



July 10, 2020

Florida Fish and Wildlife Conservation Commission  
Farris Bryant Building  
620 S. Meridian Street  
Tallahassee, FL 32301

**RE: Proposed Draft Rule to Suspend Wild Oyster Harvest in Apalachicola Bay**

Chairman Spottswood,

Please accept these comments on behalf of [The Pew Charitable Trusts](#) (Pew) in support of the Florida Fish and Wildlife Conservation Commission's (FWC) draft rule to suspend all harvest of wild oysters throughout Apalachicola Bay until December 31, 2025. Specifically, Pew recommends the FWC:

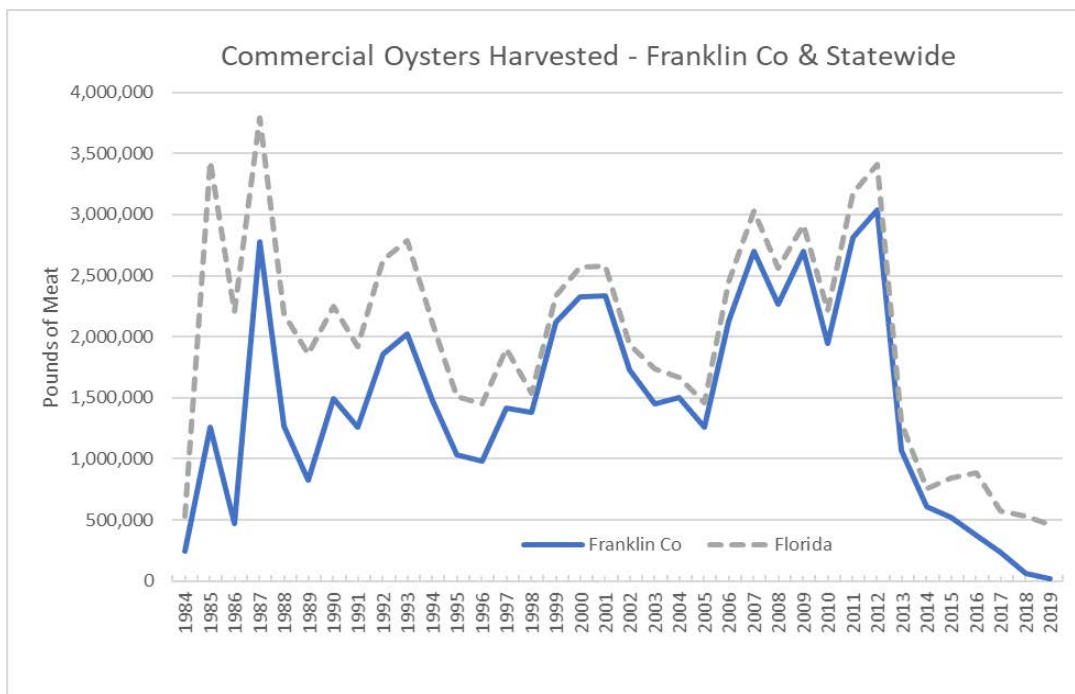
- Suspend all wild oyster harvest in Apalachicola Bay immediately to support restoration and management efforts; and
- Establish science-based milestones to guide future decisions on when and how a limited harvest can be re-established.

Apalachicola Bay (Bay) oysters are famous and once accounted for approximately 90% of all harvested oysters in Florida, and 10% in the U.S. Now, the oyster population, and as a result, wild oyster harvest in the Bay, is at an all-time low. Oyster reefs are also foundational habitat that supports a variety of marine wildlife, including many of the fish that are favorite targets of recreational and commercial fishers. They also help diffuse energy from storms and tides, which in turn safeguards coastlines by preventing erosion and reducing storm surge.

The Bay and its oysters are in critical need of science-based management to halt the decline and begin the recovery of this keystone species. A harvest suspension is a critical next step to protect what is left of the wild oyster population, and give managers, scientists, and stakeholders time to develop a recovery plan for the Bay that includes restoration of the oyster population. Efforts are already underway to develop such a plan, with leadership from FWC, other state agency staff and the Florida State University Coastal and Marine Lab, and they have also established a community advisory board to provide input from local industry leaders and community members. Pew advocates for science-based, stakeholder-driven plans for recovery of critical coastal habitats. In addition to our staff serving on the community advisory board, we work closely with local organizations and industry partners to advance solutions. We believe this effort has strong potential to result in a plan to restore a healthy Bay ecosystem and an economically viable oyster industry.

## Oysters Provide Numerous Economic and Ecosystem Services

A variety of businesses and jobs, including oyster harvesters, seafood wholesalers and retailers, fishing related businesses and restaurants, derive their income from healthy oyster reefs. Oyster populations throughout the world, including Apalachicola Bay, are struggling, and most areas have seen 85% or higher declines over time.<sup>1</sup> Until the last decade, Apalachicola Bay commercial oyster landings bucked that trend, increasing from the early 1980s through the 2000s.<sup>2</sup> In fact, landings peaked at just over 3 million pounds (shucked meat) in 2012 before sharply declining (Figure 1). The number of commercial oyster trips in Franklin County also peaked in 2012 at almost 54,000 trips before a precipitous decline to just 460 trips in 2019. In 2012, the estimated dockside value of oysters landed in Franklin County reached almost \$9 million, and similarly, that economic contribution to the regional economy has fallen to almost zero.



