Anglers' Experience with the Block Island Wind Farm: Ongoing Research

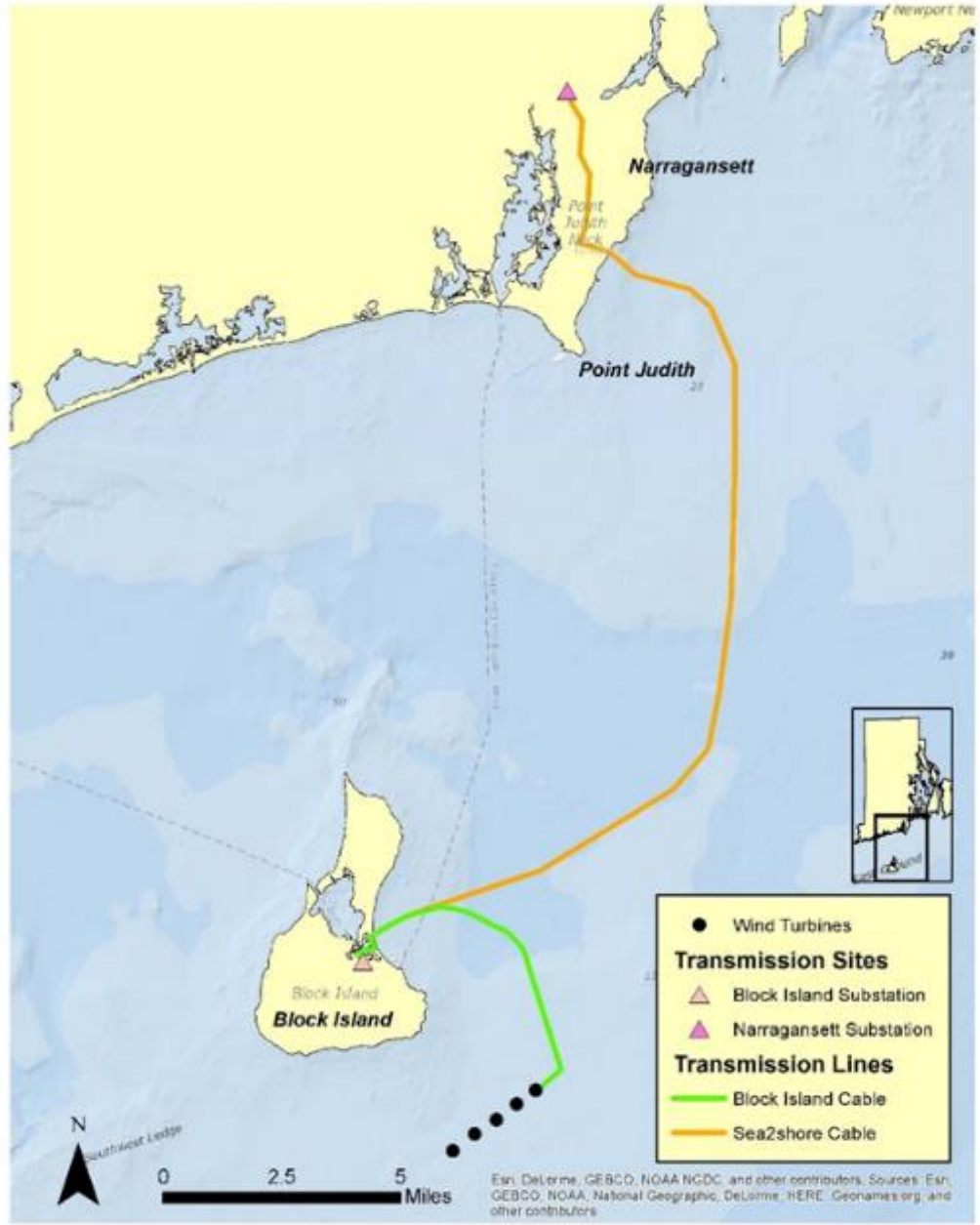
David Bidwell, University of Rhode Island
Tiffany Smythe, U.S. Coast Guard Academy
Tracey Dalton, URI
Julia Livermore, RIDEM

