



North-East Atlantic Commission

NEA(15)3

*EU Member States/Jurisdictions' contributions to NEAC and WGC Agenda
items: Mixed-Stock Fisheries (MSFs) conducted by Members of the
Commission*

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1) Brief description of existing MSFs

European Union - Ireland

There are currently two managed mixed-stock fisheries in Ireland, Killary Harbour and Castlemaine harbour. A third mixed-stock fishery, Tullaghan bay, operated until 2013.

Killary Harbour

In the case of the Killary Harbour fishery, there are two contributing river stocks (Delphi and Erriff) both of which are meeting and exceeding their conservation limits (CLs). The Standing Scientific Committee on Salmon (SSCS) undertake a risk assessment for the common estuary which results in a higher requirement for spawners in both rivers than simply combining the CLs for the rivers to ensure simultaneous attainment of CL in both rivers.

Castlemaine Harbour

The mixed-stock fishery in Castlemaine Harbour, Co. Kerry, was closed over the 2007 to 2010 period as the fishery was perceived to exploit salmon from a range of rivers entering Castlemaine Harbour. A pilot fishery was conducted in the mixed-stock area of Castlemaine in 2010 to provide genetic samples for analysis of the rivers contributing to the fishery. Results revealed that the Castlemaine fishery almost exclusively exploited salmon from three rivers entering Castlemaine harbour, the Laune, Caragh and Maine, all of which were meeting and exceeding CL. The Castlemaine fishery has operated since 2011 from the total available surplus of the three contributing rivers. For the mixed-stock Castlemaine fishery to operate, the total available surplus for the three rivers combined was reduced in a common estuary analysis to ensure that each river would meet CL simultaneously. The mixed-stock Castlemaine fishery and the draft net and rod angling fishery on the three rivers all exploit salmon from this reduced surplus calculation.

Tullaghan Bay

A draft net fishery operated in Tullaghan Bay up to 2013, predominantly exploiting stocks from the Owenmore, Carrowmore and the Owenduff rivers which were exceeding their Conservation Limits. A common estuary risk assessment was also undertaken for Tullaghan bay, resulting in a higher requirement for spawners than simply combining the CLs for the rivers to ensure simultaneous attainment of CLs.

The SSCS reviewed the operation of Tullaghan bay draft net fishery in 2012 and noted that the fisheries are mostly confined to the immediate vicinity of the Owenmore/Carrowmore and Owenduff river mouths and there was only a relatively small mixed-stock fishery in the bay. The SSCS advised that it was therefore not appropriate to apply risk analysis for a mixed-stock fishery in Tullaghan bay. In its advice provided for the 2013 & 2014 seasons, the SSCS therefore did not advise a common estuary surplus for Tullaghan bay. With regard to the SSCS 2014 scientific advice, the Owenmore river was only marginally above CL (63 salmon surplus) and management advised that no commercial fishery should take place in the upper part of Tullaghan bay in the vicinity of the Owenmore river. For the 2015 SSCS advice, the Owenmore river failed to meet its 1SW conservation limit and no surplus will be available for a commercial

fishery in 2015. Therefore no mixed-stock commercial fishery will take place in Tullaghan Bay in 2015 as one of the contributing stocks (Owenmore) is failing to meet its conservation limit.

European Union - Finland

The salmon fishery in the main stem of the large River Teno, including both various netting methods and angling, is exploiting more than 20 genetically different populations of salmon from different tributaries and areas of the main stem.

CLs are now established for 24 populations of the Teno stock complex. Target attainment evaluations are now available for nine tributaries (partly including and combining lower order tributaries) and the main stem of the river.

European Union - Sweden

Sweden has taken following management measures to phase out mixed-stock fisheries on wild salmon stocks.

