

Commercial Fisheries Research Foundation

2026 RSA Share Day
East Falmouth– May 12th, 2026

Operationalizing ScallApp: A Tool to Engage the Fishing Industry in Tracking Scallop Health and Reproduction

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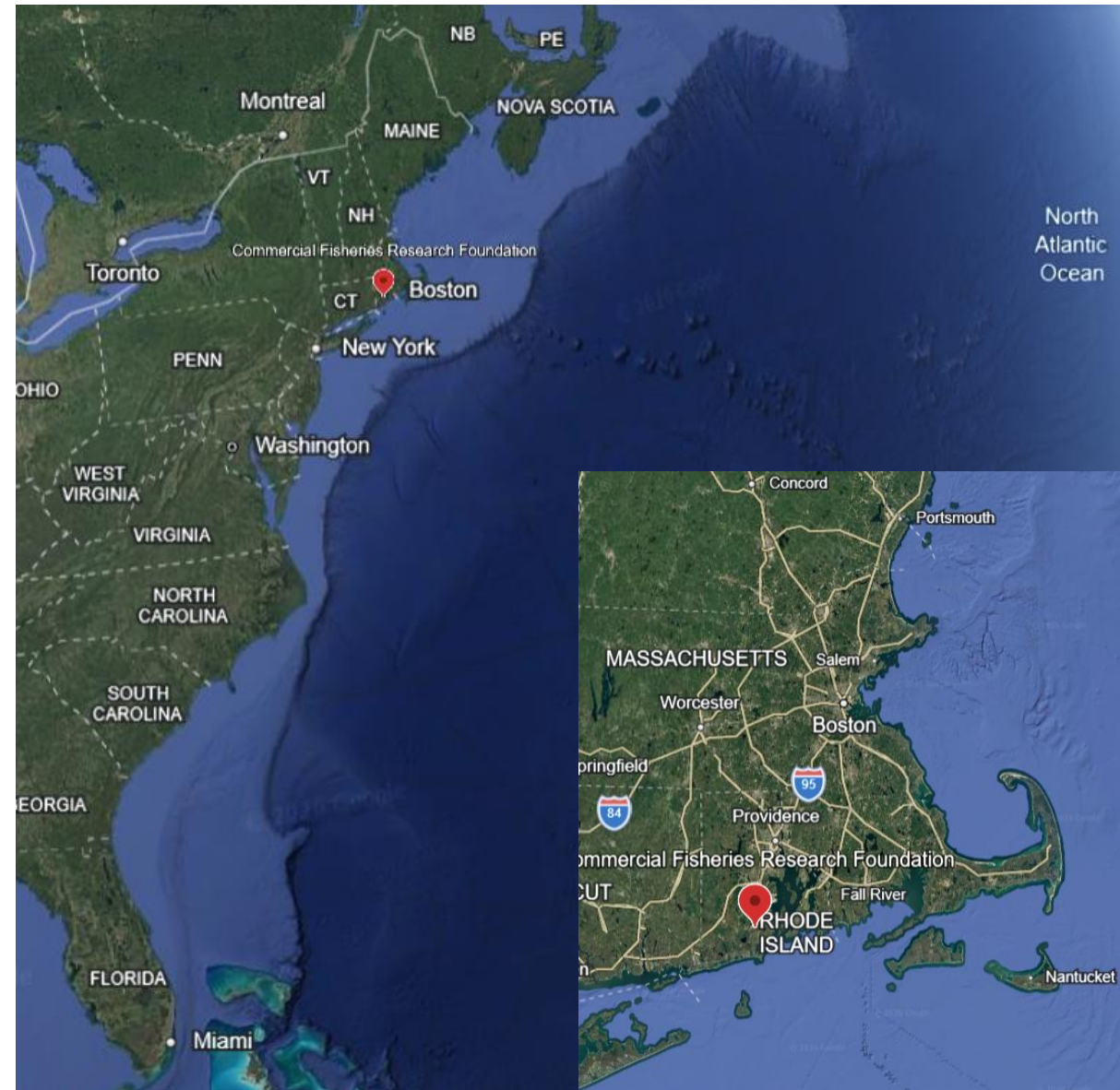
Commercial Fisheries Research Foundation

A non-profit, private foundation established by commercial fishermen to conduct collaborative research and education activities that promote sustainable fisheries





