Juvenile Salmonid Summary
Taf Catchment

This report summarises the findings of the 2018 juvenile salmonid monitoring on the Taf 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 4 sites on the Taf 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 Taf catchment rendered mixed results in 2018 with several survey sites recorded as fishless. The salmon fry results were at fair densities on the remaining sites which, demonstrates an improvement on recent years. However, salmon parr densities were poor at some sites surveyed. Nonetheless, densities have demonstrated a recovery from 2017.

Trout Observations

Trout fry densities in 2018 were marginally improved compared to 2017 data, with sites displaying mixed results ranging between excellent and poor densities. Trout fry densities were at their highest since 2015 and, parr made a slight gain on the 2017 figures. The Taf catchment juvenile trout densities are beginning to look more positive, in line with improved sea trout rod-catch in 2017.

Salmon and Trout Classifications

The following maps show the results of the routine juvenile salmonid population surveys from 2018 on the Taf 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

Taf Trout Juvenile Grades 2018
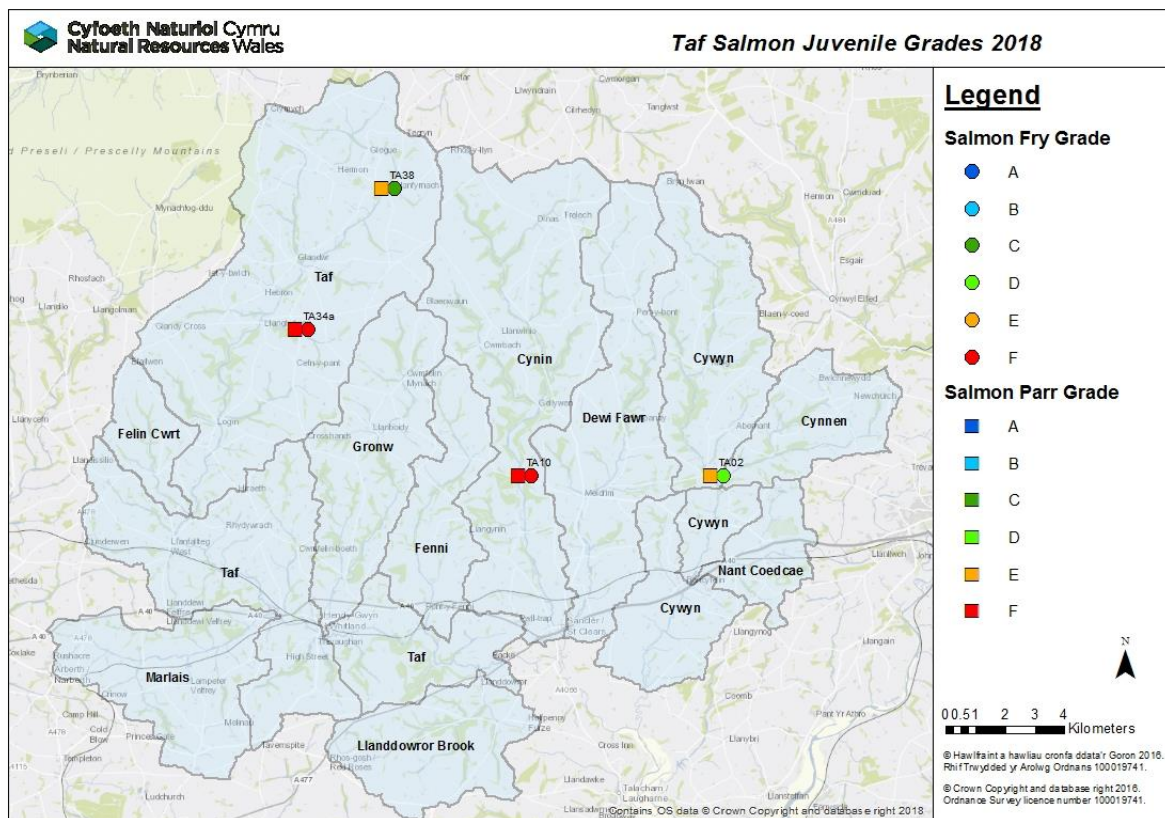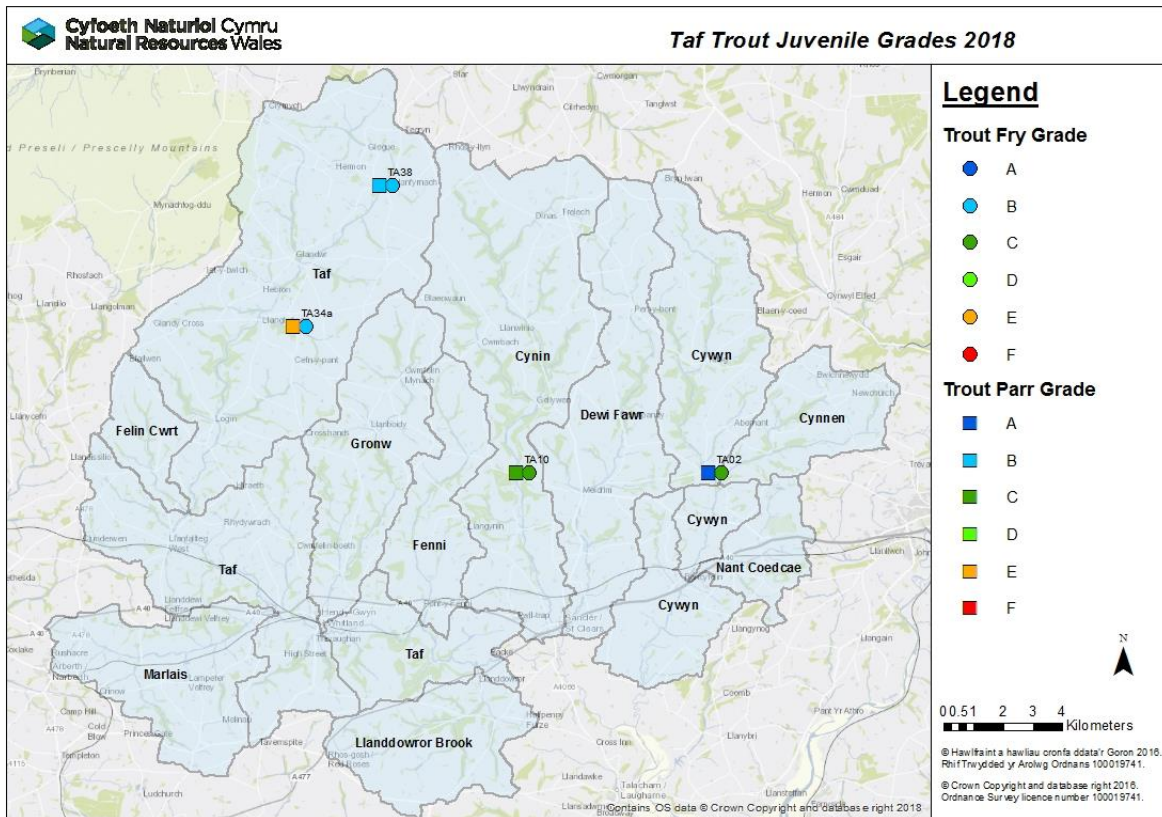
Catchment Population Trends

