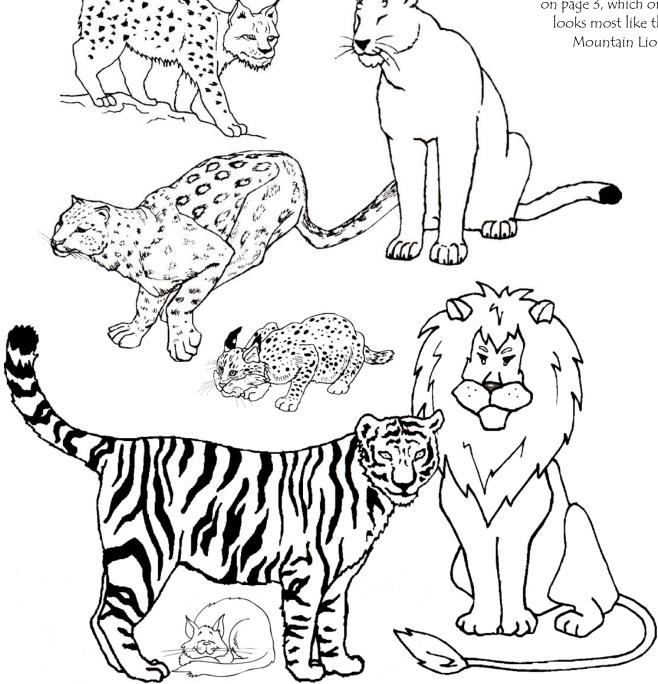
Distribution: Common all over Ireland.

Odd One Out

Cat Family Fun

There are many cats in the cat family but there is only one that has become domesticated. Can you work out which one it is? You could colour all the cats or just the one!

Based on the description on page 3, which one looks most like the Mountain Lion?



The sleeping cat is the only domesticated cat.

Animal Life

Mountain Lion



English Names: Mountain Lion, Puma, Cougar, Panther, Catamont

Scientific Name: Puma concolor Irish Name: Púma

n the cat world, the different types of cat are divided into two groups. The ■ Mountain Lion is the largest member of the "small cats", despite being bigger than some of the "big cats", such as the leopard or cheetah. It can be found in the Americas, from southern Canada to Patagonia in South America.

Mountain Lions are tan in colour and are similar in appearance to the African Lion. However, the Mountain Lion has a small head in relation to its body. It is a powerful animal and its large paws help to make it a good climber. Males and females look alike but the males are bigger.

In the wild, the Mountain Lion can live up to 10 years but five years is more likely in areas where hunting is carried out. In captivity it can live longer. Mountain Lions

are territorial and occupy a large territory of about 260 sq. km, which they will vigorously defend. They mark their territory by clawing trees and urinating on vegetation.

Mountain Lions are elusive animals. They are most active at twilight and are hard to track down so it is difficult to get an accurate count of their population. They are not a threatened or endangered animal but are a "specially protected species" in some areas.

FACT FILE

Length: 105-196 cm

Colour: Tan coat with a black tip on its tail. The young are camouflaged with spots and a ring around their tail, which fade as they mature.

Diet: From small rodents to fully

grown deer.

Habitat: High mountains, tropical rainforests, deserts and savannas.

Distribution: From southern Canada to Patagonia in South America.

Number of young: An average of 3 to 4 cubs per litter. The gestation

period is 90-96 days.



The Mountain Lion cannot roar but does make an eerie human-like scream when courting.

Panther vs Black Panther

The distribution of the Mountain Lion was once so broad that the animal was given different names by native tribes and explorers. One of the names of the Mountain Lion is the Panther. This is not to be confused with the Black Panther, which is actually a leopard that has a genetic mutation, which results in having excess black melanin. The

Black Panther still has the typical leopard spots but they can only be seen close up.

Colour In



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All in a Day's Work

Matt Murphy, Volunteer Observer for Met Éireann

Matt Murphy is a Volunteer Observer for Met Éireann and has been recording the weather on Sherkin Island since 1972, in the case of rainfall and 1974, for sunshine and temperatures.



Matt Murphy

Have you always been interested in what you do?

