

1. CURRENT STATUS

1.1 Legislation and priority status

International	Habitats Directive ^a (Annexes II, Annex IV) Bern Convention (Appendix I)
UK and Wales	Habitat Regulations ^b (Schedule 4) Wildlife and Countryside Act (Schedule 8) UK BAP Priority Welsh S74 list ^c
Gwynedd	Snowdonia BAP

1.2 Status in Wales and beyond

Floating water plantain^d is found only in Europe. The 'core' natural habitat is considered to be lakes in Snowdonia and in mid-Wales, where the species has a very long and consistent history of occurrence. It appears to have spread eastwards along the canal system during the 19th century. It is probably also native to Cumbria, where a population survives. Elsewhere it occurs only as an introduction to ditches in the Norfolk Broads and to a few localities in Scotland, although some native populations may have formerly existed in Scotland. *L. natans* has been recorded in 40 10x10 km squares since 1980¹.

1.3 Status in Gwynedd

Gwynedd is a stronghold for floating water plantain in Wales. It is found in many lakes including Llyn Padarn, Llyn Cwm Bychan, Llyn Cynwch, Llyn y Dywarchen, Llyn Cwm y Ffynnon, Llyn Cwellyn, Llyn y Gadair, Llyn Tegid, Llyn Nantlle Uchaf, Llyn Cwmorthin, Llyn Glasfryn, all of which except Llyn Padarn, Llyn Cwm y Ffynnon and Llyn Cwmorthin occur within the Snowdonia National Park boundary.

Floating water plantain also occurs in Afon Gwyrfai, Afon Geirch, Afon y Bala and Afon Rhythallt. "Llyn Cwellyn and its outflow, the Afon Gwyrfai, support one of the largest and most diverse populations of floating water plantain anywhere in Britain"¹.

2. FACTORS AFFECTING THIS SPECIES IN GWYNEDD^e

- Eutrophication of lowland lakes in particular, as a result of runoff from intensively fertilised fields among other factor - floating water plantain cannot compete against the lush vegetation growth which occurs as a result.
- Acidification of catchments, a particular threat to populations in the upland lakes - floating water plantain cannot cope with very acidic conditions.
- Historical watercourse management including flood defence works such as dredging, straightening and canalisation of watercourses all reduce the available habitat for the species.
- Disturbance by boats and other pleasure craft.

^a Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

^b European Conservation (Natural Habitats) Regulations 1994

^c Welsh Assembly Government, Going Wild in Wales - List of Species and Habitats of Principal Importance for the Conservation of Biological Diversity. Crown Copyright 2003.

^d *Luronium natans*

^e See also associated HAPs for more general factors affecting this species' habitats

3. ASSOCIATED GWYNEDD SAPS / HAPS

River corridors, Lakes, ponds and ditches

Otter, Water vole, Arctic charr, Lampreys, Salmonids, Freshwater pearl mussel, Pillwort

4. CURRENT ACTION IN GWYNEDD

4.1 Site and habitat protection

- Floating water plantain is a primary reason for site selection of the following candidate SACs which lie at least partly within Gwynedd: Afon Eden - Cors Goch Trawsfynydd, Eryri / Snowdonia and Afon Gwyrfai a Llyn Cwellyn. The first two lie wholly within Snowdonia National Park LBAP area. The species is also present as a qualifying feature within Rhinog candidate SAC. Populations may also occur in areas of Gwynedd identified as potential Wildlife Sites, or designated as SSSI (many of the lake sites being notified SSSIs).
- EIA's are required for some developments within river corridors, and Environment Agency Wales carries out EIA assessments for all internal works including routine and non-routine flood defence works.
- Environment Agency Wales implements relevant legislation, through licensing and consents including discharge consents, abstraction licensing, Land Drainage Consents and Groundwater Authorisations.
- Consent is required from Environment Agency Wales for land drainage work, including activities within 7m of a river bank, for designated Main Rivers. Non-designated Main Rivers have no protection from drainage schemes, although the recently introduced EIA regulations (uncultivated land etc^f) offers some protection against drainage and improvement of sites over 1 hectare.
- Floating water plantain is one of the species eligible for funding from Countryside Council for Wales Species Challenge Fund.

