

Biodiversity in the New Forest



Edited by Adrian C. Newton



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United Kingdom



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*Dedicated to the memory of
Muriel Eliza Newton (1929–2009),
who loved the New Forest,
especially the donkeys.*

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Back cover: Wood Crates (Adrian Newton)

The maps in this book are for illustrative purposes only, and do not represent the legal definition of National Park boundaries or any other feature

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Preface

The New Forest is widely recognised to be one of the most important areas for wildlife in the UK, being home to large numbers of species of flowering plants, bryophytes, lichens, fungi, bats, birds, mammals, reptiles and invertebrates, among many others. Its extensive areas of semi-natural habitats, occurring in a complex mosaic, justify its inclusion among the most valuable areas for biodiversity conservation in lowland western Europe (Chatters 2006). Despite this, the current status and distribution of many species occurring within the New Forest remains very poorly understood.

The aim of this book is to provide an overview of biodiversity in the New Forest, by summarising what is currently known and identifying where the knowledge gaps lie. The book emerged from a conference held during 25–26 September 2007 at the Balmer Lawn Hotel in Brockenhurst, organised by staff at Bournemouth University in association with the British Ecological Society, the New Forest National Park Authority and the Forestry Commission. At the meeting, specialists on different groups of organisms presented current information regarding the status and distribution of species occurring within the New Forest, focusing on those of particular conservation interest or concern, and with the aim of identifying current trends in abundance. Information on the status and trends in the condition of different habitats was also presented, with the aim of informing future management decisions and identifying particular issues of concern.

Much of the information on species and habitats in the New Forest is widely dispersed and difficult to access. The principal aim of this book is to bring this information together for the first time, and to make it available to a wider audience. Based on the presentations made at the conference, the book comprises a series of chapters on individual groups of species, which are then followed by an overview of selected habitats and communities. The final chapters provide a brief consideration of current management approaches and future challenges.

Despite the large number of specialists that have generously contributed to this volume, it cannot be considered a comprehensive account of biodiversity in the New Forest. An attempt was made to include as many different groups of species as possible, but inevitably there are significant gaps. The coverage of different groups of organisms is uneven, reflecting variation in the current state of knowledge, their taxonomic size and complexity, and the availability of appropriate expertise. If the end result is somewhat heterogeneous and idiosyncratic, then perhaps this is appropriate, given that these are attributes of the New Forest itself! At the very least, the chapters in this book highlight how much still remains to be discovered, and emphasise the urgent need for further research and survey work.

It should be remembered that this is not the first book to be devoted to the New Forest. As befits an area of such outstanding importance, it has generated a substantial literature, dating back almost 150 years to the classic account by John Wise (Wise 1863). The closest antecedent to the current volume is perhaps that of Berlin *et al.* (1960), which provided a general account of different elements of the natural history of the New Forest, including mammals, birds and herbaceous plants. However, in terms of recent work on ecology and conservation, it is the two books by Colin Tubbs (Tubbs 1968, 2001) that are widely acknowledged to be the most significant. Both provide clear evidence of the deep understanding of the ecology of the New Forest that Tubbs acquired from many years' close involvement with the area. Coincidentally, the conference on which this book is based was held within a few weeks of the tenth anniversary of Colin Tubbs' untimely death, and it therefore provided a welcome opportunity to pay tribute to his outstanding contribution to our understanding of the area. This volume will hopefully be viewed as building on Tubbs' substantial legacy. The information presented here is designed to be complementary to that presented in Tubbs' books (Tubbs 1968, 2001), which the reader is strongly encouraged to consult.

A brief description of the New Forest is provided here as context for the chapters that follow, based on the information provided in Tubbs (2001) and Chatters (2006). The Forest is situated on the south coast of England in the counties of Hampshire and Wiltshire, immediately north of the River Solent, and between the conurbations of Bournemouth and Southampton (Figure 1). The Forest lies on a series of gravel terraces overlaying sedimentary sands and clays of Tertiary age, located within the Hampshire Basin. As noted by Tubbs (2001), the New Forest as an ecological system has developed under the influence of large, free-ranging herbivores, including deer as well as livestock. The present character of the New Forest is therefore strongly dependent on its history as a medieval hunting forest, and the survival of a traditional commoning system, which became formalised in late medieval times.

