

6.6 Sites of Special Scientific Interest (SSSI's)

The area covered by the High Weald Forest Design Plan includes two SSSI's (see Appendix 1: SSSI Citations and also Appendix 2: SSSI Maps). They are St. Leonard's Forest (part) and Darwell Wood (Part). We will continue to work alongside Natural England and other partner organisations to maintain these valuable wildlife and geological sites in favourable condition.

St. Leonard's Forest SSSI

St. Leonard's Forest SSSI (84.5 ha) supports remnants of a formerly more extensive deciduous forest on the Tunbridge Wells Sands (Hastings Beds). Examples of high forest remain and the ground vegetation is still varied. The gill streams that have carved channels through the clay and sandstone support relic bryophytes that have survived from the 'Atlantic' period of some 5000 years ago. The woodland bird population is varied and includes some of the more local species of old woodlands. The woodland is also home to the rare purple emperor butterfly and a population of lily of the valley.

Management will aim to:

- Remove all western hemlock by 2009.
- Remove 95% of existing Scots pine by 2020.
- Encourage the regeneration of native broadleaf species.
- Encourage and maintain sallow as the main food plant for the purple emperor.
- Continue to remove invasive species such as rhododendron and portugese laurel.
- Maintain 10 hectares of open habitat for breeding nightjar. Open habitat within the SSSI will contain fewer than 10 trees per hectare and will include shifting areas of temporary open habitat created by clearfelling, coppicing and regeneration felling. It will also include patches of permanent open vegetation that is maintained in association with the network of roads and tracks.
- Remove larch from areas supporting lily of the valley and manage 100m of adjacent woodland to provide dappled shade. Control bracken in Lily Beds.
- Conserve veteran coppice oak and beech trees.
- Manage visitor access to reduce damage to native woodland ground flora.



Veteran beech in St. Leonard's Forest SSSI



Gill woodland in St. Leonard's Forest SSSI

Darwell Wood SSSI

Darwell Wood SSSI (37.6 ha) consists of a relatively large area of broadleaf woodland that is deeply dissected by a number of streams. The site represents the best example of hornbeam coppice with oak standards in Sussex and also supports a number of other nationally rare woodland types, including base rich springline alder woodland. A wide range of woodland birds also breed on this site and include woodcock, green woodpecker, sparrowhawk and tawny owl.

Forest Enterprise manages 2.8 hectares of the total 37.6 hectares. These areas previously comprised a mixture of pedunculate oak and Norway spruce, planted together in 1955. Since then, successive thinning operations have removed the spruce component and areas of failed crop have been replaced by naturally occurring broadleaves which have also reasserted within the planted crop. The sub-dominant species is ash but other naturally occurring broadleaves include alder, birch, hornbeam and goat willow. The Forest Enterprise part of the SSSI is bounded by a grassy ride on the western edge, a narrow overgrown access track on the south east and by semi-natural mixed broadleaf woodland to the north. The main part of the SSSI supports streams in steep sided valleys or gills. One of these streams rises on Forest Enterprise land and runs into a small gill before passing on through the wider SSSI beyond. A number of ancient woodland indicators are observed in the ground flora and the gill supports a high diversity of bryophytes.

Management will aim to:

- Maintain the extent of the semi-natural woodland (at least 95% native species).
- Thin the plantation oak on a cycle to favour good timber trees and encourage the natural regeneration of native broadleaf species, including ash.
- Retain all harvesting residues to provide fallen deadwood for invertebrates and woodland fungi.
- Conserve veteran trees and retain wildlife feature trees to benefit biodiversity associated with standing deadwood.
- Ensure that no harvesting takes place within 10 metres of each side of the stream in order to maintain a moist and sheltered micro-climate.



Darwell Wood SSSI

6.7 *Conserving Conifers at Bedgebury National Pinetum*

The National Pinetum at Bedgebury was established in 1925 by the Forestry Commission and the Royal Botanic Gardens at Kew. It now has the most complete collection of conifers on one site anywhere in the world and has been laid out so that the form, colour and texture of mature conifers can be readily seen.

