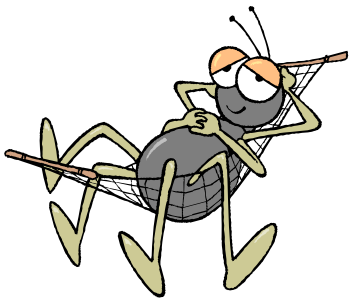
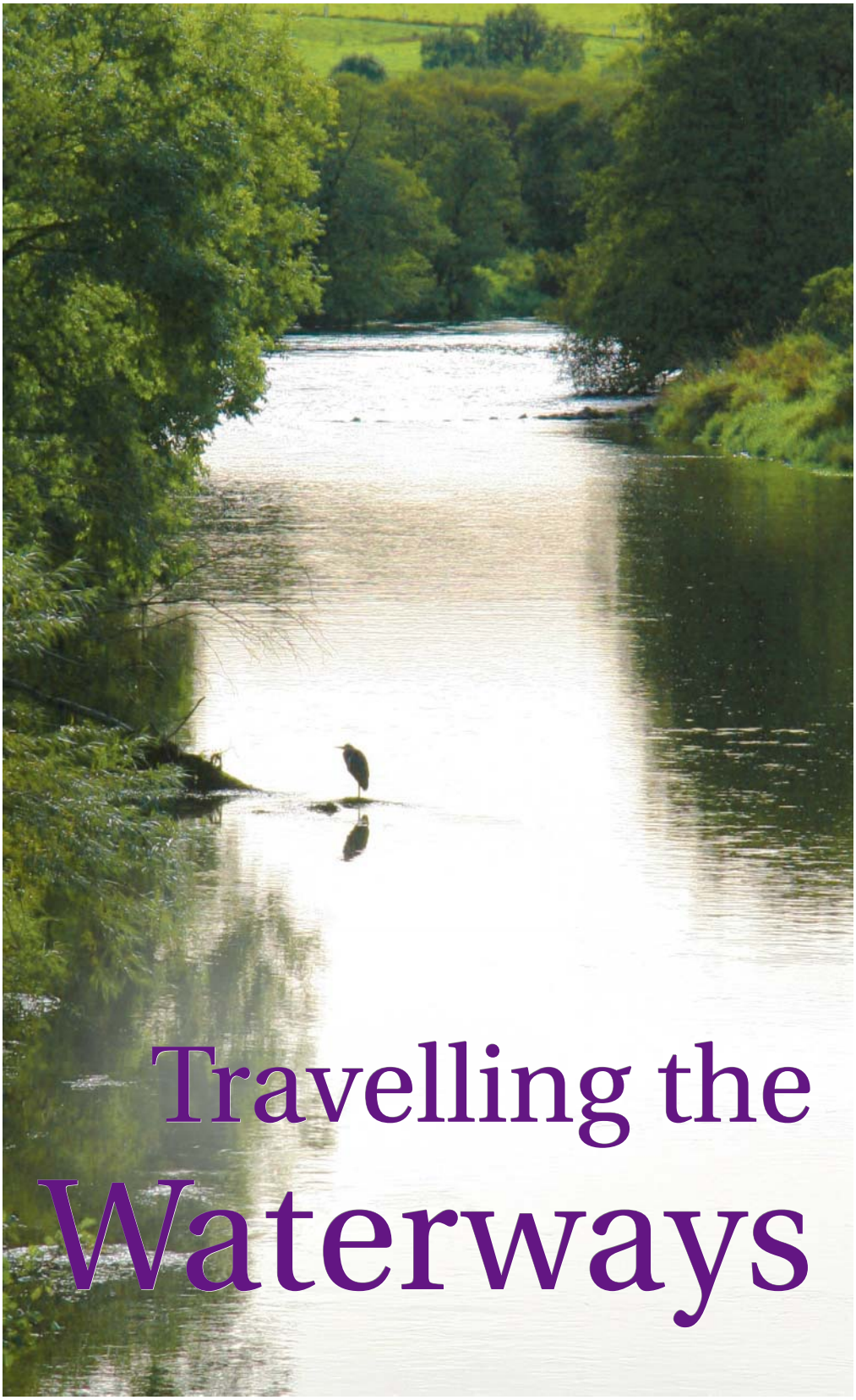


Nature's Web

Issue No. 45 Spring 2017

Inside This Issue...



Travelling the Waterways

Image courtesy of Robbie Murphy

Editor's Page

Seeing Giant Trees!

I would love to see a giant tree and can only imagine how impressive it must be to stand next to such a tall living structure. In the early 1990s, my Dad visited Olympic National Park, in Washington State, on the west coast of America. The national park is one of the best examples of a temperate rainforest in the US and is home to many giant trees. Though the tallest of the trees, the redwoods, are a little further south in Oregon and California (see page 8), this park in Washington State, has some of the tallest specimens of Douglas Fir, Sitka Spruce and Western Redcedar in the world. My Dad loved visiting the forest and it was a very special experience for him. He has always had an interest in giant trees and as you can see from the photograph, they were just too big to get his arms around!

Matt Murphy hugging one of the giant trees in Olympic National Park, Washington State, USA.

