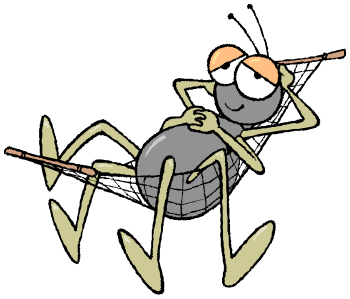


Nature's Web

Issue No. 6 Summer 2007

Inside This Issue...

Honey, you are beeautiful!

A bee, busily collecting pollen to bring home to the hive.

Photo courtesy PDPhoto.org

Things are hotting up. The summer sun is rising and so are the temperatures. Bees are on the wing and are busy collecting honey for their hives.
As we look forward to the summer sunshine, we also look forward to our holidays and to spending time on the beach, playing in the garden and generally having fun outside!
Join us in this issue, while we explore some animals and plants that will be busy this summer, such as the honey bee and the graceful heron. We also talk with Megan & Andy Grindrod, who do great work with the Doolin Unit of the Irish Coast Guard, and who give us an insight into the workings of the unit.

Meadows are in bloom, filled with grasses and wild flowers.

Photo: © Robbie Murphy

Editor's Page

Rainbow's End

When I was young, I was convinced (and still am) that if you could reach the end of the rainbow, there was sure to be a pot of gold!
It is a magical sight when a rainbow appears in the sky, particularly when it forms a perfect arc and you can see both ends hitting land. But why does a rainbow form?
Rainbows are formed when the sun shines through falling rain. Sunlight is a mixture of all colours and when it strikes a raindrop it is split into beams of different colour. The beams of colour hit the back of the raindrop, which acts like a mirror and bounces the beams back out again, with each colour following a different path. These different colours form into an organised band of colours of red, orange, yellow, green, blue, indigo and violet.

Photo: © Robbie Murphy

Above: Rainbow over Kinish Harbour, Sherkin Island, Co. Cork.

Water Safety

We'll all be hitting the beaches this summer and I can't wait! But it's important to think about safety when near the sea. It is well worth paying a quick visit to the *Irish Water Safety* website **www.iws.ie** to check out their tips about water safety.

Tasty Topped Fish

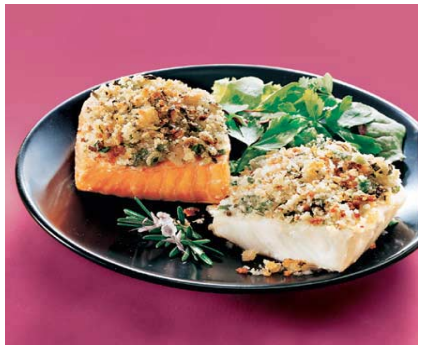


Photo: © BIM

What you need:

4x salmon or white fish portions

Topping
8 tablespoons of breadcrumbs
1 small onion or some spring onions - finely chopped
Herbs of choice
4 dessertspoons of olive oil
Salt and freshly milled black pepper

What to do:

- Season fish with salt and pepper
- Mix ingredients for topping and spoon on to the fish.
- Bake in a preheated oven at 200 °C / 400 °F/ Gas mark 6 for 15 minutes or until fish is cooked through and the topping is golden brown.

or

- Grill fish under a medium heat for 5-6 minutes.
- Turn, spoon topping on to fish, continue to grill for a further 5-6 mins, or until fish is cooked through and the topping is golden brown.

To Serve
Serve with salad or oven roasted vegetables.

Cook's notes: Add sun-dried tomatoes and grated mozzarella cheese to the topping for a great dish with a difference or give it an extra 'kick' with a touch of horseradish sauce.

Dive in!

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

Welcome to the Summer Edition of Nature's Web!

Dear Reader,

Welcome everyone to the summer issue of Nature's Web. This issue we are focusing on the heron, the honey bee, patterns on the seashore, tides and meadow plants. We're also talking about animal and plant conservation and how scientists keep records of how endangered some species are. In this issue, the Fairyland Trust in the UK show you how to make a fairy garden. If you get going soon, you might just have your own bit of magic at the end of your garden before the summer is over. 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 and comments and suggestions for future articles. Have a good read!

Susan & Audrey

Email:
editor@naturesweb.ie
Web: www.naturesweb.ie

Editors:
Susan Murphy Wickens
& Audrey Murphy
Layout and Design:
Susan Murphy Wickens
Photographs & Clipart:

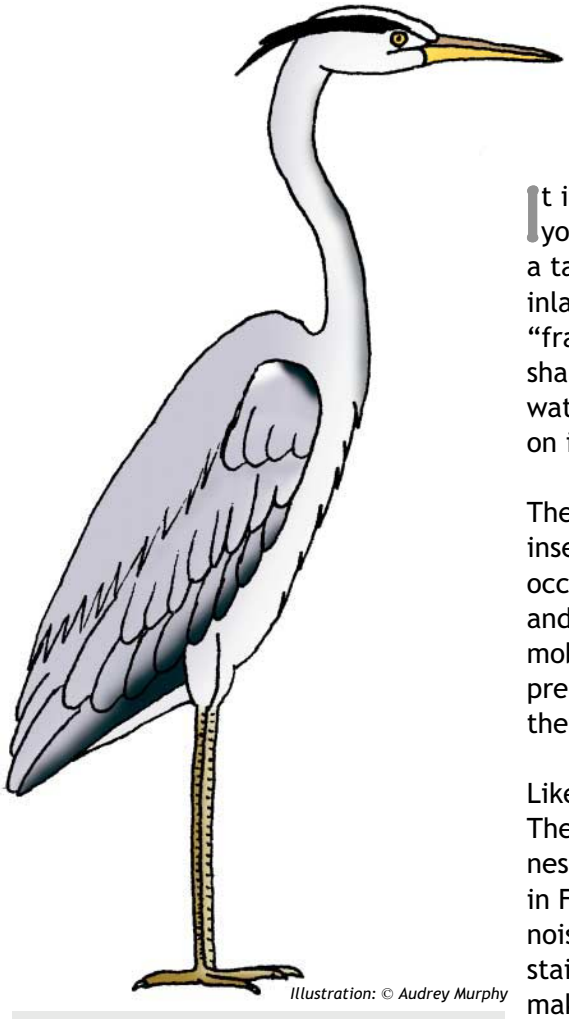


Illustration: © Audrey Murphy

The Grey Heron

It is quite likely that if someone points out a grey heron to you, you will remember it the next time you see it. The grey heron is a tall bird, usually about 80cm to 1m in height and is common to inland waterways and coasts. Though the grey heron has a loud "fraank" call, it can most often be seen standing silently in shallow water with its long neck outstretched, watching the water for any sign of movement. The grey heron is usually found on its own, although some may feed close together.

