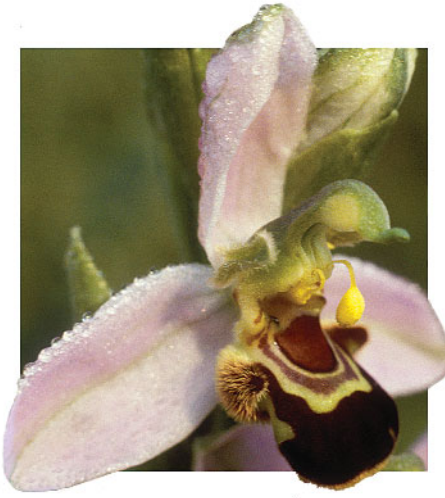


# Britain's Orchids

A guide to the identification  
and ecology of the wild orchids  
of Britain and Ireland



**David Lang**



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The vast array of nature reserves scattered throughout Britain include some of the very best places to see orchids growing in their natural habitats. The Wildlife Trusts is represented by a nationwide network of 47 local Wildlife Trusts caring for over 2,560 nature reserves. These reserves include some of the best orchid sites in the country, with management to ensure the protection of the orchids and the other wildlife special to each site. In addition, many reserves have excellent facilities, including visitor centres and nature trails, as well as events and guided walks, with local experts on hand to explain all about the orchids and other wildlife on show. The Wildlife Trusts can be contacted at:

The Wildlife Trusts, The Kiln, Waterside, Mather Road, Newark, Nottinghamshire NG24 1WT  
Tel.: 0870 0367711; Fax: 0870 0360101 www.wildlifetrusts.org

The contact details for all local Wildlife Trusts can be found on pages 182–185 or on the following website: [www.wildlifetrusts.org/index.php?section=localtrusts](http://www.wildlifetrusts.org/index.php?section=localtrusts)

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## Contents

Foreword	7
Introduction	8
An introduction to orchids	10
What is an orchid?	10
Germination and growth	12
Reproduction and pollination	14
Hybridisation	16
Orchid habitats	18
An introduction to the species	30
Orchid flowering periods	40
Introduction to the species accounts	41

## SPECIES ACCOUNTS

LADY'S-SLIPPER	<i>Cypripedium calceolus</i>	42
WHITE HELLEBORINE	<i>Cephalanthera damasonium</i>	44
NARROW-LEAVED HELLEBORINE	<i>Cephalanthera longifolia</i>	46
RED HELLEBORINE	<i>Cephalanthera rubra</i>	48
MARSH HELLEBORINE	<i>Epipactis palustris</i>	50
DARK-RED HELLEBORINE	<i>Epipactis atrorubens</i>	52
VIOLET HELLEBORINE	<i>Epipactis purpurata</i>	54
BROAD-LEAVED HELLEBORINE	<i>Epipactis helleborine</i>	56
YOUNG'S HELLEBORINE	<i>Epipactis helleborine</i> var. <i>youngiana</i>	58
NARROW-LIPPED HELLEBORINE	<i>Epipactis leptochila</i>	60
DUNE HELLEBORINE	<i>Epipactis dunensis</i>	62
'LINDISFARNE' HELLEBORINE	<i>Epipactis sancta</i>	64
GREEN-FLOWERED HELLEBORINE	<i>Epipactis phyllanthes</i>	66
GHOST ORCHID	<i>Epipogium aphyllum</i>	68
BIRD'S-NEST ORCHID	<i>Neottia nidus-avis</i>	70
COMMON TWAYBLADE	<i>Listera ovata</i>	72
LESSER TWAYBLADE	<i>Listera cordata</i>	74
AUTUMN LADY'S-TRESSES	<i>Spiranthes spiralis</i>	76
SUMMER LADY'S-TRESSES	<i>Spiranthes aestivalis</i>	78
IRISH LADY'S-TRESSES	<i>Spiranthes romanzoffiana</i>	80
CREEPING LADY'S-TRESSES	<i>Goodyera repens</i>	82
FEN ORCHID	<i>Liparis loeselii</i>	84
BOG ORCHID	<i>Hammarbya paludosa</i>	86
CORALROOT ORCHID	<i>Corallorhiza trifida</i>	88
MUSK ORCHID	<i>Herminium monorchis</i>	90
GREATER BUTTERFLY-ORCHID	<i>Platanthera chlorantha</i>	92
LESSER BUTTERFLY-ORCHID	<i>Platanthera bifolia</i>	94
PYRAMIDAL ORCHID	<i>Anacamptis pyramidalis</i>	96
SMALL-WHITE ORCHID	<i>Pseudorchis albida</i>	98
FRAGRANT ORCHID	<i>Gymnadenia conopsea</i> ssp. <i>conopsea</i>	100

