

# Community Resiliency and Offshore Development: A Piscatorial Perspective

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## Community resiliency in the face of coastal hazards and the renewable energy transition

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1. A Commons Problem, with Commons Solutions?
  - a. How to share the commons
  - b. Proportionality
  - c. “epistemic community” or “interest group conflict”
2. What has been learned, from the fisheries perspective?
  - a. My experience, NJ Governor’s Blue Ribbon Panel on Offshore Wind
    - i. Risk, uncertainty, and learning
    - ii. Stakeholder Engagement In Extremis: Fishermen’s Energy, Inc.
  - b. Our review of the literature on fishing groups and offshore wind
    - i. Compensation, participation,
    - ii. Meaningful engagement. The fisheries liaison --
3. Conclusion: Why fishing communities matter to a focus on coastal resilience.

### I. A Commons Problem, with Commons Solutions?

SLIDE: THE COASTAL COMMONS

A “tragedy of the commons,” the problem of everyone taking what they can from a common resource, without having to absorb all of the costs of doing so, which are shared among the others and the future. The “tragedy” is the supposedly inexorable outcome, when this is not controlled, of depleted resources and bank accounts “Tragedy of the commoners” ? - those who lose out in the efforts to create more sustainable resource use but also, perhaps, more profitable and efficient modes of production that squeeze out the marginal and small-scale actors. “The drama of the commons,” efforts to keep tragedies at bay.

In this talk, I will talk a little more about dramas of the commons, that is, institutions for properly managing them. I will then discuss events in my academic life that got me involved in the topic of offshore wind development. Finally, I hope to point to reasons, in developing a research agenda, that commercial fishing and fishing communities can be important foci for understanding coastal resiliency at times of major transformation of our coastal seas, among which is the practical one of the existence of a remarkable NOAA database on coastal community vulnerability and resilience.

#### SLIDE: THE OCEAN COMMONS

- ▶ Open access frontier
- ▶ Public resource
  - ▶ Coastal seas, within national jurisdiction
  - ▶ Beyond--“common heritage of mankind”?
  - ▶ Public Trust Doctrine

The oceans have long been viewed and treated as a “commons” in two senses: an open-access frontier (especially beyond national jurisdictions); or, a public resource to which members of the public claim general rights and over which a government has some control (the coastal seas, largely within national jurisdictions, Arvid Pardo’s “common heritage of mankind” notwithstanding).

The second is what we’re talking about. In the US it can have the legal status of “public trust,” whereby state legislatures have responsibility for managing what belongs to “the people” pursuant to the American Revolution (before that, it belonged to the Crown), but in any case it preserves public rights of navigation, fishing, and enjoying the beaches. Some say the public trust extends to federal waters, beyond the 3 mile limits of state jurisdiction out to the 200 mile limit of national extended jurisdiction. Some say not. No matter, it is still treated as a public trust, with government oversight and authority but strong notions that within those bounds it’s open to those who wish to use it, and no one can totally privatize it.

#### SLIDE: US LEASE AREAS ARE IN DEMAND

Our coastal ocean, state and federal, is a complex, multi-use commons. The challenge is not just avoiding the overuse and abuse that comes about when prospects for making money are high and the knowledge and authority needed for regulation are weak—the classic “commons dilemma.” In a multi-use commons, co-existence, competition, and collaboration must involve very different kinds of uses and users, at different scales and with different sources and degrees of power, and perhaps different visions for the future and schema for understanding how the system works.

#### SLIDE: “BLUE GROWTH” AND/OR “OCEAN GRABBING”

All taking place within particular social and political structures, with specific histories and legacies. And there are major changes underway, including “blue growth” or, at some might say, “Ocean grabbing.”

- ▶ Industrialization and transformation of marine socio-ecological systems
- ▶ Privatization / quasi-privatization of the ocean commons
- ▶ Capital-intensive, risky; dominance of large multi-national corporations
- ▶ Equitable and inequitable distribution of costs and benefits
  - ▶ Traditional users

- ▶ Ocean-dependent communities
- ▶ General public

So, how are decisions made? Who determines the trade-offs that must necessarily take place? How in fact are trade-offs made? Apparently a very little researched question.