Their main food is fish, but they will take small mammals, insects, frogs and even young birds. Because of their habit of occasionally taking young birds, herons are not always popular and are often driven away from a feeding area by intensive mobbing. Mobbing is when smaller birds fly aggressively at their predator, in this case the heron, in order to defend their nests or their lives.

Like all herons, grey herons breed in a colony called a heronry. They mostly nest in tall trees and bushes, but sometimes they nest on the ground or on ledge of rock by the sea. Nesting starts in February,when the birds perform elaborate displays and make noisy callings. They lay between 3-5 greenish-blue eggs, often stained white by the birds' droppings. Once hatched, the young make continuous squawking noises as they wait to be fed by their parents. And though it doesn't sound too pleasant, the parent swallows the food and brings it up again at the nest, where the young put their bills right inside their parents mouth in order to retrieve it!

In flight, herons bend their necks into an "S" shape, as do bitterns (who are part of the heron family). This tells them apart from storks, cranes and spoonbills who fly with their necks extended.

Latin Name: Ardea cinerea

Irish Name: Corr réisc

Colour: Grey back, white head and neck, with a black crest on head. Black shoulders and yellow bill.

Length: 84-102 cm

Diet: Fish, frogs, insects, worms & birds.

Habitat: Coasts, estuaries, lakes and rivers.

No. of eggs: 3-5

Photo courtesy of Arpingstone

The Little Egret

One of the relatives of the grey heron is the little egret. It is smaller than the grey heron, standing approximately 50 cm in height. It has snow white feathers, a black beak, long black legs and striking yellow feet. The little egret was once a migratory bird, spending the winters in the warmer climates of Africa and Asia. Now, however, there are more and more records of little egrets breeding in Ireland.

Up & Down the Shore

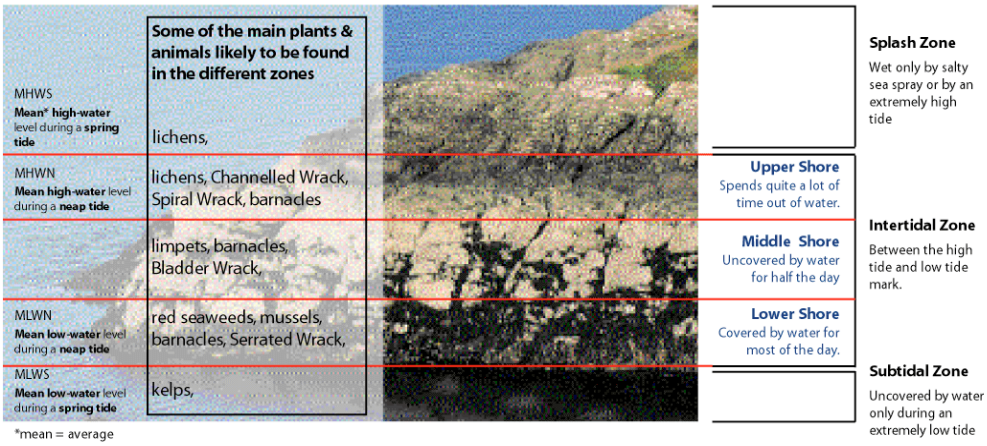


Illustration: © Sherkin Island Marine Station

All shores are affected by the rise and fall of the tide. As the tide moves up and down each day, different areas are covered by water for different lengths of time. Each shore can be divided into three main areas, called zones - the **splash zone**, the **intertidal zone** and the **subtidal zone**.

The Splash Zone

The splash zone is the area above the high tide mark. It is rarely, if ever, covered with water, being wet only by salty sea spray or by an extremely high tide. Lichens and land plants are all that survive there, as marine animals and plants need a more definite water-supply.

The Subtidal Zone

The subtidal zone is the area below low tide; it is continuously covered by water, except during extremely low tides. The animals and plants that cannot survive out of water for any period of time, except for very short spells, make their homes

The Intertidal Zone

The intertidal zone, which is the area of most interest to the seashorer, is between the low tide mark and the high tide mark and this can be divided into the *upper*, *middle* and *lower* shore.

The *upper shore* spends quite a lot of time out of the water. It is covered by the tide for such a short period each day that conditions are, for much of the time, like those on dry land.

The *middle shore* is covered by water for longer than the upper shore and so conditions are not as dry.

The *lower shore* spends most of the day covered by water, rarely drying out or exposing the animals and plants.

The conditions in these areas influence the types of animals and plants found there. Each has learned to adapt to living in a particular area.

Photo: © Sherkin Island Marine Station

Patterns on the Shore

On some shores, animals and plants form a visible pattern of bands at different levels. For example, at the top of a rocky shore, on the splash zone, there may be a band of coloured lichens. Lower down, there may be bands of different brown seaweeds or a band of barnacles. Each band provides the best conditions for the survival of a particular plant or animal; such survivors are often the main species to be found there. This pattern of bands is called **zonation**.
Banding, or zonation, is not always very obvious. On steeper rocky shores the bands are quite narrow, while on more gently-sloping ones, the bands are much wider. While zonation also applies to sandy, muddy and shingle shores, it is not easy to see, as most animals live underneath the surface.

Honey Bees

Photo courtesy PDPhoto.org

Honey is a sweet liquid made by honey bees. Humans have eaten honey for thousands of years and it is one of the oldest forms of food production.

On warm, sunny days honey bees are out collecting nectar (a sweet liquid) and pollen from flowers. Back at the hive they turn the nectar into honey, which they store for winter feeding or when food is scarce. The pollen is used to feed the young.

While collecting pollen and nectar, bees help to fertilise flowers. The pollen collects on their legs and as they move from flower to flower this pollen fertilises the flowers.

Bees live in a colony made up of a queen, worker bees, drones, nurse bees, guard bees and brood (the young). Every bee has a job.