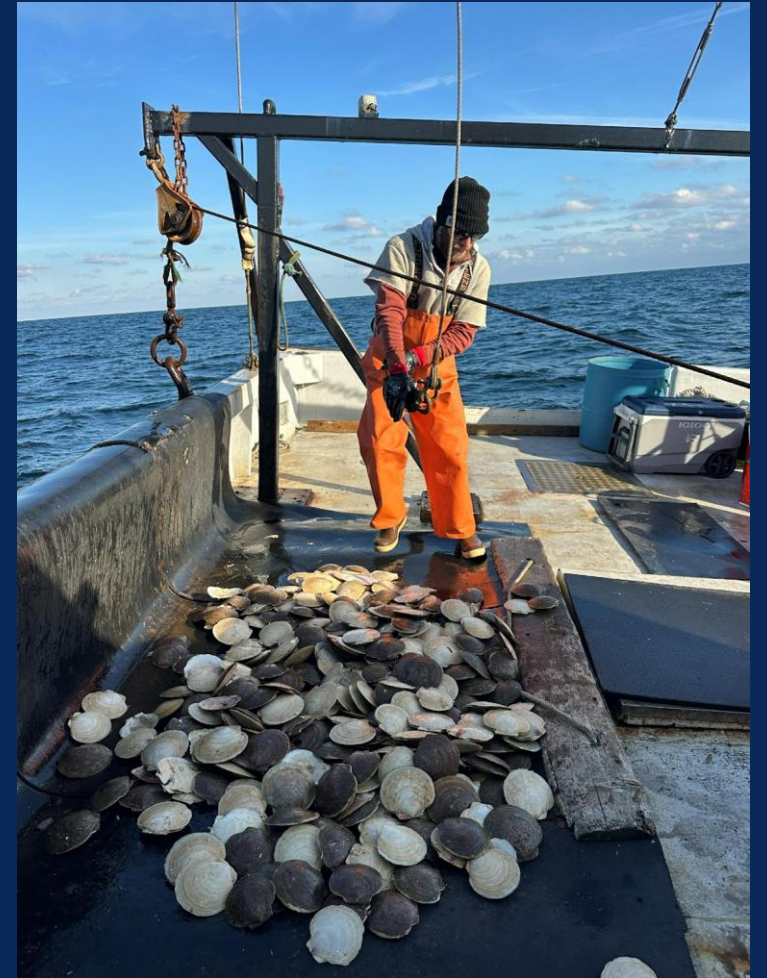
Commercial Fisheries Research Foundation





Current scallop fishing partners

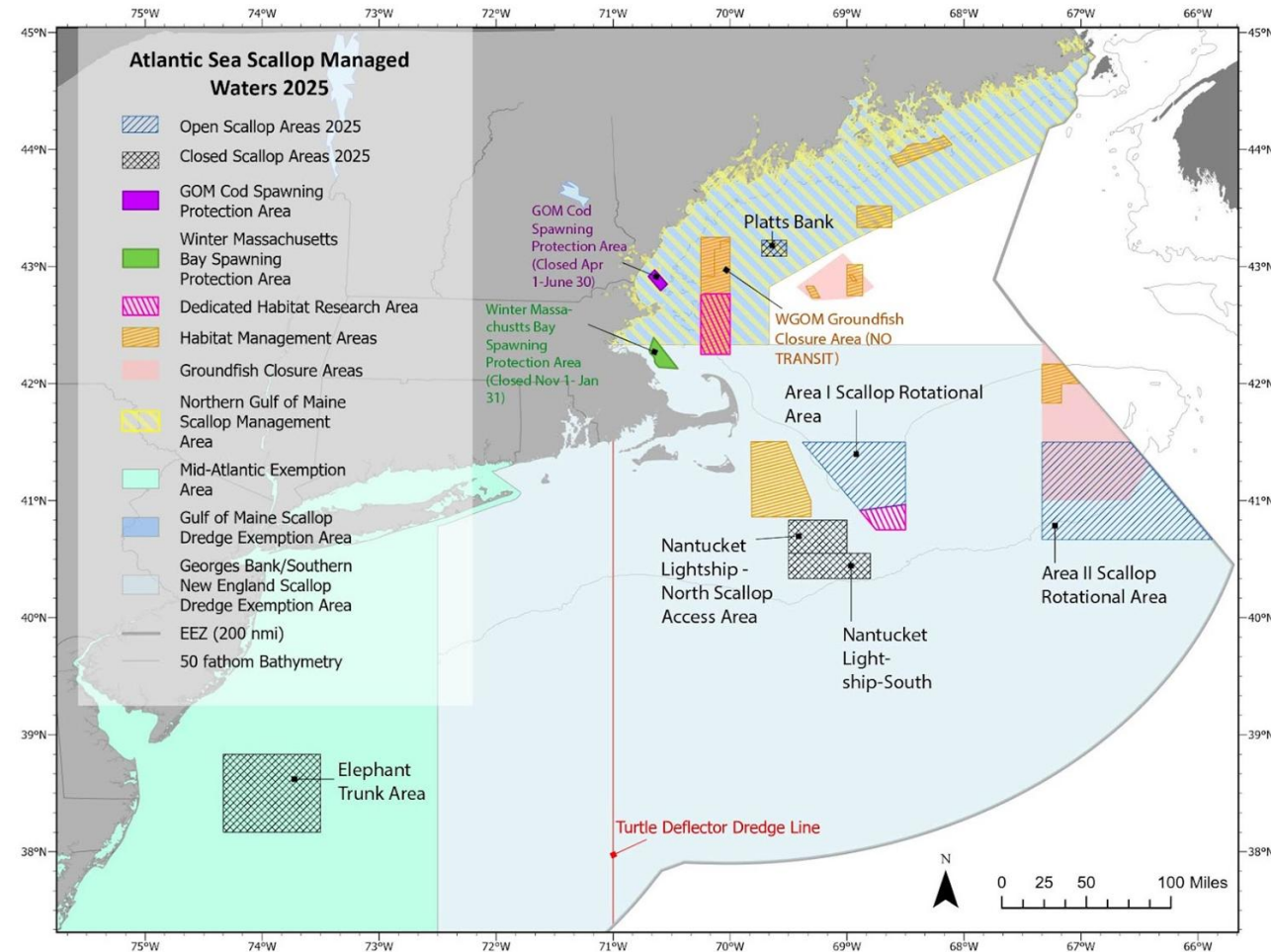
F/V Midnight Our	F/V Vengeance
F/V Providence	F/V Mckensie Lee
F/V Georges Bank	F/V Resilient
F/V Mister G	F/V Brooke C
F/V Kathy Ann	F/V Susan L
F/V Chandler Rae	F/V Sea Star
F/V Atlantic Traveler	F/V Grace
F/V Seel Jr.	F/V Regulus
F/V Harvest Moon	F/V Helltown
F/V Tricia Lynn	F/V Redemption
F/V Motivation	F/V Patriarch
F/V Negotiator	F/V Karen Elizabeth





