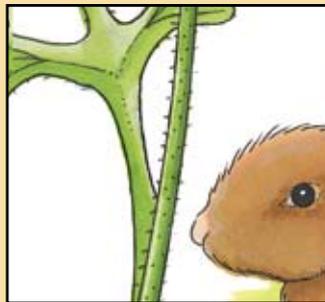
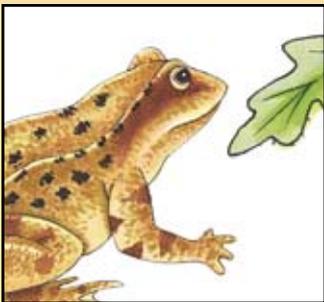
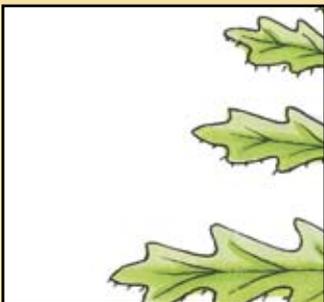
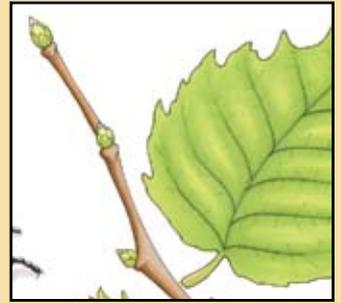
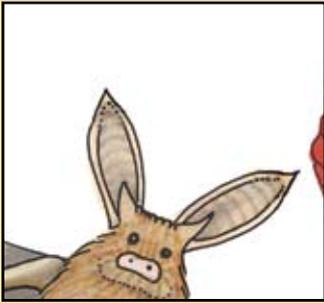


Wild Things at School

A book for Primary School Teachers



by

Éanna Ní Lamhna

Illustrations by Christine Warner

Wild Things at School







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Published by Meath County Council
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in association with
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An Chomhairle Oidhreachta
The Heritage Council



Dedication

I dedicate this book to my father — Peadar Ó Lamhna — who taught me in Fifth, Sixth and Seventh class in St Nicholas' Primary School in Stabannon in Co. Louth.



Foreword

Counties Laois, Meath and Monaghan have come together to develop this book for Primary School teachers called *Wild Things at School*.

“If only the kids learnt even three plants or animals each year . . .”

This statement from the naturalist, author and broadcaster Éanna Ní Lamhna was picked up by us as the basis for this publication. We are delighted that Éanna agreed to write the book. With her usual style, flair and knack of picking out snippets of information, she has written fabulous thought-provoking accounts of all the plants, animals and creepy-crawlies identified for study in the book.

These accounts are well matched by beautiful illustrations from Christine Warner.

Connie Scanlon and James Fraher of Bogfire have brought it all together with their design.

The County Heritage Plans for each of our counties have actions relating to education and for building awareness of our heritage, including wildlife. The Heritage Council has co-funded this book with Laois, Meath and Monaghan County Councils.

We hope that this book will provide an opportunity for every child in Primary School to participate in a nature studies programme which helps them identify common plants, trees, animals, birds and creepy-crawlies. This will make it easier for them to take up ecology modules in the science programme in Secondary School, and help them to know their own local environment.

Our hope is that *Wild Things at School* will encourage children to develop a respect and love of nature that will stay with them all their lives.

We hope that you find it useful.

Catherine Casey, Heritage Officer, Laois County Council

Shirley Clerkin, Heritage Officer, Monaghan County Council

Loreto Guinan, Heritage Officer, Meath County Council



Acknowledgements

Full credit for this book must go to Catherine Casey of Laois County Council, who put it up to me to write a book which would be used to teach the basic plant and animal species to school children, instead of lamenting the fact that they did not know more than daisies and dandelions in Sixth Class. Thanks, too, to Shirley Clerkin of Monaghan County Council and Loreto Guinan of Meath County Council for enthusiastically supporting this project.