Above: An area where beehives are kept is called an apiary. While working with bees, the beekeeper uses smoke to calm the bees. They wear special gear to protect them from bee stings, including a hat and veil on the head, white overalls and gloves.

New hives are formed when bees swarm. In spring a hive produces a number of queen bees. The old queen will leave the hive, taking half the worker bees with her, to find a new home. Beekeepers can capture these swarms and encourage them to make their home in hives. Though honey bees make hives in the wild, humans have semi-domesticated some honey bees so that they produce honey in specially constructed hives, making collection easier.

Above: The cells in the honeycomb are filled with honey and sealed with a layer of wax. Top: A honey bee collecting pollen from a flower.

Usually a hive is a set of boxes containing frames, which have been filled with a sheet of wax. The bees build honeycomb on this wax. Honeycomb is hexagonal-shaped (six-sided) wax cells, in which they store the honey. The bottom box of the hive is called the brood chamber and contains the queen bee and most of the other bees. The upper boxes, called supers, are where the honey is stored.

Beekeepers check the hives regularly and harvest the honey in the summer months, when the bees make honey in abundance. They make sure that enough honey remains in the hive to feed the bees over the winter. As well as honey, beekeepers collect beeswax, which is used to make candles, furniture polish, cosmetics and for model-making.

Above: Honey.

Who is who?

A bee colony, contains about 60,000 bees, with each bee having its own job.

The queen is the biggest bee in the hive and lays all the eggs. She is unable to sting and also does not feed herself, so she is pretty helpless.

The female worker bees do all the work in the hive. They keep the hive cool and clean and collect pollen and nectar to feed the queen and the other bees. There can be as many as 60,000 worker bees in the hive and all are able to sting. Unfortunately if they do sting, they will die afterwards.

The drone is a male bee that mates with the queen. Drones don't do any other work in the hive.

Nurse bees look after all the young bees, which ....

Guard bees protect the hive from attacks by other bee colonies.

Plant Life

Why not create your own Fairy Garden, with the help of the Fairyland Trust? They have created this Meadow Garden which can be planted up anytime from early Spring (March) through to mid Summer, or from September - early October to give the plants a head start for the following year. This garden will look its best from mid June through to late August.

Building your own Fairy Garden

The Fairyland Trust in the UK encourages children, families and others to appreciate the magic of nature. They uses myths, legends, folklore and magical traditions to explore and discover wildlife and natural places.

To do this the Trust runs events such as Fairy Fairs and Workshops which provide a safe and enjoyable experience or day out for children and families. It also researches and gathers information about folk heritage, and the way it binds us to nature. It uses this information to create new and fun experiences for people of all ages.

The Trust helps children and families create Fairy Gardens of real wild flowers which they can grow at home - in a garden or just in a window box - and help bring more nature into everyday life. Through its Workshops and other activities it also helps children create their own connections with nature, for example by making magic wands from native trees.

Photo: © Fairyland Trust

Perhaps you would like to nominate a "Fairy Place" near you or become involved with the Fairyland Trust. If so, contact the Fairyland Trust at www.fairylandtrust.org

1. Setting up

Choose the right spot for your Meadow Flower Fairy garden - as sunny as possible. Try to make sure the earth has not had lots of compost or fertilisers put on it recently (for instance an old vegetable patch or rose bed). Meadow flowers like poor soils - not dark rich ones.

For containers or window boxes

Remember never to use compost with peat in it, as this is taken from wild bogs that are home for lots of small creatures. We think the fairies would be upset about this - especially the Irish ones. Use soil from the garden or a soil based compost - ask at your local garden centre. Also make sure you don't buy wooden boxes made of wood from really old forests. To be safe use wood with the FSC (Forest Stewardship Council) stamp on it - or use something else like clay or an old recycled plastic pot.

2. Build a Fairy House

Why not make a house for visiting fairies? . We have made ours from small sticks before we added the plants and then covered it with grasses. Make your house as big or little as you like- you could use all sorts of materials from egg boxes to old pots.

3 Add your plants

Dig holes big enough for each plant and give them enough space as they will all get bigger. It is a good idea to put taller plants at the back so that they don't hide the little ones. (The list is too long to mention here but is available on http://www.fairylandtrust.org/fairygarden_meadow.html)

4.Water Well

It is very important to water your new plants very well as soon as they have been planted as this gives them a really good start in their new home. Make sure your meadow garden does not completely dry out for long times especially if you are growing this in a container or pot. Check at least once a week.

5. Add your decorations

We have made lots of silver bells on sticks and made a glittery table and seats from yoghurt pots. Add whatever you like to yours. Try using recycled materials wherever you can as it is free and saves wasting materials you might otherwise throw away. We even made a special fairy cake just in case any small visitors get hungry!

6. Keep looking out for those fairies!

7. Cut your meadow.

It is very important that in September you trim your meadow with shears (or scissors) to keep the grass short and remove the cuttings- put them on the compost heap or maybe save some seeds by carefully putting the plant tops in brown paper bags and keeping somewhere dry.

All in a Day's Work

Andy & Megan Grindrod – Irish Coast Guard Doolin Unit

Photos: © John Kelly

PROFILE

Hi my name is Megan Grindrod and this is my husband Andy. We are both volunteers in the Irish Coast Guard Doolin Unit. Andy has been in the unit for six years and I joined in January 2006.

A Day in the Life of Megan & Andy

How many people work in the Doolin Unit and what do they do?

Each unit has an Area Officer and Deputy Area Officer and they are in charge of the running of the unit and the rescues. There are twenty two volunteers in the Doolin unit at present, most of whom are trained to crew the boats. We could be called out to a rescue at any time day or night. We each have a pager which goes off when we are needed. We work together as a team. There is a job for everyone, either on the boat or at the base doing radio communications, launching the boat or the paper work. Each job no matter how small is important to make the rescue complete.

Left: A cliff rescue. **Bottom left:** Dressed in dry suits, helmets and lifejackets. **Bottom right:** Inside one of the rescue boats.

How often do you train?

We have a training session every Tuesday night. In the winter we have lectures and practice map reading, first aid etc. Then in the summer we go out more and practice boat handling and climbing. The training is very important as we have a lot to learn and we need to keep ourselves up to date.

Is the Doolin Unit a busy one and what area does it cover?