Atlantic Sea Scallop management

- Atlantic Sea Scallop managed by the New England Fisheries Management Council
- 2nd most lucrative fishery in the USA (NOAA, 2025)
- Research Set-Aside (RSA) – Quota awarded for researchers to conduct cooperative research





Need for more data

Current data collection methods for management:

- **Fishery independent surveys** – generally occur within a 3-month timespan gap in data collection
- **Observer program** does not provide data on individual scallops

Some areas historically under-sampled - Northern Gulf of Maine (NGOM)





Phase 1: ScallApp creation

Developed by the Northeast Fisheries Science Center (NEFSC) cooperative research & Commercial Fisheries Research Foundation

“Engaging the Fishing Community to Understand Disease and Reproductive Dynamics of Atlantic Sea Scallop”

NEFSC Team:

- Anna Mercer (PI)
- Dvora Hart
- Jessica Blaylock
- George Maynard
- Giovanni Gianesin
- Jacob Wilson
- Emma Fowler

Beta-testers:

- Zachery Bennet
- Rui Branco
- Mike Cox
- Corey Karch
- Brady Lybarger
- Jesse Lybarger
- Shawn Machie
- Mike Marchetti
- Jake Wiscott
- Chris Wright Jr.





Phase 1: goals

1. Develop protocols and equip scallopers with a custom built smartphone app to easily collect biological scallop data at-sea
2. Engage fishermen in collaborative research methods, increasing knowledge and resilience within the fishing community
3. Increase fishery dependent data collection within the Atlantic sea scallop





ScallApp sampling



AT&T Wi-Fi 2:26 PM

Sampling: Gonad

Select one gonad stage that best describes your overall catch for this tow

Developing

Ripe

Back Continue

AT&T Wi-Fi 2:26 PM

Sampling: Diseases

Select Diseases Observed

Gray Meats

Nematodes

Shell Blister

Back Continue

AT&T Wi-Fi 2:26 PM

View Data (1 of 1)

Step through sampling session data

Session ID
119-1695761402372

Lat/Long
42:23.22375 / -71:5.03282

When Started
Tue, Sep 26 2023 at 21:50 GMT+1

When Finished
Tue, Sep 26 2023 at 21:50 GMT+1

eVTR
<none>

Gonad Stage

< Prev Done Next >

AT&T Wi-Fi 2:25 PM

Upload Data

All set to upload your data.
Tap 'Start Upload' to begin.