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

Salmon fry densities on the Taf catchment have been recorded as maintaining fairly low densities over the years, with higher densities of salmon fry recorded in 2012 and 2018 before, returning to lower densities in the intervening years. However, the fry densities have displayed a period of consistently low densities in the period 2013 to 2017 which, makes the resurgent fry densities of 2018 a positive change. Consequently, the salmon fry figures for 2018 are significantly higher than the 5-year averages. This is likely to correlate to the improved rod-caught salmon figure of 41 in 2017, when compared to the 2016 figure of 20.

Additionally, the salmon parr densities have been recorded as making a minor recovery since the negligible 2017 figures although, the 2018 density remains below the 5-year average. However, salmon parr densities on the Taf catchment have historically been recorded at low densities since 2012.

Taf Catchment Average Densities of Salmon 2012-2018
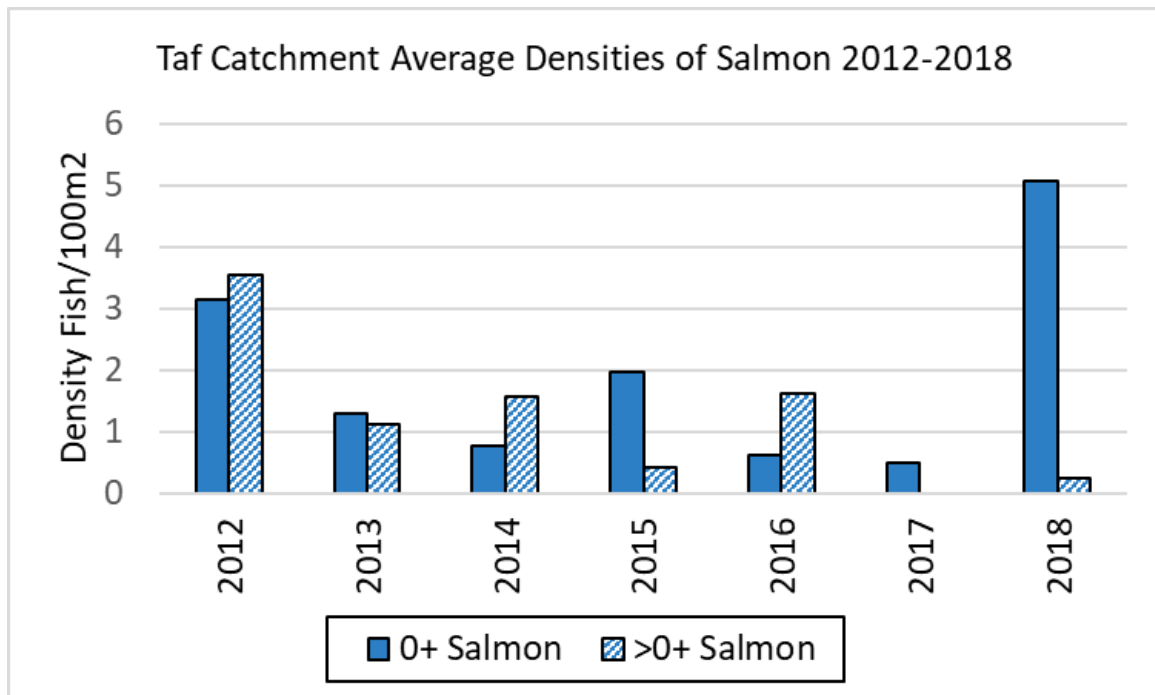
The Taf catchment trout fry figures for the period 2012 to 2018 have remained fairly consistent over the years, with the exception of the lower density recorded in 2016. However, a minor decline of fry densities can be interpreted during 2016 and 2017 before, a recovery in the latest 2018 densities which can be attributed to improved rod-catch figures. The 2018 density for fry represents an increase above the 5-year averages for this catchment.