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

Haddock with Pasta and Broccoli

What you need:

- 700g haddock, skinned and boned
- 375g pasta - linguini or spaghetti are ideal
- 250g broccoli, broken up into small florets
- A little salt and black pepper
- 125g cream
- 125g stock
- 2 cloves garlic, finely chopped
- 2 chillies, deseeded and finely chopped
- Juice and grated rind of 1 lemon
- 1 handful parsley, chopped
- 2 handfuls watercress or spinach leaves, roughly torn

Serves 4

To Cook:

- Cook the pasta in a large saucepan of boiling water as per packet instructions. For the last minute add the broccoli. Drain and return to the saucepan, along with a couple of tablespoons of the cooking liquid. Keep warm while you cook the fish and make the sauce.
- Heat the grill. Lightly oil a baking tray and place the fish on it. Season with salt and pepper. Cook under the hot grill for 5-6 minutes until the fish flakes easily.
- Put the cream and stock in a saucepan along with the garlic, chillies, lemon juice and rind and season with salt and pepper. Bring to the boil, reduce the heat and let it simmer for 4-5 minutes. Then stir this mixture and the watercress and parsley through the pasta. Finally flake the fish and gently stir it in.

Courtesy of Bord Bia - Irish Food Board www.bordbia.ie.

Welcome to the Spring Edition of Nature's Web!

Dear Reader,

Welcome everyone to the Spring issue of Nature's Web. This issue looks at waterways in Ireland and those responsible for looking after them - Waterways Ireland. We also get an insight into the work of Cormac McCarthy, Environment and Heritage Officer with Waterways Ireland. Join Black John - the Bogus Pirate as he continues his lessons on ocean literacy. Learn about the giants of the tree world, the redwoods and find out more about the smallest cetacean in Irish waters, the Harbour Porpoise.

You can check out nature news from around the world on page 11 and enjoy a giggle with jokes on page 13.

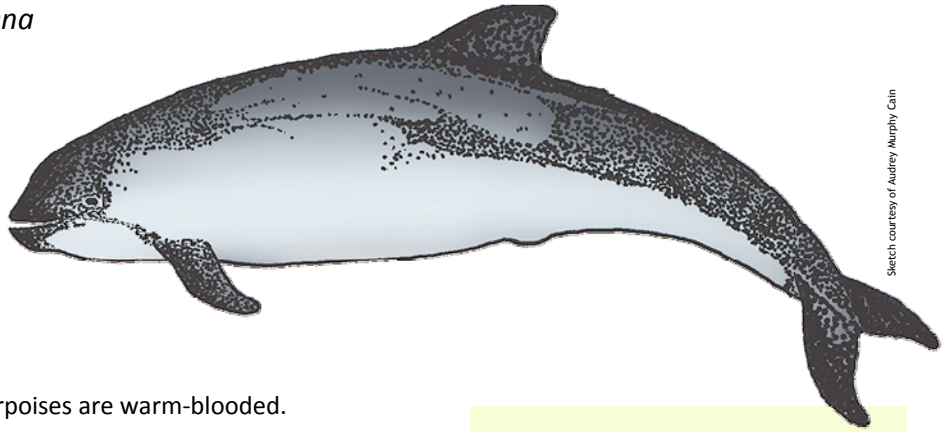
We would love to hear your views and comments and suggestions for future articles. Have a good read!

Susan

Email: editor@naturesweb.ie
Web: www.naturesweb.ie
Editor:
Susan Murphy Wickens
Layout and Design:
Susan Murphy Wickens
Photographs & Clipart:
Copyright © 2017 Sherkin Island Marine Station & its licensors. All rights reserved.
Foreign Correspondent:
Michael Ludwig

Harbour Porpoise

Scientific Name: *Phocoena phocoena*
Irish Name: Muc mhara



Sketch courtesy of Audrey Murphy Cain

The Harbour Porpoise is a marine mammal and, along with dolphins and whales, it belongs to a group of animals known as cetaceans. The porpoise is the smallest cetacean in Irish waters and the most common. It can be found in shallow waters around the coast, near harbours and sheltered coastal bays. Like nearly all mammals, porpoises are warm-blooded.

With its streamline body, the Harbour Porpoise looks very like a dolphin, but it has a blunt head and no beak. It has small oval flippers and a triangular-shaped dorsal fin. As it breathes air, it must regularly swim to the surface.

Just like dolphins, porpoises also use echolocation to navigate. They send out sounds that bounces off objects sending echoes back to let them know what is ahead. Echolocation also helps them find food. They feed on fish and shellfish on the bottom of the sea and grip their prey with spade-shaped teeth. Dolphins tend to have cone-shaped teeth.

Porpoises live in groups of about 3-15 and are playful animals. However, they are also shy creatures in Irish waters so, though they are more plentiful, they are seen less often. They don't come up to play like dolphins, nor do they bow ride boats like dolphins.

Other Porpoises

The Harbour porpoise is the only porpoise in Irish water. There are six species of porpoise around the world. One of these, the Vaquita porpoise, is found only in the northern Gulf of California. Not only is it the smallest but is also the most endangered marine mammal. Its Spanish name translates into "Little cow".

Family

Harbour porpoises give birth to a single calf, every two years. They carry their young for 11 months and give birth in early summer. The calf will stay with the mother for about 12 months.

What's in a name?

Harbour Porpoises are sometimes known as "puffing pigs", due to the sound they make when they are breathing. Their Irish name "muc mhara" translates to "sea pig".

Predators & Dangers

The Harbour Porpoises face a number of predators and dangers, including killer whales, large sharks and humans. Humans are a threat because of fishing, which can cause porpoises to become caught in nets. Unable to get back to the surface to breathe, they suffocate. Porpoises are also affected by damage to their habitat, such as from pollution.

FACT FILE:

Length: 1.4–1.9 m

Weight: 55–65 kg

Colour: Usually has a dark brown or grey back, light grey to brown sides and a white speckled underside.