**Figure 1.** Commercial harvest of oysters landed (in pounds of shucked meat) in Franklin County (dark blue line) and Florida (dashed gray line) during 1984-2019. (Data source: FWC commercial landings page, <https://public.myfwc.com/FWRI/PFDM/ReportCreator.aspx>).

While the economic damage from the oyster population collapse is devastating, the ecological impact to Apalachicola Bay has likely been significant as well. Oyster reefs create and provide habitat and food for an abundance of marine life such as spotted seatrout, flounder, blue crab and red drum that contribute to commercial and recreational fishing important to the Apalachicola Bay region. Oyster reefs help maintain good water quality and clarity beneficial to the coastal estuary and its inhabitants. By filtering excess nutrients and reducing suspended particles in the water, oysters also

<sup>1</sup> Beck, M. W., R. D. Brumbaugh, L. Airoidi, A. Carranza, L. D. Coen, C. Crawford, O. Defeo, G. J. Edgar, B. Hancock, M. C. Kay, H. S. Lenihan, M. W. Luckenbach, C. L. Toropova, G. F. Zhang, and X. M. Guo. 2011. Oyster reefs at risk and recommendations for conservation, restoration, and management. *BioScience* 61:107-116.

<sup>2</sup> FWC commercial fisheries data <https://public.myfwc.com/FWRI/PFDM/ReportCreator.aspx>, accessed on 6/23/20

help foster seagrass growth.<sup>3</sup> Healthy, living oyster reefs also provide an important shoreline barrier between the open ocean and inshore and upland communities. This is crucial for reducing coastal destruction and property damage caused by major storms, as well as buffering marsh and shoreline habitat from normal wave energy and rising sea levels. Finally, abundant and healthy oyster reefs help mitigate against land loss, especially in the face of sea level rise.

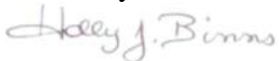
### **Restoring Apalachicola Bay Oysters**

Many sources contribute to oyster declines worldwide and in Apalachicola Bay. Decreases in freshwater flows from the Apalachicola River, both natural and human-induced, have caused increases in salinity in the Bay. Oysters can usually recover from natural recurring droughts that periodically increase salinity, but upstream water withdrawals for human use have put additional strains on the system. Higher salinity levels make oysters more susceptible to predation and disease.<sup>4</sup> Long-term ecosystem changes, including warming sea surface temperatures and sea level rise, alter estuarine conditions. In turn, this can affect oyster growth and productivity.<sup>5</sup>

Even good water conditions aren't enough to restore the oyster population. A lack of sufficient substrate can leave oyster larvae without somewhere to settle and attach to grow. As demands have changed from shucked oysters to the half-shell market, more shell has left the area instead of being returned to reefs, as policies once required. Damage to shucking houses from hurricanes, particularly in 2005, also contributed to the decline in available substrate. Shell mounds no longer are piled high outside Apalachicola area shucking houses, ready to be returned to the water. Research indicates that in the Bay, this lack of shell has led to recruitment failures.<sup>6</sup>

Overharvesting during the decline also likely contributed to the prolonged collapse. While oyster managers can't control ecosystem issues, the Commission can directly affect the fishery's ability to recover by suspending harvest and allowing oysters time to repopulate. By approving the proposed rule, the Commission has a chance to protect the remaining oyster biomass needed for reproduction and to reseed future recovery. Thank you for considering these comments.

Sincerely,



Holly Binns, Project Director, Conserving Marine Life in the Gulf of Mexico  
The Pew Charitable Trusts

cc: Florida Fish and Wildlife Conservation Commissioners  
Eric Sutton, Executive Director, Florida Fish and Wildlife Conservation Commission

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<sup>3</sup> Booth D. M. and K. L. Heck, Jr. 2009. Effects of the American oyster *Crassostrea virginica* on growth rates of the seagrass *Halodule wrightii*. *Marine Ecology Progress Series* 389:117-126

<sup>4</sup> Petes, L.E., A.J. Brown, C.R. Knight. 2012. Impacts of upstream drought and water withdrawals on the health and survival of downstream estuarine oyster populations. *Ecology and Evolution* 2:1712-1724

<sup>5</sup> Speights, C.J., B.R. Silliman, M.W. McCoy. 2017. Effects of elevated temperature and dissolved CO<sub>2</sub> on a marine foundation species. *Ecology and Evolution* 7: 3808-3814.

<sup>6</sup> Pine, W. E., III, C. J. Walters, E. V. Camp, R. Bouchillon, R. Ahrens, L. Sturmer, and M. E. Berrigan, 2015. The curious case of eastern oyster *Crassostrea virginica* stock status in Apalachicola Bay, Florida. *Ecology and Society* 20(3):46.