



Know Your River - River Ogmore Salmon and Sea Trout Catchment Summary

Introduction

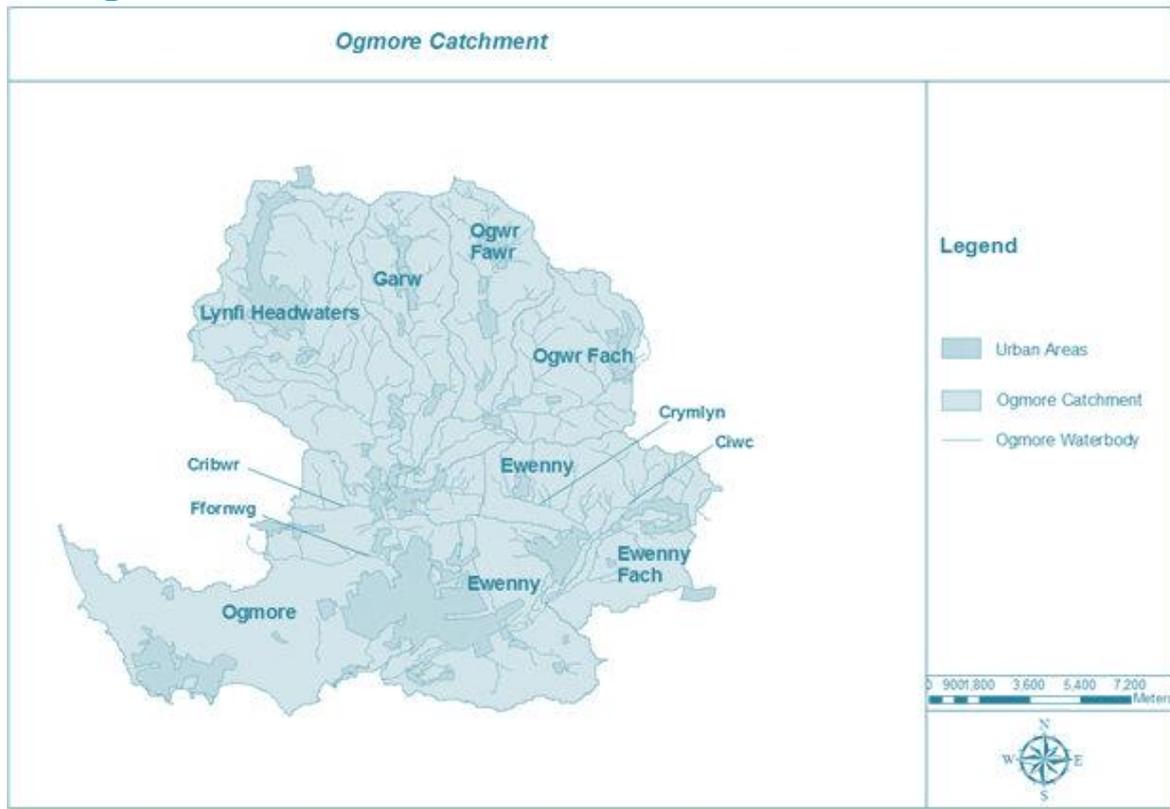
This report describes the status of the salmon and sea trout populations in the Ogmore catchment. Bringing together data from rod catches, stock assessments and juvenile monitoring, it will describe the factors limiting the populations and set out the challenges faced in the catchment.

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 our principal salmon rivers for the Salmon Action Plans, Habitats Directive condition assessments in selected SAC rivers, and the international ICES salmon status. In addition the majority of fish species in all our rivers are reported for the Water Framework Directive (WFD). This report contributes towards these commitments and provides 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 Ogmore



The River

The River Ogmore rises from an altitude of 568m and drains a catchment area of 272 km² through mainly urban areas over a distance of approximately 28km. The river flows in a predominantly southerly direction and discharges to the Bristol Channel, 32 km to the west of Cardiff. The principal sub-catchments of the Ogmore are the Llynfi and Garw in the upper catchment, and the Ewenny in the lower catchment.

Land use within the Ogmore catchment can be divided into three main categories; forestry in the upper catchment, industry in a large central area, and livestock farming in the lowland coastal strip. When taken as a whole however, the area forms one of the most densely populated catchments in Wales, with a population of 139, 000 (511/Km²).

