HELEN READ JONATHAN SPENCER

# The New Forest: Management of a unique and extensive historic landscape

CB

91

The New Forest came into being as a legal entity in the late 11th century with the establishment of the area as a royal hunting forest by William the First of England (William the Conqueror). Many of the wooded areas, and indeed the open heathland and valley mires, are nevertheless clearly much older and show every indication of being derived from the original forest cover of lowland England. This continuity is reflected in the astonishing biological diversity, especially of organisms such as lichens and saproxylic invertebrates (i.e. species dependant upon mature timber and dead wood habitats), associated with ancient trees and a continuity of humid closed canopy woodland conditions (Tubbs, 1986).

# **DESCRIPTION OF THE FOREST**

The majority of the land in the New Forest is owned by the Crown (in practice the Government of the UK; the Minister for Agriculture is the nominal owner), held by the Ministry of Agriculture and managed by the Forestry Commission (the state Forestry Agency). There are some 60 owners and occupiers of the SAC (Natura 2000 site) but a large percentage (92%) is managed by the Forestry Commission. Because of the large number of organisations and individuals involved in managing the Forest it is important that a common approach is agreed for its management to ensure the best possible protection.

Some 18,000 hectares of the Forest is unenclosed land ("open forest"), grazed by domestic stock and wild deer. Traditionally there were no fences and the animals were free to roam wherever they liked. Past inclosures were established between 1700 and the 1960s in order to grow timber. In recent years, fences have also been erected to stop the grazing animals from straying onto busy roads and into major towns. The unenclosed land includes both woodland (referred to as the "Ancient and Ornamental Woodlands") and substantial open areas of heath, grassland, and mires. It comprises one of the largest tracts of semi-natural vegetation in lowland Western Europe. Commoners (people owning or renting specific lands in and around the Forest) have the right to graze these areas with their animals, collect firewood

and carry out various other minor exploitation rights. For some commoners these rights provide their major source of income. The quality of the habitats in the New Forest for wildlife is critically dependent on the persistence of this pastoral economy.

The Open Forest is part of the 38,000 hectares of land bounded by the ancient "perambulation" of the Forest. This is the area within which the ancient for-





Highland Water, the New Forest.

est law once held sway, and over which the authority of the present day "Verderers Court" is still maintained. The Verderers are in part appointed and in part elected, and have responsibility for the administering of the exercise of commoners rights and operate through the Verderers Court, held once a month. The Forest is thus a complex mosaic of heathland, mire, woodland, forest and plantation, in between the meadows, fields and cottages of the ancient villages on the Forest margins. The villages are still inhabited today and the meadows and fields are fenced from the open Forest and are still grazed or cultivated.

Throughout the Forest there are some 8,000 hectares of "Statutory Inclosures". These Inclosures were established over several centuries as areas where the Crown managed native broadleaved woodland, or more recently conifer and oak/beech plantations, to produce timber. The stands of trees are largely younger than the Ancient and Ornamental Woodlands and include many exotic species of trees planted as a timber crops (*Pinus nigra laricio Maire*, *Picea sitchensis* (Bong.), *Pseudotsuga menziesii* (Mirbel) or *Picea abies* (L.)). Many of these Inclosures are still commercially managed for forestry; approximately 57% of the area is coniferous

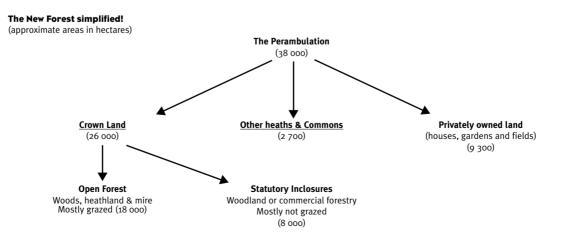
forest and 43% is native broadleaved woodland. Some of the forestry processes have resulted in a loss of habitats of importance for nature conservation, through the planting of exotic trees and shrubs and drainage of some of the wetlands.

Some 28,715 hectares of the New Forest has been designated as a Special Area of Conservation (Natura 2000 site), and it is one of the largest lowland SAC's in England. This includes no less than 11 European interests including three priority habitats - bog woodland, Mediterranean temporary ponds and alder woodland on flood plains. Areas are also designated as a Special Protection Area (SPA) and as a Wetland of International Importance under the Ramsar Convention.

