New England Groundfish Fishermen: Adaptation and Transition

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Background/motivation
Timeline for NE Multi-species FMP

2004
Amendment 13 addresses overfishing and rebuilding requirements

2006
MSA reauthorization: Annual Catch Limits, Accountability Measures

2010
Amendment 16 Sector Management Catch Shares

2011-14
Quota Reductions
Background/motivation
Large Cuts in Quota for Allocated NE Multispecies Stocks
(Shaded stocks saw overall quota cut for FY10- FY13 time period)

<table>
<thead>
<tr>
<th>ALLOCATED GF STOCK</th>
<th>Percentage Change from FY2010 to FY2013</th>
<th>Percentage Change from FY2012 to FY2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB Cod East</td>
<td>-72.8%</td>
<td>-43.2%</td>
</tr>
<tr>
<td>GB Cod</td>
<td>-47.3%</td>
<td>-60.8%</td>
</tr>
<tr>
<td>GOM Cod</td>
<td>-81.8%</td>
<td>-77.6%</td>
</tr>
<tr>
<td>GB Haddock East</td>
<td>-68.7%</td>
<td>-45.4%</td>
</tr>
<tr>
<td>GB Haddock</td>
<td>-35.2%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>GOM Haddock</td>
<td>-77.3%</td>
<td>-71.4%</td>
</tr>
<tr>
<td>GB Yellowtail Flounder</td>
<td>-81.2%</td>
<td>-58.1%</td>
</tr>
<tr>
<td>SNE/MA Yellowtail Flounder</td>
<td>88.9%</td>
<td>-22.9%</td>
</tr>
<tr>
<td>CC/GOM Yellowtail Flounder</td>
<td>-38.5%</td>
<td>-54.2%</td>
</tr>
<tr>
<td>Plaice</td>
<td>-50.1%</td>
<td>-56.7%</td>
</tr>
<tr>
<td>Witch Flounder</td>
<td>-28.4%</td>
<td>-57.9%</td>
</tr>
<tr>
<td>GB Winter Flounder</td>
<td>90.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>GOM Winter Flounder</td>
<td>351.9%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>SNE Winter Flounder</td>
<td>299.3%</td>
<td></td>
</tr>
<tr>
<td>Redfish</td>
<td>48.0%</td>
<td>21.7%</td>
</tr>
<tr>
<td>White Hake</td>
<td>50.6%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Pollock</td>
<td>-22.1%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
In FY2013, all-species revenue for NE GF Fleet at a 4 yr. low (-8% from 2010) 
GF revenues at a 4 year low (-34% from 2010) , NGF revenues +2.2% from 2010

Revenues for all groundfish vessels, May-April 
all trips, all species, million $2010
Fewer Active Limited Access Vessels across all vessel length classes
Down 14% from 2010

Number of groundfish vessels
with revenue from any species, May-April

Number of Active Vessels

- < 30'
- 30'-<50'
- 50'- <75'
- 75'+

2010
2011
2012
2013
Fewer Active Vessels Targeting GF across vessel length classes
Down 27% from 2010

Number of groundfish vessels
with revenue from at least one GF trip, May-April

Number of Active Vessels with Revenue from a GF Trip

- < 30'
- 30'-<50'
- 50'- <75'
- 75'+
Background/motivation

- Existing NMFS performance reports evaluate *active* vessels, aggregate numbers
- Inform development of the performance measures program
  - Financial Viability
  - Distributional Outcomes
  - Governance
  - Stewardship
  - Well-being
- Improved prediction of fishermen’s responses to proposed management changes by reconsidering the standard assumptions made in economic models, which are based on rational choice theory
  - Entry/exit decision
  - Barriers to adaptation (regulatory or otherwise)
  - Functioning of the quota market
Methods

• Ethnographic interviews
  ▪ Identification of exiting and transitioning fishermen by combining permit data with landings data, binning permits as inactive or into a specific primary fishery, and then looking for changes over 2010-2013.
  ▪ Key informants (community liaisons)
  ▪ Snowball sampling

• Detailed notes/audio recordings are coded using Nvivo

• Identify themes and socio-economic factors contributing to fishermen’s decision-making
Key Interview Topics

• Approach to decision-making process
  ▪ Continue actively fishing or transition out of fishing – what’s the “second best alternative”?
  ▪ Variations across fishermen
  ▪ Differences from “rational” economic choice

• Markets:
  ▪ Factors that influence ability to adapt and level of activity in the quota leasing market
  ▪ Local and imported fish – product differentiation?
  ▪ Market for crew

• Alternatives and barriers to adaptation
Geographic Coverage

- Interviews completed in:
  - Gloucester, MA (n=25)
  - Scituate, MA (n=3)
  - Seabrook/Hampton, NH (n=3)
  - Portsmouth, NH (n=8)
  - Maine ports (n=8)
  - Chatham, MA (n=7)
  - Point Judith, RI (n=5)
Preliminary Results

• Reasons for declines in the fishery and need for adaptation & transition
  ▪ Lack of fish (primarily a biological issue - environment, predator/prey relationship)

“Timing is the problem – not just sectors as the problem...the ocean went dead.”
“We have cycles – I know from my 40 years of fishing. It’s happened 4 times. There are no sand eels and no herring. When they go, every 3-4 years, everything goes.”
“There are no fish for real. But with low allocations, even if there are fish, there is still stress.”
Preliminary Results

• Reasons for declines in the fishery and need for adaptation & transition
  ▪ Lack of quota (primarily a management issue)
  
  “Up until May 1\textsuperscript{st} 2013, 95\% of people were making a living. May 1\textsuperscript{st} changed everything.”
  
  “Fishermen who fish should not have to go to someone who doesn’t fish to get fish.”
  