I must also thank the Primary School teachers of Ireland who have invited me into their classrooms over the last 35 years to talk to their pupils under such varied schemes as Heritage in School, the Ringo Project, or judging various school garden projects, or indeed as an inspector for trainee primary teachers. The interaction with their pupils has inspired me during the writing of the book.

I particularly want to thank Christine Warner, whose accurate and beautiful colour illustrations and line drawings have brought life so vividly to the words on each page.

I want to thank Connie Scanlon and James Fraher at Bogfire who have designed and laid out the pages of the book and made such a harmonious whole of the project.

My thanks also go to the sponsors — Laois, Meath and Monaghan County Councils and to the Heritage Council.

Finally, I would like to thank my husband, John Harding, who bore stoically the time filched from days off and weekends together, which I needed to complete the writing and proofreading. His reward will be great!

— Éanna Ní Lamhna, July 2009



Introduction

If you ask pupils in Junior Infants what wild flowers they know, they will tell you “daisies, dandelions and buttercups”. If you go into Sixth Class and ask the same question you will get the same answer. They know three species in infants and they know the same three eight years later. Yet, with no difficulty, they could learn two wild flowers every year, and a tree, and a mammal, and a bird and indeed a creepy-crawly. So, with relatively little effort, each pupil would leave Primary School knowing, recognising and realising the importance of 48 native Irish species. A co-ordinated effort on the part of their teachers would ensure this.

But how to do it? Which species to teach each year, where to find them, and what pupil exercises to carry out? How does the school ensure that each year the wildlife knowledge of each Class is built on and improved? How do the teachers find out themselves all about the chosen species? What practical work can they carry out with the class to ensure that the teaching is carried out to conform with the Living Things Strand of the Science Curriculum?

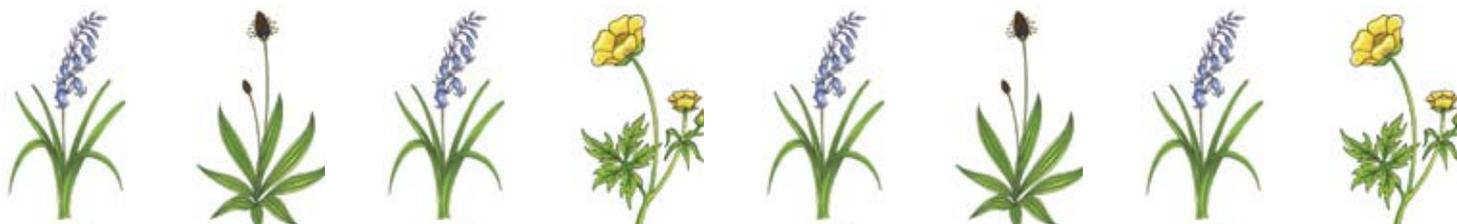
This book is the answer to such questions. The 48 species that every child should know are outlined in the following pages. Many of them occur in the school grounds (so the pupils can have firsthand experience of them); others are found in the hedgerows which may be round the school field or nearby. None are rare or endangered. The objective is that if pupils and teachers know all about common species, then they will be in a position to appreciate the value and importance of species that are less common and that require different habitats in which to live.

The book is divided into eight sections — one for each year of Primary School from Junior Infants to Sixth Class. The six species to be taught each year are described. The descriptions are all written for the teachers to absorb and then to teach to the class at whatever standard the class can learn. The “To do” section is geared however at the standard of the class being taught. The ideas are given and again the teacher uses these ideas to carry out the practical work in a way that suits their particular class.

When teachers have Planning Days to work out what the teaching schemes for the year will be, this book will be invaluable. Each year the six species listed for that class are taught. The teachers know what their class has been taught in earlier years and can revise and build on this.

So I look forward to the day in eight years time when I ask a Sixth Class what flowers they know and they can rattle off 16 species of wild flowers, complete with details of what they look like, where they grow and what folklore is attached to them.

