

## Know Your River – Aeron Salmon & Sea Trout Catchment Summary

### Introduction

This report describes the status of the salmon and sea trout populations in the Aeron 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.

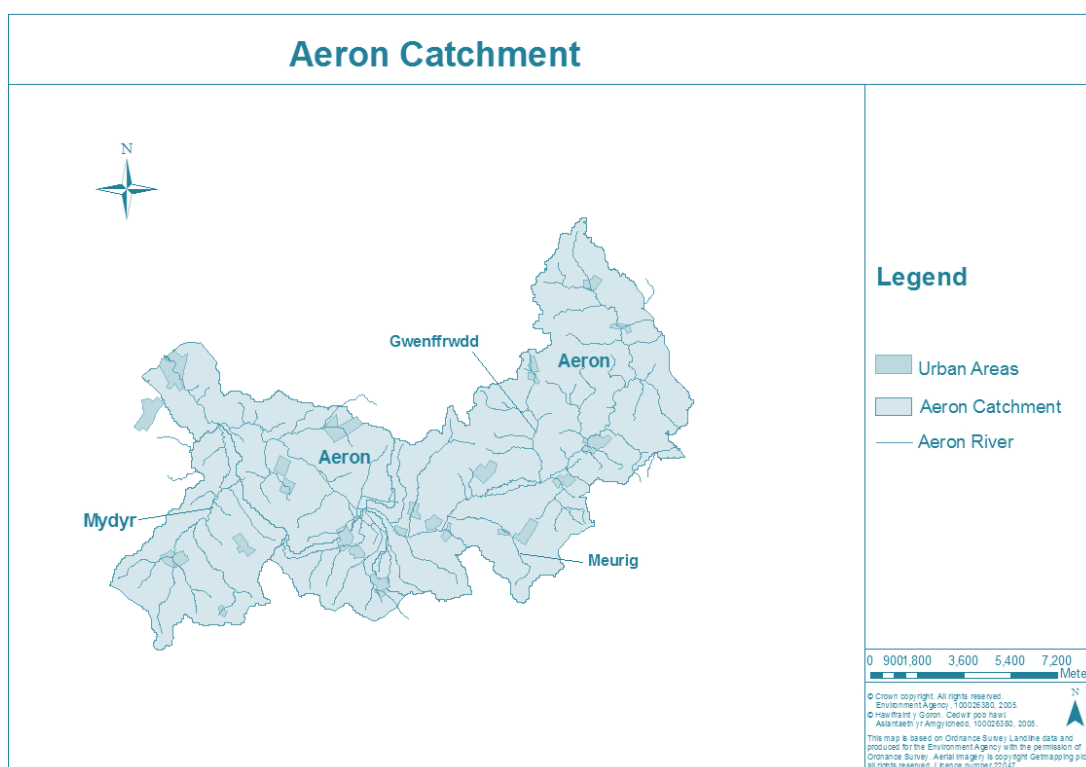
Action tables set out habitat improvements to restore freshwater productivity of salmon and sea trout populations. These tables also include some work which will be carried out by our partner organisations, not just Natural Resources Wales (NRW).

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 principal salmon rivers where, in the past, Salmon Action Plans have been produced, and/or, in SAC rivers, where condition assessments have been undertaken under the Habitats Directive. In addition, the status of various fish species in all our rivers is reported as part of Water Framework Directive (WFD) assessments. This report refers to these commitments. Its purpose is to provide, for our customers, an informative and useful summary of stock status and remedial work planned - specifically for anglers, fishery and land owners; as well as other partners.

### Catchment

The River Aeron rises from its source in Llyn Eiddwen in the Mynydd Bach hills and then flows in a westerly direction to Cardigan Bay. The catchment area is predominantly rural in nature, with the main centres of population concentrated around Felinfach and Aberaeron. The Aeron supports a locally important sea trout (sewin) fishery. Sea trout are the principal salmonid, with a limited number of salmon also present.