Dive Time: 2 to 6 minutes

Diet: Herring, Mackerel, Sardines, Pollack, Whiting

Distribution: Found mainly in coastal temperate and sub-arctic waters.

Special Feature

Ireland's Waterways

Navigating one of the canals.

Rivers are an important feature in our landscape. From earliest times, people have made their homes near rivers, where they could get fresh water, food and easy access to transportation. Over time, large settlements grew up and a majority of major cities in the world today are located near rivers. Most of the big cities and towns in Ireland are situated on the banks of rivers – Dublin, for example is built on the River Liffey, while Limerick is built on the River Shannon.

Images & text courtesy of Waterways Ireland

This information has been reproduced by kind permission of Waterways Ireland. For further resources visit:
http://www.waterwaysireland.org/Pages/Learning.aspx

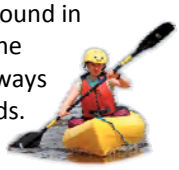
Waterways Ireland
Uisce bealaí Éireann Waterways Airlann

Waterways in Ireland:

Waterways Ireland is responsible for the following systems:

- The Barrow Navigation;
- The Erne System;
- The Grand Canal;
- The Lower Bann Navigation;
- The Royal Canal;
- The Shannon-Erne Waterway;
- The Shannon Navigation; and
- It is also responsible for the restoration of the Ulster Canal between Lough Erne and Clones.

Can you locate these waterways on the map?



Rivers drain the land and benefit agriculture. Much of the fish we eat comes from the sea, but fresh water fish such as pike and perch are found in rivers, lakes and canals. In the past, Ireland's inland waterways were used to transport goods. Today they are used for a wide variety of recreational activities such as sailing, kayaking, cruising, angling and water sports. Many tourists visit Ireland each year to spend time enjoying the benefits our waterways have to offer.

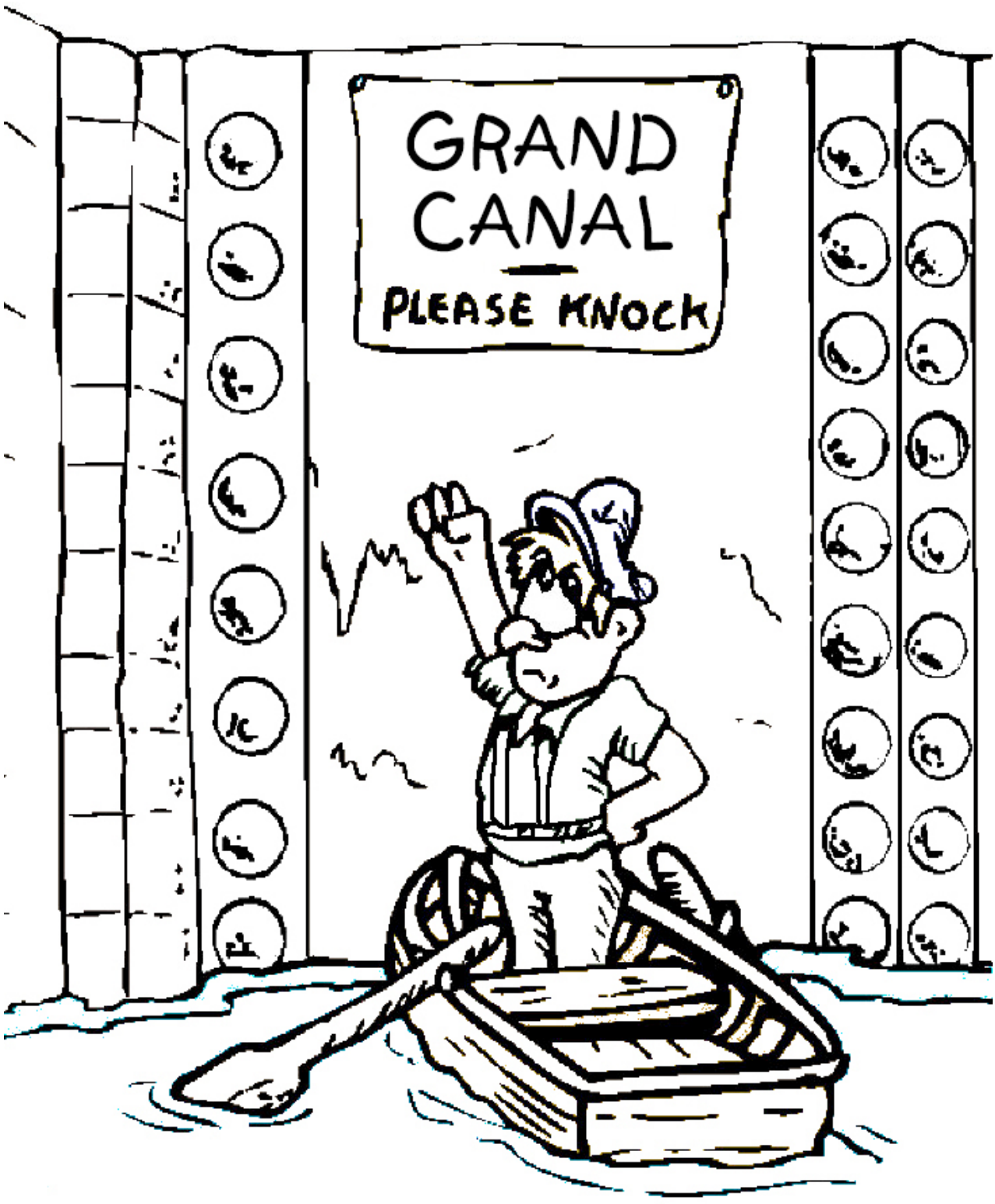
Rivers are also powerful sources of energy and in some cases this power has been harnessed to generate electricity. An example of this in Ireland is at Ardnacrusha Power Station on the River Shannon and Ballyshannon Power Station on the River Erne.

