Designing a Sublegal Lobster Sampling Trap
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Since the beginning of the summer we have had two hauls for data collection as well as several hauls of individual traps evaluating their design. . The first haul showed a problem in the sample trap design allowing easy entry by crabs, which inhibit lobsters from entering the traps. Because of this several traps had the entry points modified to exclude crabs from the traps as well as the legal size lobster. After several entry designs were tested three sample traps were selected with a ventless, trap as a control, for the second haul. During the next haul the sample traps contained sublegal size lobsters and crabs, and no legal sized lobster, which is one goal of the project. Video observations revealed that crabs can enter a very small opening in any orientation.

One trap had a square opening, the same size as the mesh on legal traps, for the lobsters to enter. This trap caught no lobsters and will not be used again. It will be replaced by a trap with an opening similar, but smaller, to that of the other sampling traps. Measurements of lobsters in the ventless trap indicate that these lobsters are larger (24mm on average) than those of the smaller sampling trap. The ventless trap appears to catch lobsters that will molt into legal size in the next year. Lobsters caught in the sampling small mesh trap are several years from recruiting to the fishery.

In the up coming months there will be two more hauls for data. This data will be used in a statistical analysis that will help decide which of the sample trap designs is the most efficient. During this time we will also be working on different methods of excluding crabs from the traps.

The goal of this project is to develop a standard sublegal sampling trap and standard protocol and distribution. Traps will be hauled on specific days of the year at the same location each time. This would help provide information on fluctuation of upcoming populations from year to year. This should be a useful predictive index.