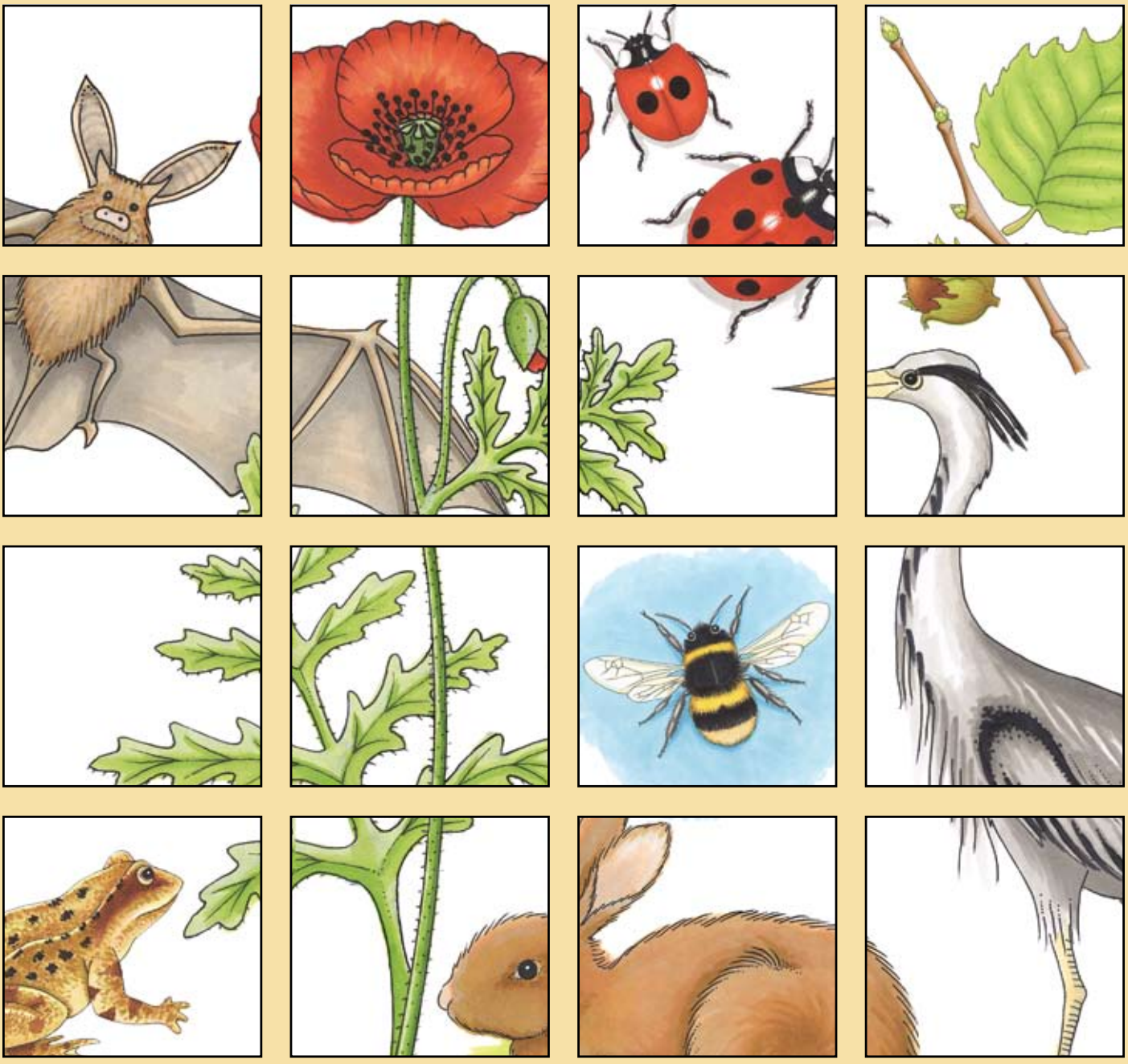
Wild Things at School

A book for Primary School Teachers



by

Éanna Ní Lamhna

Illustrations *by* Christine Warner

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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 taithneamh 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).

