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Our world is worth saving for children everywhere

Birds on lakes
and ponds

**Wildlife in
trouble**

**Nature
Crossword**

**Autumn
Bird
Migration**



**For fun, for knowledge
for nature and for**



Families and children e-magazine #3 – Autumn 2019

Welcome to the British Nature Guide autumn e-magazine for families and children. It includes articles, fact sheets and activities for adults to read and discuss with children aged from 4-12 years.

Goldfinches often visit bird feeders in the autumn. With red facemasks and yellow flashes on their wings they are quite easy to identify. When one is at the feeder others will usually be chattering in a tree nearby. If you see a flock this is known as a Charm of Goldfinches.

Goldfinch



In this children's e-magazine

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Oak Marbles



As summer ends and autumn begins there are lots of interesting things to see. Look out for Oak Marbles on Oak trees. If you find some look for a small round hole. When the larva that lived inside the marble turned into a wasp it escaped through this hole.

If you go for a walk in the autumn and find a dead tree on the ground there will often be lots of fungi growing on it. One of the most colourful is the fan shaped Turkeytail. In this picture it looks more like crispy bacon than a Turkey's tail.



Common Darter



Most Dragonflies have gone by the end of October, but Common Darters can continue to fly right through November as long as the weather does not get too cold. They will often settle on paths or fences on sunny days and only fly off if you get too close.

You will find lots of activity sheets in this e-magazine. Please try to save paper, ink and electricity by only printing out the pages that you need.

Last chance to see butterflies

As long as the weather stays mild and the frosts stay away it is still possible to see a few butterflies well into November. Look out for them in sunny sheltered spots. A favourite food plant for late autumn butterflies is Ivy.

The most likely species to be encountered between September and November are Red Admiral, Comma, Large White, Small White, Brimstone, Clouded Yellow, Painted Lady, Peacock and Speckled Wood



Red Admiral



Comma



Large White



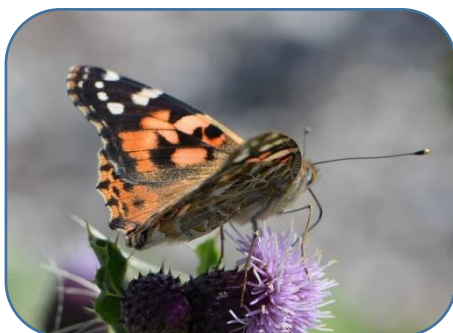
Small White



Brimstone



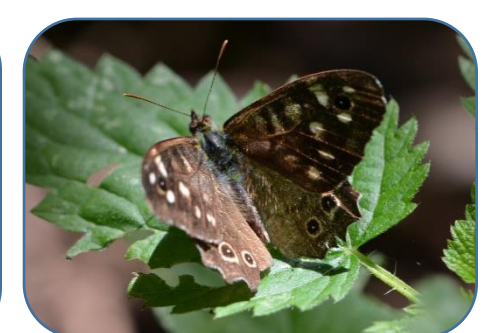
Clouded Yellow



Painted Lady



Peacock



Speckled Wood

A nature crossword game

Fill in the missing letters



Pink bird with long legs and long neck	F						G	
This animal lives in rivers and eats fish					T			
A baby dog						P		
Lovely flower, but look out for the thorns		R						
These can be Smooth, Common or Great Crested					W			
A male sheep							A	
This animal lives in water and builds dams					V		R	
A large animal with a black and white head			A				R	
Froghoppers, leafhoppers and treehoppers are all types of	B							
A seashell that is tightly attached to a rock					M			
A bird that hovers					T			
This expensive thread is made by a worm								K
You might see a Kestrel do this					O			
A gorilla or an orangutan might be called this				A				
Looks like a Weasel or a Polecat	F					T		
A big cat with stripes			G					

Have you filled in all the letters? Well done. Now all you need to do is find these five words hidden in the answers on the page, Mouse, Tree, Eagle, Privet and Hare.

