

# Biodiversity in the New Forest



Edited by Adrian C. Newton



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**Adrian C. Newton**

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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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*Jane Smith and Libby Burke*

## Introduction

The Crown lands cover around 26,756 hectares of the New Forest, and comprise a mosaic of heathland, mires, grassland (referred to locally as lawns), Ancient and Ornamental (A&O) woodland, forestry Inclosures and agricultural land. The Crown lands of the New Forest have been managed by the Forestry Commission, on behalf of the Secretary of State, since 1924.

The Forestry Commission was formed in 1919, with the aim of renewing national timber stocks that had been dangerously depleted during the Great War. The organisation, originally set up along quasi-military lines, remained focused on maintaining Britain's self-sufficiency in raw materials through World War II and beyond. It continues to produce valuable and renewable timber stocks for the nation from its sustainably managed woodlands. However, in recent years its mission has diversified, so that now it is also engaged in landscape design and habitat restoration, wildlife conservation, animal welfare and public health and recreation. It also has roles in fire safety, archaeological conservation, rural employment, the local economy, industry and education. It is among the key guardians of the New Forest's unique 'commoning' culture, which has survived for more than 1,000 years. In short, the Commission sits at the very heart of Forest life.

In order to understand why the Crown lands are managed as they are today and the issues involved, it is important to appreciate the historic legacy and the associated conflicts that have led to the current position. The history of land use and management in the New Forest is long and complex (Table 54) and has helped to create and maintain the valuable mosaic of habitats found in the Forest today. On the other hand, specific events (such as the introduction of various Government Acts of Parliament) have led to the decline and degradation of heathland, wetland and ancient woodland habitats.

## Guiding principles and context

The direction of the Forestry Commission derives from Government policy. The New Forest is unique in also being governed by a 'Minister's Mandate'. This commits the Forestry Commission to producing a management plan for the Crown lands of the New Forest. The plan in turn must conform with national guidance on the area's internationally important environmental status as a Special Area of Conservation, along with national and regional forest policy. In this context, the National and regional forestry policy (e.g. the Strategy for England's Trees, Woods and Forests and the South-East

England Regional Forestry Framework) provide broad aims within which local policies are developed.

The New Forest is also unique in being governed by a set of statutes referred to as the New Forest Acts (Table 54). The New Forest Acts of 1877, 1949, 1964 and 1970 dictate how certain elements of the Forest should be managed. As a result, certain activities require the cooperation and consent of the Verderers of the New Forest, particularly relating to management of areas where common rights are exercisable, notably the heathlands and grasslands and unenclosed pasture woodlands. On that basis the Forestry Commission is responsible for creating the master plan for managing the Crown lands of the New Forest (26,756 hectares), which must take into account every external and internal influence affecting the area.

The management plan's general aim is to achieve a suitable balance between conservation, recreation and timber production. High priority is also given to conserving the New Forest's natural and cultural heritage. Opportunities for community engagement, public access and recreation, rural development and increasing public awareness must also be taken into account.

The Crown lands divide into three distinct parts: the Inclosures, the Ancient and Ornamental (A&O) Woodlands and the Open Forest. Each is considered separately below.

## Inclosures

Parcels of William the Conqueror's former 'New Forest' hunting grounds were first enclosed for timber production as far back as the 1700s. They appeared in a landscape of wood and heathland worked by people whose way of life had existed possibly since Neolithic times. Their perimeter fences served to keep browsing deer and commoners' livestock away from young trees.

During World War I the demand for raw materials led to an extreme shortage of timber. Complaints were made about many private landowners who were not thought to be managing their woods properly. The crisis not only led to the establishment of the Forestry Commission, but also to a move away from broadleaved trees to faster-growing conifer crops, as frequently seen today in the New Forest's Inclosures. However, by the late 20th century, national priorities had changed to favour nature conservation. The Commission therefore began working to restore some of the wildlife habitats destroyed or damaged by the previous headlong rush to produce timber.

Management of the enclosed 8500 hectares of land within the Inclosures is now set out in a series of Forest Design Plans. First drawn up in 2001, these set out a long-term vision for the direction of future management, together with a detailed prescription for the next 20 years. However, it is not just foresters who



**Table 54**  
Selected events of note in relation to the history of management of the Crown lands (adapted from Forestry Commission 2008).