4.2 Management and programmes of action

- Nutrient stripping equipment has been installed at Llanberis Sewage Treatment Works to reduce the phosphate input to Llyn Padarn which was thought to have contributed to an algal bloom in the lake.
- The UK wide Water for Wildlife project (formerly Otters and Rivers Project), is run by the Wildlife Trusts, and aims to carry out conservation work with local communities in riverside and wetland habitats. There is currently a Wales manager, who will be joined in the near future by a North Wales project officer.
- As part of the Clean Rivers Project (Keep Wales Tidy), there are currently five River Care groups in Gwynedd (outside Snowdonia National Park)

4.3 Survey, research and monitoring

- CCW carried out a survey of lakes in north Wales in 1994 which confirmed the species at a number of sites.
- Recent genetic studies have indicated the importance of Welsh lakes as source sites for this plant.

^f EIA regulations for use of uncultivated land and semi-natural areas for intensive agricultural purposes

5. ACTION PLAN OBJECTIVES

1. To protect and maintain the present range of floating water plantain in Gwynedd.
2. To expand the current distribution of floating water plantain.

6. PROPOSED ACTIONS

Code	Action	Partner(s) ⁹
Policy and legislation		
1	Use planning conditions to ensure developments in sensitive locations are compatible with floating water plantain conservation TARGET/TIMESCALE: Ongoing	GC , relevant partners
2	Include conservation actions for floating water plantain within all relevant EAW plans to be published in the future TARGET/TIMESCALE: Ongoing	EAW
3	Ensure that appropriate EAW plans are put in place for SSSI's where floating water plantain is known to be present TARGET/TIMESCALE: To be set	EAW , CCW
Species / habitat management and protection		
4	Promote and support grant schemes including Tir Gofal, Llŷn ESA and / or use management agreements where appropriate to secure favourable management of buffer zones around the shores of lakes supporting floating water plantain, with the aim of reducing acidification, taking into account the needs of associated LBAP species and habitats TARGET/TIMESCALE: To be set, Ongoing	EAW , CCW , CLA , FC , FUW , FWAG Cymru, GC , NFU , NT
5	Encourage the installation of phosphate-stripping facilities at sewage treatment works which feed into susceptible lakes and rivers to help prevent eutrophication TARGET/TIMESCALE: To be set, Ongoing	EAW , CCW , GC
Advisory		
	None identified	
Survey, research and monitoring		
6	Collate all existing records of floating water plantain in Gwynedd, to establish the local status of the species (information to be stored electronically) TARGET/TIMESCALE: By 2005	CCW , BSBI , CEH , CEL , EAW , GC , UWB
7	In conjunction with SNPA LBAP, organise a baseline survey of suitable habitat to increase knowledge of floating water plantain distribution in Gwynedd TARGET/TIMESCALE: By 2006	CCW , BSBI , CEH , CEL , EAW , GC , UWB
Communications and publicity		
8	Raise awareness, among anglers and other recreational users of relevant habitats, of the conservation issues associated with floating water plantain, through liaison with angling clubs, River Care groups, and Water sports centres in Gwynedd TARGET/TIMESCALE: Ongoing	GC , CCW , EAW

⁹ Lead partner for this action is indicated by bold typeface, see section 7.2 for explanation of abbreviations

7 PARTNERS & OPPORTUNITIES

7.1 Overall lead partner for SAP

Countryside Council for Wales (CCW)

7.2 Key partners

Botanical Society of the British Isles (BSBI)

Centre for Ecology and Hydrology (CEH)

Country Land and Business Association (CLA)

Cymdeithas Edward Llwyd (CEL)

Environment Agency Wales (EAW)

Farmers Union of Wales (FUW)

Forestry Commission (FC)

Farming and Wildlife Advisory Group Cymru (FWAG Cymru)

Gwynedd Council (GC)

National Farmers Union Cymru (NFU Cymru)

National Trust (NT)

University of Wales Bangor (UWB)

7.3 Opportunities

Farming unions, landowners and managers

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9. ABBREVIATIONS

BAP: Biodiversity Action Plan, EIA: Environmental Impact Assessment, ESA: Environmentally Sensitive Area, HAP: Habitat Action Plan, LBAP: Local Biodiversity Action Plan, SAC: Special Area of Conservation, SAP: Species Action Plan, SSSI: Site of Special Scientific Interest, WLMP: Water Level Management Plan

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¹ <http://www.jncc.gov.uk/ProtectedSites/SACselection>