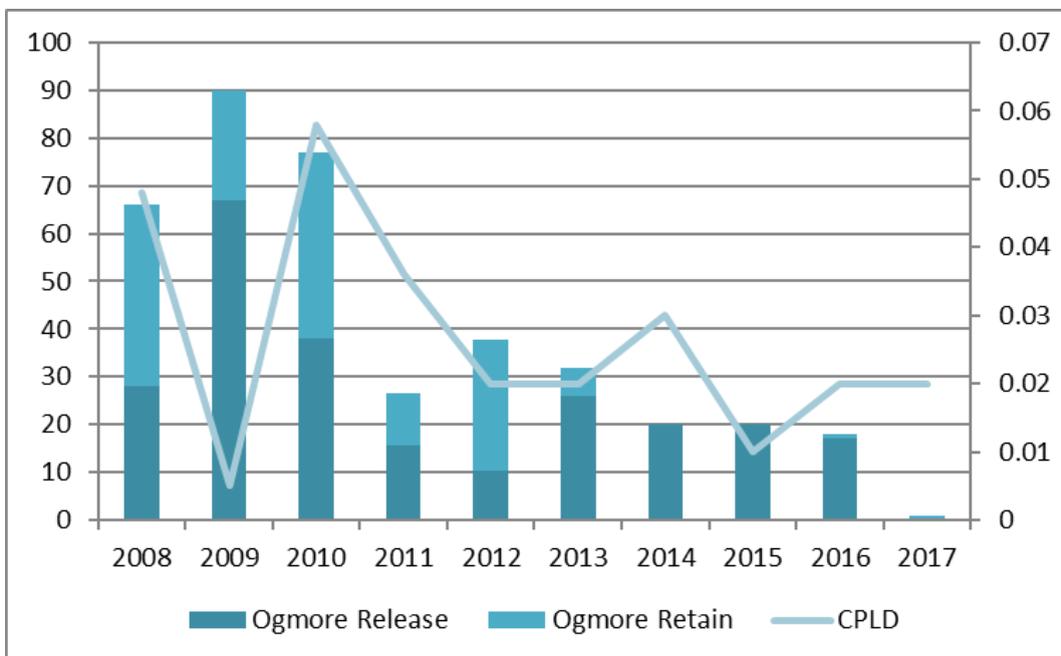
The Ogmore is a river that is recovering from long term chronic pollution; largely a result of the iron, coal and tinsplate industry of the 18th and 19th centuries. The gradual improving nature of the fishery reflects this, and the river now supports a locally important salmon and sea trout (sewin) rod fishery. The fishery consists mainly of brown trout and sea trout, although salmon are increasing in number.

Rod Catches

The following graphs show the total declared rod catches of salmon and sea trout on the Ogmore. The catch per licence day (CPLD) has also been included to show the ratio of fish caught per licences sold.

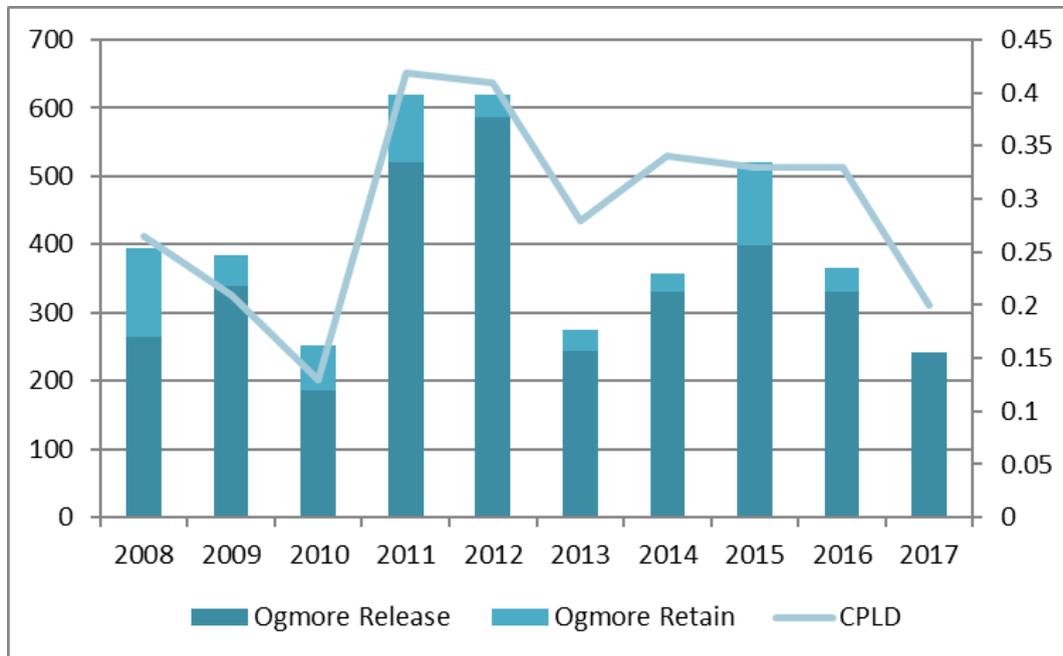
Declared salmon rod catches are variable over the period, with the highest catches reported in 2009 and 2010. The average proportion of the salmon catch returned alive has been reasonably variable over the past 10 years, with an average release rate of 74% and release rates of 100% being recorded in 2014 and 2015. The CPLD trend is similar to that of the total catch except for 2014, 2016 and 2017 where the CPLD has increased or stayed the same and the total catch has decreased, this could be due to few days being fished per licence. Additionally, in 2010 the CPLD decreased while the total catch increased which, could be due to an increase in days spent fishing and fewer fish being caught per day.

