



Black Poplar

Species Action Plan for Sussex

**Sussex
Biodiversity
Partnership**

Species Action Plan for Sussex

Black Poplar



Black Poplar

Populus nigra ssp betulifolia

I. Introduction/ Current Status

I.1 Habitat requirements and ecology

The Atlantic form of black poplar *Populus nigra* subspecies *betulifolia* is a tree of wet woodland and forested floodplain. In Britain these habitats have been steadily removed since Neolithic times, through land drainage and woodland clearance, and the black poplar remains as an occasional tree of field, hedgerow and bankside. The persistence of black poplar in the landscape is due largely to its utility as a timber tree and it was widely cultivated until the mid 19th century, when more productive hybrid strains were introduced from abroad.

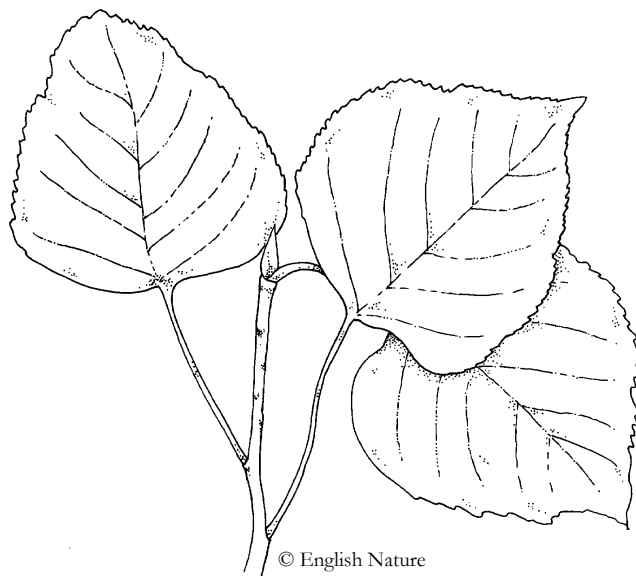
The black poplar is historically a significant tree in Britain and once played a substantial role in local economies and culture. In some parts of the country it was used in traditional village tree dressing events and spring fertility festivals. Black poplar timber is particularly shock and fire resistant. It was widely used in wagon bottoms, for scaffolding, fence posts and in the roofs of buildings. The typical cultivation practice was to cut and plant truncheons from local, usually male, trees. Female trees were less favoured because they produce copious amounts of fluffy seed. Virtually all black poplars remaining in Britain date from before 1850, as very few have been planted since that time. Those poplars that are now commonly planted in the UK are invariably of hybrid stock.



The black poplar is a robust, broadly rounded tree, which can grow to a height of 30 metres, with a crown of 20 metres and a trunk diameter (at breast height) of up to 250cms. Mature trees are most easily recognised from a distance, especially in winter. They often lean at an angle and have dark grey deeply furrowed bark, usually interrupted by large woody swellings or bosses. The crown is typically spreading and older trees often have down-curving branches, upswept at the tips. Young leaves generally open in late April, are pale green, occasionally tinted bronze at first, and have a distinct aroma. Mature leaves are mid-green and variable in size and shape, but they usually have a cuneate base and the leaf is longer than it is wide. The leaf margins are serrated but teeth are usually not hooked. Petioles have no glands at the apex.



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The black poplar is dioecious (has male and female plants) and catkins appear before the leaves. The male catkins are crimson and appear in late March or early April. Female catkins are yellow-green and appear shortly afterwards. Black poplars can live for over 250 years and there are historical records of extant individuals dating back to before 1715 (White, 1993).

1.2 Current distribution in Europe, UK and Sussex

In Europe, the Atlantic form of black poplar is confined to Britain, Ireland, Northern France and parts of Western Germany. The boundaries of the distribution of this subspecies from the continental type species *Populus nigra*, are indistinct due to naturalisation and have been much obscured by artificial cultivation (White, 1993).

Black poplar is considered to be native to Britain (Stace, 1991) and most trees are found south of a line from the Mersey to the Humber estuaries, with a few scattered individuals occurring as far north as the River Tees (Milne-Redhead, 1990; Durham WT, 2000). The black poplar is widely spread within this range but latest estimates indicate that there are less than one hundred clones and some 7000 individuals. The greatest concentration of black poplars occurs in the Aylesbury Vale, which holds approximately half of the British population. There are concentrations in the low hundreds along the River Severn as well as in Somerset, Suffolk and Shropshire.

In Sussex, 34 individual trees have so far been identified (Penfold pers.com.). Unfortunately, one of these trees was recently lost to old age, so there remain only thirty-three mature examples. Although the number of black poplars in the county is low, it is likely that this population is significant on a national scale as it contains an unusually high female to male ratio (Le Ray, 1999) of approximately 1:1.

