

REPORT OF ICES ADVISORY COMMITTEE
ON
NORTH ATLANTIC SALMON STOCKS
TO
NORTH ATLANTIC SALMON
CONSERVATION ORGANIZATION
WGC Area
CNL(11)8

Advice generated by ICES in response to terms of reference from NASCO

- **new format for advice in 2011, standard template adopted by ICES for all stocks and advisory processes**
 - feedback on format is welcome
- **supporting information and details in the report of the ICES Working Group on North Atlantic Salmon available at: http://www.ices.dk/reports/ACOM/2011/WGNAS/wgnas_2011_final.pdf**

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10.4 With respect to Atlantic salmon in the West Greenland Commission area:

1. describe the key events of the 2010 fisheries
2. describe the status of the stocks

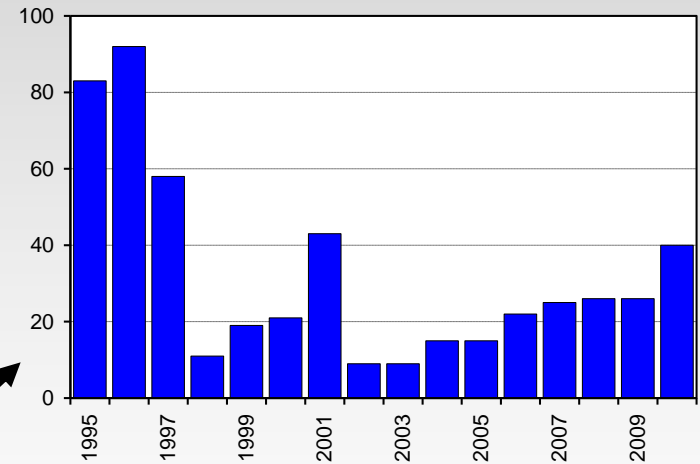
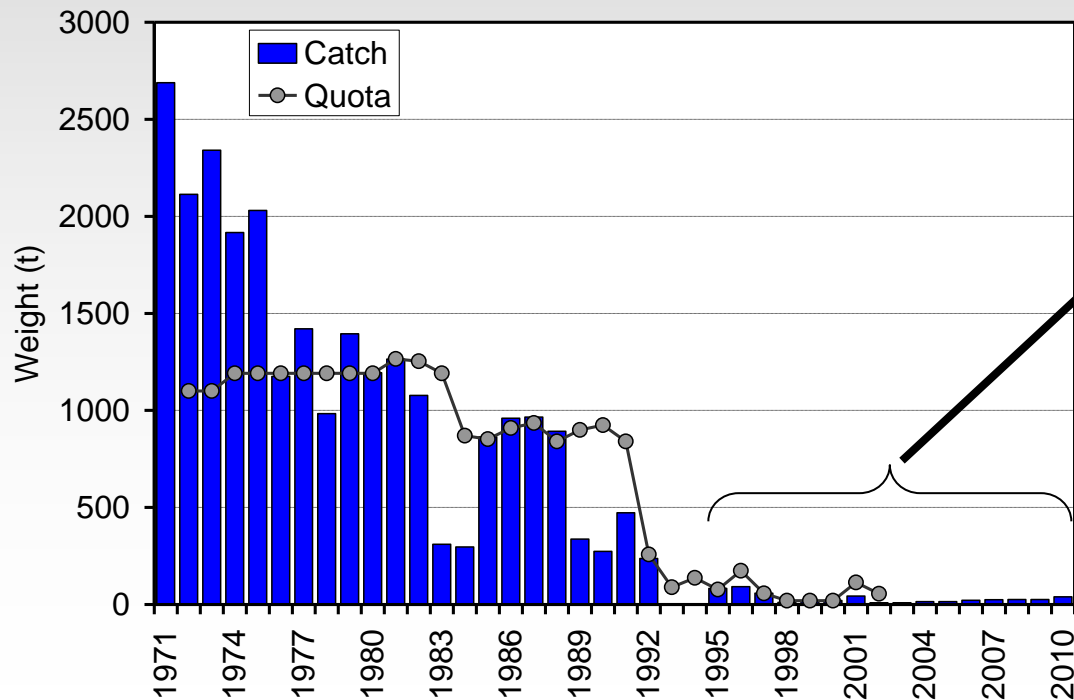
- ❖ **In the event that NASCO informs ICES that the framework of indicators (FWI) indicates that reassessment is required**
- 3. Provide annual catch options or alternative management advice for 2011–2013 with an assessment of risks relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding**
- ❖ In January 2011, NASCO indicated that no change to the management advice previously provided by ICES was required.

