

NRC FOREIGN TRIP REPORT
Combined Quick Look and Final Report

Subject

American Fisheries Society Annual Meeting

Dates of Travel and Countries/Organizations Visited

August 17-22, 2014; Quebec City, Canada

Author, Title, and Agency Affiliation

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Sensitivity

Not applicable

Background/Purpose

Attendance and participation at the annual meeting of the American Fisheries Society (AFS) enable NRC aquatic biologists to maintain expertise and keep abreast of new developments in the field. Additionally, it is an ideal opportunity to interact with other agencies as well as experts regarding particular fish species or bioengineering capabilities and legal developments as they relate directly to NRC's licensing actions regarding construction and operation of nuclear power plants. Participation in the meeting also provides an opportunity for the NRC staff to discuss the agency's needs and issues regarding effects on fishery biology resulting from construction and operation of nuclear power plants.

Abstract: Summary of Pertinent Points/Issues

The American Fisheries Society holds annual meetings that include several concurrent symposia on various topics related to fish, fisheries, fish habitat, and legislative issues. NRC staff participated in several symposia, including Protected Fish at Cooling Water Intakes: Advancing Science to Support Clean Water Act 316(b) Compliance; Population Dynamics and Sustainable Fisheries for Highly-Migratory Large Pelagic Species; Contributed Papers—Reef Fish; Out of Sight, Not out of Mind: Estimating and Reducing Release Mortality in Commercial and Recreational Fisheries; Big Data Science and Its Impacts on Fish Conservation and Management; 38th Annual Larval Fish Conference; Fish Migration and Ocean Tracking Network; Integrating Ecosystem Threshold Responses into Living Marine and Aquatic Resource Management; Spatial Ecology of Open Systems; Are We Still Fishing Down the Food Web?; and Reproductive Behavior and Recruitment in Marine Fishes: Emerging Understanding and Future Needs.

Presentations and discussions in the symposia are directly related to NRC's environmental review of combined license applications. NRC staff focused on discussions involving data collection, Federally listed species, essential fish habitat,

Enclosure

cooling water intake designs, mitigation measures, environmental analysis, and legal developments to reduce adverse effects on aquatic organisms and habitat.

No policy matters or issues were identified that need to be brought to the Commission's attention. The interaction was worthwhile and achieved desired outcome of maintaining and expanding expertise in the field of aquatic ecology. Due to the large number of new fisheries issues and research, it is recommended that NRC staff attend the annual meeting routinely.

Discussion

Presentations and discussions at the conference will benefit NRC's environmental impact analysis in the area of aquatic ecology. Several presentations involved studies that were conducted at nuclear power plants to assess effects on productivity of aquatic ecosystems and sensitive fish populations and indicator species.

Of particular interest, the NRC staff participated in several discussions regarding technology to reduce adverse effects on aquatic organisms. Such technology and research focused on impingement, entrainment, thermal stress, increased predation due to anthropogenic environmental shifts, impacts due to sound attenuation of in-water construction activities, and foregone production in addition to legislative changes. Mapping and data distribution technologies were discussed in several symposia, particularly focusing on habitat issues such as protection of essential fish habitat and limitation of wetland losses.

Such topics receive much attention during NRC's combined license application review process. Additionally, participation in AFS meetings gives NRC staff the opportunity to learn new technologies, expand expertise in fisheries biology, and discuss environmental regulatory activities with representatives of other government agencies, academia, and industry.

Pending Actions/Planned Next Steps for NRC

NRC ecological staff plans to continue to participate in AFS activities, particularly the annual meetings that bring together active members from government, academia, industry, private sector, and other organizations.

Points for Commission Consideration/Items of Interest

The content of this report is not likely to be of interest to the Commission.

Attachments

There are no attachments, but the meeting program can be found at afs2014.org.

"On the Margins"

Not applicable