

# RHODE ISLAND COMMERCIAL FISHERIES BLUEPRINT FOR RESILIENCE



Rhode Island's fishing industry is at a crossroads. Changing environmental dynamics, the aging of the fleet and its fishermen, and shifts in societal attitudes towards work and wildlife cast shadows over this heritage industry and magnify uncertainty for the businesses that comprise it. The *Blueprint for Resilience* is an important step in finding common ground among Rhode Island's commercial fisheries participants and supporting innovative, collaborative problem-solving by and for Rhode Island's fishing industry.

## Vision for the Future

The drafters of the *Blueprint for Resilience* envision and aspire to a Rhode Island fishing industry in which:

- The public understands and values the contribution of wild harvest fisheries to Rhode Island's economy, culture, and food system.
- State and local governments are champions of the fishing and seafood industry and nurture the social and economic inputs necessary for fisheries to thrive.
- The fishing industry is well coordinated internally and leverages its collective power to advocate for its resilience.
- Relationships between the fishing industry and the fisheries regulatory community are open, constructive, and based on mutual trust and support.
- The science that underpins fisheries management is adaptive and nimble, and is based on significant consultation and collaboration with the fishing industry.
- Fisheries management is ecosystem-based, focused on multiple drivers of change, and adaptive to changing ecological realities.
- Diverse opportunities are available for a diversity of fishermen.
- Fishing businesses of many scales are viable and profitable, unhampered by overly burdensome and costly regulations.
- Individuals who work hard and practice sustained determination are able to thrive in an industry where success is determined chiefly by merit.
- Markets for locally landed seafood are robust, diverse, and innovative.
- Rhode Island consumers seek out Rhode Island-landed seafood in the marketplace, and are flexible in the species they consume.
- Local fishermen are recognized as stewards and sentinels of coastal and marine ecosystems, and they use their positions to advocate for the protection of these environments.

**Executive Summary • April 2018 • Read the full report at: [www.ResilientFisheriesRI.org](http://www.ResilientFisheriesRI.org)**

# CHALLENGES

## Mounting regulatory strain

The outsized role of government management in fisheries – and a feeling among industry members that there is little that individuals can do to influence it – affects industry morale, leads to a loss of sense of agency among fishermen, and reduces the adaptive capacity available to industry to solve its own problems.



## Regulatory discards

Climate variability and warming waters exacerbate the problem of regulatory discards because the volume of a species that fishermen are allowed to catch is often determined by outdated historical abundances in the area. Although fishing operations maximize their selectivity through use of gear technology and trip planning, there is only so much they can do to avoid discards, particularly as the ecosystems around them change.



## Time lags

Data collection and decision-making can take several years to complete; this can be too slow for today's increasingly variable environment. Some regulations are all but outdated by the time they are implemented. Fishermen often find themselves caught in a gap between natural and human cycles that are operating at different speeds.



## Regulatory fragmentation

American fisheries management is premised on a single-species, single-driver framework in which each species is managed independently of others, and fishing activity is treated as the only factor affecting the abundance of fish stocks. Managing each species as an independent unit – when in reality they are all interconnected – is a recipe for failure.



## Business specialization

Once highly versatile, fishing businesses are becoming increasingly specialized, mostly due to fisheries management's increasing reliance on species- or gear-specific permits and individual catch or trap allocations. Crossing into new fisheries can be highly expensive, and specialization can inhibit the ability of Rhode Island fishing operations to adapt to changes in the timing, spatial distribution, and composition of local fish stocks.

## Withering of the waterfront

Vessels are aging and fleets are smaller than they used to be. Seafood buyers, bait and ice providers, shipyards, and gear shops have become less numerous. Consolidation of fishing vessels, competition with the tourism industry, and gentrification of waterfront property all contribute to these trends.



## Public apathy

A general sense of isolation from the public has a negative impact on the fishing community's morale, with downstream impacts on the industry's recruitment of young people, propensity to adapt and innovate, and ability to work with entities outside the fishing community to solve some of the problems facing the fleet.