List of helpful publications

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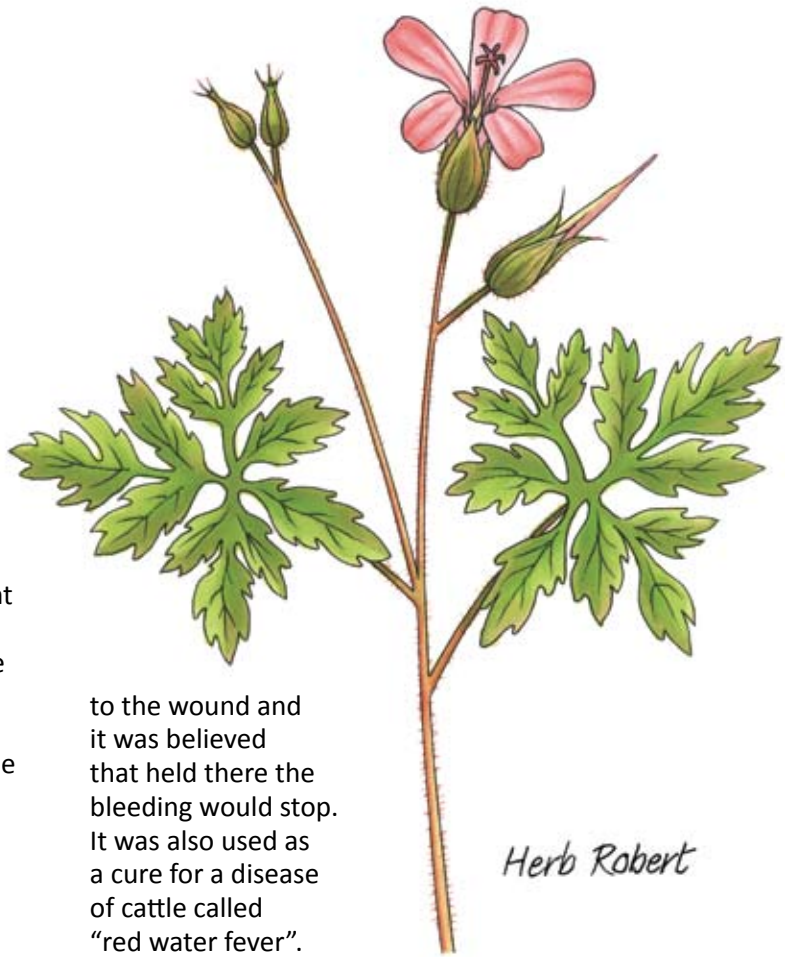
Herb Robert

Latin name – *Geranium robertianum*
Irish name – *Ruitheal Rí*


Herb Robert

Herb Robert is a pinkish flower that grows in well-established hedges or at the edges of a deciduous woodland. It has five pinkish-purple petals which emerge in May and the plant continues to flower right through to the end of September. The flowers are borne in pairs and the whole plant has a pungent smell not unlike that of a fox. It is a member of the Geranium or Cranesbill family. It is so called because its seeds reminded viewers of the sharp pointed bill of a crane. Held upright it actually resembles a birthday candle in a holder that might be about to be inserted into a birthday cake. The leaves are three-lobed on long straggling stems and they turn bright red in autumn.

Where does the name "Herb Robert" come from? Who was Robert? Tradition has it that the name was brought to Ireland by the Normans (although the plant was always a native here, established in woody places ever since the woods developed after the Ice Age). The Normans would have been familiar with stories of a powerful wizard in English folklore called Robin Goodfellow and as the name Robin is a diminutive of Robert, this plant was obviously one used by the said magician for his spells. In Ireland the plant was widely used to staunch bleeding, especially in the east of the country. The leaves were applied to the wound and it was believed that held there the bleeding would stop. It was also used as a cure for a disease of cattle called "red water fever". Obviously it was believed that there was a connection between the fiery red leaves of the plant in autumn and blood.

