

6. LAND AND NATURAL ENVIRONMENT



Pearl bordered fritillary is present in Beckley Woods

6.0 Land and Natural Environment

6.1 Information Gathering

Extensive research and ground survey were undertaken in the early stages of the forest design planning process. A picture was drawn up for each woodland, showing the existing social, economic and environmental (including landscape) constraints and the opportunities for management. This information is detailed and for practical reasons, has been placed on file at the Forest Enterprise office in Farnham. Proposals for management were based on this analysis and checked to ensure their compatibility with the objectives of the forest design plan. Further field survey will take place to identify site specific interests (including archaeological) prior to forestry operations in the form of the Operational Site Assessment (see page 6: How Does the Forest Design Plan Fit In With the National Planning Framework?).

6.2 Location and Ownership

The High Weald Forest Design Plan focuses on the management of 20 scattered woodland blocks, totalling 3,195 hectares. These woodlands represent 9.6% of the woodland cover in the High Weald AONB (see Appendix 2: Ancient Woodland Map). Thirteen of the woodland blocks are Forestry Commission freehold woodlands, managed by Forest Enterprise South East England. Seven of the blocks contain leasehold woodland, where management objectives will reflect the terms of the lease.



Scot's pine in the High Weald

6.3 Site Characteristics

6.3.1 Landscape

The woodlands within this plan fall within the High Weald AONB. This is one of the most heavily wooded AONBs, with woodland providing almost 30% land cover. The typical landscape in these parts of West Sussex, East Sussex and Kent comprises unique rolling ridges and deep incised valleys clothed in a mosaic of woodlands and small fields. Hedgerows and thick shaws (belts of woodland) also feature prominently in a landscape of sunken lanes and scattered villages. Altitude within the AONB ranges from 3m above sea level near Rye to 220m above sea level near Crowborough.

The High Weald lies at the core of the Wealden anticline of South East England and is geologically complex. The oldest rocks, the Upper Jurassic Purbeck Beds, are formed from limestone and shale and are only exposed at the surface in Combe Wood and Darwell Wood near Brightling, East Sussex. Surrounding these, the High Weald is dominated by a 'corrugated dome' of sandstones and clays belonging to the Lower Cretaceous Hastings Beds Group of the Wealden Series. These alternating layers of clay and sand/silt give rise to a great diversity of vegetation, both across the High Weald and within individual woodland blocks. For example, St. Leonard's Forest contains both heathland and wet woodland flora.



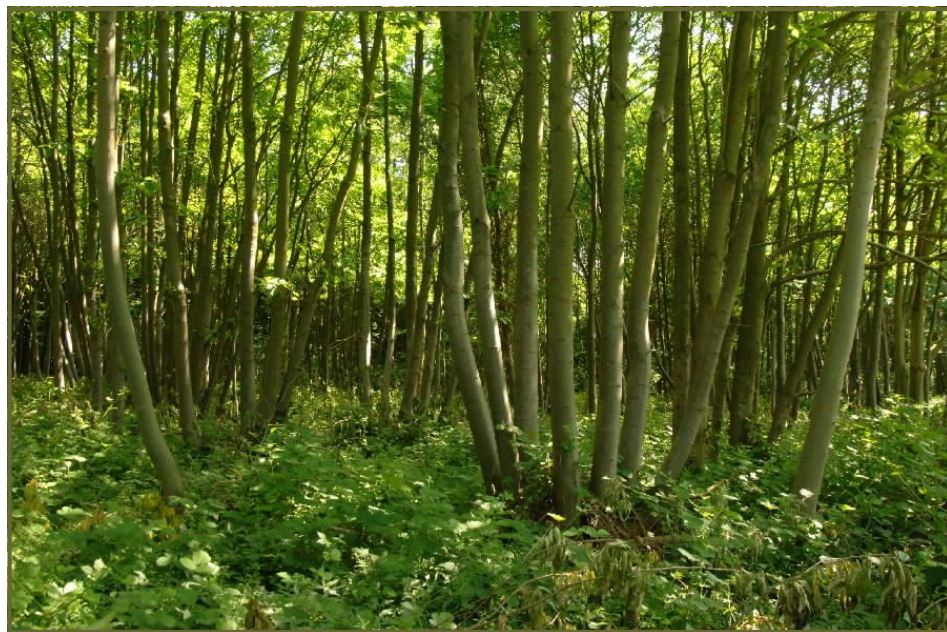
View of Bedgebury Pinetum and Forest from the air

6.3.2 Age Class Structure & Tree Species within the Woodlands

A third of the woodlands covered by this plan were planted in the 20-year period between 1948 and 1968 (see Figure 1 opposite). Twenty years later, a third of our woodland area blew over in the 1987 storm, resulting in the establishment of a new generation of trees during the early 1990's. Our woodland holding in the High Weald is therefore relatively diverse in age structure.

