# Assessing and addressing the impacts of ash dieback on UK woodlands and species of conservation importance

## Case study 14 : Sapiston Grove

**Case study key facts**

Total area of woodland: ***c.* 30 ha**

Proportion of ash in canopy overall: **75%**

Woodland structure: **high forest**

NVC: **W8**

Vulnerable ash-associated species: **61**

Alternative trees and shrubs: **present but at low abundance and privet should be introduced**

Management: **establish privet using transplants; prevent deer browsing**

## Site and Location

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| **Name** | Sapiston Grove |
| **Country** | England |
| **Local Authority** | Suffolk |
| **National Character Area** | Breckland |
| **Landscape context** | The woodland is on flat ground which is entirely surrounded by intensively farmed agricultural land which also separates the site from the larger part of the SSSI. |

*Area of the stand that has been thinned twice but regrowth from coppice stools has been poor due to deer browsing* (photo R Harmer).

## Site Characteristics

**Woodland area**
Approximately 30 ha

**Woodland type**
NVC W8 ash – field maple woodland

**Soil type**
Poorly drained base rich clay

**Lithology**
Calcareous boulder clay

**Stand structure**
High forest with an overstorey cover of *c.* 85% overall with some small fenced areas managed as coppice with standards. The overstorey canopy comprises *c.* 75% ash, 20% oak and small amounts of birch, hornbeam, aspen, field maple and cherry. The ash canopy is generally provided by stems derived from coppice stools although there are some maidens and large old standard trees. The oak is present as old standards some of which are in poor condition or dead. The understorey is patchy and consists of large moribund hazel stools with some hornbeam, rare holly and hawthorn; other shrubs do not appear to be present. Shoots which have developed on hazel and other trees felled during thinning have been browsed by deer and remain poorly grown. Naturally regenerating trees and shrubs are very rare, but some juvenile (< 30 cm) ash, hawthorn and holly are present. Patches of bramble are developing across the site which has a substantial amount of grass cover.

## Biodiversity interest

**Designations**
The site forms part of a larger woodland SSSI (*c.* 110 ha) the some of which lays on more acidic soils that supports oak / birch woodland with hazel coppice and a variety of plantation species. The woodland is ancient and designated for its size and the variety of woodland types present.

**Vulnerable species likely to be affected**
A total of 61 species were identified as having a partial or stronger association with ash: most of these are lichens (24) and invertebrates (18), the remainder being bryophytes (13) with a few birds and one mammal. Only 5 species are obligately or highly associated with ash.

**Other species of conservation interest**
A variety of species of conservation interest are recorded on the NBN database and silver washed fritillary and white admiral butterflies have been seen recently.

## Management

**Historical**
Coppice with standards which became neglected during the 20th Century.

**Current**
Undergoing transformation to high forest which is managed by continuous cover forestry using natural regeneration. Light thinning across site 5-years-ago and again over much of stand 2-years-ago. Coppice management to remain in small areas. Deer culling soon to be replaced by a fence around the entire site.

**Long-term vision for site**
An irregular forest comprising a wide range of native species with all size-classes represented.

**Factors limiting delivery of management currently planned**
Red, muntjac and roe deer are having significant adverse effects which should be prevented following their exclusion by fencing. Poor tree and shrub species diversity. Growth of competitive vegetation inhibiting natural regeneration. Acute oak decline.

## Future methods of management

**Potential response of ash associated species to ash dieback**
The two obligate species will be lost and the future of the three highly associated species is uncertain; one appears to have no known alternative species and the only alternative for the others is privet which is not found at the site. Although the variety / abundance of alternative tree and shrub species at this site is poor, examination of a 10% sample of the species partially associated with ash (spread across the taxa) found that all could use oak and up to 6 more of the other tree and shrub species present.

**Continuation of existing management with loss of ash occurring**
Fencing the woodland to exclude deer is likely improve conditions for growth of shrubs and establishment by natural regeneration. However, as privet is not present in the woodland, and is unlikely to regenerate and spread quickly from seed introduced naturally, the loss of ash is likely to have adverse effects on the two invertebrate species highly associated with ash.

**Management allowing for loss of ash but maximising persistence of ash associated species**
As privet is unlikely to establish either reliably or quickly by natural regeneration from seed, planting will be the best way to support the populations of vulnerable ash associated species. The complete exclusion of deer should make the establishment of groups of privet scattered across the site a relatively simple operation, but management should follow best practice to ensure rapid growth and establishment (*e.g.* vegetation management will be necessary as competition from ground flora species such as bramble and grasses is likely to be significant). Although it can survive in shade it would be best established beneath light canopies in better drained areas of the stand.

**Factors likely to constrain delivery of future management to maximise persistence of ash associated species**
Long-term integrity of the deer fence around the wood.

**Potential for use of generic methods to establish alternative species**
As natural regeneration of privet is unlikely option 4 is the only one of these procedures which is likely to be successful as restocking is by planting.