

Enhancing Scientific Cooperation between PICES and NPAFC

by Skip McKinnell



The 3rd International Workshop on “Migration and survival mechanisms of juvenile salmon and steelhead in ocean ecosystems” (April 25–26, 2013, Honolulu, Hawaii, U.S.A.) in session. The photo was provided by the NPAFC Secretariat.

The North Pacific Anadromous Fish Commission (NPAFC) and PICES are taking steps to foster greater scientific cooperation between the two organizations. During their spring meetings in 2013, the PICES Science Board and the NPAFC Committee on Scientific Research and Statistics endorsed the creation of a joint Study Group on *Scientific Cooperation in the North Pacific Ocean* to develop a framework of enhanced collaboration between the two organizations in order to achieve more rapid gains in understanding how natural and anthropogenic forces affect variability in marine ecosystems inhabited by salmonids. The main tasks of the Study Group are: (1) to identify areas of marine science that are of common interest to both organizations, (2) to describe a framework for scientific cooperation, and (3) to make recommendations on how to implement the framework. Members nominated by NPAFC include Drs. James Irvine, Shigehiko Urawa, Alexander Zavolokin, and Nancy Davis (Deputy Executive Director, NPAFC). Members recommended by PICES include Drs. Elizabeth Logerwell, Thomas Therriault, Hiroaki Saito, and Skip McKinnell (Deputy Executive Secretary, PICES). The proposed chairmanship of the Study Group is shared equally by Dr. Logerwell (Chairperson of the Fishery Science Committee) and Dr. Irvine (Chairperson of the Working Group on Stock Assessment). Establishment of the joint Study Group awaits formal approval by the PICES Governing Council and by the NPAFC Commission.

Dr. Vladimir Radchenko (Pacific Research Institute of Fisheries and Oceanography, Russia) will take a new position as the Executive Director of NPAFC in July 2013. He has been involved with PICES since its first scientific

workshop held in December of 1991, in Seattle, U.S.A. Dr. Radchenko served as a member of several PICES expert groups and the Biological Oceanography Committee, and chaired this Committee from 2001–2004. He also represented Russia on the PICES Governing Council.

On April 25–26, 2013, NPAFC was in Honolulu, Hawaii for a workshop on “Migration and survival mechanisms of juvenile salmon and steelhead in ocean ecosystems”. This was the third time since 1993 that NPAFC had focused on this topic. Regular readers of PICES Press will recall that since 1999, annual workshops on the ecology of juvenile salmon in the eastern North Pacific have been reported in PICES Press. The 2013 incarnation of this workshop had the added cachet of a noteworthy international sponsor, an exotic location, and the inclusion of participants from the western North Pacific. These factors combined to make the workshop, with 33 oral presentations and 40 posters, a great success. Dr. Radchenko gave an invited review talk for on juvenile Pacific salmon studies in Asia and Dr. Marc Trudel (Fisheries and Oceans Canada) gave a similar talk on North American studies. Session topics during the workshop included:

1. Seasonal distribution and migration route/timing
2. Hydrological characteristics, primary production, and prey resources
3. Trophic linkages, growth rates, and predation rates
4. Ecological interactions among species and populations
5. Survival rate and survival mechanisms
6. Survival and salmonid ecology during the first winter at sea.

Dr. William (Bill) Heard, NOAA emeritus scientist, was invited to offer his views on what had been presented at the workshop, and he pointed out five noteworthy advances. The first was that there are continuing improvements in the capacity to identify stock-specific migration routes of juvenile salmon based on progress in stock identification technologies. The second was the growing body of evidence for the role of early marine growth and size-selective mortality as an important factor for overall survival. Special notice was made of Strahan Tucker's presentation on salmon predation by Rhinoceros auklets, *Cerorhinca monocerata* showing that this predator selected smaller individuals. Bill summarized the concept as "getting bigger quicker is better". He was also struck by the potential for phenological mismatches to develop between salmon migration timing and the availability of their prey resources because of differential changes in freshwater and marine waters due to global warming and climate change. Fourthly, Bill noted that new insight into homing migratory behaviour was arising from empirical evidence of geomagnetic imprinting. Finally, he made a point of highlighting Kate Myers' talk on the potential for marine debris, particularly persistent plastics, to have deleterious impacts on salmon ecology and survival.

Many of the presentations from the workshop can be found at www.npafc.org/new/events/workshops/workshop2013/workshop_presentations.html.



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