

## Background

- Seaweed is the fastest growing aquaculture sector in the U.S., offering sustainable products and ecological benefits
- The potential of seaweed farms to attract biodiversity and influence community composition is an emerging research area
- Studies focus on ecological monitoring (e.g., GoPro monitoring, transects, sonar, eDNA, etc.), but qualitative insights from those working directly with farms remain underrepresented
- Growers and researchers offer valuable firsthand observations of biodiversity, species interactions, and spatial variations that can strengthen ecological understanding
- This study amplifies local and experiential knowledge, identifying common themes, regional differences, and perceived impacts of biodiversity change



## Research Questions

1. How do U.S. seaweed farmers and researchers perceive the impacts of seaweed aquaculture on local biodiversity & community composition?
2. How can these qualitative insights complement ongoing ecological monitoring?

## Methods

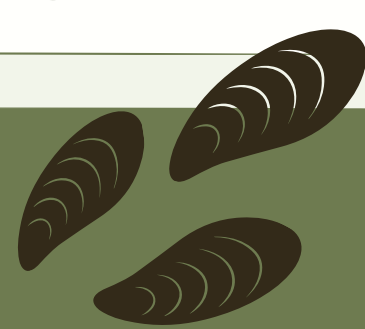


- Semi-structured interviews (N=20)
  - Virtual, anonymous, and incentivized (\$)
  - Inductively and deductively coded
  - Thematically analyzed
- Focused on:
  - Farm experience and demographics
  - Perceived biodiversity changes and seasonality
  - Environmental and fisheries impacts

## Upcoming

- Begin East Coast interviews to include growers and researchers nationwide, enabling regional comparisons
- Develop a digital survey to:
  - Quantify participants' experience
  - Assess the strength of qualitative data
- Analyze how interview and survey findings align with ecological monitoring data from each region to identify convergences, gaps, and complementary insights

## Implications



- Enhances understanding of ecosystem services provided by seaweed aquaculture
- Highlights environmental and ecological effects of farms
- Examines impact on local fisheries that may carry economic implications
- Informs management, policy, and site selection to guide sustainable aquaculture development across diverse U.S. regions
- Demonstrates the value of integrating social science and ecological approaches to strengthen understanding



## Participate!

Are you a grower or researcher in the U.S. that has experience working seaweed farms?

Scan the QR code to enter your name, experience, and contact info to participate!

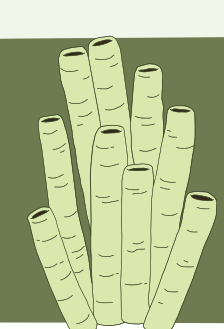


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## References



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## Preliminary Findings

West Coast Interviews:

13

Participants interviewed

50+

Years of experience

~11

Different kelp species cultivated across different sized farms, each situated in unique regions and environmental settings



### Key Takeaways:

- Community composition depends largely on site productivity before farm establishment
- Farms seen as having positive impact on environment, offering habitat and nursery areas, with calls for more quantitative data
- Fishing near farms viewed as compatible and low-conflict, highlighting the value of collaboration with fishers

