

1.3 Status in Gwynedd^g

A number of rivers, including the Llifon, Carrog, Ogwen, Seiont, Gwyrfai, Llyfni, Erch, Dwyfor, Glaslyn, Mawddach, Dysynni, Dyfi and Dwyryd, have runs of atlantic salmon. The Afon Gwyrfai contains a largely unexploited salmon population with a characteristically late run, and Environment Agency Wales electrofishing data indicates the presence of healthy juvenile populations downstream of Llyn Cwellyn (see section 4.1).

Sea trout are present in the rivers mentioned above and in most other streams and rivers in the area. Brown trout are also found in all rivers including Daron, Soch, Rhyd-hir, Erch, Wen, Llyfni, Cegin, Ogwen, Ddu and in most lakes, including Llyn Padarn, Llyn Cwmorthin, Llyn Manod, Llyn Ganallt and Llyn Bowyd. In Llyn Padarn a very important outlet spawning population of wild brown trout is suspected and current management adopts the precautionary principle. Outlet spawning, an indication of an ancient race, is usually restricted to old glacial lakes and as wild brown trout normally spawn on inlets this could be a genetically distinct race of trout.

Catches of migratory trout and salmon are declining in Gwynedd, but brown trout still appears to be maintaining steady numbers. A major discharge from the Gwynfynydd Gold Mine in 1984 on the River Mawddach led to the loss of over 2,000 adult salmon and trout, with many more juveniles being lost. After the closure of the mine in 1999, a minor incident of discharged mine-water occurred, but the leak has been plugged by the Environment Agency Wales. The Mawddach Trust which was formed following the incident has effectively managed to restore the local populations.

2. FACTORS AFFECTING THIS SPECIES IN GWYNEDD^h

- Water pollution, including diffuse agricultural runoff of insecticides, nitrates, farm wastes (synthetic pyrethroid sheep dip in particular); point source pollution including sewage discharge, drainage from mines and from quarries; effects are both direct (toxic effects) and indirect (deoxygenation of water through eutrophication).
- Acidification of catchments - likely to limit juvenile survival in some stretches of river or stream during spate conditions.
- Silt eroded from surrounding areas (as a result of management practices in the river catchment, for example overgrazing, afforestation) can smother important breeding habitats.
- Invasive "exotic" plant species, in particular Japanese Knotweed, are a problem on many river catchments, as they outcompete native marginal flora and can cause severe erosion.
- River works can cause habitat degradation (especially important where spawning sites are affected, and where timing coincides with spawning) or pose barriers for returning fish (e.g. weirs or estuarial barrages).
- Stocking of rivers and lakes with non-native trout effects the genetic integrity of the local population.
- Illegal catches and by-catches: both in coastal waters and in-river. Along the Gwynedd coast sea trout and salmon may be poached or become by-catches of fishermen fishing for bass and other sea species.
- Possible effects of global climate change on sea temperatures.
- Effects of international fisheries, including Irish, Greenland and Faroes, on salmon and sea trout while in their marine phase.

^g Within this document the term "Gwynedd" refers to areas outside the Snowdonia National Park area, except where specified otherwise

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

5. ACTION PLAN OBJECTIVES

1. To protect, maintain and enhance existing populations of salmon and sea trout (including brown trout) and associated habitats, in particular spawning and nursery grounds.
2. To ensure the genetic integrity of native stocks of brown and sea trout.
3. To increase awareness among anglers and other recreational users of river corridors, estuaries and lakes of conservation issues related to salmonids.
4. To use salmonids as flagship species to raise awareness of the importance of appropriate management of their associated habitats.

6. PROPOSED ACTIONS

Code	Action	Partner(s) ⁱ
Policy and legislation		
1	Use planning conditions to ensure developments in sensitive locations are compatible with salmonid conservation TARGET/TIMESCALE: Ongoing	GC , Relevant partners
2	Include conservation actions for salmon and sea trout 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 salmonids are known to be present TARGET/TIMESCALE: Ongoing	EAW, CCW
Species / habitat management and protection		
4	Where fish passes are present, ensure their maintenance and protection from possible upstream problems, including abstraction TARGET/TIMESCALE: Ongoing	EAW, CCW
5	Consider the provision of additional fish passes depending on the results of future surveys TARGET/TIMESCALE: Ongoing	EAW, CCW
Advisory		
	None identified	
Survey, research and monitoring		
6	Continue the EAW salmonid monitoring programme TARGET/TIMESCALE: Ongoing	EAW, CCW, GC
Communications and publicity		
7	Encourage anglers and other recreational users of relevant habitats to report salmonid catches and sightings, through publishing articles in relevant publications and giving talks to relevant groups (e.g. angling clubs, Clean Rivers Project groups, and Water sports centres). TARGET/TIMESCALE: Ongoing	EAW, GC
8	Raise awareness, among anglers and other recreational users of relevant habitats, of the conservation issues associated with salmonids, through publishing articles in relevant publications and giving talks to relevant groups (e.g. angling clubs, Clean Rivers Project groups, and Water sports centres). TARGET/TIMESCALE: Ongoing	EAW, GC, KWT

ⁱ 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

Environment Agency Wales (EAW)

7.2 Key partners

Countryside Council for Wales (CCW)

Gwynedd Council (GC)

Keep Wales Tidy (KWT)

7.3 Opportunities

Recreational users, anglers, Clean Rivers Project Groups

8 ACKNOWLEDGEMENTS

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9. ABBREVIATIONS

BAP: Biodiversity Action Plan, HAP: Habitat Action Plan, SAC: Special Area of Conservation, SAP: Species Action Plan, SPA: Special Protection Area, SSSI: Site of Special Scientific Interest

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