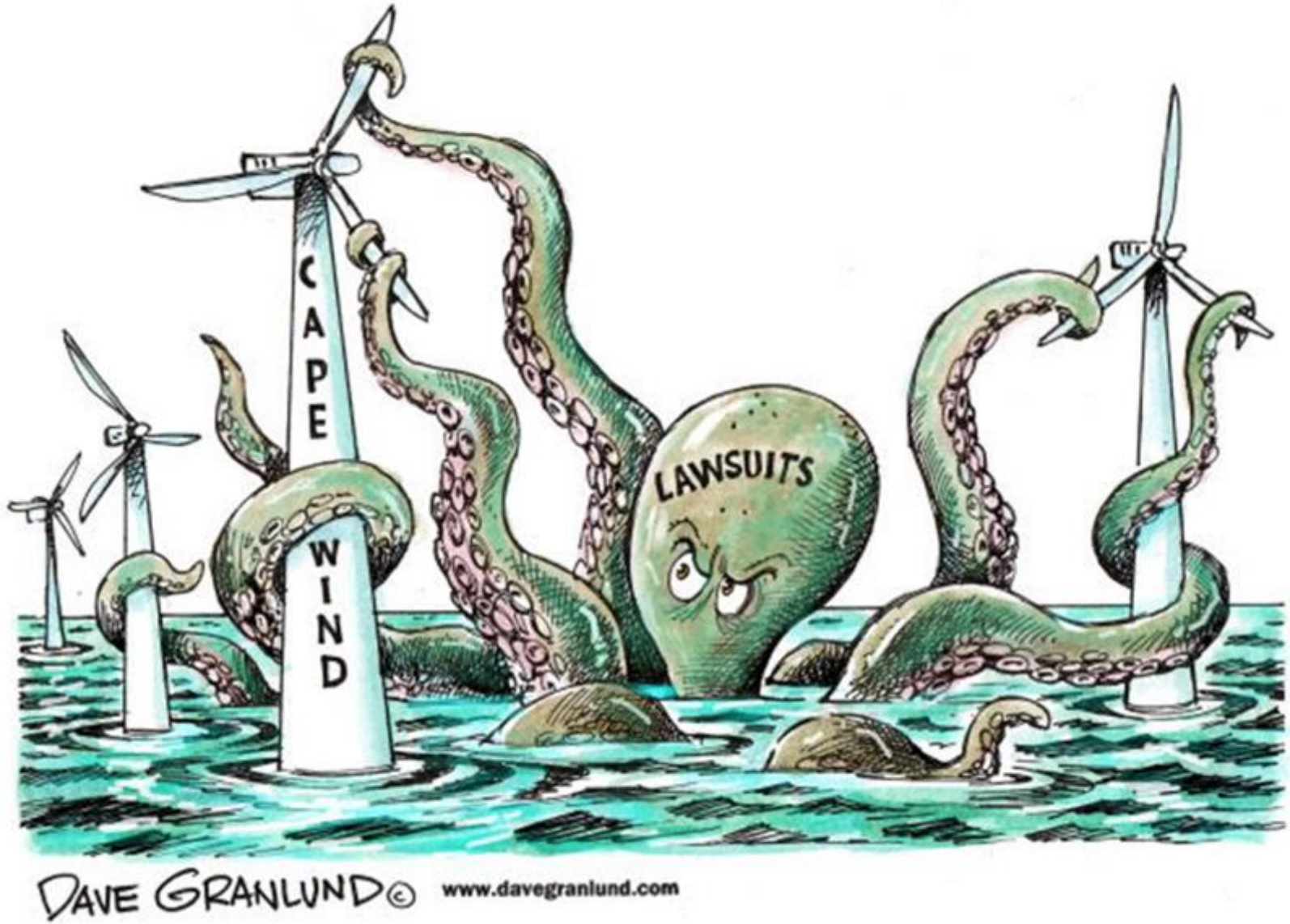
The Menu

1. Background
2. Introduction to Study
3. Qualitative Data (Interviews)
4. Quantitative Data (Survey)
5. Discussion

Photo: Deepwater Wind

Block Island Wind Farm





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BIWF as a Laboratory

Values, ocean beliefs, and public support (Bidwell 2017)

Project support by coastal residents (Firestone, Bidwell, Gardner, and Knapp 2018)

Tourism and recreation impacts (Smith et al. 2018; Smythe et al. 2018)

Recreational/commercial fishing perceptions (ten Brink and Dalton 2018)

Public participation (Dwyer and Bidwell 2019)

Newspaper content analysis (Gilbert et al. 2019)

Vacation rental prices (Carr-Harris and Lang)

Recreational boating (Dalton)

Visual impacts and recreational choices (Trandafir)

2018-2020 Sea Grant Funding

"Assessing Impacts of the Block Island Wind Farm on Recreational Saltwater Fishing"

Research Question: How is the BIWF affecting the experience of recreational saltwater angling in Rhode Island?

Mixed methods approach

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Why Recreational Fishing?

Economically, socially, and culturally important

Early concerns about negative impacts

Recent anecdotal reports of positive effects on catch

Factors influencing anglers' choice of fishing location and satisfaction depend only partly on the presence of fish or success fishing (Brinson and Wallmo 2017)

Even if the BIWF attracts fish, does this necessarily result in a better fishing experience for anglers?

frontiers in Marine Science

ORIGINAL RESEARCH
published: 27 November 2018
doi: 10.3389/fmars.2018.00439

Perceptions of Commercial and Recreational Fishers on the Potential Ecological Impacts of the Block Island Wind Farm (US)

Talya S. ten Brink and Tracey Dalton*

Department of Marine Affairs, College of the Environment and Life Sciences, University of Rhode Island, Kingston, RI, United States

Offshore wind is gaining momentum in the United States as a viable source for meeting domestic energy needs. Although offshore wind farms have been developed in Europe and Asia, the Block Island Wind Farm (BIWF) is the first offshore wind farm built in North America. To improve marine resource management, it is critical to understand the impacts of the wind farm on marine resource users in context. Little is known about the impacts of offshore wind farms on marine resource users in the United States. This study investigates recreational and commercial fishers' perceptions of the impacts of the BIWF on the local marine ecosystem. Semi-structured interviews were conducted with 25 fishers, mostly based out of Block Island or Point Judith, Rhode Island (US), in the summer and fall of 2017. During the interviews, fishers were asked about their perceptions of changes in the marine ecology of the wind farm area during and after the offshore wind turbines were constructed, and how their activities in the area have changed since the wind farm was installed. Results indicate that there were perceived impacts of the BIWF on the local ecosystem and the behavior of the marine resource users. For some recreational fishers, the wind farm functioned as a destination or target and served as an artificial reef for spearfishing. For some commercial fishers, the increase in recreational fishing due to the establishment of the BIWF crowded out commercial fishers in these areas. As the offshore wind farm industry expands within US waters, findings from this study and others like it can provide valuable insights on the potential impacts of these wind farms on marine resource users.

Keywords: offshore wind, commercial, recreational, perceptions, artificial reef, marine resource user, fishing, offshore energy

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****Correspondence:***
Talya S. ten Brink
tenbrink@uri.edu

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INTRODUCTION

Use of offshore wind turbines are gaining momentum in the United States as a viable option for meeting domestic energy needs. Knowledge of the impacts of offshore wind turbines on other local marine uses and resources in the United States is limited. Although studies have been conducted on proposed offshore wind farms in the US (Kimmell and Stolfi Stalenhoef, 2011), there is currently only one offshore wind farm operating in US waters, the Block Island Wind Farm (BIWF). BIWF consists of five turbines located about 16 miles south of mainland Rhode Island.

