Incorporating Community into Regional Ocean Planning

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INTRODUCTION

New England's working waterfront communities have strong economic and cultural ties to the ocean. The economic health of these communities relies on a healthy ocean and coastal ecosystem.

The existence of many fishing communities can be tied to the ability to fish in a particular area. The loss of that ability can mean the decline or disappearance of an entire community. The specific places in the ocean that these communities rely on are determined in part by the size of their boats, the species being sought, fishing pressure from other communities, and government regulations. Many fishermen are only able to fish in a relatively small part of the region.

A well-executed ocean planning process will help communities protect their future, improve ocean management, and result in healthier ecosystems. A poor process, on the other hand could cause tangible economic and cultural impacts to these communities, particularly the smaller and more remote communities. The potential for these impacts can create fear and suspicion about ocean planning among those most impacted within these communities.

Addressing the fears and concerns of community members in a concrete fashion will ensure a more cooperative and durable plan. Fortunately, in New England, there is still time to include a few key data layers and provisions in the regional ocean plan that will support these communities and help make better informed decisions about changing ocean uses.

A successful ocean plan should include:

- data layers that include better accounting for current and future environmental shifts, like those caused by climate change
- improved practices for engaging communities in the decision-making and permitting processes for competing ocean uses
- data layers that incorporate community level social, cultural, and economic values
- incorporating fine scale data from fishermen into the process

The Islesford Co-op, supporting the rural fishing community of Islesford, Maine PHOTO: JASON MANN

Islesford—a Focus on a Small Fishing Community

Islesford is the easternmost year-round island in the United States. It is a small, fishing-dependent community with a year-round population of 70 people, a two-room K–8 school, a seasonal historical museum, a dockside restaurant, and a library. The fishing co-op is the only year-round business. Without proper access to a healthy, thriving ocean, this island community may disappear. It is important to identify these small communities within the Northeast Regional Ocean Planning process in order to preserve and maintain the unique cultures and values of these tight-knit island communities.

Accounting for Current and Future Changes to the Marine Ecosystems

Fishermen and others in natural resource-dependent communities are seeing shifts in the marine ecosystem from climate change and other human drivers. "The Gulf of Maine is changing at a rapid rate and in ways never seen before by today's fishermen" (Predictive Capabilities Workshop Report 2015). New species are appearing as bycatch, and changing water temperatures have influenced economically important fisheries. Dr. Rick Wahle, University of Maine, states, "The Gulf of Maine is at the doorstep of one of the largest temperature gradients on the planet. Lobsters are experiencing two sides of the climate story—in southern New England they are declining, and in northern New England the populations are expanding" (Climate of Change Workshop Report 2013). With warm spring waters in 2012, the timing of the lobster shed was disrupted, which caused more lobsters to be caught earlier in the year. "The five million pounds of lobsters early in the season reportedly caused a 50 million dollar decline in revenue, as processors weren't ready to buy US lobsters and prices dropped significantly" (lobsterman, South Thomaston, ME).

Recent research from the Gulf of Maine Research Institute indicates that the Gulf of Maine is warming more rapidly than 99% of the world's oceans (Climate of Change Report 2013). Lobstermen in Maine are catching species common in the Mid-Atlantic and southern New England in their traps. In the communities where ocean resources are a key economic driver, shifts in the ecosystem are part of life, but recently the unpredictability of the shifts has increased significantly. According to another fisherman, "we are going to see surprises. The only certainty is that it is going to be different" (Predictive Capabilities Workshop Report 2015). Many Maine fishermen are thinking strategically about how these potential species shifts will influence their businesses.

Incorporating higher resolution climate models and current predictions into the planning process might help fishermen make better decisions about their business and make the regional ocean plan more resilient. "Higher resolution models are predicting much greater warming for the Gulf of Maine than prior models" (Vincent Saba, NOAA). While these projections will not be able to "predict" future shifts the Gulf of Maine may face, they can provide insights relevant to the business decisions natural resource-dependent communities are making today and into the future.

Across the region, fishermen see changes in the ocean and are concerned about a planning process that does not fully account for them. "In most meetings, participants expressed concern about mapping fishing activity in the face of shifting ecosystems, climate and fisheries" (NROC Report 1 pg 54). The Northeast Regional Ocean Council, NROC, has started to develop data layers that account for some of these changing conditions. For example, NROC is currently developing a data layer of marine mammal densities focused on climate and habitat characteristics (Nick Napoli, NROC). And some data layers such as "an enhanced understanding about habitat and environmental conditions will remain helpful regardless of individual species use" (Stakeholder Forum 2014). While these are positive steps, there is more that can be done in the plan to understand and account for changing environmental conditions in both its data layers and within the plan itself.

