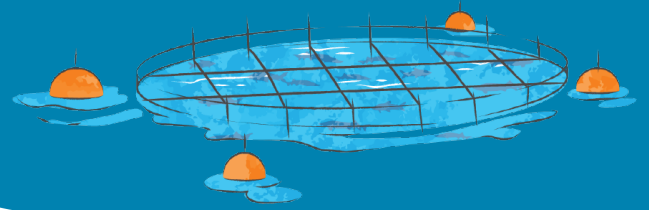


OFFSHORE AQUACULTURE IN FLORIDA



AQUACULTURE IN FLORIDA

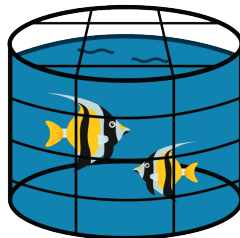
Aquaculture simply means farming in water. Aquaculture involves breeding, raising, and harvesting aquatic organisms in water. These aquatic organisms—including finfish, bivalve shellfish, shrimp, and other invertebrates, aquatic reptiles, and aquatic plants—are farmed for the ornamental aquarium trade, food, conservation, and other uses.

Aquaculture can take place in either freshwater or saltwater and can occur in tanks or ponds. Aquaculture can also be onshore or offshore.

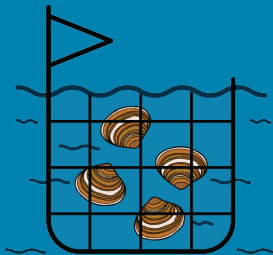
FLORIDA'S CLIMATE, VAST COASTAL REGION, AND SHIPPING OPPORTUNITIES MAKE IT IDEAL FOR OFFSHORE AQUACULTURE AND THE PRODUCTION OF UNIQUE, VALUABLE SEAFOOD.

Offshore aquaculture involves farming native marine organisms using marine systems that are submerged underwater and suspended off the seafloor. Ongoing research projects with state, federal, and academic partners will help determine possible areas in Florida state waters of the Gulf of Mexico for offshore aquaculture operations.

Onshore operations are land-based systems and can include docks.



Offshore operations occur in open waters away from land. **Nearshore** operations are a type of offshore aquaculture that occurs directly on the coast in state waters.

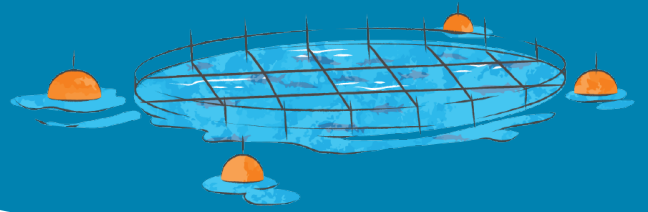


BENEFITS OF OFFSHORE AQUACULTURE

- 1** Expand domestic seafood production in the United States and increase food security
- 2** Enhance employment and economic opportunities in coastal communities and support the [Blue Economy](#)¹
- 3** Prepare to meet future protein demands as the population continues to grow
- 4** Work towards achieving several [United Nations' Sustainable Development Goals](#)²
- 5** Take the pressure off wild-capture fishery resources and supplement sustainable wild-capture fisheries

1. [NOAA National Ocean Service, Our Ocean Economy](#)
2. [NOAA Fisheries, Aquaculture Supports a Sustainable Earth](#)
3. [NOAA Fisheries, Potential Risks of Aquaculture Escapes](#)

OFFSHORE AQUACULTURE IN FLORIDA



HOW CONCERNS ARE BEING ADDRESSED

Economic and Social Concerns: *Impact on local economy and fishing communities*

There is concern that this growing industry may compete with or displace existing fishers and other ocean users. However, offshore aquaculture can present numerous opportunities for economic growth, jobs in rural and working waterfront communities, enhanced domestic food security, and preservation of coastal heritage and traditions.

Marine navigation and access to fishers

A sufficient distance must exist between offshore aquaculture operations and marine traffic routes to avoid both disrupting navigation and impacting access to fishers.

Human Health Concerns:

Use of preventative treatments

Public concern exists related to the use of preventative treatments in offshore aquaculture operations potentially causing human health risks or antibiotic resistance. Proper animal husbandry and care to prevent disease is an industry-standard best practice to avoid the use of expensive treatments. The high cost, intensive labor required, and strict regulations involved to use preventative treatments restricts their use in all but the most severe cases.

Environmental Concerns:

Nutrient pollution

Water quality is an important environmental concern related to aquaculture. As a best practice, marine systems are placed in deep waters with currents that allow for flushing to reduce the buildup of nutrients. Florida also requires rigorous environmental assessments and compliance with water quality regulations such as the Clean Water Act. When offshore operations are properly sited and managed, nutrients are nearly undetectable immediately outside of the system.

Fish escapes

Fish escapes present a potential risk to the natural environment and wild fish populations via competition and spread of disease. Proper animal husbandry, routine system maintenance, and escape recovery plans will prevent and manage fish escapes to protect natural resources. Escaped farmed fish will also likely die, quickly become prey, or fail to reproduce due to their decreased fitness in the wild.

[View this fact sheet for more information.](#)³

Mixing with native fish

Concern exists that farmed fish could mix with wild fish populations and produce negative genetic consequences. Farmed species in Florida MUST be native and originate from local genetics of the wild population. Non-native and transgenic, or genetically altered, organisms are strictly prohibited for farming in Florida state waters.

1. [NOAA National Ocean Service, *Our Ocean Economy*](#)
2. [NOAA Fisheries, *Aquaculture Supports a Sustainable Earth*](#)
3. [NOAA Fisheries, *Potential Risks of Aquaculture Escapes*](#)