Project Update:
Empowering fishermen to collect essential data;
Piloting the Research Fleet approach in the Atlantic sea scallop fishery

RSA Share Day: May 10h 2023

Katie Viducic, CFRF Research Biologist
N. David Bethoney, CFRF Executive Director

CFRF COMMERCIAL FISHERIES RESEARCH FOUNDATION

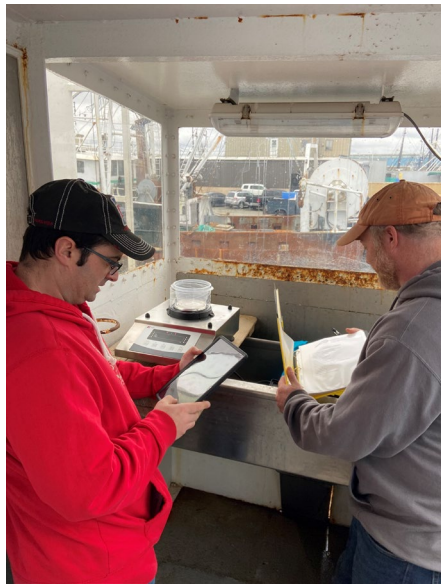
Project Goal

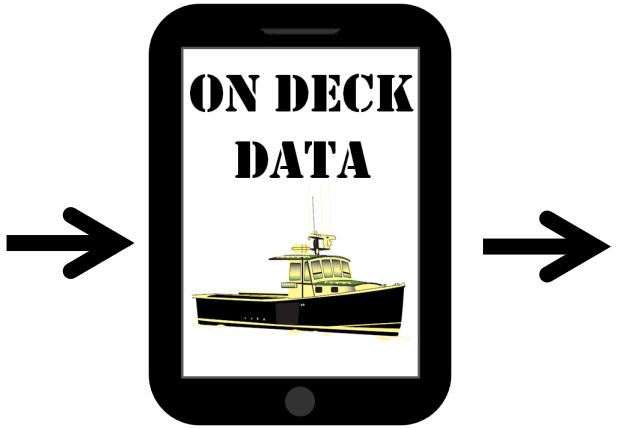
Assess the potential of the research fleet approach to increase biological data collection in the Atlantic sea scallop (*Placopecten magellanicus*) fishery

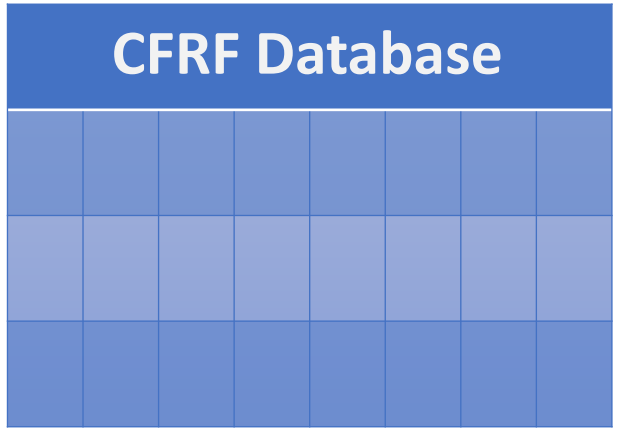
Priority #3 "*Scallop Biology: Research on scallop biology, including studies aimed at understanding recruitment processes…*".

Our Model of the Research Fleet

- Steering Committee: scientist, managers, and industry
- On Deck Data: Tailored tablet application
- Industry collected data to fill data gaps in management