Bainigí taitheamh as.



*In the end we will conserve only what we love;
we will love only what we understand;
and we will understand only what we are taught.*

—Baba Dioum, 1968

Taken from a speech made in New Delhi by the Senegalese Environmentalist Baba Dioum
to the International Union for the Conservation of Nature (IUCN).



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Senior Infants

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**Buttercup**  
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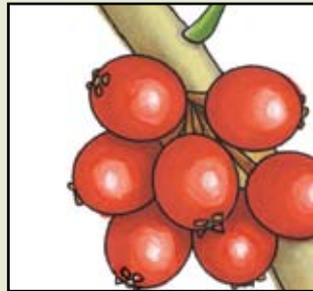
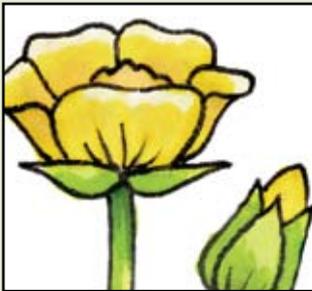
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**White Clover**  
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**Holly**  
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**Rabbit**  
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**Swan**  
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**Spider**  
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Buttercup

Latin name—*Ranunculus repens*

Irish name—*Fearbán* and also *Cam an Ime*



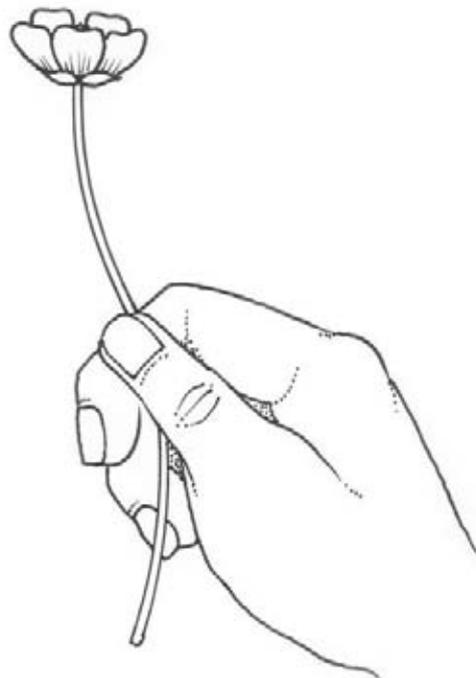
Buttercup

Buttercups are wild flowers that grow in grassy fields that are not mowed. Unlike daisies and dandelions which grow from rosettes and can survive mowing, buttercups will not grow and flower on a continually mowed lawn. So look for them beside the hedge if this is the case in your school — or indeed arrange for a small unmown patch to be left for the buttercups.

Buttercups start to flower by the end of April and continue in flower all summer long right up to September. The flower has five bright yellow petals. There are five sepals on the outside of the petals and a great number of male stamens inside the petals. They contain nectar deep within the flowers to attract insects and are visited particularly by butterflies in summer months.

They are called buttercups in English because it was thought that a pasture full of buttercups eaten by cattle would give a golden colour to the milk and even more so to the butter made from the milk. This is not actually true — buttercups are generally avoided by cattle. They have an acrid taste and one of the Irish names for buttercups, *fearbán*, reflects this.

Children play the game of holding a buttercup under another child's chin to see if they like butter. Butter must have been more popular long ago among children than it is now, as there is invariably a golden glow on the child's skin which of course means "they like butter", which may not actually be the case. Scientifically, any bright yellow object held under the chin of any child of any skin colour — particularly on a bright, sunny day — will give a golden reflection.



To do with Senior Infants

- Bring them out to look for buttercups. Get them to count the petals and see the sepals behind the petals. Get them to check if their companion "likes butter". Then get them to repeat this using a dandelion. What can they conclude from this exercise?

