

# Apalachicola Bay Oysters



Final Public Hearing  
October 7, 2020



**Florida Fish and Wildlife Conservation Commission**

Version 1

This presentation provides a summary of proposed final rules to support restoration and recovery of oysters in Apalachicola Bay by amending the Florida Fish and Wildlife Conservation Commission's (FWC) oyster regulations in Chapter 68B-27, Florida Administrative Code (FAC).

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Unless otherwise noted, images throughout the presentation are by FWC.

## Background



- Ecologically and economically important
- Iconic fishery in Apalachicola Bay
- Fishery collapsed in 2013
  - Federal fisheries disaster declared in 2013
  - Adult abundance and juvenile recruitment remains at historic lows

**July 2020:** Approved draft rules to suspend wild harvest through 2025

- Proactively implemented by EO, effective Aug. 1

**Today:** Final public hearing



Photo courtesy of Florida Memory Project

Oysters provide a variety of important ecosystem services (i.e., functions that promote healthy ecosystems) and have supported several economically-important fisheries throughout the east coast of North and South America, the Caribbean, and the Gulf of Mexico.

In Florida, most of the oyster fishery is concentrated in estuaries and shallow coastal waters from Pensacola through Citrus County, with Apalachicola Bay (Bay) historically being the premier wild oyster harvesting area in the state. The Bay once supported an expansive oyster reef ecosystem that was considered the healthiest in the nation and supported an iconic oyster fishery that supplied almost 90% of Florida's, and 10% of the nation's, wild oysters.

Harvest dropped dramatically in 2013 after years of low freshwater flow conditions throughout the Apalachicola-Chattahoochee-Flint River basin. The collapse of this fishery had devastating impacts to Apalachicola Bay oyster harvesters, seafood processors, and the community. In 2013, the U.S. Secretary of Commerce declared a federal fisheries disaster for Florida's oyster industry and FWC began working with industry and the community to address concerns for this fishery. Despite FWC taking a number of significant management actions since 2013, adult oyster abundance and juvenile recruitment continue to remain at historic lows, threatening long-term sustainability of the Bay's oyster population.

At the July meeting, the Commission approved draft rules to support restoration and recovery of oysters in the Bay by suspending all wild oyster harvest and prohibiting on-the-water possession of oyster harvesting equipment (tongs) through December 2025. The Commission also took immediate action to conserve existing oysters and oyster habitat during the rulemaking process by proactively implementing these conservation measures through an Executive Order (EO) that became effective Aug. 1, 2020.

# Oyster Restoration and Management

## Apalachicola Bay

- \$20 million grant for large-scale restoration
  - Leverages recent research
  - Cultching anticipated mid-2022
  - Developing adaptive management plan



## Other management plans being developed

- Suwannee Sound
- Pensacola Bay
- Statewide: Florida Oyster Restoration Science workgroup
- Gulf States Marine Fisheries Commission



In early 2020, FWC received a \$20 million grant commitment from the National Fish and Wildlife Foundation's (NFWF) Gulf Environmental Benefits Fund to conduct large-scale restoration of oyster habitat in the Bay. This project leverages data from previous smaller-scale restoration and research efforts to fill knowledge gaps and improve the likelihood of restoration success. These data will be used to identify locations, materials, and at what density to "cultch" (the introduction of oyster shell or material for oyster spat to settle on). Nearly \$17 million of the grant will go directly towards clutching, which is expected to begin in mid-2022. This project will also develop a stakeholder-informed, adaptive management plan to improve future management of the wild oyster fishery.

Since the collapse of the oyster fishery in the Bay, many harvesters have shifted their effort to other parts of the state. At the July Commission meeting, the Commission heard and considered several comments from members of the public about the future management of oyster fisheries throughout the state. While much of the state's oyster-related conversations have focused on Apalachicola Bay, staff are working with several community-, industry-, and science-based workgroups to develop oyster management plans for Suwannee Sound and Pensacola Bay. FWC has also formed a statewide consortium of managers and scientists from state agencies, university researchers, and non-governmental organizations. This group, known as the Florida Oyster Restoration Science workgroup, was developed to balance data collection needs for management, establish science-based restoration and management goals, and collaborate on future oyster restoration opportunities. Staff also serve as representatives for Florida on the Gulf States Marine Fisheries Commission's newly-formed shellfish subcommittee, which facilitates coordination between states and encourages communication about the status of each state's shellfish industry and regulatory programs.