Start Upload

Cancel

Interactive Distribution Map- Phase 1

ScallApp Data Viewer

Select Data to View

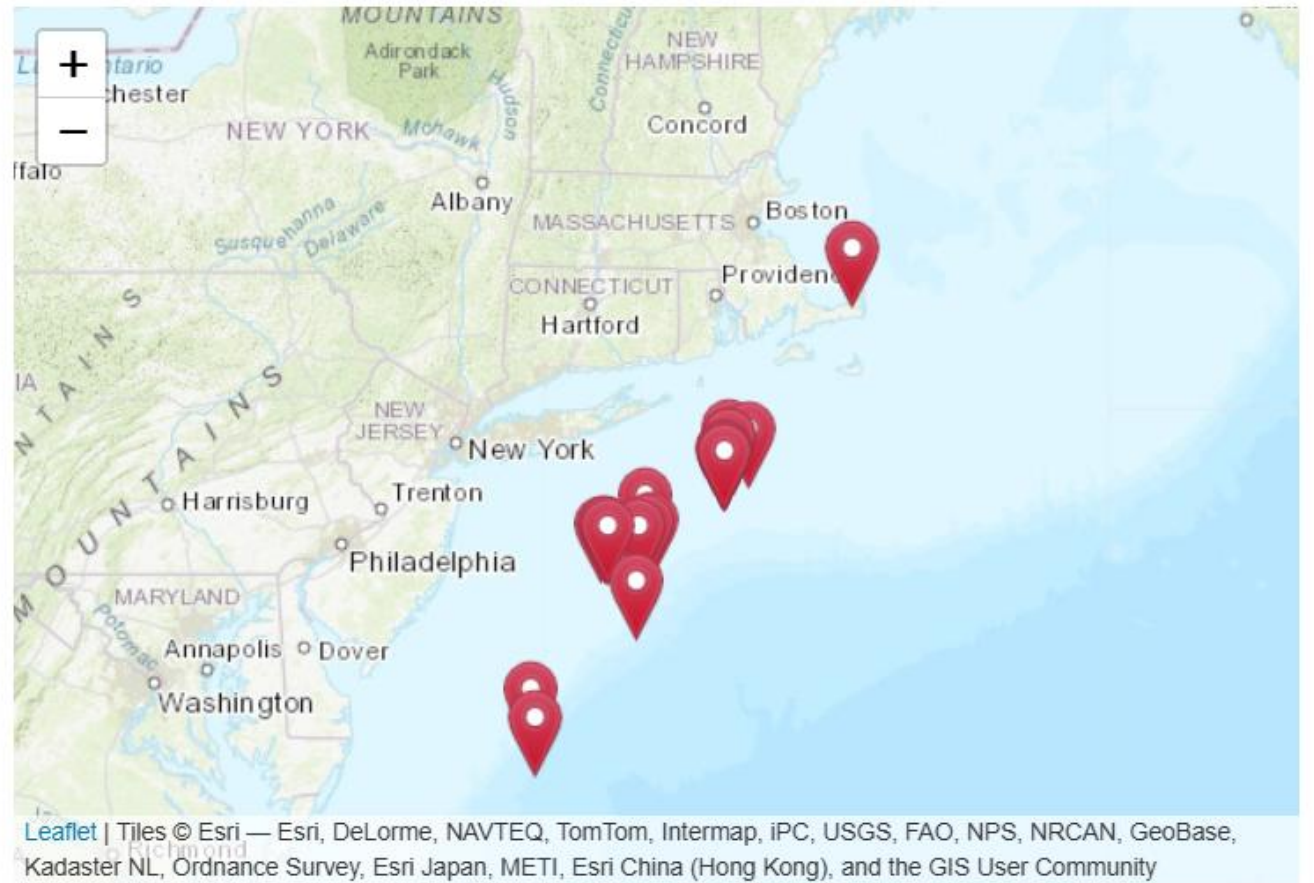
Shell Blisters ▼

Start Date

2025-01-01

End Date

2025-12-31



Phase 2: goals

- Add meat quality
- Refine verification process
- Open use: Security and monitoring
- Develop compensation or incentive structure





ScalApp sampling: phase 2



Sampling: eVTR i


Enter eVTR Number

Cancel Continue


Sampling: Gonad i

Select one gonad stage that best describes your overall catch for this tow


Developing i



Ripe i



Spent i




Back Continue


Sampling: Meat Quality i

Select one meat quality that best describes your overall catch for this tow


Good i



Fair i



Poor i




Back Continue

Sampling: Diseases i


Select Diseases Observed

Gray Meats i




Take Photo

Nematodes i



Shell Blister i



Back Continue

Sampling: Other i

Please add any optional comments and photo, then tap 'Finish' to complete this session.

