

Northeast Regional Cod Tagging Program



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Bi-monthly Update – September 2004.

I. Overview

Tagging trips have continued throughout August and September for the Northeast Regional Cod Tagging Program; the total number of cod tagged to date is >87,000. In addition, considerable effort has been put into reviewing the Program's progress in reports to the Cooperative Research Partners Initiative and to a variety of audiences at numerous outreach venues.

Data management has also been a focus in the past two months: specifically, considerable attention has been paid to the Year 3 database enhancements, data analysis needs and the recruitment of a new Research Data Technician by GMRI. Also of relevance to data, tag returns continue to be reported every week; the breakdown of returns to date is presented in Table I.

Finally, GMRI's Year 3 contract included the task of planning and coordinating a fish tagging workshop on behalf NOAA Fisheries, Northeast Regional Office (see GMRI's September review for more detail).

Table I: The overall tag reporting rate to date is ~2.2%. Of the tags reported, 1,474 physical tags have been returned to GMRI; recaptured double-tagged fish amount to 212; and recaptures which were re-released total 90. The number of high-reward tags returned to date is 25.

	CF	RF	F	P	O	Totals	% of releases
DFO	144	2	2	282	11	441	7.6%
Isl. Inst.	5	14	8	4	1	32	1.9%
DMR	244	61	27	52	53	437	2.5%
CCCHFA	363	91	38	31	46	569	1.3%
SMAST	314	5	3	115	19	456	2.5%
	1,070	173	78	484	130	1,935	2.2%

CF = Commercial fishermen, RF = Recreational fishermen, F=Fishermen - unspecified, P=Processors & O=Observers

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

Aug – 04

- **CRPI Progress reports:** Based on discussions at the Year 2 six-month update meeting, Shelly coordinated a program-wide effort at producing semi-annual progress reports for CRPI. These reports cover the first six months of Year 2 for most organizations. All reports were submitted to CRPI August 31st 2004.
- **DMR:** Shelly joined Kevin Kelly and Kerrie O'Donnell in the inspection of a new vessel for cod-tagging. This vessel, will tag in Downeast Maine waters. A contract was issued in early August.
- **Year 3:** With funding now secured for a Year 3 of the Northeast Regional Cod Tagging, Shelly and Laura met to discuss Shelly and Pat's roles for this 3rd year. Key responsibilities will be to maintain the infrastructure for processing and rewarding tag returns (Pat and Shelly). However, Year 3 marks the phase for when the focus will be data analysis and Shelly will be responsible for leading this initiative. Particular deliverables will include:
 - Commencing data analysis discussions with Les Kaufman (Boston University) as the assigned representative for the Research Steering Committee.
 - Commencing plans for coordinating a multi-species Fish Tagging Workshop as contracted by NOAA Fisheries, Northeast Regional Office.
- Of relevance to meeting data analysis needs, Shelly recently received an invitation from CSIRO Marine Research facility in Hobart, Tasmania, to be a visiting scientist during January and February of 2005. This opportunity will prove highly beneficial for skill development since it offers:
 - Participation in an acoustic tagging trip on Southern bluefin tuna;
 - Attendance on two courses offered by the University of Tasmania in (1) fisheries science, and (2) programming and analysis;
 - The opportunity to work with/among a team of individuals highly skilled in the analysis and visualization of tagging data and incorporation of this information into stock assessments.
- GMRI is currently re-visiting its vessel safety policy; Laura, Shelly and other GMRI staff experienced in working with commercial and other vessels are reviewing and revising GMRI's current safety policies. Of relevance to cod tagging, once the revised policy is in place, Shelly will communicate with all individuals/organizations for whom this will be relevant, e.g. owners and crew of contracted vessels, in addition to all tagging organizations, in particular DMR.

Database:

- GMRI has been re-assessing its personnel needs and has consequently advertised a new position: a Data Technician. With the increased number of tags being released, and thus needing approval in the online database, Shelly and Pat's time is currently stretched too thin for prompt data approval to take place. Candidates may apply until September 30th 2004. After this date, Shelly, Pat and Laura will begin the selection and interview process. The aim is to have this new employee on board at GMRI during October 2004.
- Pat has been continuing to process tag returns and mail out rewards. August has been a particularly busy month for returns, with over 240 being received by phone, mail and email.
- Meetings between Shelly and Northern Geomatics have progressed well and Year 3 enhancements to the database will begin in September.