OCS Study
BOEM 2018-068

Methodology for Analyzing the Effects of the Block Island Wind Farm (BIWF) on Rhode Island Recreation and Tourism Activities

U.S. Department of the Interior
Bureau of Ocean Energy Management
Office of Renewable Energy Programs

BOEM
Bureau of Ocean Energy Management

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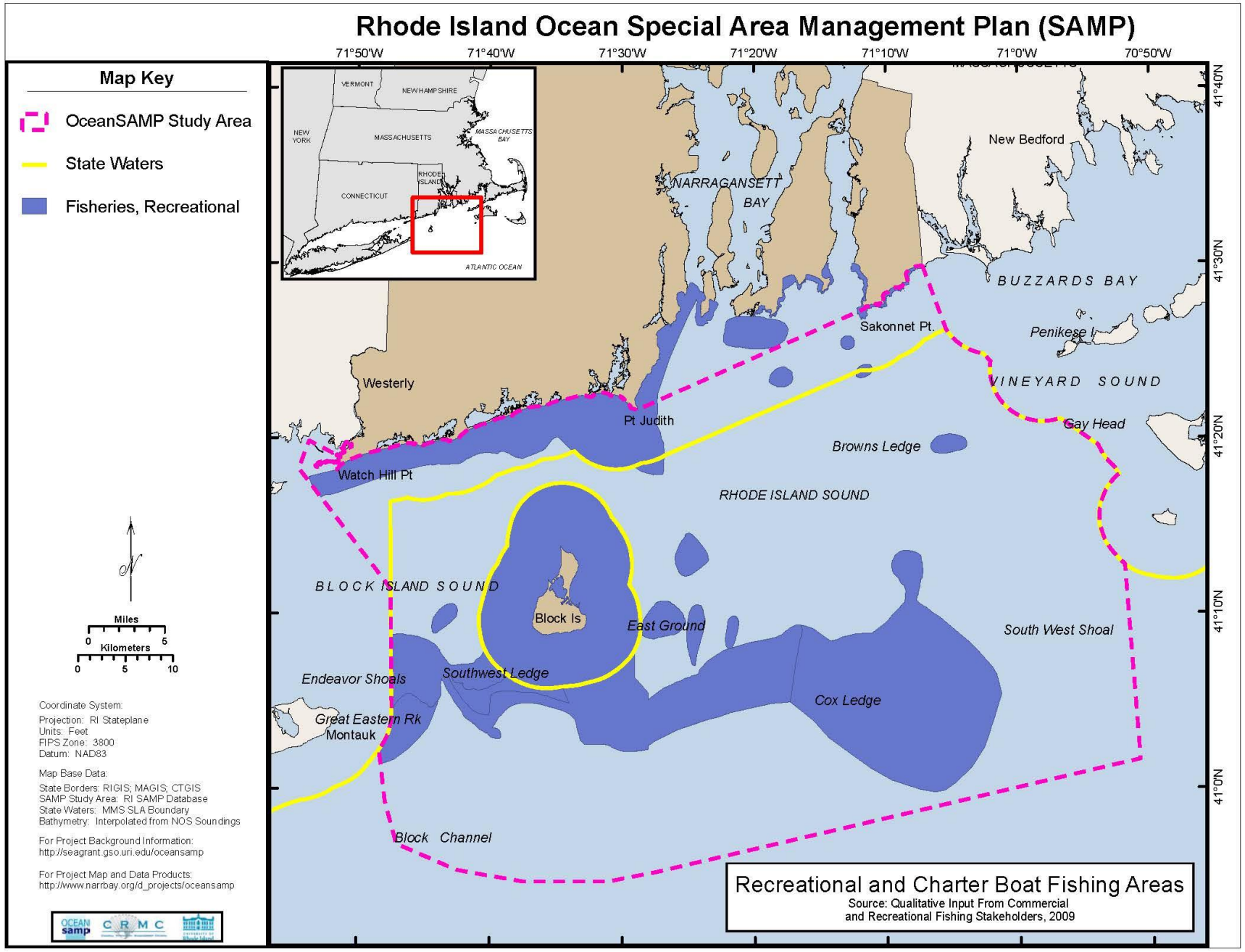
Rhode Island Ocean Special Area Management Plan (SAMP)



How are fish caught near the wind farm?

Drifting, anchoring or trolling

Lures or live bait

Spear fishing

Image: anglersforoffshorewind.org

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2018 Interviews

CT	5
RI	10
MA	2
NY	2

Private angler	11
Spear fishermen	5
Charter captain/crew	6
Marina owner	1
Tackle shop owner	1

