# Managing your woodland for wildlife

**David Blakesley and Peter Buckley** 

Illustrated by Tharada Blakesley

Sponsored by





Newbury, Berkshire

Citation

For bibliographic purposes, this book should be referred to as Blakesley, D and Buckley, GP. 2010. *Managing your woodland for wildlife*. Pisces Publications, Newbury.

The rights of David Blakesley and Peter Buckley to be identified as the Authors of this work has been asserted by them in accordance with the Copyright, Designs and Patents Act 1988

Copyright © David Blakesley and Peter Buckley

Illustrations © Tharada Blakesley

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the authors.

First published 2010.

British-Library-in-Publication Data A catalogue record for this book is available from the British Library.

ISBN: 978-1-874357-45-2

Pisces Publications is the imprint of NatureBureau, 36 Kingfisher Court, Hambridge Road, Newbury, Berkshire RG14 5SJ www.naturebureau.co.uk

All reasonable efforts have been made by the authors to trace the copyright owners of the material quoted in this book and any images reproduced in this book. In the event that the authors or publishers are notified of any mistakes or omissions by copyright owners after publication of this book, the authors and the publishers will endeavour to rectify the position accordingly for any subsequent printing.

Dr David Blakesley CEnv, MIEEM (Wildlife Landscapes) is an ecological practitioner and writer, specialising in habitat restoration and wildlife surveys; david.blakesley@btinternet.com

Dr Peter Buckley MIEEM is an ex-academic and forest ecologist, specialising in habitat restoration and management; gp.buckley@yahoo.co.uk

#### Disclaimer

The information presented in this book on behalf of the authors is believed to be accurate and correct, but this cannot be guaranteed. Readers must take all appropriate steps to ensure health and safety of all users, and to follow their own health and safety policy. The authors issue this book without responsibility for accidents or damage as a result of its use or the implementation of any of the recommendations within this book.

Printed by Information Press, Oxford

Cover photographs

Front cover: Common redstart (Markus Varesvuo / birdphoto.fi); white admiral and lady orchid (David Blakesley); dormouse (David Kjaer) Back cover: Veteran beech (David Blakesley)



## **Contents**

85 References

v	Foreword
vi	Acknowledgements
vii	Introduction
1	Chapter 1 Identifying woodland types
1	1.1 Woodland origins in Britain
1	1.2 Woodland succession and regeneration
3 4	<ul><li>1.3 Identifying semi-natural woodland types</li><li>1.4 Semi-natural woodland types</li></ul>
12	Chapter 2 Learning more about your woodland and its wildlife
12	2.1 Woodland plants
16	2.2 Woodland insects
20	2.3 Woodland birds
22	2.4 Woodland mammals
27	2.5 Amphibians and reptiles
30	2.6 Woodland fungi
32	2.7 Lichens
33	2.8 The value of non-native trees for wildlife
36	Chapter 3 Practical silvicultural management and wildlife
36	3.1 Natural versus managed forests
37	3.2 Silvicultural systems
41	3.3 Coppice
45	3.4 Even-aged plantations
48	3.5 Converting conifer and broadleaf plantations to uneven-aged systems
52	3.6 The harvesting commitment of different silvicultural options in small woods
54	Chapter 4 Improving woodland habitat for wildlife
54	4.1 Woodland edge and open space
60	4.2 Grazing
64	4.3 Conserving veteran trees
67	4.4 Deadwood
70	Chapter 5 Creating new opportunities for wildlife
70	5.1 Introducing woodland shade plants
74	5.2 Bird nestboxes
75	5.3 Nestboxes and roosting boxes for mammals
79	5.4 Woodland ponds
82	Chapter 6 Woodlands in a changing climate
82	6.1 Climate change and woodland communities
83	6.2 Sourcing seed in a changing climate
84	6.3 Connectivity and habitat networks

### **Foreword**

Over the past 20 years, there has been an explosion in the number of people without much previous experience of woodlands who have become involved in caring for them. Some of you, for example, may be part of a community group committed to the care of a local woodland area, and some may be private owners. Our company have contributed to this change by making available a lot of small woodlands and helping their owners to co-operate in their management. Although there are many books on managing woodlands for timber production, there is far less about how you can actively encourage wildlife. This book has been commissioned to fill the gap. It is unashamedly aimed at those for whom the first priority is biodiversity, and only secondarily the production of useful wood or timber products. Through the Small Woodlands Owners Group (SWOG) we are in touch with owners of all sorts of woods throughout Britain, and we know that there is a hunger for this kind of knowledge.