White Clover

Latin name – *Trifolium repens*

Irish name – *Seamair bán*



White Clover

This plant grows commonly in lawns and fields. Early in the year just its leaves are obvious. These are described as trefoil leaves — three leaflets from one stem. These trefoil leaves are easy to find and to recognise. Each leaflet is heart shaped with a pale V-shaped mark. The Irish word for clover is seamair. In spring when there are no flowers out yet, the leaves are young clover — seamair óg or shamrock. There is a tradition that St Patrick used the leaf of the shamrock to illustrate his teachings about the Holy Trinity to the Irish people long ago. Just as there were three leaflets united in one leaf of the shamrock — so were the three deities of the holy trinity united as one God. To commemorate this, Irish people wear a bunch of shamrock in their lapels on March 17th — St Patrick’s Day.

The plant begins to flower in April and there are white clover flowers all summer long until the end of September. The white clover flower head is actually a cluster of small individual flower heads.

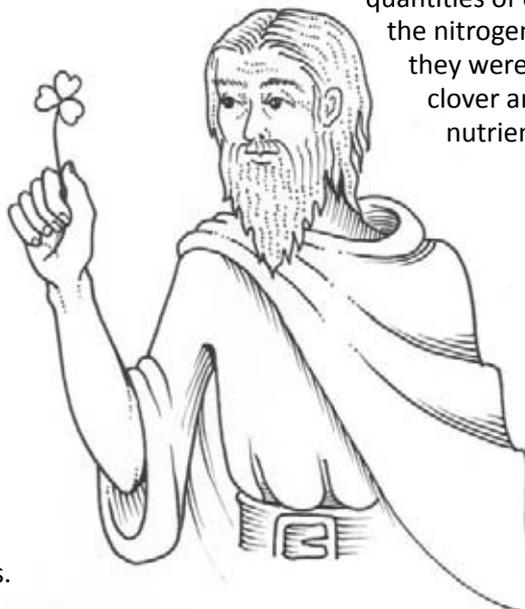
The flowers can be visited by honey bees who gather the nectar to make particularly delicious clover honey. As the clover is a member of the pea family, its seeds are carried in pods.

Clover was planted by farmers in their pastures to improve the fertility of the soil. Plants need nitrogen in order to grow and usually, to get a good crop, the farmer must add nitrogen as a fertiliser to the soil. All members of the pea family — including the clovers — are able to take in the nitrogen from the air and use it to grow. They are able to fix nitrogen in this way because they have special nodules on their roots. These nodules are formed because the plant can form an association with a particular type of nitrogen-fixing bacteria and together the plant and bacteria work in a symbiotic relationship to fix nitrogen from the air. Thus, in the days before farmers had large

quantities of cattle slurry to restore the nitrogen levels in their soil, they were very glad to plant clover and let it improve the nutrient quality of their soil.

To do with Senior Infants

- Around St Patrick’s Day, the class can be brought out to collect shamrock from the school lawn or field. They can be told about the tradition of St Patrick and the shamrock.
- In May or June the class can go out to look for clover in flower. White clover has obvious white flower heads. Pupils may also find red clover which has purple flowers which are larger than those of the white clover. They may also find small yellow clover flowers. These belong to a different species — yellow clover — which grows in the drier parts of grassland areas.



Holly

Latin name—*Ilex aquifolium*

Irish name—*Cuilleann*

The Irish name is commonly found in Irish place names such as Moycullen—the plain of the holly, Glencullen—the glen of the holly, Kilcullen—the church of the holly.



To do with Senior Infants

- Bring them out to look at a holly tree — particularly in autumn when there may be berries on it. Collect berries to grow into holly trees. Collect the berries when they are red in October. Remove the flesh and wash the stones. Mix them with 3 or 4 times their volume of 50/50 sand and peat and put into a flower pot with drainage holes. These are left outside for 18 months or two winters — before they germinate. They can then be planted in separate pots until they are big enough to go into the ground.