The New Forest is grazed by a wide range of domestic and wild animals. As well as the wild deer population (Dama dama L., Cervus elaphus L., Capreolus capreolus L., Cervus nippon Temminck) there are animals that are owned by the commoners and turned out to graze. These animals can roam over the whole of the Open Forest to feed and many spend the whole year doing so, perhaps with supplementary feeding during the winter. Once a year they are rounded up, caught, and checked. Excess animals are sold and the remainder are turned back out onto the Forest. In 1998 there were 438 practicing commoners who turned out 3,585 ponies, 2,936 cattle and a few pigs, sheep and donkeys. A small number of people own the majority of the stock. It is not a profitable business however; based on a herd of 50 ponies, a commoner is operating at a loss of £54.94 per pony per year. A premium payment of £50 is paid per pony per year for good quality ponies passing an inspection. The ponies and cattle have been described as the architects of the Forest and their presence is essential to many of the habitats of European importance. Loss of grazing would significantly change the habitat quality and reduce the overall biodiversity of the site as well as changing the whole general aspect of the Forest.

The New Forest is under increasing pressure from the development and recreational needs of the densely populated South East of England. There are approximately 18 million recreational visits per year (The

That underlined is the land that is the Special Area of Conservation (Natura 2000 site).



New Forest Sport and Recreational Study, 1996), and these generate a tourism economy of around £100 million per year

# **WOODLAND HABITATS**

The majority of the woods on the open forest are stands of *Quercus robur* L., *Q. petraea* (Mattuschka) Liebl. and/or *Fagus sylvatica* L. of varying ages but with many ancient trees, two to three hundred years of age (and occasionally more). The understorey is of *Ilex aquilifolium* L., *Fagus sylvatica, Betula pendula* Roth., and other less numerous species (e.g. *Sorbus aria* (L.) Crantz, *Sorbus aucuparia* L., *Corylus avellana* L., *Crataequs monogyna* Jacq., and *Prunus spinosa* L.

The most significant feature of these woods is their long history of grazing by both the deer and the commoners livestock, notably the New Forest ponies. Fluctuations in the numbers of animals over the centuries have determined both the composition of the woodland stands (palatable species such as Tilia cordata Miller and Corylus avellana have been made extinct or nearly extinct) and their characteristic age structure, with cohorts of trees dating from periods of vigorous regeneration at times of low grazing pressure (Peterken & Tubbs, 1965). Continuous low level recruitment of trees also takes place, predominantly of shade and browse tolerant species such as Fagus, Ilex and Crataegus (Morgan, 1991). Such grazed 'pasture-woodlands' amount to about 4600 hectares in the Forest and include areas with pollarded trees. They have a very characteristic and species rich flora and fauna, containing many

species under threat across much of the modern day European landscape. These species include both relict species that have persisted in pasture woodlands from an archaic past and those that thrive under the peculiar forest landscape of heavily grazed, well illuminated woodland rich in ancient trees.

The woodlands alongside the many streams and small rivers are of particular conservation importance, being the last relicts of near natural riverine woodland alongside near natural river courses in lowland England. They are particularly rich in lower plants and insects (notably rare Diptera). Elsewhere in England, and indeed over most of Europe outside of the lower reaches of the Danube and its delta, such woodland has long since been lost to agricultural land and river improvements.

Because of the extent of its ancient woodland habitats, the New Forest is probably the most important site in lowland western Europe for nature conservation. Of key importance has been the unbroken continuity of the commoning economy in the Forest. Though the commoners and their livestock have profoundly changed the nature of the original forest ecosystem, they have also become absolutely crucial to the maintenance of the New Forest's present day biodiversity.

# LIFE PROJECT

The New Forest has been the recipient of recent LIFE project funding. The project ran for 4-5 years with a budget of £5.3 million (half from the EU and half from the partners) and has made a significant impact on



Alluvial alder woodland in the New Forest.

the management of the Forest. The ten partners had wide-ranging interests and included statutory bodies and Non-Governmental Organisations. The project has enabled a management plan to be drawn up for the whole of the Forest. Previously there have been plans for specific elements of the Forest but not the whole as a single entity. Drawing up such a document has been difficult work. There are many different interests in the Forest and combining all of these into a coherent framework has been a challenging exercise. Some of the potentially conflicting aspects are listed below:

- Nature conservationists and the European Union require the area to be managed for its wildlife.
- The commoners desire good quality and abundant grazing for their animals.
- The Forestry Commission require a financial return from the areas under commercial forestry to support activities elsewhere and generate rural employment, particularly amongst potential commoners.

• Visitors require recreation facilities such as camping, cycling, horse riding etc.

The aim of the LIFE project has been to develop coordinated management programmes to increase the area of habitats under favourable status across the SAC. The management plan process has also identified indicators of the quality of the European habitats that can be used in long term monitoring. It resulted in 'action plans' by each of the partners to show how they intend to implement the work in the future. A monitoring programme has also been set up by all partners to secure the long-term favourable status of the area.

