

## Opening Remarks

# Birth of Bering-Aleutian Salmon International Survey (BASIS)

Fran Ulmer, President of NPAFC from 1999 through 2001, initiated discussions with members of the Committee on Scientific Research and Statistics (CSRS) that lead to the formation of BASIS (Bering-Aleutian Salmon International Survey). I met with Fran several times during the Annual Meeting in Tokyo in 2000. Fran believed that the NPAFC was a unique organization that could provide the forum to support international research that would be beneficial to each nation. Her belief was that collaborative research supported by each nation with a common objective would provide more extensive research results than research accomplished by each country working independently. She asked me what were the major science issues within the CSRS? Were any of the major issues common to all the member countries?

Fran and I discussed the new ecosystems studies with emphasis on juvenile salmon in the Gulf of Alaska initiated by NOAA Auke Bay Laboratory's Ocean Carrying Capacity Program (OCC) in 1995. The OCC program worked with Canadian Department of Fisheries and Oceans biologists developing gear to sample juvenile salmon off shore. Large trawls towed near the surface proved to be successful in capturing juvenile salmon in the ocean along the continental shelf. Earlier, the Russians, Japanese, and Canadians had been successful in developing different types of surface nets to sample juvenile salmon in coastal and offshore waters. In the late 1990's, in response to declining ocean survival of sockeye salmon returning to Bristol Bay, the OCC program initiated early marine studies on juvenile sockeye salmon in the southeastern Bering Sea. I discussed these studies with Fran and also pointed out that western Alaska stocks of chum salmon in the Yukon and Kuskokwim rivers were declining and little was known of the early marine life history of North American salmon in the Bering Sea. Only a few small studies had looked at early marine survival of salmon in Bristol Bay and near the mouth of the Yukon River.

At the Annual Meeting in Tokyo Fran met with Kate Myers, University of Washington, several times and the three of us met several times. Fran talked with Canadian, Japanese, and Russian scientists about collaborative research at this time as well. Kate's extensive experience working with the Japanese in salmon research on the high seas in both the North Pacific Ocean and the Bering Sea provided an international background to our discussions. We discussed the declining stocks in the eastern Bering Sea that included not only sockeye salmon in Bristol Bay but also stocks of chum salmon from the Yukon and Kuskokwim rivers. At the same

time chum salmon stocks in Japan and Russia also were experiencing declines. The commonality of the use of the Bering Sea by Asian and North American stocks of salmon suggested that ocean conditions in the Bering Sea may be responsible for the declines.

Kate Myers initiated discussions in the Science Subcommittee (SSC) at the Tokyo meeting about our discussions of collaborative research in the Bering Sea. The SSC (V. Karpenko, Russia, Chair; R. Beamish, Canada; S. Urawa, Japan; and K. Myers, U.S.A.) drafted a new Science Plan and included in the plan suggested coordinated research by the Parties in the Bering Sea.

In early December 2000, Fran held a teleconference with U.S. delegates to the NPAFC to discuss the "Next Steps" towards further development of the NPAFC Science Plan, and "our common goal of more focused and more coordinated Bering Sea salmon research." Fran's call to action and identification of potential funding sources quickly led to development by the OCC staff (S. Ignell and E. Farley) and K. Myers of a new research initiative for international cooperative research on salmon in the Bering Sea. Kate Myers recommended the new international research program be called "BASIS" (Bering-Aleutian Salmon International Survey), because the results would provide a solid scientific foundation for addressing current and future research, management, and conservation issues concerning salmon in the Bering Sea.

Discussions with Fran about collaborative international research became more focused at the Research Planning and Coordinating Meeting (RPCM) in Seattle in March 2001, chaired by Y. Ishida of Japan. Kate and I met with Fran several times during this meeting. The United States presented its BASIS proposal, which was well received by international participants. Discussions continued in the SSC (M. Fukuwaka substituted for S. Urawa), and R. Beamish and K. Myers were tasked with developing a fully-coordinated BASIS research plan in two weeks (NPAFC Doc. 525). Shortly after the meeting, the draft BASIS plan was completed, reviewed and amended by all national parties, and submitted to F. Ulmer for her further consideration and use for seeking financial support.

