



# Woodland

## I. Habitat Definition

"Woodland" is defined in English Nature's Phase I habitat survey handbook as vegetation dominated by trees more than 5m high when mature, forming a distinct, though sometimes open, canopy.

This definition, however, includes a great range of distinct types that may require separate description in order to derive meaningful action plans. Separate habitats which are relevant to Sussex are described below but superimposed on top of this are categorisations based on site age, board composition and management type. For this the following definitions will be helpful:



**Semi-natural woodland** - Stands which do not obviously originate from planting. The distribution of species will generally reflect natural variations in the site. Mixed woodland is classified as semi-natural if the planted trees account for less than 30% of the canopy. Exceptions to this general rule include well-established sweet chestnut coppice, self-sown stands of non-native trees (for example sycamore) and woods that have been under-planted but where planted trees do not yet contribute to the canopy.

**Plantation woodland** - This comprises all obviously planted woodland of any age with the exception of those types mentioned above.

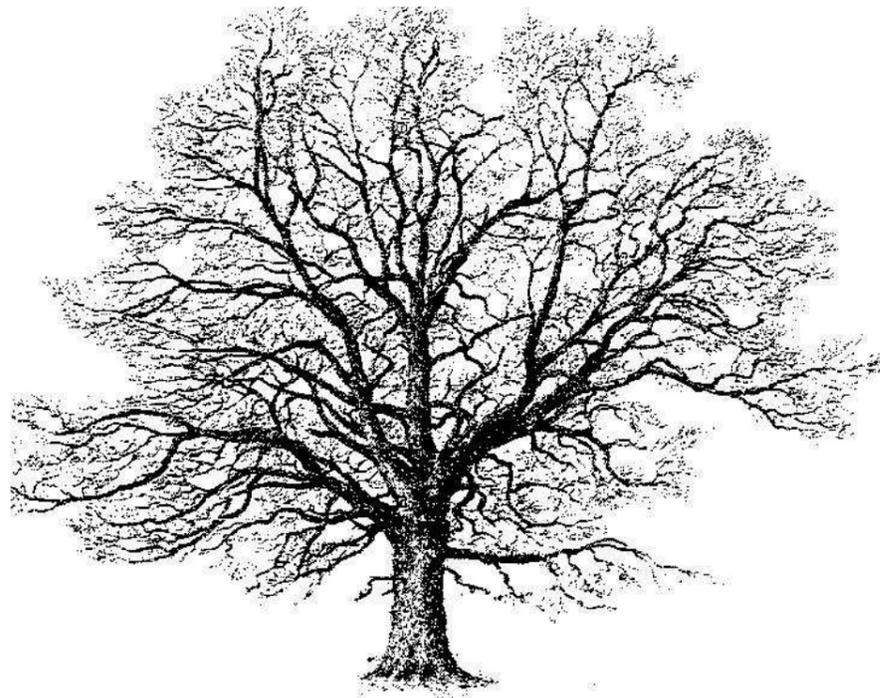
**Broadleaved woodland** - 10% or fewer conifer trees in the canopy. Yew and juniper contribute to the broadleaved component within the south east England context.

**Coniferous woodland** - 10% or less broadleaved trees in the canopy.

**Mixed woodland** - 10-90% of either broadleaved or conifer in the canopy.

**Ancient woodland** - Woods which have been under some form of continuous woodland cover since at least 1600 AD and have only been cleared for underwood or timber production

**Recent woodland** - Land which has not been continuously wooded after 1600 AD but which has acquired a tree cover on sites which may previously have been heathland, open fields or grazing land.



## 1.1 Woodland types

Biodiversity: the UK steering group report, volume 2, identifies woodland categories which provide the structure for the compilation of Biodiversity Action Plans (BAPs). These are adopted for the Sussex context below.

### Lowland Beech Woods:

Stands of planted and semi-natural beech woodland vegetation types reflecting differences in soil and topography; they occur most on the South Downs but beech woodland in the Weald often in association with other woodland types.



These woods have been managed, historically as coppice, coppice with standards, high forest and minimum intervention. In Sussex the majority of stands have been managed as planted high forest, with fine examples in The West Dean estate in West Sussex and at Friston Forest in East. There are, however, some extremely important examples of near-natural beech woodland, where minimum intervention has been chosen as the preferred management option, at The Mens and Ebernoe Common near Petworth. 'Coppice with standards' beech woodland has probably always been rare in Sussex.

The main corresponding National Vegetation Classification (NVC) plant communities associated with this habitat type are W12, W14 and W15 (See Appendix 1). In the European CORINE system (Wyatt, 1988) these woods are simply classified as beech woods (code 41.1) but within this there are sub-categories which are more relevant to woodland types in Sussex. These are discussed in de Brou (1999) for the Normandy area, a location likely to have similar beech woodland to Sussex.

### Broadleaved and Yew Woods:

This category covers a very broad range of woodland types in Sussex, from the ash - maple stands on the Downs to the mixed oak - hazel - hornbeam woods in the Weald and the more heathy oak - birch woods around Ashdown Forest and on the Greensand ridge. In terms of the NVC, these are classified W8, W10 and W16. In the European CORINE system these might be classified as oak-hornbeam forests, ash woods or as acidophilous oakwoods (codes 41.2, 41.3 and 41.5) (Wyatt, 1988). Yew stands are classified as W13 woodland. (See Appendix 1)

Most ancient woods in this category have a history of management as coppice with standards though many have now been converted, or developed naturally, into high forest or have been left (either by design or default) as minimum intervention.



This category covers a great deal of variety reflecting their physical structure in addition to their species composition. The following cases are worthy of special note:

**Oak - hornbeam** woods are a characteristic type of the South East, found on damp clayey soils. They often have a rich flora of spring-flowering herbs. NVC generally classifies these stands as the *Anemone nemorosa* sub-community of W8 and W10 woodland, indeed. This is the classical woodland type of the Wealden clays, however, but there is much structural variation within these communities.

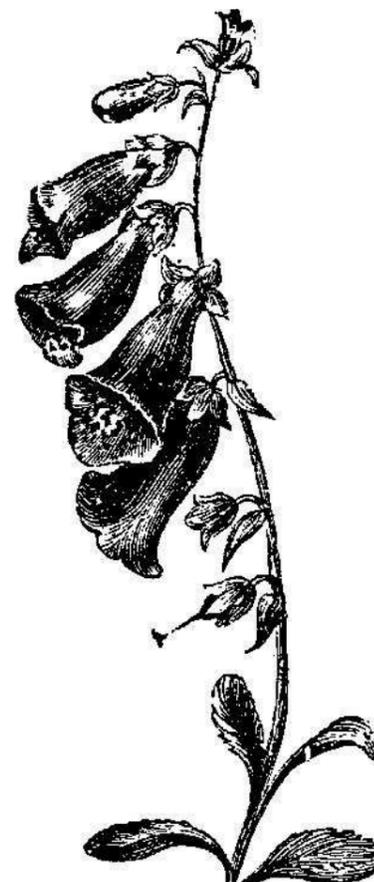
**Gill woods** are found in steep narrow stream valleys. They have a damp humid microclimate with a lower frost incidence than surrounding woodland. These are features of an Atlantic' micro-climate, reflecting the warm and moist Atlantic period approximately 7000 years ago. Today such conditions are not found elsewhere in eastern or central Britain. The moist oceanic microclimate is only found on the western seaboard of Britain but with a different geological and edaphic influence.