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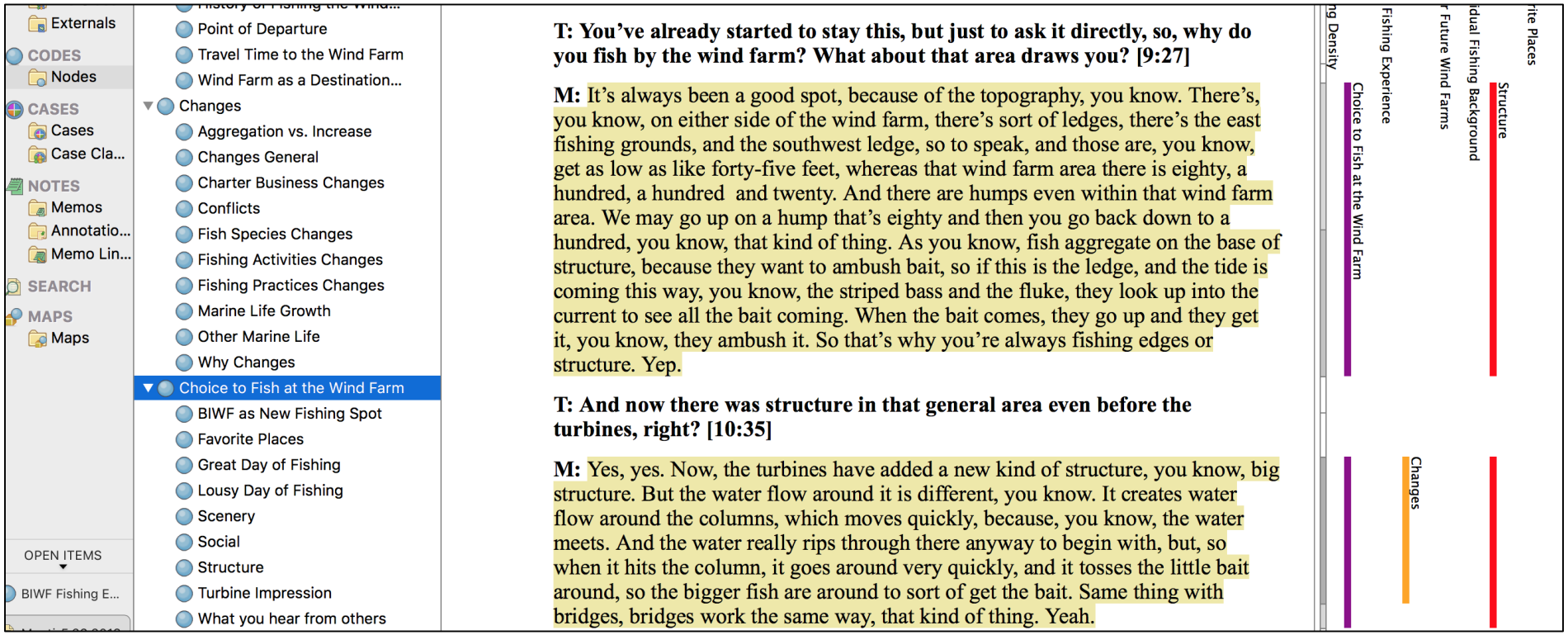
Thematic analysis



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Preliminary Findings from 2018

1. The wind farm represents a new kind of enhanced fishing spot.

2. Anglers are optimistic, with reservations, about wind farms.

3. Angler satisfaction is not just about the fish.

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1. Wind farm represents an enhanced fishing spot

- WF offers structure.
- Reported increase in popular species.
- Visually appealing and enjoyable.
- Convenient for boat-based fishermen.
- Represents “potential” (e.g. new catches).
- Anglers make minor activity/gear modifications to accommodate new spot.

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2. Anglers are optimistic (with reservations)

Overall neutral to positive reaction

Concerns about increased fishing/boating in area

Enjoyment is contingent on maintaining access

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3. Angler satisfaction in not just about fish

FISH

SCENERY

SOCIAL SETTING

BOAT PROBLEMS

WEATHER/ SEA COND.

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2019 Survey of Anglers

Sample of 2500 from National Saltwater Angler Registry

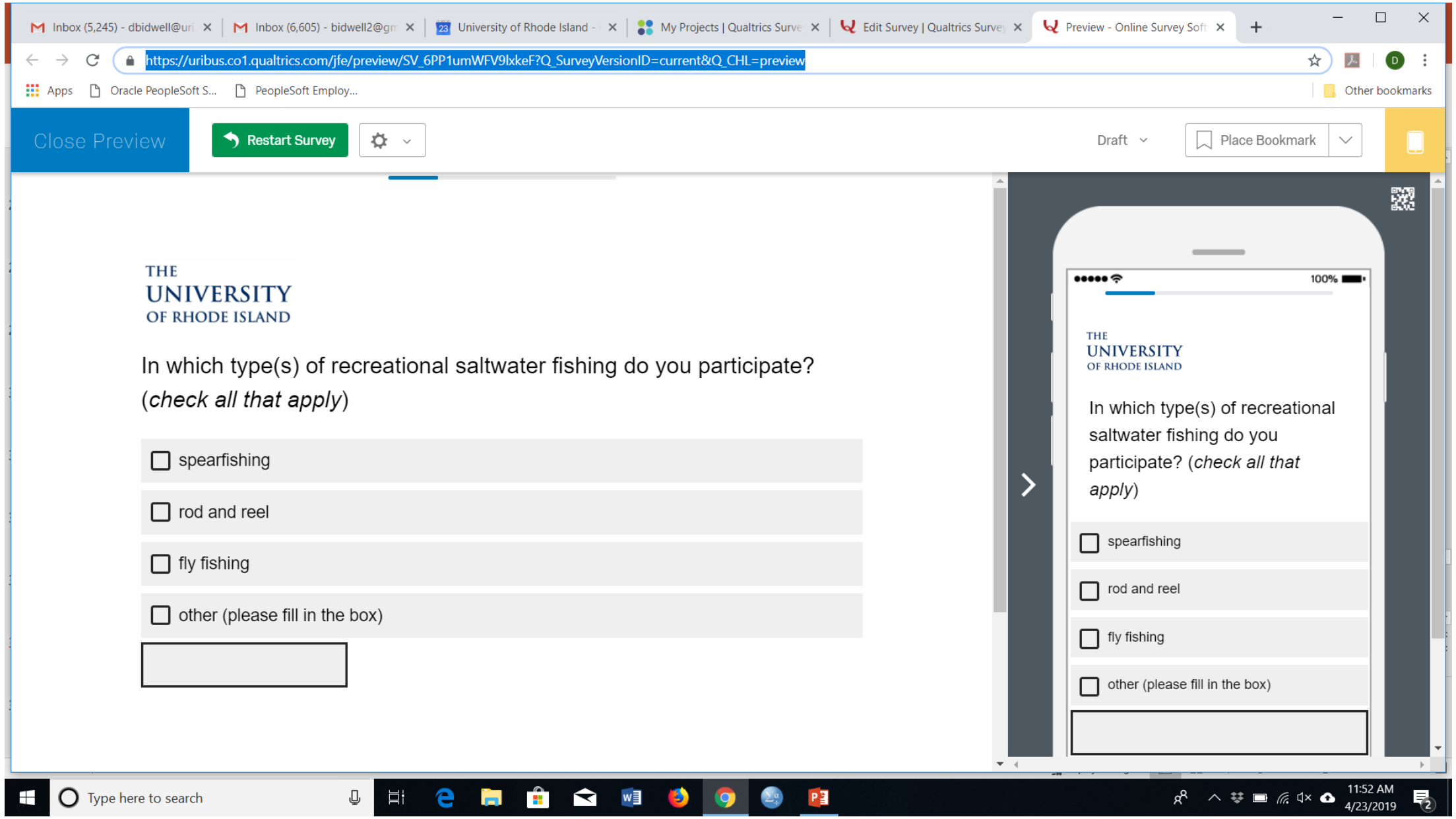
1000 from Rhode Island; 500 each from Massachusetts, Connecticut, and New York

