



Know Your River – River Rheidol Salmon and Sea Trout Catchment Summary

Introduction

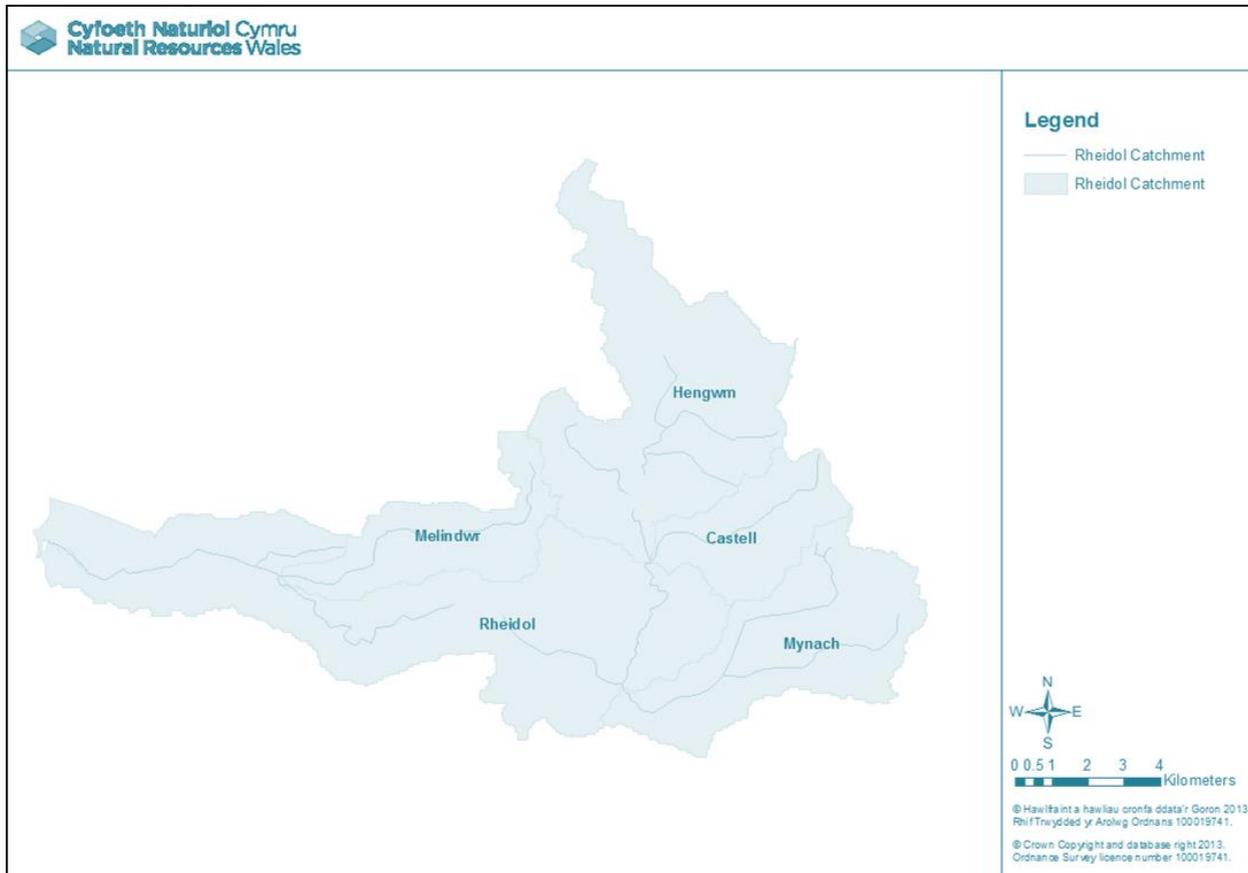
This report describes the status of the salmon and sea trout populations in the Rheidol catchments. Bringing together data from rod catches, stock assessments and juvenile monitoring, it will describe the factors limiting the populations and set out the challenges faced in the catchment.

Action tables set out habitat improvements to restore freshwater productivity of salmon and sea trout populations. These tables also include some work which will be carried out by our partner organisations, not just Natural Resources Wales (NRW).