Additionally, the trout parr densities on the Taf catchment have also increased since 2017 which, reflects the improved rod-catch figures for 2017 and, can be attributed to the improved trout fry densities of 2017. This density is recorded as slightly above the 5-year average figure for this catchment.

Taf Catchment Average Densities of Trout 2012-2018
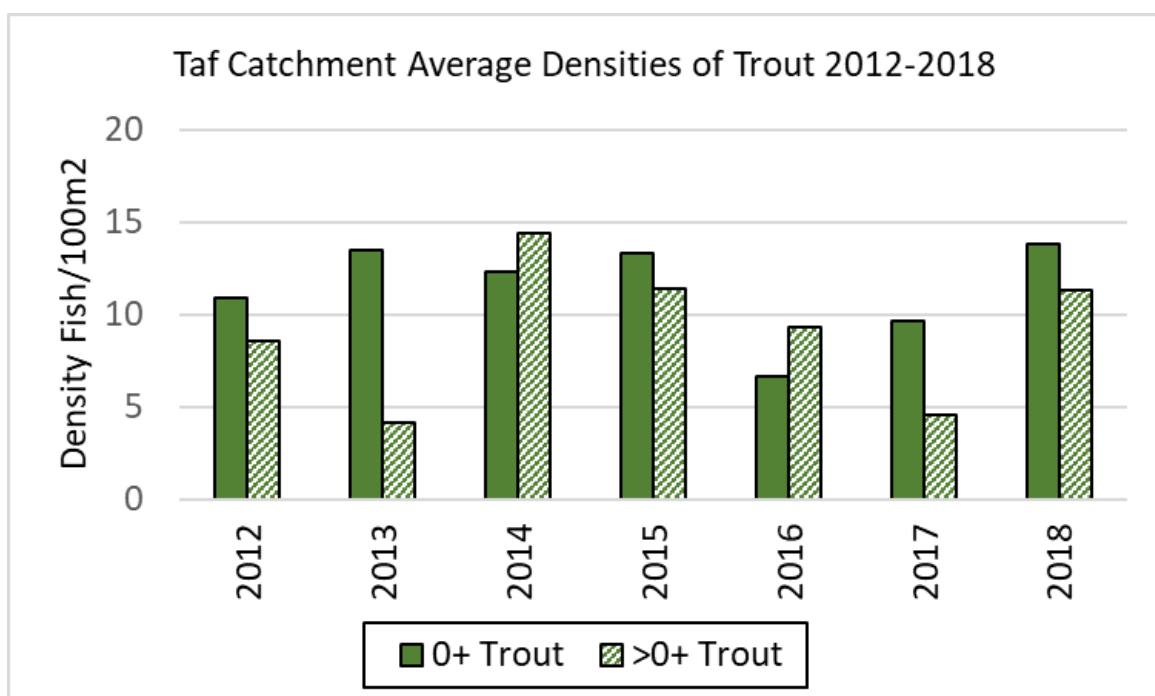
The following table shows a simple comparison of the catchment average density of juvenile salmon and trout from 2018, and compares this against 2017, and the 5-year average. NB - The five year average has been set from 2011 to 2015 as 2016 was a poor year.

	0+ Salmon	>0+ Salmon	0+ Trout	>0+ Trout
2018 average density	5.1	0.2	13.8	11.3
2017 average density	0.5	0.0	9.6	4.5
Percentage difference to 2017	**929%**	**+**	**43%**	**150%**
5-yr average (2011-15)	1.8	1.7	12.5	9.6
Percentage difference to 5-yr average	**-65%**	**+**	**10%**	**18%**

There has been a significant increase in salmon fry density compared to 2017 which, represents a considerable improvement when compared to the five-year average. However, the trout parr densities continue to struggle at low levels, even with improvement recorded in 2018.

The trout fry and parr have displayed some improvement since the 2017 season. The trout fry density figures represent an improvement on the 5-year average which, is a positive change on the Taf catchment. Whereas, the trout parr densities have displayed a minor improvement above the 5-year average figure.