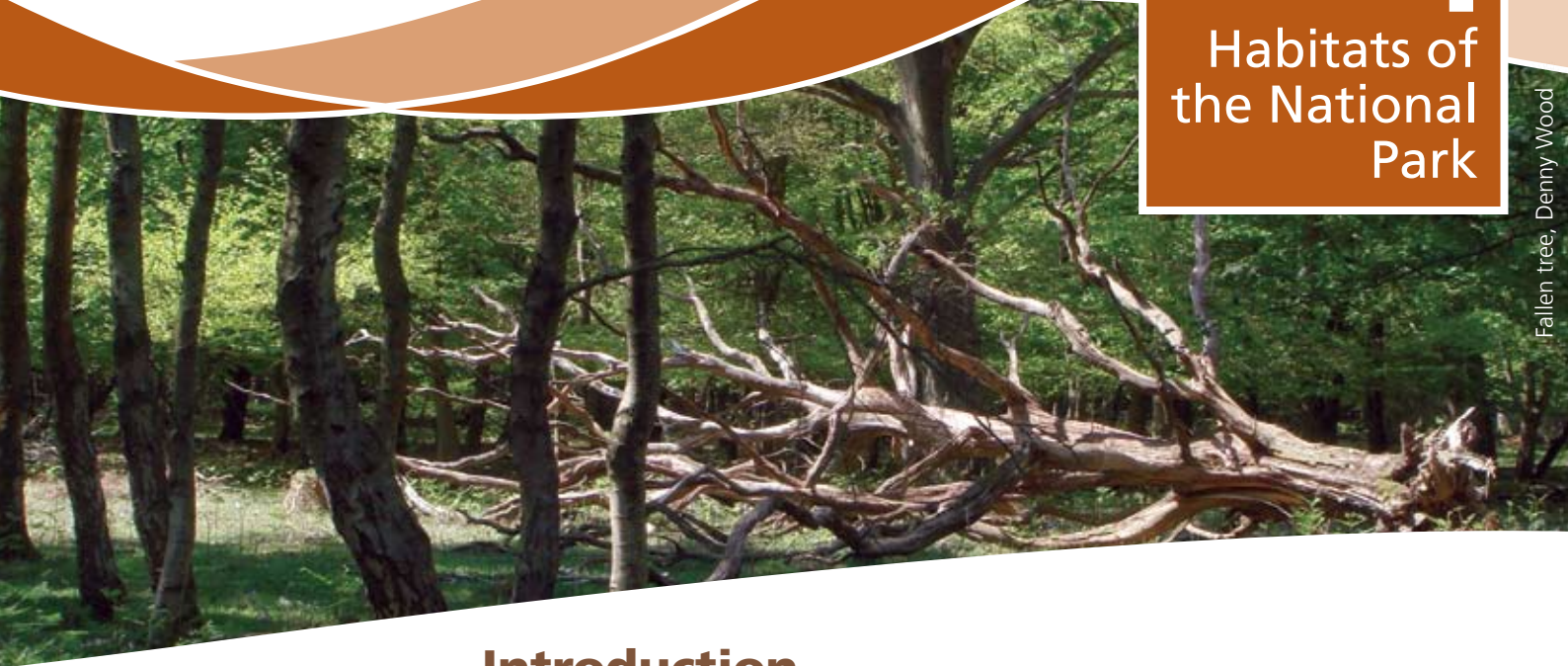


NEW FOREST
NATIONAL PARK

WILDLIFE OF THE NEW FOREST NATIONAL PARK

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Habitats of the National Park



Fallen tree, Denny Wood

Ancient Pasture Woodland

These areas are unenclosed and domestic animals are free to roam and graze within them.

The trees are allowed to live a natural lifespan before dying and decaying. Most of the trees are oak or beech although variation in woodland type can be seen. Drier areas are usually dominated by beech whereas on less well drained, better soils, oak or oak/beech mixtures are found. Ash, birch and yew sometimes occur in the tree canopy and holly forms the shrub layer. Oak/birch woods are found in clumps in the open heath while riverine oak woods grow on rich soils deposited beside rivers and streams.