Doolin is one of the busiest units in the country and has on average thirty incidents per year. The area we cover stretches from Galway Bay to Loop Head, County Clare. We cover both the sea and the shore, including the Burren which can be very hazardous for walkers. We have many cliffs in the area, including the Cliffs of Moher which are 700ft high. The cliffs are beautiful, but can also be dangerous, so make sure you take care if you visit.

What equipment do you use for your work?

We have two rescue boats, one is a 7.9 m Delta Rib and the other is a 'D'Class inflatable. When we go out on the boat we wear a dry suit, a helmet and most importantly a life jacket. We always take a hand held VHF radio with us and inform Valentia Radio we are going out to sea. We tell them where we are going, how long we expect to be out and how many people are on the boat.

When we are climbing we wear high visibility overalls, safety boots, a climbing helmet, gloves, eye protection and a climbing harness. We carry a radio and whistle for communications. Climbing is Andy's favourite job! The ropes we use are different colours for different jobs. Each rope has to be secured in a certain way. We use one to climb on and one for safety. Only two or three climbers go down and one of these is assigned the task of first aid.

How long do rescues take?

Some rescues last for weeks if we are searching, but most only last a few hours. Each rescue begins with the pager being set off by the Valentia Radio. We all then assemble at the rescue station and are given instructions as to the nature of the incident. Each person is then given a task. Depending on what type of rescue situation it is, each person will take on a different job.

Do you enjoy the work?

We both enjoy all aspects of the rescue work. It is a very satisfying job but hard work. We enjoy working with the other team members. It takes up a lot of time but it is nice to know that you are helping people.

Wordsearch

Nature's Web Wordsearch

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

y	r	j	p	f	m	a	j	y	k	a	t	p	r	b	s	t	A
g	t	n	a	h	p	e	l	e	y	b	a	b	e	e	l	e	n
c	r	i	i	u	c	d	a	h	v	f	z	W	t	a	a	r	d
c	o	e	v	v	p	d	a	d	i	i	s	h	i	h	t	g	y
t	k	l	y	a	t	o	q	z	o	e	h	H	p	o	s	e	a
q	h	l	o	h	r	v	q	e	r	w	u	k	u	n	y	e	n
i	e	m	e	n	e	g	d	u	t	a	f	n	J	e	r	l	d
v	u	d	n	d	y	r	t	s	n	p	f	l	y	y	C	t	M
p	i	g	s	k	u	a	o	i	a	h	h	o	o	u	f	t	e
t	j	c	y	k	N	k	m	n	o	l	u	b	d	w	o	i	g
d	r	a	u	G	t	s	a	o	C	h	s	i	r	I	e	l	a
F	a	i	r	y	l	a	n	d	T	r	u	s	t	b	v	r	n
b	e	e	k	e	e	p	e	r	o	h	s	f	u	k	a	n	s
l	o	b	s	t	e	r	n	z	j	h	w	c	s	n	C	o	i
b	b	l	n	m	b	b	m	o	c	y	e	n	o	h	z	o	m
w	b	n	q	r	f	r	q	j	j	w	g	d	e	j	k	m	a

