

This report summarises the findings of the 2018 juvenile salmonid monitoring on the Dysynni catchment. A more detailed assessment of the stocks will be available in 2019 when the Know Your Rivers reports are published.

## Juvenile Salmonid Monitoring Programme

In 2018 the temporal (annual) programme consists of 1 site on the Dysynni. The temporal data is used to look at trends in juvenile salmon and trout densities giving an indication of spawning across the whole catchment.

The spatial survey was also carried out on the Dysynni in 2018 which included an additional 8 sites. Spatial monitoring identifies changes in the distribution of fish and provides a basic level of surveillance monitoring over the widest practical area.

## Key Points

Juvenile salmon densities across Wales in 2018 have been mixed. The results on the Dysynni are varied. Most of the historic sites have seen a decline in salmon fry and parr densities. We set up several new sites at Llanegryn, Nantcan, Fawnog, and lower Dysynni. The results at these new sites appear good, but we have no comparison. Nant Dolgoch has only had a few salmon parr recorded in the past, so the lack of salmon is not a concern.

Trout fry and parr densities were excellent on the Dysynni compared to the historic data, with improvements across the board. This does not mirror the rod catch, however if you look at the catch per unit effort this has remained consistent for the past ten years. This would insinuate that stocks are stable. 2017 was just a very successful spawning year.

## Salmon and Trout Classification



The maps on the previous page show the results of the routine juvenile salmonid population surveys from 2018 on the Dysynni.

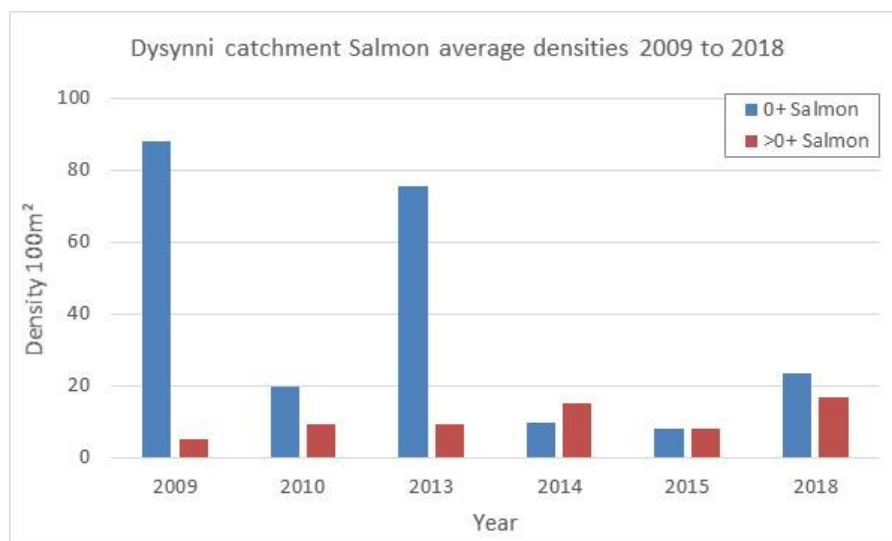
The symbols display the National Fish Classification Scheme (NFCS) grades which have been developed to evaluate and compare the results of fish population surveys in a consistent manner. The NFCS ranks survey data by comparing fish abundance at the survey sites with sites across Wales and England where 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 NFCS.

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

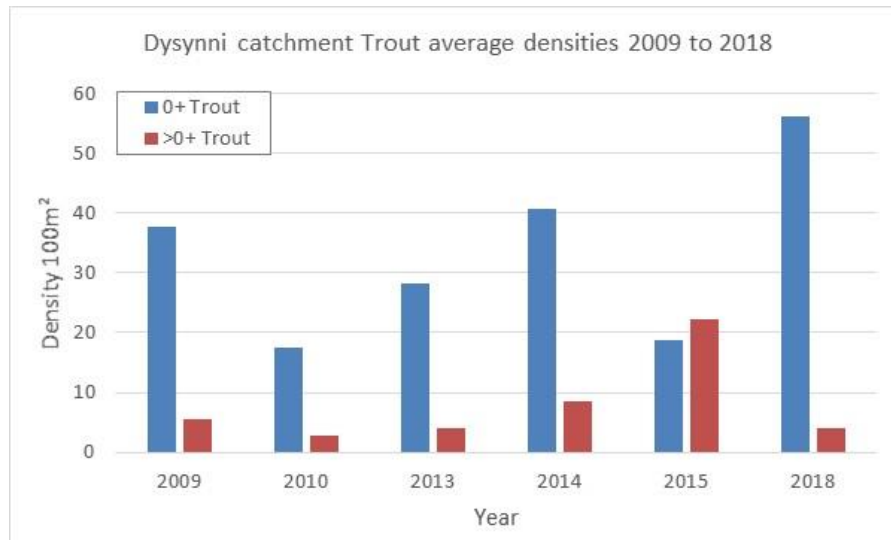
### Catchment Population Trends

The graphs below show a simple comparison of average salmon and trout densities for the temporal site (Downstream Tal y Llyn) on the Dysynni catchment since surveying began in 2009. Surveys were not carried out in 2011, 2012, 2016, and 2017 due to consistent high flows throughout the summer.

Salmon fry densities have varied greatly at the temporal site. The density in 2018 is relatively low compared to the more positive years. Salmon parr density was good in 2018, perhaps indicating that 2017 may have been a good spawning year.



Brown trout fry densities were excellent in 2018, and this was the case across all the Dysynni spatial sites. Trout parr densities were low compared to the historic data, however many of the spatial sites performed excellently.



The following table shows a simple comparison of the Dysynni temporal site density for juvenile salmon and trout from 2018, and compares this to 2015 (the last time the site was surveyed) and the 5-year average.

	0+ Salmon	>0+ Salmon	0+ Trout	>0+ Trout
2018 average density	23.6	16.8	56.2	3.9
2015 average density	7.9	7.8	18.8	22.3
<b>Percentage difference to 2015</b>	<b>200%</b>	<b>114%</b>	<b>199%</b>	<b>-82%</b>
5-yr average (2011-15)	31.0	10.7	29.2	11.7
<b>Percentage difference to 5-yr average</b>	<b>-24%</b>	<b>57%</b>	<b>92%</b>	<b>-66%</b>

Salmon fry densities are much improved compared to 2015, however they are below the 5-year average. This has been seen across many of the smaller rivers in North Wales. Salmon parr densities however seem very good at the site in 2018 compared to the historic data. This would insinuate that spawning was successful in the winter of 2016/17. Salmon rod catches are sporadic on the Dysynni as the fishing is predominantly for sea trout.

Trout fry densities in 2018 were excellent compared to the historic data. This was seen across the catchment. This does not mirror the rod catch, however if you look at the catch per unit effort this has remained consistent for the past ten years. This would insinuate that stocks are stable. 2017 was just a very successful spawning year. Trout parr densities were poor compared to the historic data at the temporal site, however many of the tributaries were excellent for trout parr.