Outreach:

- The revised version of general outreach posters was completed. Again, posters were produced in two sizes (~8.5x10" and ~11x16"), in English and Portuguese, and both laminated and non-laminated. These were distributed to program partners in mid-August and should be distributed by program partners throughout the region as soon as possible.

**Aug – 04
cont**

- Though not our typical outreach venue, in late August, Shelly participated in a career afternoon at a local girls' science camp, at Kieve Camp, ME. The aim of this afternoon is to expose campers to women who have developed careers in scientific fields. Few tag returns are likely to result directly from this audience, but the tagging program was well-received and many of the girls left sporting blue and orange practice tags in the towels, caps, T-shirts, etc. Potential taggers for future years?
- Five new winners were drawn for the August 2004 lottery. This was a particularly momentous lottery for Shelly and Pat since it was drawn using a new program written in collaboration with Alistair Hobday at CSIRO Marine Research, Hobart, Australia. This efficient tool now allows for automation of the procedure and has sped up this procedure immeasurably – thank you Alistair! Winners were posted at http://www.codresearch.org/Winners_to_date.htm.

Tagging:

- Tagging was carried out by DMR, CCCHFA, SMAST and the Island Institute.
- Shelly again joined Ben Neal (Island Institute) on one of his tagging trips. – since the method of catch is rod and reel, the more people fishing, the greater the number of tags deployed.

Sep – 04

- Preliminary preparations for the End of Year 2 Meeting are underway; Shelly and Pat have investigated the availability status of prospective attendees and are currently researching venue options. The two-day meeting will take place on **Wednesday 8th and Thursday 9th December, 2004**.
- **Commercial VS Recreational sector involvement in the NRCTP:** Based on information provided by Ben Neal (Island Institute) and Tom Rudolph (CCCHFA), Shelly provided NMFS with a memo reporting the relative involvement of the recreational and commercial fishing sectors in the NRCTP. In summary, of the ~75 vessels which have undertaken cod tagging trips to date, 66% have been commercial while 34% have been recreational.
- Shelly met with Les Kaufman at Boston University on September 14th to begin discussions on data analysis needs for the NRCTP; Les will be a collaborator on future data analyses.
- GMRI (Shelly, Togue Brawn and Laura Singer) have been holding regular conference calls with the organizing committee for the upcoming Fish Tagging Workshop. These meetings have led to the refinement of the workshops goals and needs. Specifically:
 - The workshop will serve to review current data analysis and modeling techniques available to researchers undertaking tagging research. Current tagging programs in the Northeast region will be critiqued with the aim of determining how their findings can be incorporated into stock assessment models.
 - The workshop will take place from the 19th-21st October, 2004.
 - Two keynote speakers have been confirmed (Dr. Alistair Hobday, CSIRO Marine Research/University of Tasmania and John Hoenig, Virginia Institute of Marine Sciences). Approximately 30 additional researchers have been invited. Numbers have been limited to ensure that workshop goals are achieved, whilst also working within the budget allocated.

Database:

- The first phase of Year 3 database enhancements have been implemented by Shelly and Northern Geomatics; these changes became live on 17th September. In particular:
 - On the mapping interface, data filters have been changed to reflect the most interesting and relevant information for the general public;
 - More advanced querying of data has been actualized, enabling database users to streamline the data they download, rather than just downloading the data by tagging organization.

Outreach:

- Considerable updates to the website were made this month. Shelly plans to update this further in future weeks, however, for now, particular attention has been paid to:
 - Updating photo galleries (Vessels involved, Images from the field & Tagging process);

- Links to additional references have been added;
- Recent program posters have been added for viewing.
- Shelly hosted a NRCTP booth at the first **New Bedford Working Waterfront Festival** (24-26th September, 2004); SMAST also showed considerable presence during this outreach opportunity through their triple booth, part of which was devoted to cod tagging. Thank you Rodney, Darin and David for your backup assistance during this event! The turnout for this weekend was reportedly ~5,000 people each day – unfortunately not all 5,000 were fishermen, but our presence was nonetheless rewarded with the return of a few tags and positive feedback about and interest in the program. David, Darin and Shelly also braved the small audience during two “Fishermen & Scientists” panel discussions!
- Shelly and Tom Rudolph (CCCHFA) presented at the **4th Responsible Fishing Conference** in Providence, RI on Wednesday 29th October. The theme of the session was “Successes in Cooperative Research”.
- GMRI hosted a booth at **Fish Expo** – within this booth, the NRCTP was featured as a poster presentation; again, strong positive feedback was heard and in particular, numerous people expressed keen interest in purchasing the T-shirts, hats and mugs!
- September 2004’s lottery has been drawn and checks cut for the winners.
- Recaptures reported during September have also been plentiful, though a count is not yet available.

