

This report summarises the findings of the 2018 juvenile salmonid monitoring on the Nevern 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 2 sites on the Nevern catchment. The temporal data is used to look at trends in juvenile salmon and, trout densities giving an idea of spawning across the whole catchment. Additionally, a number of spatial sites are surveyed which, are carried out every 6 years on a rolling programme.

Key Points

Weather Conditions

The 2018 monitoring season was hindered by a prolonged period of hot weather and, low rainfall leading to a period of drought. Inevitably, the reduced flows of many watercourses were not ideal habitats for juvenile salmonids, with densities likely to be affected.

Salmon Observations

The Nevern catchment performed poorly for salmon fry again in 2018 although, the densities recorded were an increase on the levels demonstrated in 2016 and 2017. The rod-catch figures on the Nevern catchment have maintained steady levels however, the 2017 data does indicate a slight increase which, could explain the slight recovery in fry and parr densities.

Trout Observations

Trout fry densities were substantially reduced in 2018 however, the previous year was the highest figure recorded since 2012. When the 2018 density is compared to the 5-year average, it is evident there has been a reduction below the average figures for this catchment. On the other hand, trout parr densities in 2018 have improved significantly which, can be attributed to the high fry densities of the previous year. Furthermore, the 2018 trout parr densities continue to be recorded as significantly above the 5-year average. Juvenile trout densities are very positive in consideration of the sea trout rod-catch figures which, were recorded as significantly lower than historic data records of the last 20-years.

