

Northeast Regional Cod Tagging Program



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Bi-monthly Update – July 2004.

I. Overview

June and July for the Northeast Regional Cod Tagging Program have been a busy time. Most tagging organizations have been tagging, but June also started with the Program's six-month update meeting, held in Portland, Maine.

This meeting was attended by 20 of the collaborating scientists and was highly productive. A detailed summary of the meeting is available online through the Meetings Summaries page of the Program's web site: http://www.codresearch.org/Updates_Meeting_summaries.htm. In brief, however, the meeting focused on new elements of the program (i.e. the high-reward tagging study) in addition to further discussions on data analysis needs, and finally, what the aims are for a Year 3 of the Northeast Regional Cod Tagging Program.

In late June, Shelly and Laura responded promptly to a request by NMFS for a Year 3 budget within 24 hours! By 5.00pm on June 23rd, GMRI had a new contract in place. The Northeast Regional Cod Tagging Program has been supported for a third year, and the funding allocated will enable the infrastructure of the program to remain in place. Thus, GMRI will be able to respond to cod tag returns until at least December of 2005.

Tag returns continue to be reported every week; the breakdown of returns to date is presented in Table I.

Table I: Tag returns reported to date for both Northeast Regional Cod Tagging Program tags (NRCTP) and DFO tags associated with this program. Of these, 1174 tags have been physically received by GMRI; recaptured double-tagged fish amount to n=180; and recaptures which were re-released total n=82.

	NRCTP Tags			DFO Tags			Totals
	F*	P**	O***	F	P	O	
DFO	97	187	3	24	67	3	381
Isl. Inst.	14	4	1	0	0	0	19
DMR	227	43	37	19	4	0	330
CCCHFA	397	29	44	0	0	0	470
SMAST	282	80	12	0	0	0	374
Sub-Total	1017	343	97	43	71	3	
Totals		1457			117		1574

* F=Fishermen ** P=Processors ***O=Observers

2. Program Update Overall – Gulf of Maine Research Institute (GMRI)

Jun - 04

- **DMR:** Shelly has still been chasing up contract and insurance paperwork required for the vessels recruited to tag with DMR.
- On June 10th GMRI hosted/facilitated the NRCTP's Year 2 Six-month Update Meeting. This was a one-day meeting during which the aim was to update each other on our progress to date for 2004, in addition to considering the future of the program, both over the next six months, but also into a potential Year 3. Particular focuses of the day included:
 - The new high-reward tagging study;
 - Data analysis needs and responses to the data querying feedback from the Research Steering Committee;
 - Research ideas of value to the program in a potential Year 3.
- **Standard Tagging Protocols:** the revised version (which includes the high-reward tagging study) was prepared for printing during May – after considerable negotiation for the best price between two print-houses, Pat and Shelly were able to get this produced in time for the meeting on June 10th. All program partners now have this version of the protocol and will make this available to all individuals tagging for this program.
- **DFO:** Shelly and Pat met with Don Clark on June 11th to address some of DFO's needs for the remainder of 2004. Since Don has lost his technician, Jennifer Hinze, due to lack of funding, he will be in need of more assistance with data entry specifically. As the contractors of DFO for this program, DMR will now enter the DFO tagging data in response to this need.
- **Year 3:** In late June, Shelly and Laura responded promptly to a request by NMFS for a Year 3 budget within 24 hours! By 5.00pm on June 23rd, GMRI had a new contract in place. The Northeast Regional Cod Tagging Program has been supported for a third year, and the funding allocated will enable the infrastructure of the program to remain in place. Thus, GMRI will be able to respond to cod tag returns until at least December of 2005.

Database:

- Pat is continuing to process tag returns and mail out rewards; in addition, tagging trip data is being approved.
- Shelly has been meeting with Northern Geomatics to further discuss enhancements to the database for the tail end of this year and Year 3.