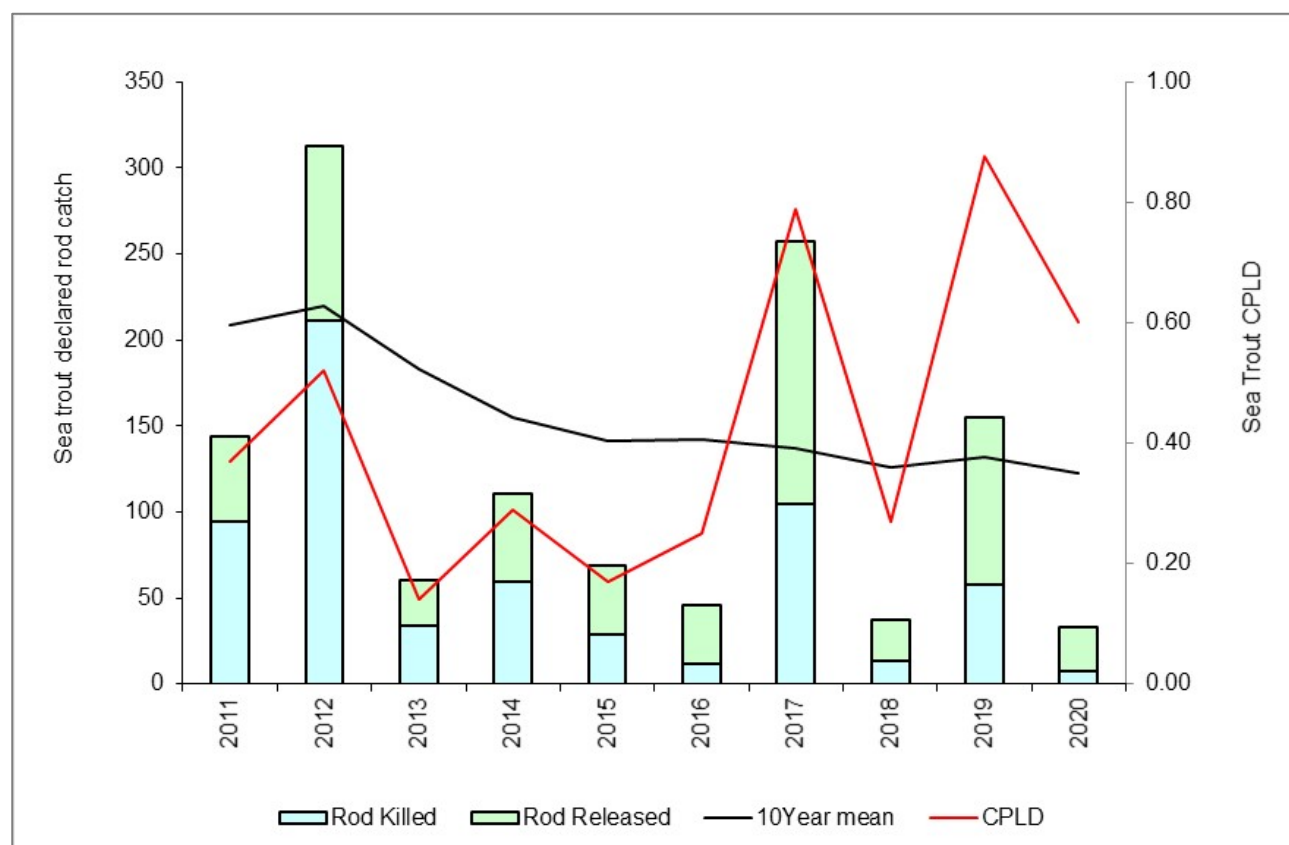


## Rod Catches

The following table/graph below shows the total declared rod catch for sea trout on the Aeron. Salmon rod catches are very low on the Aeron, and as the catchment is not classed as a principal salmon river we have not included this data. One salmon was caught on the Aeron in 2021.