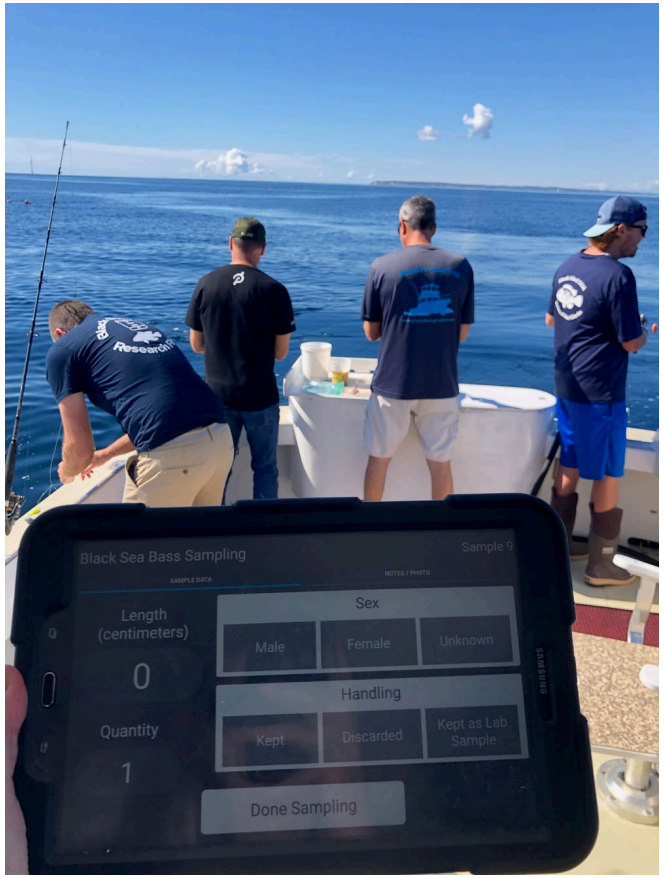






Examples of Our Research Fleets

- Lobster and Jonah Crab Fleet
  - 31 Vessels sampling > 204,000 lobsters & > 107,000 crabs since 2013
- Shelf Research Fleet
  - 6 Vessels Sampling- Bi-Weekly oceanographic profiles since 2014
- Black Sea Bass Research Fleet
  - 20 Vessels sampling > 53,000 fish sampled since 2016
- Whelk Research Fleet
  - 7 Vessels Sampling > 4,000 whelk since 2022



Project Plan

1) Develop a Research Fleet Steering Committee
2) Recruit a Research Fleet
3) Develop Sampling Protocols
4) Modify CFRF's On Deck Data application for scallop data collection
5) Collect fishery-dependent biological data from LA and LAGC vessels