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 - ❖ In that assessment, no catch options for 2009 to 2011 at West Greenland were consistent with the management objectives defined for this stock unit.

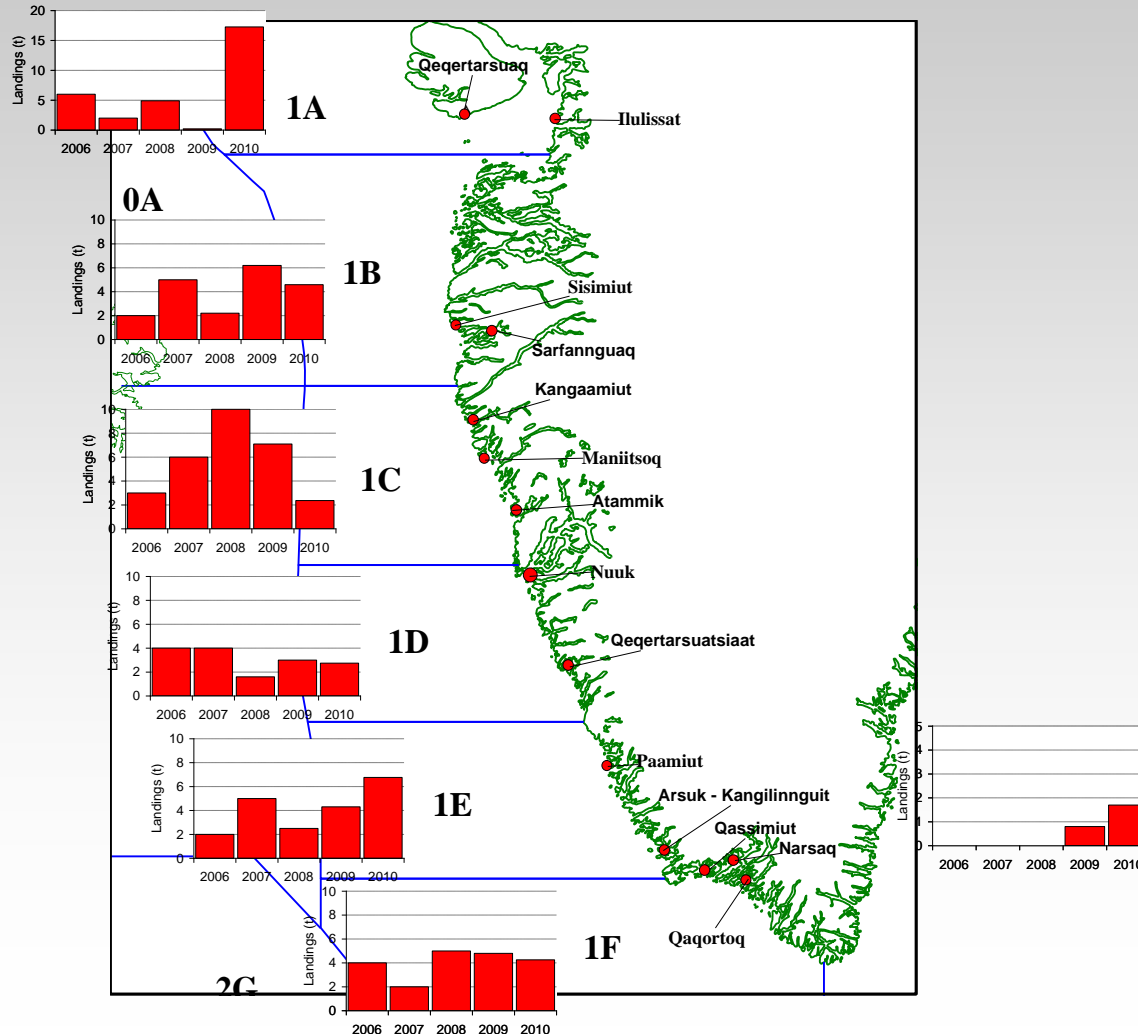
Catch and effort in 2010

- **Reported catch of 40.0 t**
 - 38 t, West Greenland
 - 1.8 t in East Greenland
- **Unreported catch of 10 t**



Catch and Effort in 2010

- large increase in catches in Div. 1A (17 t in 2010, highest since 1988)



Effort and Landings

- 389 reports of salmon catches from 309 fishers
- 208 licences, highest since 1992
- in recent years (2002 onwards), in some divisions where international samplers were present, the sampling team saw more fish than were reported as being landed
 - in 2010 total discrepancy equaled 5.1 t and the adjusted catch used in the assessment was 43.1 t