### Sea trout rod catch

Year	Caught	Rod Killed	Rod Released	10 Year mean	Percentage released	Catch per license day
2020	33	7	26	122.5	60	0.600
2019	155	58	97	131.8	41	0.876
2018	37	13	24	125.9	65	0.270
2017	257	105	152	137.3	59	0.790
2016	46	12	34	142.2	33	0.250
2015	69	29	40	141.1	58	0.170
2014	111	59	52	154.7	47	0.290
2013	60	34	26	183.2	31	0.140
2012	313	211	102	219.4	33	0.520
2011	144	94	50	209.0	35	0.370



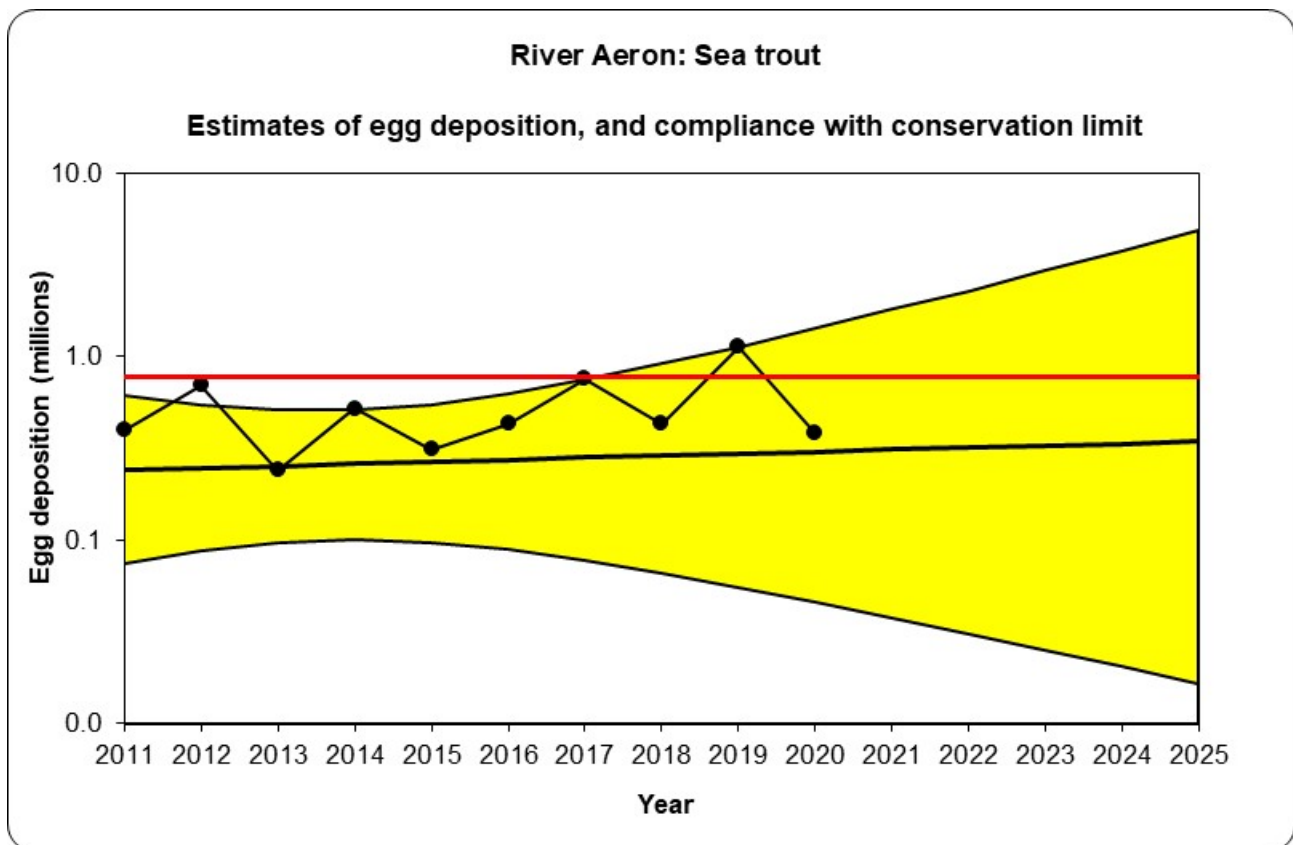
## Stock status

### 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: [Technical case for fishing controls to protect salmon and sea trout](#)).



Are enough sea trout eggs being deposited to conserve 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 ten-year series of egg deposition estimates (2011-2020).