Improved Practices for Interacting with Fishing Communities

Fishermen are increasingly aware of emerging ocean uses such as sand and gravel mining, offshore wind, and offshore aquaculture that will be competing with them for ocean space and resources. These uses can exclude fishermen and other ocean stakeholders from areas of the ocean that they depend on for their livelihoods, threatening the viability of their communities. In this context, a regional process designed to coordinate government agency activity appears threatening and provides an easy opportunity for those opposed to ocean planning to tap into these fears. A plan for New England that does not address these concerns will struggle to gain the political and institutional support necessary for long-term durability.

In project after project, it has become clear that fishermen fear not having a local voice or being able to influence permitting decisions for ocean space near their community. The ocean planning process provides an opportunity to minimize conflicts between uses by starting conversations between fishermen and developers early on in the process. "As wind farms become a reality in the US, communication will be key to making them 'fishery friendly' and minimizing disruptions" (Commercial Fisheries News 2013). Tracking the different project development and regulatory processes is difficult, and the fact that those processes go on for years makes it even more so. There must be adequate transparency in the planning process to allow community members to actively participate in the process.

Improved communications can help avoid situations like what happened to fishermen from England who fish out of small ports on the Kent Coast. Their offshore wind plan called for 100 turbines several miles offshore from a fishing community. "Unfortunate thing for us was permission had already been granted. So we weren't involved in any process leading up to the decision of the site" (cod fisherman, UK). As a result, a group of fishermen formed a fishing association before the next farm was permitted and met regularly with developers to push the industry's interest (MPBN article). "I don't want someone to pay me not to go fishing... it's what I do" (Commercial Fisheries News 2013). The new fishing associations found it useful to negotiate with developers for long-term investments in fishing communities, improved working waterfront infrastructure and to hire out fishermen to implement support services related to the wind project.

In Maine, we have seen firsthand why communications are so important during the planning process. When Statoil proposed a small offshore wind farm, they talked to many Maine fishermen early on in the process and hired a lobstermen to be a fisheries liaison. These efforts helped improve communications about the project. With another offshore wind project, the Island Institute is helping Monhegan Island engage with the University of Maine. In this work, we have seen how valuable and productive a conversation between a developer of a new ocean use and a natural resource-dependent community can be. For a developer of ocean space that is important to a nearby community, continuously engaging stakeholders throughout the process is critical.

In the effective decision-making goal, the Regional Planning Body, RPB, has the opportunity to turn these liabilities into a positive "win" for communities by incorporating best practices for engaging communities about the permitting of ocean uses in waters that those communities depend on. Groups such as the Udall Foundation have done excellent work on collecting these best practices, and recent Bureau of Ocean Energy Management guidance on how offshore wind developers should engage with fishing communities is a step in the right direction. These best practices should be incorporated into the effective decision making portion of the ocean plan. By giving the natural resource-dependent communities information and a seat at the table before and during the decision-making process about uses in their area, the plan would provide a tangible benefit to these communities. Doing so would allow communities to voice their concerns about potential ocean uses that may permit disruptive activities in the waters they rely on. It may also lead to more innovative, practical, and economical mitigations.

Incorporating Community Level Social, Cultural and Economic Values

Monetary values and biophysical features are dominating spatial planning data, and intangible cultural values are not well represented. This data should be collected as part of the plan. "This could be accomplished such as by making parts of the data open source or adding oral histories" (Stakeholder Forum 2014). The RPB should take advantage of opportunities to collect and utilize data from traditional knowledge sources and incorporate them into the plan. Cultural and historic tribal resources have already been identified as important considerations in the Northeast Regional ocean plan. The RPB has been working with tribal leaders to identify important tribal cultural resources as specified under the National Ocean Policy. This is important and a vital step in preserving tribal resources, however, the RPB should also recognize and identify a need to engage natural resource-dependent communities who have strong cultural and centuries-old historic ties to the coastal environment they depend on. "The lifeline to these small communities is the ocean and when the ocean is depleted there will be no more small fishing communities... and it will be sad" (fisherman, Port Clyde, Maine).

The role of commercial fisheries in communities is often not fully recognized in the planning process. It is difficult to study and quantify intangible values, such as culture and tradition, which fishing brings to a community, even though these are often valued more highly than financial gains. These Cultural Ecosystem Services (CES) are vital to any island and rural coastal community and should be considered in the planning process. CES are "the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences" (O'Donnell et al.). Without properly identifying and preserving these services within communities, shifts in ocean uses may result in the depletion of these highly valued cultural ecosystems in fishing communities.

