Evaluating the practicality and economic viability of a pilot redfish jig fishery.

Progress Report for NEC development grant award, contract # 11-027

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Project P.I.'s:

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Project Participants:

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F/V Andanamra   F/V Sea Keeper

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Accomplishments and milestones:

Changes in project participants created a need for alternate jigging machines and sampling gear, which was generously donated to the project by John Williamson. The jigging machines were then serviced and installed aboard the F/V Andanamra, following an initial trip aboard the F/V Sea Keeper for training purposes. Hooks and leaders were prepared and deployed on three machines. Ten days of field trials were performed; with the use of the jigging machines done in conjunction with other work the captain had ongoing, including bottom longlining. The daily protocol consisted of setting the longline, then jigging for 4-5 hours while it set, and then picking up the longline before returning to the dock. Over the ten day period in July and August, we successfully sampled five different species: redfish, cod, pollock, mackerel, and squid. Over both methods the catch was quite low, with the CPUE for the machines ranging from 0.003 to 0.25 kg/hook hr., and the bottom longline ranging from 0.0006 to 0.012kg/hook hour. On several trips fish traps were also deployed without any success. In attempts to locate schools of fish, vast stretches of local fishing grounds were surveyed, sometimes traveling over one hundred miles a day.

A GMRI student intern, Kristin Garabedian (and graduate from the University of New Hampshire) also assisted us on the project. In addition to participating in field work and associated preparation, Kristin collaborated with Jen Levin and Jonathan Grabowski from the Gulf of Maine Research Institute to develop and send out an online redfish marketing survey. The survey was aimed at local restaurants and seafood distributors, and focused on learning what they currently know about redfish, their interest in working with redfish in the future, and identifying what product characteristics are most important in determining the price willing to be paid by customers. The survey was sent out to 45 restaurants and distributors in the Portland ME area. We currently have received 7 responses, and while no definitive statistics can be done on this small number of responses, replies indicate interest in the product and willingness to pay higher price per pound than is currently achieved.

Involvement in this project and discussions with industry and community members has led to participation and presentation in several meetings and events including: the annual NEC meeting in Portsmouth, NH., the Northeast Regional Redfish Symposium in Danvers, MA., REDNET project meetings, Trawl to Table event at GMRI in Portland, ME, and the Fish to Plate event at the University of New Hampshire. These contributions not only share our work but help us stay current with issues surrounding this emerging fishery as it develops.

Unexpected difficulties and project alterations:

As planning for field work began, our original industry partner was unable to participate in the project. This led to a revised scope of work that was submitted and accepted by the NEC, detailing our new project participants, their respective roles and an altered budget reflecting new travel costs and consulting services. The new scope of work also meant the marketing section of the project had to be altered, since we no longer had a connection to a community supported fishery business model as anticipated. In adapting to these changes our student intern, Kristin Garabedian, helped with field work and developed an online marketing survey.

Other unexpected obstacles also altered the project outcome. The central problem was an inability to locate schools of redfish, or any other species of fish. Increasing our outreach for advice from several fishermen resulted in the identification of new fishing grounds to try, but with little to no success. After a few days of not finding fish, we agreed with the captain to combine using the jigging machines with his usual bottom longlining fishing. This would give us a better indication of fish distribution in the area, and give us insight into the versatility of the machines on a day trip using multiple different sampling techniques.

Next steps:

The main next step for this project is to prepare the final report, gathering all pertinent literature and assessing what analysis can be conducted on our limited data set. We will also continue with the online marketing survey, monitoring for further responses and potentially sending out the survey to additional restaurants and distributors. Connections and relationships created through this work will help us look ahead to upcoming issues in this fishery as it progresses.

Impacts to fishermen/scientists:

In talking with industry members while planning our field work, there was a range of thoughts towards the distribution of redfish in our study area. Some thought finding schools of redfish would not be difficult, others considered redfish generally sparse in the downeast Maine region. The common thread was that very few had current knowledge specific to redfish. Our sampling over a wide range of fishing grounds in the area suggested the spatial or perhaps the seasonal distribution of redfish in downeast ME to be quite variable. This information gap stems from a very small to almost non-existent directed redfish fishery in downeast Maine.

Although high landings were not achieved with the jigging machines, this project demonstrated their potential on small fishing boats. The machines were easy to install and deploy, and capable of catching multiple species. Very little space on the boat was required to operate the machines, and minimal preparation time was required before and after deployment. This would allow a fisherman to easily integrate this technique with other fishing techniques such as trawling, gillnetting or longlining. These machines may allow fishermen to target certain species of interest, or simply add value to commercial trips by increasing landings through additional fishing time.

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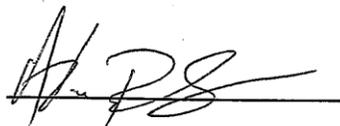
Principal Investigator

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