The ‘Salmon Summit’

Salmon at Sea: Scientific advances and their implications for management

PROGRAMME

Amphithéatre René Coutant
L’ Aquarium, La Rochelle, France
11 – 13 October, 2011

Organizers:
NASCO’s International Atlantic Salmon Research Board
International Council for the Exploration of the Sea

Sponsored by the TOTAL Foundation
Tuesday 11 October 2011

0900 – 1300 Opening Session - Introductions and Scene Setting Overviews
(Chair: Malcolm Windsor)
0900 – 0930 Opening remarks
0930 – 1000 Global challenges in sustainable utilization of marine ecosystems.
D. Pauly
1000 – 1030 Break
1030 – 1050 Overview of the status of Atlantic salmon (Salmo salar) in the North Atlantic and trends in marine mortality.
G. Chaput
1050 – 1110 Both predation and feeding opportunities may explain changes in survival of Baltic salmon post-smolts.
S. Mäntyniemi, A. Romakkaniemi, J. Dannewitz, S. Palm, T. Pakarinen, H. Pulkkinen, A. Gårdmark, O. Karlsson
1110 – 1130 Overview of the status of salmon in the North Pacific and trends in marine mortality.
L-L. Low
1130 – 1150 The North Atlantic in the era of global change.
B. Hansen, H. Hátún
1150 – 1210 A discussion of the processes behind the correlation between declining North Atlantic salmon and increasing Northern Hemisphere temperature.
P. C. Reid, G. Beaugrand, P. Helaouët
1210 – 1230 The SALSEA Programme - unravelling the life of the Atlantic salmon at sea.
K. Whelan
1230 – 1300 Discussion
1300 – 1430 Lunch
Tuesday 11 October 2011

1430 – 1730 Distribution & Migration of Salmon at Sea
    (Co-Chairs: Lars Petter Hansen & Peter Hutchinson)

1430 – 1450 Analysis of historical tagging data from the salmon fisheries at West Greenland and the Faroe Islands.

    E. Verspoor, P. McGinnity, the SALSEA-MERGE Consortium

1510 – 1530 Extending understanding of marine migration, ecology and mortality of Atlantic salmon post-smolts using oceanographic modeling, recaptured tagged salmon and SALSEA-GRAASP.
    K. A. Mork, J. Gilbey, L. P. Hansen, A. J. Jensen, N. Ó Maoiléidigh, the SALSEA-MERGE Consortium

1530 – 1600 Break

1600 – 1615 Marine distribution of regional Atlantic salmon post-smolt stocks in the NE Atlantic ascertained by microsatellite DNA based assignment.
    J. Gilbey, J. Coughlan, the SALSEA-MERGE Consortium

    T. F. Sheehan, D.G. Reddin, G. Chaput, M. D. Renkawitz

1630 – 1650 Sonic tracking of Atlantic salmon smolts to sea: correlates of survival and lessons on the migration pathway.
    F. Whoriskey

1650 – 1705 Tracking Atlantic salmon migration at sea by use of pop-up satellite tags - surprises, world records and mysteries...

1705 – 1730 Discussion

1815 Reception hosted by the Mayor of La Rochelle at the Hotel de Ville

2000 Conference Dinner at Restaurant André
Wednesday 12 October 2011

0900 – 1130 Distribution & Migration of Salmon at Sea
   (Co-Chairs: Lars Petter Hansen & Peter Hutchinson)

0900 – 0915 Locating adult salmon at sea using stable isotopes.
   W. R. C. Beaumont

0915 – 0935 The spatial and temporal distribution of salmon and the
   pelagic fisheries in the North-East Atlantic: A potential for by-
   catch?
   M. Holm, A. Ísaksson, J. A. Jacobsen, L. P. Hansen, S. Guðjónsson,
   N. Ó Maoléidigh, S. Óskarsson