Add Comments

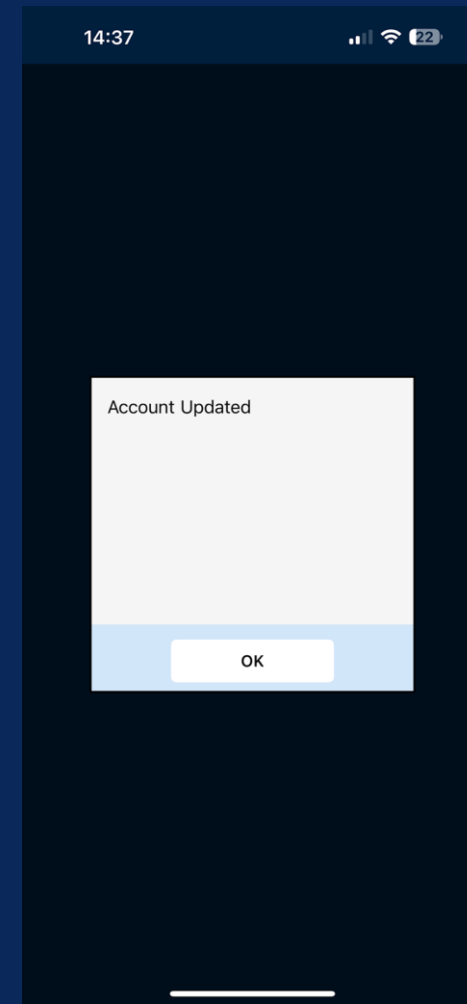
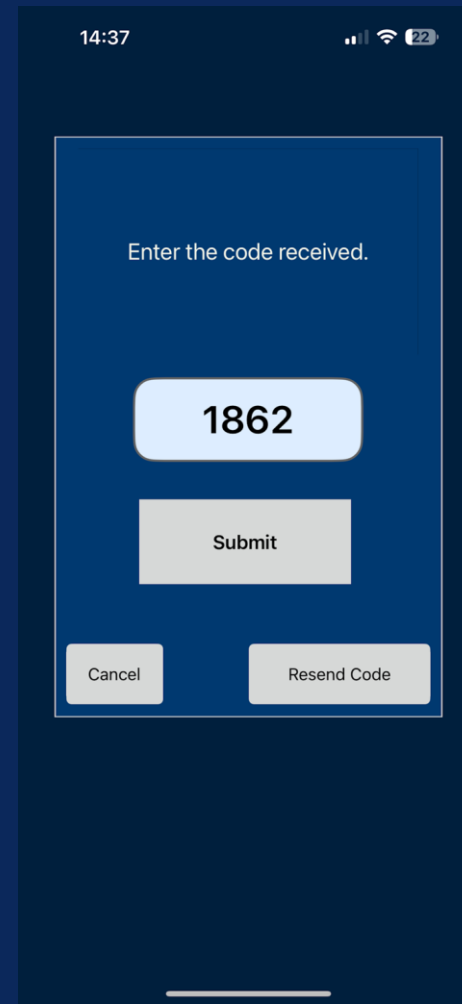
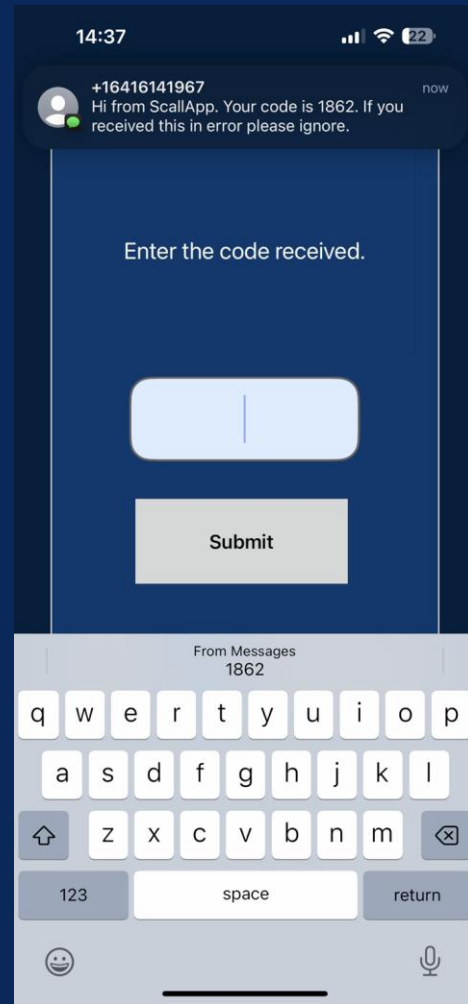