Who are Waterways Ireland?

Waterways Ireland has been given the responsibility of managing, maintaining, developing and restoring certain inland navigable waterway systems throughout the island of Ireland, principally for recreational purposes.

Waterways Ireland is one of six North-South Implementation Bodies established in 1999 under the British–Irish Agreement Act, 1999, and the supplementary North/South Co-operation (Implementation Bodies) (Northern Ireland) Order 1999.

Colour In



A Day on the Water

Locks and Bridges
on Ireland's Inland Waterways

As vessels travel along Ireland's inland waterways, there are many fixed and moveable bridges and a variety of locks to navigate under and through. Here are examples of some of them:

The Lockkeeper

A lock-keeper's work has a great variety to it. Apart from controlling water levels the lockkeeper also puts the various boats through the lock, writes boat permits for these boats and maintains the lock itself.

This information has been reproduced by kind permission of Waterways Ireland.
For further resources visit: http://www.waterwaysireland.org/Pages/Learning.aspx

All in a Day's Work

Environment & Heritage Officer — Waterways

PROFILE

Cormac McCarthy works as an Environment & Heritage Officer with *Waterways Ireland,* one of seven North South Bodies responsible for managing Ireland's major inland navigable waterways. He advises on work undertaken by the organisation and also works with the public as coordinator of their Heritage Plan.

www.waterwaysireland.org

Images courtesy of Waterways Ireland

Cormac McCarthy

Where do you work?
I work in the Environment & Heritage Section of *Waterways Ireland* which is based in Scarriff, Co. Clare. My role is to make sure works carried out by our organisation comply with relevant environmental and heritage legislation. We also undertake a lot of work with local community groups, such as helping with heritage awareness initiatives, pollinator-friendly management on our property and looking after the cultural heritage of our waterways.

Have you always been interested in what you do?
Yes absolutely. From a very young age I was privileged to grow up on the west coast of Co. Clare, at the edge of the Burren National Park. Being exposed to such a landscape from a young age definitely left its mark! I knew that once I left school I wanted to study the environment.

What training did you do to get where you are today?
I studied for my undergraduate degree in Environmental Science in NUI Galway. From there I started work and completed professional development courses that helped me with my work. This can be very varied, from understanding the law around the Habitats Directive to studying how to identify aquatic plants and know the difference between an otter and a mink footprint. Very varied to say the least!

What is your day like?
What's great is that every day is so different. One day you could be working with specialists on creating a register for heritage boats. Next you could be working on botanical surveys in the morning and that evening a strategy document on Blueways to promote more sustainable travel.

What is your main aim?
My main aim, both professionally and personally, is to be true to my word and stand over the work I do. I have a great respect for our environment and I would like to think that everything I do helps to preserve that for my kids and for future generations.

What is the best thing about your job?
The variety of the work and the fact that it is based all over the country, North and South. It takes me everywhere and anywhere. Our seven waterways are the Shannon, Shannon Erne Waterway, Erne System, Lower Bann, Grand & Royal Canals and the Barrow Navigation. We are also looking at projects relating to the Ulster Canal. I have been privileged to be on boats on the Shannon, walk the canal towpaths and work on sensitive repairs to weirs on the Barrow, to name but a few. My work also brings me to the amazing lakelands of the Erne system and right up to the Lower Bann and the rich heritage that surrounds it. To have that balance of desk work and fieldwork is a rare thing and I am fortunate to have it in my job.

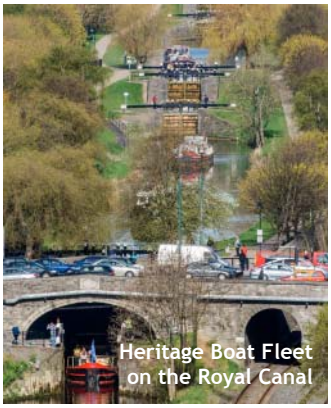


Image by Conor Nolan

Heritage Boat Fleet on the Royal Canal

What is the worst thing about your job?
Being spread all over the country and having so many communities who would like to work with us but not having enough hours in the day! We try our best to engage with as many local groups and communities as possible but with limited resources unfortunately we can't help everyone – doesn't stop us trying though.

Do you enjoy your work?
I love my work. I always have in all my jobs, but there is something very special about Ireland's waterways and the rich mix of natural, built and cultural heritage that form a rich tapestry in the landscape.

Do you work alone or as part of a team?
I work with three others as part of the Environment & Heritage team: Eamonn, Paula and Sabine. As we were the first ever Environment & Heritage Section in *Waterways Ireland* we got to put our own stamp on how we worked, which is a great opportunity.

What would you say to someone who wants to do your job?
No matter what you learn in school or college, common sense and respect for others will see you far in any career you wish to pursue.

What would you do if you weren't doing what you do?
Tough question... I think I would still be involved in heritage, perhaps more in a community role.

Image by Dariusz Raduszewski

Aerial shot of a canal

Walking along the River Barrow

Image by Gearoid Gibbs

Redwood Trees

Image courtesy of National Park Service www.nps.gov

"General Sherman" Tree in Sequoia National Park, California, USA. This Giant Sequoia is the largest tree in the world.

