

Nature's Web

Issue No. 20

Winter 2010

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Twiggy the Snowman, who paid a visit to Sherkin Island at the end of November 2010!



WINTER CHILL!

Photo SAW

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Editor's Page

Keep your eyes peeled!

Many will have seen the recent four-part programme on television about the Golden Eagle Trust and their great work to re-introduce certain birds of prey back into Ireland. They are currently trying to re-establish the populations of three species of bird: the Golden Eagle (in Glenveagh National Park, Co. Donegal), the White-tailed Eagle (in Killarney National Park, Co. Kerry) and the Red Kite (in Wicklow National Park, Co. Wicklow).

We paid a visit to their website last week (www.goldeneagle.ie) to get an update on their work and discovered that you can track the activities of a number of tagged birds on the site. There is also a list of reported sightings for each species, with a map to pinpoint the location of the sightings. It was interesting to see how far each species had travelled from the various National Parks. We were excited to see how close one of the White-tailed Eagles came to Sherkin Island, with a confirmed sighting, on 18th September, of a White-tailed Eagle on our neighbouring island of Cape Clear. Seeing such a striking bird in full flight must be an absolutely wonderful sight. We never thought it possible that these magnificent birds would come so close to us so we are definitely going to keep our eyes peeled on the skies from now on!



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The White-tailed Eagle.

Welcome to the
Winter Edition of
Nature's Web!

Dear Reader,



Welcome everyone to the winter issue of Nature's Web. Just as we were preparing to put the newsletter online, snow arrived on Sherkin, along with Twigg the Snowman (see cover)! With the weather on our minds, it's great to have Frank Clabby from Met Éireann giving us an insight into his work (page 7). We also learn a little about clouds (page 12) and the type of weather they bring, as well as information on the wolf, plankton and ivy. You can check out nature news from around the world on page 11 and enjoy a giggle with the jokes on page 13.

We would love to hear your views, 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:
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Foreign Correspondent:
Michael Ludwig

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The newsletter, edited originally by Audrey Murphy for Sherkin Island Marine Station, is now edited by her sister Susan.

SEAFOOD RECIPE

Irish Fish Stew or Chowder

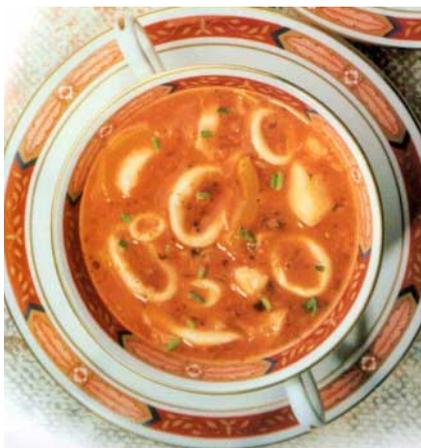


Photo courtesy of BIM

What you need:

- 450g/1lb cod or other whitefish cut in cubes*
- 225g/8ozs shellfish - mussels, cockles, squid, etc..
- 2 tablespoons oil
- Selection of winter vegetables - onion, garlic, carrot, celery, potatoes - chopped
- 450g/1lb fresh or tinned tomatoes
- 570 ml/1pt water or stock
- Salt and freshly milled pepper
- Lots of chopped parsley
- 7g/1/4oz carrageen - optional

What to do:

- Heat oil, add all vegetables except tomatoes and potatoes.
- Season well and cook without colouring over a low heat for 5-8 minutes.
- Add tomatoes, potatoes, carrageen and stock. Simmer for 10 minutes.
- Add fish. Cook for 2-3 minutes.
- Check seasoning and add lots of parsley before serving.

*You can substitute all kinds of fish and shellfish.

Serves 4

Brought to you by BIM.
For more recipes visit
www.bim.ie



Feathered Friends

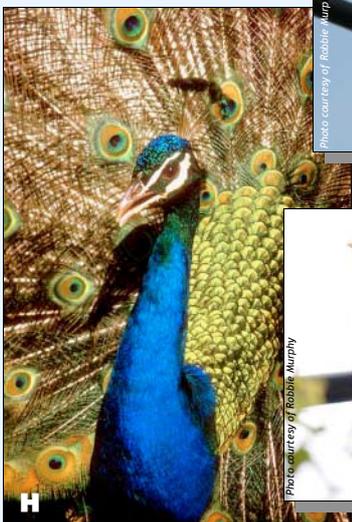
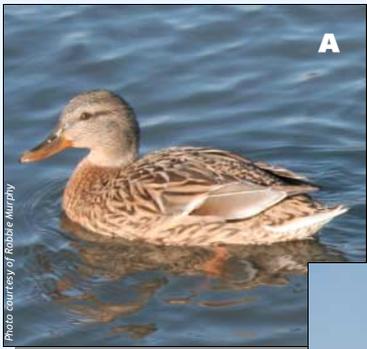
Male and female birds often have different coloured plumage (or feathers). The male can be very colourful and striking in appearance, while the female may look dull and drab in comparison. The female, when she is minding her eggs on the nest, wants to blend in with her surroundings and her drab colouring provides camouflage. Males often need to put on a display to attract a mate. Their bright colouring can show that they are healthy and in good condition and it can also show other birds that the area is occupied. The difference in plumage between the male and the female birds is often more obvious during the breeding season. The birds moult (or lose) their feathers depending on the time of year.

