

## Toothwort



Scientific Name:

*Lathraea squamaria* L.

### Current factors causing loss or decline

The species has always been rare or local within the City area, presumably reflecting its specialised ecological requirements. It may have been lost from the Cathcart Castle station, but has survived (or spread) elsewhere along the Cart. It has not been recorded from the Clyde localities since Lee's time. Given its specialist life cycle requirements direct habitat loss is presumably a key reason for decline. Woodland clearing for urbanisation or changes in management, such as the planting of exotic species, are key factors in changes to woodlands, but it is unclear how the recent spread of Dutch elm disease has impacted on local populations.

### Current action

Toothwort receives no specific protection at present; however the known populations all occur within the White Cart Water Habitat/Wildlife Corridor and populations in Pollok Country Park and Linn Park occur within the respective SINC.

In May 2000 the Land Service's Conservation Group and Countryside Rangers carried out survey work on known populations. In total 889 spikes were counted, the most (729) being at Linn Park, with 144 counted at Pollok Park., but at Langside only 8 spikes were noted.

### Current status

**Toothwort** is a small, perennial member of the broomrape family (Orobanchaceae). It is scattered throughout Britain, but becomes scarce in Scotland, with few records north of the central belt. As with other members of the family it is a total parasite, lacking chlorophyll with its leaves reduced to scales. Small white or pale pink inflorescence spikes occur in spring, bearing pinkish- to yellowish-white flowers situated on one side of the stem.

Toothwort is a woodland plant, mostly associated with calcareous or nutrient rich soils, where it is considered typically parasitic on the roots of hazel and elm trees; however local populations appear to be associated with other tree species (some exotic) and some populations are well represented under Rhododendron.



### Main Locations of Toothwort in Glasgow



Today, in the City, Toothwort is known from three sites, all in the south, associated with woodlands along the course of the White Cart Water.

Two populations occur in Pollok and Linn Parks, with a small outlier by the Cart near Langside.

It has been known from the White Cart since early in the 19<sup>th</sup> century, first recorded by Hooker (in 1821) from "Cart-side near Glasgow." and "above Cathcart Castle". Hennedy's Clydesdale Flora (1891) describes it as very rare and "parasitical on the roots of hazel", naming "Carmyle Wood, below the village", "Langside" and "above Cambuslang, on roots of hawthorn". Lee (1933) also refers to it as rare and repeats Hennedy's localities.

### Objectives and targets

Key priorities are to increase the awareness among landowners and users of the presence of Toothwort and to ensure that appropriate management is carried out. Increased knowledge of the plants ecology and host relationships will also help to encourage effective management.

**Objective 1:** Establish the current distribution and population status of Toothwort.

**Target 1:** Monitor existing populations and survey to identify new sites.

**Objective 2:** Maintain the current distribution and population sizes.

**Target 2:** Ensure no further loss or damage to surviving populations.

**Objective 3:** Introduce appropriate habitat management to encourage viable populations.

**Target 3:** Prevent further habitat loss or negative disturbance at all sites.

**Objective 4:** Improve the viability of Toothwort populations and encourage spread.

**Target 4:** Investigate feasibility of increasing known population sizes and introducing to suitable new sites.

## Proposed Action with Lead Authorities

Action	Lead	Delivery	Objective
<b>Policy and Legislation</b>			
Ensure protection of known sites in any developments subject to Planning Applications.	GCC-LS(CG)	GCC-DRS	2
Ensure Toothwort populations are protected through any Water Course or Woodland management policies and guidelines.	GCC-LS(CG)	GCC-DRS, GCC-LS	2
<b>Site Safeguard and Management</b>			
Encourage landowners, managers and users to implement sympathetic management.	GCC-LS(CG)	GCC-LS	2, 3
<b>Species Management and Protection</b>			
Introduce sympathetic species management at existing sites.	GCC-LS(CG)	GCC-LS	3
<b>Advisory</b>			
Ensure information and guidance on conservation management is available.	GCC-LS(CG)	GCC-LS	1, 2, 3, 4
Ensure relevant landowners and users are aware of the presence of Toothwort and its ecological needs.	GCC-LS(CG)	GCC-LS	1, 2, 3, 4
<b>Future Research and Monitoring</b>			
Sample populations for monitoring and management assessment work.	GCC-LS(CG)	GCC-LS	2, 3, 4
Investigate ecology of local populations, including host species.	GCC-LS(CG)	GCC-LS	1, 2, 3, 4
Survey suitable areas to identify new populations.	GCC-LS(CG)	GCC-LS	1, 4
Establish suitable sites for potential reintroduction.	GCC-LS(CG)	GCC-LS	1, 4
<b>Communication and Publicity</b>			
Promote Toothwort through education events and nature conservation publicity.	GCC-LS(CG)	GCC-LS(CRS)	2
<b>Links with other Action Plans</b>			
Co-ordinate with management for Woodlands Action Plan.	GCC-LS(CG)	GCC-LS	1, 2, 3
Review Plan in 2007	GCC-LS(CG)	GCC-LS	-

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Glasgow City Council: Culture and Leisure Services (**GCC-CLS**), Glasgow City Council: Education Services (**GCC-ES**), Glasgow City Council: Land Services Countryside Ranger Service (**GCC-LS(CRS)**),

Scottish Ornithologists' Club (**SOC**), Greenspace for Communities(**GIC**), British Waterways (**BW**), Forestry Commission (**FC**), Farming Wildlife Advisory Group (**FWAG**), The WISE Group (**TWISE**)

Glasgow Natural History Society (**GNHS**), Royal Society for the Protection of Birds (**RSPB**), Scottish Environment Protection Agency (**SEPA**), Scottish Natural Heritage (**SNH**), Scottish Wildlife Trust (**SWT**).

Clyde Amphibian and Reptile Group (**CARG**), Butterfly Conservation (**BC**), Concern for Swifts (**CIS**)