With significant amounts of data being collected on human uses and the ocean environment in the region, little work has been done on how and why natural resource-dependent communities value the ocean. Incorporating the social, cultural, and economic values that communities see in the ocean will help give the ocean plan a heart and soul. By tapping into the strong cultural and historic connections to the ocean found in these communities and acknowledging the importance of these connections, the plan will be less threatening and more accessible. Researchers have found that allowing community members to "describe the importance of intangible values in words and stories may be more effective than 'quantifying the unquantifiable'" (O'Donnell et al.). If this information is not captured in the plan, there is a risk that the full value of these communities could be greatly underestimated.

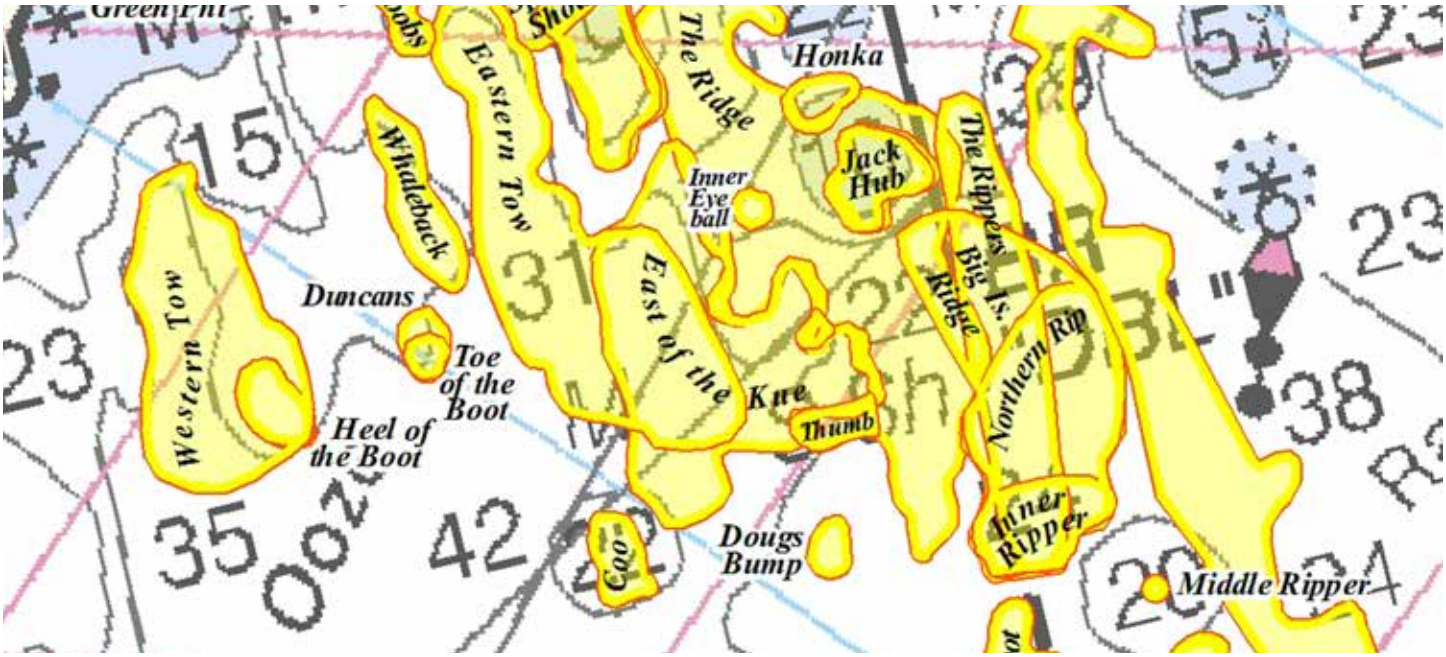
"These places are endangered species, Maine islands. And I think that anytime you lose a community, it doesn't matter whether it's on the mainland or an island, the whole world has lost something."

—Donna Damon
Chebeague Island, Maine

A family fishing business on the coop floats, Islesford PHOTO: SCOTT SELL

Fishermen have been working the water for generations, with fishing traditions in many cases passed down from generation to generation, and these stories have helped shape community identity (O'Donnell et al.). For example, navigational place names are an example of such a tradition. Bar Harbor fishermen have used "House in the Notch" for line-of-sight navigation. When fishermen line themselves up with a certain house between two hills, they know they are in the right spot. Fishermen have nicknamed their fishing grounds over the years and have a sense of ownership and pride in these names. To a developer or somebody from another industry, these names may not appear very important and are frequently not even identified on navigational charts. To fishermen, however, these fishing ground names are a part of their lives and heritage. Capturing these kinds of data in the regional plan will paint a more realistic picture of the importance of nearby ocean space to coastal communities and help make fishermen feel that their data is represented in the process.