Date	Historic significance
1079 The designation of the New Forest as a royal 'forest' by King William I.	Forest managed exclusively for deer and other game. Removal of all fences and introduction of Forest Laws. Common rights granted as recompense.
Act of 1542.	Creation of the post of Surveyor General of the King's Woods to increase the commercial function of Crown woodlands. This new office was under the direction of the Exchequer with responsibilities for timber and 'profit of the king'.
1698 Act of the Increase and Preservation of Timber in the New Forest.	First large-scale afforestation through the creation of Inclosures. Conflicts with commoners over loss of grazing and imposition of Forest Laws. By end of 18th century, Forest poorly managed and timber supplies declining.
1808 Act of the Increase and Preservation of Timber in Dean and New Forests.	Confirmed allowances of 1698 Act resulting in Inclosure of 6000 acres at any one time in a rolling programme.
1845.	Opening of Southampton and Dorchester railway, bringing artists, naturalists and other recreational users to the New Forest.
1846–52.	First drainage schemes to improve Forest for grazing.
1851 Deer Removal Act.	Culling of deer in return for Crown enclosing 10,000 acres of open forest. Forest Laws of fence month and winter heying still imposed, which together with loss of grazing led to large-scale revolts among commoners and gentry. Large-scale introduction of conifers and drainage works.
1877 New Forest Act.	No further creation of Inclosures permitted other than that granted under previous Acts. No further enclosure of Ancient & Ornamental woodland allowed. "Re-creation" of Court of Verderers to administer common rights and pastoral interests remote from Crown influence. Introduction of ornamental trees into Forest by Victorians.
The First World War and inter-War Years.	Forest intensively managed for timber production. Large tracts of land acquired for airfields, firing ranges and food supply.
1920s–30s.	Further drainage of the Open Forest.
1924.	Forestry Commission takes over responsibility for management of New Forest from the Crown. National forest policy ensures that afforestation is vigorously pursued.
The New Forest Act 1949.	Revived Verderers Court and clarified responsibilities between Verderers and Forestry Commission. Act set out requirement for Forestry Commission to maintain drainage and scrub control for grazing interests. Led to significant drainage between 1965–1986. Creation of Verderers Inclosures in return for compensation payments. Enclosure of small areas of Ancient and Ornamental woodland allowed to secure future regeneration.
The New Forest Act 1964.	Alteration of perambulation boundary and addition of fencing and cattle grids to help control livestock movement and prevent accidents. Provision for creation of campsites. Obligation for Forestry Commission and Verderers to give due regard to nature conservation interests. Permission to carry out silvicultural maintenance to preserve Ancient & Ornamental Woodland.
The Ministers Mandate 1971.	In recognition of the unique environment of the New Forest, permission was granted to allow forest management to diverge from national policy of large scale conifer planting.
1959, 1971, 1987.	Designation and extension of New Forest Site of Special Scientific Interest.
The Ministers Mandate 1991.	Places obligation on the Forestry Commission to conserve the natural and cultural heritage and places a high priority on maintaining the Forest's traditional character.
Countryside and Rights of Way Act 2000 (CROW).	Legislative requirements place duty on organisations and individuals to promote the interests and sustainability of the Forest and to achieve favourable status of habitats.
The New Forest National Park Establishment Order 2005.	New Forest designated a National Park.
2005.	New Forest receives full status as a Special Area of Conservation (SAC), under the Habitats Directive.

make the decisions. The Commission's keepers, ecologists and recreation team also play an integral role. Decisions about the wide-ranging and sometimes conflicting management needs of wildlife conservation, public access and forestry also involve many other organisations and individuals.

Today, the Commission forms a connecting body that links all statutory and other organisations with interests in the environment, wildlife, history, culture,

business or recreational use of the area. Consultation is key in managing the area's internationally famous, and scientifically important, habitats. So too is soliciting the opinions of individuals, both residents and visitors alike.

The Commission's biggest ever public consultation exercise was carried out in the New Forest in 2000. Called '*New Forest – New Future*', it sought over a 24-month period to engage local communities, voluntary

groups and statutory organisations in discussions about the future management of more than 100 Inclosures. This process established a Forest Design Plan Forum, with its members representing the wide-ranging interests and activities taking place in the area. The Forum assisted Commission staff with the creation of the first series of draft Forest Design Plans. These aimed to reconcile the often conflicting needs of nature conservation, commoning, timber production and recreation, and set out a prescription for the management of each forest Inclosure. The draft proposals were then put to local communities for comment and discussion. Initial scepticism about whether local opinions could really have any influence was laid to rest, as drafts were revised to more closely match local need.