1.3 Legal and conservation status

The unauthorised, intentional uprooting of any wild plant species, which includes black poplar, is prohibited under the Wildlife and Countryside Act (1981). (www.jncc.gov.uk/species/Legislation/protect/animals.htm)

In some areas of England individual black poplar trees are protected by Tree Preservation Orders, though there are few in Sussex.

Black poplar is one of only three tree species included within the European Forest Genetic Resources Programme (EUFORGEN). This is a collaborative programme among European countries aimed at ensuring the effective conservation and sustainable utilisation of forest genetic resources. Funding for this programme comes from participating countries operating through networks such as the *Populus nigra* network, whose first meeting was held in 1994.

There have been recent calls to designate ancient trees as Sites of Special Scientific Interest (Green, 2001).



2. Current Factors Causing Loss or Decline

Habitat degradation

Loss of suitable habitat, through agricultural improvement, river and floodplain development and wetland drainage schemes, mean that very few areas now provide suitable conditions for the natural regeneration of native black poplar.

Demography

The majority of surviving native black poplar are approaching the end of their natural life spans. Outside of recent conservation programmes, there have been few new plantings in the last 150 years and virtually no new non-hybrid seedling development.

Taxonomy

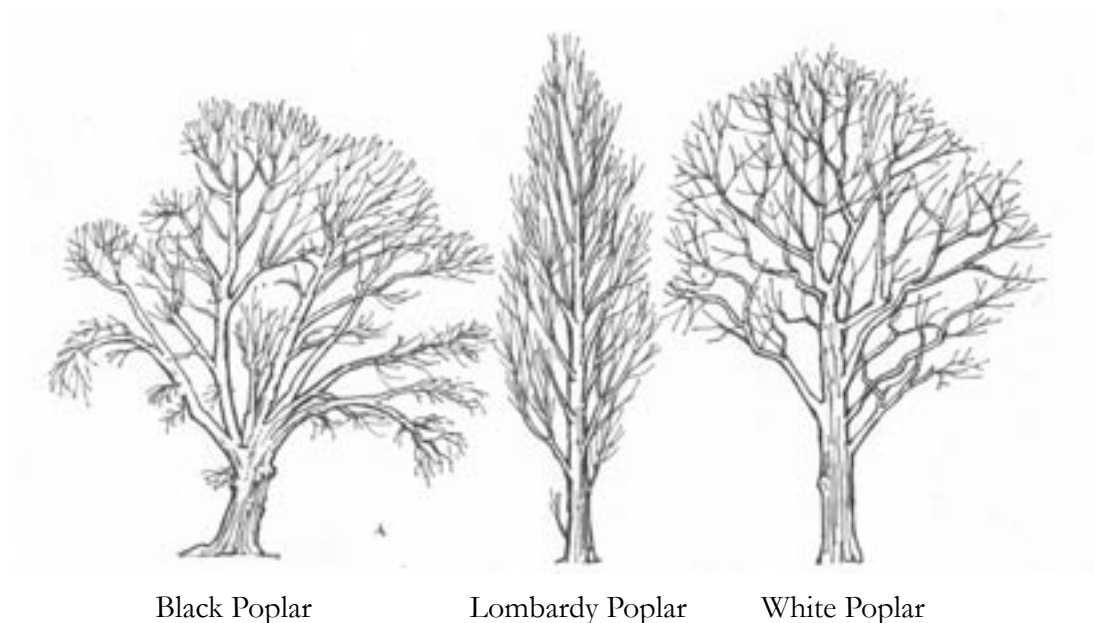
Difficulties in distinguishing native from hybrid black poplars have caused problems in establishing the exact status of the tree. It has also increased the risk that non-native hybrid seed/whips may be sold and planted in error.

Genetic diversity

Lack of genetic diversity is a potential problem, as this species may now be particularly vulnerable to chance extinction events. The genetic analysis that has been undertaken to date suggests that individual trees across Europe are all very closely related, and lack much DNA distinction between trees.

Poor natural sexual regeneration

Seedlings of black poplar are very uncommon, not so much because of the lack of fertile seed but because the conditions for germination, on the very limited range of sites, is rarely suitable. The short-lived windblown seeds need to fall onto ground that is kept both bare and wet and free of competition from the end of June until October. Any flooding or drought (more common now that much land is drained) occurring during this period causes seedlings to perish. Where conditions do allow seedlings to germinate these are likely to be hybrids, as pollen contamination from cultivated varieties is probable.



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Black Poplar scab

During the summer of 2000 a virulent disease hit the Manchester black poplars. The disease was initially diagnosed as the fungus poplar scab/blight *Venturia populina*/ *Pollaccia elegans*, which in most cases leads to death over a three year period. Until recent years, there were no known cases of *Venturia* south of Cumbria, although there have been regular cases in Scotland for a number of years.

The disease affects both the American and native black poplar and there are a few instances of it affecting Lombardy poplars. To date it seems to have mainly attacked the Manchester black poplar clone, however this clone is thought to be genetically very closely related to many of the other British black poplars.

