

SANA MIGRATORY FISH COMMITTEE

ANALYSIS OF SALMON AND SEA TROUT CATCHES TO DETERMINE THE TRUE IMPACT OF NETTING

Scottish rod catches of salmon and sea trout in 2020 were affected by a substantial period of Covid-related travel restrictions. The total for wild salmon catches was 45,366 and 93% were released. This is the third lowest total on record and 92% of the previous 5-year average. While the figure was down a little on 2019 catches, it remained higher than the all time low point of 2018.

Each year's official catch statistics are examined by the Committee, so that they and SANA's members at large may be better informed. There are fewer netting stations in operation than hitherto and the moratorium on netting by fixed engines from 2016 has been extended indefinitely. Despite the known pressure on salmon stocks, commercial net fishing continued - with an increased catch, all from net and coble fisheries. There was no catch of salmon recorded by the Solway haaf netters.

While we have viewed net fishing as an important pressure on fish stocks, especially sea trout and spring salmon, it is now not mainly a Scottish problem. Rather, as noted below, we suspect that most impact of netting on stocks comes from killing of sea trout of Scottish origin by nets in the North East of England. In 2020, 21% of salmon killed in Scotland were caught in nets –up from 14% in 2019.

Following lobbying, chiefly through SANA's participation in NASCO meetings, the North of England drift net fishery closed after the 2018 season. However, the North East of England fixed engines continued to operate from 2019, albeit with a requirement to return salmon. However, their wholesale slaughter of many thousands of Scottish sea trout remains a huge concern. Previous genetics research has shown that English nets impact on stocks in Scotland, especially sea trout. The numbers and the high average size of the sea trout indicate their killing of Scotland's broodstock on a grand scale. A proposed extension of the net season in 2020 was withdrawn by the Environment Agency, following representation by many bodies, including SANA.

Because of the Scottish ban on coastal nets from 2016, radical changes in the proportion of fish killed by nets could be expected. Indeed, that happened – but not initially to the extent that net catches were an insignificant proportion of those fish that are retained. In the case of the North Esk, in-river nets remained a significant pressure on stocks but did not operate from 2019. That made a big difference.

The substantial point is that net fisheries, except those undertaken for research purposes, are entirely lethal – their objective is to produce dead fish for sale. Rod fishers are prevented, by law, from killing early spring fish and have complied with voluntary as well as compulsory catch and release under Scottish Government conservation measures. Selling rod caught salmon and sea trout is illegal.

The analysis looks at the respective numbers of wild fish killed to provide food. The net catch had become a more significant pressure on stocks in recent years, especially for fragile spring stocks of early running fish – which for many anglers means from January to June. Because of the ban on coastal netting in 2016, there was considerable further easing. In 2020, nets accounted for a substantially increased pressure on stocks, accounting for 38% of spring salmon killed. (cf. 20% in 2019.) The rod catch and release rate for the January to June period stayed high, at 95%.

For netting impact, the contrast between the early season and late season is now very marked. Nets accounted for 18% of fish killed after June. Considering the statutory obligations placed on anglers and their voluntary effort to limit impacts on stocks, the role of netting in the early season should also be treated as a conservation issue.

For sea trout, an increased share, 30% (cf. 26% in 2019) of fish killed in 2019 were retained by Scottish nets. This followed from lower net catches, much lower rod catches and a slightly higher rate of catch and release by anglers – 88% (cf. 87% in 2019). The dominant net fishery was net and coble at 83% of the total (cf. 73% in 2019). There are few such operations left in Scotland. The North Esk net and coble fishery was dominant for salmon in 2018 and accounted for 71% of all net and coble sea trout catches in that year. However, the Scottish figures pale into insignificance, relative to net catches of sea trout in the North East of England.

Catch statistics from England and Wales are not up-to-date. North East of England net catches in 2019 were: Salmon and Grilse 129 (9,433 in 2018 and 9,909 in 2017); Sea Trout 13,673 (22,508 in 2018, 35,148 in 2017, 38,863 in 2016 and 60,696 in 2015). The sea trout average weight was not reported for 2018. Previous years were calculated at 2 kilograms (4.4 lbs). This is a mixed stock fishery exploiting fish of unknown river origin, many of which are thought to be from river stocks in Scotland*. SANA prepared two submissions on this topic as part of a consultation on the future of this licensed fishery. 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. A real and continuing drop in catches seems to be confirmed. However, the scale still represents a significant pressure on Scottish stocks.

An unattributed estimate has put the 2020 haul of sea trout by the North of England nets at 10,900 fish. *Source: Trout and Salmon magazine.*

Craig Campbell, 10 June 2021

NUMBERS OF GAME FISH KILLED IN SCOTLAND - 2009 TO 2019

	Rod and Line	Nets	Total	Nets as % of total
Whole season salmon and grilse catch, retained in 2010	32,712 – after 70% release rate	27,315	60,027	46%
Whole season salmon and grilse catch, retained in 2011	24,105 – after 73% release rate	19,818	43,923	45%
Whole season salmon and grilse catch, retained in 2012	22,682 – after 74% release rate	16,230	38,912	42%
Whole season salmon and grilse catch, retained in 2013	13,532 – after 80% release rate	24,370	37,902	64%
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%

	Rod and Line	Nets	Total	Nets as % of total
Jan-June salmon and grilse catch, retained in 2010	2,808 – after 81% release rate	4,706	7514	63%
Jan-June salmon and grilse catch, retained in 2011	3,312 – after 84% release rate	7,153 – 76% taken in fixed engines	10,465	68%
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%

	Rod and Line	Nets	Total	Nets as % of total
Post June Salmon and Grilse catch retained in 2009	20,716	9,560	30,276	32%
Post June Salmon and Grilse catch retained in 2010	29,904	22,609	52,513	43%
Post June Salmon and Grilse catch retained in 2011	20,793	12,665	33,458	38%
Post June Salmon and Grilse catch retained in 2012	19,658	12,874	32,532	40%
Post June Salmon and Grilse catch retained in 2013	11,245	19,913	31,158	64%
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%

	Rod and Line	Nets	Total	Nets as % of total
Whole season sea trout catch, retained in 2010	7,843 – after 72% release rate	11,023	18,866	58%
Whole season sea trout catch, retained in 2011	7,069 – after 70% release rate	5,648 – 69% taken by net and coble	12,717	44%

Whole season sea trout catch, retained in 2012	6,471 – after 71% release rate	5,115 – 52% taken by net and coble	11,586	44%
Whole season sea trout catch, retained in 2013	3,655 – after 77% release rate	6,116 - 56% taken by net and coble	9,771	63%
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%

Sources: MSS and Environment Agency The data used in this table are Crown copyright, used with the permission of Marine Scotland Science. Marine Scotland is not responsible for interpretation of these 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."*