As an example, at Dibden Inclosure, the draft plan called for mature conifers to be felled to allow for the restoration of an area of lowland heath, an internationally endangered and important habitat. Nearby residents expressed concerns that doing so would take away the woodland they enjoyed walking in every day. Forest planners therefore revised the proposals to produce a mosaic of woodland and heathland, so that both people and wildlife would benefit from the plans in the long term.

'New Forest – New Future's' range of displays, talks and guided walks proved hugely successful in explaining the proposed management plans and at giving people opportunities to influence work on the ground. It now forms the model for all consultations in the Forest. As design plans come up for their five-year reviews, the Forum and nearby communities are again involved in the consultation process. Each set of proposals is individually tailored to the site or sites that it covers. However, the general aims of them all are to:

- restore or re-create New Forest habitats;
- maintain or enhance existing habitats for nature conservation;
- manage public access to safeguard vulnerable habitats;
- create a suitable mosaic of woodland, heathland, native grassland and wetland;
- grow timber for future generations;
- protect archaeological sites; and
- enhance the New Forest landscape.

No matter how good a plan might be, it must be implemented properly if its objectives are to succeed. So before work begins on any site, an operational site assessment is completed to ensure it is being accurately implemented. These assessments also identify key features such as archaeological sites, fragile or rare habitats and wildlife sites so that they can be protected while contractors are on site. They also assess how to minimise disruption to visitors and keep them safe, deciding where safety signage should be placed to keep people well away from the working zone.

The New Forest Inclosures produce an average of 50,000 tonnes of timber annually. The bulk of this comes from plantations that are being thinned partway

through their economic life, or from areas being clear-felled either at maturity or where another habitat is being restored. All timber produced in Forestry Commission woodlands is certified as coming from sustainably managed forests, and carries the internationally recognised Forest Stewardship Council (FSC) logo. Forest operations rotate through the Inclosures on a five-year cycle.

### **Ancient and Ornamental (A&O) woodlands**

The New Forest is perhaps most famed for its towering beeches and oaks. These immense trees help create the area's unique character. They stand majestically in ancient pasture woodlands. Around their bases the understorey vegetation is browsed by deer, ponies and cattle. Pigs are also turned out into the woods in autumn to fatten up on acorns and beech mast, a time-honoured practice called 'pannage' (see Chapter 14). Acorns are poisonous to ponies; the pigs help to remove them and protect the ponies from harm.

Pasture woodlands are a traditional form of agroforestry that has persisted without a break here in the Forest for hundreds of years. Elsewhere in Britain the practice has largely died out, although attempts to restore some former pasture woods through reintroduction of grazing animals are now underway. Minimum intervention is the guiding rule in these historic woods, with the natural cycle of regeneration, growth, senescence, decay and death largely continuing uninterrupted. Foresters intervene to trim branches or fell damaged, diseased or dying trees, and clear the network of tracks and paths that run through the woodlands when public safety is an issue.

These woods are a key refuge for a host of rare lichens that grow on the trunks and branches (see Chapter 9). Each winter, gangs of forest craftsmen pollard thickets of holly to prevent them shading out these encrusting organisms. The New Forest ponies have learnt to come at the gallop when they hear the chainsaws; the holly trimmings are a welcome supplement to their meagre winter diet. There is also a regular programme of removal of 'alien' species. *Rhododendron* is a particular problem with its heavy shade and toxic leachates. This and other non-native species, such as Turkey oak, are being gradually removed from the Forest.

### **Open Forest**

Management out on the Open Forest continues largely as it has for many centuries. The network of unfenced grasslands, heathlands, lawns and mires covers around 12,300 hectares. It requires an extensive management programme in order to maintain its historic character and its value as grazing for commoners' ponies and livestock. Late winter sees controlled burning of gorse and heather taking place out on the heathlands. This encourages new growth and forms a mosaic of different-aged vegetation. This in turn attracts the widest possible range of wildlife, from sun-loving sand lizards and ground nesting birds such as woodlark and nightjar, to invertebrates such as silver studded blue butterflies and emperor moths. The burning also helps

create effective firebreaks that help protect heaths, woods and adjacent properties from spreading wildfires.

