

ENSURING SUSTAINABLE FISHERIES

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EXECUTIVE SUMMARY

Our Bay fisheries are important both culturally and economically to the Commonwealth. Virginia's fisheries managers continue to struggle with managing and rebuilding fish populations, including species such as blue crab, river herring, American shad, striped bass, menhaden, and sturgeon. The growing prevalence of new land uses and the impacts from climate change necessitate prioritizing investment in better understanding the cumulative impacts of these changes on our iconic fisheries.

CHALLENGE

Data from the 2022 estimate of blue crab abundance¹ indicated the lowest numbers of blue crabs since the start of the winter dredge survey in 1989. Fortunately, this past year's data showed modest improvement in all sectors of the population.² However, numerous questions remain about the long-term health of the population, leading to the commencement of a new stock assessment which kicked off in the fall of 2022.

An ongoing concern in the blue crab fishery has been the excess amount of crabbing gear being utilized to catch blue crabs, which lowers the catch per unit effort for watermen and increases the likelihood of lost gear. In order to help reduce this problem, a crab pot tagging program should be implemented in order to help ensure a more appropriate amount of gear is deployed by the fishery and aid the Virginia Marine Resources Commission (VMRC) in the management of the fishery.

Fishery managers, recreational anglers, conservation interests, and researchers have long raised concerns about the amount of menhaden harvest in the Chesapeake Bay region. In addition, the fishery has been plagued in recent years by a quota exceedance, numerous fish spills that have washed up on area beaches, and the bycatch of highly managed species such as red drum.

Unfortunately, improved menhaden fishery management continues to be sidelined by a lack of data specific to the population of menhaden in the Chesapeake Bay. Current data is needed to better gauge the impacts that are taking place from climate change and the menhaden reduction fishery. Now is the time for Virginia to implement a comprehensive menhaden science program to ensure enhanced menhaden management in the future.

Virginia's fishery managers currently have little control over surface water withdrawals that kill billions of fish, shellfish, eggs, and larvae each year through impingement (organisms being pinned against mesh screens because of strong withdrawal velocity) or entrainment (organisms that go through a facility's water system because mesh size is too large). This chronic mortality threat is seldom subjected to independent monitoring and withdrawals and/or withdrawal rates are rarely limited during ecologically important times such as peak spawning season. Such withdrawals are becoming more common

and are happening without the appropriate study of cumulative impacts on these natural resources in our river systems.

SOLUTION

The General Assembly should appropriate the necessary funds to implement a pilot crab pot tagging program for three years. This will allow VMRC to gauge the effectiveness of such a program in protecting the blue crab resource by easing the enforceability of management measures for the fishery and the feasibility of adopting such a program on a long-term basis.

Through SB 1388, the 2023 Virginia General Assembly tasked the Virginia Institute of Marine Science (VIMS) with developing plans for studying a host of important issues related to the ecology and economic impact of menhaden to the Commonwealth. After reviewing the outcomes of this work and continued dialogue with stakeholders, the General Assembly should direct VIMS and its appropriate partners such as the Atlantic States Marine Fisheries Commission, to begin this work and ensure appropriate funding of these efforts in order to ensure their timely completion.

Virginia must evaluate the cumulative impacts of all existing and proposed permitted and non-permitted surface water withdrawal intakes on the mortality of fish larvae and eggs. Due to the host of permitting and fisheries questions that must be answered, the General Assembly should instruct the Virginia Department of Environmental Quality and VIMS to appropriately study the cumulative impacts from these projects in order to appropriately inform permitting decisions.

POLICY RECOMMENDATIONS

Fund a 3-year pilot program from the General Fund for crab pot tagging.

Direct DEQ to promptly enforce federal regulations implementing § 316(b) of the Clean Water Act for cooling water intakes at power plants to reduce impacts on fish populations.

Allocate funds to VIMS necessary to complete a comprehensive menhaden stock assessment in partnership with other Chesapeake Bay region management bodies and menhaden scientists.

Fund a study through the Virginia DEQ and VIMS on the cumulative impacts of existing and proposed permitted and non-permitted surface water withdrawal intakes in the Rappahannock, York, and James River Systems on the mortality of fish larvae and eggs. Use the results to inform permitting decisions.