There is a difference in plumage between juvenile (young) birds and adult birds. Juvenile birds often have mottled feathers to help camouflage them while in the nest. They will moult their feathers at least once before their adult feathers appear.



The plumage of an adult seagull (bottom) and of a juvenile gull (top).

Opposites Attract...



Below are the male and female of four species of bird. Can you help them find their partner and use the clues to select the correct name?

- Mallard** – a member of the duck family.
- Stonechat** – a small bird that eats insects.
- Peacock** – the male has a magnificent tail.
- Blackbird** – the male gives this bird its name.

Answers: Mallard - A (female) & F (male);
Peacock - B (female) & H (male); Stonechat C (female) & E (male); Blackbird D (female) & G (male).

Plankton

By Anna Bunyan

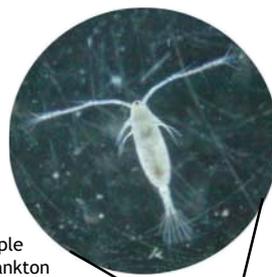
Plankton are the tiny organisms that inhabit both oceans and freshwater. The word 'plankton' comes from the Greek word '*planktos*' meaning "wanderer" or "drifter". They are so called because they are either unable to swim or are very poor swimmers. This makes it impossible to swim against the flow of water and so they just float with the currents.

Plankton are microscopic plants and animals and most are invisible to the naked eye. Planktonic plants are known as **phytoplankton**, and planktonic animals are known as **zooplankton**. Most zooplankton are microscopic and many will spend their whole life floating in the water column as plankton. However, some zooplankton are the young (or larvae) of much larger animals, such as fish, crabs and barnacles, and will only spend part of their life as plankton.

Plankton is of primary importance in the aquatic food chain. The smaller plankton feed the larger plankton, which in turn feed larger aquatic organisms like fish and cetaceans (e.g. dolphins).



Examples of phytoplankton - planktonic plants.



An example of zooplankton - a plankton animal.



Most plankton can only be seen with the help of a microscope.

A Breath of Fresh Air!

Phytoplankton also play a vital role in producing oxygen and absorbing carbon dioxide. Oxygen is produced during photosynthesis* and approximately 40% of photosynthesis on Earth is carried out by planktonic organisms. That means that nearly half of the world's oxygen is generated by phytoplankton! Because the phytoplankton use carbon dioxide from the air to produce food, the ocean forms what is known as a 'carbon sink', helping to absorb some of the carbon dioxide (too much carbon dioxide leads to global warming). In fact, the oceans form the world's largest carbon sink, even larger than all the world's forests put together.

(*Photosynthesis is the process that converts energy in sunlight to chemical forms of energy that can be used by biological organisms.)



Courtesy of NOAA

Plankton 'blooms'

Certain environmental conditions can cause an individual species of plankton to reproduce in large amounts, forming a 'bloom'. Some plankton are toxic and blooms can pose serious health risks for humans and wildlife. The toxic plankton may be eaten by fish and shellfish and may eventually pass along the food chain to humans. Various plankton blooms can cause the water to turn reddish-brown and these are often known as "red tides". However, not all blooms that discolour the water are harmful, so the term "harmful algae bloom" is a more accurate name for a bloom that can pose a threat.

The Wolf

By Aoife Moynihan



Courtesy of Alan D. Wilson www.naturesonline.com

The wolf is the wild relative of the domestic dog. Wolves though have bigger skulls with a longer nose than a dog, and also have much larger teeth that are ideal for crushing bones. The eyesight and sense of smell of wolves are not as strong as some dog breeds but their night vision is much stronger and their hearing is extremely sharp. Wolves are very strong animals and are capable of running at speeds of 56–64km per hour and can keep running at this speed for up to 20 minutes. They have long legs but their paws are actually quite small. Their front paws have five toes but only four of the toes leave a print as the fifth toe, called a dew claw, is higher up the leg. The back paws only have four toes. The fur of the wolf is thick and very furry during the winter, which is very important as it helps keep them warm even in temperatures as cold as -40°C. They are able to go to sleep quite easily in really cold weather by putting their nose in between their back legs and then covering their faces with their tails. The colour of their fur can be white, cream, brown, grey or black.