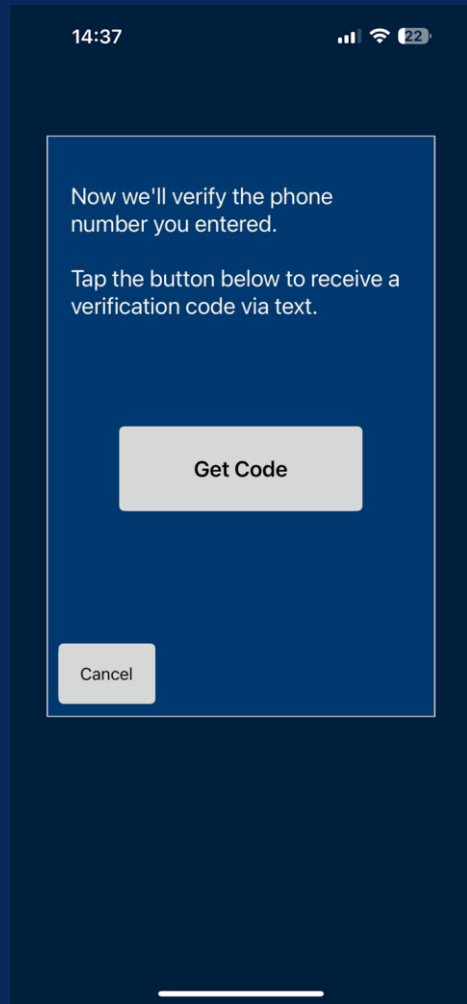
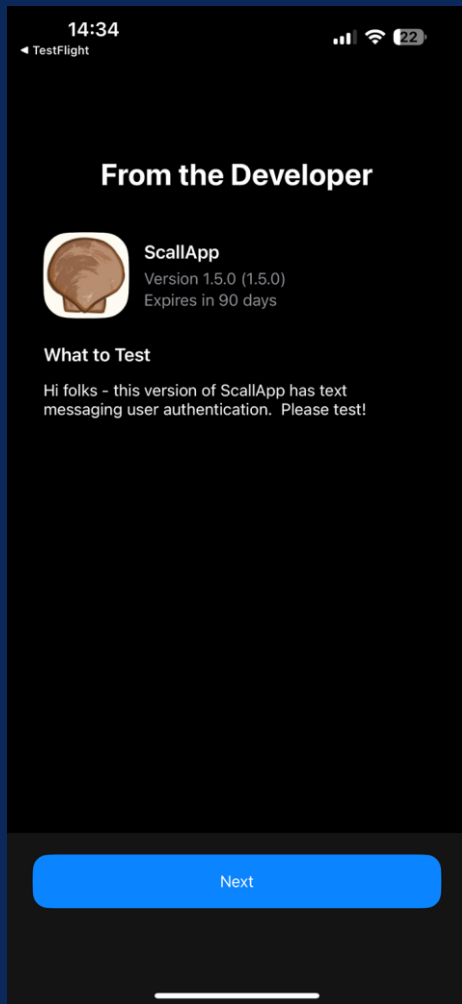
Add Optional Photo

