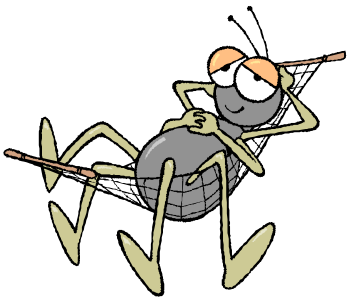

Nature's Web

Issue No. 3 Autumn 2006

Inside This Issue...

Harvest Time!

Autumn is harvest time. A time when farmers see the benefits of their hard work. Having prepared the ground, sowed the seeds and tended the plants through the year, they can now reap the rewards.

Though humans farm the land to provide food, they also collect food from nature, such as blackberries, elderberries and mushrooms, some of which can be preserved by freezing, drying or making jams. Many of these foods are now available in plentiful supply in shops but some people prefer the flavour of those that are found in nature.

In autumn, the forest floor will be covered in nuts and seeds, where birds and others animals will be forage.

Autumn is also harvest time for many animals. Plants and trees have been producing seeds for reproduction. Animals are delighted with the fine display of food and take full advantage of the vast menu on offer. They must begin building up their stores of fat to help them survive through the long winter, when food is scarce. Birds are flocking to the many succulent berries in the hedgerows, including blackberries and hawthorn berries, as well as the fields upon fields of seeds. Many other animals, including foxes, hedgehogs, mice and squirrels, take advantage of the fresh supply of fruits, nuts and seeds. Winter is around the corner and the animals that are beginning their long hibernation must also build up the stores.

Photo: Neil O'Donovan

All Washed Up!

There were reports of strange-looking creatures on beaches in West Cork this summer. There were confirmed sightings in Barleycove, Sherkin Island, Tragumna and Inchydoney. Do you know what they were? To find out look on page 4.

Editor's Page

New "Dwarf Planets"

So how many planets do we have in our Solar System? In August 2006, scientists came up with new definitions for what makes a planet and under these new rules, Pluto has become a "dwarf planet". They have also discovered another "dwarf planet" in our solar system, Eris, and have upgraded the asteroid, Ceres, to a "dwarf planet". It now seems that we have eight planets and three "dwarf planets" in our Solar System.

Eris (discovered in July 2005) has a diameter of 3,000 km and has just been officially named. Eris is the Greek goddess of discord and strife. It is 700 km larger than Pluto, so it's no wonder there's confusion. Eris is almost 10 billion miles from the sun and more than three times more distant than Pluto, the next closest planet.

Ceres (discovered in 1801) has a diameter of 950 km. When it was first discovered it was a considered a planet, then scientists changed their minds. For the next 150 years they considered it to an asteroid. Its new title "dwarf planet" changes its status once again.

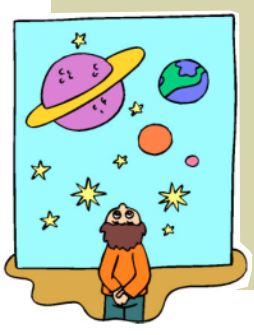

Photo: Robbie Murphy

High Tides

This autumn, Ireland is experiencing its highest tides in nearly 20 years. Tides this high are not expected to occur again until 2015. The photograph above was taken last year on Sherkin Island, when high tides and low air pressure resulted in extremely high tides. For a few hours the high tides flooded a road in the centre of the island! Air pressure and wind strength play a role in making a high tide. Hopefully when the really high tides occur this autumn, the weather will be fine and there will be very little flooding.

Seafood Recipe

Sizzling Baked Seafood with Cherry Tomatoes & Crème Fraîche

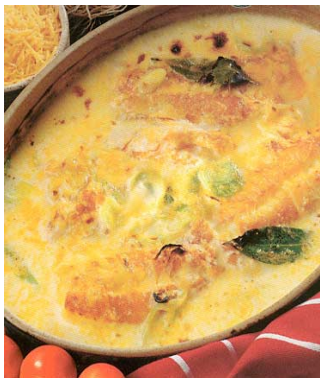

Photo: BIM

What you need:

675g/1½ lb fish fillets *(use fish like turbot, brill, sole, plaice or Greenland halibut)*
15g/½ oz butter
12 cherry tomatoes
150ml/¼ pt crème fraîche or cream
110g/4 oz Parmesan cheese, grated

What to do:

Arrange fillets on buttered dish. Season.
Place tomatoes on top.
Pour on crème fraîche and sprinkle with Parmesan.
Bake for about 15 minutes in moderate oven until it sizzles! (Serve with spinach and roast potatoes.)

Brought to you by BIM. www.bim.ie.

Welcome to the Autumn Edition of Nature's Web!

Dear Reader,

Welcome everyone to the autumn issue of Nature's Web. There are lots of great articles for you to read and some great experiments to try. This autumn I spoke with John Akeroyd, a botanist, for 'All in a Day's Work'. He describes his love of plants and how it has influenced his life. Check out the nature news from around the world on page 11 and jokes on page 13.

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

Signed: Audrey Murphy

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Editor: Audrey Murphy
Layout and Design: Susan Murphy Wickens
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Foreign Correspondent: Michael Ludwig

OWLS

Owls are distinctive looking birds. They have large forward-facing eyes, a hawk-like beak, a clear circle of feathers around each eye and a stumpy body. As with other birds, an owl's eyes are fixed in their sockets and in order to look in different directions they must turn their entire head. Owls are far-sighted and cannot clearly see anything within inches of their eyes.

