NORFOLK BIODIVERSITY ACTION PLAN

NATIVE BLACK POPLAR

Ref: L/S1	Local Species Action Plan 1
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(Populus nigra ssp betulifolia)

The native black poplar was formerly a component of floodplain woodland but now occurs as isolated specimens in wet meadows, along hedgerows, beside farm ponds and near to rivers. It seldom reproduces naturally and its current distribution reflects the once common practice of striking cuttings around farms. It has been in decline for the last 200 years and is now rare. Most surviving trees have reached old age and mortality rates are high.

1. CURRENT STATUS

National Status

- There are an estimated 7,000 native black poplars in Britain, chiefly occurring south of a line from the Mersey to the Wash. Many of these are believed to be genetic clones, so there are probably considerably fewer distinct genotypes. The tree has strongholds in Shropshire, Cheshire, the Vale of Aylesbury and Suffolk. The vast majority of the trees have reached maturity and there has been very little planting of new trees until recently. Female trees are particularly rare, with an estimated 400 nationally. Seed germination is restricted to the unvegetated banks and bars of low intervention river systems. Britain's well-managed rivers have lacked suitable habitats for centuries. Consequently, the current population reflects former planting preferences rather than any natural distribution pattern, and it is not surprising that genetic diversity is low. Hybrid crosses of the European black poplar (*Populus nigra ssp typica*) and the American cottonwood (*Populus deltoides*) have been extensively planted in place of the native tree over the last 200 years. There has been much mis-identification of hybrids as natives and vice versa.

Norfolk Status

- Formerly more common in Norfolk, now approximately 70 mature trees survive. Of these, just one is female. Many trees are in poor condition and mortality rates are high, with about a third of all the trees ever recorded now gone. There are known to be some young and medium aged trees but distinguishing them from hybrids can be difficult. Some young trees supplied from nurseries as native have turned out to be hybrids. Much of the new planting has not been recorded in terms of site or source.

History

- Poplar pollen is seldom recorded in the pollen record because of its susceptibility to decay.

  Fourteenth century records from the Norfolk-Suffolk border record black poplar growing on the margins of the Breckland Fens. Tusser in his 1573 poem "The Owl and the Nightingale" records how black poplar was often pollarded "lop poplar and sallow, elme and prie".

  Black poplar appears always to have been a tree of hedges and open spaces. It has apparently never been a woodland tree.

Protection

- Section 13 of the Wildlife and Countryside Act 1981, as amended, prohibits the unauthorised uprooting of any wild plant species. Black poplars are not on Schedule 8 of the Act (those protected from any picking, uprooting or destruction) and only benefit from the general protection mentioned above.

  Some trees may be protected using Tree Preservation Orders under the Town and Country Planning (Trees) Regulations 1999. These are normally only served where it is known that a tree is under threat from felling. Some trees may lie within Conservation Areas associated with villages and flood meadows and would be afforded some protection. A felling licence (Forestry Act 1967) may be required if a landowner wished to fell a number of trees.

  Where a black poplar grows within a hedgerow, the Hedgerows Regulations 1997 would afford some protection to the tree and hedge.

2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- Loss of both natural river systems and unstable floodplain sediments results in an absence of suitable habitat for natural regeneration.

- The lack of native male trees in close proximity to native females means there is very little opportunity for fertilisation. There is only one female mature tree in Norfolk.

- The presence of large numbers of hybrid trees means that seed from female trees is very likely to be hybridised.

- The trees are often large, isolated specimens; as a result, there are high losses from natural factors such as old age, drought and windblow.

- Fallen trees which would otherwise survive in situ or regenerate from the stump are often removed.

- The widely dispersed population makes site based conservation more difficult.

- Widely available and commercially preferable hybrids have been planted in preference to native stock for the last 150 years.

3. CURRENT ACTION IN NORFOLK

- Norfolk County Council holds a central register, and has compiled a list of where trees are, and are being planted.

- Dissemination of information to owners of trees takes place on an ad hoc basis.

- A collection of cuttings from recorded trees has been established at a clone-bank at Morley.

- A number of trees have been propagated from recorded sources for planting locally. The location of some of this planting is recorded, and occasionally, the source tree is identified. Such planting is grant aided by the County Council.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- There is no national action plan for this species.

