

Public Perceptions of Offshore Aquaculture in Florida

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- ▶ University of Florida IFAS Center for Public Issues Education (PIE Center)



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Overview

➔ Project overview

and methods

➔ Perception toolkit

➔ Next steps



FLORIDA AQUACULTURE

Greatest Diversity in the Nation



OVERVIEW

With over 1,000 certified aquaculture farms producing an estimated 1,000 varieties of aquatic animals, Florida's aquaculture industry produces the greatest variety of farmed species of any state in the nation. Aquaculture products are used for health, people and other markets, in home and public aquaria, wild population conservation, recreational fishing and even clothing, just to name a few!

COMMON AQUACULTURE SYSTEMS

SHRIMP/SHRIMP CRABS - Shrimp farms are an example of intensively controlled, or intensive, aquaculture because farmers have little control over the growth and survival of their product since it is in the open ocean. Crabs are grown on the bottom in mesh bags, while systems are grown at the surface of floating cages. Common production here species include crabs and shrimps.

TANKS - Tanks are an example of highly controlled, or intensive, aquaculture because farmers closely regulate conditions like density, water quality, and feeding. Tank-raised products are highly predictable. Common tank-raised species include shrimps, snappers, and ornamentals, and shrimps.

PONDS - Ponds are a mix of intensive and extensive aquaculture while the farmer has little control over the effects of weather. Farmers do not control feeding and water quality. In Florida, most pond farms often have channels of small ponds which produce coastal freshwater fish for pet stores. Common pond species include guppies, angelfish, snappers, grass carp, catfish and tilapia.

COMMON AQUACULTURE SPECIES



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Project Overview

- Connect with relevant stakeholders, focusing on coastal communities and working waterfronts
- Facilitate listening sessions and interviews between January 2022 – April 2023
- Create a toolkit for project partners and other entities to utilize when discussing offshore aquaculture

**OFFSHORE AQUACULTURE
IN FLORIDA**



Listening Session Methodology

- ▶ Listening sessions were held on several occasions, both virtually and in person
- ▶ Facilitators from the PIE Center asked participants pre-approved questions
 - ▶ No FDACS staff were present
- ▶ Discussions covered three categories:
 - ▶ Seafood consumption
 - ▶ Aquaculture / offshore aquaculture familiarity
 - ▶ Areas of concern

1. How would you describe yourself as a seafood consumer?
2. Describe the reasons why you choose these sources of seafood or why you don't eat seafood.
3. Describe what comes to mind when you hear the word "aquaculture."
4. Have you ever visited an aquaculture operation?
5. Are you familiar with the aquaculture activities occurring in Florida?
6. How do you think offshore aquaculture could benefit your community and the Gulf Coast Economy?
7. What concerns do you have about developing offshore aquaculture in Florida?
8. Are you familiar with the regulations that would manage offshore aquaculture in state waters?
9. What environmental management measures do you believe are most critical for offshore aquaculture development in Florida?
10. What information could be provided to improve your knowledge and support of the industry?



Participant responses

“I would like to know, when you're talking aquaculture, what is that in your terms?”

“The only thing I think of aquaculture in the Gulf would be the fishing reefs and the sinking of the ships and barges to provide artificial reefs”

“The impact to the existing fisheries and having a level playing field ... product isn't dumped at the expense of wild-caught product, harm to traditional commercial fishing operations.”



*answers to questions asking participants to define aquaculture and offshore aquaculture

Concern and Misconceptions

“When you set up an aquaculture farm offshore you have taken an area...away from fisherman, and we're losing enough access already.”

“We've seen it do not great things in a lot of places ... It makes me really nervous. I know there can be some economic benefit, but I think there's a lot of risk”

“Everybody's got their hand out, but not much is happening. Water quality is not getting better.”

“Gosh, we need to drill down on this and figure out the what ifs, so we don't start some chain reaction of bad environmental policy. The Gulf is a natural treasure to the state and to everyone who visits here. We need to protect her health.”