## Rising business expenses

The inputs to a successful fishing business include fuel (gasoline or diesel), licenses and quota, vessel maintenance, and the cost of regulatory compliance. Each of these categories has experienced spikes or upward trends in recent years.



## Shortened planning horizons

Uncertainties about the natural environment, political environment, regulatory environment, and economic environment conspire to make long-term planning risky. Instead, most fishermen operate defensively - focused on coping with today's challenges and trying to stem additional losses - rather than aspirationally, with an eye towards a better future.

## Market dynamics

Market stagnation and volatility are a big problem for certain fisheries. Dependence on export markets contains a few unsettling realities. Over 90% of the seafood consumed by the American public is imported from other countries. In turn, much of the seafood landed domestically – including in Rhode Island – is shipped overseas. Some species experience price stagnation or volatility.



## A lost generation

Fewer young people today aspire to careers in fishing, and those who do are often stopped short by a lack of training, lack of financing, discouraging attitudes from established fishermen, and the increasingly high cost of buying vessels and permits. Captains in need of qualified crew struggle to fill vacancies, and retiring fishermen have trouble finding buyers for their businesses.



## Individual isolation

More robust communications channels and social capital in the fishing industry are needed. Fishermen have jumped into the internet age at varying paces. Weather-dependent schedules interfere with their ability to attend meetings. Information asymmetries across the fleet can stand in the way of transparency and trust.



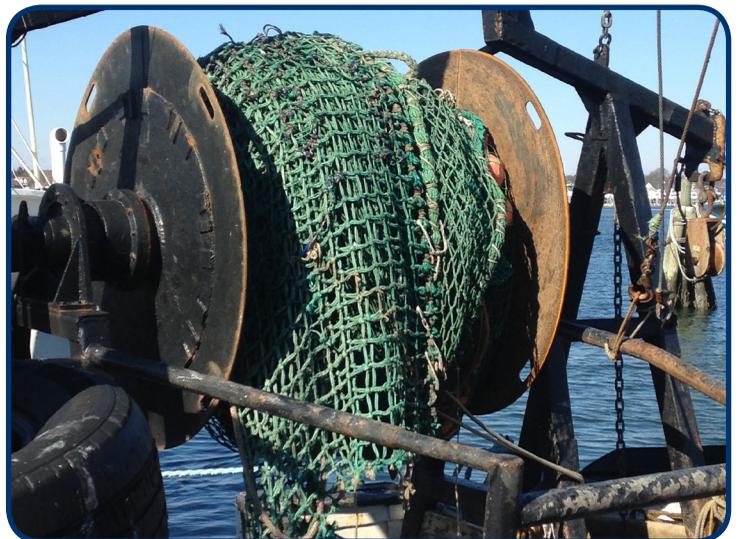
## Environmental change

The environment is changing. Some once-familiar species have moved away and newcomers have taken their place. When a highly variable environment meets a rigid, slow-moving fisheries management system, it can produce a suite of challenges for the fishing industry.



## Habitat degradation

Urban centers and suburban sprawl along the perimeter of Narragansett Bay, the coastal salt ponds, and the ocean shore yield a cocktail of stressors that includes wastewater, pharmaceuticals, lawn chemicals, pesticides, and hardened shorelines. Fishermen are advocating steps to understand and mitigate the effects of these stressors on fisheries habitats.



## Competing ocean uses

Southern New England is on a fast track to develop its renewable energy resources - a change that entails not only the erection of hundreds of vertical wind towers that stretch from seabed to surface, but also the laying of hundreds of miles of underwater cable, increased vessel traffic, and disruption caused by construction activities. Meanwhile, oil and gas drilling, sand and gravel mining, and marine protected areas may bring new uncertainties for commercial fishermen.

# OPPORTUNITIES



## New attitudes in management

Several recent appointments to high-level positions within State and Federal fisheries science and management structures have given Rhode Island fishermen hope. These new leaders bring with them a spirit for working collaboratively with fishermen and a holistic perspective on fishery ecosystems.



