

Tidings

Gulf of Maine Research Institute Newsletter

FALL
2008

Meet Shelly Tallack, GMRI Scientist



Dr. Shelly Tallack wants her research to have an impact on the Gulf of Maine ecosystem. Since joining the Gulf of Maine Research Institute in 2003, Shelly has initiated five major projects: managing the Northeast Regional Cod Tagging Program, tagging haddock to examine their migration paths, investigating bycatch (non-target catch) and discard survivability of deep water red crab, recording discard mortality of the spiny dogfish on hook gear, and exploring the use of mischmetal to deter dogfish from commercial fishing gear.

Shelly gained considerable experience working with fishermen both on commercial and research vessels in diverse countries and ecosystems, including Scotland, Norway, Jamaica, the US and Australia. This international pedigree taught Shelly how to investigate scientific challenges in the oceans and how to effectively collaborate with fishermen and scientists.

“Working at GMRI has been a stimulating and rewarding experience; the energy across the organization keeps me on my toes, striving to do good science which will benefit our understanding of the Gulf of Maine ecosystem.”

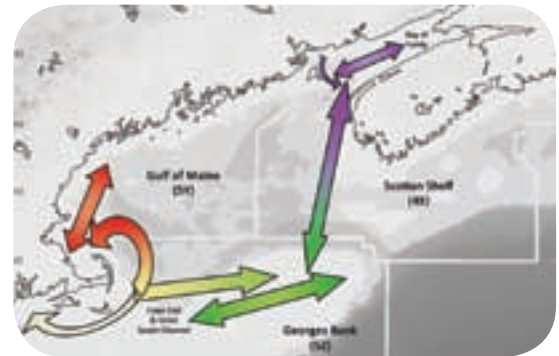
Shelly is an integral member of GMRI's research team, which utilizes an ecosystem based management approach to address key issues facing the Gulf of Maine bioregion. To learn more about Shelly's largest research project, the Northeast Regional Cod Tagging Program (described to the right), please visit: www.codresearch.org.

Northeast Regional Cod Tagging Program

The Northeast Regional Cod Tagging Program (NRCTP), which began in 2002, represents the largest cod tagging program ever conducted along the eastern seaboard. This five year international program, led by Dr. Shelly Tallack, involved over 1,000 commercial fishermen and 8 research organizations spanning the Gulf of Maine region from Nova Scotia to Cape Cod.

Cod movement data was gathered by tagging over 114,000 cod and recording their release and recapture locations. In addition, valuable cod growth information was collected. GMRI entered all tagging data into an online program which is now accessible to fishermen, scientists, environmentalists and the public.

The study's valuable data is being utilized for both research and management purposes to develop more accurate cod stock assessments. It will identify critical gaps in our knowledge of cod movement in the Gulf of Maine serving as a basis for future regional tagging studies.



Primary cod migration proposed by tagging results

Education



Vital Signs Update – Program development is underway! Over the next month, prototyping work will help refine program elements before *Vital Signs* becomes universally accessible to Maine's 32,000 7th and 8th grade students and their teachers.

Last August, *Vital Signs* staff organized a three day teacher training conference at GMRI to discuss how invasive species, field science, and inquiry-based pedagogy can be applied to middle school science curriculums. Thirteen teachers from across the state have committed to teaching *Vital Signs* this school year and will distribute program materials and protocols to their students for collecting invasive species data in their communities. *Vital Signs* staff work closely to answer teacher and student questions during data collection and classroom analysis.

Vital Signs links 7th and 8th grade students and scientists in the rigorous collection and analysis of essential environmental data across freshwater and coastal ecosystems. Ongoing feedback from teachers and students during the 2008-2009 school year promises to shape *Vital Signs* into a high impact education program for Maine's children.

Community

GMRI Launches Sustainable Seafood Initiative – Consumer demand for sustainably-harvested seafood is growing worldwide. Retailers are featuring seafood with recognizable sustainability labels like the Marine Stewardship Council (MSC) certification, the dominant global certifier of sustainable fisheries (www.msc.org). Fishermen faced with increasing market barriers for uncertified fisheries and new opportunities for premium pricing for sustainably-harvested fish have strong incentives to adopt best-practice principles.

“Fisheries in the Gulf of Maine have been slow to recognize opportunities presented by MSC-certification. There are 34 MCS-certified fisheries in the world and 75 others under assessment. No New England fishery has secured certification yet,” says President Don Perkins. “The Maine lobster fishery is leading the way, having just completed a pre-assessment. It is expected to become the first Gulf of Maine fishery to secure MSC certification.”

GMRI is partnering with Hannaford Bros. to assist New England fisheries in pursuing MSC certification. GMRI’s and Hannaford Bros.’ goal is to align market incentives to reward fishermen’s conservation efforts. The Maine Technology Institute’s Cluster Initiative Program, a state economic development program, has awarded GMRI a \$200,000 challenge grant to support this effort.

“GMRI is in an ideal position to provide the technical expertise, scientific advice, and industry/science collaboration needed to accelerate the certification process in the Gulf of Maine,” Perkins notes. “We will work jointly with the wild-caught and cultured fisheries, fish processors, supermarket chains, and restaurants to leverage global market interest in sustainably-harvested and cultured fish.”

Power of the Gulf – The Gulf of Maine is uniquely positioned to serve the growing demand for renewable energy sources with its winds and tides. Siting facilities in the ocean, however, involves a complex web of regulatory and environmental considerations.

GMRI co-hosted a one-day forum in June called “The Power of the Gulf: Considering Ocean Energy in Maine” in conjunction with The Center for Law & Innovation (at UMaine School of Law). The forum gathered alternative energy entrepreneurs, marine stakeholders, the legal community, academics, and policymakers to discuss the economic opportunities, regulatory complexities, and community issues that need to be considered when siting ocean energy facilities.



To learn more about the conference, please visit: www.gmri.org/community/oceanenergy

A cross section of an otolith, a fish’s ear bone, provides scientists with vital information about the fish’s life. Otolith rings, similar to rings that develop in trees, help determine the age and growth rate of the organism. Scientists at GMRI utilize otolith samples in their research to gather important life history about key Gulf of Maine species like herring, monkfish, and cod.



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