Holly is a native evergreen tree. It has broad leaves unlike coniferous evergreen trees such as pine trees. It grows naturally as an under layer in an oak woodland. Its dark green leaves can tolerate the lower light levels here. When the oak canopy trees have lost their leaves from the end of October to the end of April, there is plenty of light in the woodland for the holly to grow.

Holly is unusual among Irish trees in that there are male trees and female trees. The female trees have berries and the male trees produce pollen on special male-only flowers. The pollen is blown by the wind to the female trees whose flowers only contain female parts. When these are fertilised by the pollen, berries are then formed which turn red in the autumn. These berries contain a hard stone which is the seed. Thrushes in particular are very fond of holly berries and will guard “their” tree against all invaders. They swallow the berries whole and excrete the hard stones in their droppings, from which new holly trees grow.

Holly has prickly leaves on its lower branches only. If you look higher up in the tree you will notice that the leaves have fewer and then no prickles on the leaves. The prickles are a defence against being eaten by browsing animals such as deer and when the branches are high enough to be out of the reach of foraging deer there is no longer any need for prickles.

In early Irish law the most valuable tree species were called “the nobles of the wood” and there were severe fines for cutting them down or destroying them. There were seven noble trees — holly was one of them because its young soft leaves were used as fodder for animals and its hard timber was used for spears and chariot poles. The word holly in English comes from holy, as the red berries were thought to symbolise drops of Christ’s blood. However, the tradition of bringing holly into the house at Christmas goes back much earlier than Christian times. They were the only trees in leaf in winter in the deciduous forests of old in Ireland and therefore symbolised life and the sun. So, just after midwinter on December 22nd when the sun began to move back up in the sky holly was brought into the house to celebrate and to keep away evil spirits.



Rabbit

Latin name: *Oryctolagus cuniculus*

Irish name: *Coinín*



Rabbits were introduced to Ireland by the Normans as a source of food. The Normans were of Scandinavian origin originally and the name they had for the rabbit was the Danish word Koinin. So the Irish adopted the name — Coinín and indeed called places after it such as Coney Island in Sligo and the Cunnigar in Dungarvan in Waterford.

Rabbits are herbivores and in the wild can live on grasses. They make burrows underground to sleep and breed in and they scamper down these burrows at the least sign of danger. Their short white tail is called a scut and the sight of this moving at speed together with a warning thump of their hind legs warns other rabbits if danger is near.

Rabbits live in colonies and there can be many burrows together in an area where the soil is loose enough to excavate, such as in a sandy area or in a ditch at the end of a field. While they can live perfectly well on grasses, they are particularly fond of softer vegetable leaves and will raid neighbouring gardens in the early morning and eat the owner's prize possessions. Digesting grass is very difficult and

the rabbit has to pass the food through its intestines twice, in order to extract all the food value. So they actually eat their own droppings first time round at night in the burrow and when they are excreted a second time next morning above ground they are completely dry and devoid of any nutritional value. This practice is called coprophagy.

The expression “breeding like a rabbit” is well founded in scientific fact. The female does begin to breed at a year old and there may be up to seven kittens in each litter. The kittens are born 30 days after mating and the mother can mate and conceive the next litter within 24 hours after delivery of the previous one. As a female rabbit can live as long as five years she could give birth to up to 350 babies in her life-time and be a great-great granny many times over before she dies.

Rabbits are food for many other animals in the food chain however. They are eaten by stoats, foxes, badgers and mink as well as birds of prey such as the Donegal golden eagle or the buzzards that are now becoming common in the eastern half of Ireland.