The Wolf Pack

The wolf pack is normally made up of a pair of parent wolves and their young of several litters. The parent wolves will remain together for all of their lives until one of them dies. When the female becomes pregnant, she will go away from the main pack and find a den where she can give birth. The den will either be a small cave or the old burrow of another animal that is made bigger to make the den more comfortable. The female is normally pregnant for up to 75

days and the pups are born during the summer months. There are normally 5–6 pups in a litter and they are born deaf and blind, not being able to see until 9–12 days after they are born. The father wolf will bring food to the den, so the mother and the pups don't need to leave the safety of the den. After three weeks, the pups are old and strong enough to leave the den and go explore the outside world.



Hunting Habits



Wolves hunt their prey in a large area known as a territory, and a wolf pack will guard and defend their territory very fiercely from other wolf packs. They do this by howling at and attacking those that come too close, as well as marking the edges of their territory by scent marking - urinating, leaving their faeces or scratching the ground on a certain spot. They will normally mark rocks, boulders or trees, with each scent mark lasting up to 2 or 3 weeks. Wolves mostly hunt hoofed animals such as deer, wild goats, elk, moose or caribou. However, if this prey is not available, they will hunt smaller animals such as water-birds, hares, badgers, foxes, mice and voles.

Hunting the Wolf



The wolf is found in North America, Canada, Greenland, Russia, China, the countries of the Middle East and in some parts of Europe such as Spain and Portugal. Wolves were hunted by humans because they feared that wolves would attack their cattle and other livestock, but they were hunted so much that their populations became very small indeed, especially in Europe. These days however, hunting is banned and wolf populations are slowly increasing. Wolves were hunted to extinction in Ireland - the last wolf was killed in 1786.

A Howl of a Time!



Wolves communicate mostly by howling, which is used to gather the pack together before or after a hunt, to raise the alarm if there is danger and to communicate across very large areas. They also communicate through growling, whining or barking. Wolves generally only bark if they are startled or surprised. When nervous or excited they whine and growl when playing or feeling threatened.



Photo courtesy of Robbie Murphy

Scientific Name: *Hedera helix*

Irish Name: Eindhneán

Does Ivy harm trees?

Ivy grows on walls and on other plants for support. It often grows up trees and can become a problem as the weight of ivy can eventually weigh down the branches and weaken the trees.

However, ivy is not a parasite, in that it does not gain nutrients from plants on which it grows.

The roots of ivy may also cause problems on walls, sucking out moisture from loose or poor quality mortar, causing it to crumble.

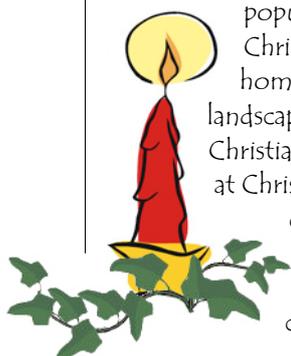


Ivy is one of the few autumn-flowering plants that is native to Ireland. It trails along the ground, giving groundcover, or climbs up walls and trees with the help of small sucker-like roots. High above the ground it can form a bushy evergreen shrub with spear-shaped rather than typical 'ivy' leaves. Ivy is important for wildlife. Its foliage provides a home for nesting birds and hibernating insects. Its flowers are the last source of pollen and nectar for bees and other insects before winter and its dark fruits give food for the birds.

Ivy and Christmas

Ivy is often used to decorate homes at Christmas time. Because ivy leaves are evergreen, staying green all year round, they can brighten up the house over the festive season. They are also said to be a sign of joy and good luck.

There are various different reasons why ivy became a popular decoration in wintertime and at Christmas. Pagans used ivy to decorate their homes in winter as a reminder that the landscape would be green again in spring. As Christianity took hold, this custom was taken up at Christmas time. The plant's ability to climb and cling to another plant or wall as it grew was seen as a symbol of the support received from God and how those in need could cling to Him when in need of help.



Poison Ivy

Poison Ivy is a plant found in North America (it does not grow in Ireland). Its sap can cause an allergic reaction on the skin, leading to severe itching and reddish or colourless bumps and then blistering. Poisonous Ivy is not related to the Common Ivy that grows here in Ireland but it is important to know that all parts of Common Ivy are poisonous.



