

Progress Report 2014

THE RHODE ISLAND SHELLFISH MANAGEMENT PLAN:

A YEAR OF PROGRESS, PARTNERSHIP, AND PUBLIC PLANNING

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When it kicked off in 2013, the Rhode Island Shellfish Management Plan (SMP) faced challenges. Government agencies, shellfish harvesters, aquaculturists, researchers, and community groups recognized threats to Rhode Island's stewardship of shellfish resources in state waters. Yet, little existed in the way of a tool or process for fostering the collaboration needed to solve problems through sound science and policy.

With the R.I. Department of Environmental Management (DEM) and the R.I. Coastal Resources Management Council (CRMC) serving as SMP co-administrators—the R.I. Department of Health (HEALTH) shares some oversight as well—the University of Rhode Island Coastal Resources Center (URI CRC), with Rhode Island Sea Grant (Sea Grant), is managing the SMP project, with several public and private funders providing critical support. An impressive array of research projects is underway, scientific data is being used to shape the policies of the SMP, public events are engaging citizens in the plan, and a collaborative working relationship is forming between the government, private sector and community stakeholders taking part in the effort.

The stories here define the goals and outcomes of the SMP. They speak to the statewide momentum for the SMP that is solidifying and celebrating the role of shellfish resources as economic and cultural touchstones for many in Rhode Island and beyond.

SMP Science Helps Bridge the Gap Between Wild Harvest and Aquaculture

It wasn't easy for Dave Ghigliotti, a Rhode Island quahogger, to make peace with the idea that the future of his traditional industry is tied to that of a related, if competitive, enterprise: aquaculture.

"I see our quahog fleet shrinking and aging, a real dilemma for the future of our trade. But it seems all about aquaculture now," Ghigliotti had said, looking around a roomful of wild harvesters and aquaculturists alike, as well as others involved with the SMP—at the SMP-focused 12th Annual Ronald C. Baird Sea Grant Science Symposium in November of 2013. "It's hard to see how it can work for both, how we can best share the waters. I hope it works."

Ghigliotti's frank words spoke to a trepidation shared by other symposium attendees: how does Rhode Is-

land go about ensuring enough room and resources for industry members, whether they catch shellfish or farm it? One of the answers, as underscored by the symposium, is sound

science: By studying local shellfish, their habitats, and the human activities that impact them, Rhode Island gains more information to help wild harvesters and aquaculturists move forward together on shared issues.

And to the state agencies tasked with rolling out Rhode Island's first major shellfish plan, it only made sense to make the SMP as useful as possible by grounding its policies in fact and science.

"The ultimate goal here is to make sure people can use and enjoy shellfish resources in a sustainable way, so they will continue to be central to our state's cultural identity and economic future," said Janet Coit, DEM director. "We're doing the best we can together to make the SMP as responsive as possible."

CRMC Executive Director Grover Fugate agreed. "Whether you're interested in this from an environmental or economic perspective, you need to know what the issues are," he said. "You need the science to inform the



A research project, conceived by whelk fisherman Katie Eagan, is seeking to better understand whelk ecology and improve management.

PHOTO BY MELISSA DEVINE



Jody King, commercial shellfisherman and “Clamming 101” teacher, wants to work with others to improve the outlook for Rhode Island shellfish.

PHOTO BY MELISSA DEVINE

policies that can get to the bottom of those issues.”

Since SMP development started in January 2013, a significant array of research projects are expanding what is known about local gastropods and bivalves—whelks, oysters, and quahogs. Researchers are learning more about where and how shellfish live and reproduce, and about the impacts that the changing ocean environment could have on these animals. And social scientists are studying and mapping coastal resources and their

recreational and commercial uses along Rhode Island’s south shore. They will seek to determine how users value the resource, for instance for boating and shellfishing to help managers minimize use conflicts and develop management strategies that preserve and enhance those assets that users value highest.

So important is the science to the development of the SMP policies, that the SMP project team has special panels—Technical Advisory Committees (TACs)—largely focused on under-

standing the science and planning its integration into the SMP.

“Every time new data comes in, it’s making the SMP a better planning tool,” says Dale Leavitt, associate professor of biology at Roger Williams University (RWU), who is working on the SMP.