Ogmore Declared Salmon Rod Catch



Declared sea trout rod catches are also variable with the highest catches being recorded in 2011, 2012 and 2015. The average proportion of the sea trout catch returned alive has been variable over the past 10 years, with the average release rate recorded at 82%. The average release rate for sea trout in 2015 was 94% and the average for the period shown is 78%. The CPLD trend follows the total sea trout catch closely apart from in 2015 whereby, the CPLD decreased while the total catch increased which, could be because of an increase in days spent fishing and fewer fish being caught per day.

Ogmore Declared Sea Trout Rod Catch

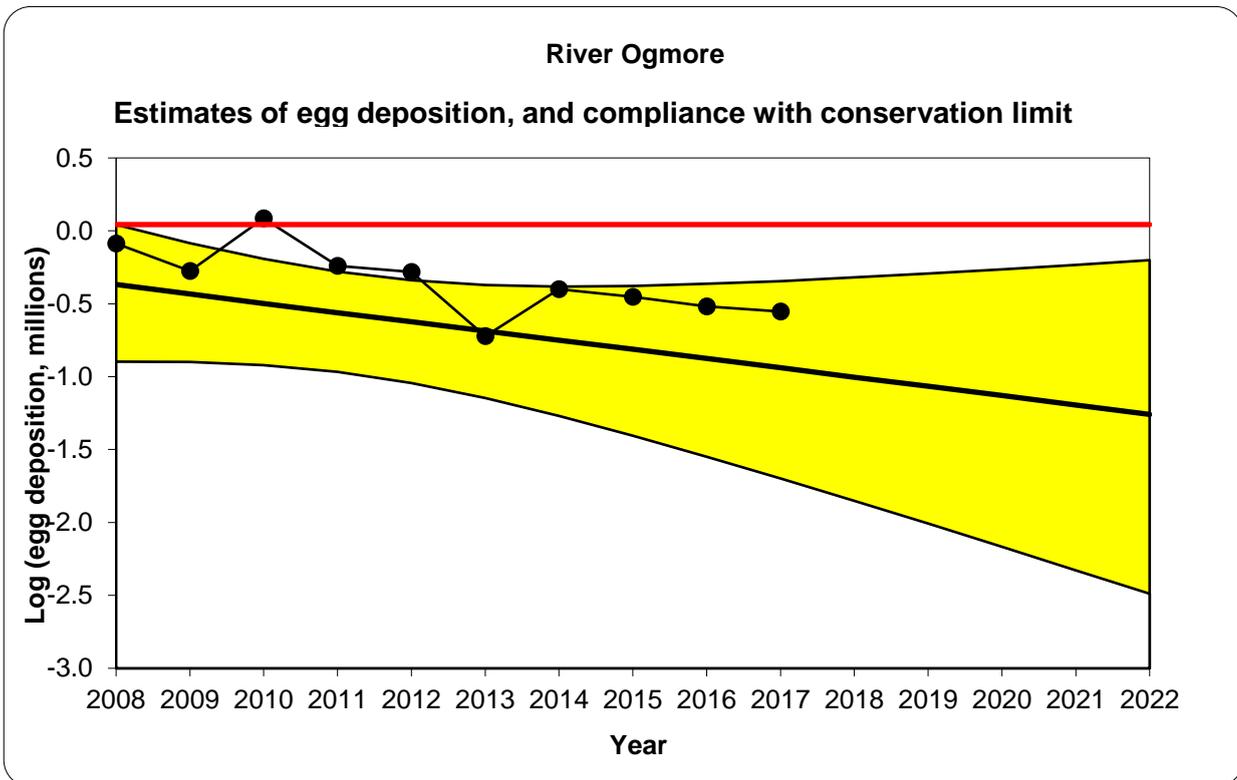


Stock Status

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 Ogmore is set at 1.1 million eggs, represented by the red line on the graph. The current number of eggs being deposited is below the Conservation Limit, and the Ogmore is classed as **at risk**. In 5 years time, the predicted status of the Ogmore salmon stock will continue to be **at risk**. Based on current and future trends, the Ogmore salmon stock will continue to **decline**.