The disease requires a wet/humid period of 14 days in April in order to be able to infect a tree, and has been known to spread several kilometres. The disease can be identified by a thinning of the crown in mid May – June, and shoots become blackened and curled. Although currently there are no known cases of the disease south of Manchester, it is possible that Sussex poplars may become infected in the future. Localised populations can be treated with fungicide, however on a landscape scale this is unrealistic and would be environmentally damaging.



3. National Species Action Plan

An un-adopted National Species Action Plan (SAP) for black poplar has been written by English Nature (Spencer, 1994) and is currently under review by the National Black Poplar Working Group, Technical.

The Key Proposals for Action and Recommendations put forward in the English Nature plan are:

- Map, record and monitor the localities of all remaining black poplars in Britain
- Provide trees of local provenance for planting
- Maintain the genetic diversity of black poplar stocks within the UK
- Establish nursery stocks across the country with trees of known and verified origin
- Establish a procedure for recording the origins and placement of recently planted trees
- Campaign to protect the tree from unnecessary destruction, by local authorities and others
- Encourage the planting of black poplar in restored floodplain woodland and in denser stands in small blocks in some areas, e.g. river meanders
- Avoid planting, especially dense stands, where inappropriate, e.g. where this will undermine the historical value of the site
- Encourage black poplar plantings, particularly in new landscapes such as parts of new developments or land restoration schemes
- Encourage English Nature, Forestry Commission, Environment Agency and others to undertake sympathetic management of black poplar trees and their habitats
- Encourage the publication of material to raise the profile of the species
- Encourage the production of educational resource material for national and local distribution
- Encourage research on the genetic diversity of black poplar
- Seek funding for initiatives from Forestry Commission and others

4. Current Action

The status of the black poplar in Britain was first assessed by the Botanical Society of the British Isles in a survey carried out from 1973-78 (Milne-Redhead, 1990) but its endangered status was not recognised until 1993 (White, 1993). The plight of this species was highlighted in that year by the Daily Telegraph newspaper in their “Help save our biggest tree from the chop” campaign, with the result that several hundred unknown trees were reported.

A National Black Poplar Group was originally set up by the Forestry Commission. More recently, the Vale of Aylesbury Black Poplar Working Group has been renamed the National Black Poplar Working Group, Technical. The group largely consists of land managers and practical workers and works in conjunction with academics to promote the national conservation of the species.

The Forestry Commission has built up a clone bank of black poplars and currently 100 accessions are being held at three separate sites (for security reasons). A number of local Black Poplar Species Action Plans have been produced (e.g. Essex WT, 1999; London BP, 1999; Worcestershire WT, 1999) and several nursery stocks of local provenance black poplars have been established in a number of counties.

Several pamphlets and articles on black poplars have been produced in the last ten years, of particular note are ‘The Native Black Poplar: A Species in the Ghetto?’ (Mabey, 1996) and ‘Native Poplars and the Restoration of Floodplain Forests’ (Tabbush, 1996). Leaflets on the planting and aftercare of native black poplar and management guidelines for existing trees have recently been produced (Clennett, 1998; Le Ray, 1999; Noakes, 1999; Tavender, 1999)

In Sussex, Frances Abraham and Frank Penfold convened the first county meeting on black poplars in February 1994. (Penfold, 1996). As a result of this meeting arrangements were made with the Royal Botanic Gardens (RBG), under which a stool-bed for Sussex black poplars was to be provided and managed at Wakehurst Place. Cuttings from all 34 verified Sussex black poplars have been collected and are being grown on at Wakehurst, including cuttings from the now dead tree No. 6 (Sheffield Bridge). Stools from each tree are now productive and approximately 2000 cuttings have been transplanted in various sites across the county.

After being recognised as a possible black poplar, each tree in Sussex is verified by a referee, (currently C. Clennett of RGB Wakehurst) and a register of all extant trees and plantings is currently maintained by the Sussex Otters and Rivers Partnership Officer. This register contains details of the location, measurements, sex and ownership of each tree. It is maintained as a confidential document and is communicated to the Sussex Biodiversity Record Centre at Woods Mill regularly.



In May 1997, the Sussex black poplar project was formally constituted as a Working Group of the Sussex Wildlife Trust. Several organisations are now represented on this group (see Appendix 1.), which currently meets twice annually. By 2003, the group had successfully completed all the original objectives of the Sussex Black Poplar SAP and a move was made to promote the conservation of the black poplar through the restoration of its native habitat, floodplain woodland.

The Sussex Black Poplar Working Group now meets as the Sussex Floodplain Forests Group (SFFG). This Group is currently supervising a concept study on the feasibility of restoring floodplain woodlands within Sussex. Data is also being collated on existing floodplain woodlands, their location and habitat/species composition. This information will be held at the Sussex Biodiversity Record Centre. An annual conference will be held to provide interested parties in Sussex with an update on the progress of the SFFG and its work.

