

SPECIES ACTION PLAN: Floating Water Plantain
(Luronium natans)

Associated Species Action Plans
Amphibians
Great crested newt
Water vole
White-clawed crayfish

1. Current Status

1.1 *Luronium natans*, the floating water-plantain is a European endemic aquatic plant which is now rare and threatened across its whole range. In the UK its main area of distribution is in Snowdonia, mid-Wales and adjacent areas of north-central England, although its overall range is much wider, and is much obscured by the fact that it occurs in a wide range of vegetative forms which resemble other species. The populations in Birmingham & the Black Country (B&BC) form the most south eastern part of the main area of distribution.

Associated Habitat Action Plans
Canals
Wetland
Rivers and streams

1.2 *Luronium* occurs in a number of aquatic habitats, mostly characterised by lack of competition and relatively low fertility. The main habitats are moderately nutrient-poor lakes, where it grows in water up to 2 metres deep, and clear-water canals of intermediate base and nutrient status, where it is thought that it may need periodic dredging and/or disturbance to provide the open, bare-mud situations which favour it. It is also known from shallow pools in heathland and from a few slow-moving rivers.

1.3 The species is thought to have invaded the canal system fairly recently, from the 1850s, either directly from the Welsh lakes, or via slow-moving rivers, although it is also possible that it had a much wider distribution in lakes in the past. Populations in the canals often decline in response to eutrophication, overgrowth, and increased boat traffic.

1.4 Almost all the Birmingham and Black Country records are in or associated with the canal system, where it grows as a submerged aquatic, a floating-leaved aquatic, and on exposed mud where water levels fluctuate. The one well-known population which has been seen recently is the continuation of a large population in the Cannock Extension Canal SSSI in Staffordshire. In the Birmingham and Black Country part, it is found in the canal and it also occurs in associated drainage ditches and a shallow pool. There are other records in the Walsall area associated with canals and canal side pools. Few of the records are more recent than 1991 and are mostly single unvalidated sightings. A tiny vegetative specimen was collected in the Rushall Canal in 1998 and tentatively validated. *Luronium* is known from Chasewater canal feeder reservoir (SK0308), now no longer part of Birmingham and the Black Country, and the canal records are all associated with canals fed from Chasewater. There is another isolated 1990 record from Stechford Bridge Lake in east Birmingham which must have a different origin.

2. Current factors affecting species

2.1 Canal populations are threatened mainly by the increasing use of the waterways by motorised traffic, which stirs up the mud, decreasing the light penetrating to submerged populations and may physically erode marginal populations. The single population in Birmingham and the Black Country known to be definitely extant is subject to a proposed improvement scheme to open up the Cannock Extension Canal to traffic.

There is also a potential threat from eutrophication, which could come from pollution or agricultural intensification or development in the canal corridor. Ironically there is also a threat from neglect of the canal system, bringing ecological succession in which closed communities of plants replace the open communities supporting *Luronium*.

3. Current Action

3.1 Legal status

3.1.1 *L. natans* has received special protection under Appendix of the Berne Convention, which requires signatory states to prohibit taking, and to take measures to conserve, listed species. Also Annexes II and IV of the European Habitats and Species Directive, which require designation of protected areas and special protection measures for them. As a result, *L. natans* is now listed on Schedule 8 of the UK Wildlife and Countryside Act (revised 1992), which makes it an offence to pick, uproot, sell or destroy the species.

3.1.2 *L. natans* is included amongst the 'Short List' of the UK Biodiversity Action Plan, with a commitment to maintain and if possible enhance its present range.

3.1.3 Statutory and other site protection in B&BC: the one population known to be extant forms part of a SSSI and a proposed candidate SAC on the basis of the presence of *Luronium*. A further site has SINC status. Other sites have no local designation or protection.

3.2 Management, research and guidance

3.2.1 British Waterways are liaising with English Nature and Countryside Council for Wales to produce management guidelines for canals containing this species, which should be applicable to Birmingham and Black Country populations.

3.2.2 British Waterways has undertaken relocation of plants to refugia as part of the Montgomery Canal restoration.

3.2.3 *Luronium* can get some protection from adverse conditions, such as muddy water and disturbance, behind piling. Piling sites are however likely to require regular management to prevent overgrowth.

3.2.4 The occurrence of a non-aquatic form of *Luronium* on exposed mud, and the apparent colonisation of non-canal habitats by canal populations in Birmingham and the Black Country require further investigation. Better knowledge might allow the development of important types of refugia should the canal habitats become untenable.