LIFE II (which comes to an end in May, 2001) has enabled a variety of work to take place. This has included:

- The purchase of over 508 hectares of SAC to enable it to be managed for nature conservation.
- The clearance of exotic species (for example Rhododendron ponticum L.- a serious pest of British woodlands) from 160 hectares of Quercus and Fagus woodland.
- The restoration of 5 hectares of bog woodland (believed to be the best example of its type in the United Kingdom).
- Enhancing over 458 hectares of Fagus and Quercus woodland by re-introducing traditional management such as pollarding and grazing.
- A study of the recreational useage to identify action needed to be taken to repair existing damage and reduce the pressure on vulnerable habitats and action taken on some of these (this will benefit over 890 hectares of the SAC).
- Innovative measures to strengthen the local pastoral economy and help to secure a future for the grazing by the commoners.
- Involvement of the local community in protecting the European importance of the site and its species (for example through practical conservation tasks and a project on the stag beetle, Lucanus cervus (L.) a species dependent on dead wood).
- Pollarding 172 hectares of *Ilex aquifolia* to improve conditions for rare lichens (and provide winter fodder for the ponies).
- Employing a ranger solely responsible for communicating the work of the project to the local commu-
- Developing the use of a GIS system for recording information, operational planning and execution of projects.
- A series of restoration projects on heathland, mires and seasonal ponds, some of which has included the removal of exotic conifers as a timber crop that has not been replanted.

# FOREST DESIGN PLANS

Forest Design Plans have been produced to guide the management of the Inclosures in the future. Some of these areas will remain under commercial forestry, with either exotic species of conifer or native

# WHY POLLARD

Ilex aquifolium is an abundant shrub laver in some British woodlands. In the New Forest it is important winter feed for the ponies and deer and it was pollarded in the past for this reason. Even in times when the grazing pressure is high, holly still manages to grow

and dense and dark holly thickets develop. These thickets are probably important in protecting young trees of other species from being browsed. However the dense shade of the holly creates problems as it shades neighbouring trees (and other holly trees) that support rare lichen

pollarding of holly has started again. The trees are cut in the winter, the ponies quickly learn to come to the sound of a chain saw to eat the cut holly. The maiority of the holly trees survive pollarding and the few that die are only a small proportion of the total number of trees in the area (old trees are not pollarded). The lichen communities respond rapidly to the increased light levels (Sanderson 1991) and the open, sunny alades are very good for many saproxylic invertebrates too.

communities Now



Young holly pollards in Anses Wood.

broadleaves. Some Inclosures have not been actively managed since they were fenced nearly 300 years ago and these will now remain as valuable stands for nature conservation with mature trees and abundant dead wood. Other Inclosures may be cleared or part cleared to restore heathland or mire

exercise modifications have been made, for example belts of trees that were targeted for felling have been retained as screens for busy roads. Through these plans, it is estimated that the area of the total Forest that is predominately coniferous woodland will decline from 51% today to 27% in 20 years time. Pasture-woodland and open Forest habitats (heath or mire) will gain in area to compensate.

# THE FUTURE

Following the success of LIFE II a bid has been submitted for LIFE 3 which aims to further enhance the long term conservation of the SAC habitats.

In September 1999 the British Government announced that the first steps would be taken to designate the New Forest as a National Park. This will ensure National recognition and should bring in Government funding for the conservation of the area. National Parks are established in law to keep and improve their natural beauty and to help people understand their special qualities •

## REFERENCES

**New Forest Sports & Recreation Study,** (1996) Portsmouth University

**Morgan, R.K.** (1991) The role of protective understorey in the regeneration of a heavily browsed woodland, *Vegetatio*, 92, 119-132.

**Peterken, G. F. & Tubbs, C.R.** (1965), Woodland regeneration in the New Forest, Hampshire, since 1650. *J. Appl. Ecol.*, 2, 159-170.

**Sanderson, N.** (1991) Notes on holly cutting in the New Forest. In: H.J. Read (ed.) *Pollard and veteran tree management*. 53-55. Corporation of London.

Tubbs, C.R. (1986), The New Forest, Collins.



The southern edge of Anses Wood in the New Forest.

habitats. Where appropriate, grazing animals will be let into Inclosures for all or part of the year. The Forest Design Plans have been produced by the Forestry Commission with assistance from a forum of people and organisations with an interest in the Forest, and the needs of Forest residents, businesses and visitors have also been considered. A series of evening meetings have been held and the plans are available for public consultation. As a result of this

HELEN READ

Corporation of London, Burnham Beeches Office, Hawthorn
Lane, Farnham Common, Bucks. SL2 3LE. U.K
E-mail: helen.read@corpoflondon.gov.uk
JONATHAN SPENCER

The Forestry Commission, The Queen's House, Lyndhurst,
Hampshire. SO43 7NH. U.K.
E-mail: jonathan.spencer@forestry.gsi..gov.uk