Finished? Now go to page 12 to check your answers

Autumn bird migration (An article for older children)

In the autumn we start to notice a change in the birds we see each day. Some birds leave Britain and others arrive here.

The change does not happen overnight, some birds like Swifts will leave in August others like House Martins and Ring Ouzels might not leave until October. Most of our warbler species including Blackcap, Whitethroat and Willow Warbler leave during September. Common Terns, Sandwich Terns and all of our other breeding tern species leave in September and spend the winter far to the north of here. Arctic, Great Skuas and Manx Shearwaters all leave as the summer comes to an end.

Fieldfares and Redwings will start to arrive in September, followed soon after by Bramblings and Snow Buntings. Waders such as Sanderlings and Turnstones arrive along with geese such as Barnacle Geese and White-fronted Geese. Some ducks winter around our coasts including Long-tailed Duck and Scaup.

Other birds like the Whimbrel pass through Britain in the spring going north and in the autumn going south, but do not usually stay here.

Why do some birds leave Britain in the autumn?

Many of the birds which leave in the autumn feed on insects. There are not as many insects here in the winter, so the birds head for warmer countries where there are still plenty of insects to spend the winter.

Birds which feed on small fish around our coast find it more difficult to catch them in the rough winter seas so they move to places where the fishing is easier.

Why do some birds come to Britain in the autumn?

Some birds breed in countries far to the north of Britain. During the summer months these places are warm enough for them to be able to find food. In the winter when the ground freezes over and the snow falls there is no food for them. They would starve if they stayed so they head south to Britain where the winter weather isn't as bad.

Most birds that come here in winter feed on berries, seeds and on invertebrates they find along beaches and in coastal mud flats.

Below are the names of some birds which leave Britain in the autumn.

Fill in the missing letters to identify the birds. (The answers are on page 20)

S _ A _ L _ W

B _ A _ K _ A _

C _ M _ O _ T _ R _

H _ U _ E M _ R _ I _

W _ I _ E _ H _ O _ T

Below are the names of some birds which arrive in Britain in the autumn.

Fill in the missing letters to identify the birds. (The answers are on page 20)

B _ A _ B _ I _ G

R _ D _ I _ G

T _ R _ S _ O _ E

B _ R _ A _ L _ G _ O _ E

S _ N _ E _ L _ N _

A reading and drawing page for children
who are new to nature aged 4-7

I am a Ladybird



If you like drawing you can draw a picture of a Ladybird in the empty box above.

I am a **Ladybird.**

I am **red.**

I have **black spots.**

I eat **small insects.**

This **red ladybird** with **black spots** eats **small insects.**

First steps into nature

A mini-beast activity page

Mini-beasts in gardens and parks. How many can you recognise?

Write their names in the blue boxes next to the pictures.

Write the answers to the questions in the yellow boxes.



What am I?

**What colour
is my body?**



What am I?

**What colour
are my
wings?**



What am I?

**How many
legs have I
got?**

You will find the answers on page 12

Birds of Conservation concern - Amber List

This page is intended for discussion with older children

In response to environmental and climate changes the leading conservation organisations in the UK conducted a review of the current status of our bird species with each assigned either **Red** (highest conservation priority), **Amber** (medium conservation concern) or **Green** (least conservation concern) status. In the previous issue we focused on the **Red** list and this time we turn our attention to the **Amber** list which includes the three familiar species below.



Sublimely beautiful and a highly visible presence, **Mute Swans** may appear to be flourishing but suffered a serious period of decline from the 1950s-1970s, partly as their habitat often coincides with recreational fishing areas which caused serious levels of poisoning due to their ingesting discarded lead weights. Following 1987 regulations which prohibited lead weights of the size (0.06–28.35g) usually eaten by swans, the situation began to improve but close monitoring is still needed.