3.2.3 Recent research by isozyme analysis has suggested a high level of genetic variation in the Welsh lake populations compared with the canal populations of the borders, but the West Midlands populations have not been examined.

3.2.3 Current work for the Birmingham and Black Country Flora may increase the number of known sites in Birmingham and the Black Country; it is clearly crucial that the older records are re-investigated. Note: Flora 2000 Project.

4. Action Plan Objectives and targets

Objective	Target
Implement national Biodiversity Action Plan objectives locally. The relevant objectives are:	
1. maintain the present range	2006
2. where the potential exists, increase the size of individual populations	2006
3. develop a strategy to safeguard the species, wherever possible, in its canal habitats	2002

5. Proposed action with partners to meet objectives

ACTION	POTENTIAL DELIVERERS		YEAR							Meets objective number.
	Lead	Partner	2001	2002	2003	2004	2005	2006	2011	
5.1 Policy and legislation .										
Seek the inclusion of effective measures for the protection of this species in the preparation of UDPs and other policy documents.	LAs	EN/ WT/ EA	As UDPs and other policy documents are prepared.							1
Seek the inclusion of effective measures for species protection in the preparation of Local Environment Agency Plans and other policy documents.	EA	LAs/ EN/ WT	As LEAPs and other policy documents are prepared.							1
5.2 Site safeguard and management.										
Take the well being of the Birmingham and Black Country populations into consideration by modifying relevant canal reclamation schemes to comply with the international status and national guidelines for the protection of <i>Luronium</i> .	BW	LAs, EN, WT	•	•	•	•	•	•	•	1
Lobby against inappropriate modification of <i>Luronium</i> sites in canal restoration schemes.	WT	LCGs	•	•	•	•	•	•	•	1
Advocate appropriate management for <i>Luronium</i> sites, including traffic limitation, regular monitoring and creation of refugia, to all site owners and managers.	EN	LAs, WG, LCG	•	•	•	•	•	•	•	1

ACTION	POTENTIAL DELIVERERS		YEAR							Meets objective number.
	Lead	Partner	2001	2002	2003	2004	2005	2006	2011	
5.3 Species management and protection.										
Seek thorough compliance with the national proposed code of practice and the international protected status by all managers at all sites for <i>Luronium</i> in Birmingham and the Black Country.	EN	LAs, BW	•	•	•	•	•	•	•	1,2
5.4 Advisory.										
Seek to inform all relevant Local Authority departments and others involved in management of relevant sites about the proposed national code for protection and enhancement of <i>Luronium</i> populations and secure compliance.	EN	BW, WT	•	•	•	•	•	•	•	1
Seek to inform all relevant Local Authority departments and others involved in management of relevant sites about the legal international protected status of <i>Luronium natans</i> , and secure compliance.	EN	BW, WT	•	•	•	•	•	•	•	1
5.5 Future research and monitoring.										
Support the detailed resurveying of all populations recorded in Birmingham and the Black Country.	EN, LAs	WT						•		1,2,3
Support further investigation of non-aquatic and non-canal populations of <i>Luronium</i> in Birmingham and Black Country with a view to creating and maintaining refugia.	EN, ED					•				1,2,3
Advocate priority for <i>Luronium</i> in recording schemes	WT, ER		•	•	•	•	•	•	•	1,2,3

ACTION	POTENTIAL DELIVERERS		YEAR							Meets objective number.
	Lead	Partner	2001	2002	2003	2004	2005	2006	2011	
5.6 Communications and Publicity.										
Seek to publicise widely the international protected status and the national code of practice for <i>Luronium</i> by producing an appropriate leaflet for wide distribution.	ER				•					1,2,3
5.7 Links to other action plans										
Wetland, Rivers and streams, Canals.										

6. Co-ordination and review.

This Biodiversity Action Plan will be implemented over 10 years with a first review after 5 years. A group will be set up to co-ordinate implementation and to report to the Biodiversity Steering Group. This group will meet at a minimum on a yearly basis.

Review will be carried out in conjunction with related Habitat and Species Action Plans as appropriate.

Review will consist of measuring achievement of targets. The group will, with the support of the Steering Group, develop and implement appropriate monitoring methods which will inform the review process.

The Action Plan will be revised and updated in the light of review results and any relevant changes in circumstances and/or additional information which becomes available during the review period.

In line with national guidance, the Steering Group will report to the UK Steering Group.