The main tree species found within our woodlands are Scot's pine, Corsican pine, oak, sweet chestnut, beech and birch. The pines account for approximately 40% of the area and the broadleaf species occupy 41% of the landholding (see Figure 2 on page 16). A smaller proportion of the woodland area (15%) supports other conifer species such as western hemlock, Douglas fir and Norway spruce, where most of the Norway spruce has been infected with Great Spruce Bark Beetle (*Dendroctonus micans*).

Approximately 4% of the area included in this forest design plan is open space, as shown on our GIS in 2009. However, this figure is likely to be a significant underestimate because much of the cyclical open space created by tree felling operations and the permanent open space that exists alongside roads, tracks, recreation facilities and ancient monuments is difficult to map.



Sweet chestnut coppice in the High Weald

Figure 1. Age Class Distribution of Forest Enterprise Woodlands within the High Weald at the Start of the Forest Design Plan - 2009

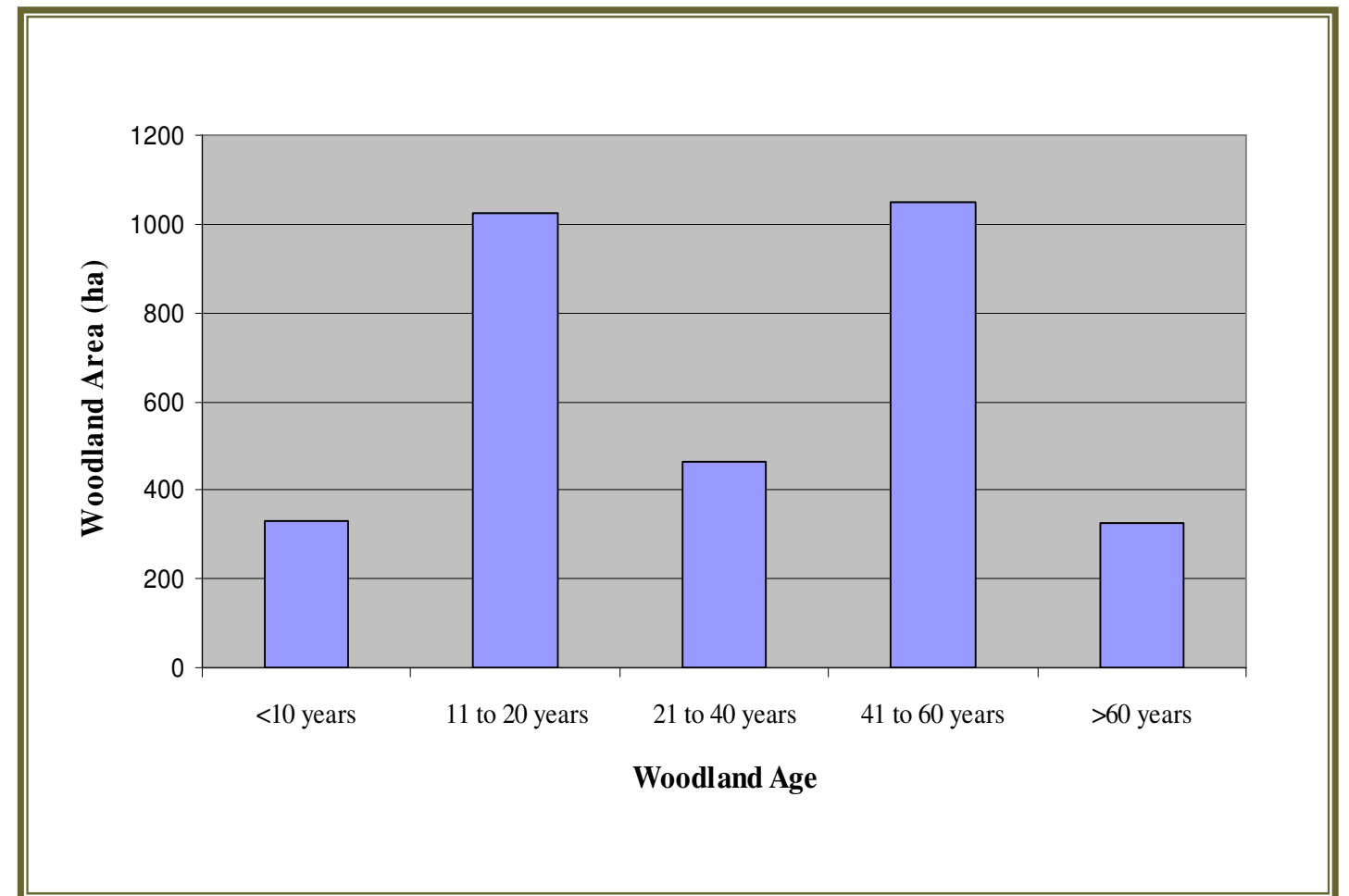
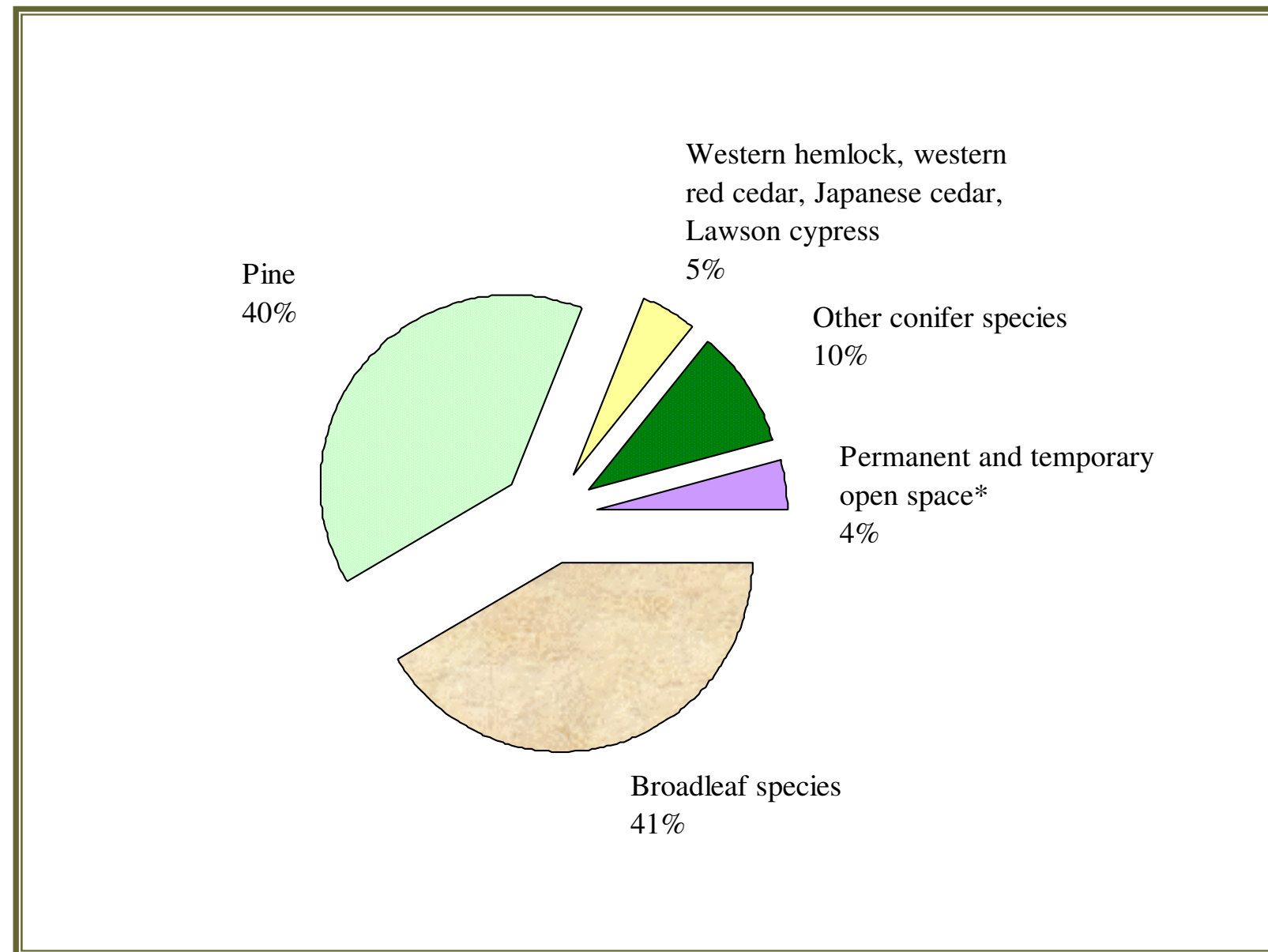