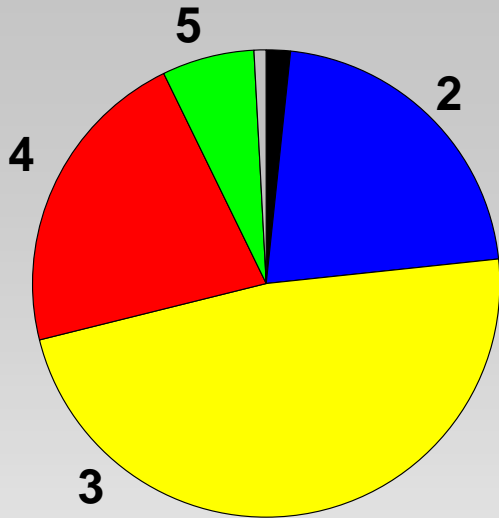
Year		NAFO Division						Total
		1A	1B	1C	1D	1E	1F	
2006	Reported	5427	2611	3424	4731	2636	4192	23021
	Adjusted							
2007	Reported	2019	5089	6148	4470	4828	2093	24647
	Adjusted						2252	24806
2008	Reported	4882	2210	10024	1595	2457	4979	26147
	Adjusted				3577		5478	28627
2009	Reported	195	6151	7090	2988	4296	4777	25497
	Adjusted				5466			27975
2010	Reported	17263	4558	2363	2747	6766	4252	37949
	Adjusted		4824		6566		5274	43056

International sampling program

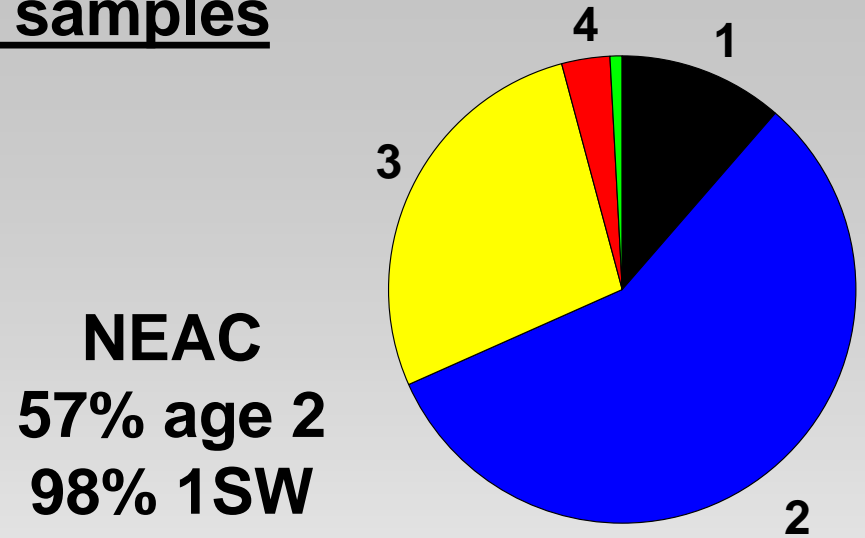
- Samplers from Greenland Institute of Natural Resources, USA, Canada, Ireland, UK (Scotland), and UK (England & Wales)
- Sampling August through October
- Samplers in Sisimiut (1B), Nuuk (1D), Qaqortoq (1F)
 - No sampling in East Greenland
- 1265 salmon inspected for tags
 - 10% by weight of reported landings
- 1261 for fork length
- 1155 for gutted weight
- 453 for whole weight
- 1265 for scales samples
- 1240 tissues for DNA analysis
- *Enhanced Sampling Program in 2010 (IASRB report)*
 - *358 salmon detailed autopsies for SALSEA WG*