This plant is part of the plant community that grows in hedges and woodland edges. It is able to tolerate the lower intensities of light that occur here because of shading when the canopy of deciduous trees gets its leaves. It should be easily found on any field trip to a hedge or woodland area in June or September.


Robin Goodfellow

To do with Sixth Class

- Bring the class on a fieldtrip to a local hedge or woodland to look for all the plants that they have learned during their eight years in school. Herb Robert will be an easily recognised member of the flora seen.

Sixth Class

Herb Robert

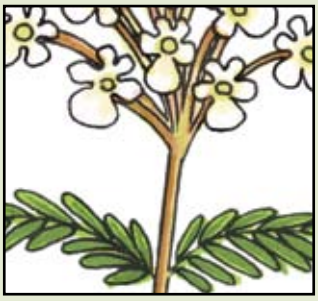
Cow Parsley

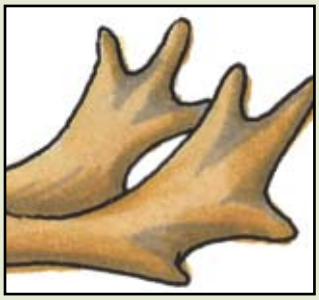
Birch

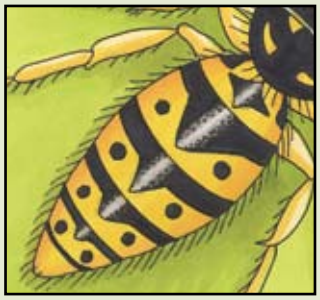
Deer

Crows

Wasp





Cow Parsley

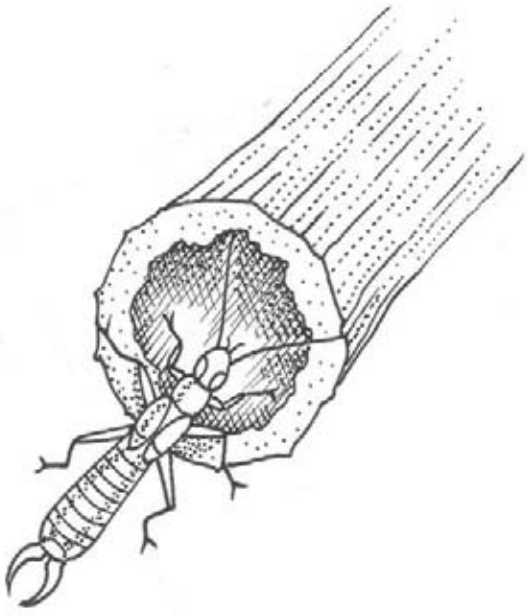
Latin name – *Anthriscus sylvestris*
Irish name – *Peirsil Bhó*

This flower turns the roadside verges white during May and early June. It is a member of the Umbelliferae family, which means that the flowers are carried on flower heads that resemble small umbrellas. Each individual flower is very small. It has five tiny petals — the whole flower is only 2 mm across. They are carried in clusters 6 cm across at the ends of the large umbrella-shaped rays of the plant which itself can be up to a metre tall. The stems are furrowed and hollow. The leaves are finely divided and appear before the flowers. At this early stage it is quite possible to mistake them for ferns but of course they have no spores on the backs of the leaves as ferns do.

They are called cow parsley because of their finely divided leaves, but in Co. Tipperary they are known by the old name of "Queen Anne's lace" because of the exquisiteness of the flower heads. The plant emits a spicy odour when crushed. It is attractive to insects as it contains nectar and if the flower heads are examined, flies can be seen sipping the nectar.