Meadow Pipits remain our most common uplands songbirds but their numbers have dropped significantly in recent years, partly through loss of grazing habitat due to changing farming practices and also through their being first choice foster parents for breeding Cuckoos. Always a pleasure to encounter, not least when performing their distinctive 'parachute' courtship display in spring, Meadow Pipits move to lowland areas during the winter where they would benefit from more set-aside land.



Once regularly found along local rivers during summer, **Common Sandpipers** now tend to be more restricted to faster larger rivers, lakes and reservoirs where they suffer less disturbance from passersby. Mainly seen during migration but with a small wintering population in the south, this delightful species is noted for its 'teetering' movements at the water's edge and its low flat flights usually preceded by a high pitched three note call.

How butterflies escape from predators

The Peacock Butterfly

The Peacock butterfly has bright colours on the upper side of its wings which it uses to attract a mate. The underside of the wings are dark brown. When the Peacock closes its wings and stays still in a bush or among leaves on the ground it is very hard to see.

The patterns on the Peacock's upper wings are not just for decoration, they are also used to scare away predators. If a predator approaches, the Peacock will open its wings. Thinking that an owl is looking at them, the predator will panic, giving the Peacock a chance to escape.



Bright upper sides of wings



Dark under sides of wings



Owl eye markings to scare predators

The Comma Butterfly

The Comma has bright patterns on the upper side of its wings to attract a mate. It has a brown underside, but it does not have eye markings to scare away predators. The Comma relies on the unusual shape of its wings for protection.



When the Comma is trying to hide from a predator it will land in a bush or on the ground and close its wings. The wings look just like ragged old brown leaves, and as long as the Comma stays perfectly still, the predator cannot see it.

There are lots of predators that will eat butterflies

It might surprise you to know that Toads, lizards, spiders, rats, mice and birds will all eat butterflies if they get the chance.

Autumn leaves

Autumn is the time for deciduous trees like Oak, Willow, Beech, Sycamore, Birch and Ash to lose their leaves.

It is a really good time to study insects and fungi that are living on the leaves.

Find an Oak Tree in the autumn and you will usually find Common Spangle Galls on the undersides of some of the leaves. These are caused by the larva of a tiny gall wasp with a big name, *Neuroterus quercusbaccarum*.



The larvae of some moths, flies wasps and beetles are called leaf-miners. They are small enough to live by eating the inside of the leaves. In the photo below the black marks you can see are the droppings of this leaf-miner.



Silk Button Spangle Galls are made by the gall wasp, *Neuroterus numismalis*. Each of the buttons holds a single larva which falls to the ground with the leaves in the winter. The bee will emerge the following spring.



Tar Spot Fungus grows on Sycamore leaves in the autumn. It is fairly easy to identify as it does look like spots of black tar. The fungus does not seem to harm the trees. The main effect is that it discolours the leaves.



The Oak Mildew Fungus *Microsphaera alphitoides* forms a grey coating on Oak leaves in the autumn. They can cover whole trees. The spores of the fungus are carried by the breeze and can move from one tree to another.



These galls on Willow leaves are caused by the Willow Redgall Sawfly. The adult lays eggs in June, the green larvae, which are very like caterpillars, emerge in September and start to eat the leaves.



Why do leaves turn from green to yellow, red, orange and brown in the autumn?

Before trees discard their leaves for the winter months they first reabsorb the nitrogen from the green chlorophyll pigment. The substances which make up the red and yellow pigments are not reabsorbed by the tree and so those colours are able to replace the green. If all nitrogen is not reabsorbed from the leaves and some chlorophyll remains the leaves can be brown or orange.

State insects of the USA

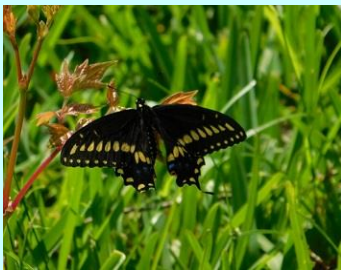
Across the United States wildlife remains valued with a wide range of species having been designated as state symbols to ensure they continue to flourish. In the last issue we looked at the bird species which have been honoured across America and this time we focus on the insects who have gained similar status, five of which are featured below.