6) Evaluate the data collection methods for practicality and accuracy
7) Outreach and education activities to share findings.

Project Members

Steering Committee

- Jessica Blaylock-NEFOP
- Deborah Hart- NEFSC
- Carl Huntsberger – ME DMR
- David Rudders- VIMS
- Kevin Stokesbury- SMAST

Participating Fleet Members

- Chris Roebuck- LA- Point Judith, RI
- Rui Branco- LA- New Bedford, MA
- Vince Balzano- LAGC- Portland, ME
- Damian Parkington-LAGC-Provincetown, MA
- Jesse Rose- LAGC-Harwich Port, MA
- Beau Gribbin-LAGC-Provincetown, MA

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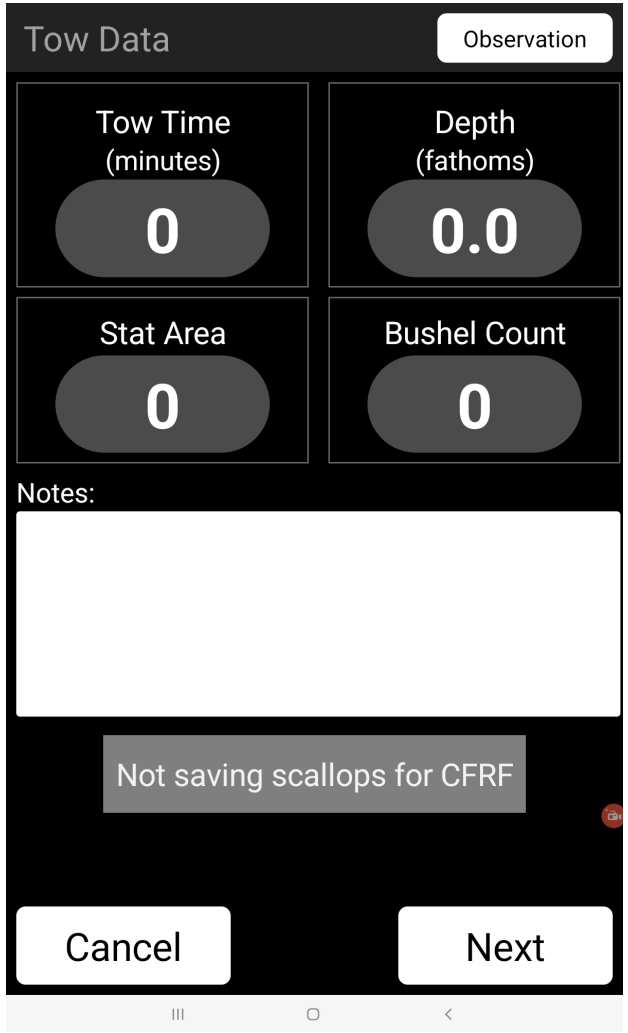
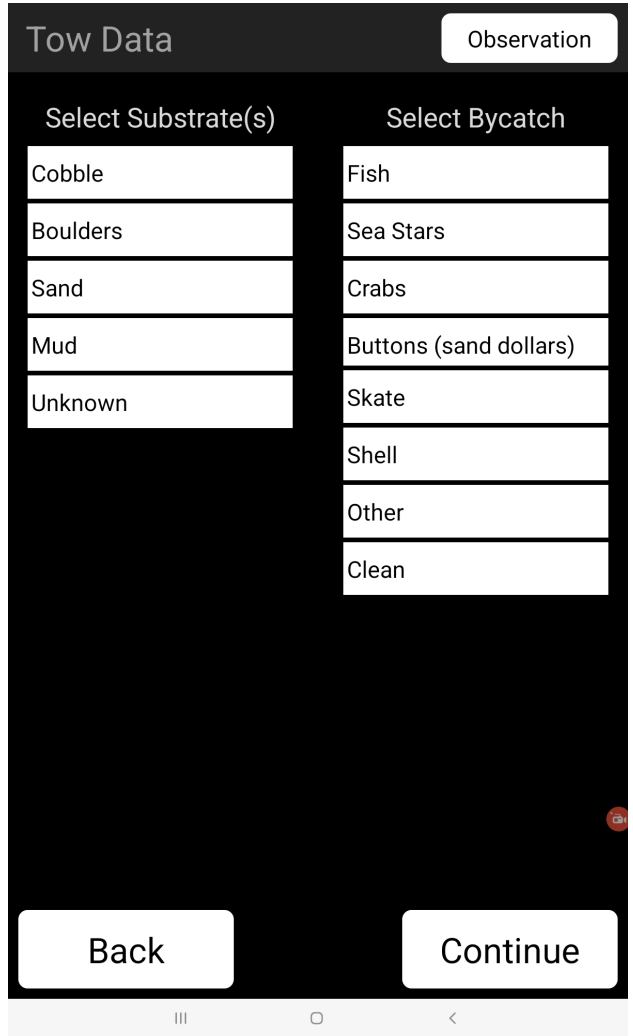
On Deck Data