The flowers die back in July but the long withered hollow stalks can remain all winter. If examined and opened at this time you may find that they are providing hibernation quarters for earwigs or other insect larvae. They contribute greatly to the wildlife biodiversity of the hedge verge.

Unbellifers — the family group to which cow parsley belongs — are a large group which contain poisonous members such as hemlock (which is fatal if eaten). The cow parsley was confused with this fatal plant or perhaps it was considered wise to give all such shaped plants a wide berth, because it was said that picking cow parsley and bringing it into the house would cause the death of one's mother. That would discourage such a practice right enough.

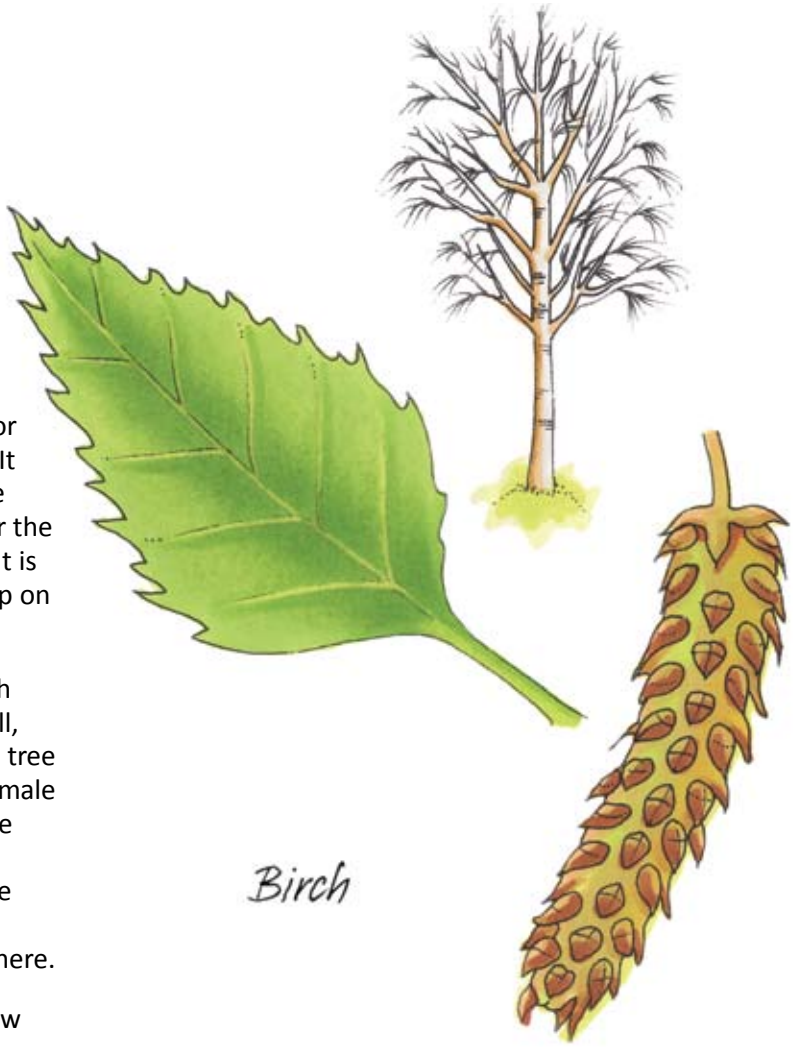


To do with Sixth Class

- Make sure that the class is brought out on a fieldtrip to a hedge during May and early June when this plant is in flower. Pupils should become familiar with its flowers and leaves so that they do not mix it up with other flowers of the same family. The flower heads should be examined for insects and pooters used to collect any that might be sitting on them.