## Proposed Final Rules



- Suspend commercial and recreational harvest of wild oysters from Apalachicola Bay
- Prohibit on-the-water possession of wild oyster harvesting equipment (i.e., tongs)
- Sunset proposed rules Dec. 31, 2025

*Proactively implemented by EO Aug. 1, 2020*

### Public Feedback

- Suspending harvest identified as highest priority
- Concerns about whether the Bay will reopen
- Some concerns about displaced harvesters



To continue supporting restoration and recovery of oysters in Apalachicola Bay, the proposed final rules would suspend commercial and recreational harvest of wild oysters in Apalachicola Bay and prohibit on-the-water possession of tongs used for harvesting wild oysters through Dec. 31, 2025. At the July meeting, the Commission proactively implemented these conservation measures by EO to allow time for the rulemaking process while supporting the road to recovery.

Staff has continued to receive support for suspending oyster harvest from industry and the community as long as a criteria for reopening the Bay is established. Some local oyster harvests have continued to express concerns about whether the Bay will reopen after the restoration is complete; however, staff believes that including a sunset provision in rule provides the harvesters assurance of the Commission's intent to re-open the Bay.

Additionally, staff has heard some concerns about the displacement of commercial harvesters during the suspension. To address this, FWC staff has been working with local and community organizations to identify potential employment and training opportunities for displaced harvesters.

## Considerations



- FWC has taken several management actions since 2013
  - Suspending harvest is a last option
- Large-scale restoration opportunities promote faster recovery
  - Allowing harvest during restoration threatens success
- Participation in this fishery has declined significantly
  - Very few full-time harvesters



FWC has taken a number of management actions since the fishery collapsed in 2013. These actions have included significantly reducing commercial and recreational harvest limits, reducing the number of allowable harvest days, establishing no-harvest conservation areas, and implementing oyster “check stations.” However, these actions have not successfully reversed the downward trends in oyster abundance. Staff recognizes that suspending all wild harvest is a big step, but it is a last option to support recovery of oyster population in the Bay and rebuild resiliency in the fishery.

Staff believes that the unique funding opportunity from NFWF could be a large step in supporting the recovery of wild oyster abundance. However, staff, restoration partners, and many stakeholders also believe that allowing harvest of oysters during a large-scale restoration is counterproductive and may ultimately threaten the success of restoration.

Staff also recognize that some stakeholders are concerned that suspending harvest will displace a significant number of harvesters. Although the Bay historically supported hundreds of full-time oyster harvesters, as oyster abundance has declined, so has the number of harvesters. In 2019, there were only a few full-time harvesters in the Bay because the majority of harvesters have left the fishery or begun harvesting elsewhere. Staff remains committed to developing an adaptive management plan that includes wild-harvest opportunities in the future.

## Staff Recommendation

### Approve the proposed final rules to support restoration by conserving existing shell and adult oysters in Apalachicola Bay

- Suspend all wild oyster harvest from Apalachicola Bay
- Prohibit on-the-water possession of wild oyster harvesting equipment
- Sunset proposed rules Dec. 31, 2025

*Make rules effective Jan. 1, 2021*



**Continue monitoring and return for update prior to sunset**

Staff recommends the Commission approve the proposed final rules to support restoration by conserving existing oyster shell and adult oysters in the Bay. Specifically, staff recommends suspending all harvest of wild oysters from the Bay and prohibiting on-the-water possession of tongs used for harvesting wild oysters through Dec. 31, 2025.

If approved, staff recommends making these rules effective Jan. 1, 2021. Staff will return to the Commission for an update prior to the 2025 sunset. Staff will continue monitoring oysters in the Bay and can re-evaluate whether limited harvest opportunities may be available before this sunset.

