

SANA MIGRATORY FISH COMMITTEE

ANALYSIS OF SALMON AND SEA TROUT CATCHES TO DETERMINE THE POTENTIAL IMPACT OF SALMONID NETTING OPERATIONS

This final report has been based on the official 2023 salmonid catches from around Scotland. The report includes the official monthly catch data for Scotland and updates from the earlier, provisional, assessment of 2023 catches released by the Marine Directorate (MD) of the Scottish Government.

The 2023 data for net catches in the North of England were published by the Environment Agency (EA) in October 2024 and are included below.

Scottish rod catches of salmon and sea trout in 2023 show a substantial decrease of 24 % from the corresponding position in 2022. During the same reporting period catches by netting operations around Scotland decreased by 54 %. One underlying cause could be that costs for salmon netters have increased, a hypothesis confirmed by some East Coast net and coble operations.

The total wild salmon “all methods” catch was 32,477 (2022 was 44,162). The 2023 sea trout total (finnock excluded) catch was little changed at 16,003 (16,571 in 2022). The sea trout rod catch component increased by 1%. The data would strongly suggest that the biomass of both salmon and sea trout in the waters around Scotland has declined substantially.

Each year’s official catch statistics are examined by the Scottish Anglers National Association (SANA) migratory fish committee, so that they and SANA’s members at large may be better informed. The compilation of the data also allows SANA to provide informed advice to stakeholder groups as well as governmental bodies such as MD. There has been a decrease in some netting operations* and the moratorium on netting by fixed engines from 2016 has been extended indefinitely. Despite the known pressure on salmon stocks, commercial netting of wild salmonids has continued in Scotland but it appears to have had very little impact on the early salmon runs from January to June in 2023.

Similar to the 2022 catch statistics, compiled by the MD, the numbers of wild salmonids being caught and released by licensed salmonid fishers in 2023 continued to feature. Most of the recorded releases were from fixed engine nets (chiefly haaf nets in the Solway), as opposed to net and coble. Net release rates were 53% for salmon (54% in 2022) and 53% for sea trout (19% in 2022). Equivalent release rates for rod-caught salmon were 96% and 92% for sea trout..

From January until the end of June, almost all salmonids captured by licensed salmonid netters were released with 99.6% returned. In the same period of 2023, the rods’ release rate was 97%.

In 2023, 31% of wild salmon legally retained in Scotland were caught by commercial nets (25% in 2022) – despite the high level of returned salmon by haaf netters. However, we note the low level of catch and release for nets’ sea trout catches viz. 15% for haaf nets and 17% for the net and coble fishery in the MD data, cf. 91% for the rod fishery.

Targeting of commercial netting effort on sea trout has been recorded before now, most recently in MD data for the years up to 2018. While we have viewed commercial netting of salmonids as an important pressure on Scottish salmonid stocks, especially sea trout and spring salmon, it is not solely an issue confined to Scottish waters. However, there appears to be an improving situation in respect of recorded sea trout landings of Scottish origin by nets in the North East of England.

Following lobbying, chiefly through SANA’s participation in North Atlantic Salmon Conservation Organisation (NASCO), the North of England drift net fishery closed after the 2018 season. However, the North East of England fixed engine fisheries continued to operate from 2019, albeit with a requirement to return all salmon. Consequently, these fixed engine netting operations continued to catch, and retain, thousands of Scottish sea trout and this continues to be a considerable concern to SANA members. Genetic stock analysis (see footnote) demonstrated conclusively that commercial salmonid netting businesses, operating in English territorial waters, have an impact on salmonid stocks, especially sea trout, destined for Scottish rivers. The numbers and the high average size of the sea trout landed by English netters indicate the pressures these operations are having on Scotland’s broodstock.

A proposed extension of the commercial salmonid netting season in 2020 was withdrawn by the EA, following representation by many bodies, including SANA.

From examination of the data, it is clear that commercial netting operations, except those undertaken for research purposes and those that are now obliged to return fish (notably haaf nets), are entirely lethal – their objective is to retain salmonids for commercial sale. Rod fishers are prevented, by law, from killing spring salmon in Scotland. Under Scottish Government conservation measures, the same obligation holds all season for category 3 rivers and there are also recommendations for categories 2 and 1. Selling rod-caught salmon and sea trout is illegal in Scotland.

Because of the 2016 Scottish ban on coastal nets, radical changes in numbers of salmon and sea trout fish retained by commercial netting operations were expected. On examination of the data this was found to be the case – but not to the extent that net catches were an insignificant proportion of fish retained. In 2019, cessation of in-river nets in the North Esk made a big difference, viz. a drop in the MD’s total net catch figures from 3,860 in 2018 to 629.