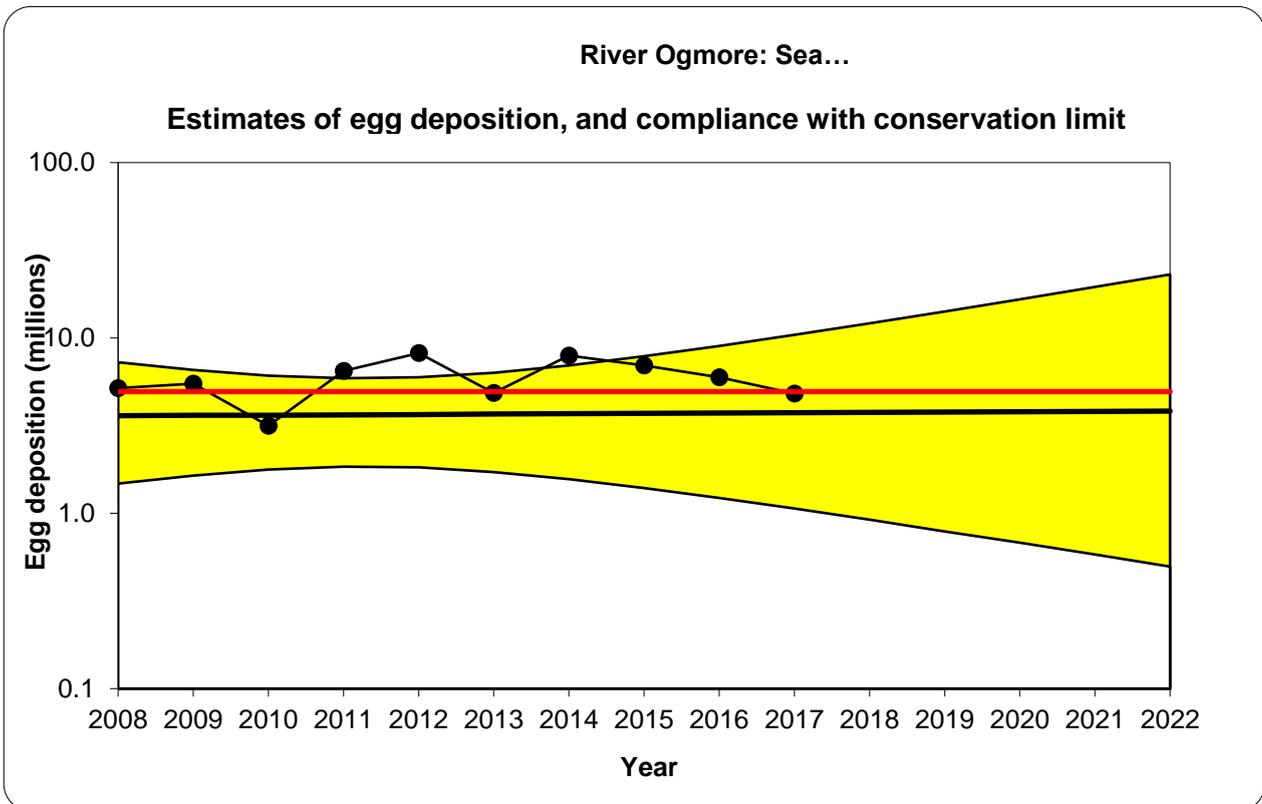
Conservation of Sea Trout

In contrast to salmon, no established methods of setting Conservation Limits or similar have been available for sea trout. In the absence of such analysis, NRW and the Environment Agency have, for several years, routinely applied a fishery-based assessment to the principal sea trout rivers. This method – used previously in this report - utilises time-series' of angling catch per unit effort (CPUE) data ('catch per day') to examine sea trout performance on a river-by-river basis.

Recently an alternative stock-based assessment method has been developed by NRW and is applied here. This utilises angling catch data to derive run and egg deposition estimates for sea trout in much the same way that similar data sets are used in Conservation Limit compliance procedures for salmon assessment.