Monarch (Danaus Plexippus)

States: Alabama, Idaho, Illinois, Minnesota, Texas, Vermont, West Virginia

Unsurprisingly this species is a popular state symbol from North to South. Celebrated for its gentle beauty and the remarkable birdlike migration it undertakes each winter to hibernate in the milder Mexican winters. Protected by conservationists through widespread Monarch 'waystations' and by its feeding preference for milkweed which makes it poisonous to many predators.



Black Swallowtail (Papilio Polyxenes)

States: New Jersey, Oklahoma (state butterfly)

Sometimes known as the parsnip swallowtail as its caterpillars feed on plants in the caterpillar family, this striking species is valued for its role in pollinating cultivated flowers and crops. Widespread in the eastern United States with a range that extends from northern South America upwards to southern Ontario.



Eastern Tiger Swallowtail (Papilio Glaucus)

States: Delaware, Georgia, North Carolina, South Carolina, Virginia

Another splendid swallowtail to be found in the eastern United States and the first American butterfly species to feature in a drawing, by John White in 1587. While usually represented in photographs by the bright yellow males with their tiger stripes, the female of the species (left) has a subtle beauty all of her own.



Spicebush Swallowtail (Papilio Troilus)

States: Mississippi (state butterfly)

Formerly known as Green-clouded Swallowtail due its distinctive blue green markings, this species is a delight to observe fluttering as it nectars and occasionally pausing to allow a full view not far from the ground. Renamed after its most common host plant and adopted by Mississippi state in 1991.



European Honey Bee (Apis Mellifera)

States: Arkansas, Georgia, Kansas, Louisiana, Maine, Mississippi, Missouri, Nebraska, New Jersey, North Carolina, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, Vermont

Honoured by no less than seventeen states for the vital role it plays in agriculture as a pollinator of crops, trees and plants (and as a producer of honey and beeswax). By some distance the most popular state insect of all!

Our world needs your help

What can you do today to help
our world?

Don't waste food

You will find more ideas on other pages

Interesting fact

Unlike most birds which head south when they leave Britain in the autumn, Fulmars and Kittiwakes head west and spend the winter at sea off Iceland, Greenland and northern Canada. They must like being cold.

**Here are the answers to the mini-beast
activity on page 7**



What am I?

A Fly

What colour
is my body?

Black



What am I?

A Butterfly

What colour
are my
wings?

Blue



What am I?

A Spider

How many
legs have I
got?

Eight

Something beginning with P

I can think of a Parrot and a Porcupine.

How many animals and birds can you think
of with names that begin with a P?

Write them down on a piece of paper.

If you can think of more than five you have
done very well.

There are a few more on page 20. See if
you have got them all. Perhaps you might
have thought of some that we didn't.

**The answers to the nature crossword game from
page 4 are below**

Pink bird with long legs and long neck	F	L	A	M	I	N	G	O
This animal lives in rivers and eats fish				O	T	T	E	R
A baby dog			P	U	P	P	Y	
Lovely flower, but look out for the thorns		R	O	S	E			
These can be Smooth, Common or Great Crested			N	E	W	T		
A male sheep						R	A	M
This animal lives in water and builds dams		B	E	A	V	E	R	
A large animal with a black and white head		B	A	D	G	E	R	
Froghoppers, leafhoppers and treehoppers are all types of	B	U	G	S				
A seashell that is tightly attached to a rock			L	I	M	P	E	T
A bird that hovers		K	E	S	T	R	E	L
This expensive thread is made by a worm					S	I	L	K
You might see a Kestrel do this				H	O	V	E	R
A gorilla or an orangutan might be called this				A	P	E		
Looks like a Weasel or a Polecat	F	E	R	R	E	T		
A big cat with stripes	T	I	G	E	R			

Birds have different coloured and shaped feet



Duck



Crow



Egret



Hawk



Coot



Pigeon

Ducks have webbed feet, they use them to paddle through the water. They only have three toes, each with a small claw.

