Case Study Descriptions:

Case Study #1: Collaborative Lobster Research, Assessment, and Management
Representatives: Patty King – General Manager, Fishermen & Scientists Research Society
John Levy - Commercial Lobster Fisherman & Past President of FSRS
John Tremblay - Fisheries Scientist, Fisheries & Oceans Canada

A primary research focus for the FSRS is the American lobster, an extremely important species to the Canadian East Coast fishery. A major focus of the FSRS lobster research program is lobster recruitment. In the spring of 1999, the FSRS launched a Lobster Recruitment Index Project. During the regular commercial season, fishermen use scientific lobster traps to gather information about undersize lobsters in their area. Volunteer fishermen count, sex and measure the size of lobsters from their science traps and record them in a logbook. They also indicate if lobsters are berried, tagged, and v-notched. Participants also monitor bottom temperatures by placing a computerized temperature recorder in one of their project traps for the entire lobster season.

The project has participants in all Lobster Fishing Areas (LFAs) along the Atlantic coast of Nova Scotia, with over 180 fishermen in total. Each participant fishes two to five project traps, depending on the LFA. These project traps, which are fished in the same locations each year, are in addition to the vessel's legal number of traps. All undersized lobsters are released after they are measured and sexed. Legal size lobsters can be kept by fishermen and help offset the cost incurred by fishermen to purchase the project traps.

Case Study # 2: Short-lived Species Science and Management – Falkland Islands
Representatives: Andreas Winter – Fisheries Scientist, Falkland Islands Fisheries Department
Michael Poole – Executive Secretary, Falkland Islands Fishing Companies Association

The *Doryteuthis gahi* squid stock, fished in Falkland Islands waters, is a resident population with a spring-spawning cohort and an autumn-spawning cohort. Two fishing seasons are allocated each year in the periods prior to the spring and autumn cohorts reaching spawning maturity. Because *D. gahi* has a short (annual) life cycle, it is assessed using depletion models which estimate the day-to-day abundance of the population in each season, with the management objective of maintaining a population conservation threshold of 10,000 tonnes. In the *D. gahi* fishery, short chains of communication between science, management and industry allow effective cooperation in the interest of long-term sustainable exploitation. The industry is responsive to short-notice requests for in-season information about the fishery. Management takes into account both scientific advice and industry recommendations through ongoing consultations before and during the fishing seasons. As a result of this cooperation, *D. gahi* is one of the best managed squid fisheries in the world with local fishing companies being amongst largest and most profitable enterprises in the Falkland Islands economy.
Case Study #3: Industry-based data collection – Norwegian Reference Fleet

Representatives:
Kjell Nedreaas - Principal Scientist, Fisheries Dynamics Research Group, Institute of Marine Research, Norway
Stig Bloe - Norwegian Fishing Industry Representative

The Institute of Marine Research (based in Bergen, Norway) has always had a close and good cooperation with fishermen and the fishing industry. These contact and information flows have traditionally occurred by having institute personnel collect scientific samples on board fishing vessels or at ports, and on board commercial fishing vessels chartered for conducting scientific research surveys. The Norwegian Reference Fleet aims to improve data collection and information flows both from and to the fishermen.

The Reference Fleet is a small group of Norwegian fishing vessels that provide the Institute of Marine Research (IMR) with detailed information about their fishing activity and catches on a regular basis. The sampling and data management procedures are similar to the system used on board IMR’s research vessels. Data is used for management purposes including stock assessment.

A high-seas Reference Fleet was established in 2000 and consists of 17 vessels. In autumn 2005 a similar coastal Reference Fleet was established along the entire Norwegian Coast. This fleet is composed of 21 vessels (mainly gillnetters, 9–15 m long). Public announcement every fourth year opens up for replacement of the fleet and motivates fishermen involvement.

The administration and work done by the Reference Fleet is self-financed by the allocation of a minor part of the Norwegian fish quotas for research purposes. The vessel owner gets 50–60% of the quota value to cover the vessel’s expenses in catching, producing and selling the fish. The other 40–50% covers the administration and running costs, and payment to the fishermen to take biological samples and data deliveries according to protocol.