Andy and Megan

baby elephant

bee

beekeeper

Cave of Crystals

colony

Fairyland Trust

gravity

grey heron

hive

honey

honeycomb

Huani

Irish Coast Guard

Jupiter

little egret

lobster

meadow flowers

moon

Natures Web

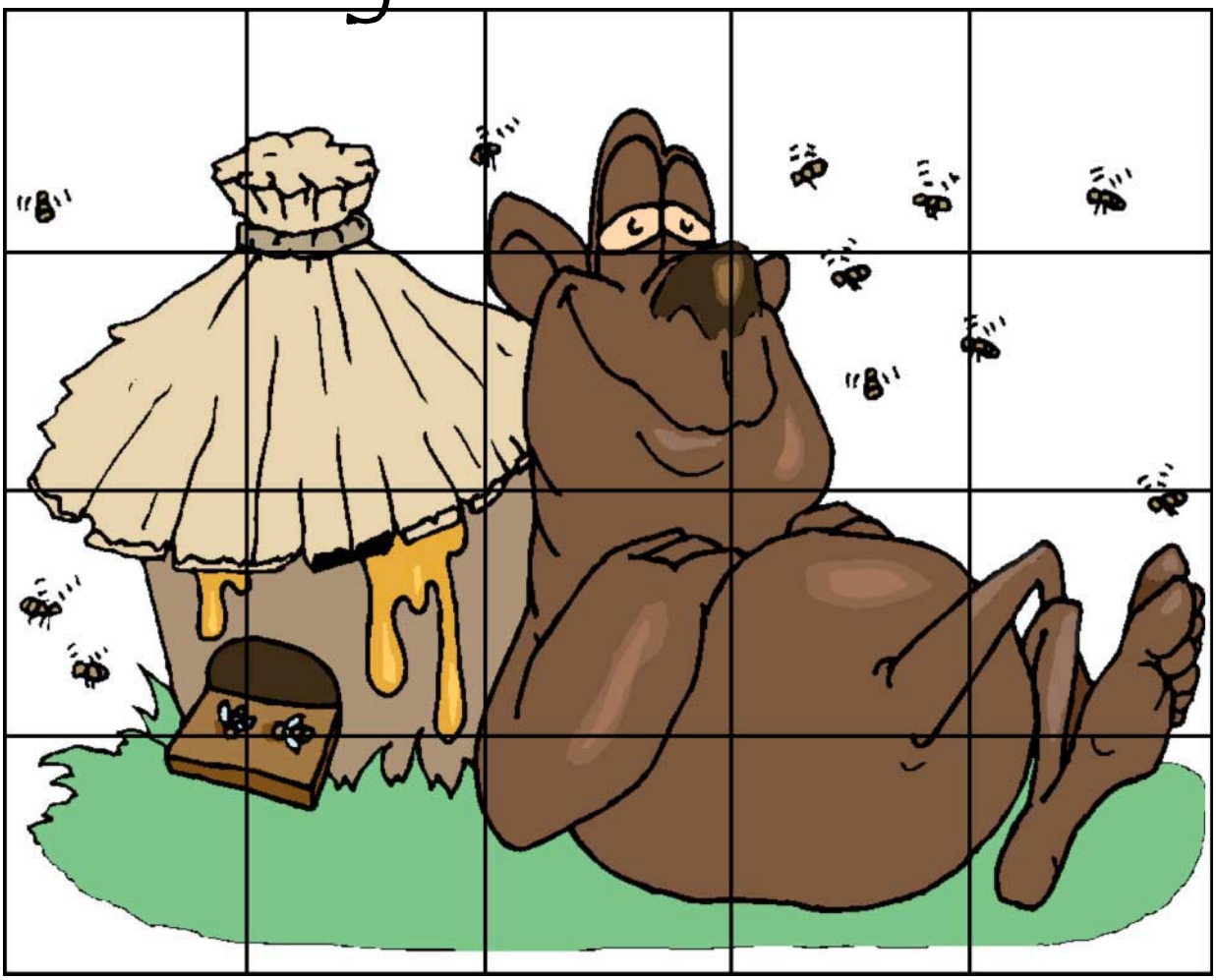
shore

sun

tide

ANSWERS: (Over,Down,Direction): Andy and Megan(18,1,S); baby elephant(13,2,W); bee(13,2,E); beekeeper(1,13,E); Cave of Crystals(16,14,N); colony(1,3,SE); Fairyland Trust(1,12,E); gravity(7,7,NW); grey heron(1,2,SE); hive(12,5,NW); honey(15,4,S); honeycomb(15,15,W); Huani(13,5,SW); Irish Coast Guard(15,11,W); Jupiter(14,7,N); little egret(17,11,N); lobster(1,14,E); meadowflowers(6,1,SE); moon(17,16,N); Natures Web(6,10,NE); shore(12,13,W); sun(13,12,SE); tide(1,10,NE);

Jigsaw Puzzle

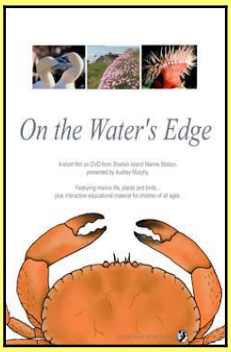


Here you have a chance to make your own jigsaw! You can cut out the pieces (make sure you have permission to use the scissors) and place each piece in the box below.
If you feel creative, you can also draw the picture into the grid, square by square, and then colour it in.

Learn More

Sea Life DVD!!

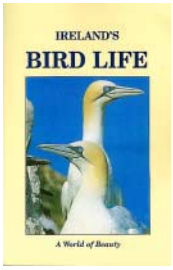
"On the Water's Edge"



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 6-10 hours of interactive material for children of all ages. *Available from: Sherkin Island Marine Station, Sherkin Island, Co. Cork. €13.30 post free.*

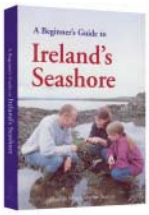
A collection of photographs of Ireland's bird life, featuring over 200 colour photographs taken by one of Europe's finest wildlife photographers, Richard Mills. *160pp*

€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

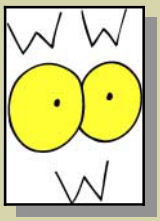


Only €1.75 each including postage or €10.50 for all seven! *32pp each*

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

The Grey Heron: http://www.birdsofbritain.co.uk/bird-guide/grey-heron.asp

Little Egret: http://www.rspb.org.uk/wildlife/birdguide/name/l/littleegret/index.asp

Patterns on the Shore: http://www.bim.ie/templates/school_of_fish.asp?node_id=361
http://en.wikipedia.org/wiki/Vertical_zonation

Honey Bees: http://www.irishbeekeeping.ie/index.html http://www.bbka.org.uk/

Wildflower Garden: www.fairylandtrust.org http://www.wildflowers.ie/wild_flower_faqs1.htm#faq5 http://www.ipcc.ie/wildlifegardening.html

Irish Coast Guard: http://www.transport.gov.ie/Irish+Coast+Guard+IRCG/

Cave of Crystals, Mexico: http://news.nationalgeographic.com/news/2007/04/photogalleries/giant-crystals-cave/

Dublin Zoo: www.dublinzoo.ie

Shannon Dolphin & Wildlife Foundation: www.shannondolphins.ie

What Does it Mean to Be Extinct?: www.iucnredlist.org http://extinct.petermaas.nl/

Tides: http://tidesandcurrents.noaa.gov/education.html

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 some strange goings on in the natural world.

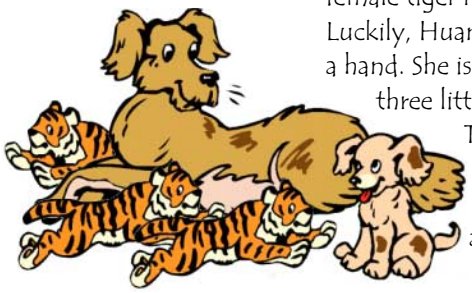
An Old Timer

Photo courtesy of www.noaa.gov

Fishermen made a surprising discovery recently when they hauled up their nets off the coast of Alaska. A fish, measuring over one metre in length was pulled out of the nets. But this was no ordinary fish, this shortraker rockfish, was somewhere between 90 and 115 years old. Scientist were able to get a rough age of the fish using the bones in the ears of the fish. Believe it or not though, the oldest shortraker ever caught was 157 years old!

One, Two and Three!

Huani, a dog in a Chinese zoo has become the proud mother of four little babies, but only one of these is a puppy! The other three are tiger cubs that were born recently in the zoo. Unfortunately the female tiger rejected the little cubs. Luckily, Huani was willing to lend a hand. She is looking after the three little cubs, named One, Two and Three! Word has it the new "family" are getting along well'!



Dolphins with Irish Accents?

A scientist working with the Shannon Dolphin and Wildlife Foundation in Co. Clare has discovered that dolphins living in the River Shannon may have a dialect all of their own. Ronan Hickey compared recordings of sounds from dolphins in the River Shannon with those from Caridgan Bay in Wales. He found that the dolphins produced six main whistle types, with 32 different categories. All the dolphins used most of the whistle sounds, but there were eight that were only produced by the Irish dolphins.

Sleeping Lobster

A fossil of a lobster found in 1995 in Mexico, has been aged after considerable research. It is thought to be 110 million years old! The best part is that it is a relative of a lobster that lives in Africa today. Back then the continents were very close so it is no surprise now that the lobster was found in both places!

Bouncing Baby…Elephant!

Dublin zoo is proud to announce the arrival of a bouncing baby girl. The little elephant, was born in the early hours of the morning and took her first steps only 8 minutes later. She weighed in at 80kg…which is the weight of an adult human!