Biological Characteristics

River ages of samples



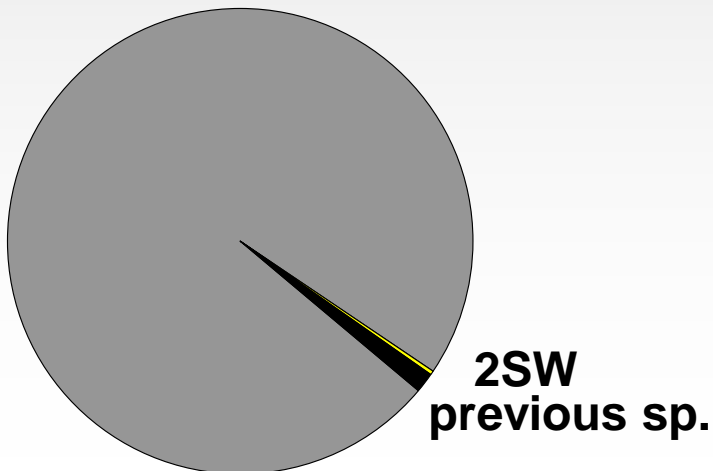
NAC
48% age 3
98% 1SW



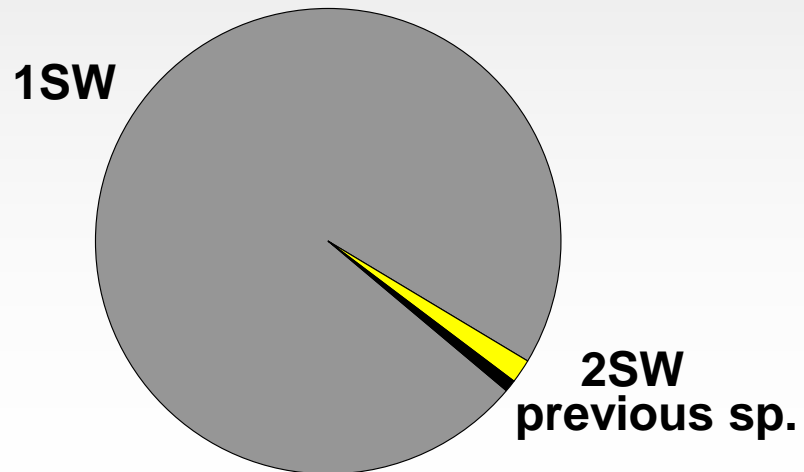
NEAC
57% age 2
98% 1SW

Sea ages of samples

1SW



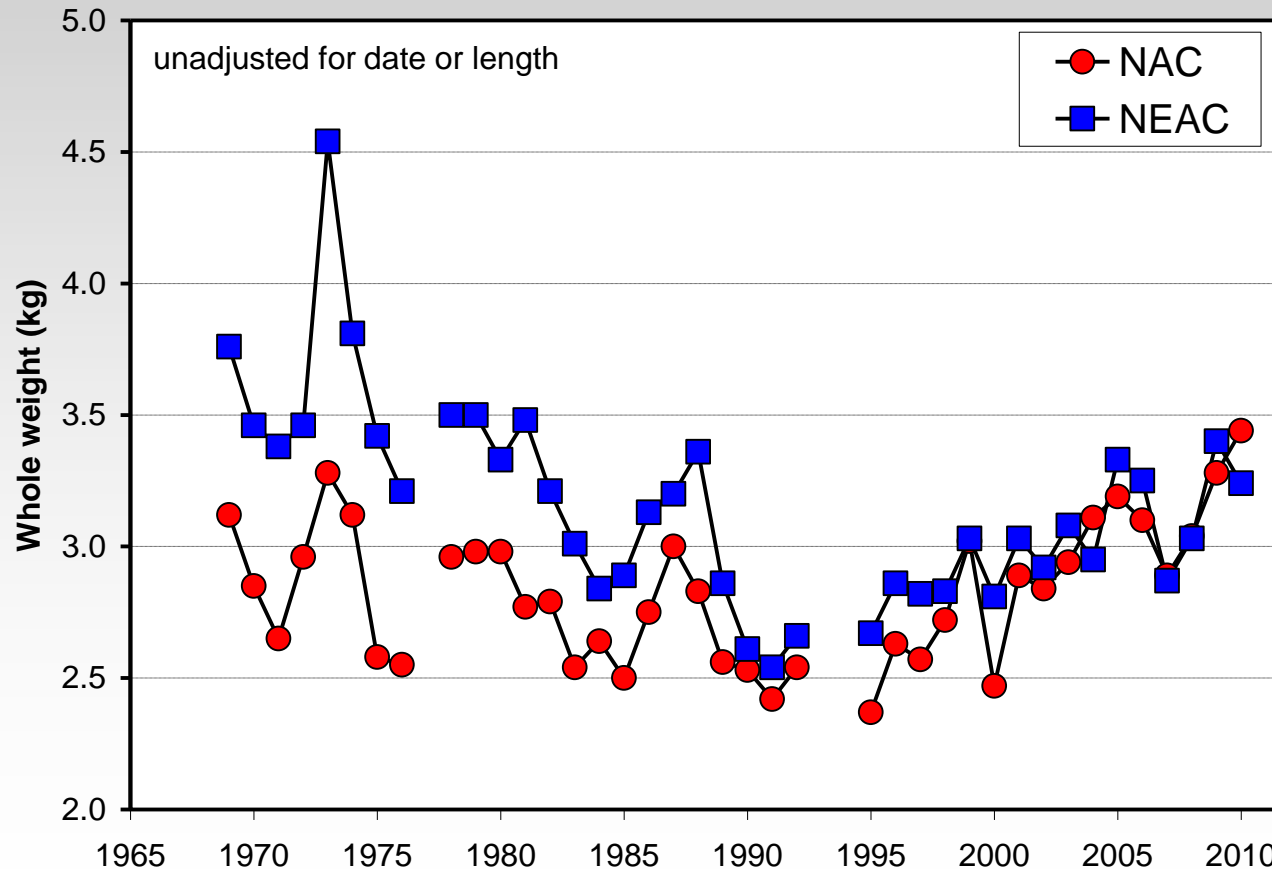
1SW



Biological Characteristics

Weight of salmon

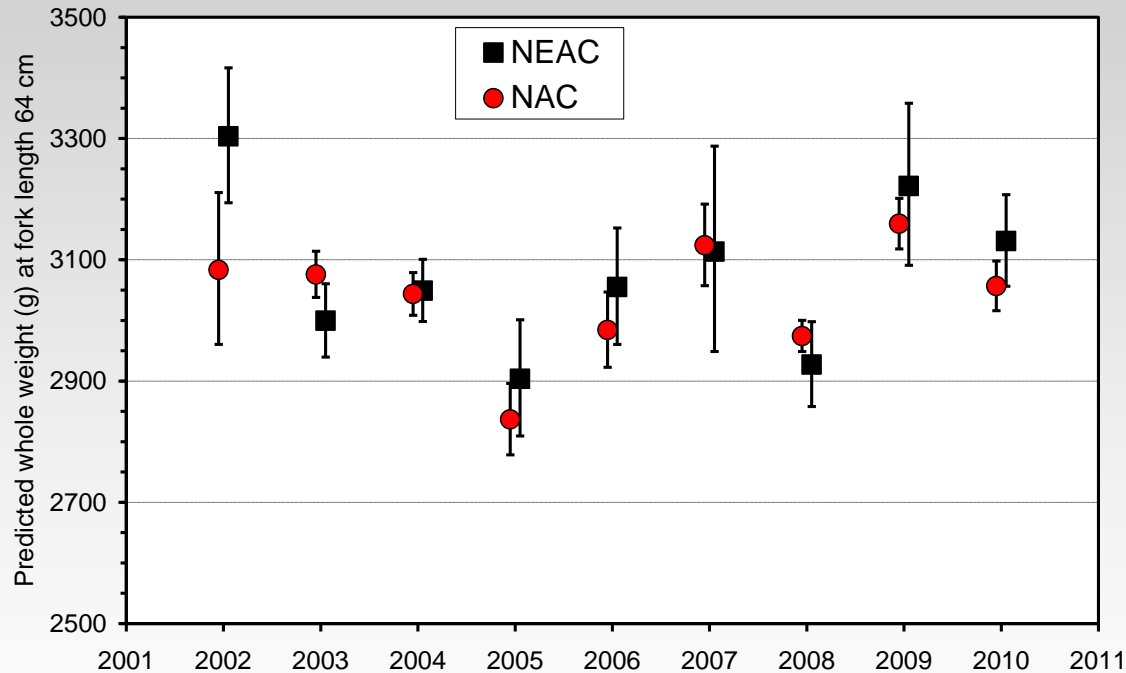
- Mean weights of 1SW in 2010 were the highest since the late 1980's
- Mean weights of NAC and NEAC salmon are similar, in contrast to 1970's to 1990 when NEAC salmon were heavier



Biological Characteristics

Condition of salmon

- Adjusted for date of sampling and fork length (2002 to 2010 data)
- Heaviest fish at length (64 cm) for NAC in 2009, lightest in 2005
- Heaviest fish at length for NEAC in 2002 and lightest in 2005