Outreach:

- GMRI delivered a High-reward tagging press release in mid-June.
- Shelly has put great effort into scheduling tagging trips which would be covered by TV crews for "Where's Amy?", "Doug's Discoveries" (both Channel 13) and also with Channel 6. Despite considerable logistics trouble-shooting and scheduling four trips (thank you to DMR for allowing GMRI to schedule with its tagging vessels!), not one of these filming opportunities was realized owing to scheduling incompatibilities.
- Pat and Shelly have been working toward the summer 2004 mass-mailing; outreach materials have been re-designed and updated, particularly to reflect the implementation of the high-reward tagging study. Pat has updated the list of recipients; the mass-mailing will reach ~5,200 individuals and organizations.
- Five new winners were drawn for the June 2004 lottery. The list of winners can be seen online at http://www.codresearch.org/Winner_to_date.htm.

Tagging:

- Tagging was carried out by DMR, CCCHFA, SMAST and the Island Institute.
- Shelly joined Ben Neal (Island Institute) a tagging trip with the recreational charter vessel, FV Bigger n Better.
- **High-reward tagging:** The release of cod with high-reward tags is now fully underway throughout the program and the study region. The high-reward tags are coming in at a steady rate.

- Shelly has produced the summary of the Year 2 Six-month Update Meeting. This has been distributed to all program partners, other collaborating scientists who attended the meeting, and also all members of the Research Steering Committee (thank you Pat Fiorelli for your assistance with this!). The summary is also available online for downloading through the following web link:
http://www.codresearch.org/Updates_Meeting_summaries.htm.
- Shelly is currently preparing the **six-month progress report for NMFS**; this will be submitted on receipt of the progress reports from each tagging organization. This, and all future progress reports will be submitted as individual reports, but will be mailed in simultaneously by GMRI.
- Shelly has placed a repeat order of tagging incentives to boost the stocks of T-shirts, hats and mugs for distribution to reporters of tags; this process is more simple this year!

Database:

- The focus has again been on tag returns; specifically, Shelly and Pat have been working with Northern Geomatics to improve the tag return report in terms of the information it provides; in particular, the report now allows us to identify sub-standard recapture information and include a disclaimer at the bottom. Recapture information is considered “sub-standard” if:
 - the recapture length is estimated;
 - the recapture date is estimated;
 - the recapture location is given as e.g. “on Georges” and GMRI assigns a mid-point value;
 - the actual tag is not returned to GMRI.
- When recaptures are entered into the database, the information is identified as substandard through check-boxes. This means that when it comes to data analysis, we can easily filter out data for which the quality may not be high enough for the analysis purpose.
- General assistance to tagging organizations in the trouble-shooting for data entry issues.

Outreach:

- Attempts to schedule filming tagging trips resumed in July ...again without success.....
- The summer 2004 mass-mailing was completed this month.
- **New posters!** The NRCTP poster which has been posted throughout the region will soon be replaced by a new version. Shelly has designed (in both English and Portuguese again) to inform the public about the high-reward tagging study. Currently being printed, Shelly will distribute quantities of these to each tagging organization in the near future – the task for tagging organizations will then be to again hit the docks armed with staple guns and push pins!
- Minor updates to the website have taken place; a more thorough update is planned for August 2004.
- Shelly has begun to prepare for hosting a cod tagging booth at the New Bedford Working Waterfront Festival (24-26th September, 2004).
- Responses to tag returns continue.
- Five new winners have been drawn for July’s 2004’s lottery.

Tagging:

- During July, tagging was undertaken by DFO, Island Institute, DMR, CCCHFA and SMAST.
- Shelly joined Ben Neal (Island Institute) on three tagging trips; two of these were on recreational charter vessels, (FV Bigger n Better and FV Special J). The third trip was out of Eastport, ME (as far downeast as you can go before reaching Canada). This trip in particular was a good opportunity to touch base with the Cobscook Bay Resource Center (CBRC) and update them on the changes in the program in recent months. The small group of fishermen involved in the tagging study through the CBRC are dedicated and enthusiastic and are looking forward the abundance of cod picking up in the late summer months.

3. Program Update by Tagging Organization

3.1 Canada Department of Fisheries and Oceans (DFO)

- DFO is holding off any further tagging due to low catches, and expects to resume activity in the fall.