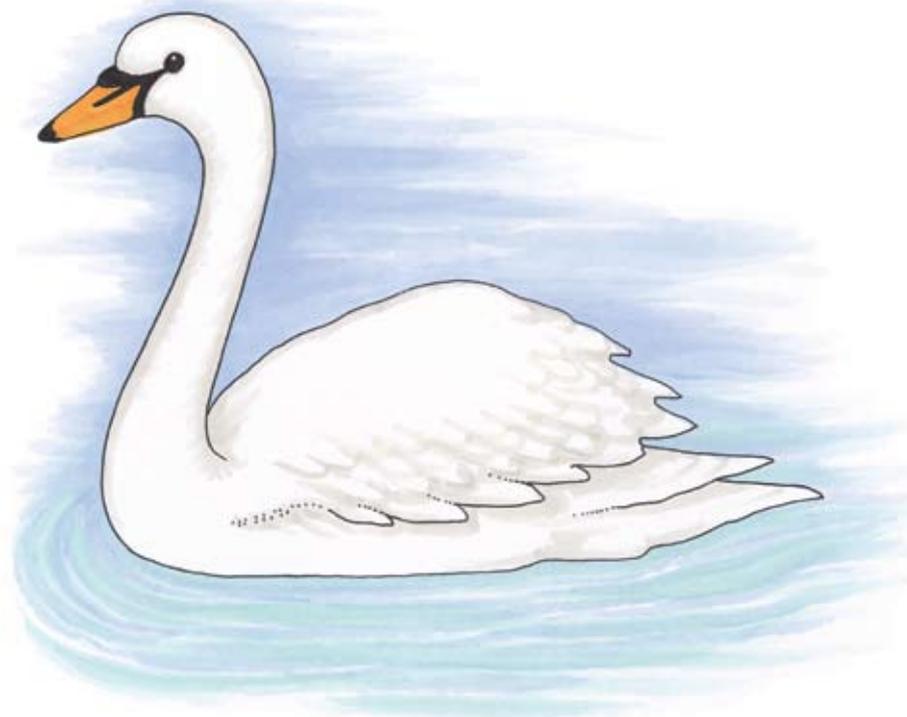
To do with Senior Infants

- The story — *The Adventures of Brer Rabbit* by Julius Lester — could be read to the pupils. These are American stories of how the clever rabbit was able to avoid all efforts to capture him. The story *Watership Down* by Richard Adams is also about rabbits.
- At Easter pupils can make Easter cards with pictures of Easter bunnies and Easter eggs.

Swan

Latin name – *Cygnus*

Irish name – *Eala*



SWAN

The swan is unmistakable. It is a large white bird with a long neck and an orange beak and it lives on ponds, lakes and canals. It is found in ponds in parks, in cities and towns and on rivers and lakes in rural areas. It also can live in estuaries by the sea. Swans are thought to mate for life and a pair will occupy a territory on a pond or river and build a nest each spring. Nests are large affairs made from reeds and sticks, and litter and rubbish can be added in too. Five to seven eggs are laid between March and May and incubation takes about 36 days.

The young are called cygnets and they are able to swim the moment they hatch out. They are minded very well by both parents who will attack intruders by snorting and hissing at them, raising up their feathers in a threatening manner and indeed attacking if pressed. The young are taught to feed on

submerged vegetation which they collect by upending themselves, stretching down with their long necks and pointing their tails up in the air. They will also come to eat bread if they are fed.

Young swans have brownish-grey feathers and they don't get the snowy white feathers until the spring time. At this stage they leave their parents and assemble in large bachelor herds at coastal estuaries or other good feeding grounds. Here they will stay until they are old enough to breed at two or three years of age.

Migratory swans have straight necks and yellow and black bills. These are Whooper swans which come here in winter from Iceland and Bewick's swans who come from Russia and Siberia. These pass the winter in Ireland and return to their northerly breeding quarters when the snow and ice there has melted in mid-April.

Children of Lir



To do with Senior infants

- Tell them the story of the "Children of Lir" and Hans Christian Anderson's "The ugly duckling".
- Take them to the park to feed swans with bread if there are any in the nearby locality.
- On their return get them to draw pictures of swans in their copies and colour in the beaks.