Further details on this method are given in the recent Technical Case supporting net and rod fishery byelaw proposals on all rivers in Wales and the cross-border rivers Wye and Dee (see:

<https://cdn.naturalresources.wales/media/684367/technical-case-structure-final.pdf?mode=pad&rnd=131654078130000000>)



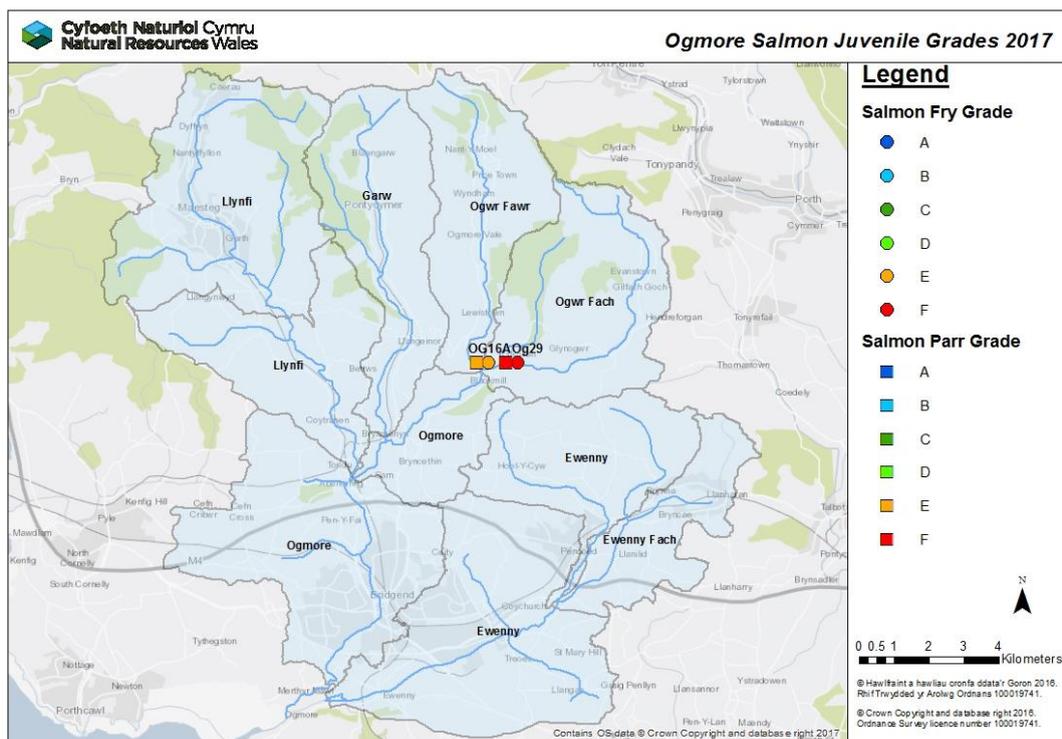
Are enough sea trout eggs being deposited to conserve sea trout stocks in the catchment? The red line represents the number of eggs required to be deposited to sustain a healthy sea trout stock. The black trend line and its confidence limits (the yellow band) is fitted to the most recent 10-year series of egg deposition estimates (2008-2017).

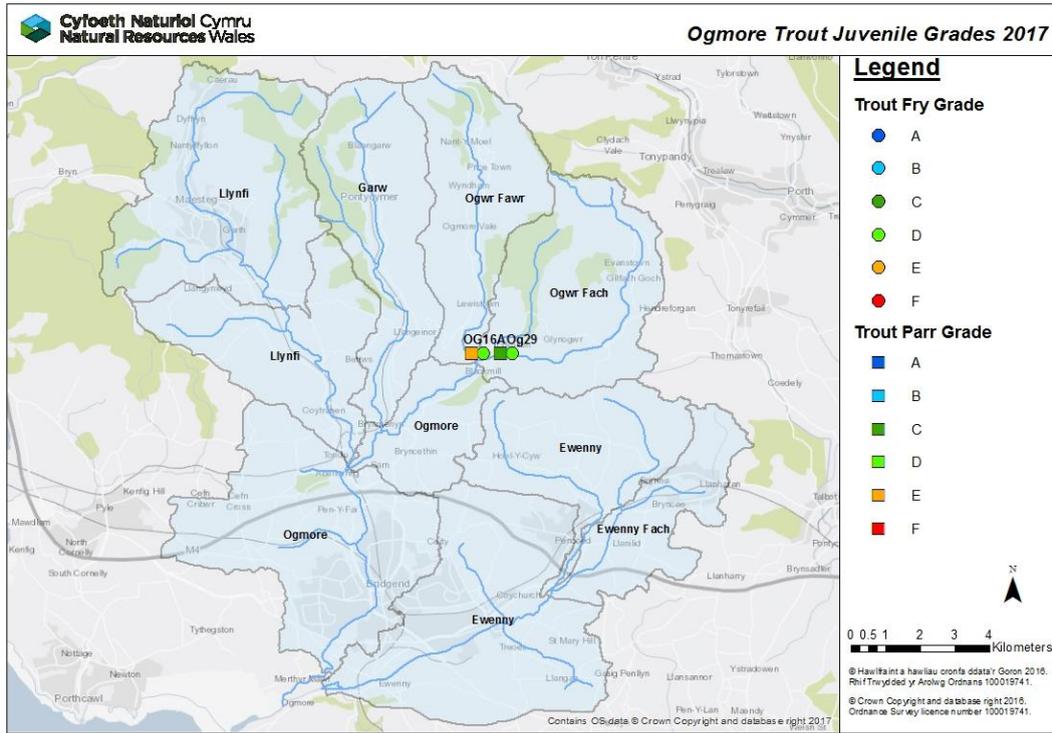
- Current number of eggs being deposited puts stocks **probably at risk**
- In 5 years' time the predicted status of salmon stocks will be **probably at risk**
- Based on current data, and the projection of the graph, sea trout stocks will continue to **improve** on the Ogmore (**uncertain**).

