

Additionally, Skyler Sagarese, from the University of Miami, demonstrated how ecosystem considerations are being factored into stock assessments in the southeastern United States. Fishing representatives endorsed the concept of ecosystem-based management, including Patrick Paquette of the Massachusetts Striped Bass Association and Ben Martens of the Maine Coast Fishermen’s Association. They both noted that fishermen are among the first to grasp large-scale changes under way, including major shifts in the distribution of fish species coinciding with rapid warming of the Gulf of Maine.

Rebecca Goldberg, who directs environmental science for The Pew Charitable Trusts, moderates a panel discussion involving, from left to right, Jason Link of NOAA Fisheries, Ingrid Biedron of Oceana, Stephani Zador of NOAA’s Alaska Fisheries Science Center, and Deb Wilson-Vandenberg of the California Department of Fish and Wildlife. Photo credit: Erik Robinson.



Mark Robbins, a provincial enforcement specialist with the Enforcement Branch of the Ontario Ministry of Natural Resources and Forestry, closes the symposium with a presentation on the future of fisheries law enforcement. Photo credit: Molly J. Good.

Fisheries Sustainability, Crime, and Enforcement: Whodunnit and How Do We Manage It?

Sponsors: American Institute of Fishery Research Biologists, Environmental Science and Policy Program (MSU), Great Lakes Fishery Commission

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Law enforcement is an often overlooked, undervalued, and underrepresented component of effective management and conservation programs for marine and freshwater fisheries. The keynote presentation in this symposium detailed law enforcement as a critical fisheries management tool in enforcing and ensuring compliance with laws, rules, and regulations established to optimize the use and benefits of fisheries resources, protect their habitats, and monitor human interactions with these resources. Other presentations stressed the importance of law enforcement as an integral component of fishery management plans, while noting the challenges of monitoring illegal fishing behavior and facilitating law enforcement among the many agencies that impact fisheries production across state, federal, provincial, and tribal jurisdictions. To address these challenges, law enforcement officers and fisheries managers acknowledge that they must work cooperatively to discuss the role of law enforcement in shaping the future of fisheries science and the fisheries profession. Investigations of illegal activity and forensics, measures and socially acceptable models of law enforcement success and compliance, and a healthy balance among education and regulation are necessary for effective fisheries law

enforcement and sustainable fisheries management. Bringing law enforcement officers and fisheries professionals together in this forum highlighted the need for a continuing conversation among these sectors and emphasized their common goal of protecting and conserving our fisheries resources.

Frontiers in Otolith Chemistry: Insights, Advances, and Future Directions

Sponsors: Estuaries Section, Marine Fisheries Section

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The symposium “Frontiers in Otolith Chemistry: Insights, Advances, and Future Directions” was a comprehensive survey of the state of otolith chemistry and highlighted exciting new directions in the field. Co-sponsored by the Estuaries and Marine Fisheries sections, the symposium spanned 1.5 days, included 31 presentations and 3 posters, and covered a remarkably wide range of topics. These included the use of chemistry to trace provenance and movement, statistical treatment of data, novel chemical investigations (e.g., eco-toxicology, dietary reconstructions, oil spill markers, and hypoxia indicators), combinations of methods (e.g., otolith chemistry and tissue stable isotope analysis), novel marking methods, strontium “isoscapes” and their application, and work with analogous structures, such as scutes, spiny rays, or scales, that don’t necessitate killing a fish. Notably, the symposium was a balanced mix of seasoned and mid-career researchers with students and early-career workers. Numerous conversations about ideas and potential collaborations were overheard during coffee breaks, and several students expressed their appreciation at the chance to network with new people. A special issue featuring submissions from the symposium is currently being organized.



Participants in the otolith symposium.