Poison Ivy
(*Toxicodendron radicans*)

All in a Day's Work

Frank Clabby – Instruments Unit, Met Éireann

PROFILE

Frank Clabby works in the Instruments Unit in Met Éireann. While based in Dublin, work takes him throughout the country.



Photos courtesy of Robbie Murphy

What type of work do you do?

Simply put, I'm involved in the buying, installation and servicing of instrumentation used by Met Éireann (the Irish Meteorological Service). However, the bulk of my work is the installation and servicing of Automatic Weather Stations (AWSs). An AWS measures air and grass temperature, rainfall, humidity, wind speed and direction, soil temperatures at 5cm, 10cm and 20cm, earth temperatures 30cm, 50cm and 100cm and solar radiation. Recently we have been adding extra equipment to our AWSs to allow us to measure visibility and cloud height.

Have you always been interested in what you do?

Honestly – no. I joined Met Éireann, then called the Irish Meteorological Service, purely by chance. While coming from a farming background, weather was/is always important, but I had other ideas as to what I wanted to do.

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

When I first joined I trained as a Meteorological Observer and served at Claremorris, Dublin Airport and Casement Aerodrome. However, automation was taking over. I went to college by night and qualified in Electronic Engineering. I then transferred into my present location. Thereafter, it was/is on-the-job training. With technology changing all the time, the training and learning is never ending.

What is a day in your life like?

One could come into the office to discover that equipment had broken down and I would have to attend to that. On an installation, I would have to organise for the civil works, such as the telephone/electricity supply and foundations, to be carried out. It's likely that I would have to liaise with Eircom, to establish communications and with the ESB for power requirements. Local considerations

would also have to be taken into account, for example where to locate instruments. (Did you know that one of the hardest things to do is measure rainfall?) The wind is measured at 10m above the ground, which requires the installation of a mast. That requires planning permission from the local authority and occasionally that can be both tricky and a long drawn out process.

What is the best thing about your Job?

I would say the variety of work. AWSs are installed up and down the country. Each one is unique in some way and brings a different challenge. There is great satisfaction in entering a site and in about four weeks having an automatic weather station working there, recording meteorological data minute by minute. These data are then used by forecasters and climatologists both here in Ireland and throughout the world.

What is the worst thing about your job?

Working outdoors in Ireland can mean only one thing, having to work in the rain. It slows progress and it can be frustrating trying to keep equipment dry. I mentioned variety earlier, and being in a service division one often doesn't get enough time as one would like to work on a particular project before having to move onto another.

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

It's a difficult one to answer! In Met Éireann, we all enter, when trained, as either Meteorologists or Meteorological Officers. The immediate needs of the Service usually dictate where you are stationed. However, a degree in engineering, preferably Electrical or Electronic, is desirable. And an enthusiasm for the variety and challenges that may occur in the Instruments Unit.



Below & top left: Installing the Automatic Weather Station, including the mast, rain gauge & thermometers, on Sherkin Island. *Bottom left:* The fully installed Station, which constantly sends weather data to Met Éireann.

Wordsearch



Nature's Web Winter 2010

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

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

- Animal Breath
- Christmas Tree
- Clouds
- Deer
- Frank Clabby
- Irish Fish Stew
- iSPYnature
- Ivy
- Kiwi
- Lizard
- Met Éireann
- Phytoplankton
- Pilot Whale
- Plumage
- Sir Francis Beaufort
- White-tailed Eagle
- Wolf
- Zooplankton



ANSWERS: (Over,Down,Direction): Animal breath 14,6,W; Christmas Tree(14,13,N); Clouds (17,12,5); Deer(18,9,NW); Frank Clabby (15,12,NW); Irish Fish Stew(2,14,E); iSPYnature(9,1,SE); Ivy(4,4,E); Kiwi(16,15,N); Lizard (7,15,W); Met Éireann(11,9,W); Phytoplankton (1,1,5) Pilot Whale (4,12,E); Plumage (6,2,SE); Sir Francis Beaufort (18,11,W); White-tailed Eagle (17,18,NW); Wolf (15,4,NE); Zooplankton (3,18,E).

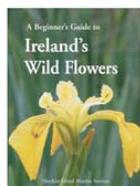
The Dancing Duck!



Learn More

A Beginner's Guide to Ireland's Wild Flowers

Have you ever wanted to put a name to the wild flowers you see about you every day, or while on a walk, or on holiday? With the help of this pocket-sized guide, you will be able to do just that. Beginners of all ages will be introduced to the many common wild flowers found around Ireland. 206pp



Only €8.50 including postage

Sea Life DVD:

"On the Water's Edge"

Sherkin Island Marine Station has launched a dvd called 'On the Water's Edge'. It is made up of a short film on life beside the sea and is presented by Audrey Murphy. It includes 6-10 hours of interactive material for children of all ages. Available from: Sherkin Island Marine Station, Sherkin Island, Co. Cork. €13.30 including postage.