Summer sees teams of forest craftsmen out managing the bracken. This tall fern can swamp other plants with its vigorous growth while its underground rhizomes are quick to colonise the forest's precious heathlands if left unchecked. Tractor-mounted swipes or hand cutting or spraying the bracken prevents other plants being smothered and reduces its vigour. The cut fronds are turned into a valuable garden mulch, which is sold at local garden centres and nurseries. Self-seeded pine and birch trees will gradually encroach across heathland and grassland if left unchecked, shading out the natural vegetation. In autumn and winter, dozens of people help the Commission's rangers pull up the young saplings to protect these habitats.

### **Volunteering**

Perhaps one of the best indicators of the overall success of the Commission's strategy is the organisation's growing number of volunteers. During the past five years more than 500 people have given up their time to become involved in the practical management of the New Forest. Volunteer ranger duties range from clearing non-native trees to helping with the annual pony round up. They patrol the forest offering help and advice to the throngs of visitors who come to the area every year. Many have been engaged in the survey work crucial to the Commission's management public recreation and wildlife conservation. Some now lead their own parties of walkers on long explorations of the heaths and woodlands. They bring a great deal of enjoyment to people as well as providing them with the significant health benefits to be had from outdoor exercise. The success of many arts and wildlife projects, and public entertainment events also depends on the volunteers' involvement. Children too are engaged in conservation projects, as well as work to prevent vandalism and arson in vulnerable woodland areas. These people come from every age group and background conceivable. Along with their peers in the forest design plan forum, they represent the entire community's support for and involvement in every aspect of the Commission's work.

### **The Crown Lands Management Plan 2008–2013**

The development of the latest Management Plan for the Crown lands of the New Forest was concluded following wide consultation during 2008, and covers the period 2008–2013. It can be considered as a component part of the Special Area of Conservation (SAC) Plan (Wright and Westerhoff 2001), which was produced as part of the LIFEII Project (see Chapter 17). The Plan essentially contributes to the implementation part of the SAC Plan, which demonstrates how landowners intend to maintain and enhance the nature conservation interest of the SAC.

The principles on which the work of the Forestry Commission is based essentially remains unchanged from previously, but the Plan does, however, reflect changes in national, regional or local policy, for instance in relation to the National Park, which was designated since the SAC Plan was written in 2001. Another new development reflected in the Crown lands Plan is the commitment of the Forestry Commission to a Public Service Agreement Target to improve 95% of the New Forest Site of Special Scientific Interest (SSSI) to favourable condition by 2010.

The Crown Lands Management Plan covers the background, management objectives, policies and actions for each of the key subject areas that fall under the responsibility of the Forestry Commission, notably: Inclosures, Ancient and Ornamental woodlands, heathlands, archaeology and cultural heritage, recreation and community, and estates. The first three of these are considered further below, based on the information provided in the Plan itself (Forestry Commission 2008).

### **Inclosures**

Although the Inclosures were initially established to provide a timber resource, they now provide a much wider range of benefits to society and are increasingly recognised for their nature conservation and recreation value, in addition to their ability to yield quality timber. The Inclosures were generally established on former heathland or ancient woodland sites and remnants of these former habitats still survive within the modern day Inclosures. Where recognisable, these remnant heathland and woodland habitats are often of international importance, representing important examples of Annex 1 habitats as identified by the European Habitats Directive. Of particular significance are the 400 hectares of pasture, riverine and bog woodland communities that were incorporated into the 18th and 19th century Statutory Inclosures. Restoration of such habitats forms an important part of the Plan's proposed activities, although sustainable timber production also remains a central objective.

Objectives of the Plan relating to Inclosures are as follows:

1. To transform Inclosure woodland in accordance with Forest Design Plans to enhance the special nature conservation and landscape qualities through appropriate habitat restoration and management.
2. To manage sustainable timber production from the Inclosures through the generation of reliable production forecasts and provision of a regular supply of good quality timber to the market place.
3. To work in partnership with stakeholders in the revision of Forest Design Plans.
4. To carry out targeted monitoring to ensure that our Inclosure woodland is being managed in a sustainable way and meeting our management objectives in relation to UK Woodland Assurance Standard.
5. To encourage the use of Inclosures by recreational users of the Forest.

