CFRF Lobster & Jonah Crab Research Fleet – Lobster Sampling Protocol

General Description:

- Project is focused on fishery dependent data, including the following major areas:
  - Electronic recording and transmission of data
  - Retained catch and discard characterization
  - Ventless trap data collection
  - Data management
  - Ongoing communication among all participants
- Data will be collected at sea, stored in tablet devices, and relayed to a central database (at CFRF) via wireless internet once a fishing vessel returns to shore and has access to the internet
- In addition to tablets, members of the lobster research fleet will pilot use of electronic calipers for length measurements
- Data collection will be focused on biological characterization (carapace length, sex, eggs, shell disease, shell hardness, disposition) of all lobsters hauled in commercial and ventless traps

Sample Size, Minimums & Maximums:

- The goal for each vessel is to conduct at-sea sampling during three trips per month
- If the crew cannot sample during three separate trips per month, the vessel may sample twice during one multi-day trip
- While processing a trawl, the crew may cease data collection after 100 lobsters or 20 traps are sampled
- If 100 lobsters are not sampled during a trawl composed of less than 20 traps, the crew will continue to sample until 20 traps have been sampled
- Each vessel will sample a minimum of 300 lobsters or 60 traps per month to receive the $425 per month stipend
- Target sample sizes (300 lobsters, 60 traps) are recommended, but additional sampling is allowable, should the fishermen opt to do so

Sampling Locations:

- Random trawl selection will encourage sampling throughout each vessel's target area
- Fishermen enter the number of trawls that will be hauled in a day and how many trawls they intend to sample into the *Trawl Selector* in On-Deck Data
  - Offshore vessels will typically sample one trawl, and, thus will enter '1'
  - Inshore vessels will typically sample 2 trawls, and, thus will enter '2'
- On-Deck Data will randomly choose which trawl(s) to sample

Ventless Traps:

- Each vessel will be given three ventless traps to use during the course of this project
- One ventless trap will be deployed at a fixed temperature monitoring station, and the others will be deployed as the lobstermen see fit, provided that all data is reported to the CFRF database
- Ventless trap sampling will not be associated with commercial trap sampling, and thus will be recorded in a different data stream

Lobster Sampling Session Data Parameters:

- Date/Time (automatically recorded)
- Location (automatically recorded)
- Soak Time (Days)
- Trawl Depth (Feet or Fathom)
- Statistical Area

Lobster Biological Data Parameters:

- Carapace Length (mm)
- Sex (Male/Female/Unknown)
- Eggs (Yes/No), and egg stage (1-4)
- V-notch (Yes/No)
- Shell disease (None, Mild, Moderate, Severe)
- Shell hardness (Hard/Paper/Jelly)
- Disposition (Kept/Discarded)