Birch

Latin name – *Betula pendula*
Irish name – *Beith gheal*



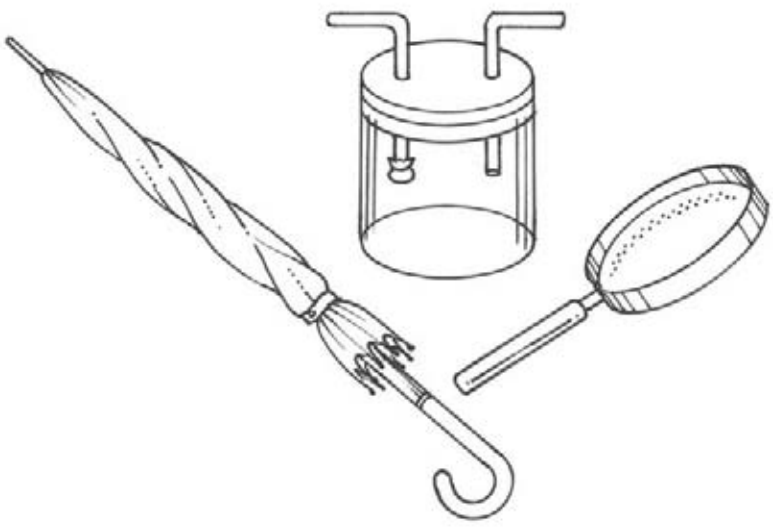
The silver birch is a tall, elegant tree, renowned for its beauty and known as "the lady of the wood". It is a native Irish tree, being here since after the Ice Age. In fact as forests came back into Ireland after the ice had cleared, the first coloniser was the birch. It is able to grow in open ground and can grow high up on mountains, right up to the tree line.

It has a very pale cream-coloured bark from which it gets its name — silver birch. The leaves are small, toothed and triangular in shape. They open on the tree towards the end of April. Its flowers are catkins — male and female catkins are separate and these emerge with the leaves. The female catkins are pollinated by the wind which blows the pollen from the male catkins to them. The seeds are very small and are blown by the wind to re-seed and colonise elsewhere.

The bark of the silver birch peels. It can thus renew itself and get rid of any pollution that may have attached itself to it. Because of this and because it is a pioneer tree that can withstand harsh conditions, it is commonly planted on the streets of towns and villages where its beauty enhances the whole area.

It is also commonly seen on the margins of bogs, lakes and rivers and it can grow on poorer soil than other native species can. It is the first to colonise an open area. The leaves which fall from it in autumn decompose and nourish the soil making it suitable for other forest trees such as oak which will replace it over time if left undisturbed.

A common tree — its Irish name beith is found in quite a few place names such as Ballybay in Monaghan and Glenbeigh in Co. Kerry.