Crows have four toes with large claws. Three toes point forward and one points back. These are good for walking on.

Egrets have four long thin toes which they spread out when they walk on soft ground. They only have very short claws.

Hawks have strong feet with sharp talons on each of their four toes. This helps them to hold on to their prey.

Coots have large feet with three wide flat toes pointing forward and one short toe pointing backwards. This helps them to move over swampy ground.

Pigeons have four small toes, three pointing forward and one pointing back. They have small claws and can use their feet to walk on the ground or to hold on to branches when they rest in trees.

Write down the colours of the feet in this box.

The life of a Ladybird



The picture above is a Ladybird – it is a larva



The picture above is a Ladybird – it is a pupa



The picture above is a Ladybird – it is an adult

Ladybirds lay eggs

When an egg hatches a tiny larva emerges

The larva eats small insects and grows

When the larva is fully grown it attaches itself to a fence or a leaf and turns into a pupa

Inside the pupa the larva turns into an adult Ladybird

When the adult is fully formed it breaks out of the pupa

An adult Ladybird eat small insects such as mites and aphids

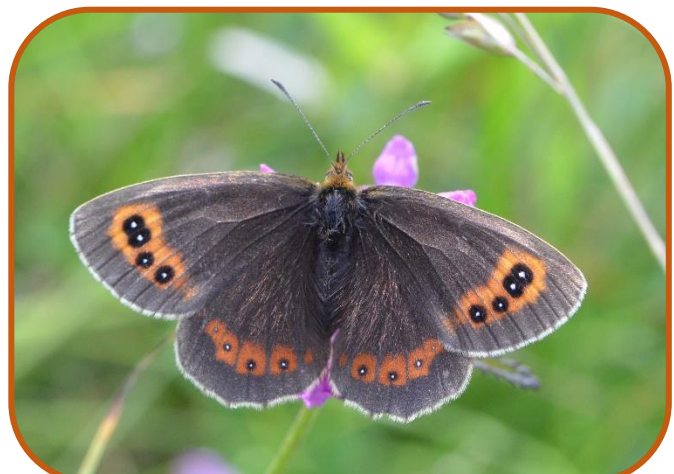
Next time you are in a garden or park look out for Ladybirds and make sure that you point them out to your friends

Not all Ladybirds in Britain are red with black spots, some are black with red spots, some are yellow with black spots and others are orange with white spots.



What can you do today to help our world?

Turn off computers and TVs when you are not using them



The butterfly pictured above is a Scotch Argus. It flies from late July to early September and is found mainly in Scotland but there are a few small colonies in northern England.

Test your knowledge of our wildlife

Just for fun

What is this bird?

I am a bird and I live in Britain.

Most of my feathers are grey and white feathers, but I do have a few black ones as well

I have very long legs.

I live near water and nest in trees.

I have a long yellow beak which I use to catch fish, frogs and eels.

I am big and I fly quite slowly.

Go to page 20 for the answer

An adult male Deer is called a stag. A female Deer is called a hind.

We have special names for male and female birds and animals. Do you know what they are?

A male Goose is called a

A female Fox is called a

A male Swan is called a

A female Swan is called a

A male Rabbit is called a

A female Rabbit is called a

A male Pheasant is called a

You will find the answers on page 20

**Our world
needs
your help**

What can you do today to help our world?

Don't buy bottled water. Use a refillable bottle and fill it from the cold tap.

Bluetits can have up to 16 eggs in one clutch. Having that many is rare and they usually have between 7-12.

How many prickles does a Hedgehog have on its body?

Between 500-1000

Between 2000-4000

Between 5000-7000

Between 8000-10000

You will find the answer on page 20

What colour are the petals on these four wildflowers?