When I came to Sherkin in 1971 I soon realised that, on an island, the weather rules your life. It was then that I became fascinated by it and wanted to record the daily weather.

How did it come about that you became a volunteer weather observer for Met Éireann?

Because of my interest, I wrote to Met Éireann in 1972 and asked for advice on what equipment I would need to record weather data. They sent me catalogues from various suppliers in the UK but I soon realised the equipment would be too expensive. Met Éireann then said they could give me a rain gauge if I would record rainfall for them. So in June of that year, when Mr. Paddy Butler from Met Éireann arrived on the island with the rain gauge, I met him off the ferry with our horse Molly and cart. I brought him across the island to our home and he put the gauge in place in the front garden. The next month I began collecting rain data. A couple of years later, in 1974, Mr. Butler organised the Stevenson Screen, with the various thermometers (see page 11), and I went from there.

What training did you have to do?

It is not complicated. When Met Éireann installed the rain gauge in 1972, all I had to do was to empty the rain gauge every morning into a measure and record what I found—and that is how I still do it today. I was shown how to read the thermometers in the Stevenson Screen once and then I knew what to do after that.

What do you have to do each day?

At 9.00am GMT (Greenwich Mean time), I have to take the readings on the various thermometers and record the amount of rain that has fallen the previous day. When the hour changes, for the summer, I do exactly the same recording at 10.00 am. Each evening, after sunset, I change the card in the sunshine recorder. This card will have recorded any sunshine from that day. At the end of the month, I write all the data on a special form and send the data and the sunshine cards off to Met Éireann.

What is best about what you do?

I have really enjoyed seeing the data build up over the years and to know that it has been helpful to Met Éireann to have this data. I never imagined that I would still be collecting weather data in 2017, at the age of 82. After 45 years, I hope I can go on collecting data for as long as possible!

What is the worst thing about what you do?

Forgetting to change the sunshine card after sunset. I'd usually wake up in the middle of the night and on realising my error, have to get up and go out to change it before the sun comes up!

What equipment do you use?

All the equipment has been supplied by Met Éireann—thermometers, rain gauge, sunshine recorder and cards. These are explained on page 11.

Do you work alone or as part of a team?

If there are days that I am away, I am lucky that some of my children live on the island they can come and collect the data for me.

What advice would you give someone wanting to do your job?

I would suggest that you write to Met Éireann and express an interest. They are always looking for volunteers to collect rainfall data. It is a big commitment and you would have to be willing and able to collect the data every day at the same time.



It may have snowed but the sun was still shining!



Looking to see if there was any rainfall the day before.



Checking the temperature 30 cm below ground level.

Weather

Recording the Weather

There are various instruments that are used to manually record different aspects of the weather, such as sunshine, maximum and minimum air temperatures and the amount of rain that falls. These instruments are explained below:







The sunshine recorder records how much sunshine there is in a day. It consists of a solid glass sphere that acts like a giant magnifying glass. Arced around the glass are grooves where a special card can be slotted in. When the sun is strong enough it shines through the glass and the heat from this will burn a mark onto the card. The burn marks are measured—each section is one hour—and the amount of sunshine can be recorded.

Inside the Stevenson Screen are two vertical thermometers: the dry (left) measures the current temperature and wet (right) helps measure humidity. The air around the 'wet' thermometer is kept moist using a piece of cloth, called a wick, which constantly sits in distilled water. A calculation is made on the data from these thermometers to measure the humidity in the air. Horizontal thermometers measure the maximum (top) and minimum (bottom) temperatures on a given day.

This unit is called a Stevenson Screen. It holds some of the thermometers that measure the maximum, minimum and current temperature and its design is very important. It has louvre panels on all four sides, which allows a flow of air into the unit but keeps the sunshine out SO that thermometers can get a more accurate reading of the surrounding temperature. To prevent the unit from overheating, it is painted white, as white reflects the sun's heat.





All the daily weather data is recorded in a book, which he dan empty bottle sits ne top of the unit is like a wind direction, wind speed wind direction.