0935 – 0950 Identifying freshwater and oceanic environmental signals from
   centennial Atlantic salmon catches off the North-East Atlantic.
   J. Otero, T. Rouyer, A. J. Jensen, J. H. L'Abée-Lund, J. D. Armstrong,
   J. C. MacLean, A. F. Youngson, S. Guðjónsson, G. Gudbergsson,
   N. C. Stenseth, G. O. Storvik, L. A. Vøllestad

0950 – 1005 Are post-smolts running on empty? - Migration and survival in
   the Atlantic.
   C. Byron, J. Stockwell, A. Pershing, H. Xue

1005 – 1030 Break

1030 – 1045 Environmental conditions affecting North American and
   Penobscot River populations of Atlantic salmon (Salmo salar).
   K. Mills, A. Pershing, D. Mountain, T. F. Sheehan

1045 – 1100 The decline and fall of Fraser River sockeye salmon and their
   immaculate resurrection from an intervention of oceanic
   origin.
   S. McKinnell

1100 – 1130 Discussion

1130 – 1700 Food Production, Growth, Trophic & Other
   Ecological Interactions
   (Co-Chairs: Dave Reddin & Jens Christian Holst)

1130 – 1150 How climate and post-smolt growth control marine mortality
   in Atlantic salmon; the potential effects of a changing climate
   on the marine survival of Atlantic salmon.
   K. D. Friedland
1150 – 1210 Regional and temporal variation in marine growth of Atlantic salmon (Salmo salar, L.) from North-East Atlantic populations - links to marine survival and oceanographic conditions. 

1210 – 1230 Ocean climate impacts on growth condition of 1SW and 2SW salmon returning to Scotland.  
C. D. Todd, J. C. MacLean, M. E. Lonergan, A. J. Howe, L. Boehme

1230 – 1300 Discussion

1300 – 1430 Lunch

1430 – 1450 Prey quality affects the production of wild Pacific salmon in the Northern California Current Ecosystem.  
M. Trudel, D. Mackas, A. Mazumder

1450 – 1505 Characterizing trophic status and shift in Atlantic salmon, Salmo salar, from freshwater to marine life-cycle phases.  
H. Dixon, M. Power, J. B. Dempson, T. F. Sheehan, G. Chaput

1505 – 1520 Stable isotope evidence for the effect of climatic variations on salmon diet and marine mortality.  

1520 – 1535 The diet of Atlantic salmon post-smolts during their first feeding season in the North-East Atlantic.  
W. Meile, K. Thomas, J. A. Jacobsen, C. Broms, N. Ó Maoiléidigh, M. Haugland, M. Holm, J. C. Holst

1535 – 1600 Break

1600 – 1615 Atlantic salmon foraging ecology in the Northwest Atlantic.  
M. D. Renkawitz, T. F. Sheehan, D. G. Reddin, G. Chaput

1615 – 1700 Discussion

1700 – 1830 Poster Session and Reception (in the Activities room)  
Posters can also be viewed throughout the ‘Salmon Summit’
Thursday 13 October 2011

0900 – 1200 Implications for Salmon Management
(Chairs: Paul Knight & Malcolm Windsor)

0900 – 0920 The influence of the freshwater environment and the biological characteristics of Atlantic salmon smolts on their subsequent marine survival.

0920 – 0940 Minimising the impact of climate change on Atlantic salmon populations in freshwater.
P. McGinnity

0940 - 0955 Determining the continent-of-origin (COO) and region-of-origin (ROO) of Atlantic salmon collected at West Greenland 1995-2010: A review of the findings and a look at what the future holds for molecular genetics methods of mixed-stock assignment.
T. L. King, T. F. Sheehan, B. Lubinski, D. G. Reddin

0955 – 1010 What tools are left in the manager's toolbox – challenges to conservation of Atlantic salmon in eastern Canada.
S. Rocque

1010 – 1025 Ramifications of persistent low marine survival to Atlantic salmon management in the US.
R. Saunders, M. A. Colligan