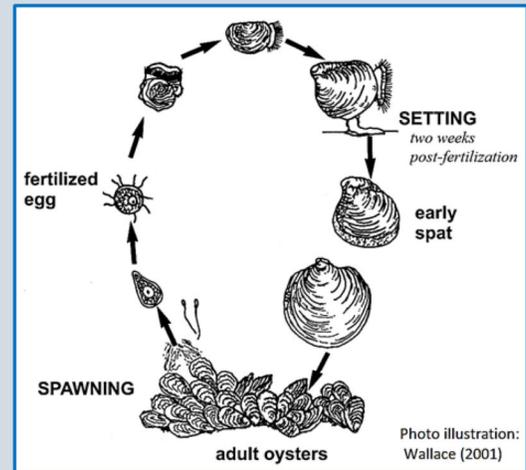
Staff has evaluated the proposed final rules under 68-1.004, FAC, and found them to be in compliance.

**The following slides are considered backup material and are not anticipated to be part of the actual presentation**



## Eastern Oysters

- Life cycle
  - Spawning peaks in fall
  - Young oysters (spat) settle on hard surfaces
  - Mature at 1-2 years
- Ecologically-important
  - Create habitat
  - Improve water quality
  - Stabilize sediments and shorelines



Eastern oysters are distributed along the east coast of North and South America, the Caribbean, and the Gulf of Mexico. They prefer shallow estuaries with moderately low salinities (15-25 ppt).

Oysters spawn by releasing eggs and sperm into the water column. Some spawning occurs throughout the spring and summer, with peak spawning occurring in the fall. Once fertilized, larvae spend about two weeks in the water column before settling on hard surfaces as small oysters, or "spat." Although spat will settle on almost any hard surface, they have a higher tendency to settle on existing oyster shell/reefs. Once settled, the oyster will spend the remainder of its life attached. It takes about 1-2 years for an oyster to mature into a reproductively active adult, and 1-1½ years to grow to a legally-harvestable oyster (3 inches).

Oysters are ecologically important and provide a wide variety of ecosystem services (i.e., functions that promote healthy ecosystems). They are somewhat unique in that they create their own habitat. New generations of oyster settle on existing shell material, which results in a complex, three-dimensional natural structure that continues to expand as oysters grow or new generations recruit to the oyster reef. In doing so, they provide habitat for other organisms, such as mussels and barnacles, as well as nursery and foraging habitat for a number of important species, such as shrimp, flounder, red drum, spotted seatrout, crabs, groupers, and other small prey.

Oysters are filter feeders and it's estimated that an individual oyster can filter nearly two gallons of water per hour. Oysters have the ability to directly improve water quality by filtering algae and other suspended particles from the water. Indirectly, oysters can improve water quality by reducing wave energy and stabilizing soft sediments. This promotes the growth of other ecosystems such as seagrass. Wave reduction also reduces shoreline erosion.

## FWC Oyster Regulations

	Apalachicola Bay	Elsewhere
<b>Seasons</b>	Summer: Jun. 1 – Aug. 31 Winter: Sept. 1 – May 31	Wakulla, Dixie, Levy counties: Sept. 1 – May 31 Remaining counties: Oct. 1 – Jun. 30
<b>Monitoring closure</b>	<300 bags per acre: closed Fri-Sun	NA
<b>Commercial licenses</b>	SPL, Bay License	SPL, Shellfish endorsement
<b>Recreational license</b>	Saltwater fishing license	
<b>Bag limit</b> (1 bag = 60 lbs.)	Commercial: 20 bags Recreational: 2 bags	
<b>Minimum size limit</b>	3" (undersized tolerance: 15% attached, 5% unattached)	
<b>Allowable gear</b>	Tongs or by hand	
<b>FDACS training</b>	Commercial: Shellfish Harvester & Aquaculture Training Course	
<b>FDACS closures</b>	Harvest subject to daily closures for seafood safety concerns	
<b>FDACS processing</b>	Oysters must be delivered to certified dealer by certain times. Varies seasonally.	