The flora found in these sites is therefore very characteristic of former Atlantic conditions - including lush growths of ferns (such as hay scented buckler fern), mosses and liverworts. Many are likely to be primary woodland sites (ie possibly dating from the ice-age) and some may have received relatively little management.

**Sandrock outcrops** are occasionally found within woods in the High Weald. This habitat is extremely rare on an international scale. The rocks act like a sponge, holding water and creating a damp and humid conditions, again an Atlantic micro-climate. This provides ideal conditions for a rare community of ferns, mosses and liverworts.

Woodland containing **large leaved lime** is an extremely rare type which, in Sussex, forms an intermediate type between the lime woods of the limestone in central/northern England and the lime woods of the Dordogne in France.

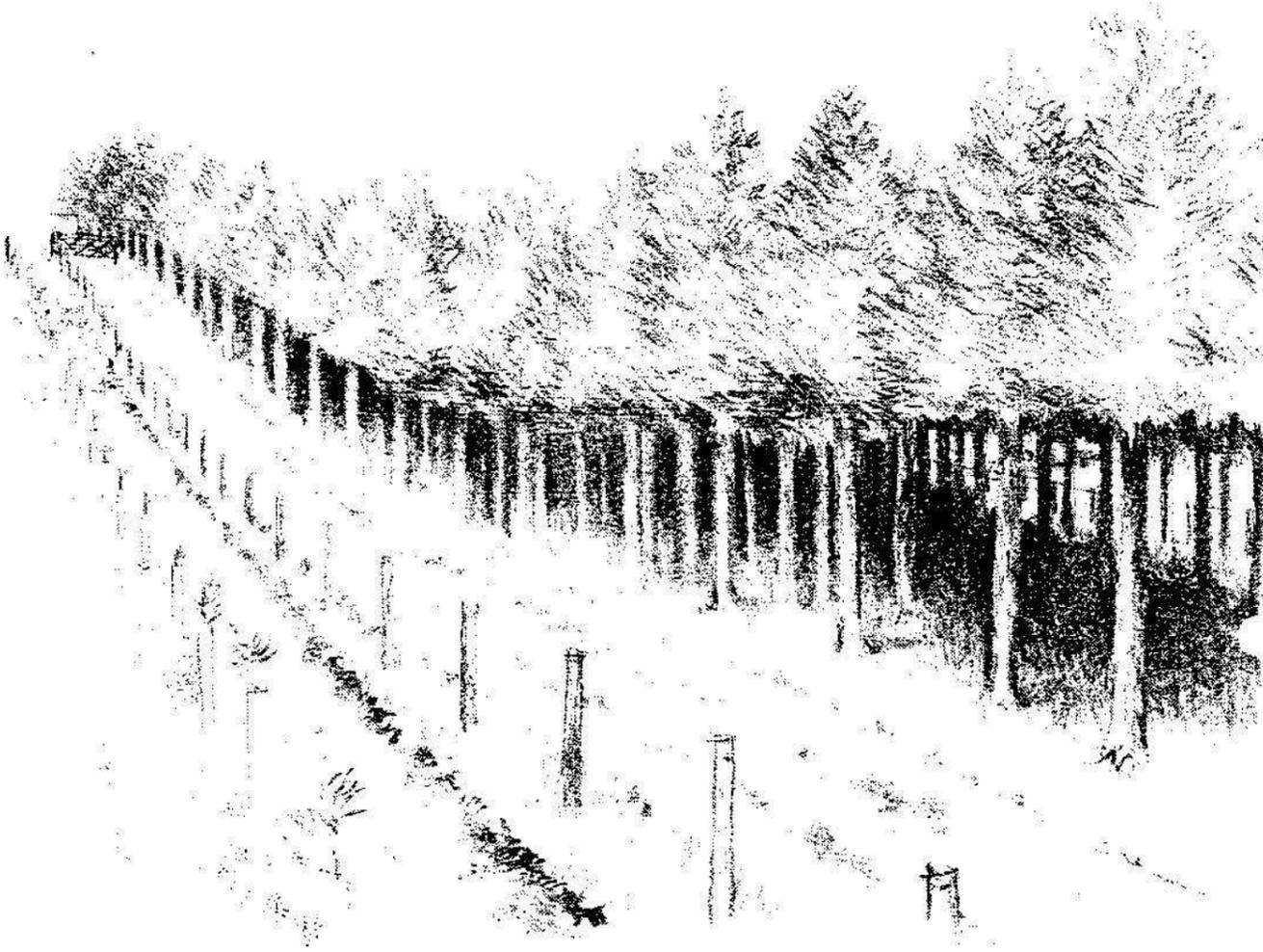
**Chestnut coppice** is fairly abundant, especially in the east of East Sussex, and is one of the few woodland types that is still occasionally under active coppice management. It is therefore of importance from a sustainable management perspective and for the general woodland species it supports.



### **Wet Woodlands:**

Wet woodland occurs on poorly drained or seasonally wet soils, usually with alder, birch and the willows as the predominant trees. It is scattered on the floodplains of Sussex but is more usually found in the higher catchments of river systems. Stands are often small, forming linear strips on alluvial soils alongside streams, but they can be more extensive where wooded valleys open out. Under NVC these are classified as W1, W2, W4, W5, W6 and W7 (Appendix 1). Black poplar is probably the rarest tree in Sussex, existing as scattered individuals rather than as part of a woodland type. It is possible that the woodland habitat in which black poplar would have been a constituent is now extinct in Sussex (and possibly in Britain). This habitat may have had similarities with woodlands classed today as W6 - woodland of nutrient rich alluvial valleys.





#### **Planted Conifer Woods:**

The south east of England has an equitable climate for the growth of trees, consequently there are some large forestry estates especially in the west of West Sussex. These are often mixed, resulting in more valuable wood for biodiversity but giving problems of definition! Common planted species include Scots pine, Corsican pine, Norway spruce, western hemlock, Douglas fir and western red cedar. Though the tree composition may be significantly modified it is often still possible to recognize the basic woodland community, classifiable under the NVC. Planting has often taken place in a range of woodland communities but especially in W8, W10, W12, and W14 (Appendix 1).

#### **Pasture Woodland:**

The management of pasture woodlands is significantly different to other woodland types so will be the subject of a separate action plan.