Mail invitations for online survey

Survey (20 mins)

- Fishing practice
- Fishing experience and Block Island Wind Farm
- Wind farm attitudes
- Personal characteristics

Data is ongoing!


Inbox (5,245) - dbidwell@uri
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University of Rhode Island -
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https://uribus.co1.qualtrics.com/jfe/preview/SV_6PP1umWFV9lxkeF?Q_SurveyVersionID=current&Q_CHL=preview
Apps
Oracle PeopleSoft S...
PeopleSoft Employ...
Other bookmarks
Close Preview
Restart Survey
Draft
Place Bookmark
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In which type(s) of recreational saltwater fishing do you participate? (check all that apply)
spearfishing
rod and reel
fly fishing
other (please fill in the box)
100%
Type here to search
11:52 AM
4/23/2019

Who is taking the survey?

N=180 consented to participate

Mostly men older than 50 years

44% from Rhode Island

57% have bachelor's degree or higher

32% conservative; 24% liberal; 44% neutral

73% sympathetic to or active in the environmental movement

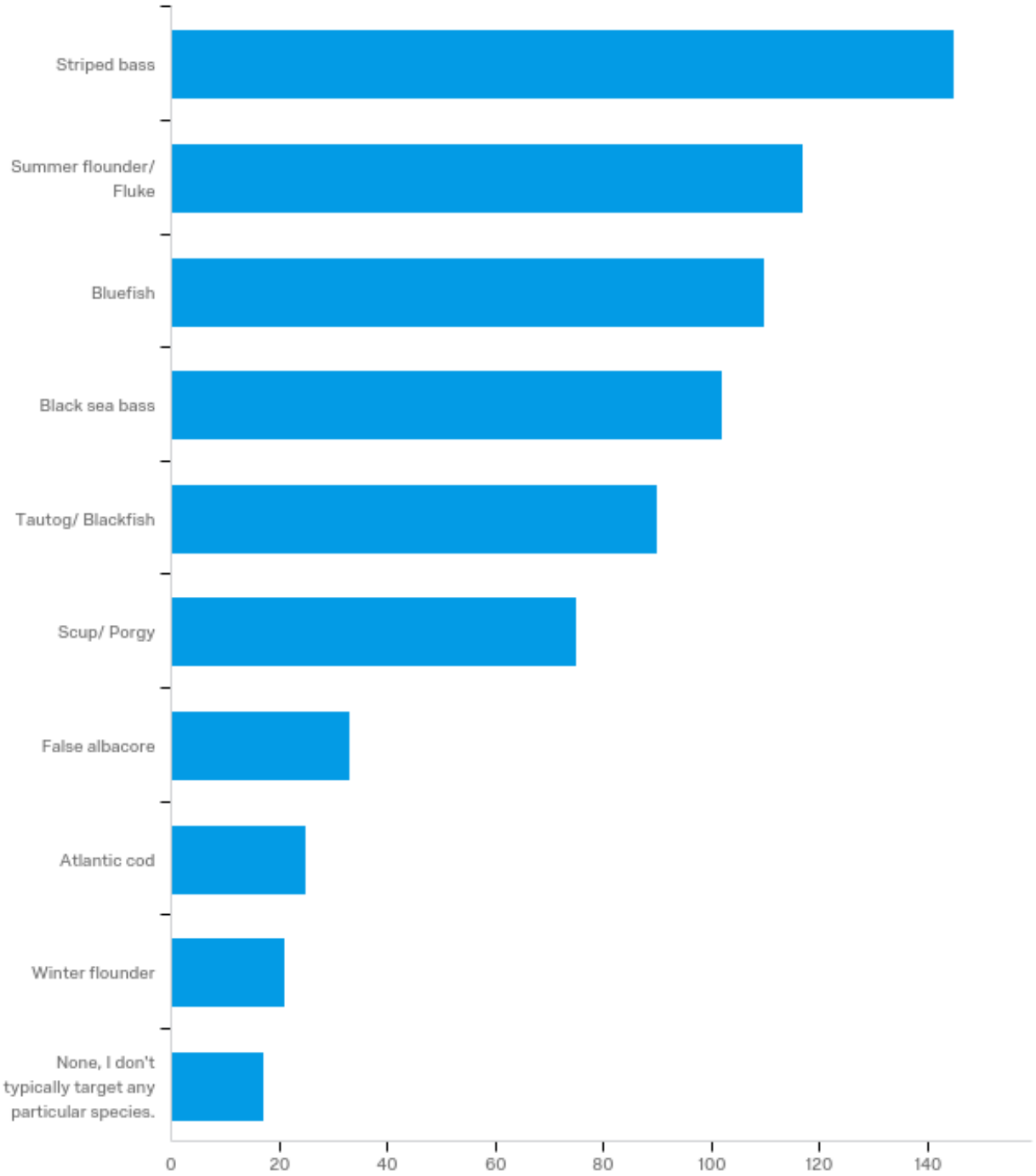
Fishing Habits

Private boat and from shore; more than half own their own boat

More than 80% using rod and reel

83% agree: “A fishing trip can be successful even if no fish are caught”