Owls are usually only seen at dusk for they are active at night. Many can hunt by sound in total darkness. They are useful birds as they destroy great numbers of rats and mice. Their plumage is so soft that they make little sound when in fight. As well as rats and mice, which they swallow whole, they also catch rabbits, voles, insects, worms and other birds. They cannot digest bones and fur, so some time after their meal these remains are brought up in pellets.

The three types of owls found in Ireland are the Barn Owl (see box below), the Long-eared Owl and the Short-eared Owl.

The **Long-eared Owl** gets its name from the two tufts of feathers that grow on its head. Though they look like ears, they are not at all. The owl's upper parts are grey-buff in colour, which are striped and mottled with dark brown, and its under parts are buff with dark brown streaks. It has a long-drawn-out moaning hoot.

The **Short-eared Owl** is slightly larger that Long-eared Owl. It too has tufts of feathers on its head, mimicking ears, and these tufts are shorter than those of the Long-eared Owl. It is rarer than other owls and is active by day. Paler than the Long-eared Owl and with very noticeable feathers around its face, it has a shrill call and is found on moors, marshes, fens and sand dunes.

The largest owl in Britain (but not found in Ireland) is the **Tawny Owl**. It is a stout bird with reddish-brown upper parts and buff under parts, both with dark brown markings. This is the owl that utters the tuwhitt-toowhoo call. It also has a kewick call and is found in woods, parks and gardens.

Barn Owl

The Barn Owl is usually only seen at dawn and dusk. It nests in tree holes, old buildings. and barns (from where it gets its name). When the barn owl flies, its legs can be seen dangling underneath. As it hunts for food it uses sound to find prey. Its hearing is so good that it can hear creatures moving around below while it is flying. The barn owl is sometimes called the screech owl as it has a long-drawn-out shriek which can sound quiet eerie on a dark night. If seen flying at night, it is quite ghost-like due to its golden and grey coloured upper parts and white face and under parts.

Colour: Golden-honey coloured, with dark marks and white under-neath. White, heart-shaped face and large black eyes.

Length: 33-39 cm

Diet: Mainly mice and rats.

Habitat: Farmyards, gardens and woodlands.

No. of eggs: 4-6

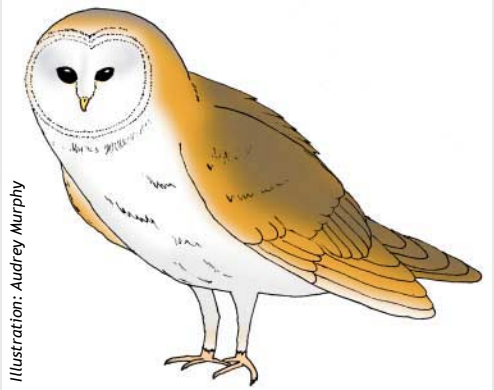


Illustration: Audrey Murphy

Barnacles

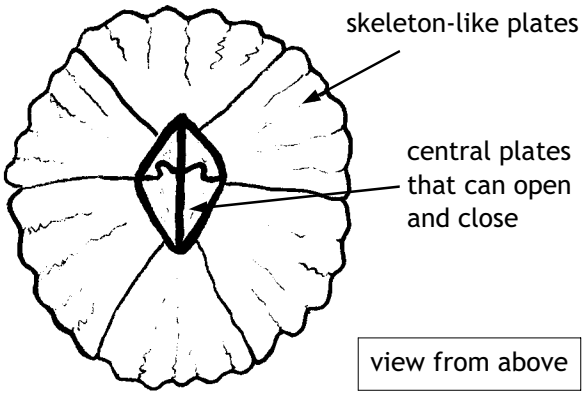
Photo: Paul Kay

The Acorn Barnacle: Barnacles are usually found on the middle and lower shores where they can filter feed when covered with the tide.

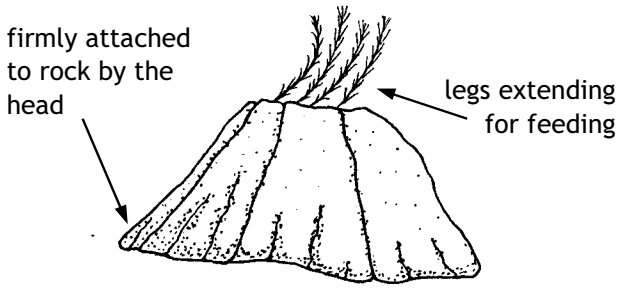
At first glance you might think that barnacles are shells and that they might be related in some way to the limpet. However, they are actually not related to them at all, but belong to the same group of animals as crabs and prawns. This group is known as crustaceans. These animals usually have a hard, shell-like skeleton. The shell that covers the body and protects the soft parts inside. Though crabs and prawns are free-living, in that they move about on the shore, barnacles are not free-living but spend their adult life stuck to rocks or other hard surfaces, often forming thick blankets of cover.

If you look very closely with your magnifying glass, you can see that the animal is protected by a chalky "shell" made up of plates. The animal is actually living upside down, with an opening in the centre that is covered by small plates. When tightly closed, it protects the animal inside and stops it drying out when uncovered by water for long periods. The barnacle feeds in water by opening the centre plates, extending its legs to feed on the tiny particles present.