Dandelion Daisy

Poppy Snowdrop

Answers on page 20

Britain's wildlife is in trouble and it

Our Bees need your help



What will you do to help our Bees?

Our Hedgehogs need your help



What will you do to help our Hedgehogs?

Our Birds need your help



What will you do to help our Birds?



Please look at these pictures and try to think of ways you can help our wildlife.

You can't help all of them, but do try to help some.

It might be putting out fresh water and food for birds or Hedgehogs.

Our Moths need your help



What will you do to help our Moths?

Our Wildflowers need your help



What will you do to help our wildflowers?

Perhaps you could start a small wildflower meadow in your garden or at school?

Our Butterflies need your help



What will you do to help our Butterflies?

Find out what plants they like to feed on and plant some in your garden or at school next spring.

**Our world
needs
your help**

Photo identification quiz

Below are pictures of nine birds, insects, animals and plants. How many can you identify?

Write your answers in the boxes under the pictures.



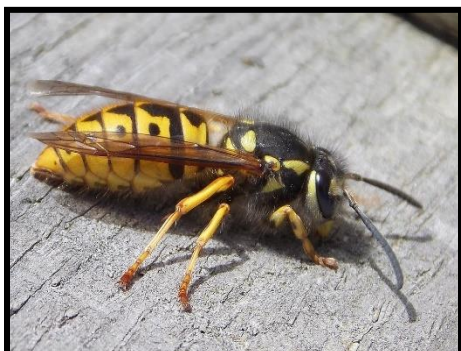
1.



2.



3.



4.



5.



6.



7.



8.



9.

You will find the answers on page 20

Our world
needs
your help

Birds on lakes and ponds

Great Crested Grebe



Mute Swan



Tufted Duck



Canada Goose



Coot



Shoveler



Autumn is a great time to look for water birds. Swans, geese, ducks, grebes and rails can all be seen.

Why not go to a park with your family or friends and see how many species you can find? Remember that the males and females of some ducks, like Shoveler, do look quite different.

Do take care, keep well away from the edge.

Greylag



Pochard



Dabchick



Mallard



Please don't feed water birds lots of bread, it isn't good for them. It might surprise you to know that swans and ducks enjoy pieces of spinach and lettuce. They also like sweetcorn and peas. (You can use frozen peas and sweetcorn, but make sure they are defrosted first) Try to throw the food onto the water so as not to encourage birds onto the bank. Oats and bird seed are also popular.

Interesting facts about the Amazon

The Amazon rainforest in South American stretches across nine countries. Brazil has the greatest area of forest but there are also large amounts in Venezuela, Ecuador, Peru, Bolivia, Colombia, Guyana, Suriname and French Guiana.

The Amazon covers an area of approximately 5.5 million square kilometres. (About 2 million square miles)

It is estimated that around 55,000 square kilometres of forest are cleared every year for agriculture, mining or human settlements. (An area the size of the country of Croatia)

The Amazon River is 6400 kilometres long and it pours 60 million gallons of water into the Atlantic Ocean every second. In the wet season the Amazon River can be up to 40 kilometres wide.

More than 1500 species of birds live in the Amazon rainforest and nearly 6000 species of fish live in the river and its tributaries.

It is estimated that more than 25 million species of insects live in the Amazon. Because the forest is being cleared so quickly many species are becoming extinct before scientists can identify them and give them a name.