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.

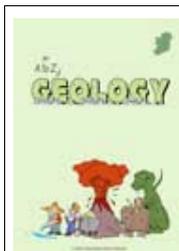


Only €8.00 including postage



Only €2.10 each including postage or €12.00 for all seven! 32pp each

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.

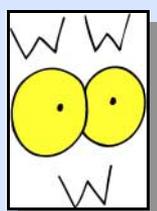


"An A to Z of Geology" explores the fascinating world of rocks and geology - a world of volcanoes, tsunamis, earthquakes, diamonds, gold and even dinosaurs! Produced by Sherkin Island Marine Station, in association with the Geological Survey of Ireland, the book aims to highlight the importance of geology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

Only €5.99 plus €1.00 postage

To order books, email the order to sherkinmarine@eircom.net to receive a Paypal invoice 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:

Golden Eagle Trust: www.goldeneagle.ie

Bird Plumage: <http://www.garden-birds.co.uk/information/feathers.htm>
<http://www.scientificamerican.com/article.cfm?id=why-are-male-birds-more-c>

Plankton: <http://www.gma.org/onlocation/globecactiv.html>
<http://earthobservatory.nasa.gov/Features/Phytoplankton/>

The Wolf: <http://www.wolf.org/wolves/index.asp>
<http://www.nwf.org/Wildlife/Wildlife-Library/Mammals/Gray-Wolf.aspx>

Ivy: www.noticenature.ie/files/enfo/factsheet/en/WL43%20Ivy%20and%20trees.pdf

Met Eireann: www.met.ie www.met.ie/education

Animal Breath: <http://news.discovery.com/animals/animal-breath-insect.html>

Deodorant for Birds: <http://www.treehugger.com/files/2010/09/deodorant-may-help-save-stinky-endangered-birds.php>

Mass Whale Stranding in Donegal: <http://www.iwdg.ie/article.asp?id=2422>

Lizards on the Menu: http://articles.cnn.com/2010-11-10/living/lizard.lunch.discovery_1_lizard-species-reptiles-scientists?_s=PM:LIVING

No Christmas Tree for Rudolph?: <http://news.ncsu.edu/releases/owenchristmastree/>

iSPYnature.com: www.iSPYnature.com www.biology.ie

Captain Cackle: www.captaincackle.com

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

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The World Around Us



Animal Breath....



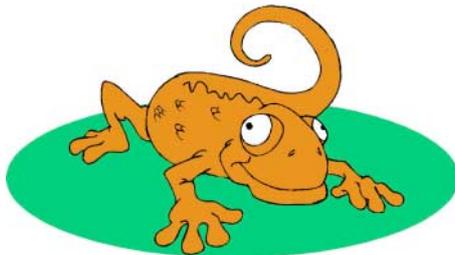
"Foreign Correspondent"
Michael Ludwig reports on some strange goings on in the natural world.

Scientists in the University of Haifa, Israel, have discovered that warm, humid mammal breath can cause insects feeding on plants to keel over and drop to the ground. It is thought that the warm breath is a warning to the insects that the animal is about to eat the plant. In order to save themselves, they quickly drop to the ground to avoid being eaten. It seems some animals don't like others breathing on their dinner!



... and Deodorant for Birds?!

Smelly birds in New Zealand may soon have their own deodorant to help protect them from introduced predators. There are many species of bird native to New Zealand but there are no native land mammals. Scientists found that the birds are easy prey for the introduced cats, stoats and other flesh eaters because they have unique body odours that make them easy to find. For example, the kiwi bird, a national symbol of New Zealand, smells like mushrooms or ammonia. These predators are causing a serious decline in native bird populations. Scientists say that in the future they may be able to design a deodorant that will mask the birds' distinctive smell and help protect them. However, getting it on them may be difficult!



Rarities on the Menu

In a small diner in rural Vietnam, a Vietnamese reptile scientist came across something unusual in the window and on the menu – a full tank of a previous unknown species of lizard. What first attracted his attention was the fact that they were all females. He contacted a colleague of his who made a two-day journey to the diner, only to find on his arrival that they had all been cooked for lunch! Local children were hired to track down as many lizards as they could find and they came back with over 60 of them. It emerged that the lizards were a new lineage of life and that the reptiles were all females and clones of their mother, having reproduced by self-fertilisation. This ability is rare but not unheard of. Some species of lizard and fish are able to self-fertilise, especially during unfavourable environmental conditions. Though the lizard was new to the scientific world, it was familiar to hungry diners for hundreds of years.