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

## Juvenile Salmonid Monitoring Programme

In 2021 the temporal (annual) programme consisted of two sites on the Aeron. The temporal data is used to look at trends in juvenile salmon and trout densities giving an indication of how successful spawning has been across the whole catchment.

### Salmon and Trout Classifications

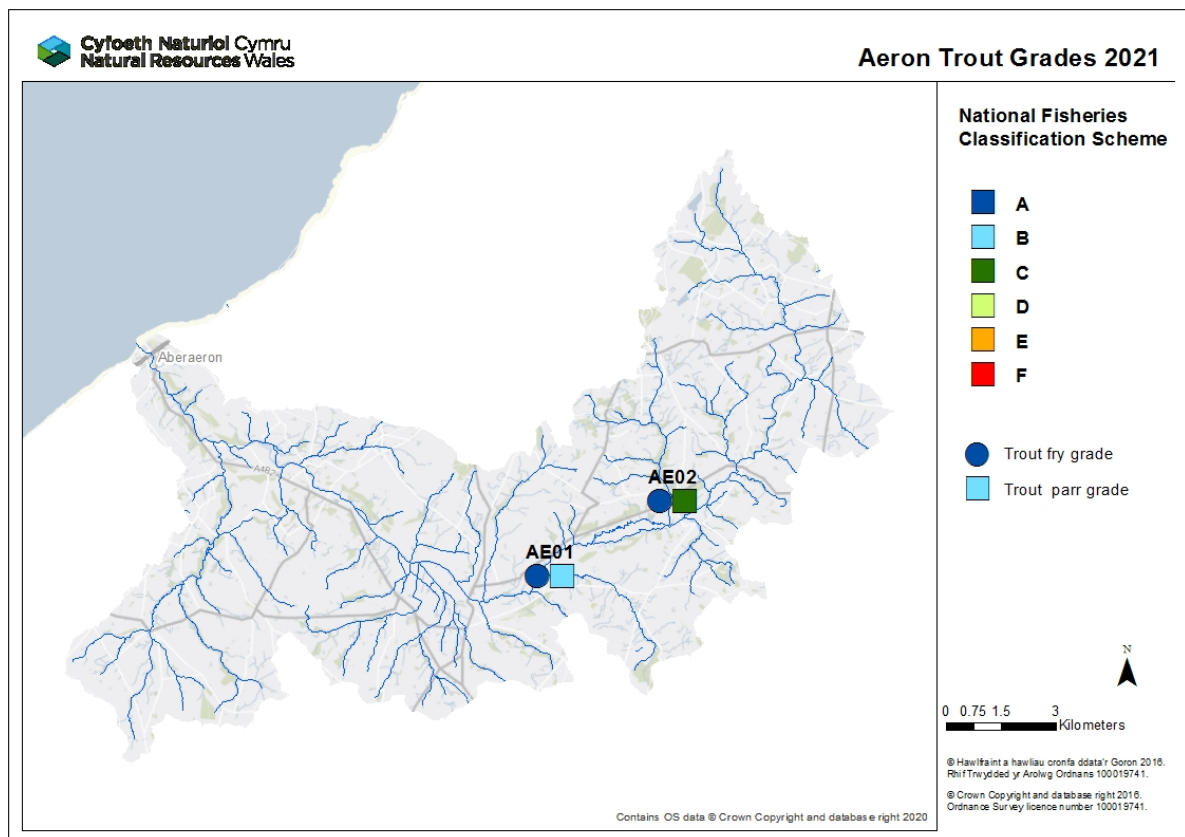
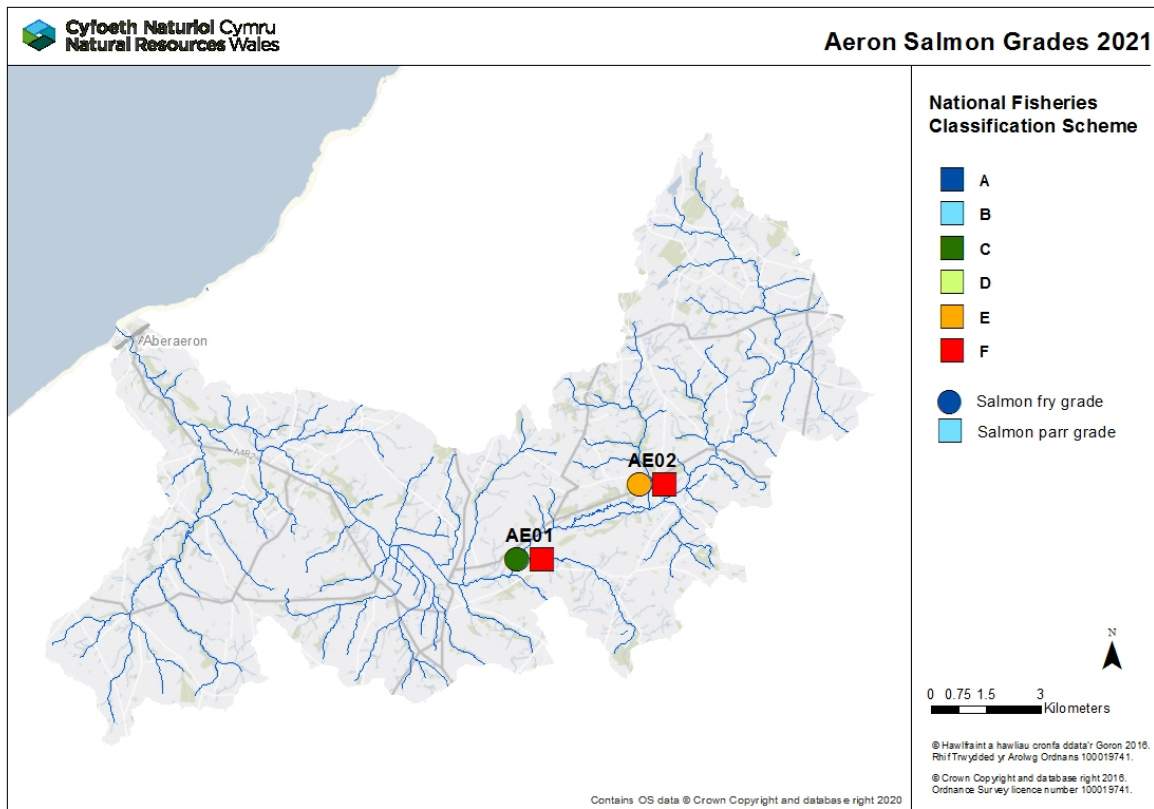
The tables/maps below show the results of the routine juvenile salmonid population surveys on the Aeron in 2021.