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COMMON AQUACULTURE SYSTEMS

SHELLFISH TANKS - Shellfish farms are an example of intensively controlled, or *intensive*, aquaculture because farmers have little control over the growth and survival of their product since it is in the open ocean. Clams are grown on the bottom in mesh bags, while oysters are grown at the surface of floating cages. Common production here species include clams and oysters.

TANKS - Tanks are an example of highly controlled, or *intensive*, aquaculture because farmers closely regulate conditions like density, water quality, and feeding. Tank-raised products are highly predictable. Common tank-raised species include tilapia, rainbow trout, and shrimp.

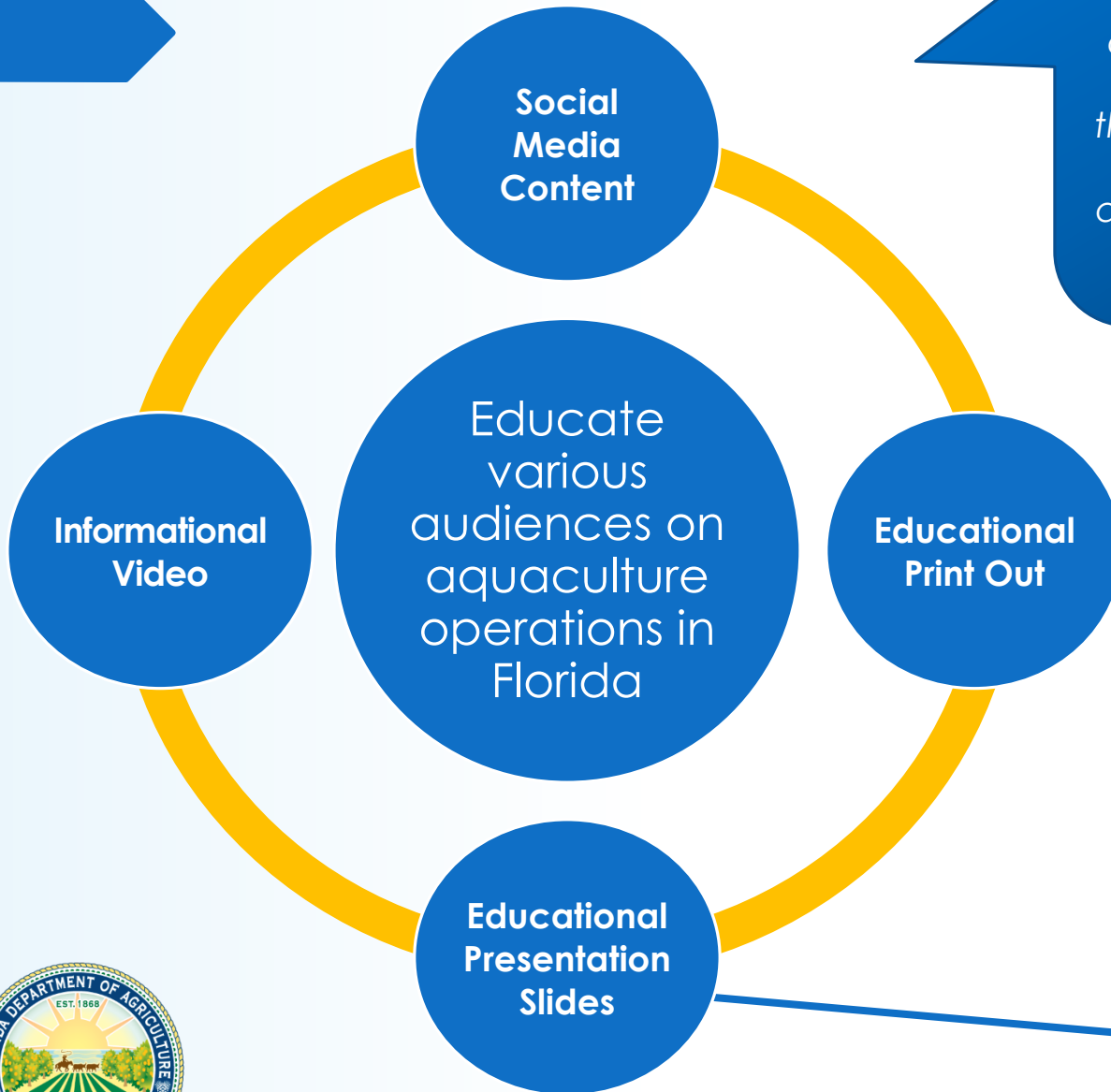
PONDS - Ponds are a mix of *intensive* and *extensive* aquaculture. While the farmer has little control over the effects of weather, farmers do still control feeding and water quality. In Florida, most pond farms often have channels or small ponds which produce catfish, freshwater fish for pet stores. Common pond species include guppies, angelfish, turtles, grass carp, catfish and tilapia.