Juvenile Monitoring

The following map shows the results of the 2015 juvenile salmonid population surveys. They display the National Fish Classification (NFC) grades which have been developed to evaluate and compare the results of fish population surveys in a consistent manner. The NFC ranks survey data by comparing fish abundance at the survey sites with sites nationally where juvenile salmonids are present. Sites are classified into categories A to F, depending on densities of juvenile salmonids at the site. The following table shows the values and classification of NFC.

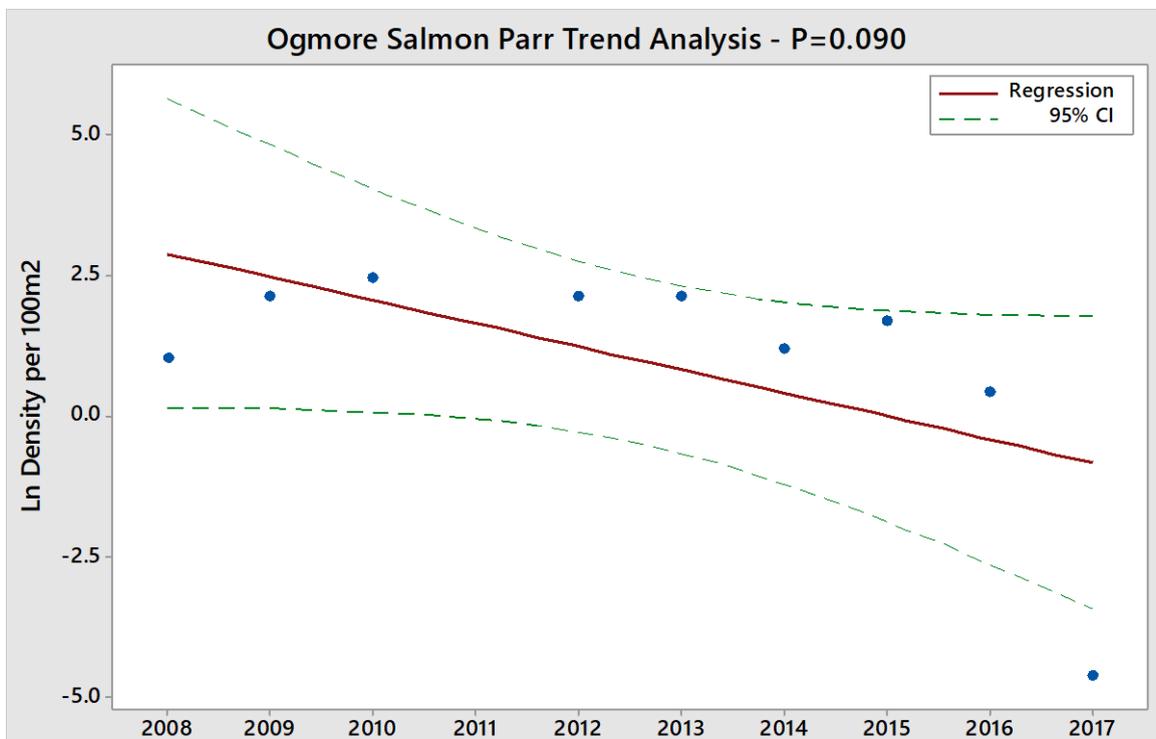
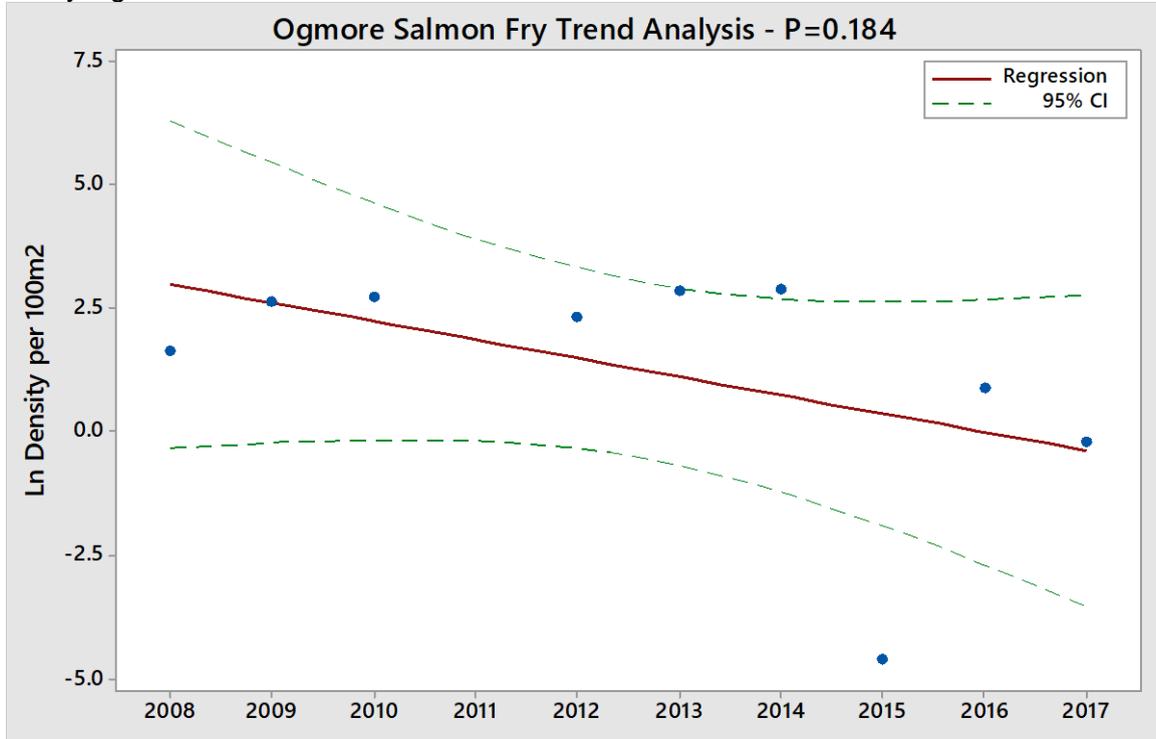
GRADE	Descriptor	Interpretation
A	Excellent	In the top 20% for a fishery of this type
B	Good	In the top 40% for a fishery of this type
C	Fair	In the middle 20% for a fishery of this type
D	Fair	In the bottom 40% for a fishery of this type
E	Poor	In the bottom 20% for a fishery of this type
F	Fishless	No fish of this type present