FRAGRANT ORCHID.....	<i>Gymnadenia conopsea</i> ssp. <i>densiflora</i> and <i>borealis</i> ...	102
FROG ORCHID.....	<i>Coeloglossum viride</i> .....	104
COMMON SPOTTED-ORCHID .....	<i>Dactylorhiza fuchsii</i> .....	106
COMMON SPOTTED-ORCHID .....	<i>Dactylorhiza fuchsii</i> - varieties and sub-species .....	108
HEATH SPOTTED-ORCHID .....	<i>Dactylorhiza maculata</i> ssp. <i>ericetorum</i> .....	110
EARLY MARSH-ORCHID .....	<i>Dactylorhiza incarnata</i> ssp. <i>incarnata</i> .....	112
EARLY MARSH-ORCHID .....	<i>Dactylorhiza incarnata</i> ssp. <i>pulchella</i> and <i>coccinea</i> ...	114
EARLY MARSH-ORCHID .....	<i>Dactylorhiza incarnata</i> ssp. <i>ochroleuca</i> and <i>cruenta</i> ..	116
SOUTHERN MARSH-ORCHID.....	<i>Dactylorhiza praetermissa</i> .....	118
NORTHERN MARSH-ORCHID .....	<i>Dactylorhiza purpurella</i> .....	120
WESTERN MARSH-ORCHID .....	<i>Dactylorhiza majalis</i> .....	122
NARROW-LEAVED MARSH-ORCHID .....	<i>Dactylorhiza traunsteineri</i> .....	124
LAPLAND MARSH-ORCHID .....	<i>Dactylorhiza lapponica</i> .....	126
DENSE-FLOWERED ORCHID .....	<i>Neotinea maculata</i> .....	128
EARLY-PURPLE ORCHID .....	<i>Orchis mascula</i> .....	130
GREEN-WINGED ORCHID .....	<i>Orchis morio</i> .....	132
BURNT ORCHID.....	<i>Orchis ustulata</i> .....	134
LADY ORCHID .....	<i>Orchis purpurea</i> .....	136
MILITARY ORCHID .....	<i>Orchis militaris</i> .....	138
MONKEY ORCHID .....	<i>Orchis simia</i> .....	140
MAN ORCHID .....	<i>Aceras anthropophorum</i> .....	142
LIZARD ORCHID .....	<i>Himantoglossum hircinum</i> .....	144
FLY ORCHID .....	<i>Ophrys insectifera</i> .....	146
EARLY SPIDER-ORCHID.....	<i>Ophrys sphegodes</i> .....	148
BEE ORCHID .....	<i>Ophrys apifera</i> .....	150
BEE ORCHID .....	<i>Ophrys apifera</i> - colour forms.....	152
LATE SPIDER-ORCHID.....	<i>Ophrys fuciflora</i> .....	154

### Species of uncertain or doubtful provenance

TONGUE ORCHID .....	<i>Serapias lingua</i> .....	156
HEART-FLOWERED TONGUE-ORCHID .....	<i>Serapias cordigera</i> .....	156
SCARCE TONGUE-ORCHID .....	<i>Serapias neglecta</i> .....	157
SMALL-FLOWERED TONGUE-ORCHID .....	<i>Serapias parviflora</i> .....	157
MUELLER'S HELLEBORINE .....	<i>Epipactis muelleri</i> .....	158
SHORT-SPURRED FRAGRANT-ORCHID .....	<i>Gymnadenia odoratissima</i> .....	158
LOOSE-FLOWERED ORCHID.....	<i>Orchis laxiflora</i> .....	158
BERTOLONI'S MIRROR-ORCHID.....	<i>Ophrys bertolonii</i> .....	158
CALYPSO .....	<i>Calypto bulbosa</i> .....	158

Orchid hybrids recorded in Britain and Ireland .....	160
Status, legislation and protection .....	163
Conservation in action .....	166
Recording and photographing orchids .....	173
Technical terms .....	175
Species mentioned in the text .....	179
Useful addresses .....	180
Further reading .....	185
Acknowledgements and photographic credits .....	186
Index of English and scientific names .....	190



Places where wildlife lives have been under great pressure in recent decades. Many species of plants and animals have been declining, and loss of habitat amounts to an area the size of the county of Shropshire every ten years. English Nature advises government on wildlife issues and is funded by the Department for Environment,

Food and Rural Affairs. The organisation works to champion wildlife and to redress the balance by:

- ♦ overseeing a system of protected sites and wildlife legislation;
- ♦ introducing suitable management practices;
- ♦ devising and implementing wildlife-friendly policies;
- ♦ working in partnership with a range of people and organizations; and
- ♦ providing scientifically-based, sustainable solutions.