5. Objectives

1. To arrest the decline, maintain and then expand the number of black poplar trees of varied ages in Sussex

To achieve this objective the distribution of extant black poplars in Sussex needs to be identified, and this to some extent has already been achieved. Currently 33 individual trees have been accepted in Sussex and this figure is likely to represent a significant proportion of the existing population. The next step is to protect these extant trees, where possible, and to support these individuals through new planting of local provenance stock. Cuttings from each of the Sussex trees have been collected and these are now being grown on at RBG, Wakehurst. The collection of cuttings from any newly identified trees and the planting of rooted whips from the stocks at Wakehurst is currently being undertaken by the Sussex Otters and Rivers Partnership Officer and others on behalf of the SFFG.

2. To ensure appropriate and sympathetic management of watercourses, wetland habitats and hedgerows for black poplar in Sussex

Guidelines for best practice for watercourse engineering, riparian land management and hedgerow management should be promoted. These practices should be adopted by all authorities, agencies, relevant landowners and organisations with responsibilities for management of these habitats across Sussex.

3. To plant, where appropriate and possible, individuals and stands of local provenance black poplars in each Sussex catchment

Using the local provenance stock currently being provided by RBG Wakehurst suitable sites for the planting of black poplars should be identified within each river catchment. Plantings should range from:

- individual specimen, isolated trees
- small groves of trees in appropriate places
- significant wet woodland plantations/restoration.

4. **To provide a nursery stock of local provenance black poplars in Sussex**
 The current nursery stock of black poplars is provided by RBG Wakehurst. Efforts should be made to secure the long term preservation of the existing stock. In the future nursery stock may need to be made available elsewhere and this will require protocols of certification to check and maintain authenticity and provenance of trees.
5. **To use the black poplar as a flagship species for good riparian and wetland habitat**
 Black poplar has a good public image and a local cultural heritage. By promoting the conservation of this species, with its associated habitat requirements, a variety of other animal and plant species will directly and indirectly benefit.

6. Targets

- | | | |
|----|--|------------------|
| 1. | To increase the number and range of ages of black poplar trees in Sussex | Ongoing |
| 2. | To implement a monitoring programme for black poplars, both existing and newly planted, across Sussex | Ongoing |
| 3. | To ensure appropriate and sympathetic management of individual black poplar trees and of watercourses, wetlands and hedgerows in Sussex | Ongoing |
| 4. | To plant local provenance black poplar trees so that: <ul style="list-style-type: none"> • all river catchments in Sussex support at least one major grove of black poplar • at least two major riverine forests consisting of a mixture of wetland tree species, over 10ha, are created |
2015
2025 |
| 5. | To raise awareness of black poplar conservation within Sussex | Ongoing |
| 6. | To maintain the genetic variation found within Sussex black poplars | Ongoing |

Targets completed by 2004:

- To survey all areas of Sussex for existing black poplars
- To plant local provenance black poplar trees so that all river catchments in Sussex support at least 20 scattered individual black poplars by 2010
- To provide a nursery stock of representative provenance Sussex black poplars



7. Potential

The demographic profile and number of black poplars extant in Sussex in the early 1990s suggests that this species was declining to extinction in the county. Active conservation measures during the last eight years have begun to reverse this decline and recently new plantings have taken place in most Sussex river catchments. The age structure of the Sussex population is however very unbalanced, with two distinct cohorts, those over 150 years old and those under eight years old. To ensure a more even distribution of age structure, and to avoid reaching low populations again in another 150 years, it is essential that planting of black poplar continues into the foreseeable future.

While planting is likely to be the only secure method of assuring the survival of black poplar in Sussex, larger plantings of mixed stands of male and female trees should also be encouraged. In addition, initiatives which propose the re-instatement of wet-woodland or the planting of trees along waterways should in general be encouraged as these will provide opportunities for natural asexual black poplar reproduction. In the meantime, to maintain the black poplar in Sussex, stands of existing and isolated individual trees should be supported by the planting of local provenance rooted cuttings whenever appropriate and possible.

Funding

There are potential funding opportunities for black poplar conservation work from a variety of sources including Defra, the Forestry Commission, English Nature and the Environment Agency.