Specific policies and actions that will be taken towards meeting these objectives include the on-going removal or control of non-native trees and shrub species where they present an invasive threat. Such species include *Rhododendron*, Turkey oak, red oak, sycamore and western hemlock. There will be a policy of opening Inclosures to grazing, in accordance with the Fencing Plan, but where Inclosures remain fenced, appropriate measures will be taken to exclude livestock. Restoration of mires, riverine woodland and associated floodplain habitats will be continued. Reference is made to the need to manage Inclosures to take account of Biodiversity Action Plan (BAP) habitats and species, including management of the deadwood resource. The Plan also refers to the continuation of timber production and restocking, in accordance with Forest Design Plans. The Plan also includes a commitment to undertake appropriate and targeted monitoring, to ensure that management prescriptions are achieving their objectives.

### **Ancient and Ornamental (A&O) woodlands**

The A&O woodlands owe their features to both natural processes and the influence of people through the centuries. Many of the habitats found in these woodlands are of European importance. Although the ancient beech and oak stands form the core of the A&O woodland, other types of woodland are intermingled with these stands in a complex mosaic (see Chapter 13). Some woodland types are associated with particular soils, while others may be the natural precursors of the beech and oak woods or degenerate forms of them.

The general structure of the A&O woodlands includes the presence of numerous large trees, large quantities of dead wood, small and moderate gaps in the canopy and a pattern made up of groups of trees of similar ages that collectively span the whole age-range of the main tree species of beech and oak. Their structure has developed under the influence of natural processes, such as storm, drought, mortality in old age and natural regeneration, acting on the mature woodlands inherited from previous centuries. However, their structure has also been extensively influenced by people through the ages. The effects of past pollarding of oaks, beech and holly can still be seen, as can the cohort of trees and shrubs that established in the late 19th century when deer browsing was much reduced. The absence of low branches and a distinctive browse line (see Chapter 13) reflects the grazing by populations of horses, deer and cattle. This grazing is a major factor in producing the structure of a high forest canopy interspersed with open glades, arranged in a mosaic of different habitat types. The degree of grazing pressure is important in determining the vegetation composition and structure; too much grazing leads to a lack of regeneration, while under-grazing results in a rapid regeneration of trees and shrubs. This subsequently impacts negatively on the ground flora as well as affecting light availability and microclimate. This can be unfavourable for established lichens and bryophytes.

Objectives of the Plan relating to A&O woodlands are as follows:

1. To maintain the unique character of the A&O woodlands by preserving the traditional structure, habitats and landscapes.
2. To ensure that any intervention that takes place in A&O woodland is purely for the benefit of conserving or restoring important habitats, landscapes or maintaining traditional forest Rights.
3. To support and encourage the pastoral traditions of the A&O woodlands.
4. To carry out focused monitoring to ensure the health and wellbeing of the A&O woodlands.

Specific policies and actions that will be taken towards meeting these objectives include maintenance of the current configuration of the A&O woodlands, with no tree felling to influence age structure, although actions may be taken to stimulate regeneration where appropriate. Some expansion and contraction of woodland area is deemed acceptable, so long as the ratio of woodland habitat to grazing land on the Open Forest is maintained. As in the Inclosures, there is a commitment to systematically remove non-native trees, shrubs and other exotic or pest species, including *Rhododendron*, sycamore, Turkey oak and sweet chestnut, where deemed appropriate.

Removal of larger stands of Scots pine will continue, except where they form important landscape features or provide shelter to groves of ancient trees. Other proposed interventions include management of deadwood, bracken control and pollarding of trees.

### **Heathland**

Heathland and grassland covers around 12,306 ha of the New Forest Crown land, and is found both on the Open Forest and within restored areas of Inclosures. In the context of the Plan, the term 'heathland' covers a variety of different vegetation/habitat types, including:

- Dry heath – 714 ha
- Bracken – 803 ha
- Gorse – 347 ha
- Humid heath – 4,498 ha
- Wet heath – 1692 ha
- Valley mire – 1444 ha
- Wet lawn – 911 ha
- Lowland acid grassland – 1864 ha
- Partially improved grassland – 12 ha
- Ponds – 21 ha

Grazing by horses and cattle is an integral part of New Forest heathland management. The heathland, mires and grasslands have been grazed by commoning stock for centuries, which has led to the unique landscape and habitats so characteristic of the Open Forest. Many of the traditional heathland management techniques that have been practised historically are still applied today. In the past 10 years heathland management and restoration has progressed significantly, owing to funding from the New Forest LIFE II (1997–2001) and LIFE III projects (2002–2006) (see Chapter 17). For example, LIFE II enabled restoration work to commence