What are the prospects for moving forward in ways that make everyone a little upset rather than damaging the ocean system and marginalizing or hurting those most dependent on its ecosystem services—in drama terms, perhaps more like a drawing-room comedy than a tragedy.

Some general approaches are taking place, often simultaneously. One is good old interest-group and moneyed politics playing out against and within various legal and logistical structures. Another is to form organizations and institutions to try to develop shared knowledge and opportunities, to offer safe and constructive spaces for analysis and deliberation. “Epistemic community” (Haas, 1992) –a construct from international relations— is one concept of such:. It is usually seen as composed of policy-makers and scientists who have come to share a common sense of what the issues are and of value and general principles, and who, in so doing, may claim some authority and become politically empowered through their ability—often through coming up with consensus-- to generate acceptance of their knowledge as valid.

The ocean planning groups that have formed in recent decades may function as epistemic communities,. E.g., the regional planning bodies, in the Northeast and the Mid-Atlantic, and West coast formed and reformed in the Obama and Trump administrations, maintaining the general idea of commitment to science and data, also technology; interagency coordination; and stakeholder engagement. Still alive and important is the Mid-Atlantic Regional Council on the Ocean, MARCO, a compact of five coastal states, from New York to Virginia, created 2009, and its baby, MACO, the Mid-Atlantic Committee on the Ocean, which is to foster more communication and collaboration. Its third-annual Mid-Atlantic Ocean Forum is coming up soon, May 3-6. These committees involve states, federal agencies, federally recognized tribes, and stakeholders—and the Mid-Atlantic Fishery Management Council, to which I will turn in a short while. .

## II. My Experiences

### **2004-06: New Jersey Governor’s Blue Ribbon Panel on Development of Wind Turbine Facilities in Coastal Waters**

SLIDE 6: NJ Governor’s Blue Ribbon Panel 2004-2006

- ▶ Risk, uncertainty, and adaptive management
- ▶ REC: Small-scale pilot to improve knowledge base; high uncertainty, but seemingly low risk.

I was surprised to be asked to serve on this panel, the only academic and treated by many as “the scientist” despite my training in social science and my research with fishing communities, not fish. It was a fascinating experience, though, especially our meetings at Jersey shore communities where we heard every imaginable idea and perspective about offshore wind, but by and large quite positive in terms of meeting energy needs and, in some instances, actually bolstering tourism (the New Jersey beaches are very long sandy beaches, with little structure to provide visual interest)—despite original media coverage that emphasized a groundswell of opposition.

#### Slide 7: WORKING WITH FISHERMEN

I felt that my one significant contribution might be to use my ties to New Jersey’s commercial fishing communities to get cooperation in mapping the coastal waters in terms of areas where fishing was and was not significant. At first I had it, from the leader of an organization representing most of the companies and docks involved. But it rapidly disappeared, as people in the industry talked amongst themselves and determined, backed by some data from the NMFS, that in fact every part of the continental shelf off the coast was used by one or another type of fishery, and therefore they did not want to get involved in mapping because that might be interpreted as their approval of offshore wind.

Disheartened, I turned my attention to the main question, should we recommend going forward with offshore wind development in the waters off New Jersey? What were the risks to marine wildlife—fish and shellfish; marine mammals and turtles, seabirds, migrating land birds? What might be the issues for commercial and recreational fishermen and other users of the oceans, in terms of access, navigation, transit, and so forth? What about Jersey shore tourism, a major economic sector for the state? For some of these, especially marine wildlife, we had little data and certainly nothing pertinent to offshore wind, unless we referred to the extant facilities in Europe. And I began to think in terms of risk and uncertainty in decision making (refer to Melissa Finucane’s keynote on Thursday), and we used that framework to come up with our recommendation, which was for the state to support a small scale “test project” that would be designed to improve the knowledge base, reducing uncertainty, at what seemed—based on the European studies—not to carry huge risks of disaster.