  “If fishing was what they said it was I would be happy tying up my boat…I’m catching more fish per hour than I ever have.”
Preliminary Results

• Reasons for declines in the fishery and need for adaptation & transition
  ▪ Markets

“…We’ve lost our market to imports…”

“The entire industry is in competition with imported catfish and tilapia.”

“There is no price left in the fish because the whole market has collapsed. The dealers have gone other places to get their fish.”
Preliminary Results

Adaptive strategies

• Move into other fisheries, esp. lobster, with 6 transitioning from primarily GF to primarily lobster
• Sell boat (without or without permits)
  ▪ 5 interviewees had sold between 2011 to 2013, 5 claimed to be trying to sell their boat
  ▪ Lack of demand for commercial fishing vessels, aging boats, declining value of GF permits
  ▪ Reluctance to sell GF permit because it is tied to lobster permit
• Leasing GF quota
  ▪ while targeting other fisheries, chartering or holding another job, or relying on partner or savings for primary source of income
• Other marine related employment
  ▪ Working tugboats, working on docks, crewing on other vessels
• Exit from fishing as primary employment
Preliminary Results

- Variables affecting adaptation
  - Gear type, vessel size

Draggers are basically trading fish for fuel to break even. They can’t target as much... “gillnetters will make it.”

Smaller vessels are constricted by geographic location- “If I had a bigger boat I could go offshore”
Preliminary Results

- Variables affecting adaptation
  - Age

“I don’t want to get through 2 years, I want to get through 10 years.”

“When I turn(ed) 70, I put my boat up for sale”

“When you’re 20 something you can do something else but when you’re 53…”

“..in 4 years, I’ll retire anyway, I’ll be 61. I’m too old to find a job.”
Preliminary Results

• Variables affecting adaptation
  - Family situation
    - Kids, working wife

“I can’t just tie up the boat and go (stop fishing)…I have four kids.”

“I don’t see how any young person with a family can work in fishing.”

“My wife has a good job…If she didn’t have it, we wouldn’t make it….all the guys who are in it have wives with good jobs.”
Preliminary Results

- Variables affecting adaptation
  - Financial Situation
    - Debt

“Guys that are really in trouble are guys who bought permits at high prices and have a note on the permits that they cannot pay back with the cut in quota.”

“I actually had out of the blue a guy approached me last week and asked me if I was interested in selling my boat. But even at that, I have a loan on the boat so it’s like what am I going to get out of it when I sell it and not only that, what am I going to do? If I took another job I would basically be working to fund the fishing end of it because I would still have a loan on my boat, I’d still have to have the insurance, I’d still have to have the dockage, I would still have a lot of recurring expenses in the fishing industry....”

“If you don’t have any debt, can hang on.”
Preliminary Results

Variables affecting adaptation

- Financial Situation
  - Debt

“Everyone is a blown engine away from being out – no one is putting money away for capital improvements.”

“…the guys who have debt are the ones that are really being squeezed right now because maybe they bought in in 2010 financed and everything and they can’t cover their bills... if they had used their house to back up those loans. Some people I bet did. Thank god I didn’t. At the time you know, I didn’t. That was probably a smart move on my part. Thank god I switched over and I can still pay my bills.”
Preliminary Results

• Barriers to adaptation

  ▪ Regulatory framework

  ▪ Uncertainty about regulatory and biological environment

    - Simultaneous cuts in multiple species

    - Inability to separate permits

    - Baseline restrictions
Preliminary Results

• Barriers to adaptation
  ▪ Lack of capital (to lease fish, to upgrade vessel, to target other species)

“You need to fish for something you don’t have to pay for before you fish.”

“How do I acquire $100,000 worth of gear with no capital?”

“You need to fish for something you don’t have to pay for before you fish.”

“How do I acquire $100,000 worth of gear with no capital?”

“With a guy like me, what bank is going to lend me -- say, I need 20,000 or 30,000 pounds. What bank is going to lend me $1 million for a piece of paper when I hold a mortgage on a boat, a mortgage on a house already and I got the third strike, I’m a Gloucester fisherman. Everybody knows fishery is -- fishing is going in the toilet.”
Preliminary Results

• Barriers to adaptation
  ▪ Identity as fishermen/lack of transferrable skills

“Once you get another job, your boat is going to rot at the dock.”

“Losing the vessel is like losing a family member.”

“I’d rather work for myself than for other people.”

“I really just want to stay on the water.”

“I won’t give up – I’ll die out there.”
Preliminary Results

- What to do about it – if anything
  - Cash
    - Include crew, co-ops
    - Not everyone agrees:

    “I hope money doesn’t come because it won’t be used right. People are going to suck on it”.

    “Financial assistance is not gonna do it, it’s not worth thinking about.”
  - Quota

    “Fish or money...either put more fish in the system or subsidize what we lost.”
Preliminary Results

• Solutions

• Government or industry buyback of permits to address lack of demand

“I don’t know anyone who would buy a permit now, at any price. How would you feel if you lost a million dollars?”

“If I sold my permit now I’d be giving my life away for nothing.”
Preliminary Results

- Solutions
  - Management flexibility
    - In-season adjustments
    - Looser baseline restrictions on permits
    - NSC’s “sweet spot” approach
What Next?

- Complete Interview Coding Process
- Report to supplement to information in the FY2014 Northeast Multi-species Fishery Performance Report
- Input into the five year review of catch share management for GF
Acknowledgements

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  - Cape Cod Commercial Fishermen’s Alliance
  - Cape Pond Ice, Owner Scott Memhard, Gloucester
  - Commercial Fisheries Research Foundation
  - Endicott College Gloucester
  - Gulf of Maine Research Institute
Additional Information

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