Tagging:

- Tagging was undertaken by the Island Institute, DMR, CCCHFA and SMAST.

3. Program Update by Tagging Organization

3.1 Canada Department of Fisheries and Oceans (DFO)

- DFO has undertaken no new tagging in the past 2 months, but will resume activity in October.

3.2 Island Institute

- Sport fishing and handling in the inshore areas has been spotty, with the best days coming on trips that run farther off the Maine shore. New areas fished include Three Tree Ledge, Saco, The Peaks, Kennebunk, Seal Island, Vinalhaven, and off Monhegan. Small cod and dogfish were unwelcome catches on some trips. The areas off Monhegan and Vinalhaven were notable for producing most fish below the 14" limit of any area.
- Fishing will continue through October.

3.3 Maine Department of Marine Resources (DMR)

- DMR cod tagging has yielded 5,952 cod tagged in 2004 to date; the August and September contribution to that total is summarized in Table 2.
- Cod tagging in our more southwesterly tagging areas was suspended in early August due to warm surface temperatures.
- Only around 340 cod have been tagged from the Downeast tagging area this year. The cod have just not shown up in this area.
- We anticipate frequent tagging trips through mid-November throughout eastern and western areas.

Table 2: Tagging summary for the period of August and September, 2004.

Area	Vessel	Date(s)	Days	Number of:	
				Tagged	Recaps
Tanta, Scantum Basin, Jeffreys Ledge, Kettle, Wood Island, Hue n Cry, Pasture, Edge of the Bottom	FV Theresa & Allyson	July 29-31	3	257	4
The Corner, Larkin Ridge	FV Elizabeth	Aug 17-20	3	91	0
Schoodic Ridges	FV Joann & Holly	Aug 19	1	21	0
Jeffreys Ledge, Tanta, Platts Bank, Fippennies Ledge, Sigbee's	FV Titan	Aug 7-9	2.5	154	2
The Corner	FV Theresa & Allyson	Aug 30-Sept 3	4	190	1
The Corner	FV Titan	Sept 15-18	3	39	0
Sagadahoc Ridge, Platts Bank	FV Titan	Sept 21-22	1.5	132	1

3.4 School for Marine Science and Technology (SMAST)

- SMAST completed one trip in the month of July aboard the FV *Vila de Ihavo* hailing from the port of New Bedford. Limited success was achieved; 458 cod were tagged overall. It was anticipated that cod catches on Georges Bank in July would be low, but it was thought that it would be worthwhile to tag whatever fish could be found to determine their origin. It will be interesting to learn whether fish present on the bank in July are residents or migrants. Future recaptures should help tell the story.
- SMAST's search began north of Closed Area I (Western Georges Bank), but because of low catches there, it was decided to try moving steadily east along the northern edge of the bank; this decision proved to be fruitful. Decent numbers of fish were found to tag (25 to 46 fish per tow), approximately 8 miles east of the closed area. The next day, a few tows took place to the east, inside of Closed Area II. Surprisingly, catches dropped off considerably. In three tows, only 6 fish, 0 fish and 4 fish were caught respectively! FV *Vila de Ihavo* left there in a hurry and steamed westward, returning to where the fish had been more productive outside the closed area. Catches resumed to approximately 30 fish per tow. Satisfied with the numbers, this area was settled on for the remainder of this trip. Who would have thought that there would be more fish outside of the closed areas rather than inside?
- SMAST has spent the months of August and September re-grouping for their final four trips to close out the year. Trips are scheduled as follows: one in October with FV *Blue Seas*, two in November (FV *Northern Crusader* and FV *My Way*), and SMAST's final trip in December aboard the FV *Cowboy*.

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

- A slow but steady output of tag releases took place in August and September, mostly through non-dedicated tagging by longliners in the Chatham and Harwichport fleets. A few dedicated trips also took place with technicians on board deploying high reward tags.
- The benefits of the non-dedicated tagging is seen in the wide geographical dispersion of the effort, as the longliners spread out to a wide variety of summer and fall fishing grounds. This allowed for a good amount of tagging in the Great South Channel; fewer releases had occurred in this area until now and thus, this area has been considered a priority target area.
- In total, 3299 fish were tagged in August and September.