Incorporating an understanding of these intangible values into the plan gives communities comfort in knowing that they will be able to use these data layers to explain the basics of these values to a potential new user of ocean space, as well as to new managers, regulators, politicians and other decision makers who regularly make decisions that impact these communities. This kind of information is useful in both the context of regional ocean planning and in other regulatory processes. By increasing the regional understanding and acknowledgement of these intangible values, communities, agencies, applicants and others all start the conversation on an equal footing.



Important places in the marine environment are often given names. Place names identified represent features on the ocean bottom (Death Trap, New Bank), features on nautical charts (Hot Dog Shoal, Gull Wing), or memorialize something that happened in that spot.

Incorporating Fine Scale Data from Fishermen

As the NROC Fisheries Characterization recognized, "[o]cean space used for fishing activity in New England is driven by a complex set of factors that are not all captured or represented in existing data sets" (NROC 1 pg 1). These factors or consider-

ations include: “target species population and habitat requirements, seasonal variations in species distribution, weather, gear type used, management decisions, linkages to fishing ports and communities, and socioeconomic factors.” (NROC Report1 pg 4) Fishermen whose families have been working on the water for generations are key stakeholders in providing reliable, relevant spatial data. In order for fishermen to actively participate in the planning process a sense of trust must be built. “Fishermen are more likely to trust data that is reputed to be the best available if they contribute to the generation of that data” (Stakeholder Forum 2014). According to the first NROC fisheries characterization “[f]ine scale charts are needed on the maps. Ten fathoms can make a difference for some species. These enhanced images would allow fishermen to identify and discuss local area” and “NROC should allow these groups to submit their data to the ocean portal, making sure the source is appropriately cited” (NROC Report 1 pg 97 and pg 59).

Commenting on regional data sets that are derived from federal government data does not satisfy the urge to share this important knowledge. “Many fishermen viewed the aggregate data as not representing ‘their’ activity” (NROC Report 1 pg 12). Much of the knowledge that fishermen have about specific places is very valuable. “Many fishermen are familiar with sub-regional and local patterns for fisheries in which they participate. Those also involved in the fisheries management process tended to have even greater knowledge about a variety of the region’s fisheries and were able to frame some of their comments in ways that were very helpful to the project team” (NROC Report 1 pg 4). Incorporating better fine scale data from fishermen into the planning process, which includes not just the location of fishing activity but also taps into fishermen’s local ecological knowledge of habitat and ecosystem elements allows the plan to tap into the valuable insight and contribution from natural resource-dependent community members in a meaningful way that will increase the durability of the plan.

While sharing anecdotal information about how important the ecosystem of the Gulf of Maine is to them as individuals is valuable, community leaders recognize that this value could be significantly leveraged by combining individual stories into a shared vision supported by accurate information, especially maps, that illustrate how important a healthy marine environment is to all of their communities. By adding an additional data layer to the Northeast Ocean Data Portal with this qualitative fine scale data, natural resource-based communities may feel a sense of place within the planning process.

Helping to develop this mechanism and determine the appropriate methods of displaying sensitive, fine scale data will help make fishermen feel more comfortable with the planning process. In particular, being able to contribute their knowledge to the data being used in the effective decision-making process will provide them with an opportunity to enter into discussions with regulators and developers about how to best accommodate new uses or identify key areas for protection. “Higher resolution information in both space and time is needed to determine species’ diversity and numbers, based on location and time of year” (Climate of Change Workshop Report 2013). Incorporating a mechanism for accepting this sort of information ensures that the plan and decisions emanating from the plan are based on the best possible information on human uses, ecological data and traditional knowledge that reflect the way natural resource-dependent community members understand and relate to ocean space.

Conclusions

The activities above are identified as top priorities for how to incorporate communities into the ocean plan. In developing these ideas, we draw heavily on our experiences and conversations during the development of NROC’s first fisheries characterization with fishermen from around the region, as well as decades of working with these communities. We strongly believe that if we are successful in these endeavors the ocean plan in New England will be more durable and communities will be more willing to stand up for the plan and fight for funding for these activities. We urge you to work with us to refine these ideas and incorporate them into the plan.

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