

SEA SCALLOP GROWTH AND REPRODUCTION RESEARCH TO SUPPORT IMPROVED RESOURCE MANAGEMENT



SUMMARY

The Cape Cod Commercial Fishermen's Alliance, in collaboration with Coonamessett Farm Foundation and Cape Cod Limited Access General Category (LAGC) scallop fishermen, are utilizing FY22 research set aside (RSA) quota to contribute to the body of knowledge needed to improve sea scallop stock assessment for the Georges Bank Stock Area and ensure sustainable management of this fishery in the face of changing oceanographic conditions. Fishermen bring 25 live scallops to the dock weekly, where they are processed in the lab to collect gonad stage and morphometric data, including shell size, wet and dried weights for meat, gonads, viscera and shells.

Incorporating precise and accurate reproductive aspects during stock assessment processes is very important for the long-term sustainability of a fishery. The current scallop stock assessment depends on estimates of reproductive potential associated with meat weight, which makes it unsuitable for an accurate stock assessment for the species. Therefore, the project will inform basic life history and morphometric parameters (e.g., timing of spawning, morphometric: soft tissue ratios), and will provide thoroughly documented conversion factors between wet and dry weights for different scallop tissues. As a methods development pilot, project results will provide guidance for future program expansion across the regions. In addition, this project will aim to empower LAGC fishermen to participate in the scientific process and continue to build trust between the LAGC fishing industry and the NEFSC.

GOALS

1. Identify spawning seasonality through examination of gonads,
2. Explore the seasonality of relationships between scallop morphometrics and soft tissue weights,
3. Develop a conversion factor to allow comparisons between wet weights (typically collected in the federal survey) and dry weights (a standardized value that requires more time and effort to obtain and is not practical at sea).
4. Pilot an affordable industry-supported biological sampling program that could be expanded more broadly in the scallop fishery as well as transferred to other fisheries to support applied science and management with finer scale temporal data than are available through traditional sampling means. Work closely with NEFSC to ensure resulting data is useful to management.

PROJECT TEAM

Cape Cod Commercial Fishermen's Alliance

Melissa Sanderson

Coonamessett Farm Foundation

Farrell Davis and Luisa Garcia

Twenty Two Limited Access General Category Scallop Vessels

SCHEDULE

- Feb - April 2022: Recruitment and training for fishermen participants
- April 2022 - Jan 2024: Field work, data collection for 100 samples per month, ongoing QA/QC and initial analysis
- Jan - March 2024: Final analysis and reporting

RESULTS

[Preliminary year one results presented at the May 2023 RSA Share Day](#)

MEDIA

[The Circle of Research & Scallops](#)

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