In addition to incorporating the latest science, the SMP process is designed to encourage broad participation and engagement by stakeholders and the public. For example, SMP chapters are organized for quick and easy access. Also, events, like the symposium, are introducing the community to the latest science. And regulators are participating in activities, such as clam seedings, with partners such as RWU and the Rhode Island Shellfishermen’s Association, and are in direct contact with new research.

As new data fills in information gaps about shellfish resources, the potential to fine-tune and improve management approaches increases as well. Enhancing licensing and permitting processes and procedures for both wild harvest and aquaculture operations are high on the list of priorities, as is thoughtful examination of the regulatory process for conveying seafood from local fishermen’s hands to Rhode Islanders’ tables. Still other research is expected to help refine food safety regulations and environmental monitoring procedures for clam beds in state waters.

Sea Grant Seeds Science with \$1.2 Million for Shellfish Research

Rhode Island Sea Grant is funding a substantial 2014-2016 research program with projects delving into the economic, biologic, social, and environmental implications of shellfish resources issues, including:

- Whelk Ecology
- Shellfish Aquaculture and Water Quality
- Quahog Migration in Narragansett Bay
- Mussel Disease and Aquaculture Potential in Rhode Island
- Aquaculture Perceptions: Support and Opposition in Rhode Island
- Life on the Bay: Recreational and Commercial Uses of Rhode Island’s South Shore

Take a closer look at the projects by visiting seagrant.gso.uri.edu/research/2014-2016/



The many uses of Rhode Island’s coastal waters are the focus of a social science research project.

PHOTO BY MONICA ALLARD COX

As Jody King, SMP participant, shellfisherman, and SMP “Clamming 101” teacher said, the science has an impact at the most practical level: “If you’re in this industry, you want to do all you can to know where the shellfish are, and what we can do working with others to improve the outlook,” he said. “My livelihood depends on it, and it’s the same story for many people.”

And this is where management and research meet outreach, said SMP Project Manager Azure Cygler, a CRC and Rhode Island Sea Grant coastal and fisheries extension specialist, who has concentrated her efforts on providing varied opportunities for the public to grapple with SMP science, issues and policy solutions: “We want to ensure that the SMP is a way for Rhode Islanders—be they citizens, fishermen, regulators, or anybody else—to participate in enhancing and enjoying these resources, with all of their economic, social, and environmental benefits.”

For Dave Ghigliotty, that’s the kind of planning process he sought. “I just want it to be fair for everyone,” he said at the symposium, “I want to keep doing what I do knowing the resource is understood and being managed well.”



Oyster grower Jim Arnoux works Ninigret Pond. PHOTO BY MELISSA DEVINE



Researcher Marta Gomez-Chiarri helped stakeholders and state agencies craft a plan to combat the bacteria *Vibrio* in oysters. PHOTO BY MELISSA DEVINE

State agencies coordinate management decisions and share information

Robert “Skid” Rheault, executive director of the East Coast Shellfish Growers Association, is, without a doubt, one of local aquaculture’s biggest proponents. So, his inclusive perspective of shellfishing overall may surprise some. “There is no bright line separating shellfishing from farming,” he said, “Rather, there is a wide gray area of approaches from hatchery stock enhancement for wild harvest to spat collection for grow out. It is all about using the tools we have to improve sustainable harvests.”

Rheault, who is jokingly known as “The Mouth of the Bay” amongst colleagues, is a vocal industry advocate hopeful that the SMP will foster a management framework flexible enough to embrace and enhance both wild harvest and aquaculture. A long history of regulatory inflexibility delayed the development of an aquaculture industry in Rhode Island for decades, but the impediments were removed and shellfish farming has enjoyed strong growth for over 10 years. Rheault is looking to the SMP to improve cooperation among the

various governmental agencies that regulate shellfishing and farming.

“By working together with industry, managers can create a regulatory environment that protects and enhances our natural resources while improving harvests and creating jobs,” he said.

The many state agencies tasked with implementing SMP recommendations are already improving inter-agency coordination as they work together to address regulatory issues that have been identified as roadblocks to growth. Rheault said, “This could be a real game-changer for shellfish management in Rhode Island.”

DEM, CRMC, and HEALTH all have important regulatory roles in shellfish management. Broadly, DEM’s focus is the management of shellfish resources and the marine environment; CRMC, with its authority to oversee coastal activities, is responsible for permitting aquaculture operations and shellfish restoration activities, while HEALTH addresses human-health based issues regarding shellfish consumption.