The 'perambulation' of the Forest, encompassing some 37,907 ha, refers to the area within which forest bye-laws apply, relating to the pasturage of livestock on common land. Almost a quarter of this area consists of farmland and settlements, whereas around three-quarters are referred to as the 'Crown lands', reflecting their status as Royal Forest. The Crown lands include the Silvicultural Inclosures, designated for silviculture; unenclosed land, over which common rights prevail; and a number of farm holdings. The unenclosed Forest is referred to by Tubbs (2001) as the largest area of semi-natural vegetation in lowland Britain, and includes large tracts of heathland, valley mire and

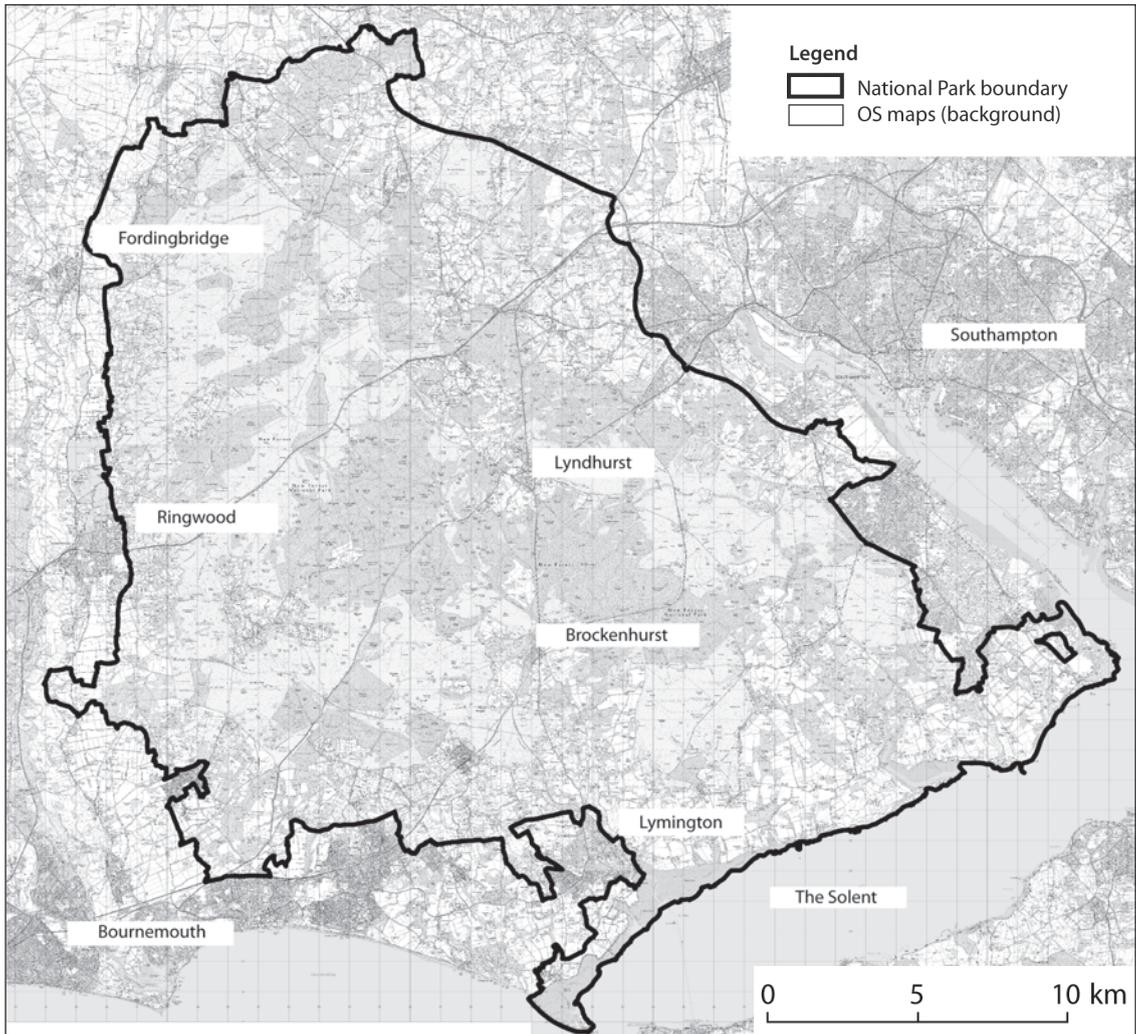


Figure 1
Map of the New Forest National Park, with the Park boundary overlaid on an Ordnance Survey (OS) map (©Crown Copyright/ database right 2008. An Ordnance Survey/EDINA supplied service).

ancient pasture woodland, three habitats that are now fragmented and rare throughout lowland western Europe. With a total area of almost 20,000 ha, the unenclosed Forest includes around 3700 ha of oak, beech and holly woodland, 12,500 ha of heathland and acid grassland, and 2900 ha of valley mires and wet heath.

The New Forest National Park was designated in 2005 and extends over 57,100 ha (Chatters 2006), a substantially larger area than that included within the perambulation (Figure 2). The conservation importance of the National Park is reflected in a variety of designations, with some 20 SSSIs, six Natura 2000 sites and two Ramsar Convention sites included at least partly within the Park boundaries. The National Park includes extensive areas of common land that border

the Crown lands but lie outside the perambulation. In total, about 50% of the land area of the Park is covered by unenclosed vegetation, which is collectively referred to by Chatters (2006) as the 'Open Forest'. In recent years, some 6000–7400 ponies, cattle, donkeys, pigs and sheep have been depastured on the Open Forest, by about 550 commoners (NPA 2008).