New owners can be overwhelmed by the amount of advice they are given, and the apparent size of the task ahead. But take comfort. A forest floor littered with dead and rotting wood is not a sign of neglect – it reflects management aimed at benefitting a plethora of deadwood insects and fungi, valuable in their own right, while providing shelter and nourishment for birds, small mammals, amphibians and reptiles. Elderly trees, obviously with no further potential as timber, should not be cleared away, but recognised as important sanctuaries for hole-nesting birds and for bats, as well as a diverse range of insects. An area of impenetrable scrub, including bramble, provides nesting sites and food for some of our declining woodland birds, and nectar for insects. A private clearing will provide an open area for a variety of sun-loving plants and butterflies. This also creates additional woodland edge, invaluable for many species.

We have commissioned two well-known ecologists to write this book specifically for the owners and carers of woodlands, particularly small woodlands. We believe that the book will also have wider appeal, to anyone interested in managing woodland for wildlife. It builds on and greatly amplifies the introductory account in 'Badgers, Beeches and Blisters' (Evans, 2006) which many readers will be familiar with. The authors do not offer a prescription.... rather, they describe types of woodland, how they function and develop naturally, sympathetic ways of managing the tree canopy, and the needs of various wildlife types. To this you must add your own talents, strengths and limitations and those of family and friends who are likely to be working with you, to select the kind of management which will be best for you and your woodland. You may want to discuss your choices with professionals in the Forestry Commission or the local Wildlife Trusts, both of whom we have found unfailingly helpful. If you want to find people like yourself, and those with longer experience, you could browse the SWOG website (www.swog.org.uk) and join in their discussions. There you may also discover local meetings of owners, as well as plentiful information about relevant courses in your area.

Like the authors, we believe that the owners and carers of woodlands have a major part to play in conserving and increasing future biodiversity in our countryside.

Margaret Hanton Woodlands.co.uk

The entire text of this book is available on our website at www.woodlands.co.uk

# **Acknowledgements**

In our work on woodland restoration and management, we have talked to many owners and managers of woods, from new farm woodland through to conifer plantations and mature broadleaved woodland. Most would like to manage their woods according to the needs of wildlife, and many have expressed a desire for more practical information to support their efforts. Consequently, we were pleased to be given the opportunity by Woodlands.co.uk to write this book for people and groups who own or manage smaller areas of mature woodland.

We are indebted to Professor Julian Evans (former Chief Research Officer of the Forestry Commission) and Margaret Hanton (Woodlands.co.uk) for providing constructive comments on the whole book. Many others have helped us by providing advice and information or by reviewing sections of text. We would especially like to thank Lee Brady (Kent Reptile and Amphibian Group), Laura Dunne (Bat Conservation Trust), Dave Leech (British Trust for Ornithology), Colin Morris (Vincent Wildlife Trust), Tracy Pepler (Small Woodland Owners Group), Alan Rayner (University of Bath), Craig Shuttleworth (Red Squirrel Survival Trust), Nigel Symes (RSPB) and Penny Williams (Pond Conservation). Any errors that remain are firmly our responsibility.

We would especially like to thank Tharada Blakesley for her inspired illustrations. Peter and Barbara Creed (Pisces Publications) made valuable suggestions for the design and layout of the book. Finally, we gratefully acknowledge the support and understanding of our families during the writing of this book.