Introduction

Geology, soils and human management have all contributed to the distinctive habitats of the New Forest National Park. These range from farmland to the coast and encompass some of the most unique and protected landscapes in the south of Britain. This factsheet looks at the ecology of these habitats and what makes them so special.

Woodland

The New Forest is famous for its woodland habitats. These include ancient, pasture woods along with broadleaved and coniferous inclosures.

Ground layer

Beneath the canopy and shrub layer of the woodland are the herb layer (grasses and herbs) and the ground layer (mosses and other low growing plants). In some areas of woodland within the Forest grazing by herbivores has reduced the density and diversity of the herb layer. However, this can lead to increased diversity of the mosses in the ground layer. Only 45 higher plants and a few ferns are consistently found. The lack of many flowering, herb layer plants reduces the numbers of nectar feeding insects such as butterflies.

Decomposition

Abundant dead and decaying wood provides a micro-habitat for many invertebrate species. The invertebrate community has been described as a relic

of the primeval woodland systems where forests were not managed and dead wood would have been abundant. The dead wood fauna of the National Park includes 400 species of beetle and 200 species of fly. Rare species of woodland invertebrates include the stag beetle.

Key species

Birds such as woodpeckers, the treecreeper and nuthatch are common in the pasture wood because it is rich in their food. They also nest in holes and crevices in trees. The less vegetated woodland floor attracts some ground nesting birds such as the woodcock and wood warbler.

The old age of many trees has allowed other plants to start growing on them. Such plants are known as epiphytes. In the New Forest these include ferns, mosses and a remarkable range of epiphytic lichens. No other woods in the UK or continental Europe are as rich in lichens as the New Forest.

Heathland

The term heathland is used to describe a number of different habitats such as heather dominated heaths, grasslands and waterlogged bogs or mires. Each of these elements of heathland has its own characteristic species and ecology. Heathlands develop where the geology and soils suit the heathland vegetation.

The New Forest has the most extensive area of this habitat remaining in Europe (over 10,000ha). Drier areas are dominated by heather, with bracken and gorse and a very rich lichen flora. It is of particular importance for birds, invertebrates and reptiles and supports the largest breeding population of Dartford warblers in the UK.

The smooth snake is found in good numbers despite declining elsewhere due to loss of heathland in other parts of southern Britain. Wetter areas support unusual plants such as marsh gentian and greater sundew.



Heathland scene at Bull Hill



Dominant species

Common heather (ling) and related low growing shrubs belong to the heather family of plants (ericaceae). Heath habitats are dominated by these ericaceous shrubs with different species favouring different soil conditions.

Dry heath

Dry heaths are dominated by ling, bell heather and gorse. They are found on the dry, freely draining podzol soils. The diversity of higher plants is usually low but interesting lichen communities develop. Mature dry heath is important for the Dartford warbler, sand lizard and smooth snake.



Sand lizard

Wetter heath

As the ground becomes wetter, ling cannot compete and wet heath plants such as cross-leaved heath, purple moor-grass and deer grass are common. This type of community is found on gently sloping valley sides and low lying depressions.