Apalachicola Bay: conservation/harvest areas, seasons, and bag limit modified by EO in recent years

While FWC primarily manages wild oysters as a statewide fishery, there are some unique regulations specific to Apalachicola Bay. The following table illustrates the current regulations for wild oysters in Florida.

To accommodate year-round oyster harvesting in Apalachicola Bay, portions of the Bay are seasonally-rotated which allows certain areas to only be open during a summer or winter harvest season.

If monitoring indicates adult populations have declined below 300 bags per acre, harvest from Apalachicola Bay is prohibited on Friday-Sunday.

Additionally, oystermen who are harvesting oysters from Apalachicola Bay are required to purchase an Apalachicola Bay Oyster Harvesting License (ABOHL). Harvesters who have a valid saltwater products license (SPL) and ABOHL are exempt from needing a shellfish endorsement. Purchase of this license is not limited to any individual based on state or local residency.

In recent years, FWC as issued 20 EO's to reduce harvest in Apalachicola Bay and further conserve oyster resources. These actions range from significant bag limit reductions, establishing "no harvest conservation areas", reducing the number of days harvesting can occur, and requiring all harvesters to report to FWC-managed "check stations" prior to delivering oysters to wholesale dealers.

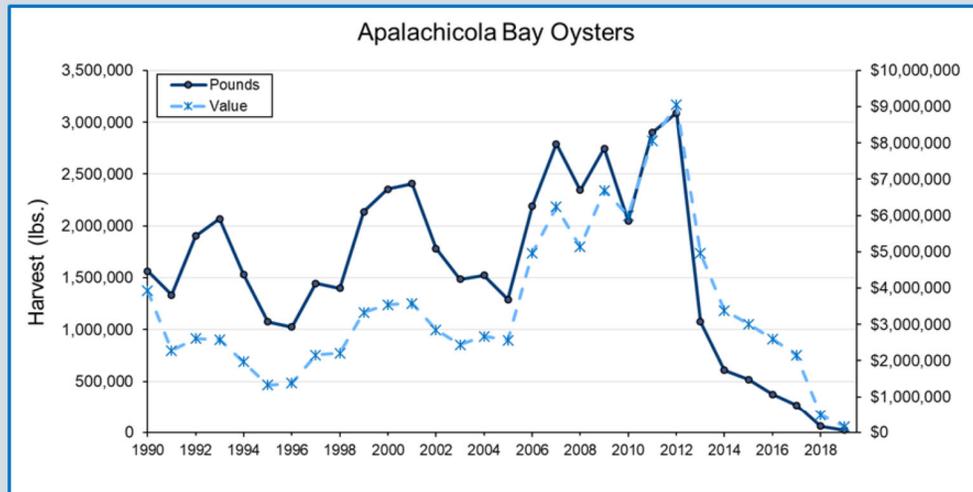
## Project Timeline



This graphic shows the project timeline for FWC’s large-scale restoration project. This 5-year project is made of multiple components. In the early phases, FWC and project partners are focusing on filling in knowledge gaps to help improve restoration success. We will also focus on developing a stakeholder-informed oyster fishery management plan that will guide future management options. The largest portion of funding (nearly \$17 million) will go directly toward cultching 1,000 acres of oyster reef habitat. These efforts are anticipated to begin in mid-2022 and will be directly informed by earlier phases of the project and past restoration experiences.

In addition to individual restoration and management components, FWC has committed to monitoring the successes of cultching efforts through 2025.

## Collapse of the Oyster Fishery



Oyster harvest in Apalachicola Bay dropped dramatically in 2013 following years of low flow conditions throughout the ACF basin. Since then, harvest has continued to decline each year. Compared to the 5-year average prior to the collapse (2.6 million lbs.), a 99% decrease in harvest has occurred. In 2019, less than 21,000 pounds of oysters were harvested from Apalachicola Bay. Additionally the dockside value of wild oysters harvested from Apalachicola Bay has declined by 98% since 2012. This economic loss has had devastating impacts to Apalachicola oyster harvesters, seafood processors, and the community.

# FWRI Oyster Monitoring