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.

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	Site code	Year	Salmon fry grade	Salmon parr grade	Trout fry grade	Trout parr grade
Meurig	AE1	2021	<b>C</b>	<b>F</b>	<b>A</b>	<b>B</b>
Gwenffrwd	AE2	2021	<b>E</b>	<b>F</b>	<b>A</b>	<b>C</b>

## Maps of Juvenile Salmonid Results

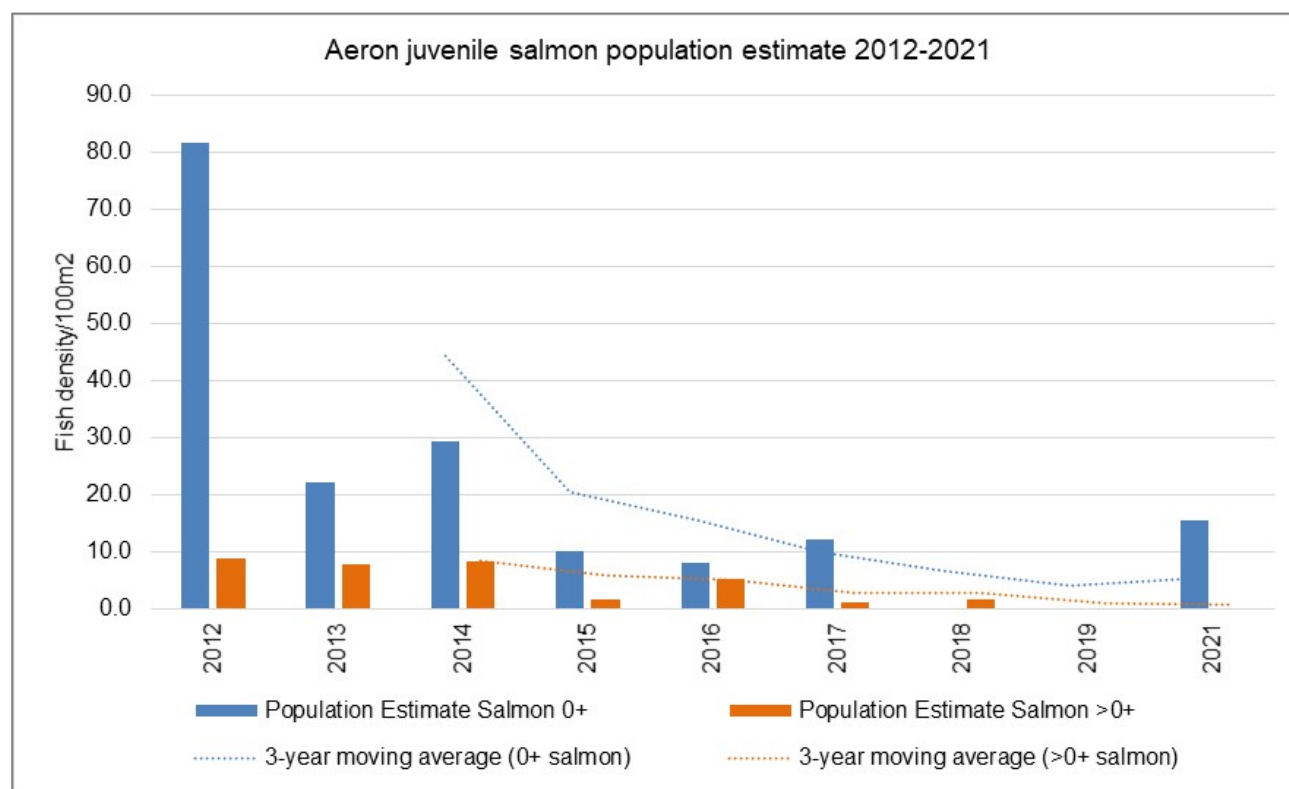


## Catchment Population Trends

The tables/graphs below show the average salmon and trout densities from the temporal sites across the Aeron catchment since 2012. NB – no surveys were carried out in 2020 due to covid restrictions. NA stands for not applicable.