## R.I.'s food commitment

Local food in Rhode Island is both a growth industry and a dazzling cultural phenomenon. Rhode Island's focus on food can help fisheries in much the same way it has helped farmers and aquaculturists: by cultivating public awareness and support, opening new market channels, and increasing the visibility of the industry to young people deciding on a career.



## Ecosystem management

Pioneering new approaches may bring greater realism to fisheries management by looking at the big picture. Rather than managing each species in isolation, they consider whole food webs, and rather than treating fishing activity as the only driver of fish stock abundance, they may also take into account habitat alteration, climate change, predator-prey dynamics, and natural variability.



## Collaborative marketing

In 2011, the General Assembly established the Rhode Island Seafood Marketing Collaborative, a move that has resulted in the launch of the Rhode Island Quahog Week and creation of a Rhode Island seafood branding logo, which is now in use by many of the state's seafood dealers. If the Collaborative were better funded, it could be a foundation that could be built upon in the years ahead.

## Emerging species

While warming waters spell farewell to some species that have been part of the Rhode Island portfolio in the past, they also lay out a welcome mat to species whose ranges are expanding northward from the Mid-Atlantic. If developed properly and managed adaptively, these new fisheries will offer opportunities to Rhode Island fishermen and seafood dealers to diversify and thrive.

# GOALS AND STRATEGIES

## 1. Enhance public understanding and appreciation of Rhode Island's wild-harvest fishing industry

### TACTICS

1. Integrate cause marketing into seafood sales to raise appreciation of the fishing industry
2. Promote opportunities for the public to meet fishermen face to face
3. Promote opportunities for the public to visit and interpret working waterfronts
4. Tell the industry's story through media and the arts

### TOOLS

- Retail posters • Table tents • Product labels • QR codes • Dockside sales • Classroom presentations • Boat-to-table dining events • Fishermen's speakers' bureau • Training for fishermen in public speaking • Public storytelling events • Fisherman-for-a-day heritage charters • Harbor cruises • Interpretive signage tours • Waterfront walking tours • Blessing of the fleet • Harbor festivals • Press kits and backgrounders • Artist-in-residence programs in fishing ports • Telling the story of Rhode Island fisheries through expressive and journalistic media

## 2. Increase coordination among members of Rhode Island's fishing industry to speak collectively on issues that affect them

### TACTICS

1. Establish transparent grassroots communication channels among the fishing industry
2. Achieve strength in numbers through a pan-industry body
3. Provide civic empowerment and leadership training opportunities
4. Engage and educate elected officials

### TOOLS

- Social media • Listservs • Web forums • Webinars • Posters • Bulletin boards • Postal mailings • Annual Fisheries Day at the State House • Election-year candidates' forums on fisheries issues • Briefing books to newly elected officials

## 3. Recruit, train, and support the next generation of Rhode Island fishermen

### TACTICS

1. Inform and invite new people to fisheries careers
2. Impart skills and confidence through training and apprenticeship
3. Improve access to financing
4. Reduce / overcome barriers to licensing and access
5. Foster fishing business viability
6. Nurture support networks for new fishermen

### TOOLS

- Career days at local high schools • Working waterfront tours for school groups • Online fisheries jobs bulletin board • "Become a fisherman" guides • Partner with vocational schools, colleges, and programs like Apprenticeship RI to develop fisheries-related curriculum • Training programs and apprenticeships • Young Fishermen's Training and Outreach Program (H.R.2079) • Lease-to-buy options • Permit banking • Third-party succession counseling • Low-cost starter licenses that allow new fishermen to experiment • Full-fledged apprenticeship programs in which standards-based training is a pathway to advanced standing in state license lotteries • Relaxation of restrictions on license transfers from inactive participants to aspiring fishermen

## 4. Enable and support marketing innovations

### TACTICS

1. Enhance demand for underappreciated and emerging species
2. Develop products that utilize every part of the fish
3. Bring State regulations regarding direct marketing into parity with other nearby states
4. Facilitate supply chain partnerships between fishermen, dealers, and consumers

### TOOLS

Co-packaging agreements • Shared kitchens and facilities • Fishermen or consumer cooperatives • Co-marketing campaigns