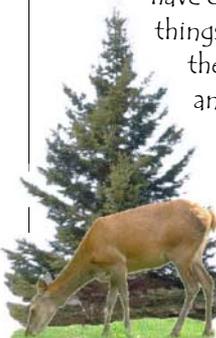
Mass Whale Stranding in Donegal

On 6th November a mass stranding of 33 Long-finned Pilot Whales were discovered on Rutland Island, Co Donegal – sadly all were dead. Scientists from the Irish Whale and Dolphin Group and the Galway-Mayo Institute of Technology, together with the help of NPWS Conservation Rangers, recorded the length and gender of each whale. They also obtained photographs to see if they could match them to whales seen the previous week in Scottish waters. Out of a total 33 pilot whales, 19 were female, 12 were male and there was one calf which was also male. One animal was not sexed as it was covered with sand. The maximum length of the whales varied from 2.3m to 5.8m. For further information visit www.iwdg.ie.



No Christmas Tree for Rudolph?

In the US Christmas tree growers often have a tough time keeping deer away from their crops. Male deer harm the trees by thrashing their horns (to mark their territory) and eating the buds and shoots off young trees. Sometimes the damage is so bad that farmers lose their crop. Individuals who have one or two trees growing in their backyard have used such things as hair clippings, cayenne pepper and raw eggs to ward off the deer but this is a little impractical for farmers who have acres and acres of trees. Researchers from North Carolina State University have found that a mixture of dried blood and egg powder (usually used to flavour pet food) sprayed on to the trees is a much cheaper solution but just as effective as more expensive options (such as fencing and commercial deer repellent). The deer do not like the taste of the mixture and the smell of blood also acts as a deterrent.



CLOUDS

There are usually quite a few clouds in the sky above Ireland. Some are small and some are big. Some are even fluffy. Clouds come in many different colours. They can be white, grey, black or even red. Normally we can tell whether or not it's about to rain depending on the colour of the sky. If we didn't have any clouds there would be no rain, hail, sleet or snow!



Cirrus: High ice clouds that look like wispy curls of hair.



Cirrocumulus: Thin sheets of ice that form into small blobs or ripples. These clouds often signal unsettled weather.



Cirrostratus: Thin sheet of ice. Sometimes these clouds make a halo effect around the sun. When you see this effect it means that rain is approaching.



Alto cumulus: Thin sheet of white or grey cloud, broken into blobs, rolls, waves or bands.



Altostratus: Layer of thin, grey cloud, through which sunlight is often visible. If the cloud thickens then rain is likely.



Nimbostratus: Thick grey sheets of cloud. They make rain and snow. "Nimbus" is the Latin word for rain.



Stratocumulus: Layer of low cloud broken into rolls or patches. These types of clouds often form a regular pattern.



Stratus: Low, grey blankets of cloud which sometimes produce light rain and drizzle.



Cumulus: Fluffy clouds with a flat base. The tops look like cotton wool.



Cumulonimbus: Towering cumulus clouds often indicate a thunderstorm is on the way!

How clouds are made: Clouds form when moist air rises high up in the sky, cools and saturates. Moist water vapour condenses into tiny water droplets to form a cloud. Different clouds form depending on how the moist air rises.

The information on this page is from Met Éireann's Primary School Resources page on www.met.ie/education, where parents, teachers and children will find resources on weather-related topics that have been designed for use in primary schools in Ireland.

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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 Name the member of the duck family that features on the "Bird Life" page.
- 2 Is ivy an evergreen or deciduous plant?
- 3 How many Pilot whales became stranded and died on Rutland Island, Co. Donegal, this November?
- 4 Which cloud can produce a halo effect around the sun?
- 5 What do kiwi birds smell like?
- 6 Name the tiny stones inside a fish's head that can help a scientist tell its age.
- 7 Which website can you use to record your nature notes?
- 8 Wolf pups are born deaf and blind. True or false?
- 9 Which striking bird of prey was seen on Cape Clear on 18th September this year?
- 10 What are planktonic plants known as?
- 11 In which country did a reptile scientist find an unknown species of lizard on the menu?
- 12 US Christmas tree farmers are trying to prevent which animal eating their crops?
- 13 Frank Clabby went to college by night study what?
- 14 Name the herb in the Irish Fish Stew recipe.
- 15 What can warn insects that a mammal is about to eat the plant which they are on?
- 16 In which season does Ivy flower?

Answers: (1) Mallard. (2) Evergreen. (3) 33. (4) Cirrostratus. (5) Mushrooms or ammonia. (6) Otoliths. (7) www.ispynature.com (8) True. (9) White-tailed Eagle. (10) Phytoplankton. (11) Vietnam. (12) Deer. (13) Electronic Engineering. (14) Parsley.