- Sport fishing at sea is mainly targeting sea trout. The fishing mortality for salmon was estimated to be very low in this fishery, even before a bag limit was introduced in 2014. It is estimated that the bag limit will result in nearly no fishing mortality for salmon in sport fishing at sea.
- There are four commercial trap net fisheries at the Swedish coast, situated near or in the estuary of a river with compensatory (hydropower stations) releases of fin-clipped smolts. Since 2013, only catches of fin-clipped salmon is allowed in trap net fisheries and all wild salmon shall be released alive. In the past this was partly an MSF but is not expected to be an MSF as only catches of fin-clipped salmon are allowed.
- Gill net fishing at depths <3 m is is not expected to be an MSF but since 2013 it is strictly regulated with respect to effort, period and mesh size. If marine protected areas are located nearby wild salmon rivers, no gill net fishery is allowed irrespective of the depth.
- A ban on gill net fishing for salmon in remaining coastal waters with a depth >3m has been implemented from 2014 to phase out mixed-stock fisheries targeting salmon stocks. Catch statistics revealed that despite the ban, catches in the coastal fishery did not decrease in 2014, the reason being attributed to illegal fishing. The Swedish Agency for Marine and Water Management filed a law suit against the responsible fishermen.

European Union - UK (England and Wales)

Fishery	Method	No. nets in 2014	Status
Anglian Coast	Drift nets	22	Being phased out
Severn Estuary	Putchers	4 ^a	Historic rights apply
	Lave nets	26 ^a	Being reduced to 15 nets
	Draft nets	1 ^a	Being phased out
North East Coast	Drift nets	13 ^b	Being phased out; due for closure in 2022
	T&J nets	55 ^b	Being phased out

^a Subject to catch limits in 2014

^b Includes 3 joint licences

European Union - UK (Scotland)

In general, gear type classification reflects the general areas in which MSFs operate. Thus, fixed engine fisheries tend to operate along the Scottish coastline, whereas net and coble and rod fisheries can generally be termed estuarine and freshwater fisheries respectively. Marine Scotland Science have produced a report “An Introduction to Commercial Fishing Gear and Methods Used in Scotland” which includes descriptions of the most common salmon net fisheries:

www.gov.scot/Resource/0039/00395166.pdf

Using gear type as a proxy for location of the catch, there has been an increase in the proportion of the annual reported nominal catch (the retained catch of both wild and farmed salmon) taken in freshwater compared to coastal and estuarine locations over much of the time series. The proportion of the catch taken in freshwater has declined in recent years, however, as fish retained by the rod fishery has declined, net fishery catch has remained relatively stable.

2) Recent catch data

European Union - Ireland

Ballinakill (Killary harbour) mixed-stock fishery (Erriff and Bundurragha) – mean 5 Yr catch = 366 salmon (1t)

Castlemaine mixed-stock fishery (Laune, Caragh and Maine) – mean 5 Yr catch = 655 salmon (1.8t)

Tullaghan Bay mixed-stock fishery (Owenmore, Carrowmore and the Owenduff) – mean 5 Yr catch = 293 salmon (0.8t)

Average total catch in MSFs in Ireland = 1,314 salmon (3.5t).

European Union - Finland

Salmon catch in the Teno river in 2014: Total catch 99 t (Finland 55 t, Norway 44 t), c. 80% caught in the main stem (MSF), 30% in tributaries (less or no MSF).

European Union - Sweden

Provisional nominal catch (which may be subject to revision) for 2014 (tonnes)	In-river	Estuarine	Coastal	Total
	13	-	17	30

European Union - UK (England and Wales)

(catch of salmon in 2014)

- Anglian Coast: 7
- Severn Estuary: 177
- North East Coast: 10,210

European Union - UK (Scotland)

(a) provisional nominal catch (which may be subject to revision) for 2014 (tonnes)	In-river	Estuarine	Coastal	Total
	26.0 t (1SW = 7.3 t, MSW = 18.7 t)	16.8 t (1SW = 3.5 t, MSW = 13.3 t)	40.6 t (1SW = 14.7 t, MSW = 25.9 t)	83.3 t (1SW = 25.5 t, MSW = 57.8 t)
(b) confirmed nominal catch of salmon for 2013 (tonnes)	43.1 t (1SW = 12.0, MSW = 31.1 t)	25.9 t (1SW = 11.8 t, MSW = 14.0 t)	50.1 t (1SW = 21.2 t, MSW = 28.9 t)	119.1 t (1SW = 45.0 t, MSW = 74.1 t)
(c) estimated unreported catch for 2014 (tonnes)				11 t
(d) number and percentage of salmon caught and released in recreational fisheries in 2014.	Number: 37139 (1SW = 10713, MSW = 26426) Percentage: 82.2% (1SW = 75.7%, MSW = 85.2%)			

For an evolution of the catches since 1952 by gear type see Annex.