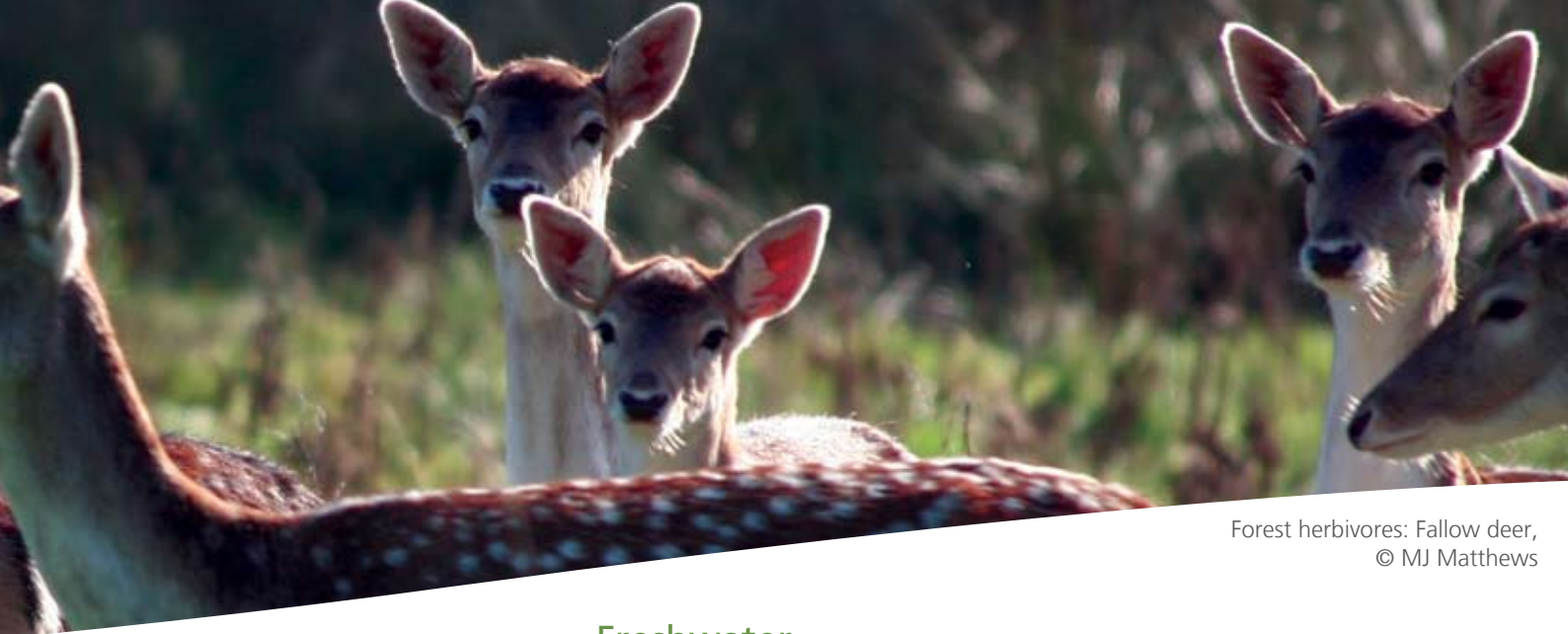
Grassland

Acid grassland makes up most of the grassland in the Forest, often in a mosaic with heaths. It is usually dominated by bristle bent-grass, heath bedstraw and tormentil. This varied habitat also encompasses areas dominated by purple moor-grass or those with patches of bracken or thickets of gorse.

Better drained soils, often beside streams or ponds, sometimes have more neutral grasslands, called 'Forest lawns' in the New Forest. Lawns only cover a small area but offer the best quality grazing and are important areas for the commoners' stock. The winter flooding of the lawns improves their nutrient status. They contain a range of grasses and herbs, the latter often being resistant to grazing. Indeed, increased grazing pressure appears to increase species diversity at some sites.



Grassland at Longslade bottom



Forest herbivores: Fallow deer,
© MJ Matthews

Farmland

Agricultural land within the New Forest is relatively expensive to buy and therefore many commoners rent land rather than buy it. These commoners' holdings have common rights attached to them and are where hay is grown to produce winter feed and animals are kept when they are taken off the Forest. Many of the farms have been cut out from the Open Forest at some point in their history and include ancient oaks amidst the hedgerows and heathy grasslands. Farmland in the enclosed landscape includes important habitats such as species rich hedgerows. The farmed landscape has a role in supporting key species such as the skylark and grey partridge, linnet, turtle dove and brent goose.

Freshwater

These habitats include the rivers, streams and ponds of the National Park.

Ponds

Although there are around 300 ponds large enough to be mapped on the Open Forest, the largest ones are nearly all man made. There are many specialist plants that live within these ponds including the Hampshire purslane and New Forest crowfoot.