Some of the improvements being made can be seen in increases in populations and the range of both Red Kites and Otters, legal protection for species including the Water Vole and Great Crested Newt, the re-introduction of the Large Blue Butterfly, which was declared extinct in the UK in 1979, and an increased awareness of the importance of plants by safeguarding them and the sites where they grow. Orchids have played their part in this process. We want people to understand and appreciate the importance of England's natural heritage and produce a range of information which is available from:

**English Nature, Northminster House, Peterborough PE1 1UA;**  
**Telephone: 01733 455000; Fax: 01733 568834.**

There are also 22 Local Team offices, details of which can be obtained by telephoning Northminster House or by obtaining a copy of English Nature Facts and Figures information guide free from the Enquiry Service: Tel.: **01733 455100.**

You can also learn more about us via the internet: [www.english-nature.org.uk](http://www.english-nature.org.uk)



*WILD Guides* is a small publishing company committed to supporting wildlife conservation through financial donations and the provision of professional services. We produce definitive, yet simple-to-use wildlife identification guides aimed at encouraging a greater awareness of the plants and animals around us, highlighting the need for their conservation.

### WILD Guides

*WILD Guides* was formed in 2000, when we published our first book *Birds, Mammals and Reptiles of the Galápagos Islands*. In 2003, we teamed up with English Nature to produce a series of books on Britain's wildlife. This is the fifth book in the series, our other titles being *Arable Plants – a field guide*, *Britain's Dragonflies*, *Britain's Butterflies* and *Whales and Dolphins of the European Atlantic*.

To date, *WILD Guides* has donated almost £10,000 to conservation charities in Britain and around the world. The sale of this book will benefit The Wildlife Trusts, who do so much to conserve wildlife, including wild orchids, on their reserves. To find out more about *WILD Guides* visit our website: [www.wildguides.co.uk](http://www.wildguides.co.uk) or contact us at:

**WILD Guides, Parr House, 63 Hatch Lane, Old Basing, Hampshire RG24 7EB;**  
**Telephone: 07818 403678; Fax: 01256 818039.**



## Foreword

Orchids are a fascinating and beautiful group of plants. When asked, many people might conjure up images of large shapely flowers, resplendent amongst the vegetation of a tropical island or in a glasshouse. However, it is quite possible to come across these plants much closer to home – visiting a meadow in the Midlands, out on some Scottish sand dunes, walking through a Welsh wood or investigating an Irish bog.

Some may feel that the 50 or so orchids that are native to Britain and Ireland are not quite as glamorous as their tropical counterparts, but as the photographs in this book demonstrate, they are just as varied, just as beautiful, and just as deserving of our concern for their future.

A quick dip into the definitive text and you will also discover that many of our orchids have a fascinating past. Their history is all the more compelling because the current health of our orchid populations is a reflection of our centuries-old relationship with them. This relationship has often been to the detriment of the plants, but may yet prove to be to their benefit. It is no coincidence that our most magnificent orchid is also our rarest.

At the beginning of the 19th Century, the Lady's-slipper occurred widely in Yorkshire, Lancashire and County Durham. But these were the days of the great Victorian collectors, and the Lady's-slipper frequently fell foul of a trowel. Today, the last specimen occurring in the wild is the subject of an intense recovery programme, designed, not only to protect that single plant, but also to improve its chances of being seen by us and by our descendants.

Thankfully, our influence on Britain's orchids has not been entirely detrimental. We have established a network of protected sites and brought in laws designed to protect our plants. We also owe an enormous debt to that tremendous army of amateur botanists past and present. Not only have they spent countless hours studying and watching over these fabulous plants, but some 1,600 people contributed the data on which the maps included in this guide are based. These individuals, working closely with conservation staff, have contributed much to our understanding, thereby supporting our current conservation efforts.

This excellent field guide is a testament to the work of amateur orchid enthusiasts everywhere. It is also a symbol of the importance of encouraging peoples' interest in wildlife. The result is a fitting tribute to the efforts of the author, an amateur naturalist with a lifelong passion for these delightful plants, a passion which this book can only encourage in others.

Dr Andy Brown  
Chief Executive  
English Nature

## Introduction

Orchids have an enormous appeal to many people, whether they have a great interest in botany or not, their beauty and brilliant colours creating an instant impression. However, there is much more to orchids than sheer good looks: some have bizarre life-cycles and others are valuable indicators of the health of our environment.

