

WHAT CAN WE DO?



**REMOVE MUSSELS FROM CLUSTERS TO
ALLOW OYSTER SPAT SETTLEMENT**



**REMOVE MUSSELS FROM CLUSTERS TO
ALLOW CRABS ACCESS TO MUSSELS**



**CULTIVATE REEFS VIA OYSTER
DREDGES WITH BAGS REMOVED**



MS Oyster Stewardship Program

Mississippi Department of

Marine Resources

Office of Marine Fisheries

Developed by the Shellfish Bureau

1141 Bayview Ave., Biloxi, MS 39530

228.374.5000/1.800.374.3449

www.dmr.ms.gov

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HOOKED MUSSELS



HOOKED MUSSELS *Ischadium recurvum*

The **HOOKE**D MUSSEL (*Ischadium recurvum*) is native to the northern Gulf of Mexico, and is found in coastal Mississippi waters as a member of oyster reef ecosystems.



HOOKED MUSSELS thrive in lower salinity estuarine habitat, where they grow on similar substrate to oysters.



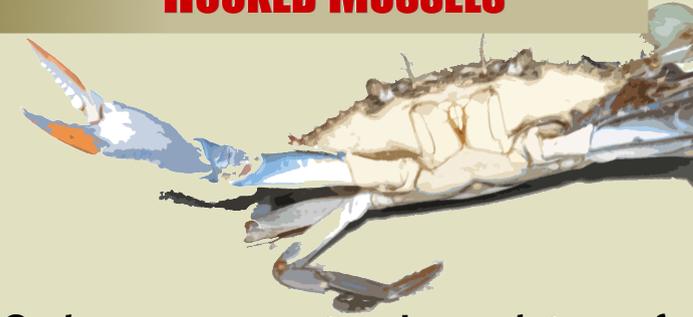
HOOKED MUSSELS attach themselves to a suitable surface with byssal threads.



HOOKED MUSSELS can be a major problem to oyster reefs because live oysters are a preferred substrate. However, a **HOOKE**D MUSSEL is not a parasite. Instead, it is a symbiont. Symbionts are different organisms that live together. This relationship can be helpful, harmful, or have no effect on the organisms. As it turns out, **HOOKE**D MUSSELS do not directly harm the oysters they are living on. However, thick aggregations of mussels can have some negative results. Because **HOOKE**D MUSSELS are competitors of oysters, mussels and oysters compete for food and substrate. Also, clusters of **HOOKE**D MUSSELS can be a nuisance to oyster harvesters. Thick clusters of mussels can decrease harvesting efficiency, leading to increased harvest times and culling.



PREDATORS OF HOOKED MUSSELS



Crabs are a natural predator of Hooked Mussels. Of all the crab species of the Mississippi Sound, the Blue Crab (*Callinectes sapidus*) has been shown to be the most prominent predator of Hooked Mussels. Studies have also shown that Blue Crabs can help control Hooked Mussel populations.

Another prominent predator of Hooked Mussels is the Black Drum (*Pogonias cromis*). Black Drum have strong jaws suitable for crushing shells of mussels, oysters, and crustaceans.



Believe it or Not!

There is an oyster in the cluster of mussels on the left. In situations like this, mussels may deprive oysters of required nutrition.