Think of a Title!

Have fun with your friends making up a title for this picture of Snowy Egrets in California, USA.



Courtesy of Alan D. Wilson www.naturesweb.com

Nature Jokes



What do snowmen eat for breakfast?
Snowflakes.

What do you get if you cross an ice cream with a wolf?
Frostbite.



How do you spot a modern spider?
He doesn't have a web, he has a website.

What do you call a sheep with no legs?
A cloud.



How do lions greet other animals?
Pleased to eat you.

How do you start an insect race?
One, two, flea - GO!



What did Santa Claus' wife say during a thunderstorm?
Come and look at the rain, dear.



Spot the five differences!

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Conservation



Biodiversity: the number and variety of species of plant and animal life within an area.

What is iSPYnature?

iSPYnature is a biodiversity awareness web site for young people and is particularly suitable for use in Primary schools.

How does it increase a user's biodiversity awareness?

The web site takes a different approach to other online biodiversity resources by involving the user in actively keeping an online record of plants and animals in their own area (perhaps

of the school grounds or their garden/farm at home).

How does iSPYnature.com work?

The web site encourages pupils to place sightings of plants or animals on a map and write in some nature notes with the sighting. Using an email address they can return to look at the map and nature notes as their sightings increase. Below is a typical online Map and Nature notes page of a pupil (or class).

Is it too complicated for primary schools?

The interface is a simplified version of www.biology.ie tailored specifically for young people. It is intuitive and the steps to input a sighting are clear and easy to understand.

It can be used by the teacher to represent the class sightings after a day or a week of nature studies.

Why not tie this project in with your nature work at school? Check it out at www.ispynature.com

Take this Field Sheet with you when you are looking for plants and animals and fill out the steps.

www.ispynature.com Field Sheet

- Was it a plant or an animal or a lichen?
- If you know its name, write the name here clearly:
- Where did you see it? County: _____ Near _____
- What date did you see it?
- Write your Nature Notes:
 - Number of individuals you saw: _____
 - Describe the weather: _____
 - Other observations: _____
- Name of your school: _____
- Have you put this plant or animal or lichen up

My sightings & nature notes

select species from the list below

- Fox
- Wood Great White Egret
- Flycatcher
- Fern Bracken
- iSPY Lichen Campanula
- Wood Opuntia
- Lizard
- Wood Blue Tit

A note on iSPY Lichens @ School
A special preset list on the website is the **iSPY Lichens @ School**. This was developed to promote an interest in Ireland's lichen flora. Ireland has a richer biodiversity of lichen than green plants, yet it is a group that has been largely ignored. In an effort to foster an interest in the group some lichens have been selected for **iSPYnature.com**. A separate guide to these lichens is available on the website.

Captain Cockle

Captain Cockle's Log



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www.captaincockle.com

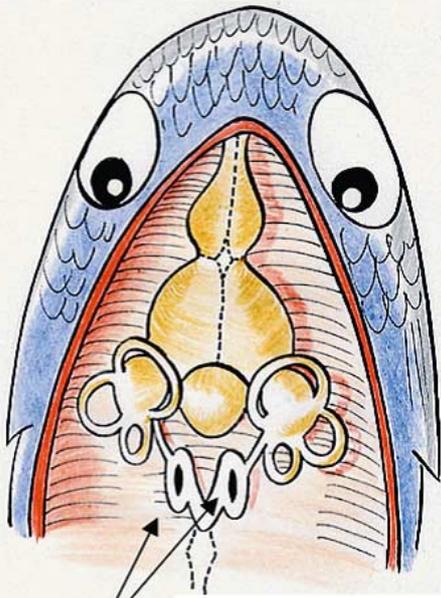


Measuring the Wind

Sir Francis Beaufort – the famous hydrographer and scientist – was born in County Meath in 1774. He was virtually self-educated, and spent most of his early life at sea – in the merchant marine and the British Navy. As a lieutenant on *HMS Phaeton* he was wounded 19 times.

As a young man, Beaufort became interested in weather conditions having been shipwrecked. He kept a weather journal for most of his life and is most famous for his "Beaufort Scale" for measuring the weather at sea based on easily recognisable sea conditions.

He became Hydrographer for the British Navy and died at the ripe old age of 81.



How Old is that Fish?

Fish have a pair of tiny stones called "Otoliths" inside cavities in their heads. These stones rest on sensitive hairs that send back signals to the fish's brain to tell them which way is up or down. Fisheries scientists need to know how old fish are so that they can tell how fast the fish are growing and how many it is safe for fishermen to take from the sea.

