

## Theme 4: Fisheries

Theme 4 considered major marine mammal bycatch issues in waters of the U.S., other nations, and the high seas. Speakers focused on marine mammal conservation issues associated with unsustainable bycatch, and addressed actions that are in place or could be implemented by governments, multinational regulatory bodies, and industry to improve domestic and international efforts to assess and mitigate bycatch.

Dr. Andrew Read (Duke University's Nicholas School of the Environment) reported that marine mammals bycatch in the United States has been estimated at over 4,350 deaths annually, and a staggering worldwide total conservatively estimated to be at least 570,000 deaths per year. Bycatch threatens populations, species and marine mammal biodiversity in many places around the world. For example, twelve species or populations of critically endangered small cetaceans are at risk of extinction due, at least in part, to bycatch. Most bycatch deaths occur in gill nets, and bycatch in the thousands of artisanal fisheries found around the world in foreign national Exclusive Economic Zones may be the most intractable bycatch problem we face. In most countries and on the high seas there is inadequate information on the magnitude of bycatch, the species taken, and what, if any, mitigation measures are in use. In the United States, monitoring and mitigation are generally quite good, but marine mammal bycatch in a few fisheries remains a persistent challenge. For U.S. fisheries with marine mammal bycatch problems, take reduction teams develop mitigation plans that are implemented by NOAA Fisheries. Most plans have been fully or partially successful, but some, particularly the Atlantic Large Whale Take Reduction Plan, have failed. Factors contributing to failure include small stock size, large team size, complicated plans, lack of compliance, political interference, and lack of funding.

Nina Young (NOAA Fisheries International Affairs Office) presented information on NOAA's international efforts to "level the playing field." U.S. imports from 122 nations make up 86% of the seafood consumed in the United States. Because the regulation of bycatch differs substantially between domestic and foreign fisheries, U.S. fisheries are subject to much more stringent regulation, which puts U.S. producers at a competitive disadvantage. The MMPA and other laws provide NOAA with the authority to require that foreign countries exporting seafood to the United States assess and mitigate bycatch in a manner comparable to the United States, but to date that authority has not been exercised.

Elizabeth English (Office of NOAA's Deputy Assistant Secretary for International Fisheries) described the efforts of multinational regional fisheries management organizations (RFMOs) to monitor and mitigate the bycatch of marine mammals and other protected species. Although RFMOs have been making progress in implementing management measures to assess and reduce marine mammal bycatch, there is still a need to improve the monitoring of bycatch, build capacity to deal with bycatch, and to form partnerships that will enhance their efforts to tackle the problem.

Susan Jackson (International Seafood Sustainability Foundation - ISSF) described ISSF's efforts to work with scientists and the tuna industry to reduce bycatch. ISSF works with fishers, processors and distributors to develop and implement science-based practices and management measures that improve the sustainability of tuna stocks, reduce bycatch, and comply with national and multinational

regulations. They work with skippers to improve fishing practices, with processors to establish market-driven conservation commitments, and with scientists to understand the drivers of bycatch and to devise and test mitigation methods.

During the panel discussion, it was noted that rationalization of fisheries, such as through rights-based management, can help reduce the impact of fishing on marine mammals by eliminating derby-style fishing. In the state of Alaska, a pilot program is underway to place observers on vessels alongside the fleet for purposes of monitoring bycatch or marine mammals by small fishing vessels. Another point raised in the panel discussion was the work of the Food and Agriculture Organization (FAO) on sea turtle bycatch mitigation, which might serve as a useful model for addressing global marine mammal bycatch in coastal gillnet and other fisheries.