## 2. Current Status and Distribution

### 2.1 Status

Sussex is one of the most wooded parts of lowland Britain with the Weald having the greatest cover of woodland in Britain. Woodland and forests over 2 ha in size currently cover 17.5% of Sussex (66,258 ha) (FC Census 1997) and, whilst this is well above the national average (about 9%); it is still poorly wooded in comparison with other parts of Europe. Ancient semi-natural woods cover about 6% of the county (about 22,000 ha), which is about 35% of the total woodland resource. Whilst this compares favourably with the rest of England, no single large block of ancient woodland now remains in Sussex.

The majority of woodlands in Sussex, some 41,000 ha, are commercial woods. Of these 14,000 ha have been replanted on ancient woodland sites with non-native trees. The remaining 27,000 ha are woods which have been planted, or which have regenerated, on sites that were not previously wooded. The Forestry Commission (Forest Enterprise) practises commercial forestry notably at St Leonard's Forest near Crawley and at Friston Forest near Eastbourne and there are large private woodland estates for instance the West Dean, Stansted, Paddockhurst, Leconfield and Cowdray estates.

### 2.2 Distribution

Different patterns of woodland distribution around East and West Sussex correspond well with English Nature's Natural Areas.



**The Coastal Plain:** The coastal plain is a particularly poorly wooded part of Sussex. This is because of the long history of the area as an important agricultural area. Soils tend to be highly productive and easily cultivatable, especially in comparison to some other parts of Sussex, so most of the woodland cover was removed at a very early time. By the time the Romans left Britain it is likely that the landscape looked very much as it does now. Today there are just a few examples of large woods in the coastal plain. Prime examples include Park wood at Chichester Harbour, Binstead Woods near Arundel and Titnor/Highdown woods near Worthing. These woods are predominantly oak - hazel woods with some stands of planted chestnut. Most of these are ancient woods, still consisting mainly of semi-natural vegetation. Historically they have been managed as hazel coppice although many have now been promoted to high forest.



**The South Downs:** Woodlands show a different distribution pattern when comparing the eastern Downs to the western Downs:



**The Eastern Downs** are generally poorly wooded. The vast majority are recent woods, either planted. Friston Forest is one of the largest planted woods consisting mostly of beech and pine. Elsewhere ash woods, such as those around Eastbourne, are valuable as ancient woodland but they often occur in rides and along glades that have now become open outside woods.

**The western Downs** are much more heavily wooded reflecting a difference in landscape history when compared to the east. There is also considerable variation in the woodland habitat here. Ancient woods on the clay cap on top of the Downs have neutral soils, unlike the calcareous soils of the chalk. They tend to consist predominantly of oak - hazel woods. Good examples can be found at



Clapham woods near Worthing. Much of the scarp slope which has been left ungrazed for significant periods now have a woodland cover dominated by sycamore and ash with beech in some places. Some of these woods, although open grazing land at some time, are now very long-established (perhaps many centuries) and are developing characteristics of ancient woodland. Where true ancient woodland exists on the scarp slope a richer mixture of trees may be found, including ash, beech, maple, wych elm and whitebeam. Amongst these ancient woods are a few locations of large-leaved lime. Rook Clift is perhaps the finest example of this woodland type in Sussex. Huge areas of the western Downs, however, are covered in commercial plantations of pine and beech. Most of these have been planted on former open downland though many ancient woods within the forestry estates have also been converted to plantations. These estates generally have a long history of sustainable woodland management.

**The High Weald:** This is the most wooded natural area in England (Reid et. al., 1996). Historically the area has always been difficult to work, with unyielding agricultural land whereas the woods have been valuable as a resource to the iron smelting and glass making industries, or have been used as wood-pasture (depending on the period in history). The Wealden iron industry is probably the major historical reason for the conservation of such a

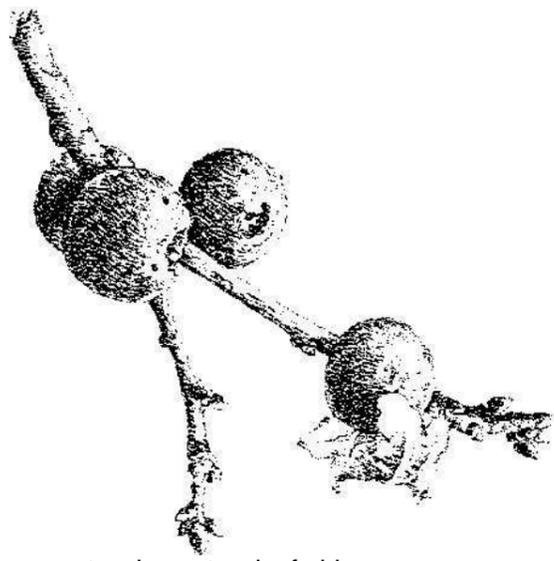
large area as woodland. For centuries the woods were used to make charcoal to fire the furnaces so, to achieve this in the long term, the woods were managed on a long-term sustainable basis in order to continually provide the needed raw materials. This history not only provided for the conservation of the woods but has also accounted for the presence of other features (eg. Hammer ponds, charcoal hearths and iron-stone workings.). The predominant woodland type here is oak - hornbeam. However, management systems have changed in the last century or two. As a result chestnut coppice is now much more common especially in the East, and many woods have been converted, or allowed to develop, into high forest. Particularly important woodland features found in the High Weald include Gill woodland and Sandrock outcrops.

In addition there are many 'Veteran Trees' found in the High Weald and throughout Sussex. Such trees may be many centuries old and are found in Parklands (refer to the Sussex Parkland and pasture-woodland HAP for more details) as well as along property boundaries, roadsides and Sussex woodlands with a favourable management history.

**The Low Weald:** The Low Weald has a fairly extensive woodland cover, much of it being ancient semi-natural woodland. These generally consist of oak - hazel woods with some hornbeam, often with some of the finest displays of spring flowering plants in Britain. In a narrow band by the South Downs the woods become enriched by downwash from the chalk so tend to contain more plants of lime rich conditions - maple and dogs mercury for example. Gill woodlands are also abundant in the Low Weald throughout Sussex and the adjoining counties of Kent and Surrey.



There is a broad zone in the West Sussex Low Weald that is more densely wooded than to the east. Many of these woods are relict pasture woodland, old common land which possibly always had some level of woodland cover but where woodland has become more dense since grazing ceased. The Mens nature reserve is perhaps the best example of this woodland type. This, and similar areas, are now developing into a near-natural or old-growth forest where natural processes rather than management is the dominant causal factor of woodland structure.



As with the High Weald, the Low Weald also contains an extensive network of old hedgerows and wooded shaws. Most of these are probably ancient, resulting from a strip of woodland left between fields when they were originally cut from the wildwood. Hedgerows and shaws are therefore an important part of the woodland heritage of Sussex and are covered in a separate Action Plan.

