

SGFR(12)8

Current inventory and status of samples taken for SALSEA North America and SALSEA Greenland

SALSEA North America

SALSEA North America consisted of research survey cruises conducted in the Labrador Sea during the summer/autumn of 2008 and 2009 in support of the SALSEA research program. A total of 47 stations were surveyed in 2008 with a surface trawl and 21 stations were surveyed in 2009 (14 surface trawls and 7 surface gillnet sets). A total of 107 salmon were captured and biological data and samples are available from 85 fish.

Data collected include fish origin, biological characteristics, sex, scale loss, information on external parasites, presence of external tags or finclips and a variety of biological samples to support further investigations into the health of salmon captured. Sheehan *et al.* 2012 provided a comprehensive summary of the surveys and catch results including oceanographic conditions and bycatch at each station sampled. However, there is scope for further investigation on the samples and data collected as many samples remain unprocessed.

Biological characteristics data are available for all fish sampled. Data are available on conductivity, temperature and depth profiles collected at select stations surveyed and bycatch data at each station surveyed. A small number of sea lice samples were preserved and are being processed to support various genetics studies.

All fish were of North American origin, however finer than continent of origin determinations were not conducted. Scales were collected for ageing although more detailed analysis of growth via image analysis processing has not been conducted to date.

Ovary samples were collected and have been processed although detailed analysis has not been conducted. Various tissue samples were collected and have been preserved in a frozen state for disease screening, although these samples have not been processed yet. Stomach samples were collected and results have been presented (Sheehan *et al.* 2012). A gross summary of the macroparasite intestinal samples have also been presented although further more detailed analyses could be conducted on those samples.

Various tissue samples were collected for stable isotope based investigations and these samples are currently being processed. In addition, dorsal muscle samples for lipid analysis, otolith samples and frozen whole carcasses are also available to support various research interests.

For additional information regarding the status or results from any of the SALSEA North America samples or data, please feel free to contact the Program Coordinator, Timothy Sheehan, NOAA Fisheries Service (Tim.Sheehan@noaa.gov).

A table detailing the samples is available from the Program Coordinator or the NASCO Secretariat.

SALSEA Greenland

SALSEA Greenland was developed to conduct broader and more detailed sampling of fish harvested from the waters off West Greenland in support of the SALSEA research program. Fresh whole fish were purchased directly from individual fishers and detailed sampling resulted in a large number of samples being collected from each fish. The samples and data are in various stages of processing. Some results have been reported in peer reviewed publications (Dixon *et al.* 2012), some preliminary results have been reported in various ICES WGNAS reports (ICES, 2010; ICES, 2011; ICES, 2012) whereas many of the samples have yet to be processed, analyzed and reported.

Data collected includes fish origin, biological characteristics, sex, information on external parasites, presence of external tags or finclips are available. All fish have been assigned to be either North American or European origin, however finer than continent of origin determinations have not been conducted yet. Scales were collected for ageing although more detailed analysis of growth via image analysis processing is ongoing.

Ovary samples were collected (2009 only) and have been processed although detailed analysis has not been conducted. Various tissue samples were collected and have been preserved in a frozen state for disease screening. Stomach samples were collected and are currently being processed and preliminary results have been reported by ICES (2010). Macroparasite intestinal samples were collected although there is scope for further investigation on the samples.

Various tissue samples were collected for stable isotope based investigations and these samples are currently being processed. In addition, dorsal muscle samples for lipid analysis, otolith samples and frozen whole carcasses are available to support various research investigation.

For additional information regarding the status or results from any of the SALSEA Greenland samples or data, please feel free to contact the Program Coordinator, Timothy Sheehan, NOAA Fisheries Service (Tim.Sheehan@noaa.gov).

A table detailing the samples is available from the Program Coordinator or the NASCO Secretariat.

References:

Dixon, H. J., Power, M., Dempson, J. B., Sheehan, T. F., and Chaput, G. 2012. Characterizing the trophic position shift in Atlantic salmon (*Salmo salar*) from freshwater to marine life-cycle phases using stable isotopes. *ICES Journal of Marine Science*, 69: 1646–1655.

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