

SPECIAL AREA OF CONSERVATION

Nutrient-poor waters of Llyn Cwellyn and the Afon Gwyrfai, support one of the largest and most diverse populations of floating water-plantain anywhere in Britain.

Designated species and habitats:



Atlantic salmon



European Otter



Clear standing waters with vegetation of the *Littorelletea uniflora* (shoreweed)



Floating water-plantain *Luronium natans*



Watercourses with water crowfoot vegetation

The aim is to achieve favourable conservation status for these species and habitats, which means that they are able to thrive sustainably.



Currently, **only the bottom two features are in favourable** condition. However, the last survey was done 16 years ago.

AFON GWYRFAI A LLYN CWELLYN

Afon Gwyrfai is a small, montane river typical of north-west Wales. Its source drains the flanks of Yr Wyddf and passes through Llyn Cwellyn, a deep glacial lake formed during the last Ice Age. Llyn Cwellyn is home to one of three native Welsh populations of Arctic charr - 'Torgoch'.

CATCHMENT AREA
50 km²

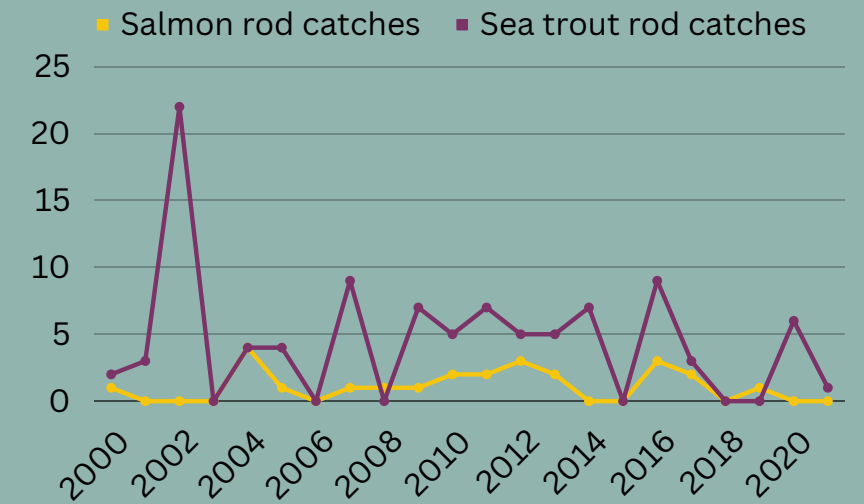
RIVER LENGTH
21 km

LLYN CWELLYN DEPTH
37 m



A small dam at Llyn Cwellyn built in 1979 supplies water to parts of Gwynedd and Anglesey. A fish pass enables fish to migrate upstream of the dam. The Gwyrfai upstream of the reservoir and its tributaries provide important spawning habitat for both salmon and trout.

FISH POPULATIONS AT RISK



Declared salmon and sea trout rod catches.

The Gwyrfai's salmon tend to run the river late in the year which partly explains the low annual rod catch. While juvenile populations remain reasonably healthy, NRW have classified the river's salmon population at risk in 2021.

RIVER HEALTH

The health of our rivers is assessed using a range of ecological and chemical indicators. Under the Water Framework Directive, a river can be classified as High, Good, Moderate, Poor or Bad. High means close to natural conditions.

Afon Gwyrfai is **in good overall and ecological health, but in bad chemical health.**

It passed its phosphorus targets.

Current **pressures on water quality** include runoff from disused slate quarries and Llyn Cwellyn has historically suffered from acidification, but more recent trends are not known.