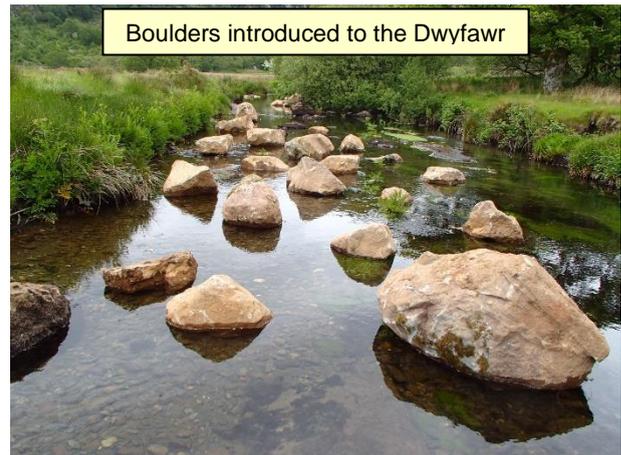


Dwyfawr – Mitigation work

Due to dredging practices by past river authorities and landowners, the Dwyfawr has suffered extensive removal of large boulders and rocks from within the river channel.

The Cwm Pennant area of the Dwyfawr had become featureless due to these actions. Tonnes of locally sourced stone materials have been introduced into the river channel to improve habitat.

These rocks and boulders will create a variation in the river's flow regimes, creating more localised habitats for trout, salmon and eels. They also will provide areas of refuge and safety from fish eating mammals and avian predators.



Boulders introduced to the Dwyfawr



Bank work on the Dwyfawr

Ogwen – Ogwen bank fish pass repairs

Repairs have been carried out on the existing fish pass on Ogwen bank weir. The fish pass was designed and constructed in the 1930s; it has been deteriorating in condition over the last few years until it was no longer functioning. The landowner, although responsible, has not undertaken any maintenance. To ensure that it functions properly, NRW have completed works to repair the structure, as well as some minor modifications to improve fish passage, and it is now operating again.



Work on Ogwen bank fish pass



Fish pass following work

Fisheries bulletin

Mawddach – Afon Wen gravel traps

After a natural flooding event in 2001 most gravels from established spawning beds were washed-out. Since 2016, gravel traps have been installed on the Afon Wen. Some of these gravel traps were vandalised by gold panners. The gravel traps were re-instated by NRW contractors with money from the fishery mitigation fund. Two weeks later a pair of sea trout spawned on the reinstated gravel. There are twelve of these traps constructed on the Afon Wen, a tributary of the Mawddach. All gravel traps have been used by sea trout to spawn over the past couple of years and have helped the recovery of the trout population.



Dee – Tryweryn chipper removal

A project funded by the Dee alternative mitigation fund was completed on the Afon Tryweryn. This was the fourth-year that work had been undertaken on the Tryweryn to open the area below Celyn reservoir. Three gravel traps have been created, and this year the old fish screen was removed, with over 200 tonnes of boulders placed in the river to create diverse habitat for juvenile fish. Boulders have also been used to create a pre-barrage to ease access over a low-level weir. This work has only just been completed and salmon have already been seen in the river immediately below the work area.



Clwyd – Nant Clwyd estate pre-barrage

Historically there were 4 ornamental weirs at Nant Clwyd, each keeping the water level up to the base of the next. The lower weir was partially washed away, and the river cut around it dropping the upstream level by 4ft. This made the next weir very difficult for upstream fish migration (possibly impassable). There has been no salmon recorded in the upstream electro-fishing site since 2009.



Fisheries bulletin

In early October as part of the Sustainable Fisheries Programme, a 60-tonne boulder pre-barrage was constructed to raise the water level below the weir, allowing the fish to pass the structure and utilise the upper 9km of river. Within an hour of installing the boulders a sea trout was observed leaping upstream out of the top fish pass box.



Afon Crawcwellt weir

Snowdonia National Park Authority have been leading on a Sustainable Management Project on the Afon Eden. As part of this project, NRW have worked with them and other partners on the delivery of an options and feasibility study to improve fish passage at the Afon Crawcwellt weir. The work has looked at the site and identified where the structure could be modified to improve fish passage and enhance the natural geomorphological processes.