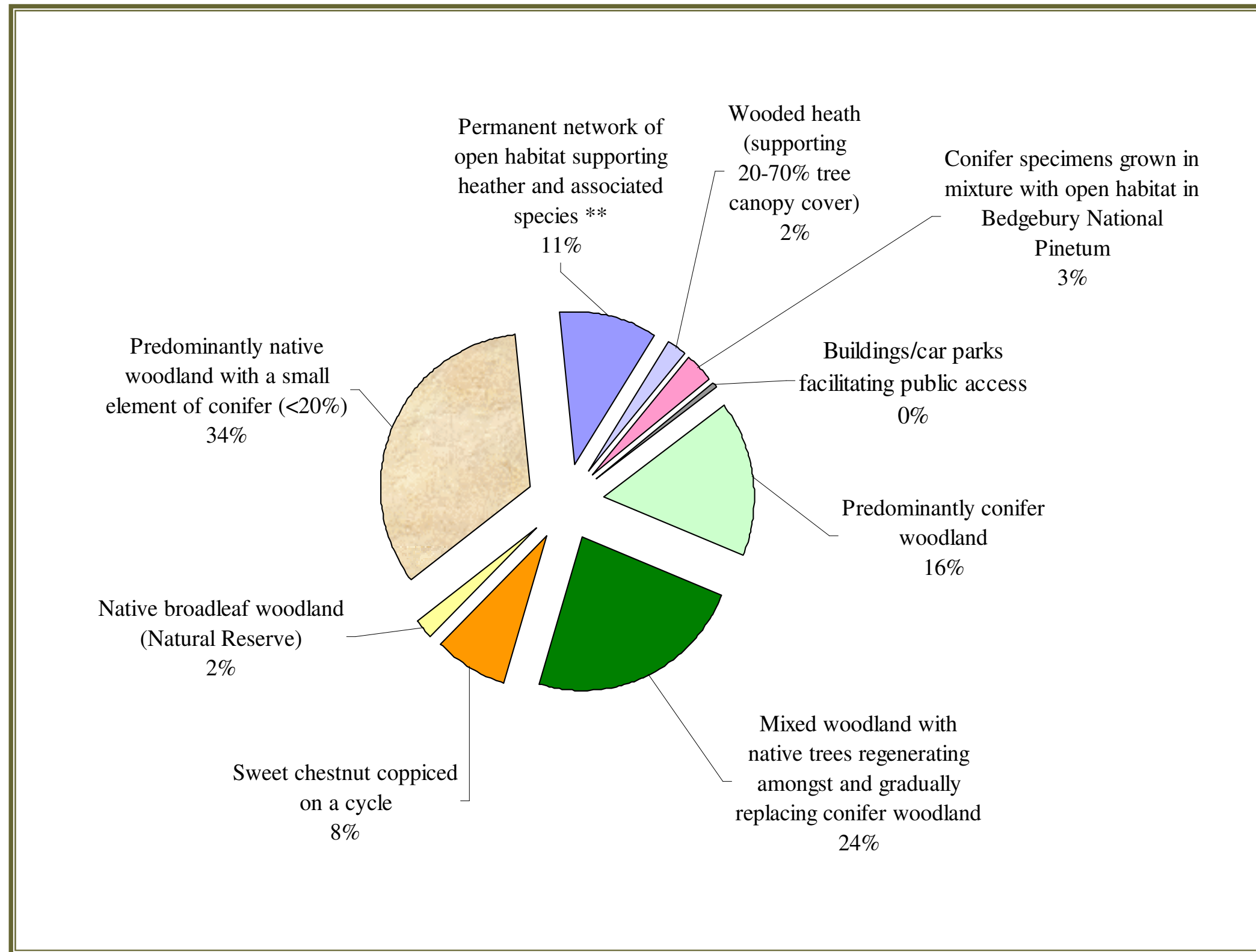
Figure 2. Habitat Composition of Forest Enterprise Woodlands within the High Weald at the Start of the Forest Design Plan - 2009



Source GIS.

* Permanent and temporary open space includes the open space created alongside roads, tracks and streams. It also includes the cyclical open space created by felling operations.

Figure 3. Habitat Composition within Forest Enterprise Woodlands in the High Weald at the End of the Forest Design Plan - 2039



Source GIS.

