

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

Case study 6 : West Williamston



Case study key facts

Total area of woodland: c. **12 ha**

Proportion of ash in canopy overall: **80%**

Woodland structure: **high forest**

NVC: **W8 and W9**

Vulnerable ash-associated species: **5**

Alternative trees and shrubs: **common within the stand**

Management: **create gaps of suitable size for natural regeneration or planting**

Site and Location

Name	West Williamston
Country	Wales
Local Authority	Pembrokeshire
Landscape context	This is an estuarine woodland at the confluence of two rivers that is dissected by tidal creeks which isolate some parts of the woodland. Much of the site is bounded by saltmarsh with the remainder adjoining cattle and sheep pasture or private grounds. There are few other woodlands in the locality and most of these are ash woods.



A single large, old tree and many young maiden ash remain in an area that has been thinned (photo R Harmer).

Site Characteristics

Woodland area

Approximately 12 ha

Woodland type

Secondary ash woodland, probably developing into NVC W8 or W9

Soil type

Calcareous and generally well-drained.

Lithology

Limestone

Stand structure

High forest with a canopy cover of about 90% overall. There are a few large old ash, beech and oak trees with characteristics of open grown trees, and some very large stools of coppiced sycamore but the site is dominated by much younger maidens perhaps 50-60 years-old. The overstorey comprises about 80% ash with beech and sycamore providing a further 5 - 10% each, and a little oak. The understorey is poorly developed with an overall cover of c. 20% predominantly of hawthorn and holly, but with some blackthorn, elder and small ash trees. There are some patches of juvenile ash (< 1.3 m) but natural regeneration of any species is rare, but this may be related to current conditions within the stand which has not been actively managed. There is a well-developed ground flora which is dominated by bramble, ferns and ivy. Blackthorn thicket occurs around the edge of the stand.

Biodiversity interest

Designations

The site forms a small part of the much larger Milford Haven Waterway SSSI (c. 2200 ha).

Vulnerable species likely to be affected

Few ash associated species have been identified within the database for this site and all five are bryophytes with a partial association.

Other species of conservation interest

The largest population of brown hairstreak butterfly in Wales is found at this site. Although this butterfly is closely linked to ash, with adults often living high in the tree's canopy, within the database it is only recognised as using ash rather than being either obligate, highly or partially dependent.

Management

Historical

The site comprises secondary woodland that has developed on spoil from limestone quarries worked until the about the middle of the 20th century.

Current

Since 1979 the site has been managed support the brown hairstreak butterfly by creating blackthorn thicket of varying age around the edges of the woodland. A small area of the stand has been thinned recently.

Long-term vision for site

A multi-storied high forest with a range of size / age-classes that is dominated by ash with a thriving population of brown hairstreak.

Factors limiting delivery of management currently planned

Access to and across the site.

Future methods of management

Potential response of ash associated species to ash dieback

All of the species are only partially associated with ash and adverse effects are unlikely to be severe as all can use both beech, sycamore and hawthorn which are common species within the stand.

Continuation of existing management with loss of ash occurring

In the short to medium term, the ash associated species are unlikely to be lost as they can use many of the woody species currently present on site as an alternative. If thinning continues and conditions for natural regeneration improve then the abundance of species already present may increase, but this is not certain as the development of the ground flora may prevent seedling establishment.

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

The variety of alternative trees used by the ash associated species suggests that ordinary woodland management practices should ensure long-term survival of these species. Management should be possible using standard forestry practices such as thinning or group felling to promote growth and provide conditions suitable for restocking, and vegetation management to allow establishment of either transplants or naturally regenerated seedlings. An increase in diversity can be achieved by introducing new tree and shrub species that can also act as alternatives for ash associated species.

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

Access to and within the site for harvesting and extraction. Development of an unfavourable competitive ground flora.

Potential for use of generic methods to establish alternative species

In the short to medium term any of the options could probably be used, but in the longer term options 4 and 6 are likely to be most effective as there is active management to promote development of overstorey species.