Dee, Mawddach and Seiont alternative mitigation projects

The North Wales Rivers Trust and Welsh Dee Rivers Trusts will now be leading on the delivery of the alternative mitigations project. The aim of the project is to deliver mitigation as an alternative to stocking for loss of habitat and fish populations from historic reservoir creation, or significant historic pollution events. The objectives are to optimise in-river habitat and access to spawning areas on those catchments to improve population numbers and increase the number of smolts that are produced.

North Wales Fisheries Monitoring programme

Following on from the exceptionally warm and dry summer of 2018 we had a more traditional summer in 2019 with many rivers running quite high for the entire electro-fishing season. This led to several sites not being completed on the upper Dee, and the annual sites on the Dwyrdd and Ogwen being un-fishable.

The Conwy saw a decline in salmon fry across the catchment which was most noted on the Nant y Goron which only had two salmon fry. Salmon parr densities were good following several years of good fry numbers. Trout fry and parr densities were consistent with the historic averages.

The Clwyd was once again poor for salmon fry with only 5 of the 12 sites having salmon fry present; all sites with fry recorded were on the Elwy catchment and densities were low. Salmon parr were caught at 6 of the 12 sites. Two sites on the Clwyd had parr, but they were individual fish. The Aled had good parr densities, but this follows an improved year for fry at this site in 2018. Trout fry and parr densities declined slightly but are relatively consistent with the historic average.

The Dee followed a similar trend to previous years for salmon with good densities in the upper catchment, and the lower catchment performing poorly compared to the historic data. The notable changes were a decline in salmon fry and parr on the Hirnant, salmon fry



Fisheries bulletin

present in good numbers at the Morwynion annual site for the first time since 2010, and salmon fry back on the Meloch after recording zero in 2018. Trout fry and parr densities remained consistent across the catchment.

The annual sites on the Glaslyn, Seiont, Llyfni, Eden, and Wnion were relatively consistent compared to the historic data for both salmon and trout.

The sites on the Dwyfor, Mawddach, and Gwyrfai, all saw significant declines in salmon and trout fry, however the parr densities remained consistent. Parr improvements were expected following excellent fry results in 2018.

The Dysynni was the only catchment that saw an improvement in both salmon and trout fry. Trout fry densities were the best on record. Salmon and trout parr densities were consistent with the historic averages.

On the Dyfi salmon fry were only caught at one of the three accessible sites, and the density was relatively low. Salmon parr densities remained consistent.

The results for the Crewi were interesting, as the site we fish dried up in 2018. Trout fry densities were back to historic levels, and the parr densities were the best on record. The laen and Dyfi followed the historic trend for both trout fry and parr. The Dulas North saw a decline in trout fry density, migration may have been hindered by the low flows in 2018. Trout parr densities followed the historic trend.

Full juvenile summaries will be produced in the coming months and posted on the NRW website.

Environmental Crime

Reducing illegal fisheries and waste activities in North and Mid Wales

- Illegal Fishing
- Rod licence checks

Due to decreasing numbers of salmon returning to UK waters to spawn, New Byelaws are due to be put in place in Wales to prevent active salmon fishing, and to ensure that any salmon caught by fishermen are released. *The Wales Rod and Line (Salmon and Sea Trout) Byelaws 2017*, are due to come into force in January 2020 and NRW Enforcement Officers have been training in preparation for this.

During 2019 the environmental crime team have worked on a range of offences that impact our fisheries such as license evasion, illegal netting, gold panning and illegal cockling.

In the current quarter officers are concentrating on patrolling the spawning streams and main rivers to protect and preserve our ever-decreasing salmonid stocks. Officers must check for the location of spawning fish and return during the evening as a deterrent to poachers. Due to our limited resource, we are heavily reliant on the assistance of both anglers and other members of the public to help us in detecting these offences.



Fisheries bulletin

Llyn Padarn Arctic Char Stocking

Due to declining numbers of Arctic char in Llyn Padarn, a limited programme of stocking has been in place since 2009. The aim is to enhance and protect Arctic Char numbers. Adult char have been collected during their spawning migration from Llyn Padarn to Afon y Bala, and their offspring reared at our hatchery. At an average weight of 17.0 grams, 9254 fantastic conditioned fish were successfully returned to their native habitat, swimming away strongly from the release site into the depths of the lake. These were collected as ova in December 2018 from Afon y Bala and have been reared at the Natural Resources Wales Cynrig Fish Culture Unit over the past year.

