

# eMOLT

## Winter 2010 Update

### Today's Package includes...

In addition to this newsletter you should find a navigational chart denoting the locations of your eMOLT sites according to the database. If any of these sites are off by more than a half mile, please let me know (508-566-4080 or [james.manning@noaa.gov](mailto:james.manning@noaa.gov)). You should also find a letter requesting lobstermen to deploy acoustic receivers on your traps for recording the passage of various marine life (including lobsters) that now have pingers implanted.

### Temperature probes to be mailed to you

After the temperature probes are immersed in a ice-bath at the Woods Hole Oceanographic Institution's calibration facility sometime in March, they will be mailed out to all participants. If you do NOT get a probe before you go fishing in 2010, please let me know. Some of you already have one.

### Drifter plans for 2010

More than 100 drifter deployments will be made this year (Fig 1) to document flow patterns around the Gulf of Maine. To see the plans underway and follow there tracks throughout the year, visit: <http://www.nefsc.noaa.gov/drifter>. This website is constantly under development so we appreciate any feedback to make it easier to use.

Drifter Drops Funded and Tentatively Planned for Spring 2010

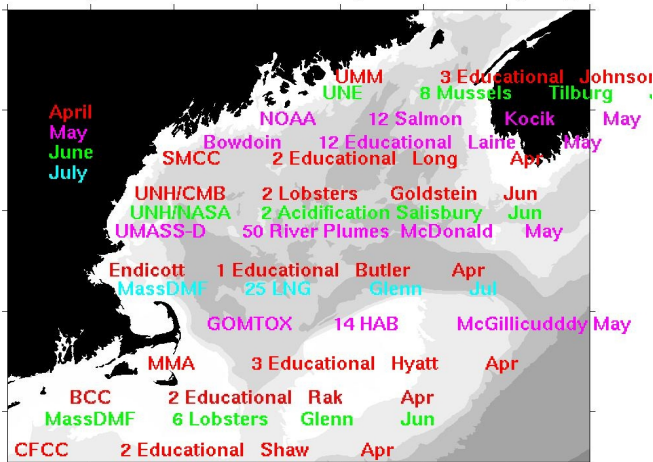


Figure 1 Approximate location, institution, #, purpose, principal investigator, and month of SMCC/eMOLT drifter deployments planned for 2010.

### Bottom currents to be measured

While the final report for eMOLT VI on bottom-currents has been submitted, the instrument developed during this phase is now being used by several other scientific institutions. We hope to deploy more ourselves in 2010.

### Proposals submitted

As noted in the last newsletter, we have proposed to extend the eMOLT operation in 2010 in a few different places.

1. We proposed to supplement the observations of the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS) which is an extension of the work conducted by GoMOOS.
2. We have also submitted a proposal to the Northeast Consortium to continue our observational network for purposes of validating ocean circulation models.
3. Finally, we are part of a proposal to NOAA's Environmental Literacy Grants. While this proposal focuses on the local processes around Cohasset Harbor south of Boston, it incorporates the eMOLT operations in a smaller scale and engages local citizen groups in addition to students and fishermen.

We are not sure if any of these will be accepted, but hope that at least one of them may come through to allow us to at least maintain existing efforts.

### More catch vs temperature analysis

In collaboration with the Gulf of Maine Lobster Foundation, we have continued to look at the catch data associated with the ventless trap project and its relationship to temperature. Those of you who are involved with this should be receiving more plots of catch vs temperature in the next eMOLT mailing.

### tMOLT: listening for marine life

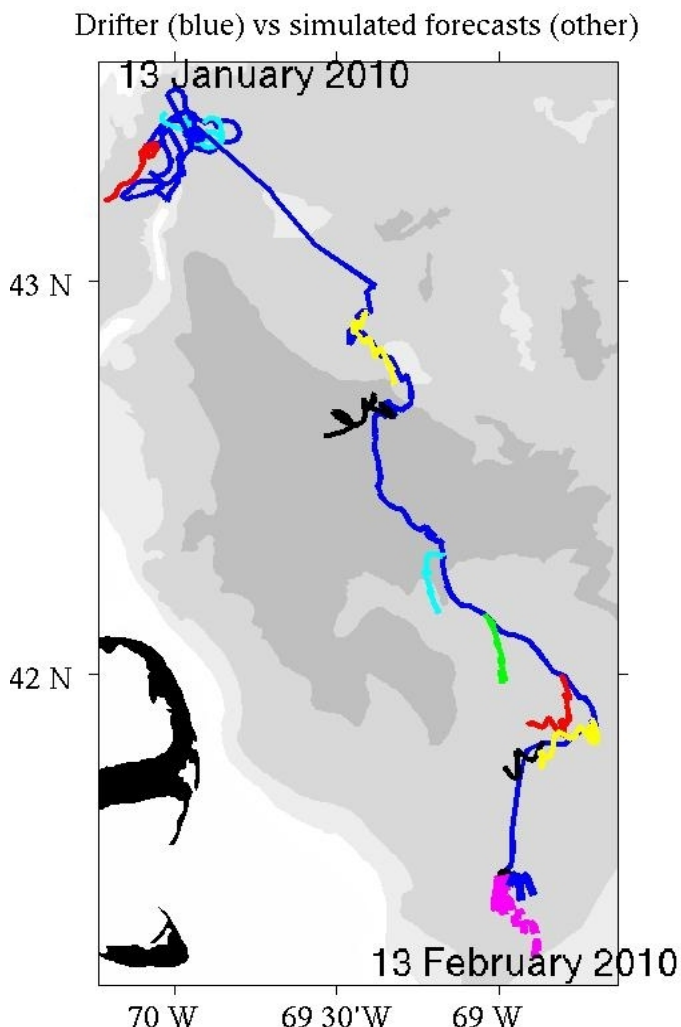
eMOLT participants are encourage to participate in tMOLT, a project by NOAA's salmon researchers at the Orono field station. There is a growing movement to monitor the migration patterns of marine life by securing small pingers on the animals and then listening for them throughout the ecosystem. See the letter enclosed with this newsletter for more info if you are interested in securing one of these listening devices on your trap.

