NORTHEAST CONSORTIUM
Annual Report

Project Title: Archival Tagging Study of Monkfish, *Lophius americanus*

NEC Award Number: 09-042

Period of Performance: June 1, 2009 – May 31, 2010

Date of Progress Report Submission: June 15, 2010

PI Contact Information:

Dr. Anne Richards
NEFSC 166 Water St.
Woods Hole, MA 02543
Tel.: (508) 495-2305
Fax: (508) 495-2393
Anne.Richards@noaa.gov

Dr. Jon Grabowski
Gulf of Maine Research Institute
350 Commercial St
Portland, ME 04101
Tel. 207-228-1644
Fax 207-772-6855
jgrabowski@gmri.org

Dr. Graham Sherwood
Gulf of Maine Research Institute
350 Commercial St
Portland, ME 04101
Tel. 207-228-1644
Fax 207-772-6855
gsherwood@gmri.org
## Project Participants

<table>
<thead>
<tr>
<th>Scientists</th>
<th>Industry members</th>
</tr>
</thead>
</table>
| Dr. Anne Richards  
NEFSC 166 Water St.  
Woods Hole, MA 02543  
Tel.: (508) 495-2305  
Fax: (508) 495-2393  
[Anne.Richards@noaa.gov](mailto:Anne.Richards@noaa.gov) | Curt Brown  
Gulf of Maine Research Institute  
350 Commercial Street  
Portland, ME 04101 |
| Dr. Jon Grabowski  
Gulf of Maine Research Institute  
350 Commercial St  
Portland, ME 04101  
Tel. 207-228-1644  
Fax 207-772-6855  
[jgrabowski@gmri.org](mailto:jgrabowski@gmri.org) | Ted Platz  
F/V Gertrude H.  
Ocean Harvest, Inc.  
Newport, RI |
| Dr. Graham Sherwood  
Gulf of Maine Research Institute  
350 Commercial St  
Portland, ME 04101  
Tel. 207-228-1644  
Fax 207-772-6855  
gsherwood@gmri.org | Tim Caldwell  
F/V C.W. Griswold  
Swanville, ME |
| Dr. Larry Alade  
NEFSC 166 Water St.  
Woods Hole, MA 02543  
Tel. (508) 495-2085  
Fax: (508) 495-2393  
Larry.Alade@noaa.gov | |
| Crista Bank  
University of Massachusetts  
School for Marine Science and Technology  
200 Mill Road, Fairhaven, MA 02719  
(508) 910-6380 voice  
(508) 910-6396 fax  
cbank@umassd.edu | |
Project objectives and scientific hypotheses

The primary objectives of this project are (1) to investigate movements of monkfish (including deepwater excursions) among the southern and northern U.S. management regions and Canadian waters, and (2) to validate aging methods for monkfish. Additional objectives are to learn about monkfish behavior, including off-bottom excursions that may be related to transport on ocean currents and/or spawning behavior; activity rhythms in relation to tidal cycles; and habitat (depth-temperature) associations. We hypothesize that monkfish move extensively and that there is exchange between fishery management areas and a possible deepwater excursion by maturing females from the southern area.

Major Accomplishments and Milestones

We have taken 5 day-trips to release DST-tagged monkfish in the Gulf of Maine and southern New England (4 trips within this performance period):

<table>
<thead>
<tr>
<th>Date</th>
<th>Vessel</th>
<th>Tagging Location</th>
<th>Captain</th>
<th>Number Tagged</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/16/2009</td>
<td>C.W. Griswold</td>
<td>W. Gulf of Maine</td>
<td>Tim Caldwell</td>
<td>6</td>
</tr>
<tr>
<td>10/26/2009</td>
<td>C.W. Griswold</td>
<td>W. Gulf of Maine</td>
<td>Tim Caldwell</td>
<td>43</td>
</tr>
</tbody>
</table>

Total DSTs released
- W. Gulf of Maine: 49
- So. New England: 96
- Total: 145

Tags remaining: 45


We have prepared dissection and sample collection kits and protocols to be followed when monkfish are returned with DSTs.

Some photos from the tagging trips can be found at the end of this report.
**Project Alterations**

The work under this project has been supplemented by a 2008 monkfish RSA grant awarded to Grabowski and Sherwood (GMRI), which increased the number of tags to be released in each site.

**Next Steps (6 months)**

We will release the remaining 45 tags in the Gulf of Maine during autumn 2010 and continue with our outreach efforts.
Figure 1. Tagging set-up with holding tank in foreground and tagging apparatus in background.
Figure 2. Apparatus for tagging monkfish while keeping them submerged. Note incision on monkfish ready for tag insertion. Measuring board is embedded in base of box.
Figure 3. Tagged monkfish showing location of data storage tag and pink external tags
Figure 4. Monkfish being released after tagging operation.
Figure 5. Poster for outreach for archival tagging study.