Orchids form one of the largest families of flowering plants on our planet, with thousands of species distributed world-wide. Although the fifty or so species which grow in Britain may form but a tiny part of the picture, our orchids are every bit as fascinating as their more flamboyant tropical cousins. They have inspired the passionate enthusiasm of botanists and writers alike for at least the last three hundred years. Shakespeare, for example, mentioned the Early-purple Orchid in 'Hamlet', where the Queen, speaking of the mad Ophelia, says:

*There with fantastic garlands did she come  
Of crowflowers, nettles, daisies and long purples:  
That liberal shepherds give a grosser name;  
But our cold maids do dead men's fingers call them.*

'Long purples' describes the flowering spike, while the shepherds were rudely referring to the two round tubers! Orchid flowers vary in shape from the beautiful to the bizarre. Close inspection of a flower spike may reveal florets resembling monkeys, lizards, bees, spiders or even human figures! However, evolution did not mould these weird and wonderful shapes by chance. Some of these masterpieces of mimicry attract insect pollinators by their shape, while others work by chemical deceit, secreting pheromones similar to those produced by the female insect.

The great Charles Darwin was particularly intrigued by this, and studied orchid pollination near his home at Downe in Kent. This led, in 1877, to the publication of his famous treatise *The Various Contrivances by which Orchids are Fertilised by Insects*. The flowers of some orchids exaggerate the most appealing features of the insect that they are trying to attract, effectively creating irresistible 'super-models' in petal form! The object of the deceit is achieved when the insect, sexually aroused, goes on to visit other flowers, thereby transferring pollen and ensuring cross-fertilisation. (See the section on *Reproduction and pollination* on pages 14–15, and the photograph of a Digger Wasp 'mating' with a Fly Orchid flower on page 14.)

Rare orchids have always been avidly sought after by collectors in the past. During the 18th and 19th Centuries this uncontrolled practice led to the decline of many species, and



Early-purple Orchids.



Monkey Orchid flower-head.

in some cases contributed to their extinction. Sadly, these thoughtless acts continue even today, their effects compounded by the large-scale intensification of agriculture and by the loss of habitat which has taken place throughout Britain since the Second World War.

I have been fortunate indeed to have been able to pursue an interest in orchids for most of my life. It all started at school, where I discovered an old book in the biology laboratory library which contained beautiful watercolour illustrations of British orchids. I found them fascinating for their colours and bizarre shapes, and secretly vowed that one day I would find all the British and Irish species, a vow which took me more than thirty years to fulfil and involved travelling to every corner of these islands.

My first 'find' was common enough – Early-purple Orchid in a damp wood just outside Tonbridge in Kent. I can still remember the thrill of seeing Lady's-slipper in Yorkshire, long before it was so heavily guarded by wardens – sadly a necessary precaution – and finding, while feverishly swatting at a cloud of vicious horse-flies, the tiny green Bog Orchid in the New Forest. Then there have been the rare occasions when I have found orchids by the thousand where I had expected just a handful; orchids colouring the Sussex downland in a pink or mauve haze as far as the eye could see. Magic moments indeed!



Bog Orchids.

The purpose of this book is simple: to help people to make the most of their own magic moments with orchids. Its aim is to enable the orchid enthusiast, whether a beginner or an expert, to identify all the species, sub-species and varieties of Britain and Ireland's orchids they encounter. The text emphasises the differences between similar species, and is based on the very latest information. Identifying orchids can be immensely rewarding, enabling the observer to uncover further details of their fascinating lives. With this in mind, the book also contains sections on the life-cycle of orchids, their propensity for hybridisation, the habitats they occupy, and the potential for species new to Britain to spread here from abroad.

Given the length of time that orchids have been studied, it is immensely exciting to see that we are entering a new, and sometimes revolutionary, era in our understanding of them. Our perception of what constitutes a species, and how we apply this in a practical sense to the protection and conservation of our orchids, is likely to change rapidly. The chapter *Conservation in action* (pages 166–172) covers some of the ongoing studies and projects. We are extremely fortunate to live in a time when the emphasis on orchid conservation is placed firmly on encouraging people to enjoy, with respect, these magnificent plants in their natural habitat, rather than shrouding their locations in secrecy for fear that they will be damaged or removed.

Whilst it is relatively easy to find and study some species, many others remain highly endangered. This calls for active conservation and inevitably for the control of access by the orchid enthusiast if we are not to destroy the very things we love. Yet all is not doom and gloom and recent years have seen a heartening improvement in the status of a number of our rarest orchids. However, a great deal remains to be done if our descendants are to continue to enjoy what is truly a national treasure.

David Lang