David Blakesley and Peter Buckley

### Introduction

Despite the fact that Britain is one of the least wooded countries in Europe, woodland remains an important and dominant feature in the British landscape. It provides valuable habitat for wildlife and a wide range of benefits to society, including contributing to the economy; education; recreation; and health and well-being. All woodland in Britain has been shaped by human hands to some extent, whether it is ancient, semi-natural woodland dating back to medieval times, or recent in origin. Even in neglected woods, there are often clues to past management practices. For example, a densely stocked wood today might once have been managed as wood pasture, evident from the presence of old pollards; other woods might have been coppiced, with the remains of old coppice stools or standard oaks still present. In the 19th century, many ancient woods in South East England were converted to sweet chestnut coppice. More recently, large areas of ancient woodland across Britain have been converted to conifer or broadleaved plantations.

Most woodland management has been highly beneficial for wildlife over the centuries, creating many different habitats which have allowed a diverse flora and fauna to develop. These range from mature forest through to the temporary open areas created by coppicing and thinning, and the more permanent open space of rides and glades. Old-growth stands, ancient forests and wood pasture, developed over decades and centuries, are particularly



The lesser spotted woodpecker is a declining woodland specialist, which may use isolated woods to navigate through otherwise 'hostile landscapes'.

important for specialist woodland species. The hollow, rotting limbs of veteran trees for example provide roosting and nesting opportunities for bats and birds; fallen deadwood provides a vital habitat for a diverse range of insects, fungi, lichens and mosses; and the species which feed on them. Other species rely heavily on coppicing; woodland specialist butterflies such as the small pearl-bordered fritillary thrive in newly coppiced areas, whilst some of our most threatened woodland birds such as nightingale and willow warbler breed in young coppice regrowth.

Sadly, the second part of the 20th century witnessed a period of management neglect which resulted in the reversion of large areas of coppice, under-thinned plantations and the loss of open space. As a consequence we have also seen a serious decline in woodland specialists, such as insects and birds, which rely heavily on scrub stages and young tree growth. Many have become species of conservation concern, designated as UK Biodiversity Action Plan priority species or in some cases, such as the dormouse, European Protected Species. Furthermore, climate change poses a new and serious threat for many woodland species. Most of us are aware of earlier bud burst, warmer summers and milder winters, but not all species are able to adapt to these changing circumstances. As woodland ecosystems respond and adapt to climate change, some species may need to re-locate to more suitable conditions elsewhere in Britain if they are to survive. Unfortunately, many are poor dispersers and will be unable to move. Others are more mobile, including some woodland insects and birds, but will face barriers in the landscape, such as large expanses of open land. Increasing habitat connectivity in the countryside will be critical to this process, and isolated woods, hedgerows, shelterbelts and shaws will have an important role to play in assisting the dispersal and colonisation which is likely to take place in future years; acting as corridors and stepping stones.

You may have been asked to manage a wood belonging to someone else, or be part of an organisation which has jointly taken on the care of a particular woodland. Or you may have a wood of your own, and perhaps only recently completed the purchase. In all of these cases, your primary motivation could be to conserve wildlife, or perhaps to use it for leisure and recreation, timber production or firewood. Small woodland ownerships mostly fall within the range of 2–10 hectares, but whatever the type of wood, its size and location, or the reasons behind its purchase, woodland owners and managers have an opportunity to make a real contribution to the future of Britain's woodland wildlife.

This book aims to offer practical advice for understanding and managing small areas of woodland for wildlife. In the first chapter we describe different woodland types, and how you might identify your own woodland. Chapter 2 helps you to become more familiar with the plants and animals in your wood. Whether or not you fell trees, cut coppice, clear undergrowth, conserve or destroy deadwood, can all have profound influences on the value of a wood for wildlife. In Chapter 3 we show ways in which you can actively manage your wood to improve the habitat for wildlife. Chapter 4 looks at the valuable habitat provided by woodland edges, permanent open spaces, and deadwood. In Chapter 5 we consider additional ways in which you might try encourage wildlife, from introducing wild flowers to putting up bat boxes. Such enhancement should enable you to choose ways to manage your wood which are appropriate to the kind of woodland you have, and your own abilities and aspirations. Chapter 6 considers the implications of climate change, and how woods might help species to move through the landscape in the future. Above all, we hope that with a greater understanding of woodland biodiversity, you will get much more satisfaction and enjoyment from your woodland.