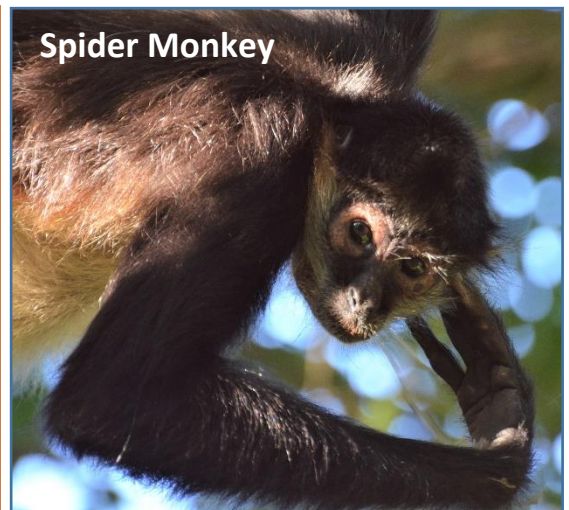
There are thought to be about 80,000 species of plants in the Amazon, many of which have medicinal uses. Because of forest destruction many species are being lost before scientist can study, or even name them.

These are just a few facts about the Amazon. Why don't you see what else you can discover?



Peccary

Well over 400 species of mammals live in the Amazon, including Jaguars, Tapirs, River Dolphins, Peccaries and Spider Monkeys.



Spider Monkey

Answers page

The answers to the missing letters quiz on page 5

Birds leaving Britain in the autumn

SWALLOW

BLACKCAP

COMMON TERN

HOUSE MARTIN

WHITETHROAT

Something beginning with P from page 12

Here are a few more animals and birds with names that begin with a P.

Penguin, Pony, Partridge, Puffin, Polecat and Pigeon.

Well done if you got all of them, and congratulations if you have thought of any others.

The answers to the missing letters quiz on page 5

Birds arriving in Britain in the autumn

BRAMBLING

REDWING

TURNSTONE

BARNACLE GOOSE

SANDERLING

The answers for the photo identification quiz from page 18

1. Red Squirrel or Squirrel
2. Red Admiral or butterfly
3. Dandelion or flower
4. Wasp or insect
5. Magpie or bird
6. Fallow Deer or deer
7. Heron or bird
8. Large Red Damselfly or dragonfly
9. Canada Goose or bird

The answers to the animal names quiz on page 15

A male Goose is called a Gander

A female Fox is called a Dog

A male Swan is called a Cob

A female Swan is called a Pen

A male Rabbit is called a Buck

A female Rabbit is called a Doe

A male Pheasant is called a Cock

The answer to the 'What is this bird' quiz on page 15 is Heron. Well done if you got it right.

The answer to the question on page 15 about a Hedgehog's prickles

A Hedgehog has between 5000-7000 prickles

Answer to wildflower petals question from page 15

Dandelion petals are yellow

Daisy petals are white

Poppy petals are red

Snowdrop petals are white



The birds above is a Cuban Tody. It is only found on the island of Cuba. Because it is only found in one place it is called an endemic species.

It is tiny and very colourful.

Six species of deer live freely in Britain.

Only the Red Deer and the Roe Deer are considered to be native species.

The Muntjac, the Sika, the Fallow Deer and the Water Deer have been introduced. The Fallow Deer has lived here for nearly 1000 years, the other three were brought here over the last couple of hundred years.



The species on the left is a Fallow Deer. They can be very variable in colour from almost white to very dark brown.

There are around 2 million deer in Britain so if you go out into the countryside and don't make too much noise, you have a good chance of seeing one or two.



On the left is the caterpillar of the Pale Tussock moth. On the right is the moth. You would never guess that one could turn into the other.



In our winter issue you will find

Birds of conservation concern – Green list

Photo identification quiz

Nature fact sheets

Nature activity sheets

Nature crossword game

Winter birds in parks and gardens



In the winter a lot of different wading birds fly to Britain to feed on the muddy shores and estuaries around our coast. The species on the left is one of them. It is called a Grey Plover.

To discover lots more nature activity and fact sheets, visit the Resources for Children pages on www.britishnatureguide.com

Thank you from all of our team for taking the time to read this e-magazine.

If you have enjoyed it, please tell your friends about it.

Let's make the world smile by
doing everything we can to look



British Nature Guide

Please remember to tell
everyone to look after