At the 2001 Annual Meeting of the NPAFC in Victoria, Canada, plans for making BASIS a reality progressed. In the CSRS meeting, chaired by Y. Ishida, the draft BASIS plan developed in Seattle in April was expanded and the four countries – Canada, Japan, Russia, and the United States of America – agreed to plan and coordinate the new interna-

tional research plan (NPAFC Doc. 582). A BASIS Working Group (BWG) was formed to coordinate individual national plans and draft an “Annual Implementation Plan” for joint BASIS research. The BWG appointments were: Canada – R. Beamish; Japan- S. Urawa and T. Azumaya; Russia – V. Karpenko, S. Sinyakov, and V. Lapko; U.S.A. – J. Helle, D. Eggers, and K. Myers.

This was Fran’s final meeting as NPAFC President, and in her closing remarks she said, “The revolutionary BASIS science plan is an example of an approach that can provide valuable insights into salmon and their environment in a way that has not been previously attempted. We are moving quickly to become the cutting-edge of scientific collaboration for the new millennium. I believe BASIS will help us achieve this collaboration.”

The spring RPCM in 2002 was held on March 12–13 in Vancouver, British Columbia. The BWG prepared a detailed draft Agenda (NPAFC Doc. 592) for a major meeting to take place in Vladivostok, Russia, to plan the research and cruise activity for the summer/fall of 2002.

The BASIS Working Group Meeting in Vladivostok on May 27–28, 2002 was attended by additional delegates from each country (NPAFC Doc. 599). In addition to the official working group members, two from Canada, one each from Japan and the U.S.A., 14 from Russia and 3 from the Secretariat participated in the meeting. J. Helle was elected Chair of the BWG. Russia appointed O. Temnykh to replace V. Lapko on the official working group.

During the Vladivostok meeting detailed discussions were held about preparations for the upcoming field season. Financial support for BASIS research from internal and external sources was discussed. Vessel support for the extensive sampling would be provided by fisheries agencies in Japan and Russia – the *RV Kaiyo maru*, and the *RV TINRO*. The U.S.A. would charter two private fishing vessels, the *FV Northwest Explorer* for mid-ocean sampling and the *FV Sea Storm* for more coastal sampling. Because each country would use different nets for sampling during this ecosystem research in the epipelagic zone, detailed discussions concerned how and where to calibrate the gear between the three countries’ vessels. Discussions also took place on how to compare and calibrate different methods for sampling plankton, oceanography, salmon tagging, age and maturity, food habits and bioenergetics, migration and growth models, ecologically related species, parasites and diseases, and stock identification. Protocols for collecting samples and exchange of samples and data were discussed. Contact persons within each country were appointed for each sampling method. These people would coordinate the exchange of data and samples for each method. Timetables for reports, publications, workshops, and symposia were discussed. By the end of this meeting the plans and commitments were in place to launch ships from Japan, Russia, and the U.S.A. that would sample nearly the entire Bering Sea with synoptic surveys of

salmon. These three ships met near Attu in the remote western Aleutian Islands in 2002 to tow their nets side by side in the ocean swells to calibrate their gear. I will never forget the excitement expressed in the message I received from J. Murphy, Chief Scientist, aboard the *FV Northwest Explorer* about the sight and communications with each nation’s ships doing side-by-side cooperative research in the open ocean. It was a day that none of the participants will ever forget!

Fran delivered a keynote address, “BASIS as a Model for International Scientific Collaboration: the Project is Greater than Just the Sum of its Parts,” at the NPAFC’s BASIS Workshop in Sapporo, Japan, in October 2004 (NPAFC Tech. Rep. 6). In this address, she reminded us that “policy makers, regulators, fishermen, community leaders, university faculty, foundation and grant-giving organizations and media representatives must be educated about BASIS. They need to know about the progress underway at NPAFC to provide a new paradigm for international science and information sharing. I for one, plan to do so whenever the opportunity presents itself.”

At a 1-day symposium “Science Bridging Five Nations: The Bering-Aleutian Salmon International Survey,” held at the 2005 Annual Meeting of the American Fisheries Society in Anchorage, Alaska, Fran reviewed the history and importance of BASIS: “This process is unique in its level of cooperation and productivity. Although it has an unusual foundation: a treaty signed by the member nations enabling them to share data and resources for a common mission (the protection of anadromous fish), its success lies in something else: mutual trust and respect among the participating scientists and the shared vision that no one country can accomplish this mission alone.”

The Birth of BASIS can be attributed to the visualization, persistence, and international coordination of Fran Ulmer. She had a special ability to listen and talk to scientists from different countries and backgrounds and get them to plan and execute a cooperative research program that had a common goal that would provide mutual benefits to all the parties.



Photo by J.H. Davis

John H. (Jack) Helle  
Chairman of the BASIS  
Working Group (2002–2007)