These thermometers measure ground temperatures. The top thermometer measures the temperature at ground level. The middle thermometer is angled, with the angled part sitting in the soil. This measures the temperature 10 cm below ground level. The bottom thermometer sits in a long tube, buried in the ground. This measures the temperature at 30 cm below ground level.

The rainfall is measure using a rain gauge. A chamber is buried in the ground and an empty bottle sits inside it. The top of the unit is like a funnel and as it closes over the chamber, the spout of the funnel sits in the empty bottle. Any rain that falls into the funnel is then collected in the bottle. Rain water is measured in a special glass tube with markings in millimetres.

All the daily weather data is recorded in a book, which has space for each day. Other observations can also made at the same time, such as wind direction, wind speed (using the Beaufort Scale), visibility, cloud amount and general weather. At the end of each month, all data collected for that month, along with the sunshine cards, are sent off to Met Éireann in Glasnevin, Dublin.

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Activity

Winter Sledge



- Marker
- A small cardboard box
- Scissors Glue
- Pencil
- **Paints**
- Paper

- Tape
- 1. Choose a suitable box. We chose a box that has a side measuring 13cm x 18cm approximately. This will become the base of the sledge. If necessary, remove any tape as the box can be glued again afterwards and it makes it easier to
- 2. Lay the template that you have made on one of the long sides, perpendicular to the base. This will become the side of the sledge. Trace the curve onto the box. Repeat for the opposite side of the box (flipping the template). On the shorter sides of the box, draw straight lines to join the curves. Then cut along the lines. Glue the flaps of the box closed where necessary.
- 3. For the runners underneath the sledge. Make the straight part of these a little longer than the base of the sledge, then add extra for the curves. These can be as ornate as you wish. Cut a slot into the base of the sledge, about 2.5cm in from the edge and half the depth of the runner, and slot the runner into it. Repeat for the other runner.
- 4. To make the seat, cut a piece of card approximately 5/8ths of the height of the sledge but its full width plus 5cm. Fold 2.5cm in from each side to create tabs. Glue tabs and slot into the sledge. For the seat, cut card the size of the full template and fold in four to create a rectangular box. Tape to hold the shape and glue in place.
- 5. Paint your sledge and decorate with markers or paint.

Toilet rolls were used to make the reindeers in the photograph above. The legs and antlers were constructed by making holes in the rolls and threading pipe cleaners through and twisting them. The rolls were then stuffed with paper and the ends cover with tape and then painted.





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Make a Template

The template for this sledge depends on the size of the box. Lay the side of the box that is to become the base of the sledge on a piece of paper and trace around it. Divide the rectangle in eight equal horizontal sections (see below). From the top righthand corner draw a curve down to the centre of the 5/8th line and then curve it back up to the half way line, finishing on the left. The bottom section of the curve will give you a template for the side of the sledge.





Black John - the Bogus Pirate

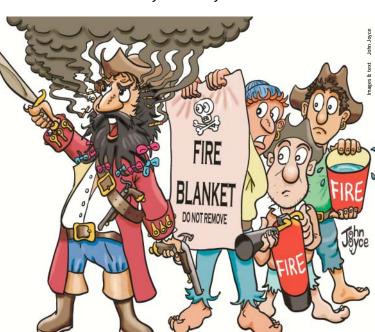


The infamous pirate William Teach (1680 – 1718), better known as 'Blackbeard', understood the value of a powerful frightening image to strike terror into the heart of his victims. He was a tall man with broad shoulders and a thick black beard that he braided into pigtails, sometimes tied with ribbons. When going into battle, he wore knee length boots, dark clothes and a brace of pistols hanging in holsters on bandoliers around his neck. The whole outfit was topped with a wide brimmed hat, under which he would stick slow burning matches, which pirates normally used to fire their cannons, to give him the appearance of a monstrous smoking devil. It was this frightening image that Teach relied on to

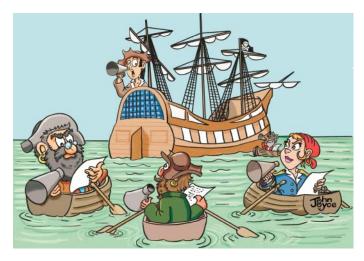
scare his enemies into surrender, rather than brute force. But, in spite of his fearsome appearance, 'Blackbeard' was never known to murder or harm any of his prisoners and was well respected by his crew. Blackbeard died in a battle with two English warships – the *Adventure* and the *Jane* – off Orakoke Island, on the coast of North Carolina on the 21st November 1718.