NRW has a duty, defined in the Environment (Wales) Act 2016 to have Sustainable Management of Natural Resources (SMNR) at the core of everything that we do. By applying the principles of SMNR in all of our activities - from agriculture, forestry and flood defence to development planning - we are undertaking catchment-wide initiatives that will deliver for fish stock improvements. Our reports highlight the importance of considering the whole catchment when identifying and addressing fisheries issues; and of working with partners.

NRW is committed to reporting on the status of salmon stocks in all of our principal salmon rivers for the Salmon Action Plans and condition assessments under the Habitats Directive in SAC rivers; all fish species in all of our rivers are reported for the Water Framework Directive (WFD). This report will fulfil these commitments and provide an informative and useful summary of stock status and remedial work planned, for our customers, specifically anglers, fishery and land owners; as well as our partners.

River Rheidol



The River

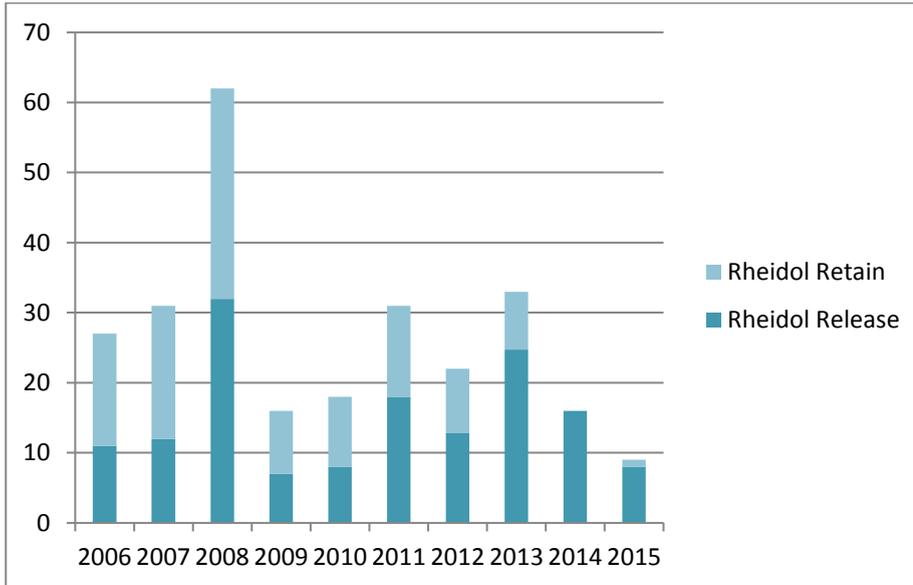
The River Rheidol rises from an altitude of 640m in the Cambrian Mountains. From here, the river descends via a series of mountain lakes and reservoirs, then continues through steep sided rocky valleys shaded with tracts of coniferous forest. Finally, the river meanders through glacial gravels, deciduous woodlands and low lying pastures of the floodplain before reaching the sea. The river flows in a southerly direction to Devils' Bridge and then west to Aberystwyth, where it reaches the sea. The Rheidol is regulated as part of the Rheidol Hydro Electric Scheme. The river drains a catchment area of 187 km². The principal tributaries are the Mynach on the south side of the catchment and the Melindwr on the north side.

The Rheidol catchment now supports a locally important salmon and sea trout (sewin) fishery. Sea trout are the principal salmonid representing, however an important population of salmon are also present.