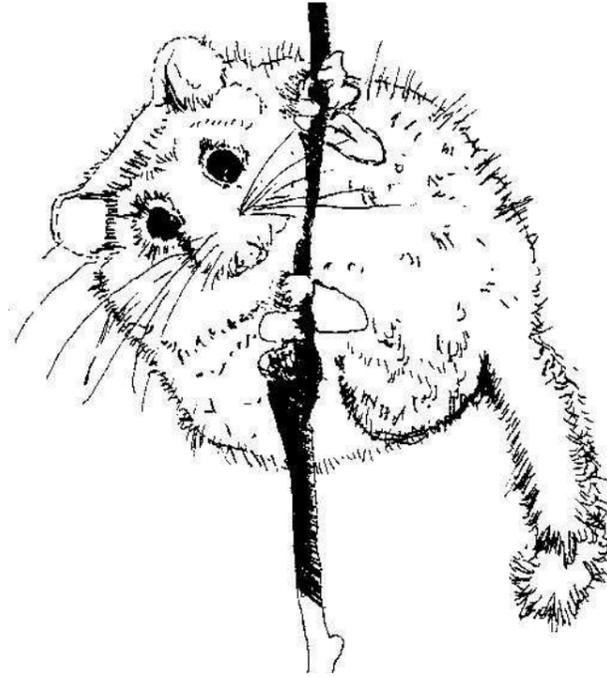
**The Wealden Greensand:** The greensand ridge curves around the western edge of Sussex forming a band of acidic heathy soils. Open heathland is generally the key habitat in this area and much of the current woodland has established recently following the cessation of grazing on old heaths. Most woods are therefore recent oak - birch woods over a heathy ground flora, but are generally of lower ecological, landscape and historical value than the heath they replaced. Pine woodlands, either plantations or naturally regenerated, also cover significant areas of previous heathland. A major invasive species in these woods is Rhododendron. This grows well on these soils and forms a dense canopy excluding almost all other species where it grows.

There are, however, valuable ancient woods in this area, including for example Rake Hanger on the border with Hampshire. These have a more long-established woodland ground flora and include trees such as sessile oak.

### 3. Importance of the habitat

Despite being one of the least well-wooded countries in Europe, Britain's woods are often structurally diverse and are rich in uncommon or notable species. The varied climate and geology in Britain, combined with past treatment provides a woodland habitat which is often rich at a small-scale. This variety has repercussions in terms of the occurrence of species of conservation concern.

Woodland communities in Sussex reflect the national picture. Geology is varied over a small distance and variations in local climate provide warm, humid Atlantic conditions in one location but with hot, dry continental conditions only a short distance away. In Sussex we have particularly good examples of relatively common woodland types, such as oakhornbeam woods with a rich ground flora including bluebell and wood anemone, as well as types which are nationally uncommon, such as the woods with large-leaved lime on the



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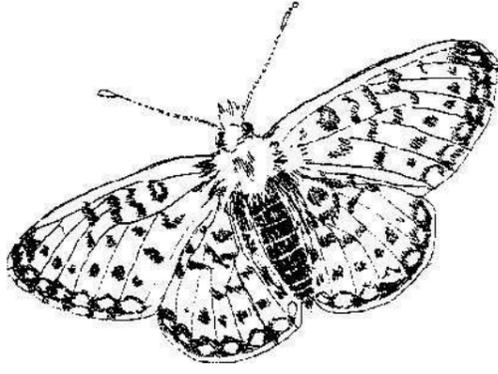
South Downs. We also have examples of woodland types which are internationally rare, such as gill and sandrock woodland, and which are located further south and east than their nearest relatives. A complex woodland history has also resulted in great structural variety in woodlands including locations with old and dead trees and consequently a particularly rich invertebrate and epiphyte community.

Woodland is also the most extensive semi-natural habitat in the county. Overall woodland covers about 17% of the county, but in some locations in the Weald the figure goes up to nearer 30% of the land surface. Considering that much of this is ancient in origin, and so of particularly high nature conservation value, it is clear that woodland is a particularly important vegetation type in Sussex.

Broadleaved woodland, as a broad habitat, contains a higher number of priority UK Biodiversity Action Plan species than any other habitat. About 115 priority species (out of a total of 523) are found in either broadleaved woodland as a general category or in one of the priority woodland sub-categories (including, for example, wet woodland and wood-pasture). Sussex woodlands provide important habitats for a number of priority species. These include: dormouse, pearl bordered fritillary butterfly and the black-headed cardinal beetle. These species have been selected as examples because they generally require quite different conditions in woodland:

**Dormouse.** This species requires shrubby regrowth usually at sub-canopy height in order to thrive. Within this it requires a level of structural and floral diversity which enable it to find food plants, nesting sites etc. Viable populations generally need contiguous woodland over 20 ha in extent. The dormouse's large-scale habitat requirements are shared with an ancient landscape community of species of high conservation priority.

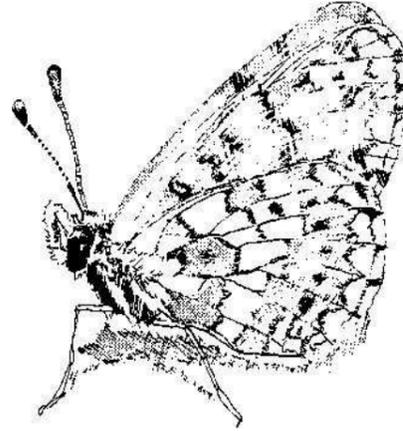




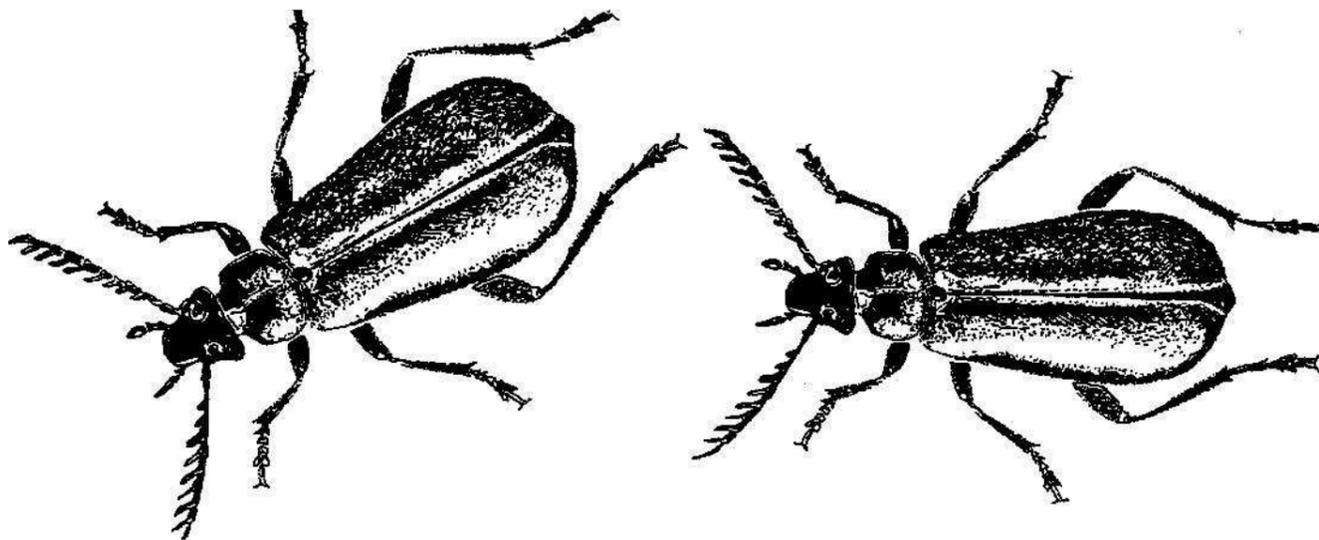
**Pearl bordered fritillary.** As with many insects, this species requires open, sunny gaps within woodland with a diversity of flowering plant re-growth in the field layer. Such conditions are often associated with coppiced areas, woodland rides or areas of small-scale clear fell and require a dynamic woodland environment, with gaps being continually created and re-growing. This is an example of a "gap-phase" woodland species, a group which includes many species of conservation concern that require ancient habitat.