Redwood is a common name given to a group of coniferous trees that contains both the largest and tallest trees in the world. These trees belong to a subfamily of the cypress tree. There are three redwood species:

Coastal Redwood *(Sequoia sempervirens)*, also known as California Redwood or Sequoia, grow along a narrow coastal area in California and Oregon, in the USA, where coastal fog, high rainfall and mild temperatures provide sufficient moisture for the trees. Coastal Redwoods can grow for a very long time. Samples of trees have been dated at over 2,200 years old.

Giant Redwood *(Sequoiadendron giganteum),* also known as the Giant Sequoia, grow in the Sierra Nevada mountains of California, where the melting winter snow provide the moisture the trees need. Giant Redwood can also grow for thousands of years. Some specimens have been dated at over 3,200 years old.

Dawn Redwood *(Metasequoia glyptostroboides)* grow in central China, in shaded valley forests, and get their moisture from ravines on the valley floor. While both the Coastal Redwoods and Giant Redwoods are evergreen, the Dawn Redwoods are deciduous.

The Tallest & Largest Trees

The tallest tree in the world is a Coastal Redwood (*Sequoia sempervirens)*. It is nicknamed "Hyperion" and is located in Redwood National Park, in California. It measures 115.72 m in height.

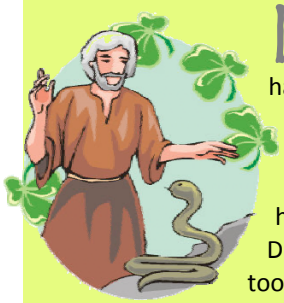
The largest tree in the world, in other words, the total volume of the tree, is "General Sherman" a Giant Sequoia (*Sequoiadendron giganterium)*, which grows in Sequoia National Park, also in California. It is about 1,487 cubic metres in volume.

Giant's Grove in Birr, Co. Offaly

Giant Redwoods were once native in Ireland and Europe, 30,000 years ago, before the arrival of the ice age. In the last few hundred years, specimens and small groves of redwoods have been planted around the world. There are some scattered around Ireland in various gardens. In Ireland, the redwood with the largest girth is a Giant Redwood in Charleville Estate in Co. Wicklow.

There are now plans to form the largest grove of Giant Redwoods outside of California, at Birr Castle in Co. Offaly. Some of the grove will also be planted with Coastal Redwoods. They hope to fund the project by finding a sponsor for each of the trees. By sponsoring one of the redwoods, the sponsor would creating a living, growing gift that would last for many generations. Details of the grove are at: www.giantsgrove.ie

No Snakes in Ireland



Legend has it that Saint Patrick, the patron saint of Ireland, banished snakes from the island. He is said to have put them in a box and thrown the box in the sea.

Unfortunately scientists have found no evidence that there were ever snakes in Ireland. No fossils of snakes have been found anywhere in the country, which would have been the case if snakes had ever lived here.

During the Ice Age, Ireland and Britain would have been too cold for snakes to survive. As the ice melted and temperatures rose, animals made their way across land bridges from Europe. Though three species of snake managed to reach Britain, no snakes reached Ireland.

In the story of St Patrick, it is believed that snakes symbolized the pagan religion which St. Patrick banished from Ireland.

St Patrick's Day

Ireland's National Holiday is St. Patrick's Day and it is held on 17th March each year. It is a day of celebration for the Irish, at home and abroad. It is believed St. Patrick was born around 389 AD in either Wales or Scotland. As a 16 year old boy, he was kidnapped and brought to the mountains of Antrim, where he was kept as a slave for six years. One night God came to him in a dream and showed him how to escape from slavery, which he did. Having returned home to his family, he then went on to France where he became a priest and in time became a bishop. Again, God came to him in a dream and told him to return to Ireland to teach Christianity to the Irish. This he did for over 40 years.

Two reptiles in Ireland

Though there are no snakes in Ireland, there are two land reptiles in Ireland. However, only one of these, the Common or Viviparous Lizard (*Zootoca vivipara*), is native. Commonly found throughout Ireland, there is a chance you might see this four-legged creature sunbathing on a stone wall on a hot summer's day.

The other reptile that can be found in Ireland is the Slow Worm (*Anguis fragilis*). It was introduced into Co. Clare in the 1970s and is confined to this area. The Slow Worm is a legless lizard and looks remarkably like a snake.

The Irish Wildlife Trust are asking people to help them by reporting sightings of the Common Lizard. So if you see one, contact them at research@iwt.ie. Ideally take a picture and email it to them as well and this will confirm the identification.

Other parts of the world without snakes

The are other islands around the world that are do not have snakes. Can you identify some of these islands below? The maps are not to scale.

A

B

C

D

E

F

Clues: A = A thermal island; B = On the east coast of Canada; C = Home of the Maoris; D = Whiter than its name suggest!; E = Volcanic islands in the Pacific; F = A cold continent. Answers on page 13.

Black John the Bogus Pirate

By John Joyce

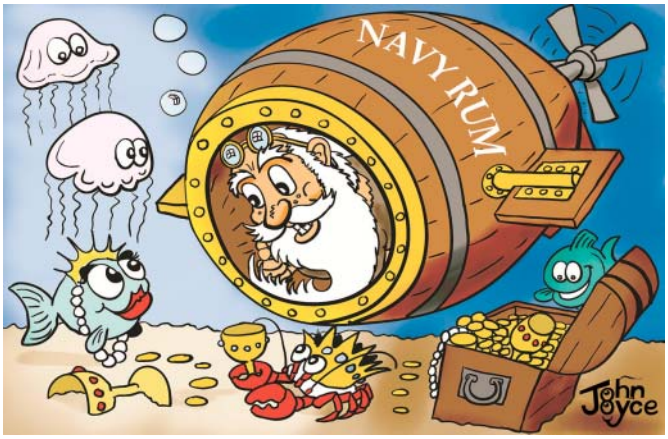
The Ocean is Largely Unexplored

The Sixth Principle of Ocean Literacy tells us that the Ocean is largely unexplored. This is because the deep sea is one of the most hostile environments for humans on our planet due to the enormous pressure of the surrounding water at depth, the lack of breathable oxygen and the effects of storms, currents and waves. Here's Smithy - our resident shipwright and inventor - to tell you all about it ...