Rod Catches

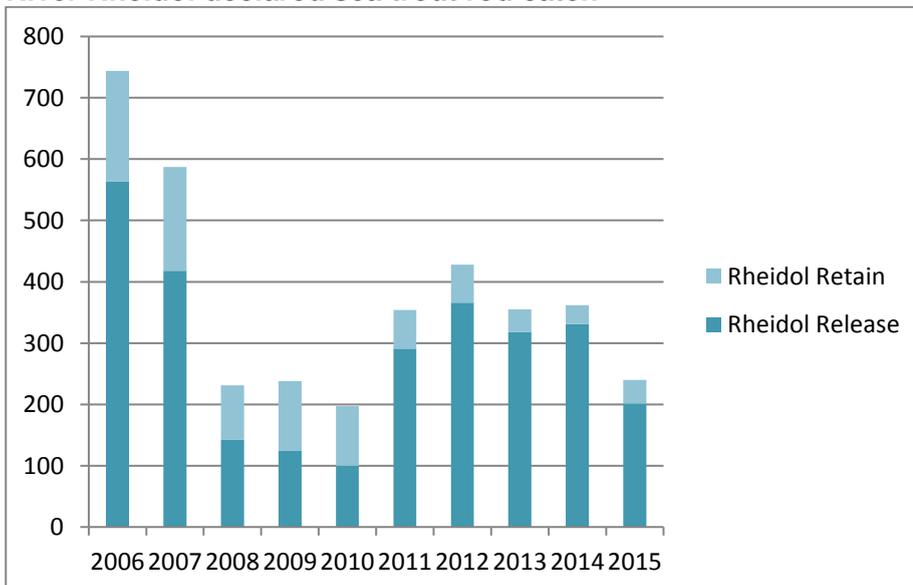
Declared salmon rod catches have been variable over the period shown, with highest catches recorded in 2008 and 2013. The average proportion of salmon catch returned alive was 60% for the period shown. The release rate for 2015 was 89% which is much higher than the Wales average of 60%

River Rheidol declared salmon rod catch



Declared sea trout catches have also been variable over the 10 year period shown and have consistently exceeded those of salmon. The lowest recorded catches were in 2008 and 2010. The average proportion of sea trout catch returned alive for the 10 year period was 74%. The release rate in 2015 was 84% which is well above the Welsh average of 72%.