In due course other biodiversity species may be added as woodland indicators in Sussex to assist with this action plan, for example:

**Black-headed cardinal beetle** (*Pyrochroa coccinea*). This is an insect species associated with veteran trees and old growth woodland. Enhancement of the habitat for this species might improve conditions for wood-boring species generally - a group containing species which are often uncommon and, because of the lack of old trees in woodland, occasionally extinction prone.



Improvement in the population levels of all these species might together indicate improving structural diversity of woodland at a regional scale rather than at the scale of an individual site. Their requirements should be taken into account during implementation of this plan.



## 4. Importance for People, Local Community and

### Cultural Significance

There is increasing evidence of the wide range of benefits that trees and woodlands provide for people. In an urban environment trees can save up to 10% of energy consumption through their moderation of the local climate. They also stabilise the soil, prevent erosion, reduce the effects of air pollution and storm-water run-off and aid land reclamation. Trees have a positive impact on the incidence of asthma, skin cancer and stress-related illness. They filter pollution from the air - in Chicago for instance trees have been shown to remove over 10 tonnes of damaging particulates every day while in Nottingham it is thought that trees reduce the concentration of sulphur and nitrogen dioxides by up to 5%. The passive benefits of a well-treed landscape are indicated, for example by the increased rate of recovery of hospital patients who have a window view of greenery rather than buildings.

English woodland has been compared to cathedrals both in terms of the intuitive feelings when walking through an oak or beech wood in spring or summer and also in terms of the great age and perceived permanence they inspire. These very subjective aspects were most clearly manifested in October 1987, following 'The Great Storm' that threw many large old trees to the ground in England. People swiftly responded by donating their time and money to assist woodland organisations in addressing the damage. In cultural terms the 1987 storm had a strong impact on central and local government through initiatives such as 'Task Force Trees'. More recently the Forestry Commission has been financially supporting woodland creation and enhancement through their Woodland Grant Scheme (WGS) and Woodland Improvement Grants (WIGs).

In landscape terms trees and woodlands are particularly important to local people with views forcefully expressed when a woodland is threatened, such as at Binstead Woods by the proposed Arundel bypass. Even more recent 'secondary' growth is valued; for example through opposition to heathland restoration following a lack of several years or decades of active management, and more recently in an attempt to restore Downland at Offham near Lewes in 1997. (National Urban Forestry Unit, 1998).



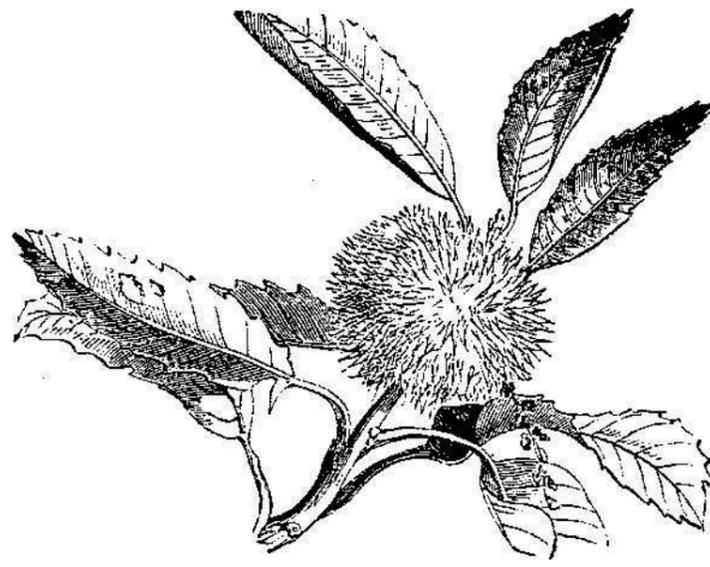
## 5. Benefits to Local Business

Historically Sussex woodlands, as with woodlands in the neighbouring counties, have been an important source of employment for rural markets. Iron and glass production were historically important industries in the Weald, and this would have required huge areas of well-managed coppice woodland in order to produce the charcoal required to fire the furnaces. English oak was favoured for building houses and warships alike. The economic demand for English hardwood timber is currently low, although with improved quality and infrastructure this could improve yet there is still a strong feeling of attachment to woodlands by many people in Britain. Consequently there is a resurgence in interest in promoting a sustainable woodland industry in the county based on hardwood management. For example, a woodland management centre is about to open in Flimwell, East Sussex, which aims to reconnect wood users with wood producers in order to promote the industry.

In addition there is a thriving plantation forestry industry centred on the large forestry estates mostly in the west of West Sussex. Though perhaps small in comparison to the huge conifer plantations in upland Britain, these estates do provide local employment and enhance the local economy using management approaches which are generally in tune with environmental objectives.

As woodland is so abundant in Sussex, it is a key attribute that helps to determine the environmental quality of the area that has a direct influence on the economy of Sussex. One of the key reasons given by businesses for establishing in Sussex is the pleasantness of the environment, so trees and woodland are key ingredients in the establishment and retention of high quality business in the county. In this way trees help to create jobs, encourage inward investment and they can also increase property values by up to 18% (National Urban Forestry Unit, 1998).





