

# LOBSTER SEA SAMPLING PROGRAM

Maine Department of Marine Resources



PO Box 8  
194 McKown Point Rd  
West Boothbay, Maine 04575  
Telephone 207-633-9500  
Fax 207-633-9579

## *Monitoring the Health of the Maine Lobster Fishery*



## WHAT IS LOBSTER SEA SAMPLING?

The DMR sea sampling program places trained observers onto commercial lobster boats for a day of biological data collection. Compiling this data over time enables the DMR to see spatial, temporal and biological trends in the near shore lobster fishery. The Lobster Sea Sampling program has four main objectives:

1. Collect catch & fishing effort information on the Maine lobster fishery to inform lobster stock assessments.
2. Characterize discarded (v-notched, egg-bearing, or sublegal) lobsters.
3. Maintain a positive relationship with the fishing industry by direct interaction.
4. Improve industry participation in the lobster stock assessment process.

## WHAT TO EXPECT WITH A SAMPLER ONBOARD

Over the past thirty years of the sea sampling program, the DMR has compiled a list of lobstermen who voluntarily take sea samplers out. Sea samplers will schedule trips by contacting volunteer lobstermen that will be actively fishing the following day or week.



The lobsterman does not need to supply anything for the sampler. A sea sampler carries individual insurance by the State and brings aboard all that he/she will need: a survival suit, a tote, a lunch and all measuring and recording equipment. While aboard the sampler and lobsterman determine the most efficient and least intrusive way to sample.

## WHAT DATA IS COLLECTED?

The sea sampler will ask for general trip and gear information. The sampler will establish with the lobstermen whether they can take latitude/longitude coordinates and depth information throughout the day.

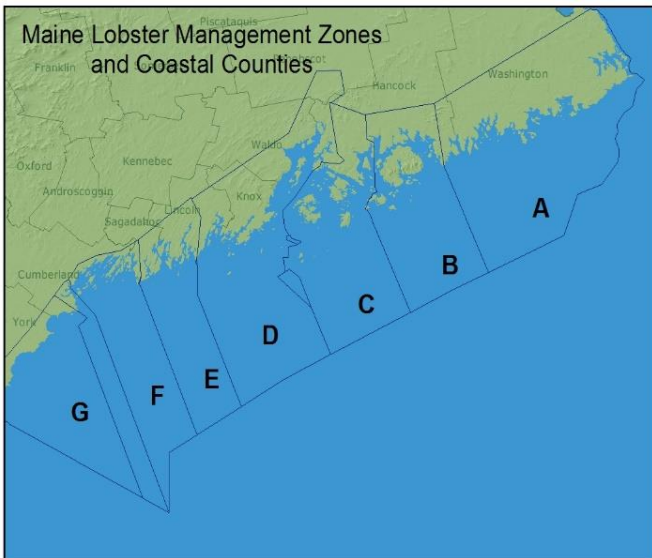


For every trap that comes aboard the sampler measures specific biological parameters including carapace length, sex, cull status, v-notch condition (if present), egg development stage, molt status, and presence of shell disease. They will also measure and record any finfish bycatch

caught. This is all done with a voice recorder so that samplers' hands are free to move quickly through the lobsters.

On a typical day during the season a sampler can measure over 2000 lobsters. If, during the course of the day, the sampler becomes overwhelmed and lobsters begin to stack up, the sampler can choose to

modify the measuring until he/she has caught up. This is done so that the lobsterman's normal routine and pace are not inhibited because of the sea sampler.



In order to capture inshore vs. offshore lobster population dynamics, as well as spatial and temporal trends, each month samplers specifically target trips by port, zone, and distance from shore.

**If you are interested in taking out a sampler and becoming a listed volunteer, please call:**

**Kristyn Kleman (207) 350-7350  
Kathleen Reardon (207) 350-7440**

### HOW IS THE DATA USED?

*The information collected on trips is confidential. If the data is presented publicly, the rule of three must apply; at least three boats included in any analysis from the same fishing areas.*

The purpose of collecting this data is to monitor the health of the fishery. It is used to report on the state of the fishery to management agencies and back to lobstermen. Sea sampling data is the only way the DMR can:

- Document catch information on sublegal and illegal lobsters.
- Document significant resource issues such as v-notching activity, presence of berried females, and shell disease.

The data is an important source of fishery dependent data in lobster stock assessments.

## HOW IS THE DATA PRESENTED TO THE PUBLIC?



Comparing the data over space and time documents trends in the fishery. Data is presented either by zone, by month, or by ten-minute square. DMR presents the data in the following forms:

**CPUE** – Catch per unit effort represents the average catch rates of legals, illegals sublegals, v-notched and berried females. CPUE values allow DMR to create indices for annual relative comparisons.

**Length Frequency**– Carapace length measurements allow the DMR to monitor the change in size distributions for different categories of lobster over space and time.

**V-notch Lobster** – Sea sampling is the only way to track the relevance of this conservation strategy. V-notched females and v-notching activity are the cornerstone in the Area 1 management plan. It is the sole mechanism for increasing egg production in the inshore lobster resource along the coast.



**Berried Lobster** – Eggers are the broodstock of the lobster resource and play a key role in the future for the Gulf of Maine fishery. Using the information collected on berried females, we can document timing of extrusion of new eggs and hatching each year by location and depth.

## Questions or Inquiries?

**(207) 350-7350**

[Kristyn.Kleman@maine.gov](mailto:Kristyn.Kleman@maine.gov)