** Permanent open space includes the open space created alongside roads, tracks and streams. It does not include the cyclical open space created by felling operations.

6.3.3 Existing habitats and species

We want to make a significant contribution to the biodiversity and heritage value of the High Weald landscape through sensitive but effective management. A particular characteristic of the AONB is the great extent of ancient woods, with the High Weald supporting some 7% of all the ancient woodland in England. Characteristic woodland types include gill woodlands, shaws and extensive areas of coppice, which once provided renewable supplies of fuel for the Wealden iron industry. Many large forest areas, dating back to early medieval times, still cover extensive areas of the AONB.

The Forestry Commission woodlands in the High Weald support 2,240 hectares of Plantation on Ancient Woodland Sites (PAWS) and 805 hectares of Ancient and Semi-Natural Woodland (source: Natural England Ancient Woodland Inventory data January 2008. See Appendix 2: Ancient Woodland Maps). These ancient woodland sites total 95% of the total area (3195 hectares) covered by the forest design plan. The majority of the woodlands in the High Weald are characteristic of the National Vegetation Classification (NVC) Communities W10 and W16 (oak and birch woodland). Smaller areas of W8 (ash) woodland also exist.



Ancient woodland-lowland mixed deciduous woodland is among the richest habitats for wildlife in the lowlands.

During the Middle Ages, grassy heaths extended across the Tunbridge Wells sands to form a mosaic of heath and forest. This vegetation was maintained by the presence of grazing livestock and the cutting of bracken for use on cottage floors and as animal bedding. Evidence for this former land use can still be seen around St. Leonard's and Tilgate, although these heaths are now much diminished. Today, lowland heathland is a priority for nature conservation because it is a rare and threatened habitat. The UK has an important proportion (about 20%) of the international total of this habitat and the High Weald contains about 5% of all lowland heathland habitat in the UK.

6.4.1 Conserving Biodiversity

The Biodiversity Action Plan (BAP) is the UK's initiative to maintain and enhance biodiversity. Natural England and other organisations from across all sectors are committed to achieving the plan's conservation goals over the next twenty years and beyond. The UK BAP list contains 1,149 species and 65 habitats that have been listed as priorities for conservation action.

Forest Enterprise England makes a significant contribution to the UK BAP. The woodlands covered by the High Weald Forest Design Plan support eight main BAP Priority Habitats, which are listed in Table 2 on page 19. We are committed to delivering the Government's policy for England's ancient and native woodland and aim to prevent any further loss of the surviving wildlife and historic features that exist within our Plantations on Ancient Woodland Sites. Over the next 30 years, Forest Enterprise will contribute to the Lowland Mixed Deciduous Woodland Habitat Action Plan (HAP) by restoring over 2000 hectares of Ancient Replanted Woodland (PAWS) in the High Weald to native species (see Figure 3 on page 17). We will also maintain native woodland cover on sites that already support Ancient and Semi-Natural Woodland (805 ha).

This project, known as 'Woodscape', was launched in 2001 with the aim of gradually replacing conifer woodland on ancient woodland sites with native species such as oak and birch. It is, however, recognised that conifer trees have much to offer as a component within a woodland and a proportion (up to 20%) will be retained in some areas, as well as within small groups and as scattered individuals, to provide variety of habitat and landscape (see Figure 3 on page 17). To date, the Woodscape Project has focused primarily on the eradication of invasive species such as rhododendron, western hemlock and western red cedar, which regenerate readily and form a dense canopy over native ground flora.

Ancient and Semi-Natural Woodland (ASNW) and Ancient Replanted Woodland (PAWS) in the High Weald will be managed using a range of systems, including clearfelling, coppicing and regeneration felling (see 8.2: Silvicultural Systems on page 33 and Appendix 2: Design Concept Maps, Habitat Restoration and Felling Maps and Future Habitats Maps). This combination of management techniques will benefit species that depend upon woodland, e.g. dormouse, lesser redpoll and purple emperor butterfly. It will also provide open and edge habitat for species, such as nightjar and pipistrelle bat, through the creation of shifting areas of temporary open space that support early successional vegetation during the establishment of young trees (see Table 3 on page 20). Forest Enterprise has had considerable experience and success in managing its land under rotational forestry for nightjar, Dartford warbler and woodlark in the Thames Basin Heaths Special Protection Area (SPA). Details of this forest design plan are available from the Forest Enterprise office in Farnham, Surrey.