A typical barnacle



view from the side



Goose Barnacles & Buoy Barnacles

This is an unusual type of barnacle that is sometimes found washed up on the beach. It normally spends its life out at sea, attached to floating objects such as boats or driftwood. It holds on using a long flexible brown stalk that can be partly withdrawn. This stalk is actually part of its head. The Goose Barnacle's shell is up to 5cm long and is made up of 5 white-to-bluish-grey plates set on dark brown skin. It feeds in the same way as other barnacles, by filtering tiny particles from the water. It is names after its resemblance to a goose! A relative of the Goose Barnacle was found on many beaches in West Cork this summer (see page 1). The Buoy Barnacle , which as it grows secretes its own spongy float, is sometimes cast up in large numbers, especially on south-western shores.

Photo: Paul Kay

Itsy Bitsy Spider!

Photo: Robbie Murphy

Above: The Garden Spider weaving its web

Mention spiders and a shiver runs down many peoples' backs! Most people think they are dangerous and wipe them away with a cloth, suck them up with the vacuum cleaner or squash them with a newspaper. Spiders do use poison or venom to kill their prey but Ireland doesn't have any spiders that are poisonous to humans. In fact, there are very few spiders that are known to be poisonous to humans. One such spider is the Black Widow Spider but none of these are native to Ireland!

Insects are the prey of spiders and spiders play a very important role in our ecosystem as they catch insects that can be annoying and harmful.

Spiders produce silk which they use to make houses, diving bells, cocoons, traps, parachutes and lifelines to save themselves if they fall. Organs called spinnerets, which are on their abdomens, or undersides, make the silk. At first the silk is a liquid and is made in certain glands in the body. This liquid is forced out through many little holes in the spinnerets and as soon as it reaches the air, the silk dries into a line that looks like a long strand of hair. This silk is sticky and it allows them to catch insects that brush against it. Most spiders spin webs to catch small flying insects such as flies, moths and butterflies. They poison their victims with venom from their fangs and wrap it in the silk threads to be eaten later.

Left: The Tarantula – Though the name Tarantula is often used to name many large spiders, the original "tarantulas" are found in southern Europe and are named after the city of Taranto in Italy.

Many people think spiders are insects. In fact they are not. They do, however, belong to the same group (or phylum) in the animal kingdom - Arthropoda (which consist of animals with segmented bodies and jointed legs or arms). Spiders belong to a group called Arachnids, and this group also includes scorpions and mites.

Insects vs. Spiders

- Insects usually have three pairs of legs - spiders have four pairs (making it eight legs!).
- The insect's body is segment into three parts - the spider's body has only two segments.
- Insects usually have two compound (complex) eyes - spiders have eight simple eyes.
- Insects usually have antennae - spiders do not.
- Insects usually have wings - spiders never do.
- Insects can eat plants - spiders never do.

Did you know...

...a spider sheds its skin a number of times throughout its life. This is called moulting.

The new skin hardens each time.

...that if a spider breaks a leg in a fight, it can grow a new one when it moults.

...spiders will eat other spiders!

...a person studying spiders is called an arachnologist.

...baby spiders are called spiderlings.

...a spider can lay up to 2,000 eggs in their reproductive sac.

...spiders do not have an inner skeleton but an exoskeleton (a skeleton on the outside).

...there are more than 30,000 different types of spiders known to man!

...spiders taste and smell with their feet.

...spiders don't have teeth, they have fangs.

...their fangs hold their poison, which they use to paralyse and kill their victims!

...triangle, orb, funnel, tangled and sheet are all names for webs.

...the thread of silk a spider hangs from is called a dragline.

...claws and pads on their legs enable spiders to run up walls and along ceilings.

Autumn Fruit

Blackberry or Bramble

Rubus fruticosus **Dris**

The bramble is a very familiar shrub that invades many gardens. Its succulent fruits are a sweet treat in late summer and are used in desserts, jams, seedless jellies and sometimes wine. There are hundreds of microspecies of this perennial shrub in Ireland and Britain. Its long, thorny stems grow at a fast daily rate, clambering over walls and across fields. It roots from the tip when it touches the ground, thus making it a really troublesome weed in woods and waste ground. It is however, an important food for many animals. Many thornless varieties have been developed for domestic growth. Blackberry blossoms produce good nectar for bees and large areas of wild blackberries will yield a medium to dark, fruity honey.

Flower Colour: White or pink
Height: Mostly trailing but can reach from 1m - 4m.
Leaves: Oval and coarsely toothed - pale underneath.
Flowering season: June - September
Habitat: Hedges, stone walls, abandoned fields, woods and on heathland.