River Rheidol declared sea trout rod catch

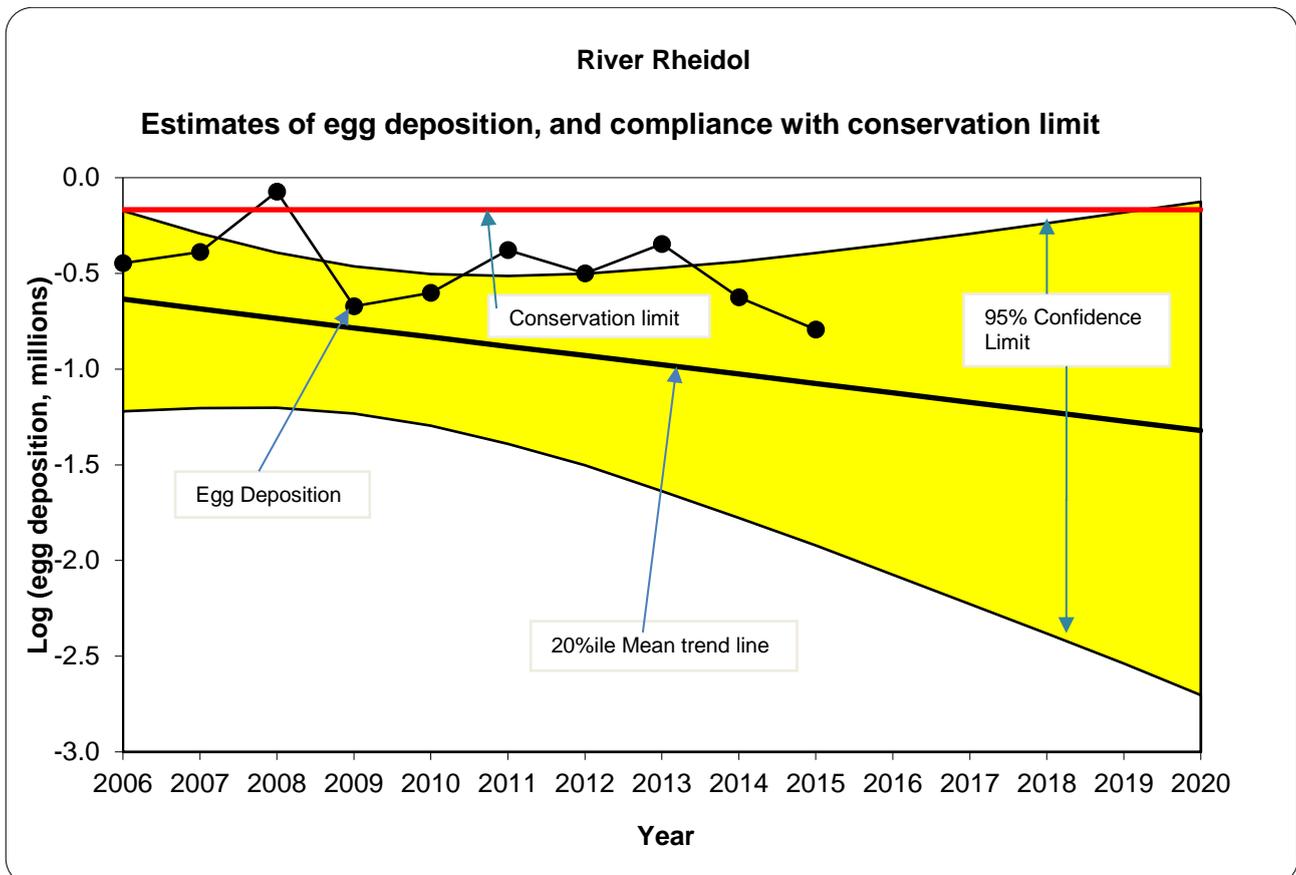


Stock Status

Conservation of Salmon

Salmon stock status is assessed through the use of 'Conservation Limits' which provide an objective reference point against which to assess the status of salmon stocks in individual rivers. The numbers of salmon a river can produce (and consequently the catches that the stocks support) are a function of the quality and quantity of accessible spawning and rearing area. This is why, in general, big rivers have larger catches and have correspondingly bigger total spawning requirements than small rivers. Thus, for any given rivers there should be an optimum level of stock which the CL seeks to protect. The conservation limit represents the number of eggs that must be deposited each year within a given catchment in order to conserve salmon stocks in the future.

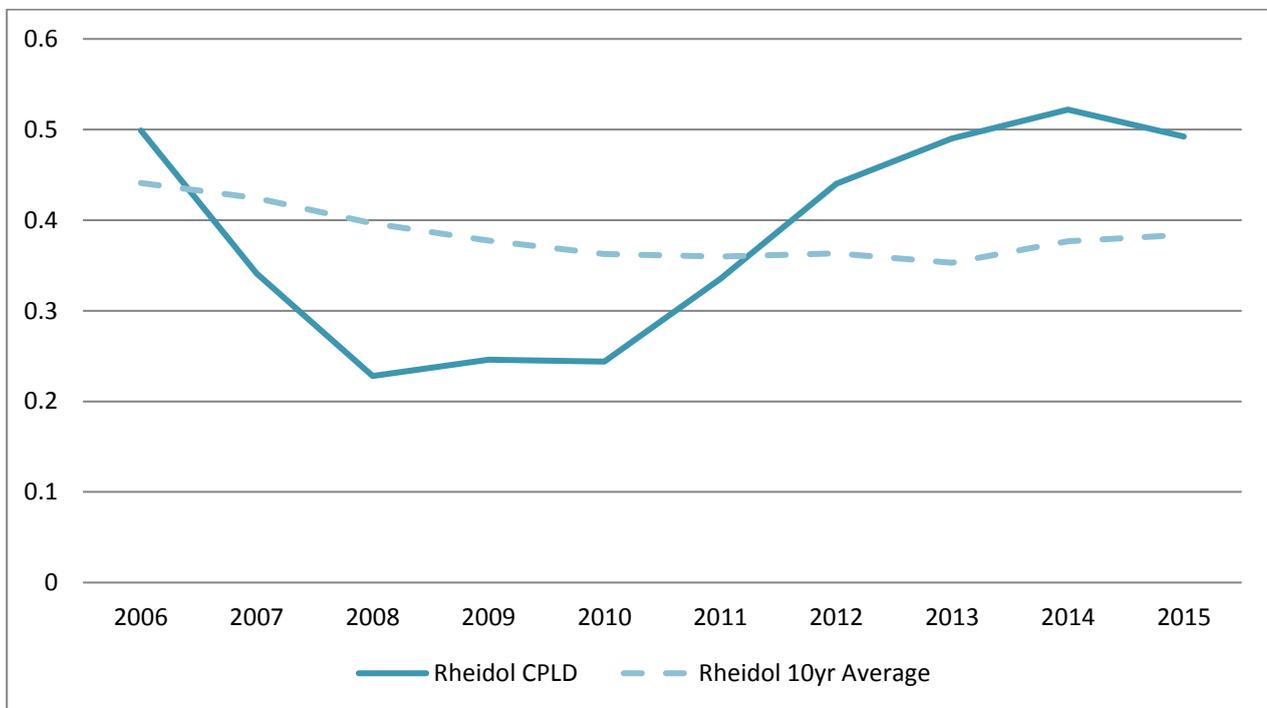
The conservation limit for the Rheidol is set at 0.68 million eggs, represented by the red line on the graph. The current number of eggs being deposited is just above the Conservation Limit, and the Rheidol is classed as 'at Risk'. In 5 years time, the predicted status of the Rheidol salmon stock will be 'Probably at Risk'. Based on current and future trends, the Rheidol salmon stock will continue to **decline**.