Bedgebury Pinetum and Forest Plots occupy 130 hectares in the north-west corner of Bedgebury Forest and have a Grade II listing under the Register of Parks & Gardens of Special Historic Interest. This heritage dates back to Victorian times and there is an additional legacy of heritage trees throughout Bedgebury Forest. These plantings are in the form of avenues, groups and single trees. The Pinetum landscape is open and combines the management of a botanical collection of trees from all over the world with locally important grass and heathland. This diversity has resulted in a rich fauna and flora.

The long term objectives for the Pinetum and plots are to grow all of the conifer species that will grow in the UK (630 species) and establish ex-situ conservation collections of rare conifers. With 50% of the world's conifers threatened, this will be an internationally important scientific resource that will contribute to the 'Global Strategy for Plant Conservation', of which GB is a signatory. At present, Bedgebury supports 300 conifer species out of a total of 810 world-wide.

In order to achieve its objectives and to conserve the heritage and conservation value of the Pinetum, it will be necessary to expand the conifer collection into the adjacent forest. This forest design plan proposes to integrate the existing Pinetum with the surrounding forest by introducing individuals and groups of specimen plantings along the edges of roads and tracks (see Appendix 2: Bedgebury Forest Design Concept Map). In this way, visitors will be able to enjoy the conifers on a woodland trail whilst the ancient woodland interest of the wider forest is maintained.



Trail in Bedgebury National Pinetum

6.8 *Protecting our Woodlands*

The decline in active woodland management over the past 50 years and the consequent loss of habitat diversity is generally the biggest problem for woodland biodiversity in South East England and one that must be tackled through a range of methods. However, neglect of management is not the only threat to woodland biodiversity that needs to be tackled in the region. In many woods, deer populations are very high and their browsing destroys woodland wildflowers, shrubs and young trees. Further significant threats come from the introduced grey squirrel, which strips tree bark, preventing trees from reaching maturity and degrading their timber value. In addition, their predation of birds' eggs is thought to be having an impact on wild bird populations.

As part of our work in sustainable forest management in the High Weald, we will continue to reduce populations of deer and rabbits to sustainable, healthy numbers and keep damage to biodiversity, woodland regeneration and mature trees at acceptable levels. We may also choose to erect fences to exclude browsing deer and rabbits from areas containing young trees. We will continue to control invasive plant species and pay close attention to the spread of tree diseases.

Our woodlands will also be affected by climate change, in ways that will be difficult to predict. Long term planning will need to reduce the fragmentation of woodland habitats across the region to create more ecologically viable landscapes. The protection and creation of habitat networks where wildlife species can thrive may prove particularly valuable in the face of climate change.



Fallow deer along woodland edge

6.9 *Safeguarding our heritage*

All of the woodlands within this forest design plan contain evidence of previous occupation from the pre-Roman to early medieval periods. The High Weald is renowned for its importance in the early iron industry and archaeological evidence includes sites of charcoal making and iron ore mining, ore roasting hearths, furnaces, production waste, ponds and elements of the water system used to power the bellows and hammers of forges and furnaces.

Woodlands have played a vital part in the preservation of heritage features across the region and much of the archaeological interest has yet to be surveyed and identified. Forest Enterprise will continue to improve historic records through archaeological survey in St. Leonard's Forest, Tilgate Forest, Sheffield Forest, Funnels Wood and Bedgebury Forest. New information will be fed into the County Historic Environment Record and used to protect, sensitively manage and interpret these important reminders of how our ancestors used to live.

English Heritage is a statutory advisor to the Government that works with landowners to conserve and enhance the historic environment. Forest Enterprise staff liaise with the local English Heritage team and County Archaeologists to ensure that Scheduled Ancient Monuments are protected during forestry operations and managed in accordance with their associated management plans. Staff also seek advice on the survey and management of Unscheduled Ancient Monuments to protect local and regionally important sites from damage.



Earthwork in Bedgebury Forest