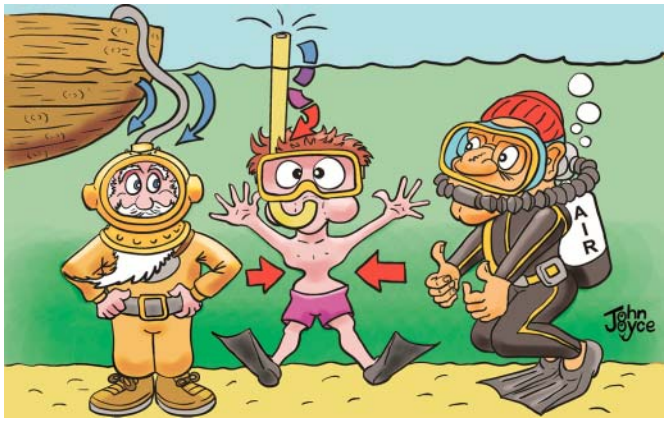
New technologies, such as Remotely Operated Vehicles (ROVs), underwater mapping systems using sound waves, and advances in satellite imaging systems have now replaced the old 'lead line' method of charting the depths.

In the past, this problem was overcome by pumping high pressure air down to the diver with a hand pump. But in 1942 the French naval officer Jacques-Yves Cousteau adapted a special valve invented by Emile Gagnan of the Air Liquide company to create the 'Aqualung' – a device capable of changing the pressure of compressed air from a metal tank worn by a diver to that of the surrounding water. This 'Self-Contained Underwater Breathing Apparatus' or SCUBA, allows divers to free themselves of any connection with the surface and to freely explore the underwater world.

In 1999, the Irish National Seabed Survey set out to map Ireland's 220 million acres (880,000 square kilometres) of underwater territory using sound waves. This project, which later evolved into the INFOMAR project, was a joint venture between Ireland's Marine Institute and the Geological Survey of Ireland. Under the United Nations Convention of the Law of the Sea (UNCLOS), Ireland has sovereign rights to explore and develop the natural resources in this vast area, which is nine times the size of the land mass of Ireland itself.



In the year 322 BC Alexander the Great is said to have employed divers to destroy underwater defences around the city of Tyre and even to have been lowered into the depths himself in a glass diving bell. Since then underwater vehicles called 'submarines' have been developed, both as instruments for peaceful exploration and salvage, as well as weapons of war.



Images & text John Joyce

But if we want to leave the confines of a submarine and swim freely under the sea, we must find a way of taking an air supply with us, since we do not possess gills and cannot take oxygen directly from the water as fish and other marine animals do.

In shallow water, this can be done with a simple snorkel to suck air down from the surface. But, as we go deeper, the weight of the water above us creates pressure all over our bodies. This squeezes our lungs so hard as to make it impossible to suck in air from the surface.

One danger of breathing normal air at high pressure however, is that the nitrogen it contains starts to have a similar effect to alcohol, creating a drunken condition known as 'rapture of the deep'. To overcome this, divers going beyond 30 metres depth for long periods breathe a mixture of oxygen and the inert gas helium. This protects them from 'rapture of the deep' but gives their speech a high pitched 'Donald Duck' effect.

Useful Links:
Alexander the Great - http://www.mlahanas.de/Greeks/UnderWater.htm
Pressure – http://pmel.noaa.gov/eoi/nemo1998/education/pressure.html
Irish National Seabed Survey – http://www.marine.ie/Home/site-area/irelands-marine-resource/real-map-ireland

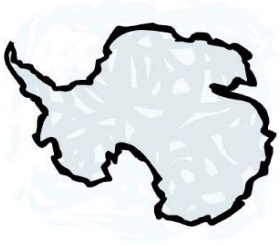
Follow 'Black John the Bogus Pirate' on Facebook at https://www.facebook.com/BlackJohntheBogusPirate/

The World Around Us

"Foreign Correspondent" Michael Ludwig reports on some interesting goings on in the natural world.

Moving a research station on Antarctic

The British Antarctic Survey has several Antarctica research stations, where they study the ozone layer and other aspects of life in Antarctica. One station is Halley VI. It is situated on the Brunt Ice Shelf, which sits in the Weddell Sea. The shelf is cracking and the station had to be moved. Located just 23 km from a crack that began widening in 2012, when another crack appear just 17km on the other side of the station in October 2016 relocation was needed. The new crack was 40km long. Though there was no immediate threat, it was decided to move the Station to a more stable location. If both cracks were to join up a very large iceberg would calve (or break off) the ice shelf, and the Halley IV would be adrift. The Station is made up of individual pods joined together. They were designed to be moveable. The relocated station will be reoccupied at the end of the Antarctic winter in November.

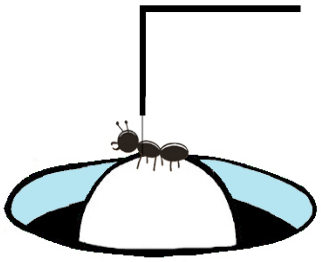


Snakes in the Classroom!