Finish!

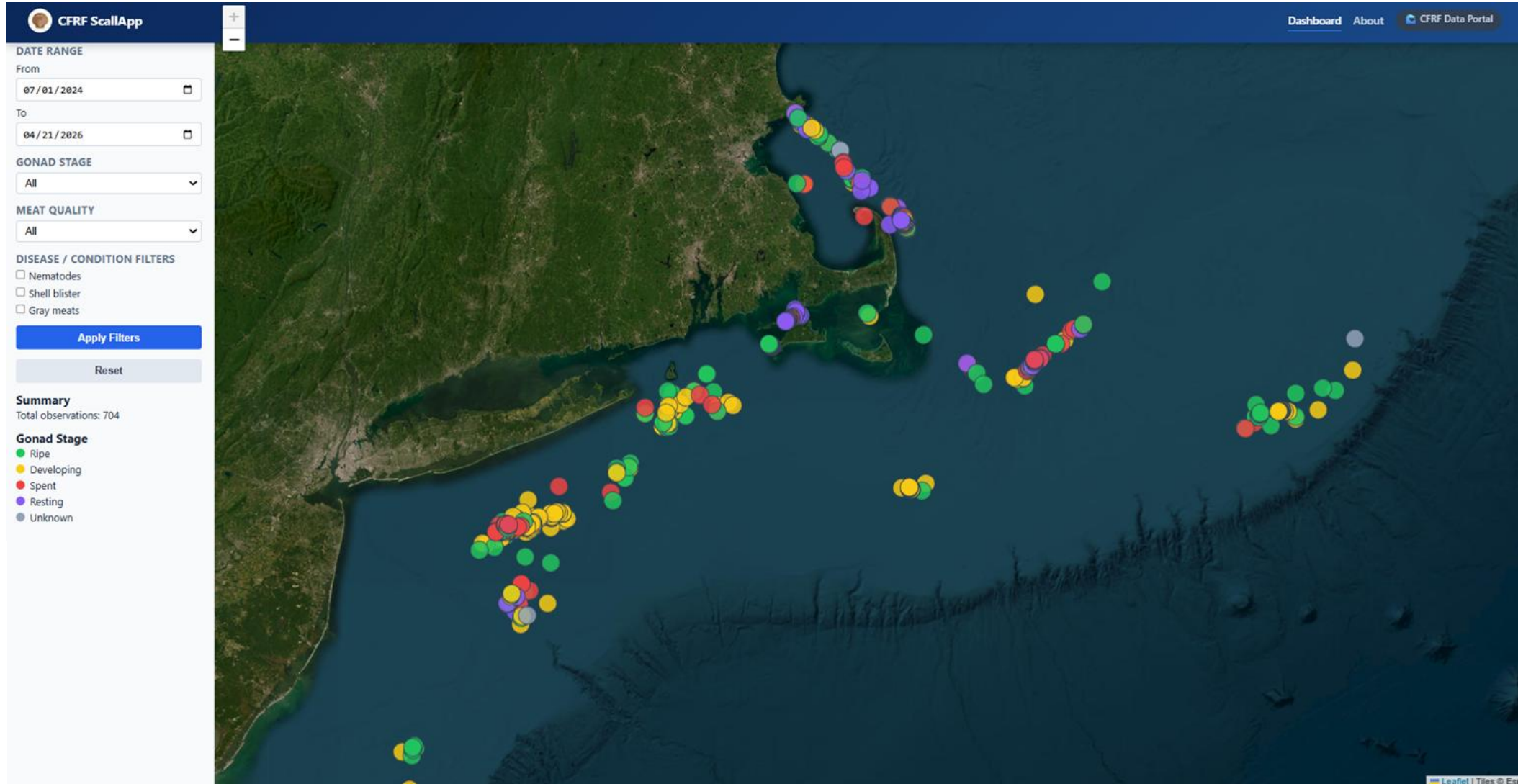
Back



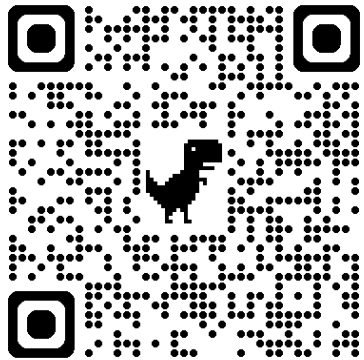
Increased security - 2 factor authentication



Interactive Distribution Map- Phase 2



Over 300+ sessions submitted since July 2024!!!





CFRF's ScallApp Games



Fishermen rewarded for submission frequency, consistency, and participation

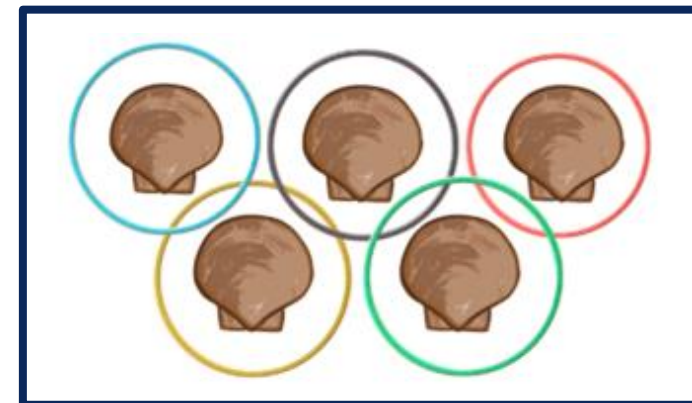
Cash prizes are awarded for 1st (\$500) and 2nd place (\$300). 3rd place prizes win a CFRF merch item

Goals:

- increase fishermen engagement
- encourage high-quality, consistent sampling sessions
- strengthen insight on Atlantic sea scallop life history

Prize categories - (1st, 2nd, & 3rd)

1. Most sessions submitted
2. Longest consecutive months sampled
3. Most months sampled
4. Random draw (CFRF merch; single winner quarterly)