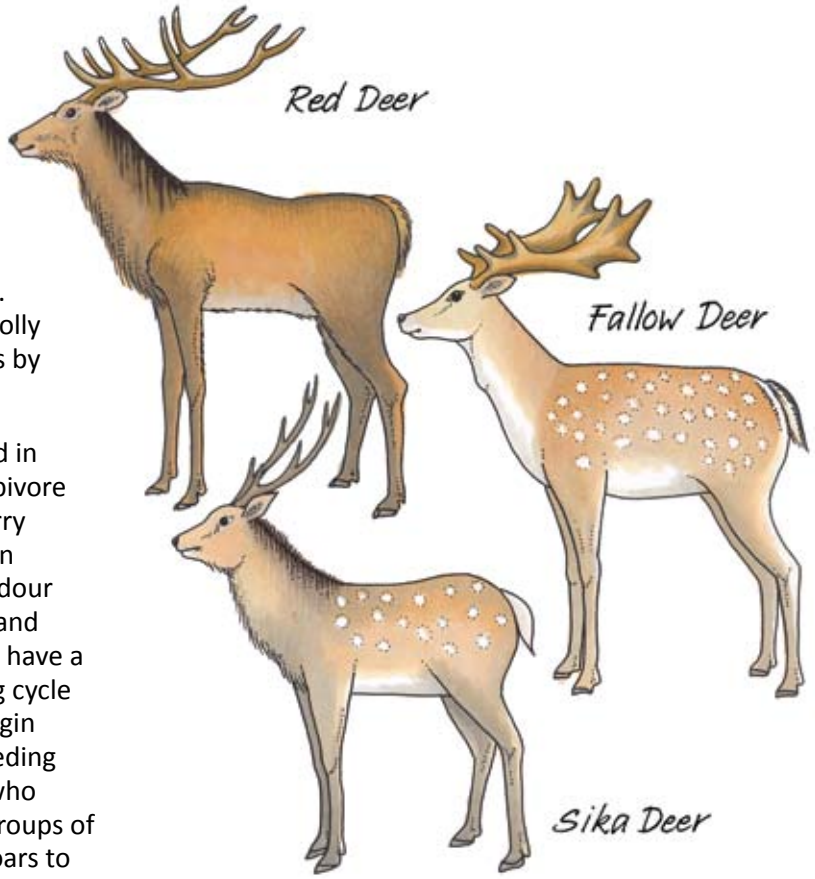


To do with Sixth Class

- Birches are native deciduous trees and there are 229 insect species that are associated with them. Sixth Class should find a silver birch near to the school or preferably in the school grounds and over a year from September to June conduct a weekly survey to find out what insects are there. They need an upturned umbrella to shake the tree into and pooters to lift out the insects for examination. A magnifying glass or a bug box will magnify the captured creature and the pupils should create a class list for the year, of insects or indeed general creepy-crawlies including spiders that fall into their umbrella.

Deer

Latin name – *Cervus elapus*
Irish name – *Fia rua*



Deer are even-hoofed mammals that are entirely herbivorous. They live in woodland, grassland and open mountain and moorland. They eat grass, leaves of trees such as oak, holly and ivy while some of them do harm to trees by eating shoots and stripping bark.

There are three species that occur in the wild in Ireland. The Red Deer is our largest wild herbivore and the only native species of deer. Stags carry branching antlers which are shed each year in March and April and grow again to full splendour by August. Antlers generally increase in size and weight each year and a fully mature stag will have a very impressive set of antlers. Their breeding cycle is controlled by day length, so as the days begin to shorten by the end of September the breeding season known as the rut begins. The stags, who have been living apart all summer, join the groups of females (known as hinds). They emit deep roars to assert their supremacy and fight with other stags by locking antlers and pushing. Whichever one is pushed backwards loses.

Successful stags gather harems containing many hinds and father all the calves that are born to the mothers by the end of the following May. Competition among stags is fierce — they are five years old before they are mature and although stags can live for twelve years, the older ones are not so successful in their fights for hinds.

Native Irish Red Deer now only occur in and around the Killarney National park region of Co. Kerry and on Inishvickillane of the Blasket Islands. Another similar smaller species — the Sika Deer — was introduced to Ireland from Japan in 1860 by Lord Powerscourt initially to his estate in Wicklow. These interbred with the Red Deer that were at the time common in Wicklow and Donegal, so that the deer seen in these areas today are all hybrids between Red and Sika. There is a herd of pure Sika Deer in the Killarney area as well as the herd of Red, but no hybridisation has occurred here and the two species are distinct.

Fallow deer were introduced to Ireland by the Normans in 1244. They were kept in deer parks from which some escaped and they too have become established in the wild. They occur in most tracts of woodland in lowland areas. Male Fallow Deer — known as bucks — have broad, flattened antlers. Females — called does — have just one fawn each in June. There are well known herds in the Phoenix Park in Dublin, in Doneraile Park in Cork and in Lough Fea estate in Co. Monaghan. They are also commonly farmed.

