Wider application

There is a deep-seated conflict in many urban woodlands between the desire for more wildlife and the tendency to be over-tidy. In all elements of the urban forest - new plantations, tree-rich parkland and relict woodland - the wildlife would usually benefit greatly from an increased presence of dead wood and decay. The techniques employed in Priory Wood can serve as a model for many other urban landscapes.

Further information

National Urban Forestry Unit

This leaflet is one of a series produced by the National Urban Forestry Unit. NUFU is a charitable trust and it provides a national focus for the exchange of information and good practice in urban forestry. If you would like further information on other case studies, or if you have examples of good practice to share with others, please contact:

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The Wildlife Trusts

The Wildlife Trusts partnership is the UK's leading conservation charity exclusively dedicated to wildlife. Its network of 47 local Wildlife Trusts and its junior branch, Wildlife Watch, work together to protect wildlife in towns and the countryside. The Wildlife Trusts care for over 2 400 nature reserves from rugged coastline to urban wildlife havens. With more than 382 000 members, and unparalleled grass roots expertise, The Wildlife Trusts lobby for better protection of the UK's natural heritage and are dedicated to protecting wildlife for the future.

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Further reading

Birmingham & The Black Country Biodiversity Action Plan Steering Group (2000) ***Bioidiversity Action Plan for Birmingham and the Black Country***

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Read HJ (ed) (1991) ***Pollard and Veteran Tree Management*** **(Proceedings of a meeting held at Burnham Beeches, Buckinghamshire, hosted by the City of London)**

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Urban Forestry in Practice

Dead wood, decay and urban wildlife

CASE STUDY 32

Dead wood, decay and woodland wildlife

Introduction

Dead wood and nature conservation

Dead wood plays a vital role in any healthy woodland ecosystem. Organisms of decay such as fungi and wood boring insects are important in their own right, but they are also critical to the success of many other species.

The value of ancient woodland in urban areas

Urban areas can contain a wide variety of woodland types, from new plantations to remnants of ancient forest. Ancient woodland habitats are often particularly rich in dead timber and they are not uncommon in urban areas. Habitat loss makes evaluation and conservation of any remaining sites very important, since their neglect can damage general biodiversity and reduce community benefit. With careful management they can usually be improved as wildlife habitat, with dead wood playing a major role in any success.

Techniques for enhancing the biodiversity of woodland

Biodiversity planning methodology developed through English Nature and the *Veteran Trees Initiative* includes the preparation of management plans for individual trees, their associated species and the surrounding habitat. Recommended practice includes the following:

- Retain dead wood within the woodland
- Ideally, leave fallen deadwood where it falls, but if it must be moved, it should be placed as near as possible to its point of origin and in a position favourable for colonisation by invertebrates and other wildlife
- "Replant" dead or cut trunks in a vertical position in suitable pits
- Stack fallen dead branches in partly shaded areas of the woodland
- Pollard mature trees, rather than coppicing them, since it encourages the development of thick trunks which are likely to contain deadwood, rot holes and sap runs and which may survive for centuries
- Retain some dense understorey and some open glades. These are desirable, since many invertebrates benefit from shade and shelter, but also need pollen-bearing flowers within their territory

Specific example

Project name and location

PRIORY WOOD, Sandwell Valley Country Park,
WEST BROMWICH, West Midlands
Grid reference SO 020915

Project partners

- Sandwell MBC
- Sandwell Valley Field Naturalists' Club
- The Wildlife Trust for Birmingham and the Black Country

Decay in the heart of a mature tree is natural, and the dead wood supports a great variety of specialist plants and animals

The rhinoceros beetle grows up to 30mm in length and it has larvae which burrow into dead wood. It is one of the more spectacular insects to be found in Priory Wood

Project objectives

- To manage a small area of ancient woodland in order to safeguard biodiversity in general, and invertebrates in particular
- To establish pedestrian routes in order to improve public access and enjoyment

Site description

Priory Wood is a 10ha ancient woodland adjacent to the centre of West Bromwich. It is typical of the relict broadleaved woodland of the West Midlands, with a canopy dominated by oak. A survey of woodlands in the Black Country has shown that nearly one fifth of invertebrate and fungus species in the region are associated with dead wood. Priory Wood surrounds the site of the demolished Sandwell Hall and a much earlier Benedictine priory, and still contains a number of ancient trees. The area has a popular nature trail and is managed by Sandwell Metropolitan Borough Council's Countryside Management Unit.

Project design

Partners were consulted on the management needs of the wood and the site's extensive ecological records were used to inform the following strategy for habitat improvement:

- Some 5ha of the wood were intensively managed and a further 3ha were opened up to enable better development of good quality maturing deciduous trees
- Certain mature and over-mature trees were identified as important habitats for scarce invertebrates
- Significant numbers of young trees (mostly sycamore) were removed to favour selected maturing trees and to introduce more sunlight to the woodland floor
- Large amounts of rhododendron were removed in order to enable the re-establishment of a traditional woodland ground flora
- Hazardous trees close to public footpaths were made safe through branch removal and selected felling
- Selected areas were left unmanaged and undisturbed as insurance against loss of important existing wildlife
- A few trees were pollarded to increase the standing dead wood habitat
- All dead and decaying timber was left on site and a certain amount of standing dead timber was retained in areas remote from public access
- A new system of footpaths was designed, taking into consideration different aspects of the newly managed wood

Results

- Access within the wood has been greatly improved, and this is making the directing of visitors and the monitoring of habitats easier
- Several insect species indicative of ancient woodland have been newly recorded on site. These include the hoverfly *Bracyopa pilos*a and the beetle *Abdera quadrifasciata*. *Bracyopa* larvae live in rotten wood, whilst adults are often found visiting sap runs. *Abdera* larvae also live in rotten wood and they are particularly associated with hornbeam, but also occur in oak, beech and horse chestnut