Kingfisher

Rivers and streams

17 species of fish have been found in the rivers of the New Forest. These include the bullhead and brook lamprey. There has been little artificial stocking of fish in the New Forest and therefore the fish communities contain a natural genetic diversity that is unusual in the UK. Several rivers and their tributaries have been protected by nature conservation designations.

The streams are also important for their invertebrate life and natural debris dams form an important habitat. Common invertebrates include dragonfly nymphs, mayfly nymphs, stonefly nymphs as well as fish leech, freshwater limpets and a wide variety of midge larvae. The kingfisher is a relatively common site along particular stretches of the streams and brings a flash of exuberance to the riverine habitat.

Mires

The National Park has 75% of the valley mires in north-western Europe (90 out of 120). The permanently waterlogged soils along many of the valley sides and bottoms has led to the formation of the most important mire system in Western Europe supporting plants such as mosses, bog asphodel and white beaked sedge. Dragonflies and damselflies abound. When soils become waterlogged, organic matter no longer breaks down but accumulates as peat. As the peat builds up, plants of bogs and mires begin to grow. In the New Forest most mires are found in the valleys, often towards the south of the Park. A valley location means that water feeding the mire will have passed through the surrounding rocks and soils and be relatively rich in nutrients.

The water movement through the mire creates complicated patterns of nutrients and vegetation. At the outer edges of the mire sphagnum mosses are commonly found alongside different orchid species, cotton grass, sundews and bladderworts. This is the most nutrient poor soil on the mire. Plants such as sundews and bladderworts thrive here as both are adapted to low nutrients by being carnivorous on small insects.

Purple moor-grass and bog myrtle are found towards the middle of the mire along with areas colonised by alder and birch trees. This last zone often has many other plant species associated with it. Mires are generally rich in plants with over 150 species being recorded on the better sites.



Bog asphodel

The Coast

The 26 miles of New Forest coastline includes a combination of low cliffs, shingle spits, saltmarsh and mudflats.

Shingle beaches

The shingle beaches and spits support a wide range of marine life. The upper beach is home to a number of important salt-tolerant plants such as the yellow horned-poppy and sea kale. Within the sheltered saline lagoons there is a perfect habitat for a number of unusual invertebrates such as the starlet sea anemone which is found in only a few places in Britain. Shingle beaches are also important breeding habitats for birds such as terns and black-headed gull, and oystercatchers are a common site along the coastline.



Sea kale at Calshot



Keyhaven saltmarshes

Mudflats and saltmarshes

The mudflats and muddy beaches are home to a variety of invertebrates and crustaceans including fan worms, ragworms, cockles and shore crabs. They contain such a rich diversity of life that it is estimated there may be up to 150,000 small plants and animals per square metre.

In winter the estuarine habitats attract large numbers of wildfowl and waders including the dark bellied brent goose, wigeon and curlew. The eelgrass meadows found in these sheltered locations contribute both food and shelter for these bird populations, which are thought to number around 50,000.

Stabilisation of the mudflats by colonising vegetation creates saltmarshes. Glassworts are amongst the first plants (pioneer species) to take hold on the mud. Once mature the saltmarshes are usually covered in swathes of cord grass. There is more diversity of life in the saltmarsh than in an equivalent area of the tropical rainforest!



Snakelocks anemone

Life offshore

The rich shallow waters provide breeding grounds for sea bass and cuttlefish, whilst camouflaged against the seabed are flat fish such as thornback rays and plaice along with sand gobies and blennies. The National Park boundary extends to the mean low water mark and so at each high tide the marine life of the Park expands in breadth.

Further reading and useful information

Other New Forest National Park Authority factsheets

Forestry Commission factsheets

New Forest Centre Library

The New Forest: Colin R. Tubbs, 2001

New Forest National Park: Clive Chatters and Mike Reid, 2006

www.newforestnpa.gov.uk Factsheet available on CD, in large-print, or Braille on request

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