

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

Case study 12 : Monks Wood



Case study key facts

Total area of site: **c. 160 ha**

Proportion of ash in canopy overall: **c. 60%**

Woodland structure: **high forest**

Vulnerable ash-associated species: **100**

Alternative trees and shrubs: **present but some at low abundance**

Management: **felling to reduce overstorey cover; prevent browsing damage by deer**

Site and Location

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| Name | Monks Wood |
| Country | England |
| Local Authority | Cambridgeshire, Huntingdonshire District Council. |
| National Character Area | Bedfordshire and Cambridgeshire Claylands. |
| Landscape context | The woodland is on flat land or gently sloping ground which is almost entirely surrounded by intensively farmed arable land within which there are few other woodlands. |



An area of pole stage ash with some larger oaks, and an understorey of hazel and hawthorn (photo R Harmer).

Site Characteristics

Woodland area

Approximately 160 ha including c. 8 ha of permanent grassland and glades.

Woodland type

NVC W8 ash – field maple woodland.

Soil type

Generally poorly-drained silty clay loams which are partially gleyed.

Lithology

Predominantly Oxford clay but with areas of more calcareous clays.

Stand structure

Although there is some coppice (c. 14 ha), and a managed ride system to create edge habitat and permanent open space, most of the site comprises unmanaged high forest with an overstorey canopy cover of about 80% overall. There are few large or old trees of any species, in general oaks are the biggest. Ash is more or less ubiquitous and pole stage ash provides about 60% of the overstorey. Other common overstorey species, which vary in abundance across the site, include oak, field maple and birch; groves of aspen are frequent in some areas and there are also some discreet patches of elm. Wild service tree is also frequent. The understorey is variable but generally well-developed mainly comprising old plants of hawthorn, hazel and blackthorn with some other shrub species including dogwood, spindle and small willows. Privet is also common in parts but is heavily browsed and of small stature. Groups of large saplings / small trees of ash and suckers of aspen also form part of the understorey in some areas. In recent years natural regeneration from seed has occurred within fenced coppice coupes with seedlings of ash, field maple and birch being recorded. The ground flora includes dense stands of *Calamagrostis* and pendulous sedge which is widespread and abundant. Deer have significant adverse effects in the woodland but these are declining in response to culling.

Biodiversity interest

Designations

This is an NNR (c. 160 ha) most of which is within an SSSI that was identified as being one of England's most important lowland woods.

Vulnerable species likely to be affected

There were 98 species identified in the database. The majority of these were only partially associated with ash: most being lichens (59) with 15 bryophytes, 12 fungi, 5 birds and 4 beetles. However there were 6 fungi and 1 beetle that were highly associated. In addition paper records for the site include 2 vulnerable moths, 1 obligately and the other highly associated with ash.

Other species of conservation interest

The site has been well studied and a wide variety of interesting species from many taxa have been recorded and it is well-known for its invertebrate fauna.

Management

Historical

Traditionally coppice with standards but much of the site was clearfelled during the 1920's. Subsequently there has been little management of the regenerated stand, but small areas of coppice have been cut since it became an NNR.

Current

High forest management with the minimum of interventions to allow natural stand development. Maintain the small area of coppice using a 25-year rotation and manage rides to create structurally diverse habitats.

Long-term vision for site

Mixed broadleaved woodland comprising the same mixture of species and range of habitats as currently present.

Factors limiting delivery of management currently planned

Damage caused by deer.

Future methods of management

Potential response of ash associated species to ash dieback

Five of the vulnerable fungi can use 3 – 6 of the common trees and shrubs on the site as alternatives and adverse effects on these may be limited. In contrast there appear to be no alternative trees and shrubs either on site or elsewhere for the other vulnerable fungus (*Crocicreas dolosellum*). However, it does live on the dead stems of *Chamerion* and *Epilobium* species, some of which are common herbs that are often found in woodlands and have been recorded at this site. Each of the other two highly associated species have only one alternative at the site. The beetle (*Hylesinus crenatus*) can use oak, but is also known to use walnuts and is likely to use red and turkey oak. The moth (*Ennomos fuscantaria*) can use only privet. The obligate moth will disappear.

Continuation of existing management with loss of ash occurring

Although loss of ash will have a significant effect on the structure of the stand most of the vulnerable species will probably survive as there are several common alternatives for each. Most of the oaks are relatively young and if they continue to grow and reproduce then *Hylesinus crenatus* is likely to persist. Although privet is present it is susceptible to browsing and it is unclear whether current deer management will improve conditions for its growth.

Management allowing for loss of ash but maximising persistence of ash related biodiversity

Most of the vulnerable species are likely to benefit from active management of the woodland using standard forestry practices to improve conditions for growth and regeneration of alternative species. These would include thinning, group or patch felling and coppicing which will encourage growth of the understorey, including privet which is a relatively light demanding species. The long-term prospects for the beetle could be improved by introducing other alternative species. It will be necessary to establish these by planting which could take place in areas where felling has taken place. However reducing canopy cover by felling will promote growth of the ground flora and close attention to the management of competitive vegetation will be necessary. The introduction of new alternatives will need to be carefully considered as they are not native species. Improving conditions for the growth of privet or the introduction of new alternatives will require good deer management over a prolonged period of time to prevent excessive browsing. If this cannot be achieved then protection by fencing or other means will be necessary.

Factors likely to constrain delivery of future management to maximise persistence of ash associated species

Damage caused by deer browsing. Competitive ground flora.

Potential for use of generic methods to establish alternative species.

If new alternative species are required then felling and replanting (option 4) is the only suitable choice.

Any of the other options could probably be used but the outcome will depend on the effectiveness of deer management.