## 6. Trends and Threats

The FC census of 1947, 1980 and 1997 identify the following trends in woodland:

	1947	1980	1997
<b>Increase in woodland</b>			
% cover	16.2	16.5	18.8
<b>Increase in broadleaved woods</b>			
Conifer area - hectares	3420	15523	9251
Broadleaved area - hectares	12691	29442	36763
<b>Change from coppice to high forest</b>			
Coppice area - hectares	28289	8856	4583
High forest area - hectares	19785	44965	54741

English Nature's Ancient Woodland Inventory identifies the following changes in the ancient woodland habitat:

### Loss of ancient semi-natural woodland (asnw)

- asnw in mid 1980's - 21596 ha
- loss since 1930's - 3000 ha (but probably relatively little loss in the last 10 years)

It is also apparent from information on other habitats that woodland is spreading on other habitats, for example:

- Downland - 50% of loss of chalk grassland in the last 20 years was due to scrub invasion.
- Heathland - planting and natural regeneration of pine, and the spread of scrub
- Internal woodland habitats - loss of rides, glades, patches of heath



The extent of woodland in Sussex is increasing. Some of this is to be welcomed but much (such as the spread of scrub on Downland grassland and Sussex heaths of high ecological quality) is causing environmental degradation.

On the other hand there is a longer-term loss of ancient semi-natural woodland. Ancient woodland is essentially an irreplaceable resource on human timescales. In ecological terms the loss of ancient woodland is not compensated for by the expansion of more recent woodland. In the last 60 years about 8% (3,000 ha) of the ancient woodland have been grubbed out altogether, replanting with conifers has degraded a further 36% (14,000 ha). Though reduced in their ecological value, replanted ancient woods often retain some wildlife value and it may be possible to restore these to semi-natural condition in the long term.

To summarise therefore the main trends in the woodland habitat are as follows:

Woodland extent is increasing, often at the expense of ecologically valuable unwooded habitats

There is an increase in the amount of broadleaved woodland being planted

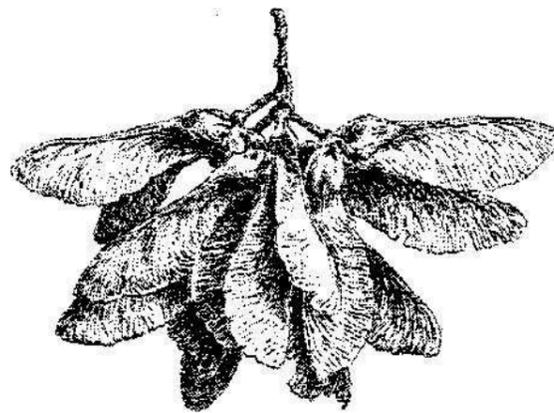
There is a decrease in the amount of conifer woodland being planted

The area of coppice is reducing whilst area of high forest (including managed, unmanaged and coppice which has grown into high forest) is increasing

Much woodland remains unmanaged

There is a continuing trend of a lack of incentives for management - timber markets are limited and woods are mainly unprofitable.

Only a relatively small proportion of timber used in the region comes from local sources.



## 7. Potential

Recreating **ancient woodland** on any meaningful timescale is impossible. However, it is possible to restore ancient sites that have been degraded through neglect. The conservation value of ancient semi-natural woods (as with all woods) can readily be enhanced through sympathetic management. This may be based on a system of small-scale cutting to produce open-canopy high forest with various patches of growth and regeneration.

**Coppice woodland** that has been neglected for a few decades can be restored by the careful reintroduction of a coppice cycle. The species associated with open dynamic woodland, which may have become rare as a result of neglect may then be able to spread or recolonise the site. The success of the coppice work undertaken by volunteers on the Sussex Wildlife Trust's West Dean Woods Reserve is evidence of just how much can be achieved.

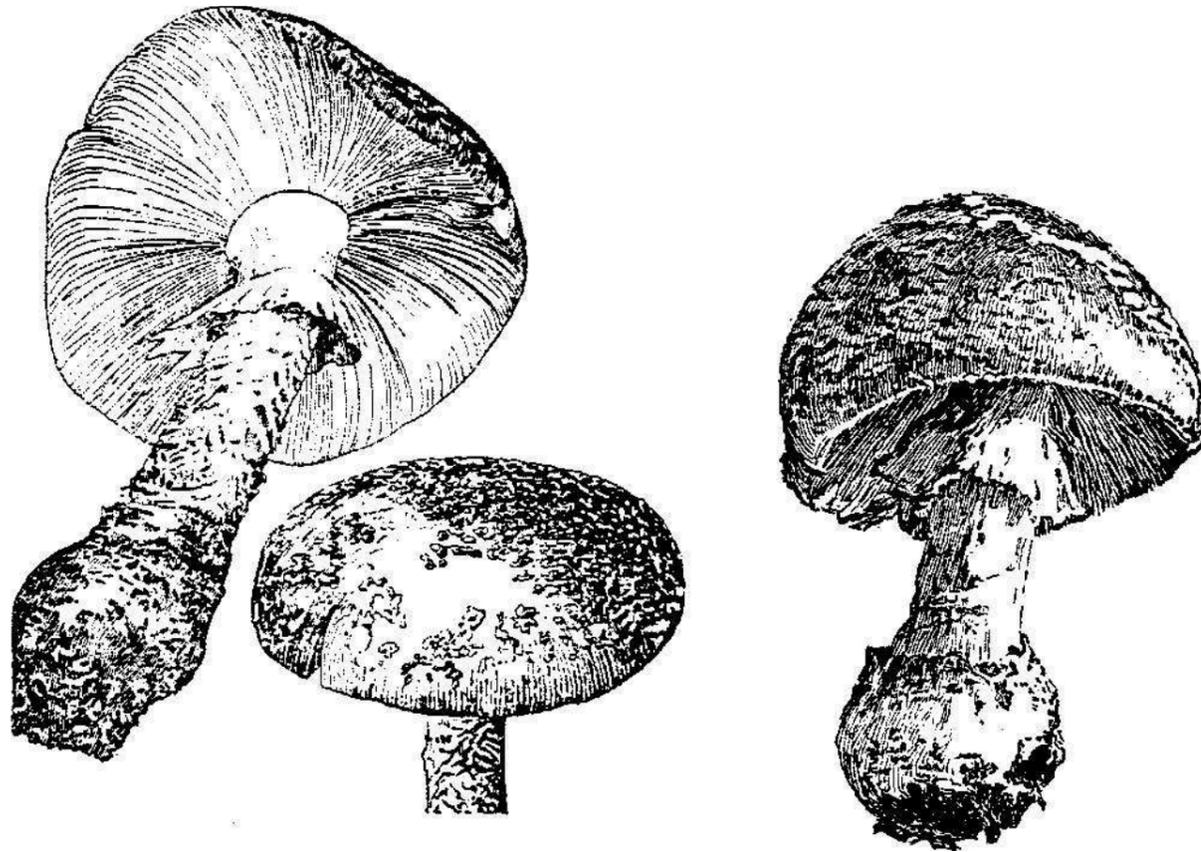
However, this approach will be very site dependent as restoration may not always be appropriate, especially on sites that have been neglected for a long period. These woods may no longer have the wildlife that relies on coppicing and may be unlikely to regain it if coppicing is reinstated. These woods are best converted to high forest with a coppice or shrub understory rather than treated as traditional coppice with standards. Where there are remnants of "old growth" woodland within coppices, these should be retained. Furthermore, Forestry Commission statistics indicate that, despite the desirability of traditional management methods, it is clear that a traditional coppice with standards cycle is unlikely to become the predominant management system in previously coppiced woods. It may be that other forms of management may have to be adopted which produce the occasional openings in the canopy required by many of our woodland species, previously provided by a coppice cycle.