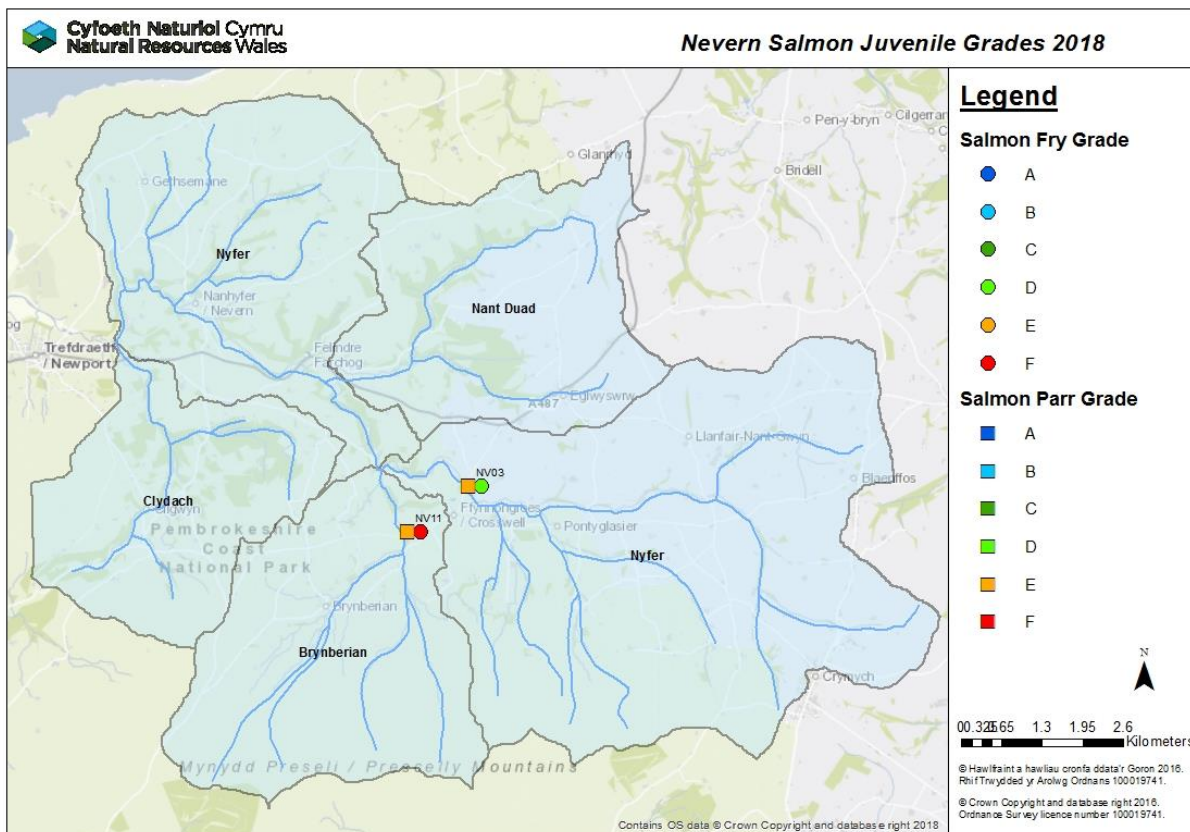
Salmon and Trout Classifications

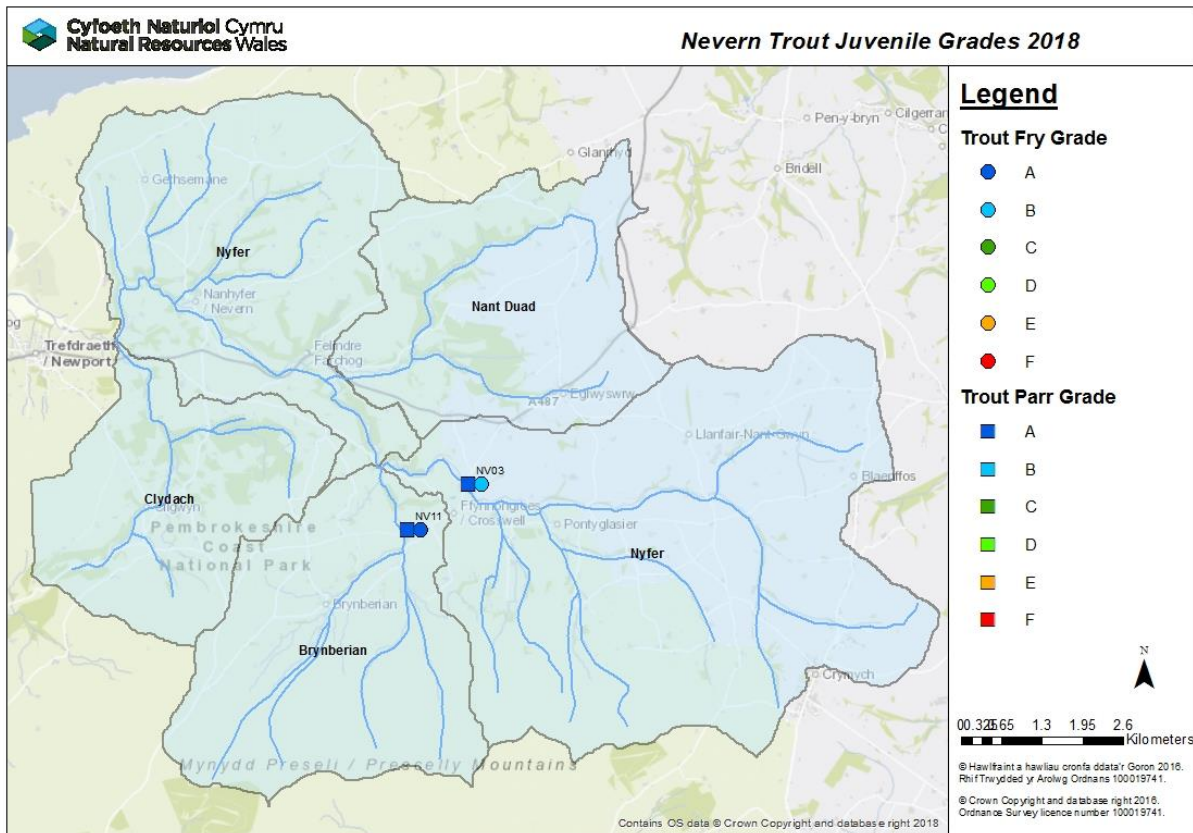
The following maps show the results of the routine juvenile salmonid population surveys from 2018 on the Nevern catchment.

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
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