3.2 Island Institute

- The inshore areas of the Maine coast have been fished this past two months by a variety of sport fishing and commercial vessels. Recreational vessel involvement has proven to be a good method for these areas, which have a growing charter boat industry.
- Most trips averaged around 40 fish, with 77 fish being the high point here in Maine for a one day recreational effort.
- The later half of the summer will see the effort move to the east, with the fishing in Eastport is particularly interesting to the study as it is one of the only areas in this region where fish can be caught a stone's throw from the shore.
- Total releases for this season to date are ~1000, with ~2500 total expected for the season.

3.3 Maine Department of Marine Resources (DMR)

- Cod tagging this year to date has yielded 4,641 fish tagged over 37 vessel days. Cod catches have mostly been pretty low.
- DMR's largest trip this year was in early June, yielding 1,124 tagged cod over 3 days. These fish were captured mostly at the southern end of Bigelow Bight.
- Cod did not begin to show in large numbers off of Maine until about 3 weeks ago when there was a spurt just off Portland. Weather and vessel availability were spotty during this period, so fairly low numbers were tagged. However on July 12th, while fishing on the Tanta Ground, a 20-minute tow yielded about 9,000lbs of cod. The captain did not want to bring net on board for fear of killing many fish. Therefore almost all were released without being tagged. This was a most unfortunate situation since previous and subsequent tows did not yield high numbers. The Captain was also reluctant to tow that exact area again for fear of another similar haul.
- The fish we are seeing are big, and many have been full of spawn recently. We have tagged 2 fish of at least 130cm, which is around the record size for the Northeast Regional Cod Tagging Program.
- DMR has worked a little in the inshore Downeast Maine waters, but by last week had still found virtually nothing in these waters.
- DMR is waiting to send anybody out toward the Hague Line until we are more confident that there may be fish there.

3.4 School for Marine Science and Technology (SMAST)

- SMAST has completed two cod tagging trips to Georges Bank over the last two months. In late May, Dave and Ross went out aboard the *F/V Sao Paulo* to tag on the northern flank of Georges Bank for 5 days. A total of 1,256 tags were deployed on this trip of which 126 were high reward tags. Six cod were also recaptured from previous tagging trips.
- In late June, Dave and Darin boarded the *F/V Victory* to search for cod in Closed Area I. They covered every corner of the closed area and the captain was extremely surprised that only 45 fish of "tagable" size were found over the 5 day period. According to the captain, before the closed areas were established, that area was a hot spot for cod in June. Of the fish that were tagged, four received high reward tags. On the way in, a few tows were made in the Coxes Ledge area southwest of Martha's Vineyard, but no cod were located there either.

- Another trip is planned for the last week of July aboard the *F/V Vila de Ilhavo*. Following that, SMAST has no tag trips planned until early fall as surface and air temperatures will be getting too hot to safely keep fish on deck.
- In the mean time, SMAST has displayed their year 1 tagging effort on the web at: http://www.smast.umassd.edu/Fisheries/Tagging/SMAST_NRCTP/index.php
- Year 2 is soon to follow - stay tuned....!

3.5 Cape Cod Commercial Hook Fishermen's Association (CCCHFA)

- Efforts to target the Great South Channel during June and July were productive. 1,923 fish were tagged in this area, mostly in fairly deep water to the north of the BB Buoy on spots known locally as the Figs and the Mussels. Tagging efforts in the new zones to the north of Race Point were also successful, with 862 fish tagged. This work took place on Stellwagen Bank, and across a variety of nearshore areas in Massachusetts Bay off of Scituate, Boston, and Gloucester.
- Slow but steady progress continued on Coxes Ledge, with approximately 50 fish tagged since May.
- In total, 3,646 fish have been tagged during June and July to date.
- We have begun to do some pilot work on tagging mortality using side by side survival comparisons of tagged and non-tagged fish after 72 hours in sea floor cages, in conjunction with our sub-legal cod discard mortality study. Some preliminary numbers are presented in Table 2.

Table 2: Preliminary data from mortality studies on tagged and non-tagged cod submerged in cages at the three depth ranges of 20, 30 and 40 fathoms respectively.

Depth (fathom)	Untagged			Tagged		
	# Survivors	# Caged	% Survival	# Survivors	# Caged	% Survival
20	50	52	96%	49	51	96%
30	19	19	100%	19	20	95%
40	9	14	64%	4	6	67%