Conservation of Sea Trout

Our approach to assessing sea trout stock performance is still under development. It is based on catch trends in the last three years compared with those in the previous ten. The assessment gives an early warning about potential problems and assists with considering whether any further management actions are required. It provides an indication of changes in fishery performance, though this is not always a reflection of stock performance.

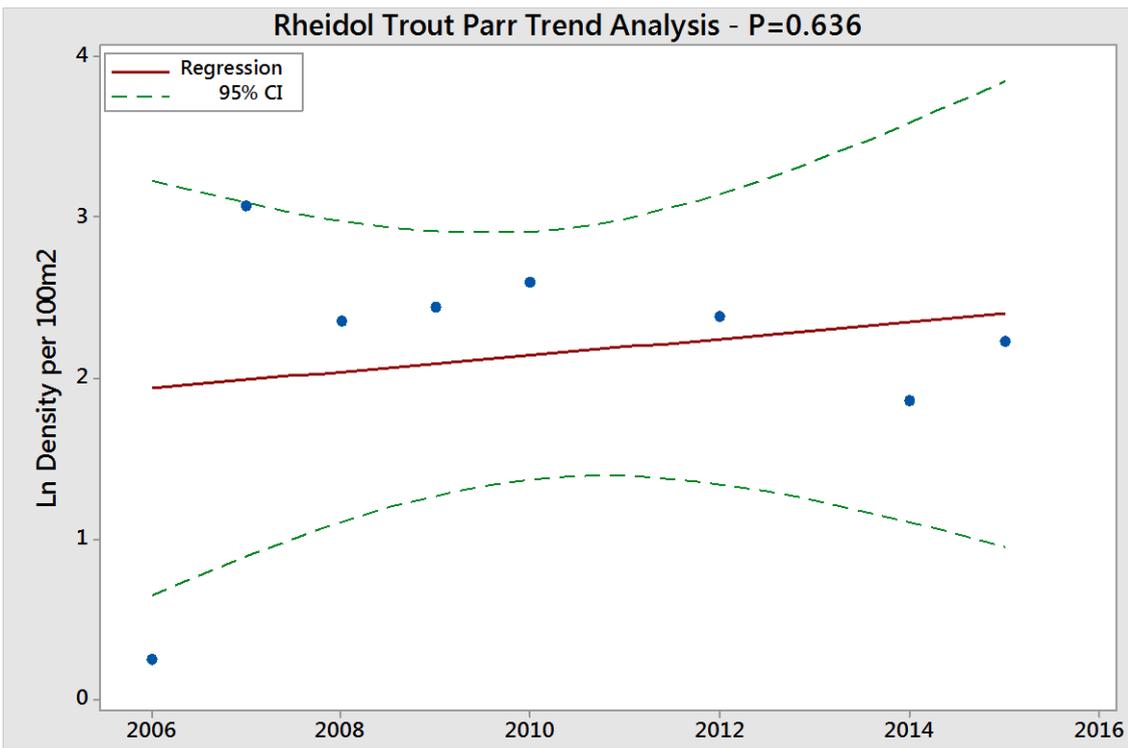
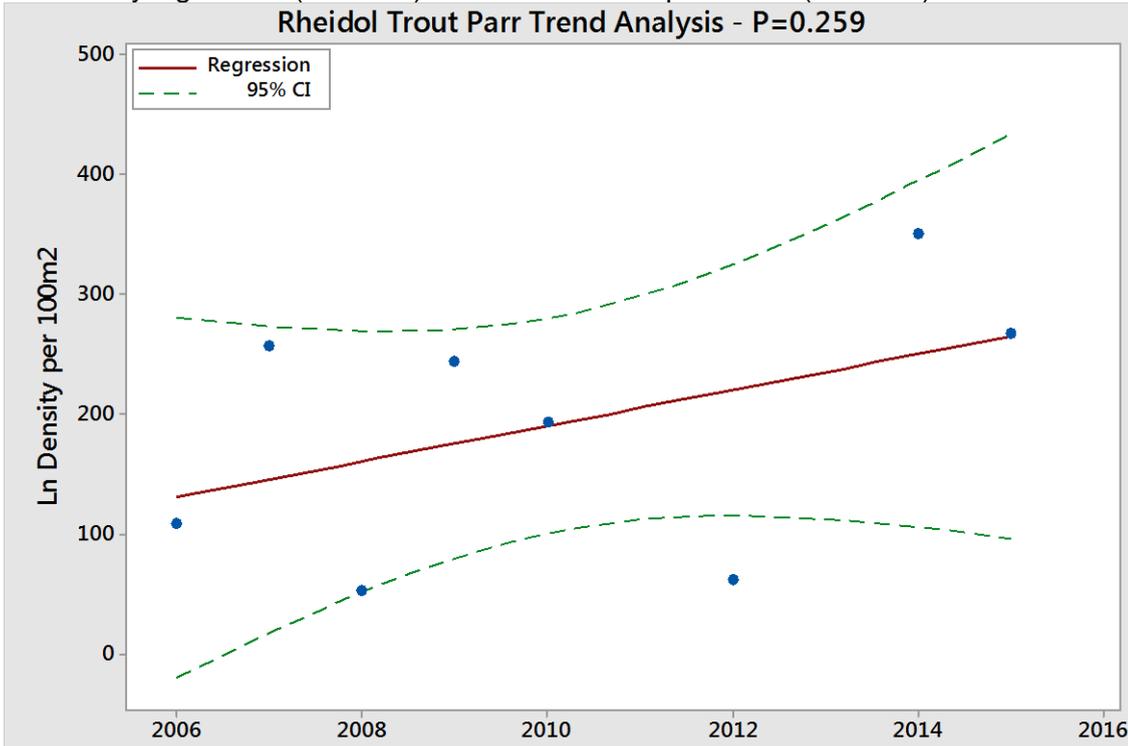
Catch Per License Day (CPLD) is the average number of fish caught for each day fished on the river and as such accounts for the variability in the amount of fishing effort between years. These statistics can be a better guide than simply looking at the total catch. The CPLD figures for the Aeron for the period 2006 to 2015 are shown below. Catch per Licence Day on the Ystwyth shows a downward trend, and the Ystwyth sea trout fishery is currently classified as **'not at Risk'**.