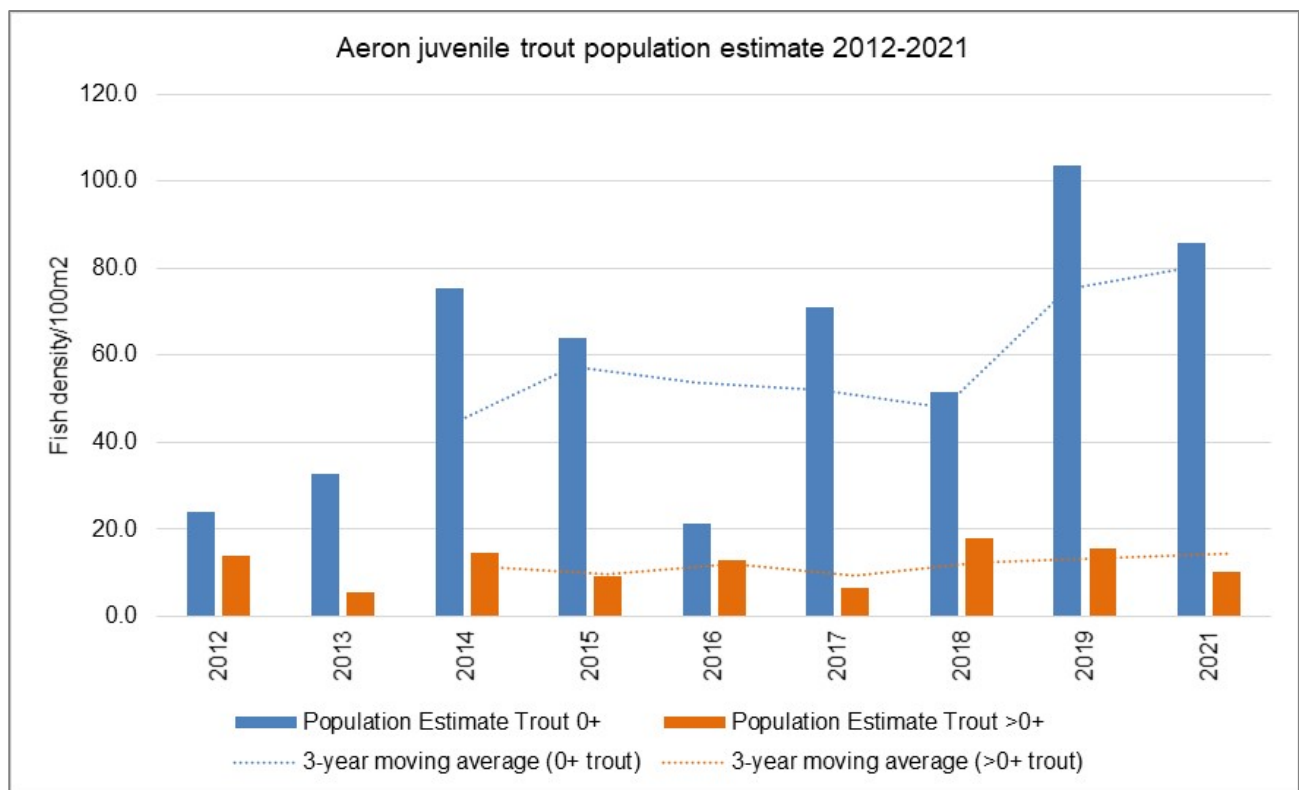
### Salmon population trend

Year	0+ Salmon	3-year average (0+ salmon)	>0+ Salmon	3-year average (0+ salmon)
2021	15.5	5.15	0.0	0.53
2019	0.0	4.03	0.0	0.90
2018	0.0	6.65	1.6	2.60
2017	12.1	9.96	1.1	2.58
2016	7.9	15.65	5.1	4.99
2015	9.9	20.42	1.5	5.89
2014	29.2	44.35	8.3	8.26
2013	22.2	NA	7.8	NA
2012	81.7	NA	8.7	NA



### Trout population trend

Year	0+ Trout	3-year average (0+ trout)	>0+ Trout	3-year average (0+ trout)
2021	85.8	80.2	10.0	14.5
2019	103.5	75.3	15.5	13.3
2018	51.4	47.9	18.1	12.4
2017	71.1	52.1	6.3	9.5
2016	21.2	53.5	12.8	12.2
2015	64.1	57.4	9.3	9.7
2014	75.4	44.0	14.4	11.3
2013	32.8	NA	5.4	NA
2012	23.9	NA	14.0	NA





## Aeron Fisheries Action Table

Planned actions	Benefits	Lead	Partner(s)	Timescale for delivery
<b>Habitat improvements:</b> 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		On-going
<b>Water Framework Directive:</b> 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.	Waterbodies protected and improved WFD waterbodies achieving Good Status/Potential.	NRW	NRW Wildlife trusts Local authorities Landowner DCWW	On-going
<b>Enforcement:</b> Action to reduce illegal activity on information provided and investigations.	Reduce illegal activity, more fish remain in the system.	NRW	Stakeholders North Wales Police	On-going
<b>Strategic Allocated Fund (SAF):</b> Partnership with Afonydd Cymru and West Wales Rivers Trust	Removal of impassable barriers to fish migration. Measures will increase access to spawning habitat, therefore spawning success and juvenile production.	NRW	AC WWRT	2022/23
<b>Fisheries Habitat Restoration Plans</b>	Investigation in partnership with Afonydd Cymru and West Wales Rivers Trust, to determine all current constraints to salmon habitat within the catchments.	NRW	AC WWRT	Completed 2020/21



	This report will be used as a basis for future funding bids by NRW/AC/WWRT			
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