#### ***“Stakeholder Engagement In Extremis”***

#### SLIDE: FISHERMENS ENERGY

That became New Jersey policy. Meanwhile, one of the leaders in the state’s fishing industry pulled me aside during a meeting and told me that he and others were going to create a company to develop offshore wind themselves. Who better than fishermen to create a way to use the ocean? This became Fishermen’s Energy, Inc., which was able to put together proposals for small-scale offshore wind off the coast of Atlantic City, gaining state and federal grants to do necessary planning and surveying work. This began in earnest in 2009 and

continued until 2018, when the last of its applications, with a partner with wind experience, was, for the 4<sup>th</sup> or 5<sup>th</sup> time, turned down by the state’s Board of Public Utilities. By 2018 the state’s policy had shifted toward much larger scale offshore wind power development. For industrial scale wind farms—and in came Orsted North America! ...and a whole new world, although I wouldn’t be surprised if some of the actors in Fishermen’s Energy aren’t involved in one of the new lease applicants.

## **2020: Co-authoring a review of research on fisheries and offshore wind development in the UK and the US**

### **SLIDE: REVIEW PAPER- FISHERIES & OWPs**

Chastened and humbled by New Jersey’s fishers, some of whom were trying to be OW developers, and others passionately opposed, I turned to other matters. But as a member of the Ocean Studies Board of the National Academy of Science, Engineering and Medicine, I was asked to organize a meeting on fisheries and offshore wind, in 2017, and became more familiar with fishing people from other countries engaged with offshore wind

[\*Atlantic Offshore Renewable Energy Development and Fisheries: Proceedings of a Workshop—in Brief \(2018\)\*](#) .

And in 2019 I was asked to write a paper on the topic for a special issue of the journal *Oceanography*. I found co-authors who are far more engaged in research on the topic.

- ▶ Claire Haggett, Talya ten Brink, Aaron Russell, Jeremy Firestone, Mike Roach, Tracey Dalton, and I. 2020. Offshore wind projects: Conflict & engagement in the U.K. & the U.S. *Oceanography* (special issue).

A theme of this literature review was seeking a “just energy transition,” via both distributional and procedural justice. Distributional justice requires, in many cases, compensation to fishers, ranging from actual financial compensation for losses or insurance costs to fund to support collaborative research, life-saving equipment, etc., and employment or business opportunities for displaced fishers. But there are concerns about solely economic measures, where fisheries are strongly embedded in the local economy and people who fish—certainly in this part of the world, where employment options and careers are many—have made personal and principled choices to do so. Community benefits are important as well, and were key to discussions about the Block Island OWP.

Procedural justice has received a lot of attention, fair and effective participation in decision-making being a general goal. Most of you are fully aware of this, and offshore wind developers and governments promoting it know the importance of outreach and some semblance of stakeholder participation in the process. Moving beyond “announce and defend”!

A significant innovation was the 2002 creation of the position of “fisheries liaison” in the UK, a role now used by developers in the U.S. as well. Developers pay, but the liaisons have to have roots in the fishing communities and a modicum of trust. As important has been efforts to

organize the fishing communities and businesses, as a step toward redressing the inevitable power imbalance. Offshore renewable development is big business, led by a relatively few multi-national firms with immense budgets and other resources.

Thus, we recognized the importance of the coalition RODA, the Responsible Offshore Development Alliance, on the Atlantic coast of the US, formed in early 2018 to interface with developers, regional fishery management councils, NOAA, and BOEM to ensure that offshore wind development is compatible with the fisheries. It also partners with regional ocean planning bodies to get fishermen's interests into their data portals. It created a research group as well (ROSA). There are similar coalitions in the UK, including Mike Roach's HFIG (Holderness Fishing Industry Group, which is engaged in research and long-term monitoring.

#### SLIDE 10: FISHERMAN-LED RESEARCH IN A WIND FARM. HOLDERNESS FISHING INDUSTRY GROUP

I am sure that in this workshop we will talk about the challenges of effective engagement of fishers and other stakeholders in planning and implementation of offshore wind projects in relation to the needs of coastal communities and industries. There are many barriers to this, including issues of compensation, trust, and power. The liaisons may go some way toward trust, but power is another matter, and it is not surprising when people say "it's a done deal." Or, "it's going to happen, so get used to it."