You can learn more about Blackbeard at https://en.wikipedia.org/wiki/Blackbeard

Black John - the Bogus Pirate By John Joyce



Blackbeard the Pirate—Master of Menace!



Conference Calls for Pirates?

While the Ocean is the largest natural feature on our planet, it is still a delicate living ecosystem that can be upset by everyday actions you and I make. One way to help protect it is to cut down on the exhaust fumes

given off by cars by simply using them less. When petrol and diesel are burned by car engines they create the gases carbon dioxide and carbon monoxide – both of which lead to 'Global Warming' and 'Ocean Acidification'.

In our everyday work activities, we can decrease the emission of carbon dioxide and carbon monoxide by our cars, buses and trains (as well as saving a great deal of time and money) if we replace face-to-face meetings, that require people to travel long distances to attend them, with conference calls they can make from their homes or regular work stations.

Here's a picture of a conference call I once organised for the annual general meeting of S.C.A.R.A.B. – the Society of Cutthroats, Rapscallions and Buccaneers. Mind you, my communications technology back then wasn't as sophisticated as yours is today!

You can learn more about ocean acidification at http://www.oceanacidification.org.uk/

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

Irish Water Safety

Lifejackets

and Personal Flotation Devices

It is really important to wear personal buoyancy or a lifejacket when afloat or if your activity takes you near the water. You must ensure that it is the correct size, properly fastened and that you understand how to operate it. Wearing an appropriate personal flotation device can give you extra time for the search and rescue services to find and rescue you.

Buoyancy of Lifejackets

Buoyancy is measured in Newtons – 10 Newtons equals'
1kg of flotation. There are 4 European standards for
personal floatation devices, which must all carry the CE mark:



EN 39

1. 50 Newtons buoyancy aids are only for use by swimmers in sheltered waters when help is close at hand. They are not guaranteed to turn a person from a facedown position in the water.

2. The 100 Newton buoyancy aid is for those

who may still have to wait for rescue but are

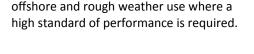
likely to be in sheltered and calm water.



EN ISO 12402-4



EN ISO



4. The 275 Newton lifejacket is primarily for

offshore and extreme conditions and those

wearing heavy protective clothing.

3. The 150 Newton lifejacket is for general



EN ISO



EN ISO 12402-1

5. IMO / SOLAS approved lifejackets are generally used for abandoning ship and are not intended for everyday use as they are generally bulky.

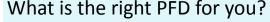
Information provided by Irish Water Safety, Long Walk, Galway, Ireland. www.iws.ie

Care for your PFD

You should have your PFD serviced in accordance with the manufacturer's recommendations. On a regular basis, you should check for wear and tear, and wash it out with fresh water to remove salt and allow to dry. Remember to disarm any automatic inflation first to avoid accidental inflation.

What is a personal flotation device (PFD)?

This is a generic term used to describe lifejackets and buoyancy aids. The main difference between lifejackets and buoyancy aids is that a lifejacket is designed to turn an unconscious person face up on entering the water. A buoyancy aid is not guaranteed to do this and is as the name describes, an aid to keeping you afloat.



The most suitable type for you will depend on the type of activity and the distance you are likely to be from the shore:

• Foam-only personal flotation devices provide buoyancy at all times. They may be bulky, but in addition to providing buoyancy, they often provide additional protection against wind and cold.



 Air-only lifejackets are likely to be the most compact and comfortable and may be automatically inflated on entering the water or inflated manually or orally. Spare gas cylinders

and automatic inflation mechanisms should be carried. It is recommended that all personal flotation devices are fitted with a whistle, light and retroreflective strips and should have

under-leg straps. Under-leg strap is a very important feature especially for children to ensure a secure fit and prevent child from slipping out of the PFD.