To do with Sixth Class

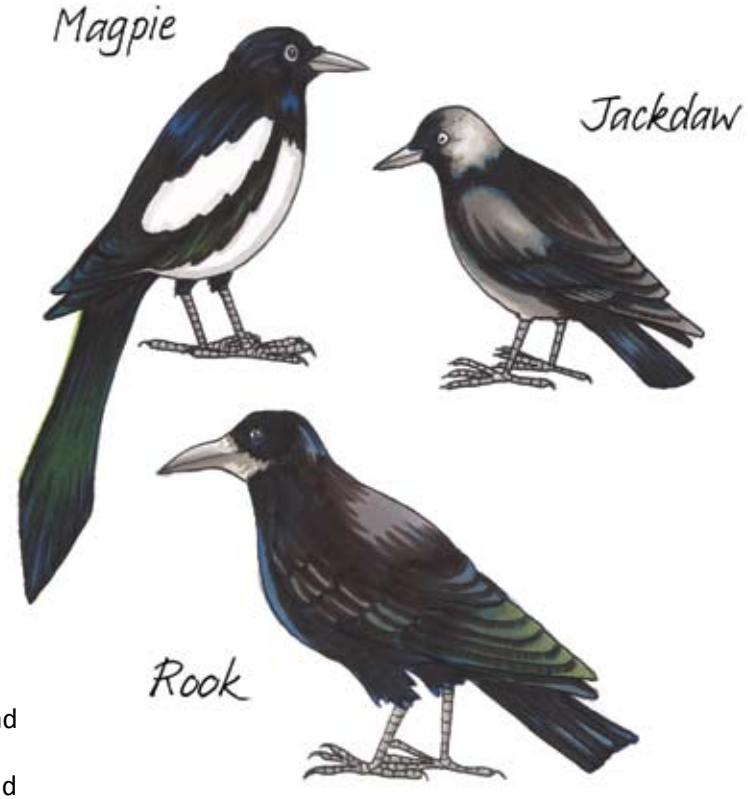
- Wolves were the natural predators of deer in the food chain. These were made extinct in Ireland in the 1700s. Deer now have no natural enemy to control numbers and can expand their herd size enormously causing damage to forestry and leaping out on roads endangering themselves and passing traffic.
- Debate with the class how deer should be managed to be sustainable in the environment. Include such ideas as culling, (which should be culled and how), removal of fawns after birth, hunting as a tourist attraction, visiting and watching them as a tourist attraction, accidents on roads caused by deer, etc.

Debate

Crows

Latin names – *Corvus* (crow)

Irish names – *Cág:* (jackdaw)
Préachán: (rook)
Snag Breac: (magpie)



A crow is the common name given to the large black birds that walk around the school field pecking at the grass, but the truth is that crow is the name of the bird family to which these birds belong. In the school field two species of crow are abundant. The smaller neat one with the charcoal grey head is the jackdaw — which nests in chimneys. The larger glossy black one with completely feathered legs is the rook — which nests in colonies at the tops of tall trees nearby. Both birds are enormously common and no child should leave school without realising that there are two different species and that they look and behave differently.

There are in fact seven members of the crow family in Ireland. The magpie is an instantly recognisable bird. It builds a large untidy nest at the top of tall trees in suburban areas and surveys the territory all around for songbirds to harry and eggs and nestlings on which to feed. It is this behaviour which it carries out so publicly that has made it such an unpopular bird. But from an ecological point of view, songbirds will raise at least six young each year in each nest. There is not space or food for them all in suburban areas and despite how unpleasant it is to us — the magpie is the next stage in the food chain. They do not get all the songbirds — the strongest and cleverest survive — the survival of the fittest.

The hooded crow, also known as a grey crow or a scald crow, also makes infrequent visits into school grounds. Like the others it will scavenge at bins left open or poke for worms on the short sward of the playing field. These grey crows are larger than the others and have quite a distinct grey head and black back. They do immense harm to sheep as they can pick out their eyes leaving them blind. This means that farmers can shoot them under licence.