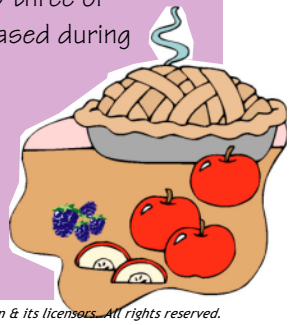
Above: *The flowers of the blackberry.* ***Below:*** *The succulent blackberry fruits.*

Photos: Robbie Murphy

Blackberry & Apple Pie

- 1 lb blackberries
- 2 cooking apples, peeled and sliced
- 8 oz plain flour
- 5 oz margarine or butter
- 2 oz sugar
- 1 egg
- pinch salt

1. Sieve the flour and salt.
2. Rub in the margarine or butter until it resembles breadcrumbs.
3. Add the sugar.
4. Beat the egg and gradually add to the mixture, forming into a paste.
5. Refrigerate before using.
6. Roll out half the pastry and place on a greased plate (suitable for oven use).
7. Place the apples and blackberries on the plate and sprinkle with a generous amount of sugar.
8. Moisten the edges of the pastry on the plate, roll out the remaining pastry and place on top.
9. Trim the edges and seal by firmly pressing down with the back of a floured fork.
10. Brush with milk and pierce the top three or four times to allow stream to be released during cooking.
11. Place in an oven, preheated to 200°C/Gas 6 for approximately 40 minutes.
12. Allow to cool a little before eating. *Serves 6*



All in a Day's Work

John Akeroyd - Botanist

PROFILE

Photo: Robbie Murphy

John studied botany at St Andrews University in Scotland, from where he went on to Cambridge University to obtain a doctorate – on the ecological genetics of weeds. After research and teaching in botany at Trinity College, Dublin, and Reading University, with plant-collecting expeditions to Greece, Macedonia and Turkey, he became a freelance consultant and writer on botany and plant conservation. He contributes regularly to both scientific journals and popular magazines. An expert on European plants, he has devoted the last six years to a project in Romania, helping promote sustainable farming and conservation of unique plant- and wildlife-rich countryside. Since 1986 he has visited Sherkin Island Marine Station, and edited *'The wild plants of Sherkin, Cape Clear and adjacent Islands of West Cork'* (1996).

A Day in the Life of John Akeroyd

Where do you work?
I've my office in a friend's garden, surrounded by plants and wildlife. There I have a library, a computer and chaotic boxes of files of papers and articles on botany, conservation and plant uses.

Have you always been interested in plants?
Yes, ever since I can remember I've been fascinated by wild and garden plants and nature generally. I was also lucky at school to be taught by enthusiastic and famous botanist Oleg Polunin (who himself visited Sherkin in the early 1950s). He encouraged me to pursue a career in botany and to find a job outside of university.

What's the best thing about your job?
Freelance life is precarious but you're your own boss and can usually work where and when you want. I get to see plenty of interesting plants (and animals!).

What's the worst?
Frustration at reading dreary reports and articles by government and university scientists who spend far too much time in the office rather than seeing real nature out in the field.

Do you travel with your job?
Indeed – all over Europe, mostly to Greece, Romania and Ireland in recent years. I love these countries: the people, plants, wildlife, food and scenery. Looking for plants you get out into the villages for an intimate glimpse of older, in many ways better, ways of life.

What was your most exciting discovery?
I first visited Romania in June 2000. Within two hours, on my first walk, I knew I'd discovered the finest wildflower meadows in Europe, and nobody knew they were there! But my best ever find was a tiny, crimson wild carnation, Deptford Pink, on an island just 5km from Sherkin Island – a plant new for Ireland! I can still feel the excitement of that moment on a cold, grey, drizzly late August afternoon.

Do you work alone or as a team?
I certainly spend too much time alone (except for my cat) on the computer, but our work in Romania involves a team of local botanists and British colleagues. It's important to bounce ideas off others, and get together for a bit of craic!

What would you have done if you weren't a botanist?
In another universe I'd perhaps like to have been a folk-rock musician, probably on electric bass guitar, in a dance band (English folk, sorry, not Irish!). Or a marine biologist: nobody can resist the sheer diversity in a rockpool. My teachers at school (other than the late great Oleg Polunin) wanted me to be an industrial chemist or a businessman. I've never regretted being a botanist and ever since my teens I've wanted to write, to communicate. Too many scientists never tell the world about what gets them excited!

So you never listened to those who discouraged you?
No, I have a passion for plants and there is still so much work to be done. If you have a passion, for heaven's sake follow it through!

Photo: Bill Taylor

John works in Romania helping to conserve a unique plant- and wildlife-rich countryside.

Photo: Min Wood

School Talk

Sherkin Island Marine Station, Sherkin Island, Co Cork, Ireland

Hi everyone,
Here are some poems that children from S.N. Ré Na Scríne, Co. Cork, were good enough to write for the newsletter. Thanks for all your hard work!
Please keep me informed about all those interesting things you see in nature and keep those letters and emails coming in!

Best Wishes, Audrey, The Editor, (editor@naturesweb.ie)

THE WONDERFUL WORLD
All the creatures in our world.
Are made by God above.
He made every single one by hand,
The fox, the deer, the jay, the dove.
He made the crashing thrashing waves.
The birds that sing up on the trees.
The butterflies and the dancing bees
The things he had created
Are more than wonderful.
By Katie - Age 10

THE GREENS
In garden of green
where there's green
grass and brown bark
and the green leaves
waving with the wind
and grass too.

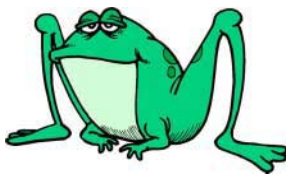
The birds sing, swooping around
and rabbits hopping around.
With bugs and bees
and the honey trees.