 For some sports such as jet skiing, water skiing, dinghy sailing, windsurfing and canoeing, specialised personal flotation devices are available which are specifically designed to suit these sports.





The World Around Us

A Scuba-diving Fly!

For many years scientists have been fascinated by small flies that feed and lay eggs in a lake near Yosemite National Park in the USA. Though it is a freshwater lake, Mono Lake is three times saltier than the ocean. It is also full of sodium carbonate and borax, a substance similar to washing detergent. Algae and bacteria thrive in the lake



"Foreign Correspondent" Michael Ludwig reports on some strange goings on in the natural world. but vertebrates do not, so without fear of being attacked by predators, the only hurdle for the Mono Lake Alkali Fly had to overcome was to find a way of protecting itself from the unfriendly environment. For many years people have been fascinated to know how it achieves this and the answer has finally been uncovered. Scientists Michael Dickinson and Floris van Breugel have discovered that wax on the fly's hairier than average body is very effective at repelling carbonate-rich water, a phenomenon which creates a protective bubble of air around the Mono Lake Alkali Fly's body as it enters the water. This, along with its large claws, means it can move around the lake without difficulty or even getting wet.

Storm Ophelia

Storm Ophelia was an unusual storm that hit Ireland. It was named Ophelia by the US National Hurricane Center when they began tracking it as a possible tropical storm in the eastern Atlantic Ocean. Tropical storms like this which usually begin near Cape



Verde, which is off the African coast. They typically travel westwards, across the Atlantic Ocean and while some make landfall in the Americas, many fizzle out. However, as this storm developed it moved north eastwards and turned into the strongest hurricane in the eastern Atlantic in a century and a half. Thankfully as it moved closer to Ireland it hit cooler water and weakened into a less dangerous tropical storm.

On Monday 16th October, Storm Ophelia hit the southwest coast of Ireland. Sadly three people lost their lives in Ireland because of the storm. A red alert from Met Éireann and the response of the State national emergency co-ordination centre helped to ensure this number was not higher.

Uluru will close to climbers in October 2019

The Board of Management of the Uluru-Kata Tjuta National Park, in Central Australia, have decided to close the climb to the top of Uluru on 26th October 2019. Uluru (previously known as Ayers Rock), is one of the most recognisable and famous landmarks in Australia. It has huge cultural significance for Aborigines, Australia's indigenous people. The Aborigines are the traditional owners of the park and have used the area for tens of thousands of years. They now manage the park alongside Parks Australia and want to protect their native heritage by stopping people climbing Uluru.

Each year more than 250,000 people visit the park from all around the world. It is a World Heritage Area and is 450 km from Alice Spring, the nearest major town.



A New Heritage Ireland Website

Heritage Ireland have launched a new website for their Heritage in Schools scheme. As well as being able to make an online booking for any of the 145 Heritage Specialists who visit primary schools throughout the country, the website provides a range of classroom resources like teaching children to build a giant nest, create a butterfly garden or make their own family tree.

The Scheme is open to all primary schools nationwide. You can visit the site at www.heritageinschools.ie .



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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 Who provided the information on Lifejackets and Personal Flotation Devices?
- 2 Blackbeard organised a conference call for the Annual General Meeting of which Society?
- 3 When will Uluru in Australia be closed to climbers?
- 4 On which RTE programme did Matt Murphy recently appear?
- 5 What colour are the berries of the Hawthorn Tree?
- 6 What is buoyancy of lifejackets measured in?
- 7 What year did Matt Murphy begin recording rainfall on Sherkin Island?
- 8 Which fish is featured in the Bord Bia recipe?
- 9 How salty is the freshwater Mono Lake, near Yosemite National Park in the US?
- 10 How many Heritage Specialist do the Heritage Council feature on their website?
- 11 What keeps the wet thermometer wet in the Stevenson Screen?
- 12 Is the Mountain Lion a "small cat" or a "big cat"?
- 13 For which organisation does Matt Murphy collect weather data?
- 14 Who officially named Storm Ophelia>

Answers Above: (1) Irish Water Safety; (2) The Society of Cutthroats, Rapscallions and Buccaneers; (3) Zeth October 2019; (4) Weather Live; (5) Red; (6) Newtons; (7) 1972; (8) Haddock; (9) Three times saltier than the ocean; (10) 145; (11) A wick; (12) "Small cat"; (13) Met Eireann; (14) The US National Hurricane Centre.