Most common target species: striped bass fluke, bluefish, black sea bass, tautog, scup



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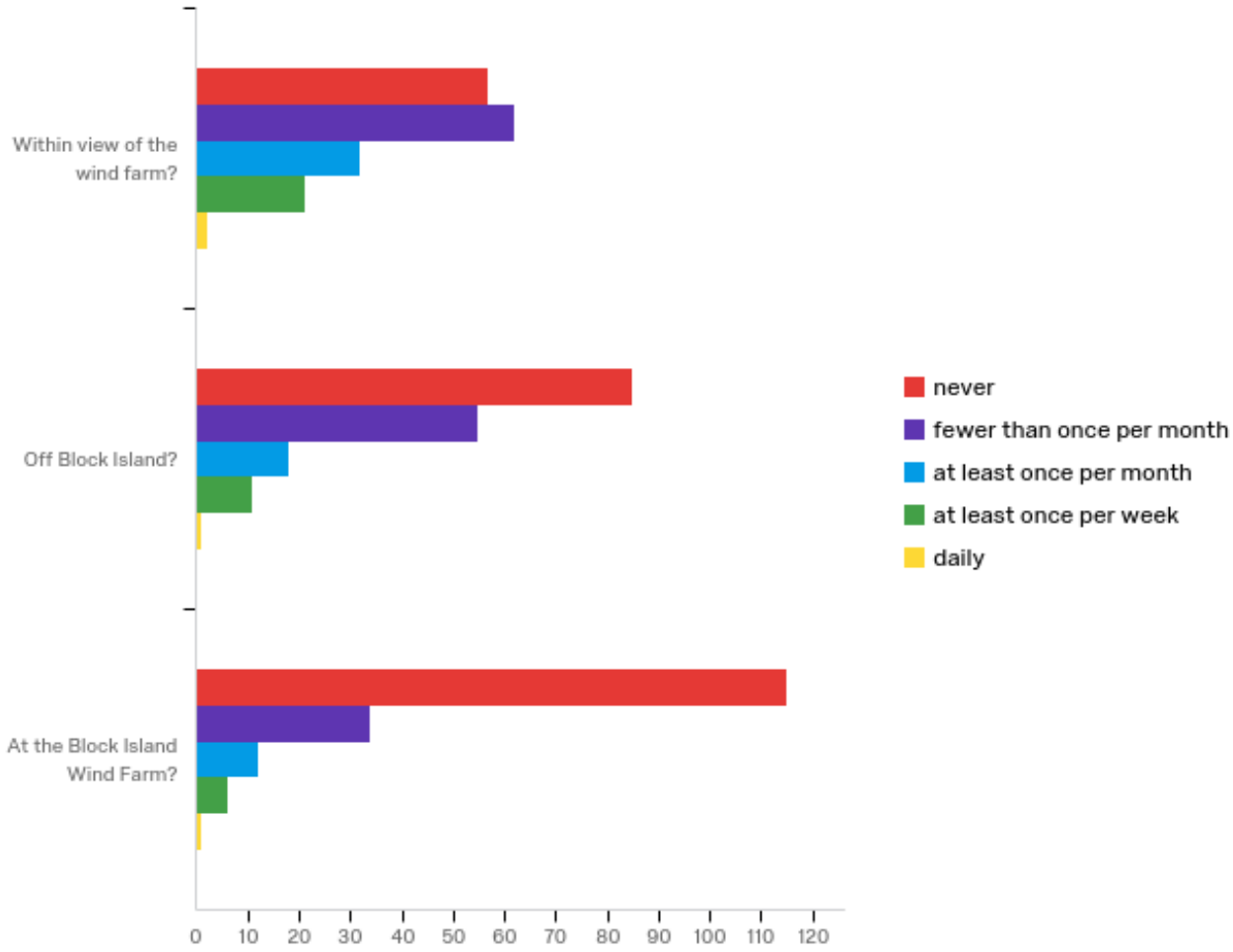
Fish in sight, near, or at BIWF?