© Javier Trueba / Madrid Scientific Films / madridsf@gmail.com

A Cave That Superman Could Call Home!

Superman would feel right at home in Mexico's Cueva de los Cristales (Cave of Crystals). Miners have discovered crystals as long as 36 feet (11 metres)! The cave is a dangerous steam bath but these warm and moist conditions appear to have contributed to the growth of these longest crystals ever found!

Meadow Flowers

Wildflower meadows are beautiful. The is nothing more wonderful to see than uncut grass, sprinkled with colourful flower heads, blowing in the wind. But meadows are not just a thing of beauty. They also provide a wonderful habitat for a variety of animal life. The grasses and wildflowers attract butterflies, caterpillars, spiders and grasshoppers, as well as many insects, which in turn attract insect-eating birds such as wrens, swifts, swallows and house martins. Small mammals, like mice and shrews, also hide in the tall grass, and are often hunted by foxes and birds of prey. Why not turn part of you garden into a meadow, or create a Fairyland garden (see page 6) and see what wildflower it attracts? Here is a small selection of wildflowers that are common in meadows.

Photos: © Robbie Murphy

Field Scabious

Knautia arvensis Cab an ghasáin

Field Scabious is a perennial, often flowering the first year. Its name comes from the fact that it was used as a cure for scabies and other skin complaints. It is a lovely flower with pretty flattish pincushion heads. It is common and widespread in dry grassy places, and adds a splash of colour to the late summer countryside.

Flower Colour: From pale pink to reddish-purple
Height: 20-60cm
Leaves: Long-stalked with 3 oval leaflets, often marked with a whitish crescent.
Flowering season: May-September

Common Knapweed or Hardheads

Centaurea nigra Mínscoth

Common Knapweed is a perennial plant. Its tough hard stems are strongly ribbed, and with a hard globular bud, topped with purple flower head, the plant is aptly named "Hardheads". It is widespread in grassy areas, flowering all summer long.
Flower Colour: Reddish-purple with brown bracts at base.
Height: 30-180cm
Leaves: Oval or spear-shaped
Flowering season: June-September
Habitat: Grassland, sea-cliffs and coastal heathland.

Yarrow

Achillea millefolium Athair thalún

Yarrow is a perennial plant and is common in grassy places, particularly lawns, hedgebanks and waste ground. It is very tolerant of drought conditions so can often be seen thriving during dry spells. A number of coloured varieties have been cultivated in cottage gardens.
Flower Colour: White or cream, rarely pink
Height: 10-100cm
Leaves: Fern-like and feathery
Flowering season: June-November
Habitat: Common in grassland, road-verges, fields and waste places.

Red Clover

Trifolium pratense Seamair dhearg

Red Clover is widespread in grassy and waste places and is the most common of the red coloured clovers. Many plants come from the more luxuriant cultivated varieties used for feeding animals. A perennial herb, it is an important bee flower; the bees cross-pollinate the plants.
Flower Colour: From pale pink to reddish-purple
Height: 20-60cm
Leaves: Long-stalked with 3 oval leaflets, often marked with a whitish crescent.
Flowering season: May-September
Habitat: Abundant in grassland and road verges.

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 seven colours in the rainbow.
2 Which tides are higher and lower, spring tides or neap tides?
3 Approximately how many insect species are in the world?
4 Dinosaurs are not extinct. True or false?
5 What colour is Field Scabious?
6 What type of garden is the Fairyland Trust showing you how to make?
7 Name the biggest bee in a hive.
8 What do you call an area where beehives are kept?
9 Which part of the seashore is uncovered by water only during an extremely low tide?
10 Which part of the shore are seashorers likely to be most interested in?
11 How tall is the Grey Heron?
12 What colour is the Little Egret?
13 What is the Irish Water Safety's website address?
14 Where do Megan and Andy Grindrod live?
15 Name the famous cliffs near Doolin.
16 What is a colony of herons called?
17 In which country did they find the Caves of Crystal?
18 Name the dog that is a proud mother of one puppy and three tiger cubs.

Answers: (1) red, orange, yellow, green, blue, indigo and violet; (2) Spring tides; (3) Over 1,000,000; (4) False; (5) Pale pink to reddish-purple; (6) Fairy garden; (7) The queen bee; (8) An apiary; (9) The subtidal zone; (10) The intertidal zone; (11) 84-102 cm; (12) White (13) www.iws.ie; (14) Doolin, County Clare; (15) The Cliffs of Moher; (16) A heronry; (17) Mexico; (18) Huani.

What am I saying....?

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

Nature Jokes

Why are frogs so happy?
They eat whatever bugs them!

What do you get from confused chickens?
Scrambled eggs.

What is a volcano?
A mountain with hiccups.

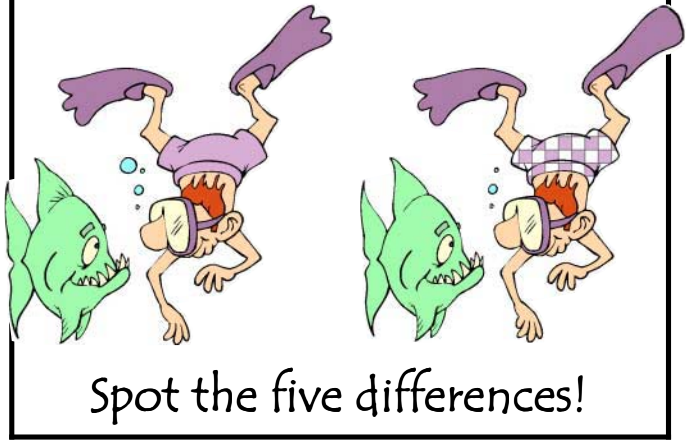
What do raindrops always say?
Two's a couple, three's a cloud

What animal never needs a haircut?
A bald eagle

Why was the baby ant so confused?
Because all its uncles were ants.

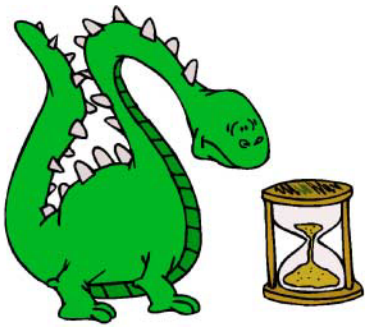
Where do bees go after they get married?
On honey-moon

Why won't clams share?
Because they are shellfish.