Well, this is unlikely to be a problem in an Irish school! Last September a high school in Ware Shoals, South Carolina, USA, had to close a classroom after five snakes were discovered in the room over a period of 10 days. The snakes were non-venomous, Rat Snakes, thought to have slithered into the classroom through cracks in the walls where old radiators once were. The cracks were sealed up and a pest control company dealt with the snakes. Isn't it a relief that there are no snakes in Ireland!

Ant on treadmill

Scientists have used treadmills for many years to study the movement of humans and large animals. However, what if they wanted to study the movement of ants? Typical treadmills would obviously be too big. An innovative approach to study the homing movements of two species of desert ant was found by scientists at the University of Freiburg in Germany. Using a Styrofoam ball on a cushion of air and securing the ant in place with a dental floss leash glued to its back, they created a perfect-sized "ant" treadmill. As the ant moved, it was able to rotate the ball, allowing the scientists to study ant walking speed and orientation at any time. The scientists found that the ants showed a significant difference in walking speed and behaviour, depending on whether they thought they were heading home or when they realised they were lost.



'Drive thru' sequoia

Redwood or Sequoia trees are the giants of the tree world. In the 1800s, a few of these living giants had tunnels carved through them allowing people, horses, and even cars, to pass through them. This was done to encourage people to visit the trees. However, as these are living trees, carving through them severely damaged and weakened the trees. One such sequoia was "The Pioneer Cabin" in the Calaveras Big Trees State Park, in Southern California. It is estimated to be over 1000 years old. Over a century ago, the tree lost its top and a tunnel was carved into the 50m tall and 10m diameter tree. For generations it was a visitors attraction. Sadly, the tunnel was to ultimately spell the end for the weakened tree. In January 2017 a bad storm blew it down. Thankfully Sequoia trees are no longer carved and damaged in such a way, making them healthier and much more stable.

The Pioneer Cabin in 2006. The tunnel was cut in the 1880s to compete for attention with Yosemite's Wawona Tree.

A Printed House!

In recent years, people have found more and more uses for 3D printers. Now it seems they can print houses! A company in San Francisco, Apis Cor, have just printed a 38^{2}m house in just 24 hours, using a concrete mixture as the "ink". It has a curved design and has a hall, bathroom, living room and a compact kitchen and costs just under €10,000.

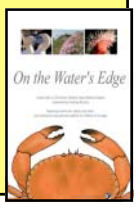
Learn More

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.

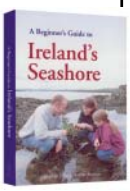
Sea Life DVD: *"On the Water's Edge"*

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 €4.00 plus €1.30 p&p.*



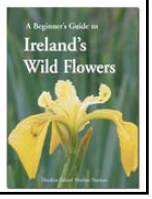
A Beginner's Guide to Ireland's Seashore is a pocket-sized guide, suitable for beginners of all ages. This book will help you to explore the wonders of marine life found on the shores around Ireland. *206pp*

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*

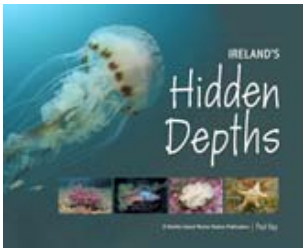
Only €8.50 inc postage



"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

Ireland's Hidden Depths is published by Sherkin Island Marine Station. 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 €10.00 plus €3.00 postage



To order books, visit: **www.sherkinmarine.ie** and pay by Paypal (no Paypal account necessary) or **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.

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:

Olympic National Park: https://www.nps.gov/olym/index.htm

Harbour Porpoise: https://www.irelandswildlife.com/harbour-porpoise-phocoena-phocoena/
http://www.noticenature.ie/Harbour_Porpoise.html http://cetus.ucsd.edu/voicesinthesea_org/videos/videoVaquitaMeet.html

Ireland's Waterways: http://www.waterwaysireland.org/

Locks and Bridges: http://www.waterwaysireland.org/Pages/Learning.aspx

Redwood Trees: https://www.nps.gov/seki/index.htm https://www.nps.gov/redw/index.htm http://www.giantsgrove.ie/
http://www.botanic.cam.ac.uk/Botanic/Plant.aspx?p=27&ix=32&pid=2765&prcid=4&ppid=2765
http://www.monumentaltrees.com/en/heightrecords/

Saint Patrick: http://www.irish-genealogy-toolkit.com/history-of-st-patrick.html

Snakes: http://www.rte.ie/tv/scope/SCOPE4_show03_snakes.html

Black John – the Bogus Pirate: https://www.facebook.com/BlackJohntheBogusPirate/ http://www.rov.org/rov_history.cfm
http://www.marine.ie/Home/site-area/infrastructure-facilities/research-vessels/deepwater-rov

British Antarctic Survey: https://www.bas.ac.uk/media-post/halley-research-station-antarctica-to-close-for-winter/

Printed House: https://3dprint.com/166389/apis-cor-3d-printed-house-russia/

Snakes in the Classroom: http://www.bbc.com/news/38993473

Ants on a treadmill: http://www.livescience.com/57907-ants-march-on-a-treadmill.html

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 Harbour Porpoises are shy creatures. True or false?