Much of the ecological interest may be in restoring **broadleaved ancient sites**. A very achievable restoration, ranging from clear-cut broadleaves when the current crop is harvested through to the progressive conifer/broadleaved mixtures to favour broadleaved element. Again this will be very site dependent. Broadleaves may be beneficial when they establish well, whilst, alternatively, in conifer/broadleaf woods have developed biodiversity so restoration may not be back to semi-natural condition often benefits, but conversion to native broadleaved



species, ride management, maintaining belts of broadleaves and the promotion of openings in conifer stands may all give ecological benefits.





In some locations restoration to a **non-woodland habitat** will be desirable to achieve biodiversity targets. A key example is heathland. The removal of a conifer crop at the end of the rotation may allow an opportunity to restore heathland. However, on many sites the heathland habitat is fairly dynamic and often scattered throughout a forestry plantation (for example in St Leonard's Forest). In these situations it may be possible to restore the heathland interest of the site by introducing a lag of a few years between the time of felling and the following replanting. This would allow time for temporary heathland regeneration. If this happened in all clear-fell coups throughout the forestry estate, the result would be a matrix of patches of heathland regeneration within the forestry complex, possibly connected by longer-term heathland habitat in rides and glades. This latter option may be more sustainable than the creation of permanent expanses of heathland. It is difficult to achieve long-term management of heathland, but if heathland matrices are created within economic forestry operations then heathland may have a greater chance of long term survival.

**Sandrocks** that are receiving intense management, often in private gardens, do sometimes retain their ecological interest. Elsewhere careful management may be needed to restore their value. A main problem, however, is lack of information. Regeneration of trees and shrubs is normal in woodlands and it seems unlikely that this alone could cause the longterm degradation of a site. Research is needed in order to understand how this habitat survives natural regeneration of the trees around it and this should guide management principles. It may be that the habitat experiences routine population fluctuations in relation to natural regeneration. If this is the case then there may be some potential for habitat restoration with appropriate management.



**Forest habitat networks**, functioning as near-natural systems rather than through intense management, could be created in Sussex. In the Weald of West Sussex there are clusters of old well-wooded commons which have received very little management in the recent past. The most well-known examples of these are Ebernoe Common and The Mens near Petworth. These are developing towards "old growth" forest, a mature forest system where most of the variety is determined by natural processes rather than human management. They are of international importance for their wildlife and have the

potential to form the core of a **large near-natural forest**. Some of the land between these old woods is of low agricultural value and forest re-creation could be an appropriate alternative land use. There may also be similar opportunities in the Weald in East Sussex.

**New planting** can restore and enhance existing woods of all types by creating interconnectedness, increasing the critical size of woods to create a more viable habitat for key species. The Wealden woodland context is probably unique in England in providing a matrix of closely juxtaposed small and medium sized woodlands (mostly ancient) that were, in relatively recent times, part of a single woodland block. Many of these woodlands are still partially connected by shaws and hedgerows. The close proximity of so much ancient semi-natural woodland to more recent woodland facilitates colonisation by otherwise immobile species and blurs the distinction between ancient and secondary woodland. (This does not, of course, undermine the historical and cultural irreplaceability of true ancient woodland). There is therefore a great deal of potential for enhancing woodland in Sussex through relatively small areas of new planting which could greatly enhance the functional connectedness between woods and produce substantially larger habitat blocks.

Considerable areas of land are likely to come out of agriculture over the next 50 years. The Government have recently published a White Paper on Rural England suggesting an aspirational target of doubling woodland in England over the next half century. There is an acknowledged need to increase timber production. Britain currently imports 85% of its timber and even in well-wooded Sussex only a small proportion of commercial timber comes from sustainable local sources. Sustainable woodland management here could have considerable environmental benefits by reducing the use of ecologically damaging imports. There is therefore potential to expand commercial forestry especially on land coming out of productive agriculture. Ideally this should include planting on some of the high quality agricultural land.



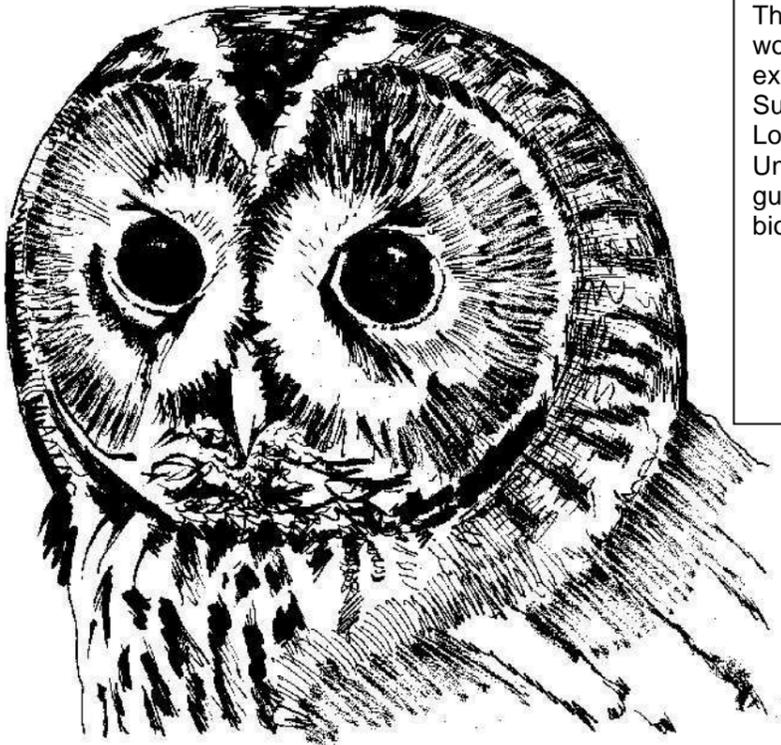
There will need to be incentives to encourage the planting of forests and to recognise the long-term environmental benefits of woodland. The acceptance of woodland planting against set-aside targets is a useful first step showing the future direction of policy. Maximum environmental benefit will occur if forestry planting takes place on land which has previously been in intensive arable or short-term grassland use. The expansion of current woodland blocks and the linking of existing ancient woodland by new belts and shaws would be particularly valuable. The re-creation of riverine woodlands, a habitat type missing from most of the English lowlands, would be particularly valuable. Wet woodlands of willow, alder and black poplar could be planted on former arable and intensive grassland sites in our wetland systems.