Spider

Latin name—*Araneus diadematus*

Irish name—*Damhán alla*

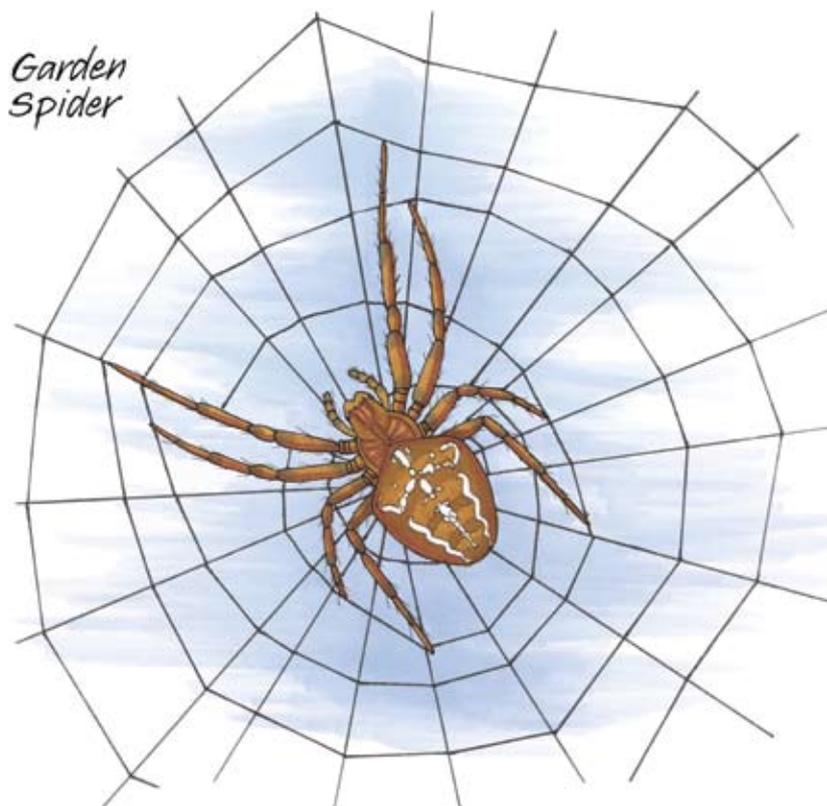
Spiders are not insects but belong to a group called arachnids. All spiders have two parts — a head and a body. All spiders have eight legs — all of which are attached to the head. All spiders have two palps at the top of the head (which they use for smell). Male spiders have longer palps than females. All have eight eyes and two fangs — which are sharp hollow teeth through which they inject venom into their prey to kill them. All spiders have fangs and venom but in Ireland our spiders are too small to be able to penetrate our skin with their fangs. In South America the biggest spiders — tarantulas — are found and their fangs can kill birds and mammals such as mice. They can give humans nasty bites too.

In Ireland we have hunting spiders and web-spinning spiders. The hunting spiders come out at night and run after their prey. They can come into our houses if we leave windows open and can fall into the bath if it is the bathroom window they climb in. They are so big and the bath is so shiny that they cannot climb out again — which is why it is always a huge spider that is in the bath — the small ones can climb up and escape.

Web-spinning spiders make webs from silk produced by spinnerets at the end of their bodies. These sticky traps are positioned to catch unwary flying insects which blunder into them and become enmeshed in the sticky threads. The spider, who is waiting at the centre of the web, rushes in and kills the prey with a bite of its fangs. The spider doesn't get trapped in the sticky web because it has oily feet that do not stick to the web. Having killed the trapped insect, the spider then sucks out all the soft insides as food, leaving hard bits such as wings and legs behind.

