REBUILDING HEALTHY FISHERIES

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WHY IT MATTERS

Healthy, productive fisheries are of critical economic, ecological, and recreational importance to communities throughout the Commonwealth. Fisheries support a wide range of livelihoods–from commercial harvesters and seafood processors to charter boat operators and local tourism and outdoor recreation businesses. Beyond their economic value, these fisheries are woven into Virginia's cultural fabric, offering generations of residents the opportunity to fish, connect with nature, and preserve long-standing traditions.

However, many of Virginia's most iconic migratory fish species are in a state of alarming decline.[1] Populations of American shad, river herring, and Atlantic sturgeon have all dropped to historically low levels, and striped bass remain overfished and will struggle to rebound due to years of historically low spawning success. There isn't a more illustrative example than that of the James River, where, for the last 5 years, American shad have been at 0% of their management goal through population assessments completed by the Virginia Institute of Marine Science (VIMS).[2] Once-abundant in Virginia's rivers and estuaries, today these species face habitat degradation, water quality issues, bycatch, overfishing, and climate change. Atlantic menhaden, a keystone forage species that is critical to the marine food web, has been at the center of management debates, reflecting broader concerns about the sustainability of our marine ecosystems and the concentrated industrial menhaden reduction fishery in Virginia.

Blue crabs, another culturally and economically significant species of Virginia's fisheries, are also experiencing declines. According to the Virginia Marine Resources Commission (VMRC), the commercial harvest was 18.6 million pounds valued at $41.5 million.[3]

Protecting and restoring these populations is not only a biological imperative but also a matter of preserving the Commonwealth's heritage and economic resilience. Investing in peer-reviewed and science-based management, habitat restoration, and conservation partnerships is essential to ensuring that Virginia's fisheries remain a vital resource for future generations.

CURRENT LANDSCAPE

Fisheries management regulations aim to balance ecological sustainability with economic and recreational interests. For migratory fish species, the VMRC and the Atlantic States Marine Fisheries Commission (ASMFC) oversee these declining populations with support from the Department of Wildlife Resources (DWR). American shad and river herring have been under statewide fishing moratoriums for decades, while the striped bass fishery has been under emergency management measures for over two years.[4]

Despite these restrictions, American shad, and to a similar extent, river herring, have shown little response to stocking or the moratoriums. In 2023, VIMS published a recovery plan for American shad in the James River, highlighting regulatory blind spots and calling for further study to support this species. Only one of the 20 action items identified in the plan has received funding.

A single industrial reduction facility dominates coastwide menhaden harvests and is allowed to operate within Virginia waters. This fishery removes immense volumes of menhaden from in and around the Chesapeake Bay, raising concerns about long-term ecological impacts. Despite growing evidence of ecosystem stress, including declining osprey reproduction and reduced catch rates for small-scale menhaden bait fishers, Virginia lacks the localized science needed to make informed menhaden management decisions within its waters. Although a comprehensive menhaden study plan has been developed and broadly supported, it remains unfunded.

The Chesapeake Bay's blue crab population has plummeted to 238 million, the second-lowest level since monitoring began in the 1990s, closely following 2022's record low of 226 million. Experts report declines across adult males, females, and juveniles, with particular concern over juveniles. The causes remain uncertain but likely involve habitat loss, predation by invasive species, pollution, and extreme weather from climate change, which disrupts larval return to the Bay.

Blue Catfish, a highly invasive introduced species, can be found in all of Virginia's major tributaries to the Chesapeake Bay. These voracious predators consume a range of species including migratory fish, blue crabs, and oysters. While commercial and recreational blue catfish landings have steadily increased, market demand has not. Efforts to address market demand for blue catfish are ongoing. Recommendations from the Blue Catfish Work Group are due by September 1st on how to reduce the negative ecological effects of blue catfish and increase the market demand forblue catfish. Continued support through the Blue Catfish Processing, Flash Freezing, and Infrastructure Grant Program[5] encourages political subdivisions to strengthen related infrastructure and operations.

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OPPORTUNITIES

VIMS released a recovery plan for American shad in the James River that outlines 20 targeted actions, projects, and initiatives aimed at restoring this declining population. Many of these actions are expected to benefit a wide range of aquatic species in addition to American shad. Funding projects prioritized by VIMS and other agency staff will begin this process and help these native species.

Opportunities to improve menhaden management include fully funding and implementing the VIMS' Menhaden Study Plan to provide the Bay-specific science needed for responsible management. Additionally, adopting precautionary measures such as seasonal or area-based closures and reducing industrial fishing can offer immediate ecological relief while science catches up.

To protect the long-term sustainability of the blue crab population and its economic benefits, Virginia will need to respond to the annual winter dredge survey and the upcoming Chesapeake Bay Blue Crab Stock Assessment with a focus on changes that will help restore the population. Virginia should consider reducing direct harvest pressure on the population, particularly male crabs, to facilitate the stock's rebound while expanding efforts to restore and improve critical crab habitats, control invasive blue catfish, and improve Chesapeake Bay blue crab science.

Funding the Blue Catfish Work Group's recommendations, alongside sustained or increased funding for the Blue Catfish Processing, Flash Freezing, and Infrastructure Grant Program could boost the market for wild blue catfish harvested from the Chesapeake Bay and its tributaries.

TOP TAKEAWAYS

Virginia's native migratory fish species, such as American shad, river herring, and endangered Atlantic sturgeon, are severely depleted, with some at historic lows. Striped bass face six years of historically low spawning success and are currently subject to restrictive management measures to promote population rebuilding.

Funding for projects, studies, and work group recommendations, like those identified in the James River American Shad Recovery Plan, is essential to boost populations of imperiled native species.

Coastwide menhaden removals are concentrated in Virginia, where signs of ecosystem stress are mounting, yet there is limited menhaden science specific to the Bay. Supporting menhaden science and precautionary management strategies is critical to ensuring the long-term sustainability of the Chesapeake Bay ecosystem.

ENDNOTES

1. *Protecting Migratory Fish in the James River.* (2021). James River Association. https://thejamesriver.org/protect-migratory-fish/
2. *Monitoring Data.* (2015). Virginia Institute of Marine Science. https://www.vims.edu/research/units/programs/american_shad/results/Monitoring_data
3. *2024 Annual Report on the Blue Crab Fishery Management Plan.* (2024). Virginia Marine Resources Commission. https://rga.lis.virginia.gov/Published/2024/RD835/PDF
4. *Addendum II to Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass Interim Commercial and Recreational Management Measures.* (2024). Atlantic States Marine Fisheries Commission. https://asmfc.org/wp-content/uploads/2025/01/AtlStripedBass_AddendumII_Am7_Jan2024-1.pdf
5. *Blue Catfish Infrastructure Grant Program.* (2024) Virginia Department of Agriculture and Consumer Services. https://www.vdacs.virginia.gov/agriculture-afid-infrastructure-grants-blue-catfish.shtml