Spot the five differences!

What does it mean to be extinct?



No one knows for sure how many animal and plant species are in the world. Scientists think there are about 5,000 mammal species, 10,000 birds, more than 300,000 plants and possibly over 1,000,000 insect species.

Since life began on Earth, animal and plant species have come and gone. One example of an animal that has disappeared from the planet is the dinosaur. We refer to dinosaurs as being **extinct**, meaning it has ceased to exist.

Scientists are constantly studying animals and plants. They have a good idea of where many of them are located in the world, how many of them exist, how well they are reproducing and what, if any, danger they may be in.
Using this information, scientists can tells us whether or not we need to give more or less protection to certain animals.

All the animals and plants that we know about are placed on a list, known as a Conservation Status list. Their place on the list depends on the likelihood of this species of animal or plant continuing to survive now or in the future. At one end of the list are all the animals and plants that scientists are not worried about. These animals and plants are healthy and plentiful and continue to survive quite happily without too much help. At the other end of the list are animals and plants that are in real danger and need a lot of help. These species may be the last remaining on the planet. If they are not protected and once the last one dies, then that species will become extinct. There are a number of species that no longer exist in the wild and so are considered extinct in the wild. However a number of these species may still survive in captivity, where they can be protected.

Species that are in danger can be saved from extinction but it requires a lot of research and effort to do this. It is better to protect animals and plants before they become endangered, which will mean they are less likely to end up on the **threatened** list.

Home Sweet Home!

One of the greatest threat to animals and plants is when their home or habitat is destroyed. Animals and plants choose a home because it can provide them with such things as shelter, protection and food. If that home is destroyed they may not be able to find a new home and so not survive.

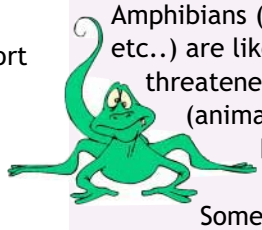
How many are in Danger?

Many countries produce lists of endangered animals but they roughly all follow the same rules.

One of the best-known worldwide conservation status lists is produced by the World Conservation Union. It is called the *IUCN Red List of Threatened Species*. In 2004 it contained 15,589 species threatened with extinction, including the corncrake and the Angel Shark.

When we talk about a "threatened" species on the IUCN Red List, it is an official term they use, grouping three categories: **Vulnerable**, **Endangered** and **Critically Endangered.**

Vulnerable means that the species is facing a high risk of extinction in the wild.
Endangered means that the species is facing a VERY high risk of extinction in the wild.
Critically Endangered means that the species is facing an EXTREMELY high risk of extinction in the wild.



Amphibians (lizards, frogs, etc..) are likely to be the most threatened vertebrates (animals with backbones).

Some families are more threatened than others, for example, of the birds, the albatrosses, cranes, parrots, pheasant and pigeons are more threatened than other groups.

Over the past 20 years, there have been 27 records of extinctions or extinctions in the wild.