The blue sky
with the white clouds
and the aeroplanes
pass over
and the nests on the trees
with baby birds.
By Noel - Age 10

Out in the wind
With the crispy leaves
All different colours
Mixing with the breeze.
Eight little ants racing
In the drains.
Nine woolly lambs chasing
Through the reeds.
And all of this
Stops at once
To watch the sunset
On the rocks.
By Shannon - Age 11

OUT IN THE GARDEN
Out in the garden hear the birds sing.
Out in the yard, hear the bluebells ring.
But deep deep down I'm sure there's
Something to be found.
By Niamh - Age 8

The night fall's
The birds are singing in the trees.
The animals are lying down to sleep
And the frogs are croaking.
Night is coming,
Night is here,
all goes silent.
By Tadhg - Age 10



OUT IN THE SCHOOLYARD
Out in the schoolyard
Hear the birds sing.
Hear the cows moo.
And the bells ring.
Hear the wind blow.
Hear the tree shiver.
Hear the school children play.
And the grass grows.
By Amy - Age 8

CRICKET
Dancing cricket going round and round
Making that cricket noise
making plenty of sound.
As they jump from place to place
With there little little face.
Don't ever pick it
A very little bug, the cricket.
By Patrick - Age 12

ONE NIGHT
One night
Mr. Bright,
The local
glow-worm, had a fright.
He flashed his light oh so bright,
He flashed it on a bee in bed,
He flashed an ant on his head,
He flashed it on a night flight
kite,
He flashed it in the sky so
bright.
Now after all this flashy flashing,
Mr. Flashy flashy bright,
Went to sleep,
And died in the night.
By Maeve - Age 11

SUMMER
During the summer
All the hedges are green
The lawns need to be cut
The ditches in colour
The sound of
Grasshoppers in the air
Going to the beach
And coming home
With sandy feet.
That's summer.
By Michael - Age 11

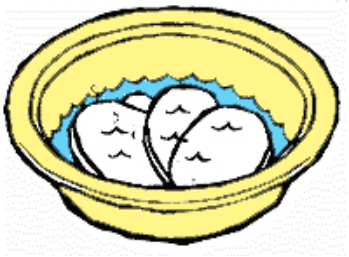
World going round.
Birds are singing.
Squirrels are squeaking.
Fish are swimming.
Dogs are barking.
Cats are meowing.
That's the world going round.
By Robbie - Age 11

Experiment With Nature

Here are some activities you can try at home or at school. Please ask for permission from a grown-up before you begin.

Soak Some Spuds

What you need:
Small potato
2 bowls
2 tablespoons salt
Knife
Water



What to do:

Slice a small potato length-ways into several pieces that each have two flat sides. Place some of the pieces in one dish and the rest in another. Fill both dishes with water. Add two tablespoons of salt to one of the dishes, and label it "salt water." Let the potatoes soak for 15 minutes.

What happens and why?

Through an action called osmosis, water moves from areas of low salt concentrations to areas of high salt concentrations. Adding salt to the water creates a higher salt concentration in the dish than in the potato. Consequently, water in a potato that is soaking in salt water migrates out, leaving behind a limp spud!

People often make celery and strips of carrot go crisp by soaking them in fresh water. What happens if you soak these vegetables in salt water?

Dancing Raisins

What you need:
Bottle
Soda water
Three or four raisins

What to do:

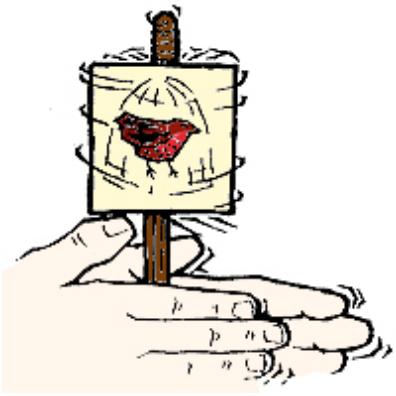
Fill a glass or bottle half full with soda water. Drop three or four raisins into the water. Wait.

What happens and why?

Soda water contains dissolved carbon dioxide gas that collects on the irregular surfaces on the raisins. Once enough bubbles have collected, it will actually lift the raisins to the surface where the gas is released into the air, causing the raisins to sink once again.

Getting the bird in the cage

What you need:
Pen
Card
Tape



What to do:

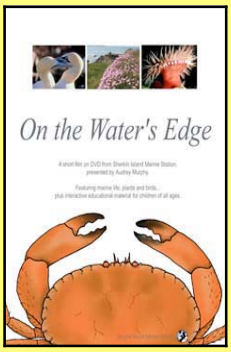
Draw a picture of your favourite bird on a small index card. On another card the same size, draw a cage. Now tape the two cards, drawing sides out, on opposite sides of a pen. Spin the pen between your hands or fingers. Is your bird still free or did you catch it and put it in the cage?

What happens and why?

The bird appears to be caged. This is because of how your eyes and brain work. When you see the image of the bird, your brain holds onto the image for a short time--even though the image appears and disappears quickly. The same thing happens with the image of the cage. The two images actually overlap in your brain so the bird appears to be in the cage. The technical name for this effect is *persistence*. It is what lies behind every movie and every TV programme that you see.

Learn More

NEW DVD!!