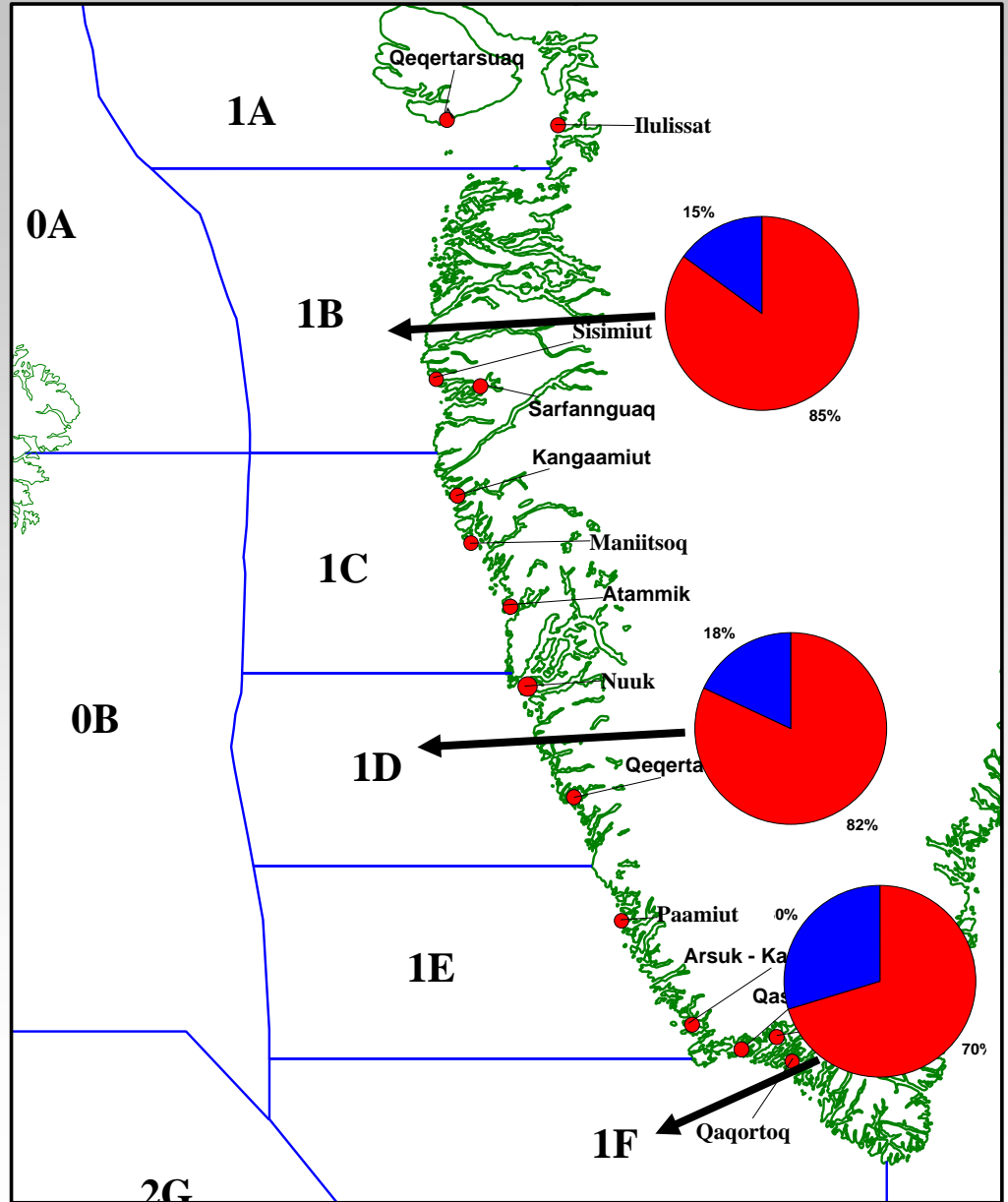
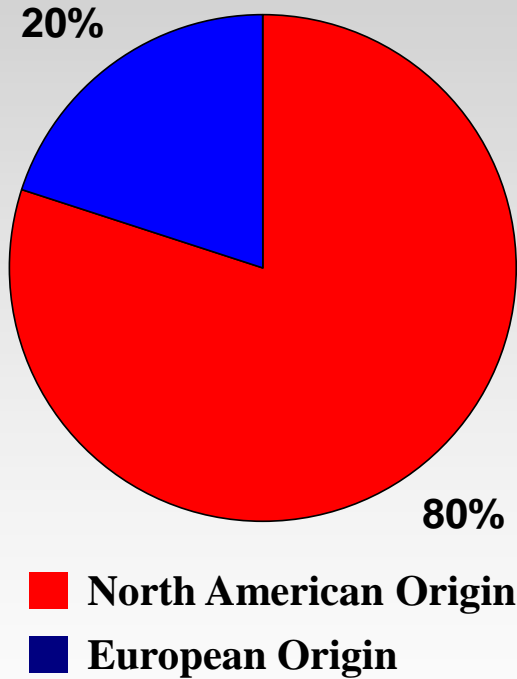
- With few exceptions, no apparent change in condition of salmon at West Greenland
- Pattern based on unadjusted weights is due to sampling period (most) and length (less)