Tides

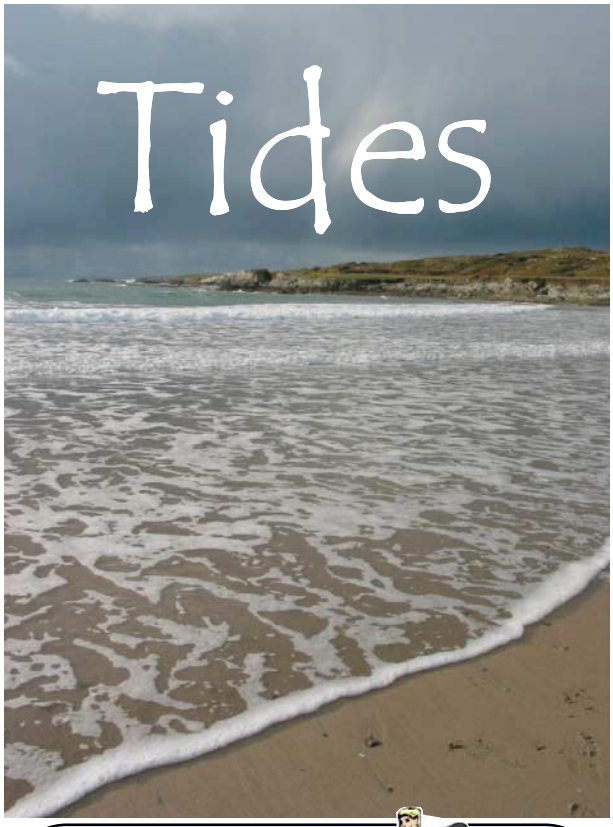


Photo: © Robbie Murphy

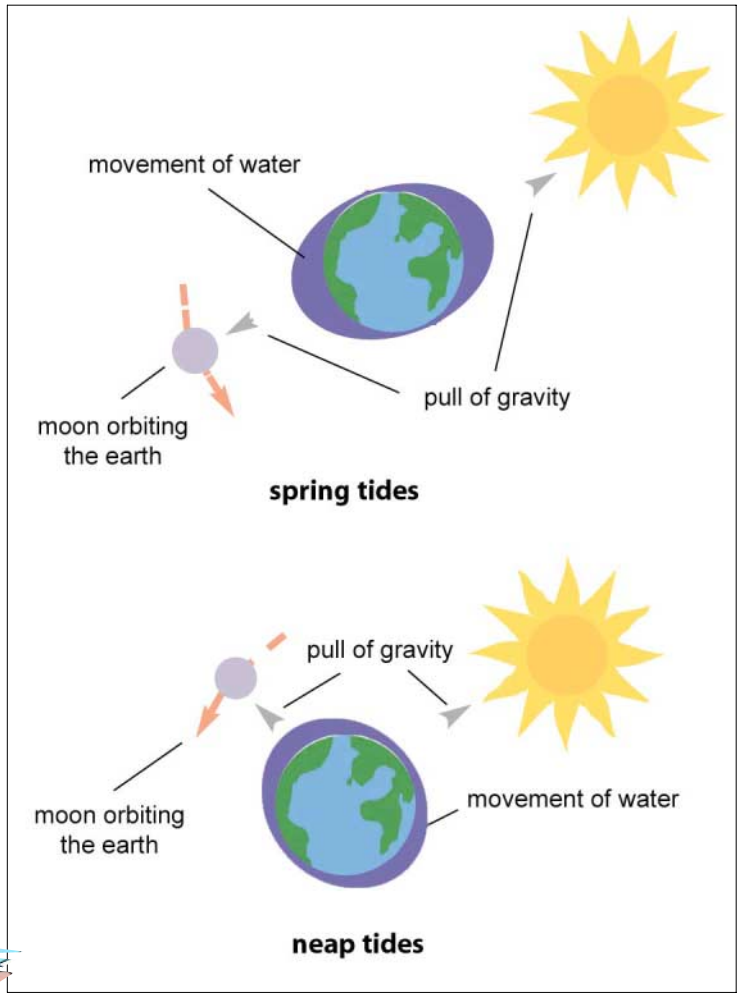


Illustration: © Sherkin Island Marine Station

Think Safety

It is very important to be aware that, during a spring tide, water levels rise very quickly! An incoming tide may trap you on a sand bank or at the base of a cliff. To explore safely:

- find out the times of low and high tides;
- tell someone where you are going.
- don't go alone.
- pay attention to any warning signs.
- explore before low tide, so that you are working while the tide is still going out. Keep an eye on the turn of the tide. Remember, the tide rises quickly during a spring tide and it can come in very quickly over a flat, sandy shore.
- work your way up the beach, towards land.

Twice each day around our coasts, the sea level rises and falls. This is called the tide and it has a huge effect on one of the most fascinating of all environments - the seashore.

Tides are caused by the effect of the sun's and moon's gravity on the Earth's oceans. This gravity pulls on the oceans, causing water to move away from some areas and gather to form "bulges" in others . In areas where the water "bulges" high tides are created, leaving low tides where the water has been drawn away.

Spring Tides

Every two weeks, when the sun and moon are "in a straight line" with the earth, the pull of gravity is especially strong. This causes very high tides and equally very low tides, which are called spring tides.

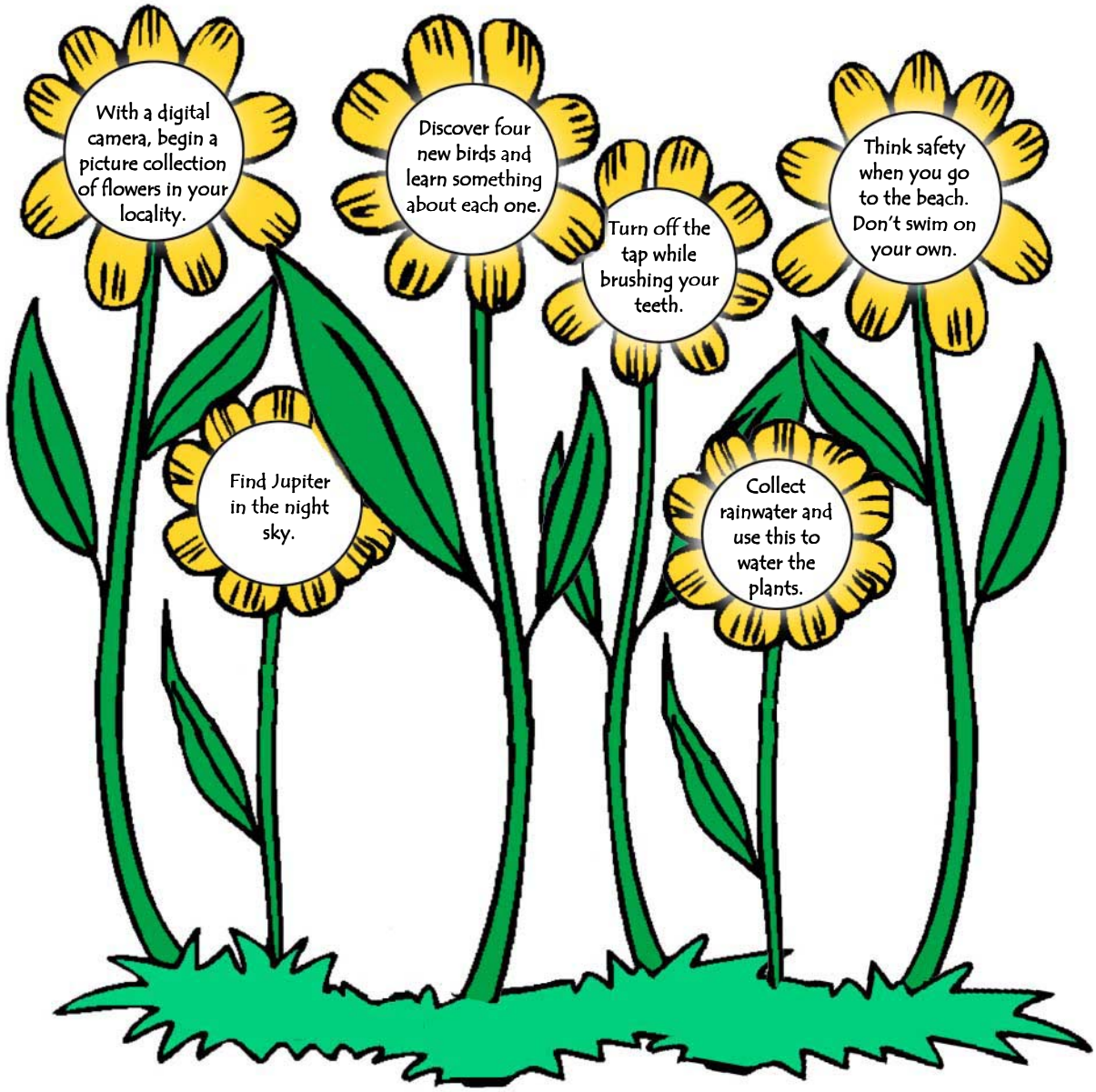
Neap Tides

When the moon and sun are at right angles to the earth, the effect is not so great, giving less extreme high and low tides. These smaller tides are called neap tides.

Information on tides in your area can be obtained from local newspapers or in special tide-table books (available from boat accessory shops and from some newsagents).

Nature's Noticeboard!

Summer 2007



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 Megan & Andy Grindrod, Michael Ludwig, Robbie Murphy, Javier Trueba and Sarah Wise.

PHARMACHEMICAL IRELAND
Focused on a Healthy Future

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