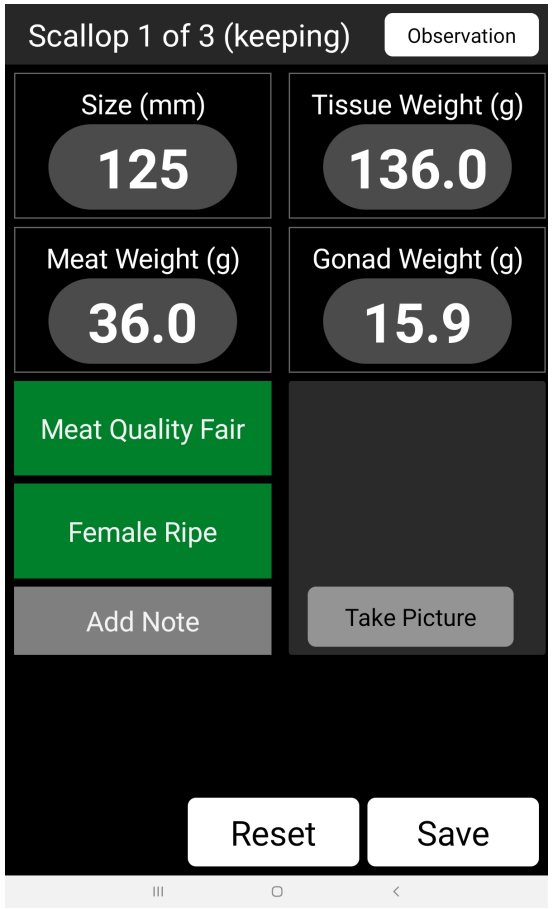
Tow Data

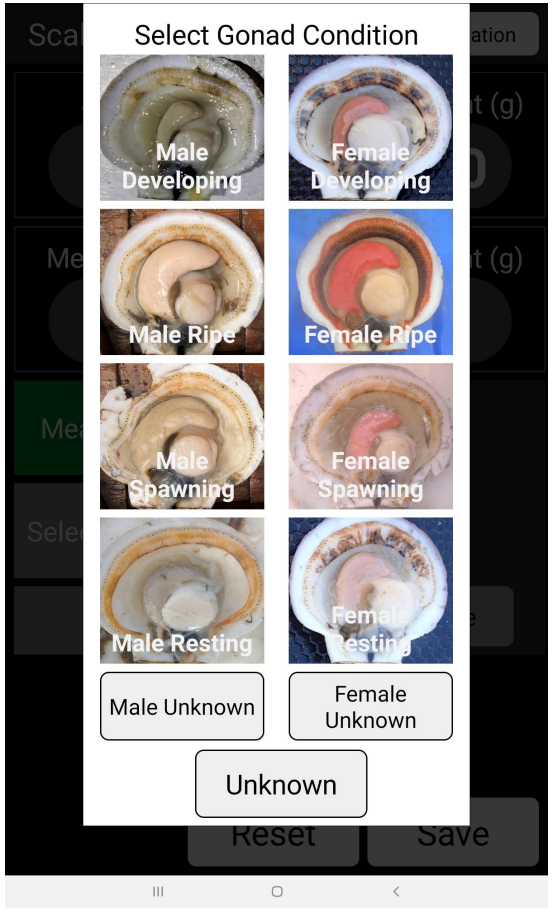
- Location
- Date/Time
- Tow Time
- Depth
- Stat Area
- Bushel Count
- Substrate
- Bycatch
- Additional Observations

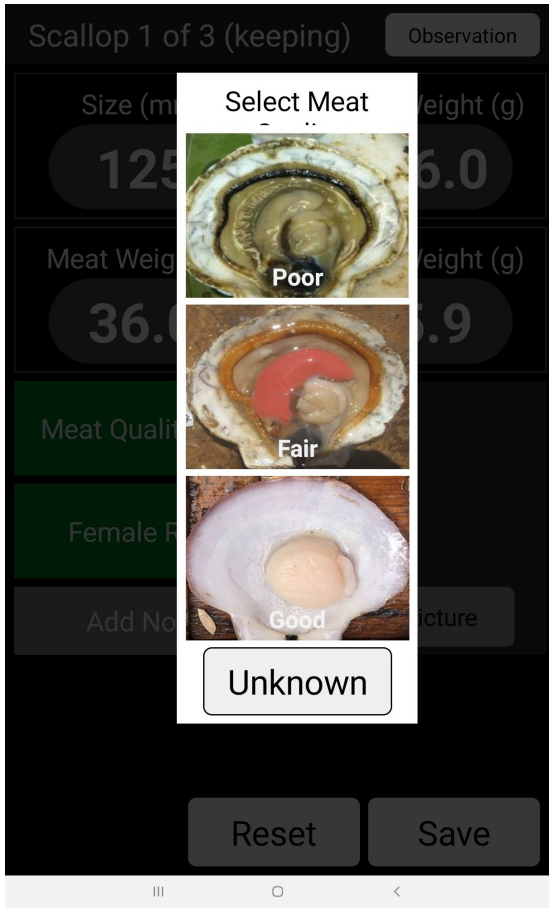


On Deck Data

- Shell Height
- Tissue Weight
- Meat Weight
- Gonad Weight
- Gonad Condition
- Meat Quality
- Standardized Photos
- Additional Observations
  (Presence of parasites)