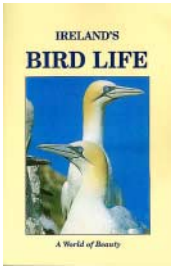


"On the Water's Edge"

Sherkin Island Marine Station has launched a new 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 hours of interactive material for children of all ages. *Available from: Sherkin Island Marine Station, Sherkin Island, Co. Cork. €16.95 post free.*

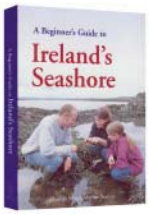
A collection of photographs of Ireland's bird life, featuring over 200 colour photographs taken by one of Europe's finest wildlife photographers, Richard Mills. *160pp*

€16.00 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. *206pp*

Only €6.97 including postage

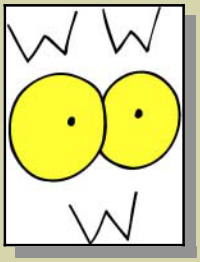


Only €1.75 each including postage or €8.50 for all seven! *32pp each*

Sherkin Island Marine Station has published a range of colouring books, guides and activity books for children. Each thirty two page *Colouring & Guide Book* gives you the chance to colour, identify and learn about the wildlife around Ireland. *My Nature Diary* and *Safety Sam* activity book will keep you busy for hours.

To order books, send your name and address along with a cheque or postal order made payable to Sherkin Island Marine Station to:

Matt Murphy,
Sherkin Island Marine Station,
Sherkin Island,
Skibbereen, Co.Cork. Ireland.



Useful Web Addresses

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

The Dwarf Planets: http://www.iau2006.org/mirror/www.iau.org/iau0605/index.html
http://www.nasa.gov/vision/universe/solarsystem/erisf-20060914.html

Supergoose: http://www.bbc.co.uk/nature/animals/birds/supergoose/
http://www.wwt.org.uk/Supergoose/

Right Whale Poop: http://www.neaq.org/scilearn/conservation/rwhale.html

Energy Conservation: http://www.sei.ie
http://www.esb.ie/main/energy_home/energy_tips.jsp

Winds: http://www.met.ie/climate/wind.asp

Owls: http://www.birdwatchireland.ie/bwi/pages092003/learnaboutbirds/factsheets/fs_barnowl.html
http://www.owlpages.com

Barnacles: http://www.microscopy-uk.org.uk/mag/artjan99/barnac.html
http://www.glaucus.org.uk/Barnacles.htm

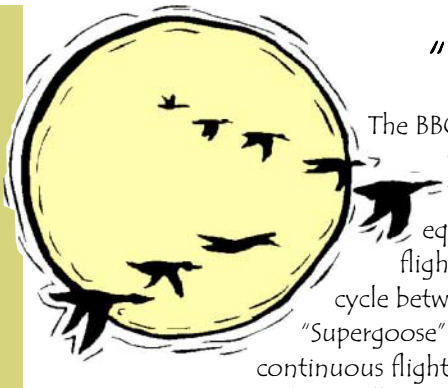
Spiders: http://www.amonline.net.au/spiders/
http://www.nicksspiders.com/nicksspiders/index.htm

Botany: http://www.botany.org/bsa/careers/

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

The World Around Us

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



"Supergoose"

The BBC television show "Autumnwatch" is being funded by the Wildfowl & Wetlands Trust and BBC, to follow 10 specially equipped, Light-bellied Brent Geese on their annual flight of over 8,000 km as they complete a migration cycle between Ireland and Canada and back. The Brent "Supergoose" flies at an average of 60-70 km/h and makes continuous flights of 1,000-1,500 km at a time! To enable these Super geese to make the gruelling 8,000 km round trip it is essential for their body to be in tip-top condition. Brent Geese food items are high in fat (for energy) and protein (increasing flight muscle mass). They have to eat lots of plants and grasses to get the required nutrients for migration, so in Iceland they feed for 15 or more hours per day. On their perilous migration from the Arctic Tundra, over the Greenland Icecap and on to Ireland then back again, the tagged geese will be monitored by satellites. The tracking program will help us understand their habits and behaviours. You can follow their path by logging onto www.wwt.org.uk/supergoose. The geese face many dangers and hazards, from treacherous storms to hunter's guns and hungry wolves. Will they all make it? Their transcontinental flight is a part of the lifecycle of this species and Mother Nature has taught her flock every trick in the book. The geese can predict weather, ride the wind to save energy and find food along the way. Think about their skills when you want a snack. Every year these geese embark on this amazing trip taking them to remote and hazardous regions.

New Species of Bird found in India

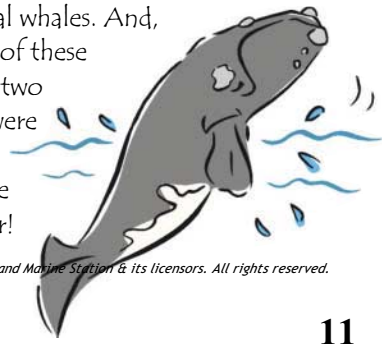
Almost 60 years after discovering the last new species of bird in India, a professional astronomer has discovered a new member of the babbler family. The very strikingly coloured bird, Bugun Liocichla, was found in remote north-eastern India. Two of the new species were caught, studied, described and released. Ramana Athreya, who discovered the bird said "With today's modern technology, we could gather all the information we needed to confirm it as a new species in short order. They took feathers and photographs, and recorded the bird's song."

Red Squirrels under threat in the UK

Researchers studying the red squirrel and its diseases have found that one disease "squirrel poxvirus" is doing great harm to the squirrel community and could wipe them out in some regions of northern England in less than 10 years. Before this discovery, the red squirrel's main threat was the grey squirrel, which was introduced from North America over 100 years ago. The virus does not appear to affect the grey squirrel but is fatal to red squirrels if they become infected. This research highlights the urgency for finding ways to protect the red squirrel and to stop the spread of the squirrel poxvirus.