The analysis undertaken below examines the numbers of wild salmonids retained to be sold for human consumption. Historically, commercial netting operations for salmonids had become a significant pressure on stocks, especially for the more vulnerable early running spring salmon stocks – which for many anglers means from January to June. Because of the ban on coastal netting in 2016, there was considerable easing of its impact – from 2,706 to 990 salmon retained between 2015 and 2018, followed by only 155 in 2019.

In 2023, nets appeared to present less of a pressure on stocks, accounting for 5% of spring salmon landed to the end June (cf. 42% in 2022). Nets accounted for 34% of salmon killed after June, a reversal of the previous pattern.

For Scottish sea trout net catches in 2023, a notable change was the much lower proportion (49% of retained net catch in 2023, cf. 99% in 2021) attributed to net and coble operations.

In 2024, the EA published the 2023 salmonid catches statistics for England and Wales with a warning notice: “The catch data represents declared catches for 2023. You should not accept it as a definitive record of the total numbers of fish landed.” There is clearly some concern about what has been recorded and similar warnings have been issued in previous years. In 2023, all holders of net licences made a return but only 58.7 % of rod licensees did so.

Declared North East of England net catches in 2023 for salmon were 34. Previous years’ salmon and grilse catches were 73 in 2022 (a revised figure), 55 in 2021, 288 in 2020, 129 in 2019, 9,433 in 2018 and 9,909 in 2017.

In 2023, sea trout net catches fell to 5,811. The catch was 6,961 in 2022. Previous years were: 4,731 in 2021, 10,902 in 2020, 13,673 in 2019, 22,508 in 2018, 35,148 in 2017, 38,863 in 2016 and 60,696 in 2015. The sea trout average weight was reported as 1.79 kg (i.e. nearly 4 lbs) for 2023.

The commercial netting sector in the North East of England is a mixed stock fishery, exploiting salmonids of unknown river origin, many of which are thought to be from river stocks in Scotland (see footnote). SANA prepared two submissions on this topic as part of a consultation on the future of this licensed fishery in July and August 2012, addressed to the Environment Agency and to Defra, respectively. Before the curtailment of these fisheries, announced in 2018, the number of licensed nets was to have been reduced but the catch figures had suggested that the remaining nets became more efficient.

The good news is that the North East of England salmon net catches, if true, are now an insignificant pressure on Scottish salmon stocks. The sea trout situation has been improving also. However, the scale of these catches, using methods that are banned on Scotland’s east coast, still represents a notable pressure on Scottish sea trout stocks.

Craig Campbell, 12 November 2024

* “Reported retained catch and effort for the net fisheries were among the lowest recorded since records began.”
MD’s publication: Scottish salmon and sea trout fishery statistics 2023, 15 May 2024

Sources: Scottish Government Marine Directorate and Environment Agency The data used in the tables below are Crown copyright. Scottish Government Marine Directorate is not responsible for interpretation of data by third parties.

footnote: The first analysis of genotyping of catch samples was completed in respect of salmon: Genetic Investigation of the North East English Net Fisheries by John Gilbey, Lee Stradmeyer, Eef Cauwelier, Stuart Middlemas (Published 2012) Marine Scotland Science, Freshwater Laboratory, Faskally, Pitlochry, PH16 5LB. It says: "Assignment to region suggests that all NE English fisheries utilise a mixed stock resource, with between 40 – 80 % of the captures being fish of Scottish origin, depending on the fishery. Drift nets have the highest proportion of Scottish captures, and T and J nets the lowest."

NUMBERS OF GAME FISH KILLED IN SCOTLAND - 2014 TO 2023

	Rod and Line	Nets	Total	Nets as % of total
Whole season salmon and grilse catch, retained in 2014	8,036 – after 82% release rate	17,778	25,814	69%
Whole season salmon and grilse catch, retained in 2015	8,996 – after 84% release rate	13,583 - 76% caught by fixed engines	22,579	60%
Whole season salmon and grilse catch, retained in 2016	5,597 – after 90% release rate	2,846	8,443	34%
Whole season salmon and grilse catch, retained in 2017	5,187 – after 90% release rate	2,193	7,380	30%
Whole season salmon and grilse catch, retained in 2018	2,475 – after 93% release rate	3,860	6,335	61%
Whole season salmon and grilse catch, retained in 2019	3,786 – after 92% release rate	629	4,415	14%
Whole season salmon and grilse catch, retained in 2020	3,018 – after 93% release rate	780	3,798	21%
Whole season salmon and grilse catch, retained in 2021	1,619– after 95% release rate	576	2,195	26%
Whole season salmon and grilse catch, retained in 2022	1,460 – after 97% release rate	475 – after 54% release rate	1,935	25%
Whole season salmon and grilse catch, retained in 2023	1,188 – after 96% release rate	536 – after 54% release rate	1,724	31%