Earlier I mentioned "epistemic communities," but the planning groups identified have such a broad range of agencies and NGOs and stakeholders that the sharing of problem definition, value, and general principles is difficult to achieve and their legitimacy and authority illusive at best. Another take on "epistemic community" worthy of research might be coalitions like FLOWW and HFIG in the UK and RODA/ROSA in the US, formed by groups that feel threatened by industrialization of the oceans and seek a stronger voice in the process. They may function not just as lobbying and information sharing but also as vehicles for the development of what Kirsten Jenkins and Claire Haggett at U. of Edinburgh recently identified as "recognitional justice," which—in my understanding, prompted by comments from David Bidwell, means seeking to gain recognition of their special experience, knowledge, and skills that lends legitimacy and authority to their claims. Another example is the NSF-supported Science Center for Marine Fisheries at the U. of southern Mississippi: "science and industry working together for sustainable fisheries." In them, representatives of fisheries and fishery-dependent communities not only collaborate to press their cases but also strive--among other things, by engaging in scientific research informed by their experience-based knowledge and skills-- to become recognized as dependable sources of information and understanding and hence a stronger right to have a say.

### **III. Conclusion: Focus on Fishing Communities**

Last topic. Why a focus on coastal FISHING communities in research on coastal resilience in relation to industrialization and coastal hazards? Full disclosure: I've spent my academic career studying them, or people in them, so I am biased. But here are my arguments:

Clearly, the commercial fisheries are highly visible and active in deliberation and conflicts over ocean development. Recreational fisheries are also engaged, so far on the other side, more supportive of offshore wind. Most notable is the development of RODA and ROSA (see above)

Furthermore, people in the commercial and recreational fisheries are more than most of us the ones who are "out there" on the water and on the docks, watching and talking about what is happening or anticipated to happen at sea and paying particular attention to what is happening in board rooms and public meetings in their communities, their state capitals, and DC. Canaries in the coal mine. Witnesses and worriers. And sometime warriors.

There are other practical reasons as well:

### ***Fishery Management Councils as Important Sources of Information***

SLIDE: MAFMC, OFFSHORE WIND COMMENT OPPORTUNITIES

The Mid-Atlantic Fishery Management Council, a regional state-federal-stakeholder body, headquartered in Delaware, has been very active in seeking information and participating in offshore wind discussions, stimulated early on, I think, by the emergence of Fishermen's Energy, Inc. Quite early the Council became a sought-after venue for the commercial and recreational fishing communities and for developers wanting to exchange and contest information and ideas.

The Council has become a key source of information via free subscriptions to weekly or bi-weekly "offshore wind updates" compiled by Julia Beaty ([jbeaty@mafmc.org](mailto:jbeaty@mafmc.org)), a fishery management specialist at the Council. Summaries of announcements and documents from DOI, BOEM, the industry group ROSA (Responsible Offshore Science Alliance), NOAA fisheries, Ørsted Wind Power North America, the White House, with direct links to the originals, are in the latest issue as are wind developer outreach messages to fishermen and upcoming webinars. The New England FMC also has wind updates, combined with their periodic news roundjps (Janice Plante [jplante@nefmc.org](mailto:jplante@nefmc.org)). Definite "must-reads" for those interested in keeping up with what is happening, not just in the fisheries.

## ***The Community Social Vulnerability Indicators project***

### SLIDE 11: CSVIs

A second practical reason for keeping fishing communities high on the list of research priorities, is the existence of a remarkable data base on coastal communities put together for fisheries reasons.

The Community Social Vulnerability Indicators project of NOAA Fisheries was created as a tool for assessing the effects of changes in fisheries policy (refs.) It was expanded to include measures of risk of climate change (Colburn et al. 2016). It can be—and perhaps already is—an excellent source of data on coastal community resilience and vulnerability in re coastal hazards and offshore industrialization.

Social scientists at the NMFS, led by Lisa Colburn in the northeast and Mike Jepson in the southeast and Patricia Clay at headquarters in Silver Spring, MD, developed an index-based database on coastal communities, using secondary data but ground-truthed through focused community studies and other means. This was for the purpose of developing the capacity to assess the effects of changes in fisheries management on coastal communities, to meet several legal requirements of the Magnuson Stevens Fishery Conservation and Management Act (MSA).