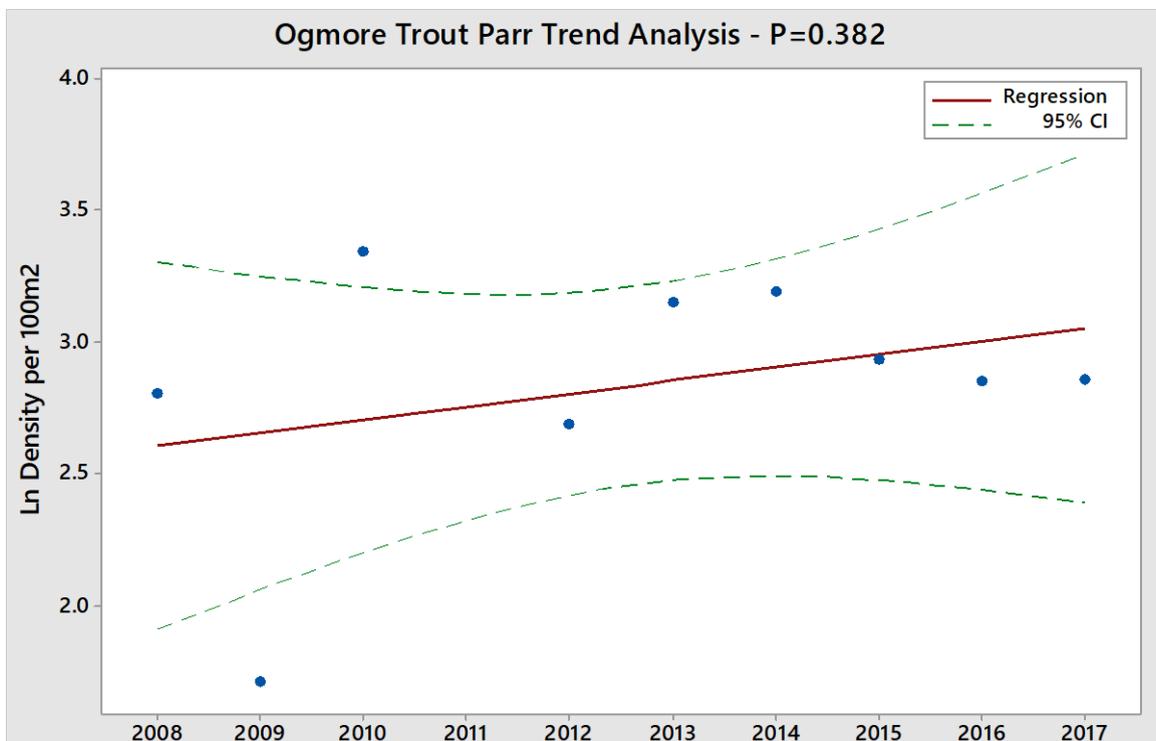
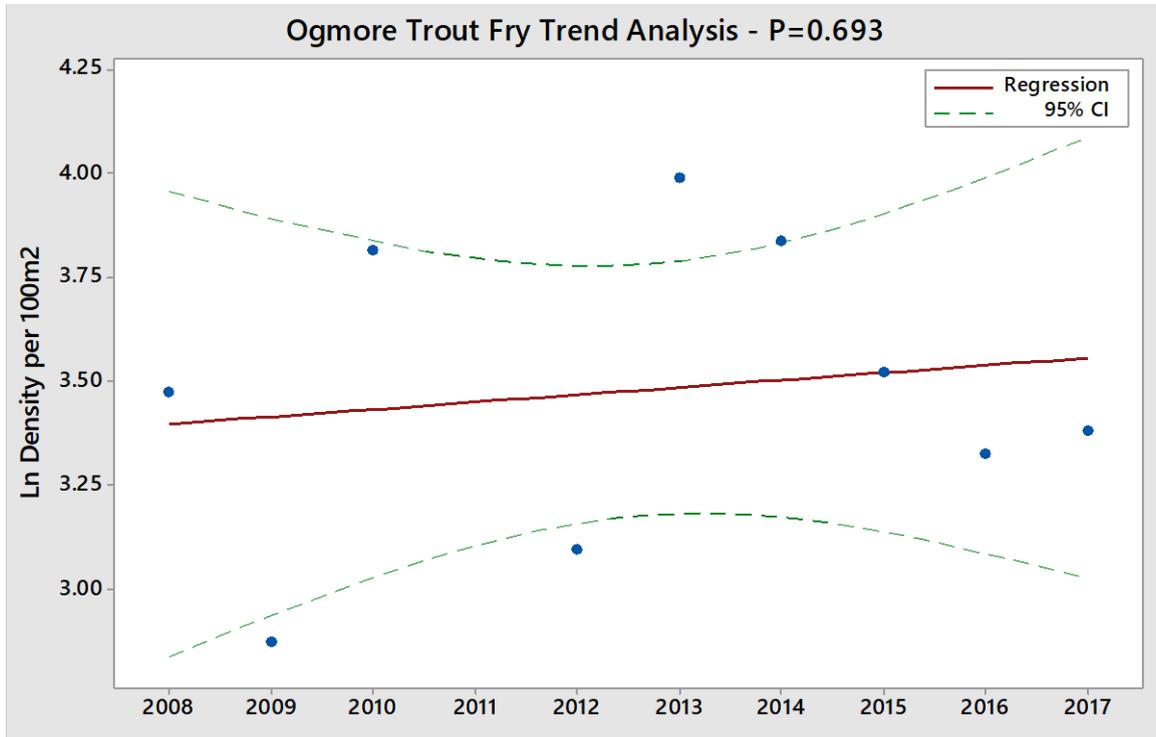


Juvenile Trend Analysis

Juvenile salmon fry & parr data both show downward trends. However, neither trends are statistically significant.



Juvenile trout data shows upward trends for both fry & parr however neither are significant.



Fisheries Mitigation Plan

Site	Planned action	Benefits	Lead	Partner(s)	Timescales for delivery
Ogmore	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