3) Updates to the Implementation Plan (IP) related to MSFs

European Union - Ireland

The Irish Implementation plan was updated in May 2014.

European Union - Finland

Preparation of the new fishery agreement between Norway and Finland is underway. This is concerning river fisheries, including the MSF in the main stem, but the coastal MSF is the responsibility of Norwegian national management.

Conservation limits are now established for 24 populations of the Teno stock complex, and attainment has been assessed for ten populations and for the entire system, as compared to five assessed tributaries earlier. Exploitation of these populations in the MSF in the main stem can be assessed through genetic stock identification. However, this is not yet a standard procedure in the annual monitoring programme.

In the Finnish-Norwegian negotiations, progress has been made in refining the common goals and building the proposals for new regulations based on biological reference points for each population, scientific assessments of their attainment, and using new information on MSF in the main stem in defining alternative regulations.

European Union - Sweden

No updates.

European Union - UK (England and Wales)

The Implementation Plan (IP) for UK (England & Wales) was updated in 2013/14 to clarify the management of fisheries within estuaries. The updated IP states that all fisheries, including MSFs, operating within estuary limits are assumed to exploit predominantly fish that originated from waters upstream of the fishery. These fisheries are carefully managed at a local level to protect the weakest of the exploited stocks, guided by a decision structure and taking into account socio-economic factors and European Conservation status where applicable. This includes the Tamar/Tavy/Lynher and the Taw/Torridge rivers and the Solway Firth.

European Union - UK (Scotland)

As outlined in both the Implementation Plan and the Annual Progress Report, the Scottish Government is currently consulting on statutory measures to introduce a licensing system for the killing of wild salmon with associated carcass tagging regulations, baits and lures regulations and charging provision. The consultation closed on 30 April 2015.

In addition a number of initiatives are currently underway to improve the data on salmon stocks and populations, for example the scoping study for a Scottish salmon counter network, which will facilitate fisheries management planning, including the management of mixed stock fisheries.

4) Changes or developments in the management of MSFs in this IP period to implement NASCO's agreements

European Union - Ireland

Closure of the Tullaghan bay mixed-stock fishery due to one contributing stock failing to meet CL.

European Union - Finland

See above (3).

European Union - Sweden

See above (1).

European Union - UK (England and Wales)

Anglian Coast: Net Limitation Order (NLO) is currently under review and due for renewal in 2016.

Severn Estuary: NLOs for draft and lave nets reduced in 2013; catch limits currently applied to all nets and putchers.

North East Coast: NLO updated in 2012. An investigation is underway into the possibility of limiting the level of catch of salmon and sea trout by the North East coast net fishery (drift nets and T and J beach nets) using catch limits or additional effort controls; decisions on any action to be taken are expected in 2015. The NLO for the T and J nets will be reviewed in 2017.

European Union - UK (Scotland)

See above (3).