8. Action Plan

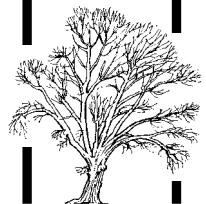
ACTION	POTENTIAL DELIVERERS		YEAR (to be completed or in place by)	MEETS SUSSEX TARGET	PRIORITY
	LEAD	PARTNERS			
ACTION PLAN PROCESS / LINKS TO OTHER PLANS					
This Action Plan should be considered in conjunction with the following Habitat and Species Action Plans: Woodland, Hedgerow, Floodplain Grassland, Rivers and Streams, Standing Fresh Water, Urban, Road Verges, Otter, Great Crested Newt, Barn Owl, Fen Raft Spider, Scarce Chaser Dragonfly, Swollen Spire Snail and Pipistrelle Bat					
1	SBP	ALL	✓	4	MEDIUM
2	SFFG	ALL	✓	3	MEDIUM
3	SFFG	ALL	✓		HIGH
COMMUNICATION - ADVISORY					
4	SFFG	SORP/FWAG/ EN/Detra/EA/ RVP/ SWT/ LA	✓	3, 4, 5	HIGH
4a	SFFG	SORP/FWAG/ EN/Detra/EA/ RVP/ SWT/ LA	✓	5	HIGH
5	SFFG	SORP/FWAG/ EN/Detra/EA/ RVP/ SWT/ LA	✓	2, 3, 4, 5	MEDIUM
6	SFFG	SORP/SWT/EA/ FC	✓	5	HIGH
7	LA/EA	ALL	✓	3, 4, 5, 6	HIGH
COMMUNICATION - PUBLICITY					
8	SFFG	SWT/ EA/ RVP/ SORP	✓	2, 3, 5	LOW
8a	SFFG	SWT/ EA/ RVP/ SORP	✓	3, 5	LOW



Black Poplar

ACTION	POTENTIAL DELIVERERS		YEAR (to be completed or in place by)			MEETS SUSSEX TARGET	PRIORITY
	LEAD	PARTNERS	ONGOING	2010	2015		
8b	SFFG	SWT/ RVP/ SORP	✓			1, 2, 5	LOW
9	SFFG	SWT/ SORP/ EA/ RVP		✓		3, 4, 5	HIGH
10	SFFG	SWT/ EA/ RVP/ SORP	✓			2, 5	MEDIUM
10a	SFFG	SORP/SWT/ EA	✓			2, 3, 5, 6	MEDIUM
FUNDING / RESOURCES							
11	Defra/FC	LA/EN/EA/ SFFG/SORP	✓			1, 3, 4, 6	HIGH
12	SFFG	SORP/Defra/ FC/LA/EN/EA/ FWAG/	✓			5	HIGH
HABITAT AND SITE MANAGEMENT							
13	SFFG	Defra/FC/LA/ EN/EA/ FWAG/ SORP	✓			1, 2, 3, 4, 6	HIGH
13a	SFFG	EA/ IDBs/ HA/ LA/ RVP/ SORP/ SxBRC	✓			3, 5	HIGH
14	SFFG	ALL	✓			3	HIGH
15	LA/EN	ALL	✓			2, 3, 5	HIGH
HABITAT CREATION / RESTORATION							
16	SFFG	ALL	✓			3, 5	HIGH

ACTION	POTENTIAL DELIVERERS		YEAR (to be completed or in place by)			MEETS SUSSEX TARGET	PRIORITY
	LEAD	PARTNERS	ONGOING	2010	2015		
16a	SFFG	Landowners/ RVP/ SORP	✓			1, 2, 3, 4, 6	HIGH
17	SFFG/ Landowners	ALL	✓	✓		4, 6	MEDIUM
17a	SOR/PEA/ SxBRC/ SFFG/SWT /Bton Unl/ HWUJ/ WSCC	FC/ FE/ EN	✓	✓		4, 6	HIGH
18	SFFG/ SORP	EN/EA LA/landowners	✓			4, 6	HIGH
18a	SFFG/ SORP	EA/ SWT/ HWUJ/ SxBRC/ EN/ FC/ FE	✓	✓		3, 4, 5	HIGH
18b	SFFG	EA/ SWT/ EN/ FWAG/ Defra/ LA/ RVP/ SORP	✓			1, 3, 4, 6	HIGH
INFORMATION AND DATABASES							
19	SFFG/ SxBRC	ALL	✓		✓	5	HIGH
19a	SxBRC	SFFG/ SORP	✓			4, 5	HIGH
19b	SFFG/ BSBI	SxBRC	✓			2, 3, 5, 6	HIGH
POLICY AND LEGISLATION							
20	LA	SFFG/EN/EA/ SWT	✓			1, 3, 5	HIGH
20a	Defra/ FC/ FE/ EA/ EN	SFFG/ FWAG/ SORP/ LA's/	✓			1, 2, 3, 4, 5, 6	HIGH