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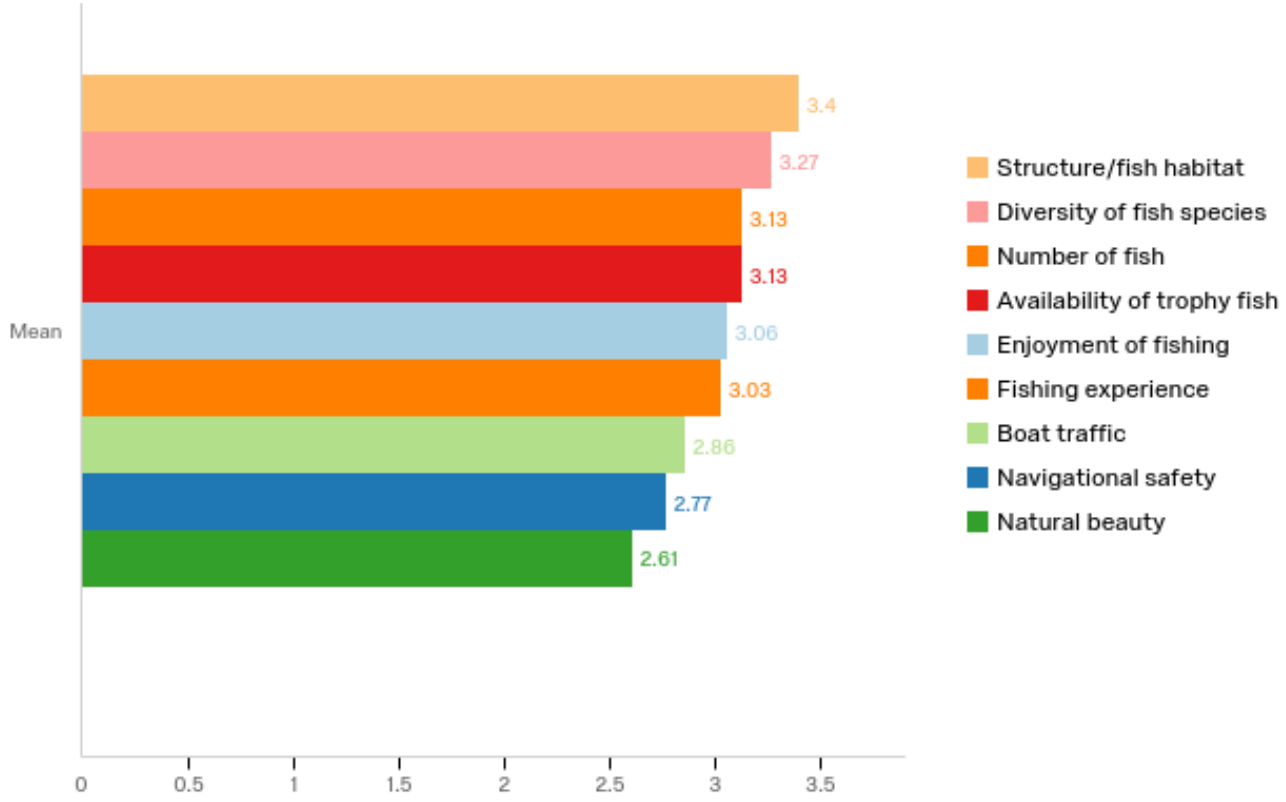
Anglers' Wind Farm Attitudes

60% support the Block Island Wind Farm; 13% oppose

51% like the way the turbines look; 22% do not

Agree that wind farm is "symbolic of progress towards clean energy" (70%) but disagree it "fits well within the seascape" (34%)

16% say they are more likely to fish off Block Island since wind farm constructed (78% say no change)



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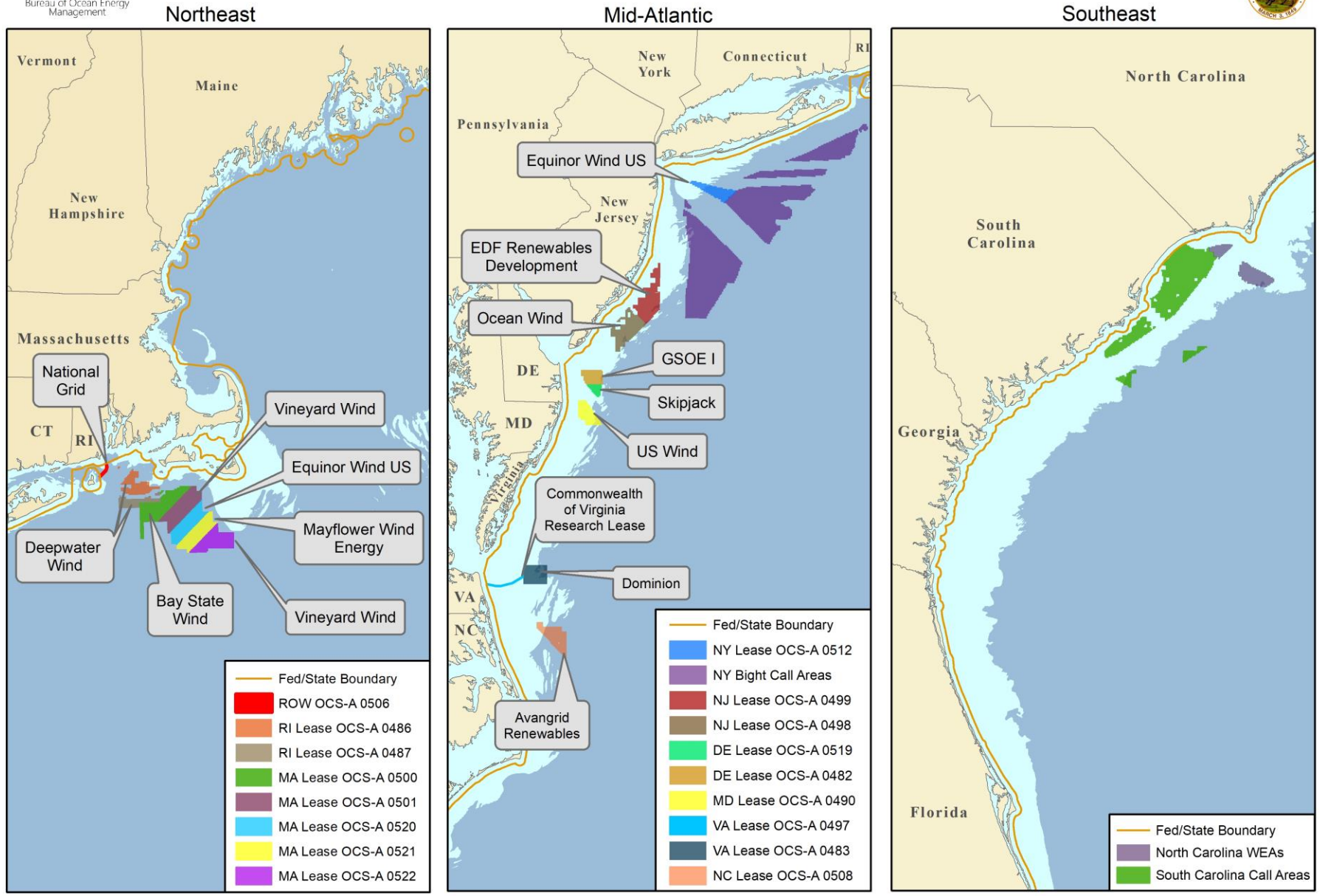
Atlantic OCS Renewable Energy - Massachusetts to South Carolina