## Grant Emde, an eMOLT intern

Thanks to a grant from the Veteran's Administration we are fortunate to have help from Grant Emde, a recent graduate of UMASS Boston's Earth, Environmental, and Ocean Sciences Department. He will be working on day-to-day eMOLT chores, and helping in the analysis of catch vs temperature mentioned above for the next few months.

## eMOLT at the Maine Fishermen's Forum

While there will not be the usual hour-long eMOLT seminar (you've heard it all before), I will certainly be present at the forum and love to talk with participants whenever they have a spare moment. I will be "manning" the NERACOOS booth for most of Friday and Saturday so you can catch me there but I often hang out in the Samoset lobby before breakfast if you have time then. I'll be headed home Saturday afternoon.



**Illustration 1: Example of our attempts to forecast drifter tracks from publicly-available circulation model output. The blue traces the path of our drifter and the other lines are the result of forecasts depicting significant deviations in some cases and the need to further refine our models.**

## Loran to Lat/Lon Conversion trouble

We are in the process of writing a report on the trouble we have had with various conversion programs. It appears that the conversion from lorans to lat/lon (and vice versa) is not straightforward and, depending on what routine you use, you get slightly different results. This is important to us as we attempt to accurately document the lat/lon locations of eMOLT sites. Many participants initially supplied loran-tds when they documented their site. I converted them to lat/lons with the program I had available to me but, after trying a few other programs, I can't tell which program is the most accurate. Stay tuned for more on this topic in future newsletters.

## Collaboration with Coast Guard

Working with SMCC and UMASS-D, we provided the USCG with one of our drifters which they deployed off of Cape Elizabeth in mid-January 2010 (see Fig 2). This was part of the USCG Search and Rescue Training Operations where they practice some of their routines following drifting objects over the course of several days. Since we have similar interests for scientific reason (such as following patches of toxic algae), we are trying to combine our efforts in this endeavor. Animation of these forecasts vs observed tracks are linked from the drifter website but may be found directly is at, for example:

[http://www.nefsc.noaa.gov/drifter/fvcom\\_sarops.html](http://www.nefsc.noaa.gov/drifter/fvcom_sarops.html)

## Please Report Red Water

Colleagues that study harmful algal blooms are requesting all Gulf of Maine mariners to report any incidents of "red water". You may email [bkeaffer@whoi.edu](mailto:bkeaffer@whoi.edu) with the position, time, and approximate size of any patch observed.

## Rhode Island Lobsterman Association's

Mike Marachetti recorded his warmest summer yet since he started taking observations in 2004 on the Southern New England Shelf (Figure 3)

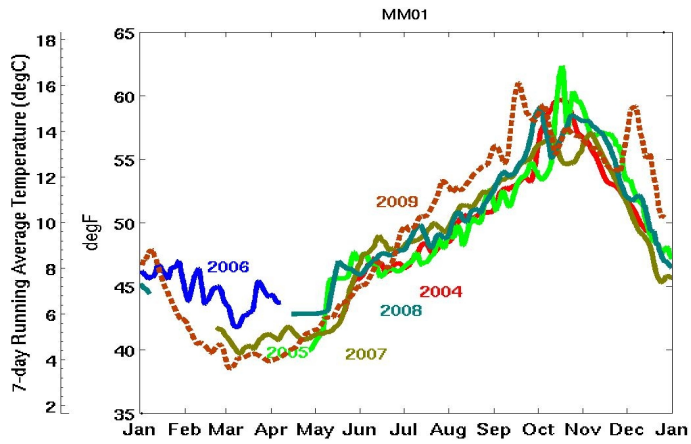


Illustration 2: Mike Marachetti's bottom-temperature records from 24 fathoms.