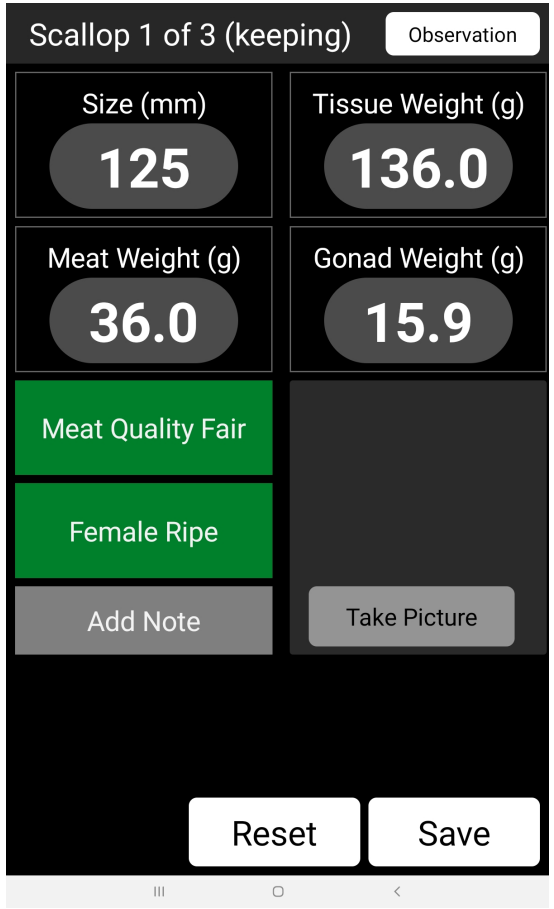
Initial Sampling Plan

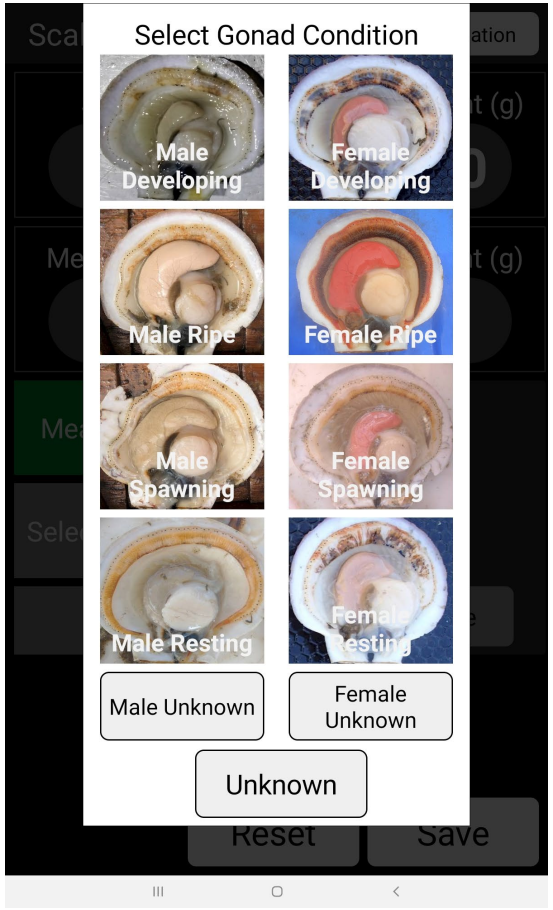
Using the customized On Deck Data app

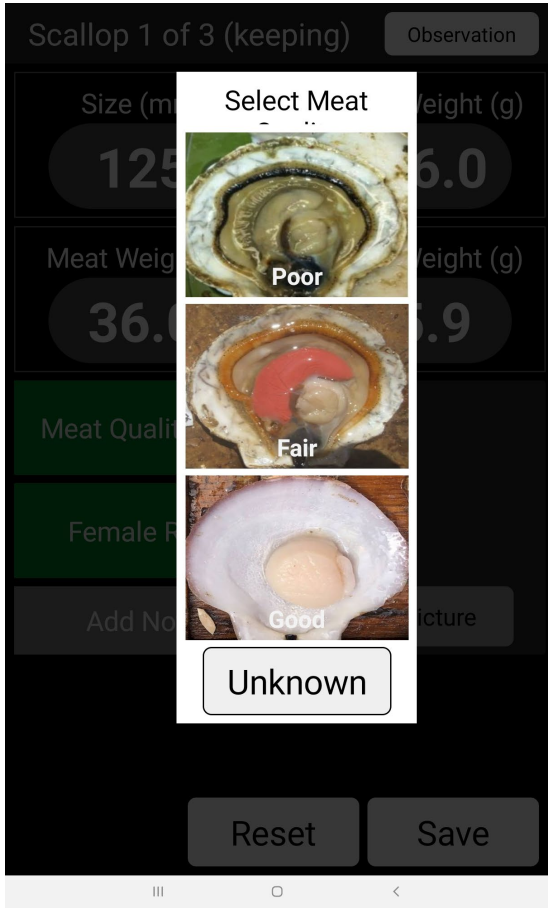
- Collect Individual biological data for:
  - 30 Scallops/Month- LAGC
  - 90 Scallops/Trip- LA
- Modify the sampling protocol

Biological Data

- Shell Height
- Tissue Weight
- Meat Weight
- Gonad Weight
- Gonad Condition
- Meat Quality
- Standardized Photos
- Additional Observations







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Preliminary Results

Fleet Interviews

1. Was the sampling workload reasonable? How much time did it take?

2. Did the scales work on you boat? Did you feel like the weights from the scale were correct?

3. How user friendly was the App/Data entry?

4. Should we change the way data is collected?

Preliminary Results

Fleet Interviews

5. If the fleet decides to continue what is fair compensation?

6. Is there any other information you see as valuable that we're not collecting?

7. Do you have any overall thoughts on the project/Other comments

Next Steps

Awarded funding to continue to establish the Research Fleet approach

2023/2024 Sea Scallop Research Set-Aside Program

Project Goal: Develop image-based sampling methods to collect biological data on individual scallops


Thank you!
Questions?
CFRF