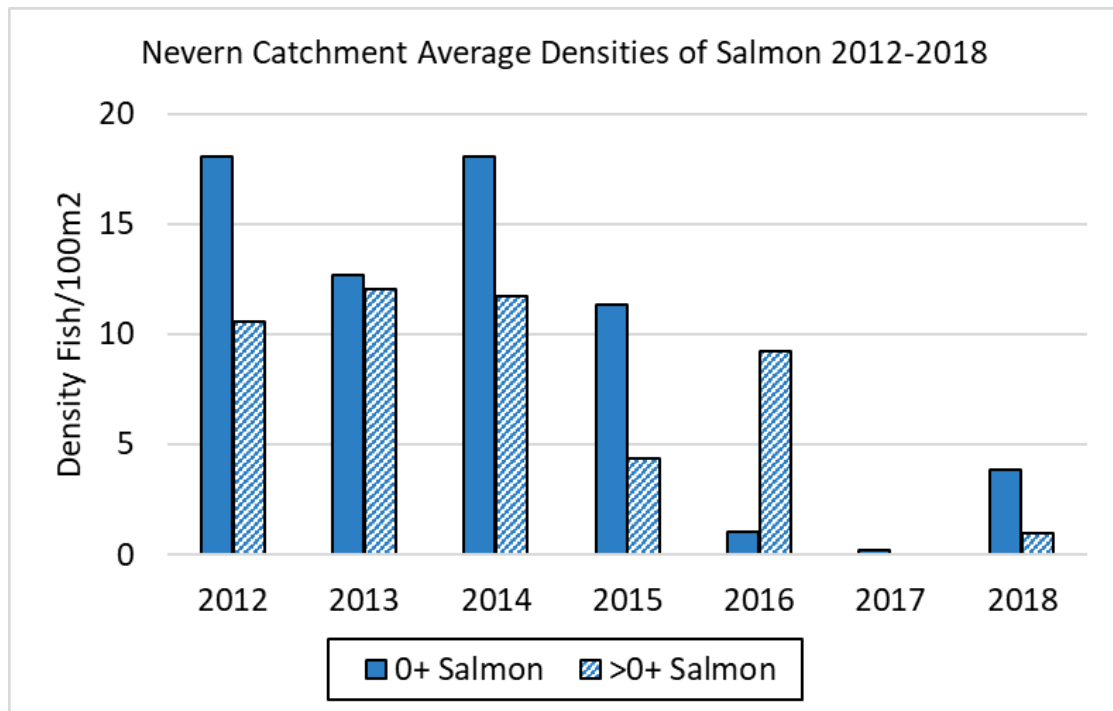




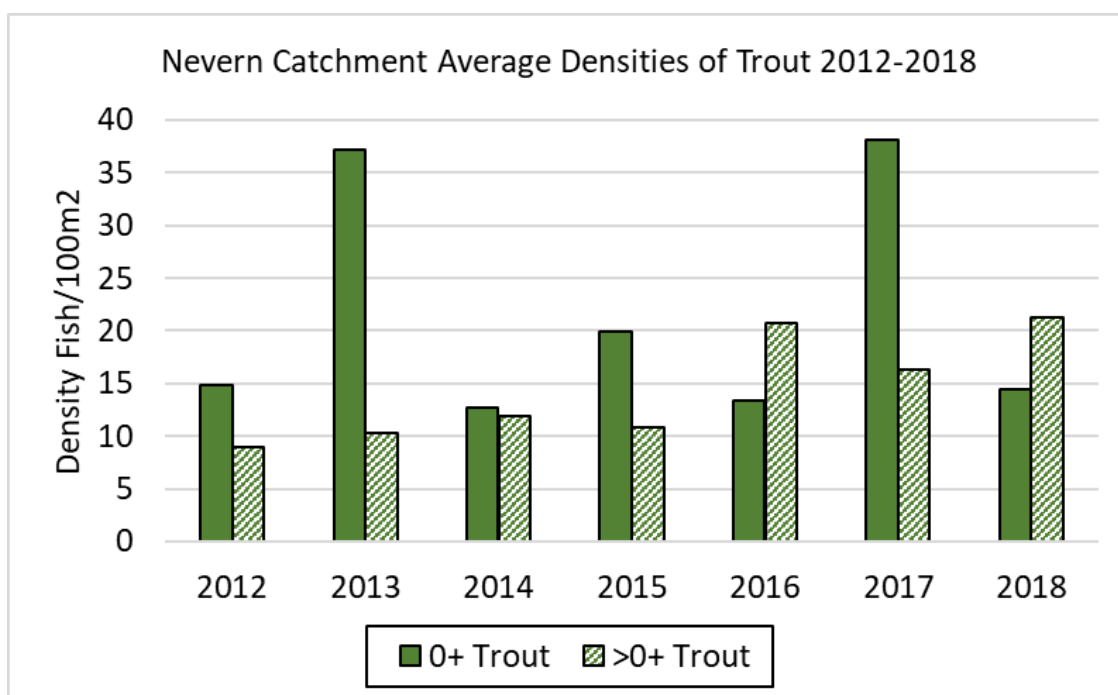
Catchment Population Trends

The graphs below show a simple comparison of average salmon and trout densities across the temporal sites on the Nevern catchment since 2012. NB – the data shown here are from Semi Quantitative surveys and, not every site in the programme was done annually.

Salmon fry and parr densities have steadily declined from moderate levels in 2012 to minimal densities in 2017, before a slight recovery in 2018. The minimal fry numbers in 2016 can be attributed to the poor season for egg hatching rates which, is thought to be caused by unusually bad weather conditions. Consequently, resulting in poor parr densities in 2017 and a continuing knock-on effect of poor trout densities.



The trout fry densities on the Nevern catchment have maintained fairly consistent levels over the years interspersed, by two years of exceptionally high densities of trout fry in 2013 and 2017. Alternatively, trout parr densities have demonstrated a gradually increasing trend during the 2017 to 2018 period.



The following table shows a simple comparison of the catchment average density of juvenile salmon and trout from 2018, and compares this against 2017, and the 5-year average. NB - The five year average has been set from 2011 to 2015 as 2016 was a poor year.

	0+ Salmon	>0+ Salmon	0+ Trout	>0+ Trout
2018 average density	10.4	0.7	17.7	15.9
2017 average density	0.2	0.0	38.1	16.3
Percentage difference to 2017	+	+	-53%	-3%
5-yr average (2011-15)	15.0	9.7	21.2	10.5
Percentage difference to 5-yr average	-31%	-93%	-16%	52%

The 2018 season for salmon has shown encouraging densities compared to 2017 results. Whilst there has been an improvement from 2017, salmon densities are still much lower than the 5-year average. The low salmon parr figures are reflective of the poor fry numbers in 2017. However, there has been an increase in densities in 2018 but still lower than the 5-year average.

Trout fry densities have recorded a small reduction since 2017, similar to 2016 which, represents a small decrease on the 5-year average. Though, trout parr densities have increased slightly since 2017 however, the 2018 densities still represent a considerable improvement on the 5-year averages.