2 What device helps to raise and lower boats through stretches of water of different levels on rivers and canals?

3 What is the nickname of the world's tallest tree?

4 For the ant treadmill, what type of ball did the scientists use?

5 Who was said to have banished snakes from Ireland?

6 In which state in America are the Sierra Nevada Mountains, where the Giant Redwoods grow?

7 How big was the printed house created by Apis Cor?

8 Which organisation is responsible for looking after The Shannon-Erne waterway?

9 Which organisation had to move their research station on Antarctica due to cracking ice?

10 What did Cormac McCarthy from Waterway's Ireland, study in college?

11 Where in Ireland are there plans to plant a redwood grove?

12 What type of box can be made into a storage box?

13 Porpoises belong to a group called cetaceans. This group includes which other animals?

14 What knocked down the "drive thru" Sequoia tree called "The Pioneer Cabin"?

15 What fish is used in the seafood recipe?

Answers to "How much did you learn?": (1) True. They are shy. (2) A lock. (3) Hyperion. (4) Styrofoam. (5) Saint Patrick. (6) California. (7) 38 square metres. (8) Waterways Ireland. (9) British Antarctic Survey. (10) Environmental Science . (11) Birr, Co. Offaly. (12) Cereal box. (13) Whales and dolphins. (14) A storm. (15) Haddock.

Answers for Page 9: A=Iceland; B=Newfoundland; C=New Zealand; D=Greenland; E=Hawaii, F=Antarctica.

Think of a Title!

Can you think of a title for this photograph of Bald Eagles?

(Image courtesy of Alan D. Wilson http://www.naturespicsonline.com)

Nature Jokes

What bow can't be tied?
A rainbow

How can you make an omelette without breaking eggs?
Ask someone else to break them.

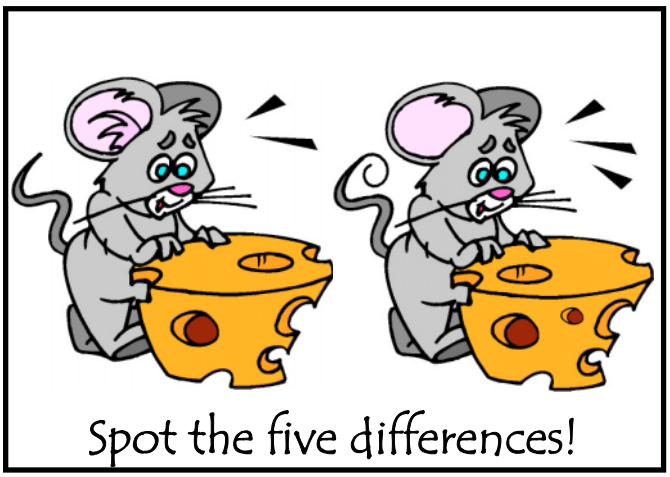
What do you get when you cross a parrot with a pig?
A bird who hogs the conversation.

What kind of snake is good at maths?
An Adder.

Can February March?
No, but April May.

What did the dolphin say to the whale when he bumped into her?
I didn't do it on porpoise.

What did the ground say to the earthquake?
You crack me up!



Cereal Box Storage

You will need:

- Cereal box
- Marker
- Ruler
- Scissors
- Wrapping paper
- Glue
- Tape

UPCYCLE an empty cereal box into a useful storage box for your artwork, notebooks or school books.

Images courtesy of Keelin Murphy, Eimear Murphy & Susan Murphy Wickens

1. & 2. Using a marker and ruler, draw a diagonal line from the top right corner to the opposite side, about two thirds of the way down the box. Continue the line around the side of the box and up the back.

3. Using the scissors, cut along the line you have drawn to reveal the storage box shape.

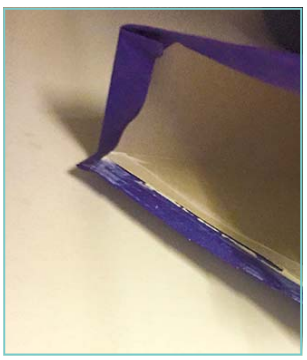
4. The wrapping paper must be large enough to wrap all the way around the storage box.

5. Spread glue on each side of the box, smoothing the paper on to it as you go.

6. Fold in the paper on the bottom of the box and tape in place.

7. Crease the paper all the way around the rim of the box.

8. Using the crease line as a guide, cut away the excess paper, leaving a border of about 2 cm.



9. Snip the corners of the paper so it folds in neatly. Put glue on the edge of the paper and press down.

10. Make a label using some white paper and glue it to the front of the box.

Nature's Web Wordsearch

Nature's Web Spring 2017 Wordsearch

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

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

Antarctic

Ants

Black John

Cereal Box Storage

Cormac McCarthy

Harbour Porpoise

Heritage Officer

Ireland's Waterways

Locks and Bridges

Ocean

Printed House

Redwood Trees

Saint Patrick

Seafood Recipe

Sequoia

Snakes

Treadmill

Waterways

SOLUTIONS (Over,Down,Direction): Antarctic (2,7,SE); Ants (5,9,NE); Black John (16,6,S); Cereal Box Storage (17,5,W); Cormac McCarthy (17,3,SW); Harbour Porpoise (18,15,N); Heritage Officer (1,18,E); Ireland's Waterways (17,1,SW); Locks and Bridges (1,1,S); Ocean (17,14,N); Printed House (14,13,NW); Redwood Trees (15,13,N); Saint Patrick (2,1,E); Seafood Recipe (14,17,W); Sequoia (11,16,W); Snakes (8,11,NW); Treadmill (10,6,SW); Waterways Ireland (17,18,NW).

Nature's Noticeboard!

Spring 2017

Sherkin Island Marine Station would like to thank the following for their help with this newsletter: John Joyce, Michael Ludwig, Cormac McCarthy, Eimear Murphy, Keelin Murphy, Robbie Murphy, Manus Tiernan and Jez Wickens.

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

We appreciate support from the EPA and the Geological Survey of Ireland toward the newsletter.