## 5. Protect access to public infrastructure and seascapes for fishing activities

### TACTICS

1. Maintain sufficient and affordable working waterfront infrastructure
2. Maintain and enhance public access to the shoreline for commercial fishing activities
3. Protect the use of private property for commercial fishing storage and work
4. Apply precaution and collaboration when permitting new ocean uses

## 6. Maintain a clean environment and healthy fishery ecosystem

### TACTICS

1. Crystallize the link between habitat and fishery food production
2. Address cumulative stressors
3. Ramp up monitoring of ecosystem change in Narragansett Bay
4. Strengthen the role of fishermen as environmental sentinels and advocates

## 7. Make fisheries science and management as dynamic as the ecosystem

### TACTICS

1. Reduce time lags between data collection and management action
2. Incorporate climate into stock assessment models
3. Manage fisheries, food webs, and habitats as a system
4. Promote policies that facilitate business-level diversification
5. Secure Rhode Island a voting seat on the Mid-Atlantic Fisheries Management Council
6. Regularly update history-based landings allocations

• PUBLIC RELATIONS • CIVIC ENGAGEMENT • THE NEXT GENERATION •  
• INNOVATIVE MARKETING • WORKING WATERS AND COASTLINES •  
• HEALTHY HABITATS • ADAPTIVE SCIENCE AND MANAGEMENT •

# IMPLEMENTATION AND NEXT STEPS

The process that led to creation of the Blueprint for Resilience was decentralized and bottom-up. Implementation of its strategies will be equally distributed, borne on the shoulders of all who recognize the importance of wild-harvest fisheries to the state of Rhode Island: individual industry participants, industry associations, educators, non-profit organizations, elected officials, government

agencies, scientists, investors, funders, and others. All of these groups are invited to implement and build on the strategies recommended in the *Blueprint for Resilience*. The communications platform that provided the springboard for the *Blueprint for Resilience* will remain in place to support implementation. More information can be found at [www.ResilientFisheriesRI.org](http://www.ResilientFisheriesRI.org).

# THE BLUEPRINT: ORIGINS, PROCESS, AND PURPOSE

The *Blueprint for Resilience* is the outcome of a fishing industry-led process that assembled the connections, the knowledge, and the sense of hopeful possibility needed to begin designing a Rhode Island fishing industry for the future.

In all, 125 individual fishery participants participated in the formation of the *Blueprint for Resilience*. The creation process included:

**Interviews (January - March 2016).** Forty-eight fishery participants, representing eight Rhode Island fishing ports, participated in one-on-one interviews conducted with the project coordinator Sarah Schumann. The focus of these interviews was two-fold: to understand how the environment is changing and how fishery participants are adapting to these changes, and to understand barriers that limit fishery participants' adaptive capacity and resilience.

**Workshops (December 2016 - February 2017).** Eighty fishery participants took part in ten two-hour evening seminars. Each one included between four and forty-eight members of the Rhode Island commercial fishing industry and one or more external issue experts. Topics included: ecosystem-based fisheries management and warming waters, ocean acidification, ecological changes and water chem-

istry in Narragansett Bay, changes in the seaweed community, squid in a variable climate, socio-ecological community vulnerability, the expansion of black sea bass, pros and cons of diversified versus specialized business portfolios, and the low level of new entry into Rhode Island fisheries.

**Scenarios Process (February 2017).** On February 21, 2017, forty-five fishing industry participants took part in a full-day scenarios planning workshop facilitated by the consulting firm Futures Strategy Group. Participants were split into four breakout groups and given four future scenarios, each characterized by a different combination of environmental and socio-political realities. Participants brainstormed strategies to achieve a thriving fishing industry in years 2025-2030 under the four distinct scenarios. Strategies that held promise in multiple scenarios emerged as the most winning strategies for an uncertain future.

**Co-writing and review process (December 2017 - March 2018).** A draft of the *Blueprint for Resilience* underwent an extensive input and feedback process that involved use of a project listserv, mailings to members of fisheries associations, poster-ing on dock pilings and other shore-side locations, open information sessions, and interception of fishermen at the docks.

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