Norfolk

- Conserve the existing stock of 70 mature trees.

- Distribute at least 150 rooted cuttings by the end of 2008.

Native Black Poplar - Norfolk Action Plan

ACTION		RESPONSIBLE AGENCIES		TIMETABLE				
		Lead	Partner	2004	2005	2006	2007	2008
5.1	**Policy and Legislation**							
5.1.1	Promote the investigation of at least one site for a naturally regenerating floodplain woodland.	FC	EA, NCC, EN, DEFRA	*	*	*	*	*
5.2	**Site Safeguard and Management**							
5.2.1	Maintain an up to date register of all trees and historic sites. Continue to identify landowners.	NCC		*	*	*	*	*
5.2.2	Add native black poplar locations to planning authority GIS system/plotting sheets and NBRC GIS layer.	LAs, NBRC		*	*	*	*	*
5.2.3	Use TPOs for threatened trees.	LAs		*	*	*	*	*
5.2.4	Encourage owners to plant cuttings near to their existing tree(s) where practical. Provide owners of trees with advice on care of trees and any grant aid available.	NCC	LAs, FWAG, DEFRA	*	*	*	*	*
5.3	**Species Management and Protection**							
5.3.1	Get cuttings from as many trees as possible into clone-bank collections.	NCC	LAs, FWAG, EA	*	*	*	*	*
5.3.2	Seek to fence/protect dying/ fallen trees to encourage natural regeneration/sucker growth.	NCC	LAs, FC, FWAG, DEFRA		*	*	*	*
5.3.3	Set up and maintain clone-banks as necessary. Maintain records and identify gaps.	NCC		*	*	*	*	*

Native Black Poplar - Norfolk Action Plan

ACTION		RESPONSIBLE AGENCIES		TIMETABLE				
		Lead	Partner	2004	2005	2006	2007	2008
5.3.4	All trees have codes. Develop a label and code scheme for clone-bank stock material available for planting. Ensure planting record sheets are handed out with cuttings.	NCC		*	*	*	*	*
5.3.5	Encourage commercial nurseries to supply appropriate stock. Supply them with cuttings for establishing clone-banks in return for rooted cuttings.	NCC		*	*	*	*	*
5.3.6	Identify suitable sites for new planting.	NCC	LAs, EA, DEFRA, FWAG, FC	*	*	*	*	*
5.3.7	Investigate potential for funding Norfolk Black Poplar projects, eg floodplain woodland.	NCC	LAs, FC, DEFRA			*	*	*
5.4	**Advisory**							
5.4.1	Produce a leaflet for all owners of existing trees highlighting their importance, techniques for conservation, propagation and planting.	NCC			*	*		
5.4.2	Offer guidelines on propagating and planting new trees.	NCC	LAs, FWAG, DEFRA	*	*	*	*	*

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ACTION		RESPONSIBLE AGENCIES		TIMETABLE				
		Lead	Partner	2004	2005	2006	2007	2008
5.5	**Future Research and Monitoring**							
5.5.1	Keep up to date with research findings from DNA and environmental studies, and incorporate these into the BAP process.	NCC		*	*	*	*	*
5.5.2	Investigate the number of distinct clones in Norfolk and consider the merits of increasing genetic diversity in the county.	NCC				*	*	*
5.5.3	Monitor the loss of recorded trees.	LAs		*	*	*	*	*
5.5.4	Maintain central records of location and source tree for as much new planting as possible.	NCC		*	*	*	*	*

MANAGEMENT GUIDANCE

Rooted cuttings of native black poplar are available in small numbers from Norfolk County Council, for planting back into the general area from where the source material originated. The following factors should be taken into consideration:

- Planting sites must be in full light with good moisture supply. Black poplar is not a woodland tree and it will not tolerate side shade or being in a mixture with other species;
- Sensitive sites near drains, underground services, roads, or buildings on shrinkable soils should be avoided;
- Female trees should be placed carefully so that seed fluff does not become a nuisance;
- Black poplars can become very large when mature, and like other poplars, may shed limbs of significant proportions;
- Where space is restricted, pollarding is an option after approximately ten years and subsequently at five to ten year intervals.

REFERENCES

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