Tag recoveries and tag reports in 2010

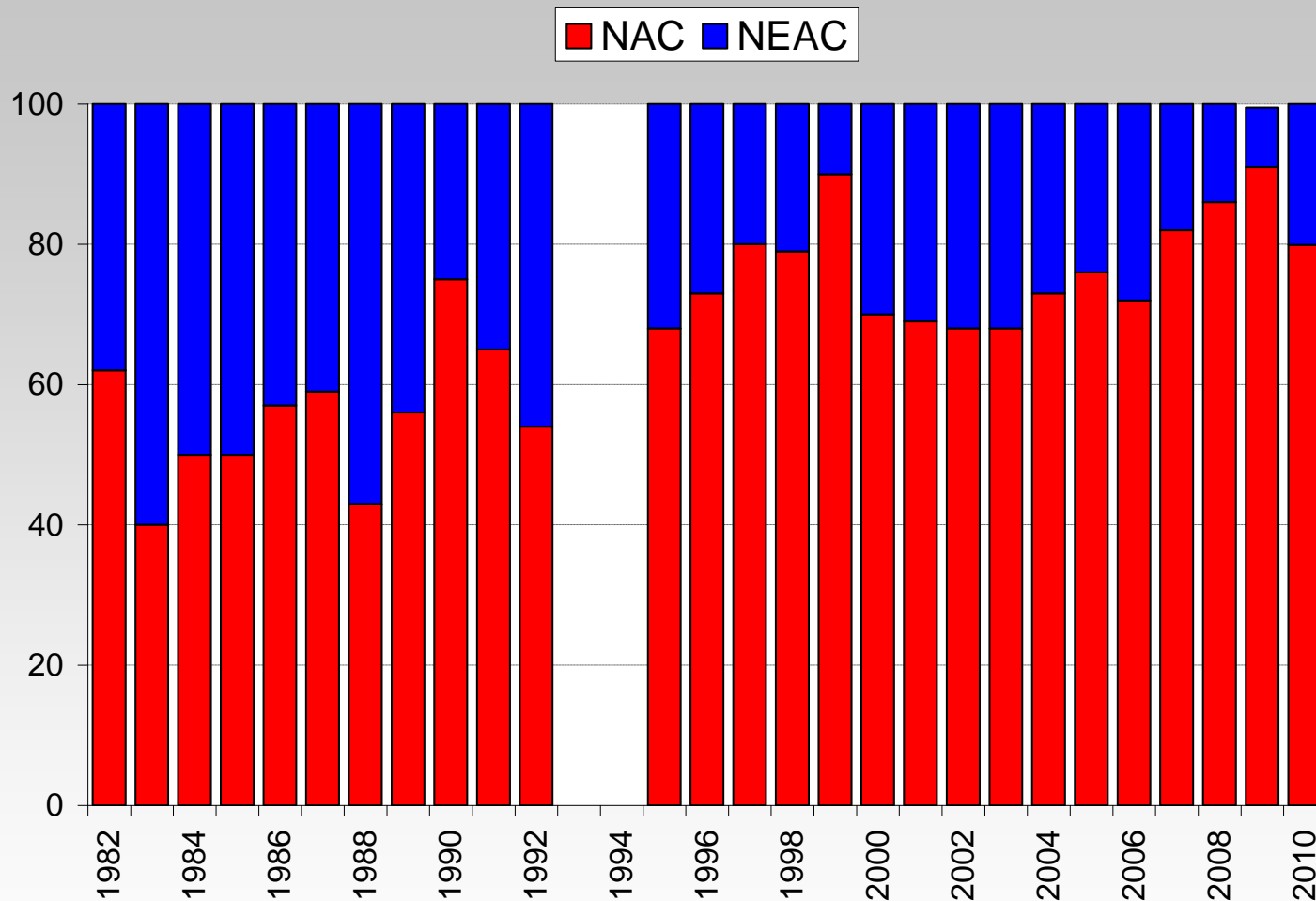
- Six CWT tags recovered by samplers
 - 4 from Ireland
 - 1 from Norway
 - 1 from Canada
- One elastomere tag from USA