BOEM Bureau of Ocean Energy Management



Bathymetry

- Up to 30 meters
- More than 30 meters

0 50 100 150 200 250

Nautical Miles

Map Date: 3/11/2019

Map ID: ERB-2017-1004

Offshore Wind is Driven by States

Rhode Island: 400 MW Revolution Wind (May 2018)

Massachusetts: 2016 law calls for 1600 MW by 2027; 800 MW Vineyard Wind (May 2018); plan bids for next 800 MW in 2019; study on doubling goals

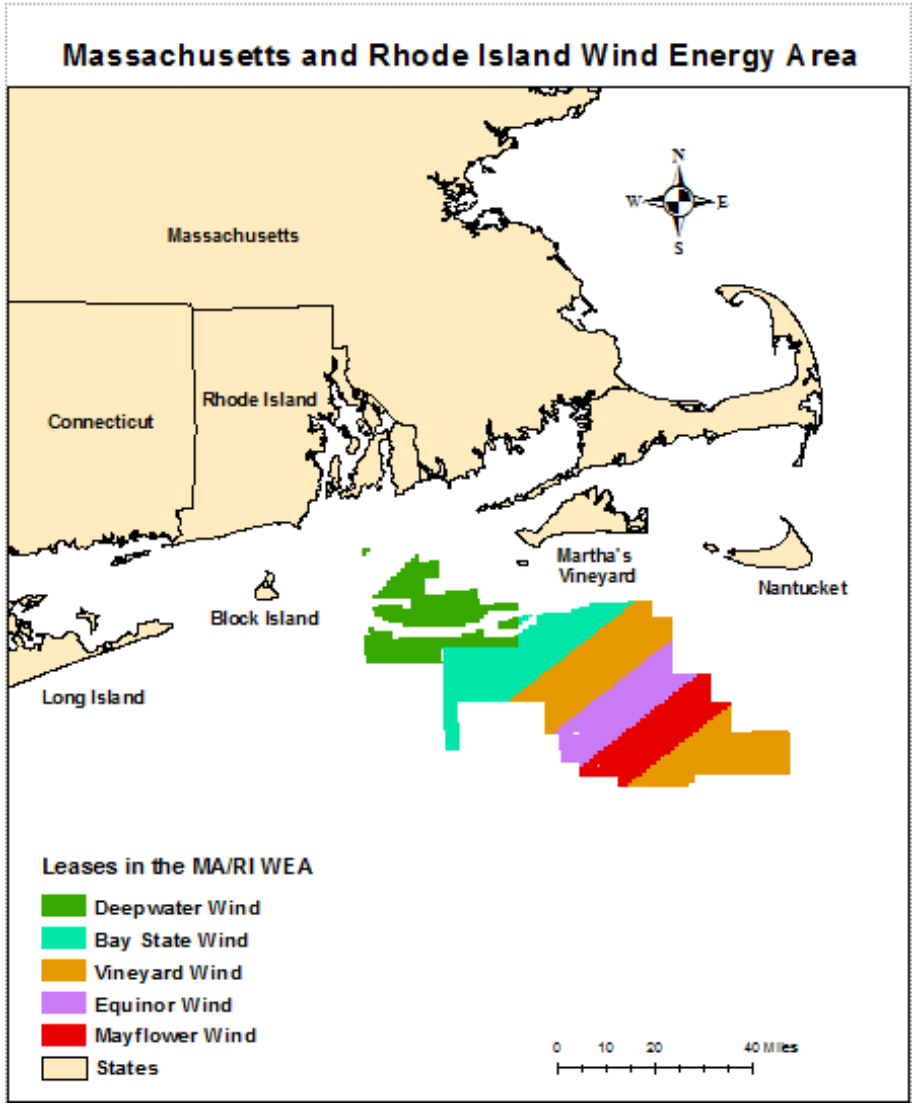
Connecticut: 200 MW Revolution Wind (June 2018); considering 2000 MW target

New York: 130 MW South Fork Wind Farm; state plan called for 2400 MW by 2030 (January 2018); governor calls for 9000 MW by 2035 (January 2019); 800 MW solicitation due February 2019

New Jersey: Executive order 3500 MW by 2030 (February 2018); 1100 MW solicitation due December 2018

Maryland: PUC awarded renewable energy credits for 368 MW (May 2017)

Virginia: 12 MW by 2020 (July 2017)



Bigger Picture

56% support construction of offshore wind energy projects in these lease areas

Only 31% feel knowledgeable about development in these areas

34% likely to fish at or near energy projects in these areas

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Next Steps

Boost response

Potential intercept surveys in Summer 2019

Statistical analysis (responses among groups)

Reactions from anglers in 2019 Interviews

Thank You

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Project Team: Tiffany Smythe, Tracey Dalton, Julia Livermore, Dawn Kotowicz, Grant Tyler

Advisory Committee: David Beutel (CRMC), Rick Bellavance (RIPCBA), David Monti (RISAA), Christopher Parkings (DEM), Amy Stillings (BOEM)

Research Participants

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Photo: Alaina Dawson

Questions?
Insights?
Comments?