COMMON AQUACULTURE SPECIES

Algae	Algae Balls	Angelfish	Atlantic Salmon	Bay Scallops
Bass	Bluegill	Catfish	Citrus	Clams
Cowfish	Coral	Freshwater Crayfish	Freshwater Plants	Garra
Grass Carp	Guppies	Hybrid Striped Bass	Koi	Live Bait
Mangroves	Saltwater Plants	Snails	Dumplings	Peacock Shrimp
Rainbow Trout	Red Drum	Shrimp	Gourami	
Tilapia	Tilapia	Turtles		

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Toolkit Materials



"When you're talkin' about communication and information, a confused mind always says no. The better you can communicate what it is that you're trying to accomplish and how you're going to go about that, that's how you gain support for whatever it is that you're doing."

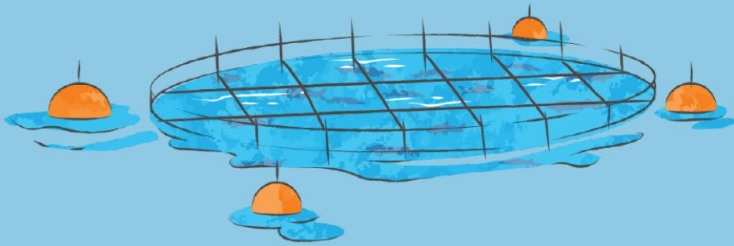


Toolkit Materials



Offshore aquaculture in Florida.

Offshore aquaculture involves farming native marine organisms using marine systems that are submerged underwater and suspended off the seafloor.



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Offshore aquaculture in Florida.

Florida's vast coastal region, climate, and shipping opportunities make it ideal for offshore aquaculture and the production of unique, valuable seafood products.



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Toolkit Materials

Why is offshore aquaculture beneficial?

Offshore aquaculture operations in the U.S. can expand our domestic seafood production and increase food security.



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How are concerns being addressed?

IMPACT ON LOCAL ECONOMY & FISHING COMMUNITIES

Offshore aquaculture can create jobs in rural and working waterfront communities, enhance domestic food security, and preserve coastal heritage and traditions.

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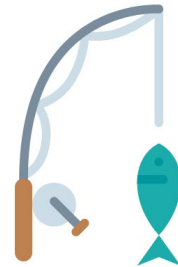
How are concerns being addressed?

MARINE NAVIGATION & ACCESS TO FISHERS

A sufficient distance must exist between offshore operations and marine traffic routes to avoid disruptions to navigation and fishers.



Education



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Grass Carp	Guppies	Hybrid Striped Bass	Koi	Live Bait
Mangroves	Saltwater Plants	Snails	Dumplings	Peacock Shrimp
Rainbow Trout	Red Drum	Shrimp	Southern	
Tilapia	Tilapia	Turtles		



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Moving forward

- ▶ How do we address this awareness deficiency?
 - ▶ Even in a state like Florida with over 1,000 certified facilities
- ▶ Testing toolkit effectiveness and sharing with interested state organizations
- ▶ Increasing public education of aquaculture, especially marine aquaculture, and addressing concerns and misconceptions

AQUACULTURE TOOLKIT GUIDE

INFORMATIONAL MESSAGES
ABOUT OFFSHORE
AQUACULTURE IN FLORIDA



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Thank you! Any Questions?

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*Check out the Toolkit and Resources
for yourself with the code below!*