Think of a Title

Have fun with your friends making up a title for this photo of a Barren-ground Caribou in Nunavut, Canada.



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

Nature Jokes

What goes up when the rain comes down?

Umbrellas





What do you use to catch an Arctic hare?

A hare net.

How can you get a free set of teeth?

Smack a lion!



What did one snowman say to the other?
It all smells like carrots to me.

Is it raining cats and dogs?

It's okay, as long as it

doesn't rein-deer!





What side of a hawthorn tree has the most leaves?

The outside.

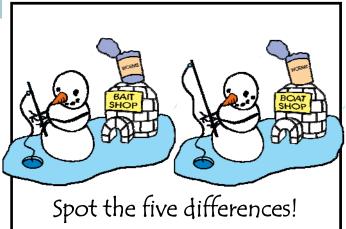
What's out of bounds? A tired kangaroo.





What did one tornado say to the other tornado? Lets twist again like we did last

summer.





Learn More

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. Safety Sam's Activity Book is filled with activities to encourage safety for children. My Nature Diary contains lined pages to fill in a daily record of sightings and nature news.

A Beginner's Guide to Ireland's Wild

flowers found around Ireland. 206pp

Flowers With the help of this pocket-sized guide, beginners of all ages will be introduced to the many common wild

Only

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

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 ϵ 6.00 plus ϵ 1.30 p&p.



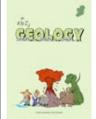
A Beginner's Guide to Ireland's Seashore is a pocket-sized guide, suitable for beginners of all ages. This book will help you to explore the wonders of marine life found on the shores around

Only €8.00 inc postage

Ireland.

206pp





"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.

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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:

Met Éireann: https://www.met.ie/

Mountain Lion: http://mountainlion.org/index.asp http://animals.sandiegozoo.org/animals/mountain-lion-puma-cougar

Hawthorn: https://www.irelandswildlife.com/hawthorn-crataegus-monogyna/ https://treecouncil.ie/project/hawthorn/

Irish Water Safety: www.iws.ie

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

Weather: https://www.met.ie/education/ http://www.noaa.gov/weather https://www.windfinder.com/

Mono Lake Fly: http://www.monolake.org/about/ecoflies http://www.sciencemag.org/news/2017/11/fly-survives-deadly-lake-encasing-itself-bubble-here-s-how-it-makes-it

Storm Ophelia: http://www.nhc.noaa.gov/graphics_at2.shtml?cone https://www.climate.gov/news-features/event-tracker/former-hurricane-ophelia-batters-ireland

Uluru: https://parksaustralia.gov.au/uluru/ http://uluru-australia.com/about-uluru/uluru-facts/ https://adventure.com/australias-iconic-red-rock-climbing-uluru-banned/

Heritage Ireland: http://www.heritageinschools.ie/

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

Wordsearch



Nature's Web Winter 2017 Wordsearch

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

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(Over,Down,Direction): Acidification (16,1,5W); Blackbeard (7,9,5E); Cat Family (12,16,W); Haddock (12,3,5W); Hawthorn (10,14,WW); Heritage Ireland (2,2,5E); Irish Water Safety (16,3,W); Lifejacket (10,18,W); Matt Murphy (1,12,N); Met Eireann (3,10,NE); Mono Lake Fly (15,4,5); Mountain Lion (7,16,NE); Stevenson Screen (1,15,E); Sterm (3,70,E); Thermometers (17,13,NW); Uluru (12,17,E); Volunteer Observer (18,1,5); Weather (17,11,NW).

Acidification

Blackbeard

Cat Family

Haddock

Hawthorn

Heritage Ireland

Irish Water Safety

Lifejacket

Matt Murphy

Met Éireann

Mono Lake Fly

Mountain Lion

Stevenson Screen

Storm Ophelia

Thermometers

Uluru

Volunteer Observer

Weather



Nature's Noticeboard!



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