Data on the fisheries, such as landings and value, are used to estimate community dependence on and engagement in the fisheries. Of broader interest here would be the indices developed for social vulnerability. Select social vulnerability indices include: personal disruption index (\$ unemployed; poverty; crime index; % females separated; % no diploma). Poverty Index (% receiving assistance; % families below poverty level, et.); Labor force structure index (e.g., % females employed; % people receiving social security etc.); Housing characteristics index (median rent, mortgage, # of rooms; % mobile home).

### Slide 13: climate vulnerability & dependence on vulnerable spp and species diversity

Colburn et al. 2016 used catch diversity as one index of vulnerability. Basically, where the fishing communities are reliant on very few species—for example, lobster in Maine and New England; crab in North Carolina; surf clams and ocean quahogs in New Jersey—disruptions in the abundance and distribution of those species, or of access to the places where they are to be found, matters a lot. (Fig 6b). Another is the actual climate vulnerability of the species they fish for, the lobster, the surfclams.



As can be seen, the northeast region has almost totally moderate to high levels of vulnerability. And this is triggering change and disruption in fishing communities, only beginning to be monitored and assessed (refs. our studies).

*(I don't think that the studies commissioned by BOEM for environmental impact assessment incorporate this type of information, focusing instead on the immediate dollars and cents and landings in ocean spaces earmarked for leasing and possible development.)*

Slide 12: comparing 3 communities

Furthermore, and this may be the strongest argument, Colburn et al. 2016 showed that communities highly dependent on fishing were more likely to be “socially vulnerable” than other coastal communities (p.xx—last page). Colburn et al. 2016 Fig 2. Slide shows 3 communities and their “social vulnerability” by different measures as well as their fishing dependence and climate vulnerability.

*SLIDE 14: SOCIAL VULNERABILITY: COASTAL COMMUNITIES [comparing]*

This slide compares fishing communities with non-fishing communities in the coastal counties, showing higher social vulnerability for the fishing communities. Note that the project included non-fishing communities for comparison purposes, and this should enhance the data base's value for studies of community resiliency.

People in the fishing communities may have higher exposure to risks of climate change, through dependence on marine life, which appears to be more rapidly changing distribution and abundance than most else. Moreover, the shoreside support industries for fisheries, which play a significant role in the local economy, may be particularly vulnerable to increased risks of sea level rise and storm surges. And of course, fishing itself is a highly regulated though wild pursuit, with high levels of risk about whether fish can be found and how dangerous it may be to go out to sea, much less the vagaries of distant markets, pandemics, and government restrictions. And reliance on marine species highly vulnerable to climate change.

The point being that it is no surprise that people representing commercial fisheries and living in fishing-dependent communities are among the most active critics and opponents of offshore wind development. The immediate reason is simply the fear of being displaced from access to the means of livelihood and commerce, through siting of turbines, cables, and other facilities. But underlying are complexes of challenges they and their neighbors may face, whereby news of an offshore lease comes as another ‘straw that broke the camel's back.’

SLIDE: STRAWS AND CAMEL BACKS.

SLIDE: CONCLUSION: "PATIENCE" AND "TRADITION" TURBINES AT SUNRISE OFF HOLDERNESS COAST OF THE UK.

To summarize this section and end:

1. The Mid-Atlantic Fishery Management Council, a regional state-federal-stakeholder body, headquartered in Delaware, has been very active in seeking information and participating in offshore wind discussions. It has become a key source of information.
2. Existence of an Important source of data on them pertinent to coastal resiliency, the Community Social Vulnerability Indicators (CSVVI) project of NOAA Fisheries, that can be used for broader work on coastal community resilience.
3. Fishing communities may be among the coastal communities with the highest levels of vulnerability to changing uses and behaviors of the ocean. And this is a good reason to be angry and active.

As the NOAA community vulnerability project shows, these can be troubled communities; and the fisheries themselves are now tied up in regulatory knots, rapidly changing sea temperatures, the disruptions of a pandemic, coming through destructive storms. Offshore wind development adds to the mix, the proverbial straw threatening to break the camel's back. Through experience and word-of-mouth through the kelp-vine, members of the fishing industries of the east coast come to believe that they are caught up in an "ocean grabbing" situation, and they are bound to be the losers, a tragedy of the commoners.

But they, hopefully like the rest of us, bring "Patience" and "Tradition" to efforts to make energy transitions truly "just."

Thank you.

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