Scoop on Whale Poop!

Disgusting as it sounds, the poop of the Right Whale is proving to be the most valuable stuff floating around the Atlantic Ocean. Scientists say that the colourful and foul-smelling faecal material can give researchers many insights into the whales. It can show us if a whale is pregnant or nursing. It can also reveal stress levels, the presence of parasites, the health of the pooper and if the whale has been exposed to poisons. DNA tests are being developed to try and match "lumps" with individual whales. And, who have the scientists enlisted to sniff out the location of these smelly "sea muffins" but sniffer dogs! Bob and Fargo are two pooches that didn't adapt well to drug-sniffing so they were retrained to help the researchers at the New England Aquarium in Massachusetts, USA. Since 2003, they have help collect nearly 300 samples! Ah, love that sea odour!



Marine Worms

Many different kinds of worm live on the seashore and in the shallow waters around our coast. They can be found all over the shore - in mud, in sand, on or under rocks, and on other animals. Some swim or crawl in search of food. Others stay in one place for most of their lives, filtering food from the sea or collecting debris on which to feed. The worms that live freely are called errant and are usually active predators or scavengers. They often have well developed eyes, tentacles and jaws for locating and catching food.

The worms that live in the same place for the whole of their lives are said to be sedentary. These worms live in a protective tube that may be buried in soft sand or mud, or cemented to a hard surface. This tube may be made of sand or mud grains stuck together with mucus, or may be formed from a limy or chalky substance secreted by the worm's body.

Coiled Tube Worm *Spirorbis spp.* Tiúbphéist chorntha

A very common worm on our shores, the Coiled Tube Worm, is often overlooked because of its small size. It builds a tiny calcareous coiled tube up to 4mm in diameter, which may be coiled clockwise or anticlockwise, depending on the species. The head bears a minute crown of green or white gills, which are used for breathing and filter feeding. This worm will settle on a variety of structures, but particularly favours the fronds of the Serrated Wrack.

Keel Worm *Pomatoceros triqueter* Cílphéist

The Keel Worm lives permanently attached to hard structures, such as stones or rocks, living inside a chalky tube that it makes itself. The tube narrows to a point at the tail end and has a prominent "keel" or ridge along its length. At high tide, it puts out its head and opens out a small crown of colourful tentacle-like gills to catch the tiny animals and plants it feeds on. When the tide goes out, or when danger threatens, it retreats into its tube, plugging the opening with a cork formed from one of the gills.

Lugworm *Arenicola marina* Lugach

Often the only sign of life beneath a sandy beach is the presence on the surface of spaghetti-like casts. A type of bristle worm, the Lugworm spends its life in a U-shaped burrow, feeding on the sand and extracting anything edible from it. As it feeds, a pit is formed above its head while the undigested sand is ejected as the cast. As in all bristleworms, the body is segmented and looks similar to that of the earthworm. The front of the body is swollen and bears bristles, and the narrower end bears red gills, which are used for breathing.

Honeycomb Worm *Sabellaria alveolata* Péist mhilteogach

Honeycomb Worms live in a group, or colony, often on a half-buried rock on exposed beaches. These colonies may be so big as to form large reef-like structures. They build tubes by gluing together sand grains, gravel or shell pieces, and arranging them rather like a honeycomb in a bee hive. The worms are fairly small, up to 4cm in length, and emerge only at high tide to feed. At low tide they shut themselves in their tubes, with tentacles adapted to form a plug-like structure.

Photos & Text: "A Beginner's Guide to Ireland's Seashore" ISBN: 1-87-049296-X © 1999

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 three new "dwarf planets".
2. The high tides we are currently experiencing are the highest in how many years?
3. The Long-eared Owl has ears. True or false.
4. To what is the barnacle most closely related, a crab or limpet?
5. Is the spider an insect?
6. When is the blackberry plant in flower?
7. What does the botanist John Akeroyd study?
8. What gas do you find in soda water?
9. Name the type of geese being tracked on their migration to the Arctic Tundra and back to Ireland.
10. What disease is threatening the red squirrel in the UK?
11. Name the sniffer dogs tracking Right Whale poop.
12. What worms leave spaghetti-like casts on muddy shores?
13. When buying electrical appliances, which letter means the appliance is more energy-efficient - A or G?
14. Do Compact Fluorescent Light bulbs use more or less electricity?
15. Describe the type of wind that is number 8 on the Beaufort Scale.
16. What can you make from leaves that is full of nutrients?

Answers: (1) Pluto, Eris & Ceres (2) 20 years (3) False (4) Crab (5) No (6) *June to September* (7) Plants (8) Carbon dioxide (9) Light-bellied Brent Geese (10) Squirrel poxvirus (11) Bob and Fargo (12) Lugworms (13) A (14) Less (15) Gale (16) Leaf mould.

What am I saying....?

Have fun with your friends making up a title for this picture of a chameleon.

Nature Jokes

Why couldn't the chicken find her eggs?
Because she mislaid them!

If an ant ran off to get married, what would you call her?
Antelope

What sits at the bottom of the ocean and shakes?
A nervous wreck!