Black Poplar

ACTION	POTENTIAL DELIVERERS		YEAR (to be completed or in place by)	MEETS SUSSEX TARGET	PRIORITY
	LEAD	PARTNERS			
20b	LA	SFFG	✓	3	MEDIUM
21	LA	SFFG/EN/EA	✓	2, 5	HIGH
22	EN/EA	ALL	✓	3, 5, 6	HIGH
RESEARCH					
23	SFFG/ SORP	SWT/EN/ EA/LA	✓	2, 3, 5	MEDIUM
23a	RBG/ SFFG	EA/ SWT/ EN	✓	6	MEDIUM
23b	SORP/ SFFG/ SxBRC	EA/ Bcon Unit/ SWT/ FC/ FE	✓	1, 2, 5	HIGH
24	EN/EA	FC/ FE /Defra/ Universities/ SORP	✓	2, 5	HIGH
SITE PROTECTION AND DESIGNATION					
25	EN	SFFG	✓	3	HIGH
SPECIES MANAGEMENT					
26	SFFG/ RBG	EA/ SWT/ LA	✓	1, 2, 4, 6	MEDIUM
26a	SFFG/ RBG	EA/ SWT/ LA	✓	1, 4, 6	HIGH
26b	SFFG/ RBG	EA/ SWT	✓	1, 6	HIGH
26c	SFFG/ RBG	All	✓	1, 2, 6	HIGH
SURVEY AND MONITORING					
27	SFFG	EA/ SWT/ SORP/ Universities	✓	2	HIGH

ACTION	POTENTIAL DELIVERERS		YEAR (to be completed or in place by)			MEETS SUSSEX TARGET	PRIORITY
	LEAD	PARTNERS	ONGOING	2010	2015		
27a	SORP	SFFG/ SWT/ EA/ FC	✓			3, 4	HIGH
28	SORP/ SFFG	SxBRC/ EA/ SWT/ FC/ HWU		✓		2, 4	MEDIUM
28a	SFFG	EA/ SWT/ SORP/ LA's	✓			2	LOW
29	SFFG	SORP/ EA/ SWT/ SxBRC	✓			1, 2, 4, 5	HIGH
29a	SFFG	SWT/ RVP/ SORP/ LA	✓			2, 4, 5	MEDIUM

B&HC = Brighton & Hove Council, CLA = Country Land and Business Association, Defra = Department for Environment, Food and Rural Affairs, EN = English Nature, EA = Environment Agency, ESCC = East Sussex County Council, FC = Forestry Commission, FE = Forest Enterprise, FWAG = Farming and Wildlife Advisory Group, HA = Highways Agency, HWU = High Weald AONB Unit, IDB = Internal Drainage Board, LA = Local Authorities, NFU = National Farmers' Union, RBG = Royal Botanical Garden Wakehurst, RVP = River valley projects i.e. Western Rother Valley Project, SBP = Sussex Biodiversity Partnership, SORP = Sussex Otters and Rivers Partnership, SxBRC = Sussex Biodiversity Record Centre, SFFG = Sussex Floodplain Forests Group (previously Sussex Black Poplar Working Group), SDCB = Sussex Downs Conservation Board, SWT = Sussex Wildlife Trust, WSCC = West Sussex County Council.



Black Poplar

9. Monitoring/Review

This Plan is a working document. It is proposed that the Sussex Floodplain Forests Group continue to meet on a six monthly basis to assess and monitor the implementation of this Plan. The Plan will be reviewed by the Lead Agency (SWT), in conjunction with the Sussex Biodiversity Partnership, and updated and amended as necessary.

It is proposed that in the first instance veteran and newly planted black poplars are checked in 2005 to ascertain health and current condition. Provision will be made for subsequent monitoring, to follow at longer cycles.

10. References

Clennett, C. 1998. Planting and after care of the native black poplar. Royal Botanic Gardens, Wakehurst Place, West Sussex.

Durham Wildlife Trust. 2000. Black Poplar Species Action Plan. Durham Wildlife Trust, Rainton Meadows, Chilton Moor, Houghton-le-Spring, Tyne & Wear DH4 6PU.

Essex Wildlife Trust. 1999. Native Black Poplar (*Populus nigra* subspecies *betulifolia*). Essex Wildlife Trust, The Joan Elliot Visitor Centre. Abbotts Hall Farm, Great Wigborough, Colchester, Essex CO5 7RZ.

Green, T. 2001. Comment: should ancient trees be designated as Sites of Special Scientific Interest? *British Wildlife*. 12(3): 164-166.

Le Ray, M. 1999. Environment Agency Species Management Guidelines. Black poplar - *Populus nigra* ssp. *betulifolia*. Environment Agency, Midlands Region.

London Biodiversity Partnership. 1999. *Populus nigra* ssp. *betulifolia* (Black Poplar). Species Action Plan. Consultation Draft. London Wildlife Trust, Skyline House, 200 Union Street, London SE1 0LW.

Mabey, R. 1996. The Native Black Poplar: A Species In The Ghetto. *British Wildlife*. 8(1): 1-6.

Milne-Redhead, E. 1990. The B.S.B.I. Black Poplar Survey, 1973-88. *Watsonia* 18: 1-5.

Noakes, M. 1999. The Black Poplar (*Populus nigra* var. *betulifolia*). Management Guidelines for Existing Trees. Aylesbury Countryside Management Project, Aylesbury.

Penfold, F. 1996. Native Black Poplar *Populus nigra betulifolia* in Sussex. Sussex Botanical Recording Society Newsletter. April, 1996.