ANNEX

EU-UK (Scotland) –catches evolution by method

Year	Nominal Catch by method (tonnes)			Sum
	Fixed Engine	Net & Coble	Rod & Line	
1952	699.8	630.0	179.0	1508.9
1953	643.3	491.5	203.4	1338.2
1954	589.4	642.8	254.0	1486.2
1955	642.4	652.5	219.8	1514.8
1956	507.7	455.7	237.6	1201.1
1957	559.4	566.6	290.6	1416.6
1958	634.8	585.8	286.8	1507.4
1959	614.8	682.9	215.7	1513.3
1960	534.3	657.2	251.2	1442.7
1961	460.2	504.2	220.6	1185.0
1962	628.1	807.5	302.2	1737.8
1963	673.8	706.5	344.5	1724.9
1964	819.4	771.9	315.4	1906.7
1965	614.8	658.5	319.2	1592.5
1966	628.1	667.8	298.9	1594.8
1967	814.5	988.1	314.1	2116.7
1968	634.8	735.1	208.0	1578.0
1969	741.7	1005.1	208.0	1954.8
1970	491.9	664.8	234.9	1391.6
1971	600.0	633.3	187.6	1420.9
1972	714.1	769.8	242.7	1726.6
1973	881.5	835.0	289.3	2005.7
1974	733.0	730.0	244.9	1708.0
1975	617.3	703.3	300.1	1620.6
1976	432.4	393.1	193.3	1018.8
1977	461.7	439.5	258.7	1160.0
1978	505.7	491.3	326.0	1323.0
1979	374.0	386.6	315.2	1075.9
1980	421.8	418.1	294.4	1134.2
1981	521.1	451.1	260.7	1232.9
1982	465.2	379.2	247.6	1091.9
1983	491.9	466.0	263.1	1220.9
1984	458.1	332.6	221.8	1012.5
1985	353.2	272.2	287.5	912.9
1986	502.6	458.2	308.6	1269.4
1987	351.5	297.1	272.8	921.3
1988	253.6	271.1	356.9	881.6
1989	279.9	301.2	314.3	895.3
1990	157.3	194.3	272.8	624.4
1991	137.0	97.2	228.1	462.4
1992	165.2	140.4	293.9	599.5
1993	155.3	108.0	283.2	546.5
1994	251.2	110.0	288.0	649.2
1995	201.1	104.6	282.6	588.2
1996	129.1	79.5	218.5	427.1

Nominal Catch by method (% of all methods catch)		
Fixed Engine	Net & Coble	Rod & Line
46%	42%	12%
48%	37%	15%
40%	43%	17%
42%	43%	15%
42%	38%	20%
39%	40%	21%
42%	39%	19%
41%	45%	14%
37%	46%	17%
39%	43%	19%
36%	46%	17%
39%	41%	20%
43%	40%	17%
39%	41%	20%
39%	42%	19%
38%	47%	15%
40%	47%	13%
38%	51%	11%
35%	48%	17%
42%	45%	13%
41%	45%	14%
44%	42%	14%
43%	43%	14%
38%	43%	19%
42%	39%	19%
40%	38%	22%
38%	37%	25%
35%	36%	29%
37%	37%	26%
42%	37%	21%
43%	35%	23%
40%	38%	22%
45%	33%	22%
39%	30%	31%
40%	36%	24%
38%	32%	30%
29%	31%	40%
31%	34%	35%
25%	31%	44%
30%	21%	49%
28%	23%	49%
28%	20%	52%
39%	17%	44%
34%	18%	48%
30%	19%	51%

Year	Nominal Catch by method (tonnes)			Sum
	Fixed Engine	Net & Coble	Rod & Line	
1997	79.0	32.9	184.3	296.2
1998	60.4	27.6	195.2	283.1
1999	35.5	22.8	141.0	199.4
2000	75.9	41.8	157.4	275.0
2001	76.6	21.6	153.1	251.3
2002	54.7	19.8	116.4	190.9
2003	86.5	23.0	83.2	192.6
2004	66.8	19.9	160.0	246.7
2005	61.8	26.7	128.3	216.8
2006	57.4	16.9	118.7	193.0
2007	40.3	17.3	113.2	170.9
2008	38.0	11.0	112.1	161.0
2009	27.0	14.3	79.4	120.7
2010	44.4	37.8	98.1	180.3
2011	48.3	23.4	87.4	159.1
2012	39.6	11.1	73.0	123.7
2013	50.1	25.9	43.1	119.1
2014	40.6	16.8	26.0	83.3

Nominal Catch by method (% of all methods catch)		
Fixed Engine	Net & Coble	Rod & Line
27%	11%	62%
21%	10%	69%
18%	11%	71%
28%	15%	57%
30%	9%	61%
29%	10%	61%
45%	12%	43%
27%	8%	65%
29%	12%	59%
30%	9%	61%
24%	10%	66%
24%	7%	70%
22%	12%	66%
25%	21%	54%
30%	15%	55%
32%	9%	59%
42%	22%	36%
49%	20%	31%