In summary, there is great potential for enhancing the woodland habitat in Sussex. Some of this potential is relatively general (such as new planting) as long as the proper checks and balances are in place. Much, however, is very site dependent (such as coppice restoration and conversion of conifer woods to semi-natural condition). The general targets detailed below represent the order of magnitude of changes that could be achieved, but the value of achievement will be critically linked to the specifics of a particular site.

## 8. Current Action

### National guidance.

The Department of the Environment, Transport and the Regions (DETR) has published 'A Strategy for Sustainable Development for the United Kingdom' (May 1999) which provides strategic directions for wildlife protection and enhancement, and for the UK forests and semi-natural woodlands, the government aims to halt the decline in their area and reduce the degree of fragmentation seen over past decades.

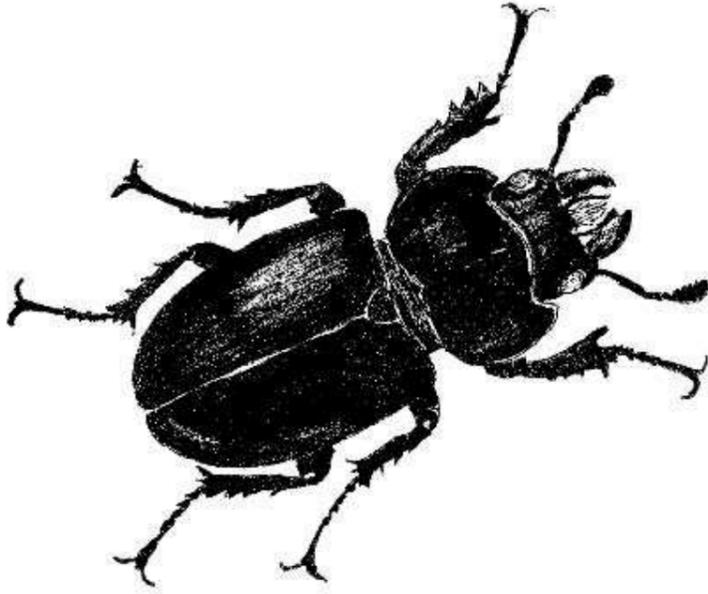


The area of UK woodland, ancient semi-natural woodland area and sustainable management are explicitly stated as 'indicators' appropriate to the Sustainable Development strategy. Protective policies in Local and Structure plans. Under Circular 27/87 and more recently following guidance in Policy and Planning Guidance note No.9 on biodiversity.

Nature Conservation, local and strategic authorities in Sussex have all introduced policies in their Local and Structure Plans that offer some degree of protection to ancient woodland.

**Planning consultation zones.**

In March 1999 Circular 9/95 was amended to include the Forestry Commission (FC) as a 'non-statutory consultee' on planning applications potentially affecting ancient woodlands. Proposals which affect ancient semi-natural woodlands and ancient replanted woodland as recorded on English Nature's provisional inventory of ancient woodland, would fall within the potential area for consultation with FC and it will be instructive to see the extent of the likely impacts over time.



**Forestry Commission policy**

It is FC policy that areas that are currently woodland are expected to remain so. As a result felling licences are generally only granted on the condition that the area concerned is either replanted or allowed to

**England Forestry Strategy, 1999. (EFS)**

The EPS outlines the current view on the role of forestry in England. This is now very much focussed on multiple objectives, encompassing rural development, economic regeneration, recreation, access, tourism, the environment and conservation. The strategy will be achieved through better targeting of resources, to focus on areas of greatest opportunity and need. Thus the aim is to better utilise public, and other funds, to achieve greatest public benefit.

**The UK Woodland Assurance Scheme (UKWAS)**

It is becoming increasingly important for purchasers of timber and wood produce to feel confident that material they are buying was grown or managed in an environmentally sustainable way. The Forest Stewardship Council (FSC) is essentially the international organisation that certifies timber as being from sustainable sources. In Britain, however, this is done through the UK Woodland Assurance Scheme (UKWAS). This is a standard agreed by the UK forestry community, facilitated by the Forestry Commission and confirmed by the FSC.



### **Forest Enterprise's Strategic Plan for the South East.**

The South East is a very well-wooded region and Forest Enterprise (FE) only control a relatively small proportion of the forests, nevertheless they are important woodland owners and managers whose activities are highly influential. This document describes how FE will manage the woods in its care. It sets out priorities for four key areas of activity, consistent with the England Forestry Strategy: recreation, nature conservation, rural development and economic development.

### **County Woodland Strategies.**

As woodland is such a major issue in both East and West Sussex, both County Councils have prepared County Woodland Strategies. These followed the major growth in interest in woodland after the 1987 storm and so their main emphasis was on landscape restoration. They provide an excellent tool for defining a menu of options for enhancement for landscape units that are recognisable to people on the ground and have been used for the targeting of advice and grant aid. Work in county woodland strategies continues to develop. For example East Sussex are in the process of revising their strategy and West Sussex County Council have developed the thinking into a wider landscape assessment.

## **9. Existing Financial Incentive Measures**

The Forestry Commission administers the key grant schemes that provide financial incentives for woodland planting and management. The two main grants are the Woodland Grant Scheme (WGS) which pays for both planting and management and the Woodland Improvement Grant (WIG) which is targeted on particular themes including public access, neglected woodland and biodiversity. Grant schemes are now discretionary, using a clear points system to provide a measure of the public benefit resulting from a proposal. Contribution to the actions in a Biodiversity Action Plan is one of the criteria in the points system.



## 10. Objectives

- a Maintain the existing area of ancient semi-natural woodland.
- b Achieve favourable condition in woodlands through appropriate management.
- c Restore a proportion of replanted ancient woodland to semi-natural condition.
- d Restore gill woods and sandrock outcrops to enhance their conservation value.
- e Expand the area of new native woods:
  - In locations which will deliver the greatest ecological gains and which will not cause damage to existing interest (examples might be locations which fill gaps, form linkages between existing woods and which recreate rare wood types, for example riverine woodland).
  - In locations which enhance the near-natural functioning of the forest matrix at a landscape scale (this requires an approach based on the interconnectedness of woodland, volume of habitat and structural diversity within an area).
- f Ensure woodland and forestry management fully considers non-wooded habitats.
- g Re-create at least one large near-natural woodland in Sussex using the 'Forest Habitat Network' principles currently being developed.
- h Expand the area of commercial plantation on agriculturally productive land and where it will not cause damage to existing ecological, landscape or archaeological interest.
- i Enhance the economic viability of woodlands managed with conservation objectives.
- j Increase the amount of locally grown timber in order to substitute for less environmentally sensitive imports of timber and to substitute for other less environmentally sensitive materials.

## 11. Targets

**This Habitat Action Plan is now archived**

## 11. Actions

**This Habitat Action Plan is now archived**

**Woodland**