What bird can lift the most?
A crane.

What do you get when you cross a centipede with a parrot?
A walkie-talkie.

What did the bird say when his cage fell apart?
Cheap, Cheap.

What did the apple say to the worm?
You're boring me!

Spot the five differences!

Saving Energy in the Home

Now that the days are starting to get cooler and darker, our use of electricity and other fuels will increase. We'll be heating our homes, turning on more lights and instead of salads we will be cooking more food. It is important not to waste energy. It is very expensive to produce and in many cases it comes from sources that cannot be renewed. Producing energy can also have an impact on our environment, whether it is burning coal or oil to create electricity or burning wood in the fire. Here are some energy saving tips that will help you conserve energy in your home.

1. Use low energy lighting

Low energy light bulbs (Compact Fluorescent Lights) use 80% less electricity than ordinary bulbs and last 8 times as long.

2. Switch off appliances

Switch off appliances, such as the TV or stereo, when you are not using them. A television in standby mode can use up to half the electricity as when it is switched on.

3. Turn off the lights

When you leave a room and don't plan on returning soon, switch off the light. Save the electricity for when you are IN the room.

4. Pull the curtains at night

Heat escapes through windows so as soon as it gets dark outside, pull the curtains. It also helps if the curtains have a heavy lining.

5. Turn down the thermostat

Often the heater or heating is set higher than you need it in certain in rooms, e.g. those that are not used often. Try turning it down a notch or two and you might be surprised to find the room is still warm enough.

6. Be more energy-efficient when cooking or using appliances

If you need to make a cup of tea, only boil the minimum amount rather than a full kettle. Use the toaster instead of the grill. The grill uses a lot more energy. Bake more than one thing at a time in the oven. Microwave ovens are energy efficient for thawing, reheating and cook food.

7. Cut Down on your Hot Water Use

It takes a lot of energy to heat water. Do you need the water hot all day? Take a shower instead of a bath (using less energy and less water!). Use the "economy" programme on the washing machine when you help out with the washing and even use a "cool wash" for some fabrics.

Bigger Jobs!

Insulate your Attic and Hot Water Tank

It's worth asking your parents if the attic is insulated. If it is insulated then that extra insulation could pay for itself within 2 years. Up to one-third of heat lost in the home goes through the roof.

Wrap up the Hot Water Tank

Wrap the hot water tank in insulation, as well as the hot water pipes. Insulating them keeps the water inside hotter for longer and it means you use less energy by not continuously heating the water.

Seal the Draughts

Up to 15% of heat can escape through external doors and windows, if they aren't fitted properly. Seal them with draught-excluding tape, brush-like strips or help make a snake for the bottom of the door. This is a really inexpensive way of saving energy.

Energy-efficient appliances

You might not be using your own money to buy the next washing machine or fridge but you can help your parents make an informed decision. Check out the energy ratings for appliances. The nearer to "A" the more energy efficient the appliance is. These appliances may be more expensive but your parents will save this money in the long-run because these appliance will use less electricity and may also be more efficient in other ways e.g. using less water etc..

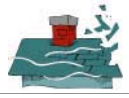
Double-glazing

Double-glazed windows cut down on the amount of heat lost through them and they also reduce condensation and noise.

Special Feature

Wind Speeds

With the arrival of autumn, the winds start to strengthen. Wind is measured by the Beaufort Scale. The Beaufort Scale was created in 1805 by Sir Francis Beaufort, an Irish man who became a naval officer in the British Navy. In the navy at that time, weather observations were regularly made but there was no standard scale. One person's "strong breeze" could be another's "calm conditions". At first the scale referred only to numbers from zero to 12 and these related to the affect the wind had on the sails of a "man-of-war" ship, then the main ship of the British Navy. "Just sufficient to give steerage" and "that which no canvas [sails] could withstand", are examples of how the strength of the wind was measured by the scale. The scale was officially uses in ship's log entries on British Navy vessels in the late 1830s.

Beaufort Number	Wind Speed (mph)	Description		Effects on Land
0	0-1	Calm		Calm; smoke rises vertically
1	1-3	Light air		Direction of wind shown by smoke drift, but not by wind vane.
2	4-7	Light Breeze		Wind felt on face; leaves rustle; ordinary vanes moved by wind.
3	8-12	Gentle Breeze		Leaves and small twigs in constant motion; wind extends light flag.
4	13-18	Moderate Breeze		Raises dust and loose paper; small branches are moved.
5	19-24	Fresh Breeze		Small trees in leaf begin to sway; crested wavelets form on inland waters.
6	25-31	Strong Breeze		Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty.
7	32-38	Near Gale		Whole trees in motion; inconvenience felt when walking against the wind.
8	39-46	Gale		Breaks twigs off trees; generally impedes progress.
9	47-54	Severe Gale		Slight structural damage occurs (chimney-pots and slates removed).
10	55-63	Storm		Seldom experienced inland; trees uprooted; considerable structural damage occurs.
11	64-72	Violent Storm		Very rarely experienced; accompanied by wide-spread damage.
12	73-higher	Hurricane		-

Nature's Noticeboard!

Autumn 2006

Sherkin Island Marine Station would like to thank Pharmachemical Ireland for their support in making this newsletter possible. We would like to thank those who have contributed to this newsletter especially John Akeroyd, Susan Murphy Wickens, Michael Ludwig and Robbie Murphy.

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