This brief summary highlights the difficulty in answering the deceptively simple question: what is the New Forest? With respect to the scope of this book, different authors have considered a variety of different entities, such as the Crown lands, the perambulation or the National Park. However, unless otherwise stated, the focus of this text is primarily on the area designated as being of particular conservation importance, namely the New Forest Special Area of

Conservation (SAC). This is a Natura 2000 site, which essentially forms the core of the National Park. Over 90% of the SAC is Crown land, managed by the Forest Commission. Most, but not all, of the SAC falls within the National Park boundaries (Chatters 2006).

The New Forest is a very special place, unique in very many ways. The chapters of this book provide an indication of just why it is so special. Tubbs (2001) considers the New Forest to be a highly dynamic ecosystem, which has proved remarkably resilient to trauma and catastrophe in the past. Yet the environmental and socio-economic changes currently underway are likely to be unprecedented in the long history of the Forest, and are likely to test its resilience as never before. Maintenance of what makes the New Forest so important and valuable therefore represents a significant challenge. It is hoped that the information presented here will support future management and conservation efforts, but will also, in the memorable words of Derek Ratcliffe, 'inspire others – both strangers and those who already know the Forest – to cherish this marvellous place, with its stately woods, wide heaths and bogs, and to absorb its peace and beauty' (Tubbs 2001).

The production of this book would have been entirely impossible without the great efforts made by the contributing authors. I am very grateful to all contributors for devoting their precious time to providing texts for inclusion, despite the often intense pressures from competing professional commitments. The financial contributions from the British Ecological Society, the Forestry Commission, the New Forest National Park Authority and the New Forest Trust in support of publication costs are gratefully acknowledged. Many thanks also to the administrative staff and students of Bournemouth University who helped organise the conference, in particular Marie Dunning, Rebecca Dolling, Elena Cantarello, Gillian Myers, Sarah North, Niels Brouwers and Natalia Tejedor. Simon Weymouth of the Forestry Commission provided valuable support at the planning stage. In addition I would particularly like to thank Palmer Newbould for his generous provision of literature relating to the New Forest, which was very deeply appreciated. Thanks also to Lynn Davy for checking the manuscript.

*Adrian C. Newton
Dorset, April 2009*

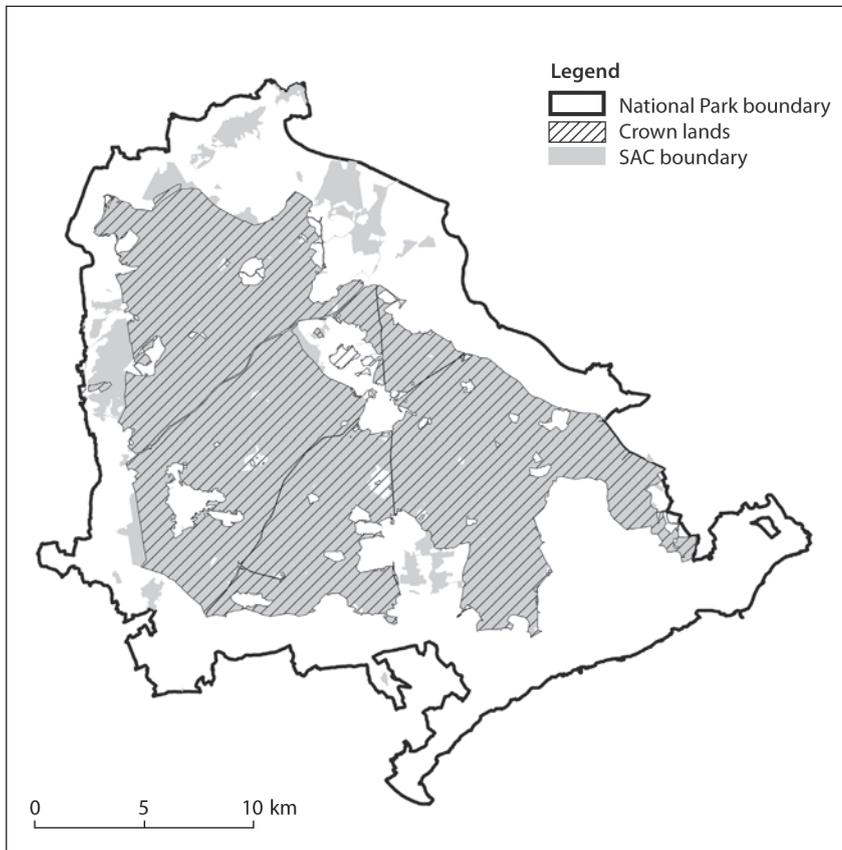


Figure 2
Crown lands, SAC and
National Park boundaries of
the New Forest.

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