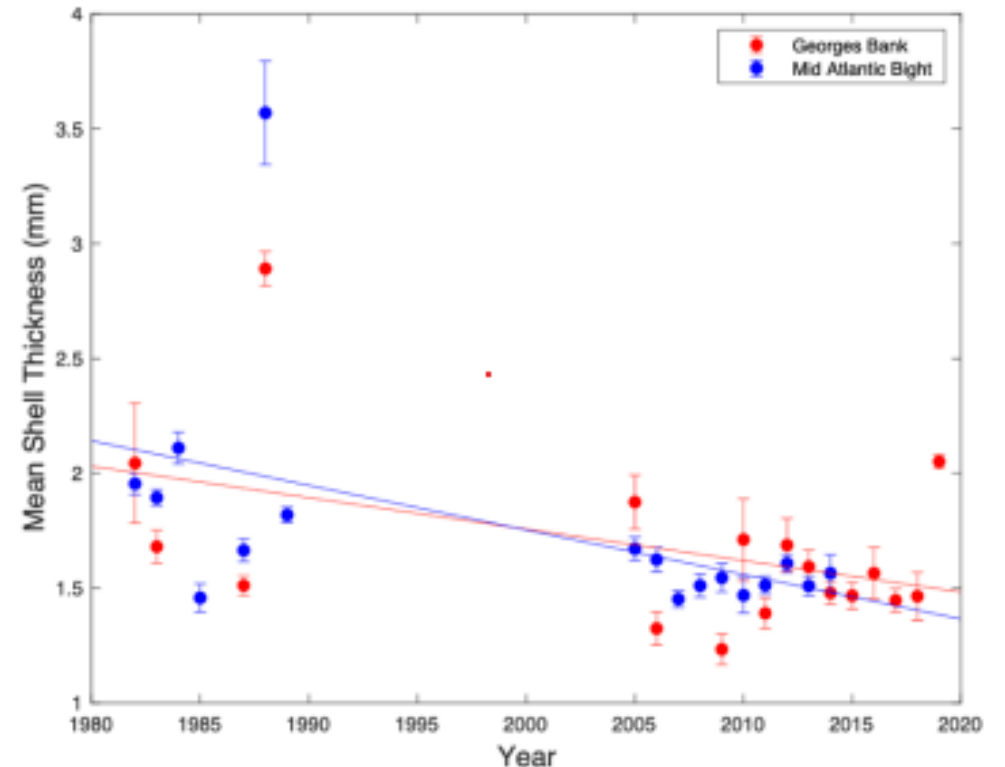
University of Connecticut's ScallApp Shells and Ocean Acidification project

Fishermen collect shells during regular fishing trips

Color analysis and compression tests to gauge shell strength and degradation

ScallApp collects:

- Meta data
- Additional images for pairing images & physical shell





The image displays the ScallApp interface on the left and a diagram of shell sampling locations on the right. The app interface shows a 'Sampling: Collect Shell' screen with a label code 'K8N8' and three 'Take Photo' buttons for 'Viscera', 'Insides', and 'Outsides'. The diagram shows a central shell with a 'K8N8' label, with arrows pointing to three different views: 'VISCERA' (top view), 'INSIDES' (right view), and 'OUTSIDES' (bottom view). The 'VISCERA' view shows the internal organs, the 'INSIDES' view shows the smooth interior of the shell, and the 'OUTSIDES' view shows the exterior of the shell.

09:51
Sampling: Collect Shell
Label shell with this code:
K8N8
Viscera Insides Outsides
Take Photo Take Photo Take Photo
Back Continue

VISCERA
INSIDES
OUTSIDES

K8N8
K8N8
K8N8

ScallApp next steps

- Hold ScallApp Games - tri- annual reward announcements
 - Build leaderboard for ScallApp Games rankings & scores e.g., ScallopSlayer97
- Increase public accessibility
- Add dominant bycatch screen or predation presence screen (Sea star)
- Engage aquaculture farmers in Maine



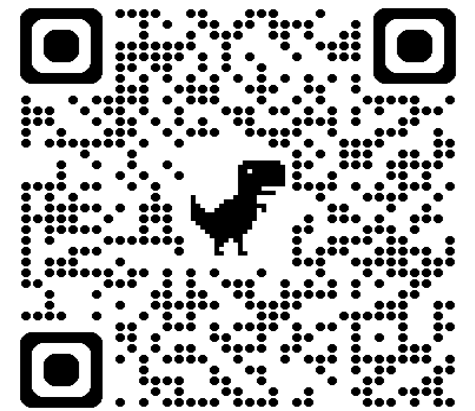
Acknowledgements:
Anna Mercer, Don Coxe Consulting,
Jillian DaSilva, & past, current, &
future ScallApp users and supporters!





Thanks and questions?

Take a peek at our
website to **learn** more!



To chat more, please reach
out!

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