The other three Irish crow species are: the largest one — the raven — which occurs on open mountainsides; the jay — unmistakable with its brown feathers and intense blue flash on the wing and the chough, a jackdaw-sized black crow with a vivid red bill and legs which only occurs in areas of short grass sand dunes in the west and south of Ireland.

Crows are among the most intelligent of birds. Experiments show that they are able to learn new things and quickly adapt to changing circumstances which is why they are so successful as a species.

To do with Sixth Class

- This class could carry out a scientific count of the number and species of crows seen in the school grounds over a given period. The number might be co-related with weather, breeding time, abundance of food elsewhere i.e. recently harvested grain field nearby, etc.

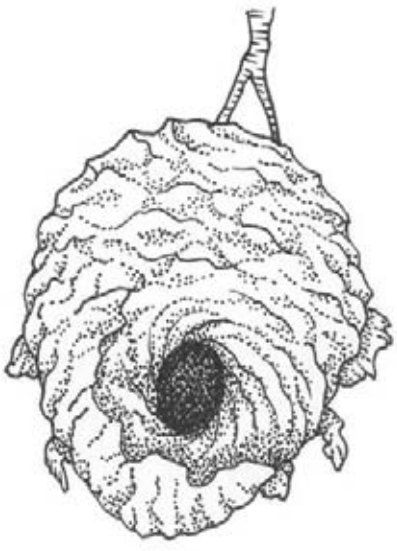
Wasp

Latin name – *Vespula vulgaris*
Irish name – *Foiche*

The wasp is a much maligned insect. It actually does not spend its time going round looking for humans to sting (more than once too if it can). The life cycle of the wasp actually plays a very important role in our natural environment.

Wasps are native social insects. This means that there is a queen and a colony of workers that live together in a nest. The queen hibernates for winter and in March wakes up. She emerges, chooses a nest site and begins to build a paper-like nest from chewed up timber. This nest can be in a hedge, in an attic or roof space, or in a disused shed. She lays eight eggs and when these grow into worker wasps they take over the running of the nest. The queen goes into egg production full time and the workers build six-sided cells for the eggs. The workers are all female and they feed the baby wasps with chewed up greenflies, aphids and other insect garden pests. The adult wasps, on the other hand, feed on a sweet substance excreted by the grubs in the nest.

So all summer long from April to August, wasps do a great deal of good, keeping down the numbers of harmful plant pests. By the end of August the queen will have laid up to 40,000 eggs and is beginning to tire. The nest can be the size of a football by now. The workers build different shaped cells in which eggs are laid that go on to be queens, while different shaped cells again cause her to lay eggs that produce drones. These all leave the nest when mature, mate with those from other nests and the newly fertilised queens go into hibernation at once and emerge to start the cycle all over again next March.



Wasps' nest

Wasp

The old queen back at the original nest lays a last round of eggs and dies by the end of August. This last round of worker wasps have no younger babies to feed with insects, nor indeed any grubs to lick sweet-tasting liquid from. It is these last wasps during the months of September and October, for the six weeks lifespan that they have, that have to hunt everywhere for sweet food. They can eat nectar from flowers, or suck the juices of fallen apples and blackberries. But many of them do come into our homes seeking sugar there. Of course they will sting if assaulted by an angry or terrified human. But they don't seek us out deliberately to sting us. By the end of October they will all have died. The nest is empty and won't be used by next year's queen. The whole cycle will begin again the following March.

About their sting — the sting of a wasp is like a needle and can be withdrawn after it is used in order to sting again. The bee has a sting with a serrated edge which gets stuck in our thick skin and cannot be withdrawn so a bee is torn apart as it tries to withdraw it from a human and will later die.

To do with Sixth Class

- Get hold of a disused, empty wasps' nest. Spray it with hair spray to render it less brittle. Bring into school and let the class examine the nest in detail. It can be cut in half in due course so that the intricate cell structure can be appreciated.

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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