	Rod and Line	Nets	Total	Nets % of total
Jan-June salmon and grilse catch, retained in 2012	3,024 – after 92% release rate	3,356 – 78% in fixed engines	6,380	53%
Jan-June salmon and grilse catch, retained in 2013	2,287 – after 87% release rate	4,457 – 85% in fixed engines	6,744	66%
Jan-June salmon and grilse catch, retained in 2014	1,265 – after 89% release rate	4,293 – 82% in fixed engines	5,558	77%
Jan-June salmon and grilse catch, retained in 2015	1,370 – after 91% release rate	2,706 – 86% in fixed engines	4,076	66%
Jan-June salmon and grilse catch, retained in 2016	1,084 – after 95% release rate	1,166 –90% taken at N Esk	2,250	52%
Jan-June salmon and grilse catch, retained in 2017	1,050 – after 93% release rate	921 –80% taken at N Esk	1,971	47%
Jan-June salmon and grilse catch, retained in 2018	270 – after 97% release rate	990 –87% taken at N Esk	1,260	79%
Jan-June salmon and grilse catch, retained in 2019	616 – after 95% release rate	155	771	20%
Jan-June salmon and grilse catch, retained in 2020	311 – after 95% release rate	188	499	38%
Jan-June salmon and grilse catch, retained in 2021	276 – after 97% release rate	93 - after 67% release rate	369	25%
Jan-June salmon and grilse catch, retained in 2022	205 – after 98% release rate	147 – after 47% release rate	352	42%
Jan-June salmon and grilse catch, retained in 2023	161 – after 97% release rate	9 – after 99.6% release rate	170	5%

	Rod and Line	Nets	Total	Nets as % of total
Post June Salmon and Grilse catch retained in 2014	6,771	13,485	20,256	67%
Post June Salmon and Grilse catch retained in 2015	7,626	10,877	18,503	59%
Post June Salmon and Grilse catch retained in 2016	4,513	1,680	6,193	27%
Post June Salmon and Grilse catch retained in 2017	4,137	1,272	5,409	24%
Post June Salmon and Grilse catch retained in 2018	2,205	2,870	5,075	57%
Post June Salmon and Grilse catch retained in 2019	3170	474	3,644	13%
Post June Salmon and Grilse catch retained in 2020	2,707	592	3,299	18%
Post June Salmon and Grilse catch retained in 2021	1,343	483	1,826	26%
Post June Salmon and Grilse catch retained in 2022	1,256	328	1,584	21%
Post June Salmon and Grilse catch retained in 2023	1,027	527	1,554	34%

	Rod and Line	Nets	Total	Nets as % of total
Whole season sea trout catch, retained in 2014	4,308 – after 80% release rate	6,108 - 61% taken by net and coble	10,416	59%
Whole season sea trout catch, retained in 2015	4,503– after 79% release rate	4,281 - 64% taken by net and coble	8,784	49%
Whole season sea trout catch, retained in 2016	3,499 – after 81% release rate	2,397 - 66% taken by net and coble; 53% at N Esk	5,896	41%
Whole season sea trout catch, retained in 2017	2,983 – after 84% release rate	2,931 - 75% taken by net and coble; 61% at N Esk	5,914	50%
Whole season sea trout catch, retained in 2018	1,424 – after 90% release rate	1,680 - 81% taken by net and coble; 57% at N Esk	3,104	54%
Whole season sea trout catch, retained in 2019	2,159 – after 87% release rate	772 - 73% taken by net and coble	2,931	26%
Whole season sea trout catch, retained in 2020	1,565 – after 88% release rate	683 - 83% taken by net and coble	2,248	30%
Whole season sea trout catch, retained in 2021	1,600 – after 87% release rate	914 - 99% taken by net and coble	2,514	36%
Whole season sea trout catch, retained in 2022	1,368 – after 91% release rate	1,151 - 78% taken by net and coble	2,519	46%
Whole season sea trout catch, retained in 2023	1,172 – after 91% release rate	1,074 - 46% taken by net and coble	2,246	48%