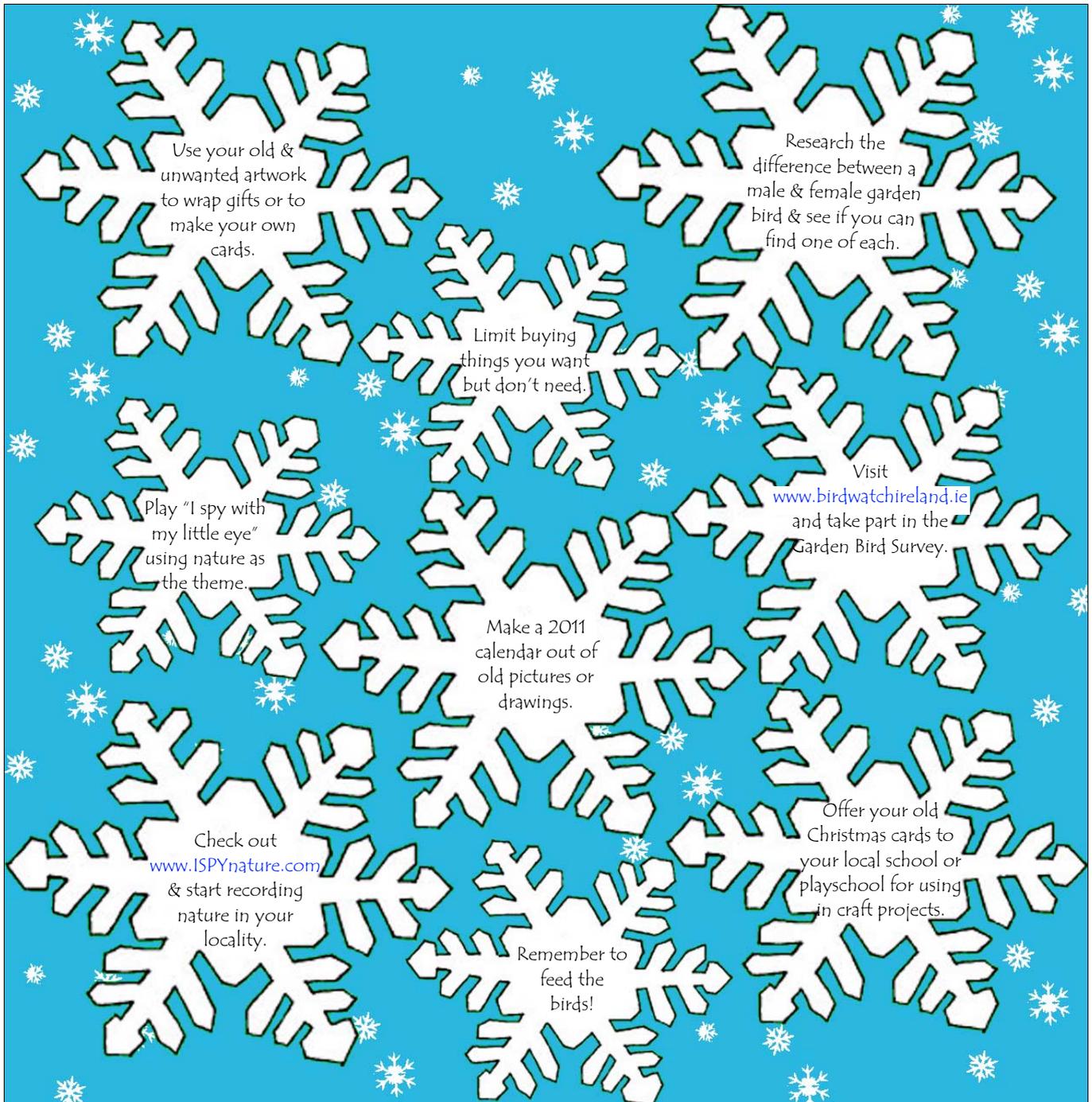
The otoliths grow in "rings" that can be read under a microscope like the rings of a tree to tell how old the fish is.



The largest ship in the world today is the supertanker *Knock Nevis*, which is 458 metres long – almost twice as long as the *RMS Titanic* (shown in black). *Knock Nevis* can carry 650,000 cubic metres of crude oil and is easily big enough to carry the Eiffel Tower from Paris lengthwise on its deck. She sits 41 metres high out of the water when fully loaded and is 69 metres wide. Her large size makes it impossible for her to navigate either the Suez or Panama canals. She is currently moored as a permanent floating oil storage facility in the Qatar Al Sharee oil field in the Persian Gulf.

Nature's Noticeboard!

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



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