Spencer, J. 1994. The Native Black Poplar in Britain. An Action Plan for its Conservation. English Nature, Newbury, Berkshire.

Stace, C.A. 1991. *New Flora of the British Isles*. Cambridge University Press, Cambridge.

Tabbush, P. 1996. Native poplars and the restoration of floodplain forests. *Quarterly Journal of Forestry*. 128-134.

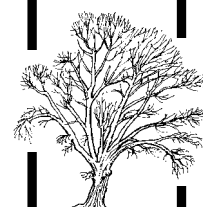
Tavender, R. 1999. Pollarding Black Poplars. *Botanical Society of the British Isles News*. September 1999, No. 82, page 51.

White, J. 1993. Black poplar: the most endangered native timber tree in Britain. *The Forestry Authority. Research Information Note 239*.

Worcestershire Wildlife Trust. 1999. Species Action Plan. Black Poplar (*Populus nigra* ssp. *betulifolia*). Worcestershire Wildlife Trust, Lower Smite Farm, Hindlip, Worcester WR3 8SZ.

10.1 Bibliography

Abraham, F. and Penfold, F. 2001. *The Sussex Register of Black Poplar*. Sussex Wildlife Trust, Woods Mill, Henfield, West Sussex BN5 9SD.



II. Consultation

A number of organisations and individuals were consulted during the preparation of this SAP, including:

Arun District Council
Botanical Society of the British Isles
Country Land and Business Association
Defra
Dolphin Ecological Surveys
East Sussex County Council
English Nature
Environment Agency (Sussex Area)
Farming and Wildlife Advisory Group
Forestry Commission
High Weald AONB Unit
National Black Poplar Working Group, Technical
National Farmers' Union
Rother Valley Project
Royal Botanic Gardens, Wakehurst
RSPB
South East Water
Sussex Amphibians and Reptiles Group
Sussex Downs Conservation Board
Sussex Biodiversity Partnership
Sussex Biodiversity Record Centre
Sussex Wildlife Trust
Vale of Aylesbury Black Poplar Working Group
West Sussex County Council
Western Rother Valley Project
Wildfowl and Wetlands Trust
Woodland Trust
Frances Abraham
Frank Penfold
Mary Briggs

12. Appendices

Appendix 1: Sussex Floodplain Forests Group list of representatives:

Botanical Society of the British Isles
Dolphin Ecological
East Sussex County Council
Environment Agency
Royal Botanic Gardens, Wakehurst
Sussex Otters and Rivers Partnership
Sussex Wildlife Trust
West Sussex County Council
Western Rother Valley Project
Arthur Hoare
Dr Alan Knapp
Frances Abraham
Frank Penfold
Paul Harmes

Appendix 2: Contacts for advice

Advice on black poplar conservation and sympathetic habitat management of waterways and wetlands in Sussex for this species can be obtained from:

Sussex Wildlife Trust
Woods Mill, Henfield, West Sussex BN5 9SD
Tel. 01273 492630

Environment Agency (Sussex Area)
Conservation Team, Saxon House, Little High Street, West Sussex BN11 1DH
Telephone: 01903 703851

Sussex Otters and Rivers Partnership Officer
The Lodge, Arlington Reservoir, Berwick, Polegate, East Sussex BN26 6TF
Telephone: 01323 870810 Ext. 21

Grant information can be obtained from the above contacts and also from:

Farming and Wildlife Advisory Group
Plumpton College
Lewes
East Sussex BN7 3AE
Telephone: 01273 891190



