



Kelp Me Help You: A Qualitative Approach to Assessing Biodiversity and Community Composition on U.S. Seaweed Farms



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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

- How do U.S. seaweed farmers and researchers perceive the impacts of seaweed aquaculture on local biodiversity & community composition?
- 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

Preliminary Findings

West Coast Interviews:

13 Participants interviewed

50+ Years of experience

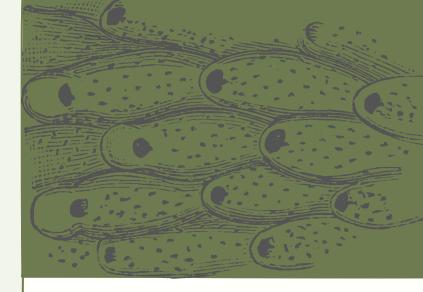
~11 Different kelp species cultivated across different sized farms, each situated in unique regions and environmental settings



Key Takeaways:

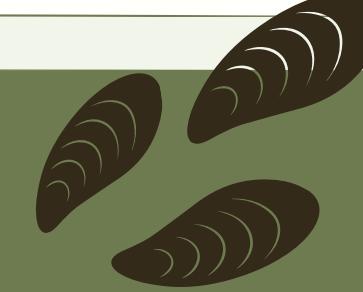
- Community composition depends largely on site productivity before farm establishment
- Farms seen as having positive impact on environment, offering habitat and nursery areas, with calls for more quantitative data
- Fishing near farms viewed as compatible and low-conflict, highlighting the value of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

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



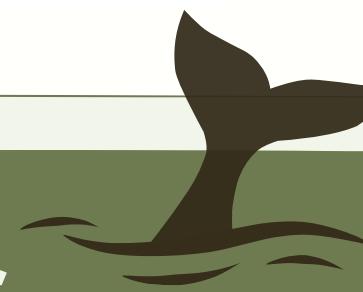
- Enhances understanding of ecosystem services provided by seaweed aquaculture
- Highlights environmental and ecological effects of farms
- Examines impact on local fisheries that may carry economic implications
- Informs management, policy, and site selection to guide sustainable aquaculture development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



Participate!

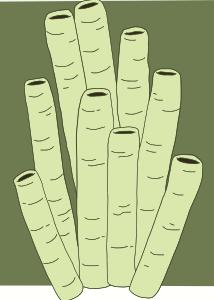
Are you a grower or researcher in the U.S. that has experience working seaweed farms?

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



Acknowledgements

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