1025 – 1100 Break

1100 – 1115 Use of marine ecosystem productivity indicators along the US west coast to forecast annual returns of Pacific salmon and improve harvest management: a role for long term observations.
J. Ferguson, E. Casillas, W. Peterson

1115 – 1130 Managing salmon stocks and fisheries in a changing environment.
E.C.E. Potter

1130 – 1200 Discussion

1200 – 1330 Lunch
1330 – 1600 What does it all Mean for Salmon Conservation & Management & Future Research?
(Chair: Malcolm Windsor)

1330 – 1445 Session Summaries by Chairmen & ‘Take Home’ Messages
1445 – 1600 General Discussion on outcomes from the symposium and actions by scientists and managers
1600 Close of symposium

Poster Presentations

Distribution & Migration of Salmon at Sea
A preliminary evaluation of use of nuclear SNPs for the assignment to origin of marine post-smolt Atlantic salmon captures in the NE Atlantic.

Geographical differentiation and structuring of European Atlantic salmon stocks at microsatellite DNA loci to enable the regional assignment of marine fish.
J. Gilbey, J. Coughlan, the SALSEA-MERGE Genetics team

Geographical structuring in Atlantic salmon as revealed by nuclear SNPs: potential for application in the assignment of origin of marine fish.

Microsatellite standardization and genotyping error in a large multi-partner research programme for conservation of Atlantic salmon (Salmo salar L.).

Regional mtDNA differentiation in Atlantic salmon (Salmo salar) in Europe: potential for use in assigning marine fish to region of origin.
E. Verspoor, S. Consuegra, O. Fridjonsson, S. Hjorleifsdottir, D. Knox, K. Olafsson, S. Tompsett, C. García de Leaniz
Revisiting the marine migration of US Atlantic salmon with historic Carlin tag data.
A. S. Miller, T. F. Sheehan, R. C. Spencer, M. D. Renkawitz, A. L. Meister

The migration and survival of Atlantic salmon kelts in estuarine and coastal regions of Canada.
J. Carr

The effects of dispersal at sea, local adaptation and stocking on the hierarchical genetic structure of Atlantic salmon populations.
C. Perrier, J-L. Baglinière, G. Evanno

Evidence of positive selection acting on the Atlantic salmon mitochondrial DNA: implications for assessing the impacts of climate change.
E. John, C. Garcia de Leaniz, E. Verspoor, S. Consuegra

Food Production, Growth, Trophic & Other Ecological Interactions

Use of storage tags to study the behavioural ecology at sea of Newfoundland Atlantic salmon smolts and kelts.
I.A. Fleming, D. G. Reddin, P. Downton, M. Robertson, L. P. Hansen, A. Mahon

Evidence for bottom-up trophic effects on return rates to a second spawning for Atlantic salmon (Salmo salar) from the Miramichi River, Canada.
G. Chaput, H. P. Benoît

Spawning history influence on fecundity, egg size and egg survival of Atlantic salmon (Salmo salar) from the Miramichi River, New Brunswick, Canada.
J. Reid, G. Chaput

Smolt age and fine scale marine growth of Atlantic salmon post-smolts in the North-East Atlantic.

Implications for Salmon Management

The large landings of Atlantic salmon along the coast of Finnmark, northern Norway; origin from Norwegian or Russian rivers?
M. A. Svenning, J-P. Vähä, S. Prusov, E. Niemelä, V. Wennevik

DNA parentage assignment to improve restoration programmes for Atlantic salmon in the Garonne and Dordogne French rivers.
D. Clavé, S. Bosc, P. Haffray, R. Guyomard, L. Genestout, M. Chanseau

Photographs courtesy of the Marine Institute, Ireland; Faroe Marine Research Institute; Francis Giraudon for the La Rochelle Office of Tourism; and Iain McLaren, Marine Scotland Science.