Because of overlapping concerns, joint jurisdiction can be daunting, but these state agencies have engaged in the SMP process to determine how to maximize each agency’s strengths,



DEM Director Janet Coit and CRMC Aquaculture Coordinator David Beutel participate in Clamming 101. PHOTO BY MELISSA DEVINE

and to eliminate interagency competition and regulatory overlap so regulatory activities roll out smoothly and efficiently.

“The DEM is working to improve the efficiency of its operations across the board, which makes this an especially fruitful time to undertake the SMP,” said Coit, “That means lots of old-fashioned conversations to build trust and foster better understanding of the benefits, challenges and opportunities ahead. It’s an exciting time.”

Fugate said that the agencies’ efforts have intertwined for years on various issues, but that the SMP presents a particularly distinct and overt opportunity for cross-agency collaboration.

“Now is the time, before the plan’s underway, to work out the logistics so that we can be agile, so that we can respond to issues and needs in a timely and thoughtful manner,” he said.

The agencies took major steps forward with this coordination effort on two occasions in 2014. First, they jointly crafted the state’s first *Vibrio* Control Plan (VCP) for oysters, working closely with farmers who were already voluntarily keeping shellfish iced once caught so as to keep *Vibrio*, a bacteria that can make people sick, from growing. The VCP is in place today and is proving effective.

“The Rhode Island shellfish community really came together to guide the agencies and make a sensible, effective plan,” said shellfish disease expert Marta Gomez-Chiarri, University of Rhode Island professor of fisheries, animal, and veterinary science.

That kind of response is important from a health perspective, according to HEALTH. The SMP is educating consumers on shellfish diseases, so the information is welcome.

“Cooperation and communication are key. The new information from the SMP as well as the interagency collaboration is already protecting the health and safety of all Rhode Islanders and our guests,” said HEALTH Director Michael Fine.

A second significant step forward with coordinated decision-making took place with the reshaping of the state’s aquaculture regulations. Reform was needed, said Bob Ballou, assistant director of DEM.

“Because of the dual-authority provisions in the Rhode Island General Laws, CRMC and DEM had dual regulations governing aquaculture. That posed difficulties for the agencies and headaches for the industry. We knew that everyone’s interests would be served by sitting down and combing through the regulations, with a view to streamlining them to address the federal and state mandates in a clear and simplified way. That’s exactly what we did,” he said.

The goal is clear: More effective, sensible management that works for the agencies as well as Rheault and other oyster farmers.

The SMP continues to bring DEM and CRMC together on shared responsibilities for managing shellfish resources. A recent field trip, for example, enabled agency staffers to participate together in a permitting site visit for an aquaculture operation.

As for Rheault, he’s hoping the collaboration is an indication that the government is willing and ready to work with industry on bringing long-term stability and productivity to Rhode Island shellfishing.

“I see these changes as very positive steps,” he said, “With the recent actions on *Vibrio* and aquaculture reform, shellfish in Rhode Island have a bright future ahead.”

State agencies communicate more effectively with the industry and the public

The DEM Office of Water Resources (OWR) is responsible for the pollution monitoring that sets the openings and closures of shellfishing areas. In April 2013, as part of the SMP, shellfishermen and the OWR came together to examine the state's maps of Narragansett Bay depicting the array of shellfishing areas, from those clearly marked as open or closed, to those bearing the more complicated labels of "prohibited," "conditionally approved," or "unassessed." Several shellfishermen present remarked that they appreciated the presentation given by OWR Chief of Surface Water Protection Angelo Liberti for helping them to better understand the regulations.

Several months later, DEM, having heard shellfishermen's frustration that, post rainfall, some grounds weren't open for fishing as soon as conditions permitted, approved an earlier opening time.

"We were pleased to make the change, we were glad to work with them on this," said Liberti. "Under certain conditions we were able to reopen at noon rather than sunrise the following day. We hadn't realized this was important to shellfishermen."

Industry members, such as Rhode Island Shellfishermen's Association President Michael McGiveney, say every win shores up protection for their livelihood a little bit more. "This SMP has been positive in helping us hammer out some of these issues, so, so far, so good," he said.