To do with Senior Infants

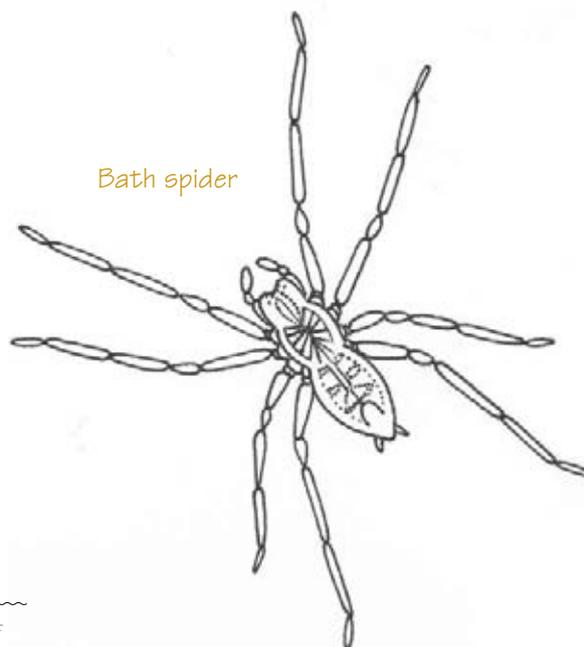
- Teach them “Incy wincy spider” and “Little Miss Moffat”. Read them *Charlotte's Web* by E B White.
- Go outdoors on a damp, misty morning in late September to look for spiders' webs all outlined with dewdrops. Railings or gorse bushes are good places to look.



Garden Spider

Any surplus flies are killed and wrapped up in silk and stored to be eaten later — or indeed to be presented to the female spider when the male goes looking for a mate. Spiders are not only carnivores, they are cannibals and the female will eat the male if given half a chance. So the male presents the female with a well-wrapped fly and mates with her while she is distracted unwrapping it and eating it. In other countries the males are not so lucky — how do you think the Black Widow of North America got its name?

Eggs are then laid in a web of silk and the young are left to their own devices. When they hatch and begin to move towards each other in an effort to eat each other the movement breaks the web nest and the spiderlings are scattered in the wind.



Bath spider

About the Author



Éanna Ní Lamhna

Éanna Ní Lamhna is best known for her environmental expertise as a broadcaster on the radio programme *Mooney Goes Wild*. Her Co. Louth accent gives her one of the most instantly recognisable voices on radio. Her ability to bring her subject to life is legendary and her no-nonsense approach to romantic views about wildlife is well known.

She is first and foremost a botanist with degrees in both botany and ecology from University College Dublin. Her interest in the environment has expanded with her work over the years, to include birds, mammals and in particular creepy-crawlies whose doings hold a particular fascination for her. Her ability to awaken enthusiasm for these creatures in her listeners is exemplified by the remark made to her lately, “Whenever I see a spider I always think of you and put it outside instead of stamping on it.”

She began work in 1974 in the Biological Records Centre — in its first incarnation in An Foras Forbartha. She quickly realised that if she was to receive any biological records from the Irish public she would first have to go and teach them about Irish wildlife. So began a career of teachers’ courses, radio programmes, lecturing at third level, field trips with Secondary School pupils and most significantly of all, visits to Primary Schools to teach the pupils and indeed the teachers there, about the wildlife around them.

Her publications include *Talking Wild*, *Wild and Wonderful*, *Straight Talking Wild* and *Wild Dublin*. She has just completed a five-year term of office as President of An Taisce and is currently the Vice-President of the Tree Council of Ireland.

About the Illustrator



Christine Warner

Christine Warner is an illustrator and calligrapher working mostly in the field of education. She provides full colour illustrations, line diagrams and cartoons for textbooks, workbooks and posters. She has worked for many educational publishers and also for Dúchas, Forfás and Trócaire.

While she illustrates material on a wide variety of subjects, she specialises in science, having science degrees from University College Dublin and Trinity College Dublin. She particularly enjoys producing wildlife illustrations and cartoons. She has been an environmental activist for many years. Christine may be contacted via email at cwarner1@gmail.com

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