Origin of catches

2010 Continent of Origin by NAFO Divisions



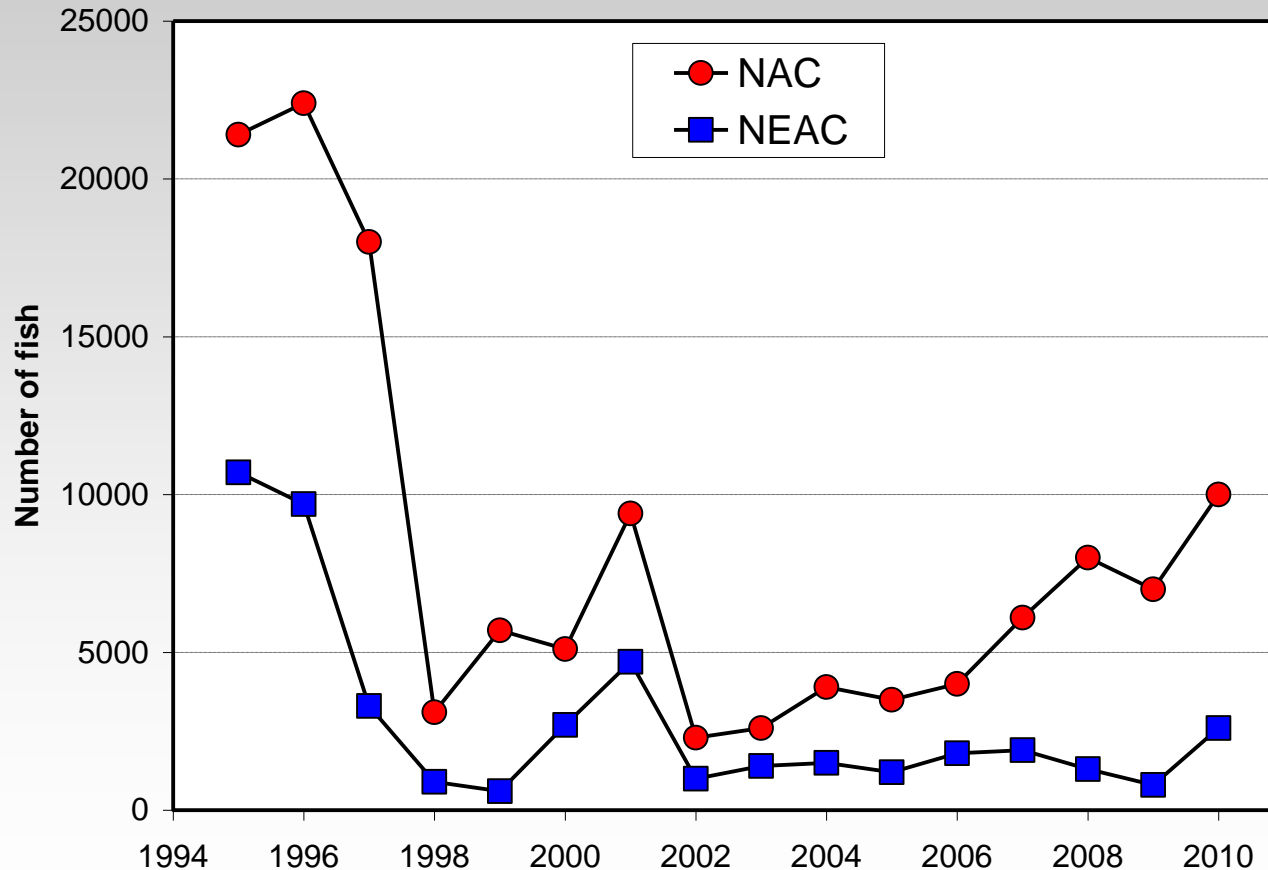
Origin of catches



- **Proportion NAC has been increasing since the early 1980's**

Number of salmon caught at WG

- Number of salmon caught at WG in 2010
 - 10000 from NAC
 - 2600 from NEAC



Summary of Stock Status

Stock complex at West Greenland is below conservation limits and thus suffering reduced reproductive capacity

- In European and North American areas, the overall status of stocks contributing to the West Greenland fishery is among the lowest recorded, and as a result, the abundance of salmon within the West Greenland area is thought to be extremely low compared to historical levels
- In 2010, North American 2SW spawner estimates for the six geographic areas indicated that all areas were below their CLs and are suffering reduced reproductive capacity
- Stock complexes (Northern NEAC MSW and Southern NEAC MSW) are considered to be at full reproductive capacity. However, at a country level, stock status from several jurisdictions is below CL and further, within the countries there are many river stocks which are not meeting CLs.

Recommendations

- ICES supports the proposal from the Greenlandic authorities for the introduction of a logbook as a condition of the licensing system for the salmon fishery at West Greenland
- ICES recommends a continuation and expansion of the broad geographic sampling program (multiple NAFO divisions) to more accurately estimate continent of origin and biological characteristics of the salmon in the West Greenland mixed stock fishery
- ICES recommends that SALSEA West Greenland be conducted in 2011 for a third year and that efforts continue to integrate the results from this sampling programme with results obtained from both SALSEA-Merge and SALSEA North America

Acknowledgements

Members (24) of participating countries (14) to Working Group on North Atlantic Salmon, March 22-31, 2011

- **WG subgroup chair: Niall Ó Maoiléidigh (Ireland)**