A small step? "Maybe, to some—but to the people who had come to that meeting and were part of the discussions that led to this change, this was a big move forward for the government and the industry," said Jennifer McCann, director of URI CRC's U.S. Coastal Programs, extension leader for Rhode Island Sea Grant, and lead CRC advisor for the SMP, crediting the face-to-face talks and the relationships that came from those interactions with helping to make policy changes like this one that aided

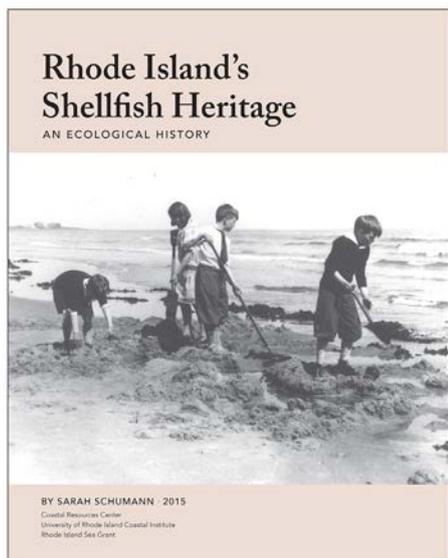
fishermen while maintaining the same level of protection for consumers.

Through the SMP, DEM and CRMC are working together on a research project to assess the effectiveness of shellfish spawner sanctuaries, a direct need raised by stakeholders, with funding provided by Rhode Island Sea Grant. They are also conducting routine aquaculture lease inspections together to streamline the permitting process and provide applicants with a comprehensive and coordinated assessment and review.

SMP Promotes Understanding, Respect for Shellfish Heritage

A variety of SMP events and activities have enabled the public to learn about Rhode Island's shellfishing heritage and its longstanding cultural, environmental, and economic impacts. Key activities have included:

Clamming 101 Classes: Over the summers of 2013 and 2014, these small-group field sessions throughout the Ocean State helped more than 100



Forthcoming Book Highlights Shellfishing History

Shellfishing is part and parcel of the Rhode Island way of life, and has been for centuries. Native Americans used the local quahog for food and trade and taught European colonists how and where to gather them in Narragansett Bay. Early twentieth century tourists left their hot New England cities in the summer for cooler Bay shores, taking part in clambakes and collecting shellfish on their own. And Rhode Islanders have steadfastly turned to shellfishing for year-round subsistence and income, with the science, art and lore of quahogging being handed down generation to generation.

Today, shellfishing—both the wild harvest (of quahogs, oysters, steamers, whelks, bay scallops and mussels) and aquaculture (of oysters and mussels)—remains an important part of Rhode Island's cultural and economic story.

Rhode Island's Shellfish Heritage: An Ecological History tells the story of shellfishing in Rhode Island from the earliest harvests to the challenges and opportunities facing industry and recreational harvesters alike today.

This book documents the historical and current perspectives, memories, and narratives of Rhode Island's shellfish community in order to better understand, honor, and promote the cultural importance of shellfish to the state. It is published by the Coastal Resources Center, the Coastal Institute, and Rhode Island Sea Grant, all at the University of Rhode Island, with funding from the Rhode Island Council for the Humanities.

To reserve your free copy, email smp@etal.uri.edu.



Workers at Matunuck Oyster Farm sort oysters from Potter Pond that supply the Matunuck Oyster Bar and are distributed across the country. PHOTO BY MEREDITH HAAS

citizens try their hands—equipped with mudrakes—at shoreline quahogging, digging for clams along muddy flats while expert shellfishermen shared their expertise, lore, and tips of the trade. The activity built momentum for the SMP, even as it fostered new appreciation for the habitats and industries that support shellfish.

“What a wonderful experience,” said participant Sheila Brush, director of programs for Grown Smart Rhode Island, “I’ve gotten my grandchildren involved now! We need more of this.”

Quahogging vessel tours: These tours provided public groups with the opportunity to learn from the captain firsthand how shellfish are harvested from the sea, as well as to engage with shellfishermen in discussion on key environmental issues (how can we learn more about where shellfish

grow and locate?), social issues (how can wild harvesters and aquaculturists work more closely together?), and economic issues (how can shellfishermen sell their products directly to local consumers?).

Shellfishing on the airwaves: The SMP team helped industry members secure a Local Agriculture and Seafood Act (LASA) grant in Spring 2014; stay tuned—the Rhode Island Shellfishermen’s Association is partnering with a video company to create public service announcements (PSAs) that will depict the local quahog fleet and share basic information for consumers.

To learn more about the SMP or to get involved, please visit rismp.org, or contact Azure Cygler at (401) 874-6197 or azure@crc.uri.edu.

Acknowledgments

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