Juvenile Trend Analysis

Salmon are rarely found at the annual monitoring site on the Rheidol catchment. Numbers have been too low to perform trend analysis.

Juvenile trout data shows upwards trends for both fry and parr. The trend for trout fry is not statistically significant ($P=0.259$) and neither is the parr trend ($P=0.636$).



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Fisheries Mitigation Plan

Site	Mitigation action	Benefits	Lead	Partner(s)	Timescales for delivery
Rheidol	Habitat improvements: We will investigate where there is opportunity to improve habitat for fish through improving access over barriers, restoration of riparian and instream habitat, including control of invasive species	More natural river system, reduced siltation, increased flow diversity, improved spawning gravels and juvenile habitat. Improved fish numbers.	NRW		Ongoing
	Water Framework Directive: We will continue to work to ensure no deterioration, monitor the status of the environment and investigate the causes of failures. Together with our partners we will look to put in place measures that protect and improve the status of the water environment.	<ul style="list-style-type: none"> Waterbodies protected and improved WFD waterbodies achieving Good Status/Potential 	NRW	NRW Wildlife trusts Local Authorities Landowners DCWW	Ongoing
	Enforcement: Action to reduce illegal activity on information provided and investigations.	Reduce illegal activity, more fish remain in the system.	NRW	Stakeholders SW Wales Police	Ongoing