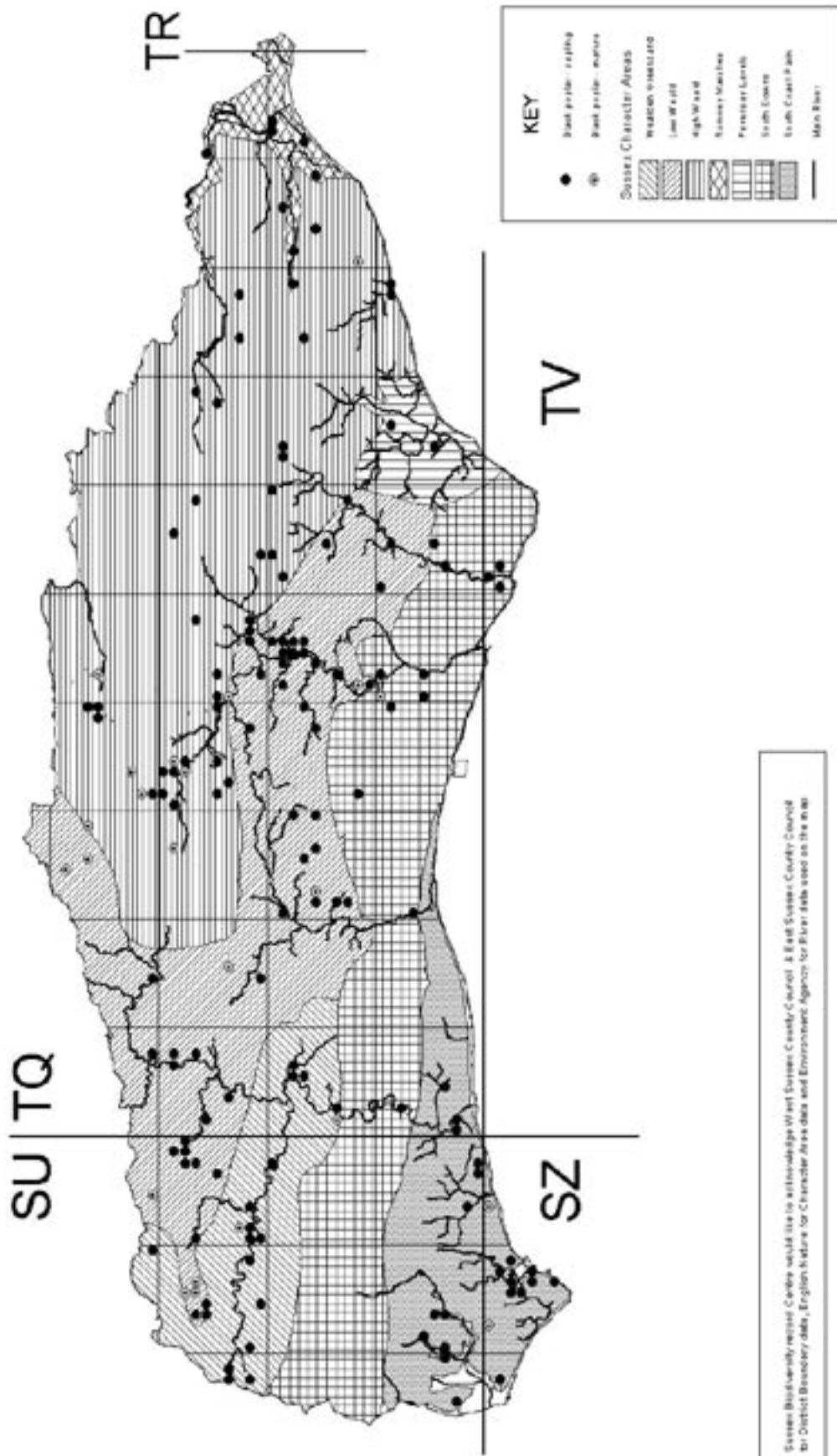
Appendix 3: Best practice procedures for planting, aftercare and management of existing black poplars can be found in:

- a) Planting and after care of native black poplar. Written by Chris Clennett of Royal Botanic Gardens, Wakehurst on behalf of the Sussex Black Poplar Working Group.
- b) The Black Poplar (*Populus nigra* var. *betulifolia*). Management Guidelines for Existing Trees. Written by Margaret Noakes of the Aylesbury Countryside Management Project. Copies of these leaflets are available from the Sussex Wildlife Trust, Sussex Otters and Rivers Partnership and from the Farming and Wildlife Advisory Group.

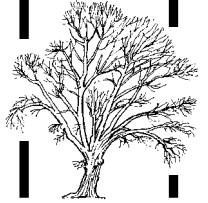
Appendix 4: Glossary of abbreviations used:

BSBI = Botanical Society of the British Isles
Defra = Department for Environment, Food, and Rural Affairs
DETR = Department of Environment, Transport and Regions
Durham WT = Durham Wildlife Trust
EA = Environment Agency
Essex WT = Essex Wildlife Trust
FC = Forestry Commission
FRCA = Farming and Rural Conservation Agency
FWAG = Farming and Wildlife Advisory Group
HA = Highway Authority
HAP = Habitat Action Plan
IDBs = Internal Drainage Boards
LAs = Local Authorities
London BP = London Biodiversity Partnership
RBG = Royal Botanic Gardens
RVP = Rother Valley Project
SAP = Species Action Plan
SBP = Sussex Biodiversity Partnership
SBPWG = Sussex Black Poplar Working Group
SFFG = Sussex Floodplain Forests Group (previously SBPWG)
SORP = Sussex Otters And Rivers Partnership
SWT = Sussex Wildlife Trust
SxBRC = Sussex Biodiversity Record Centre
Worcestershire WT = Worcestershire Wildlife Trust

Appendix 5: Map showing the Distribution of the Black Poplar in Sussex (SxBRC)



Sussex Biodiversity Action Plan (SxBAP) is a partnership between the West Sussex County Council, East Sussex County Council, the District Boundary Unit, English Nature for Character Areas and Environment Agency for River data used on the map.



Black Poplar

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Line drawings: © Tim Bernhard (tim_bernhard@hotmail.com) and English Nature

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