## **Plenary I Report**

Davin L. Holen Subsistence Resource Specialist II, Division of Subsistence Department of Fish and Game Anchorage, Alaska

The introductory presentations by keynote speakers and panelists on the first day of the Northern Research Forum set the discourse for the rest of the meetings. Governor Eino Siuruainen, of the Provincial Government of Oulu, President Tarja Halonen of Finland, Dr. Lassi Heininen, Chair of the NRF Steering Committee, and Dr. Olafur Ragnar Grimsson, President of Iceland set the tone by discussing the place of the North within the context of the broader world and how in the North there are great prospects for making border regions areas of opportunity, instead of areas of conflict. As President Halonen said, "we need these kinds of meetings to discuss change in the North. For the people of the North borders are arbitrary." She used the analogy of knitting. If you knit different colors together, it creates a better pattern, better than the one single color. Finland is a good location for this conference as Finland currently holds the EU presidency. Finland is working with cooperating countries to create a new northern dimension with it's EU partners and Russia. Finland today is also a country of innovation and technology. President Halonen said that "we should use technology to assist in understanding development, the environment, and human culture." Dr. Heininen continued this dialogue by laying out the importance of the meeting. He also discussed the place of technology in society and how technology should be used to drive innovation in an interdisciplinary approach. In addition, he said, borders should be a bridge between societies, cultures, and ideas. The Bothnia Arc where this meeting is taking place is a good context for this. This meeting is to create dialogue, and the outcome of this dialogue should be new ideas.

Northern research is imperative in helping to foster dialogue and open new opportunities between peoples. Dr. Grimsson, President of Iceland, laid out his vision of research that needs to be undertaken in the North. There are five issues that need to be dealt within the northern context including; 1) climate change, 2) energy needs and clean extraction technologies, 3) a northern sea route for the transport of goods, 4) human rights especially in the context of northern indigenous peoples, 5) and a new dialogue between Russia and the United States that includes the Baltic countries and Canada. This discussion by Dr. Grimsson in many ways embodied the discourse that was to follow over the next three days.

In terms of education Rector Lauri Lajunen of the University of Oulu discussed the need for more education in science and technology. This is something the NRF could promote. Rector Lajunen stated that "we should establish an ad-hoc high level committee to prepare financial assistance for northern research of student exchange, which could be introduced in the next NRF." Over the next three days this idea was discussed and agreed upon by participants.

There were several other speakers during the first plenary session of the NRF. Dr. Alexey Arteyev, Vice-Governor of the Yamal Nenets Autonomous Okrug, described Russian government efforts to work on a regional level to address the needs and concerns of local residents by promoting regional economic sustainability. Dr. Elina Helander-Renvall, Senior Scientist at the University of Lapland, discussed how the Sami people of the north have adapted to technology at the same time resisting development that could threaten their way of life. Dl. Seniro Advisor Antti Hietala, formally of Nokia, said that the good life is based on economic growth and that hard climates like that of the north force people to adapt in order to survive. This is true today and we need more research and development to ensure the success of northern peoples. Mead Treadwell, Chair of the Arctic Research Commission, and Senior Fellow of the Institute of the North, outlined 10 technologies that will change arctic research including marine transportation,

aviation, energy, monitoring networks, remote sensing, preservation technology, technology to understand species migration and adaptation to climate change, language preservation, telemedicine, and high latitude telecommunication. He summed up what was said by many; "technology is what will give us a connected Arctic."

A panel session followed in which many of the speakers from the day were present. The discussion focused on all of the above mentioned issues including the need for greater cooperation among Arctic nations, an emphasis on the use of technology to understand the Arctic, more opportunities for students in the Arctic, and the rights and inclusion of indigenous knowledge in the discourse. The discussion was gracefully summed up by Dr. Grimmsson. "When we started this dialogue our vision was inward looking. Now we have a shift to the global relevance of the Arctic in the global context. We need to understand the global relevance of the North."