



Blue Catfish Market Expansion Study

A Project Conducted under
USDA Rural Business-Cooperative Service
Rural Business Development Grant RBS-24-Business-0014
for the

Maryland Department of Agriculture

Matthew Scales, Seafood Marketing Director

50 Harry S. Truman Parkway

Annapolis, MD 21401

matthew.scales1@maryland.gov

(410) 841-5791 (O)

(443) 510-0937 (M)



Final Report

July, 2026

Conducted by

Market Solutions LLC

Chevy Chase & St Michaels, MD

Phone: (301) 654-2949

Fax: (301) 654-4742

info@marketsrus.com

www.marketsolutionsllc.com

Page intentionally blank



Executive Summary

- Market Solutions LLC was retained by the Maryland Department of Agriculture (MDA) Seafood Marketing Program to assess opportunities and strategies for expanding markets and processing for Wild caught Chesapeake Blue Catfish, with a special emphasis on Maryland's Middle Eastern Shore. Funding to MDA was provided by a grant from USDA's Rural Business-Cooperative Service (RBCS).
- Maryland watermen harvested 4 million lbs of wild blue catfish in 2025, with a dockside value of \$2.7 million. This represents a doubling of the commercial harvest since 2018. While average year-to-year dockside prices paid to watermen for blue catfish have been variable, they increased 41% from an average of 53 cents per lb during 2017-19 to about 75 cents per lb during 2024-25, based on Maryland Department of Natural Resources (DNR) reporting.
- Maryland has led neighboring states in support for marketing blue catfish, including state purchases starting in 2018, initiatives with school lunch programs, and [Maryland's Best](#) marketing support to promote blue catfish consumption. Processors have also been very active in marketing blue catfish. Maryland marketing support for blue catfish appears to be paying off in terms of stronger demand, higher prices than neighboring states, and in turn growing commercial blue catfish harvests.
- If the harvest increase trend of the last 7 years continues, Maryland could need to process and build markets for 7.7 million lbs of blue catfish annually by 2030, nearly double the 2025 level, based on Market Solutions LLC projections. While this seems like an aggressive goal, it represents only one fourth to one half of the 15-30 million lb annual blue catfish harvest target reported in some press reports as required to control the threat. [Maryland's DNR](#) and researchers at VIMS/William & Mary, Virginia Tech, University of Maryland, USGS have been working to develop estimates of blue catfish densities in Maryland and Virginia waterways, and models of how harvests could affect their growth and threats to other species.
- **Maryland Eastern Shore Processing.** This project was initially proposed by MDA to explore feasibility of expansion of blue catfish processing and marketing for two Eastern Shore processors, **BSA Seafood** and **Tilghman Island Seafood**. By the time this assignment was begun, both wanted to expand processing, but had been unable to get required approvals to expand at their current locations in Queen Anne's and Talbot Counties. They were already considering other options.
- **USDA Inspection Requirement Limits Blue Catfish Processing.** Under Farm Bills since 2008, farmed catfish and other *siluriformes* (fish without scales), including wild blue catfish, have been treated like livestock, with inspection by the U.S. Department of Agriculture (USDA). The safety of all other seafood in the U.S. is under Food and Drug Administration (FDA) Hazard Analysis Critical Control Point (HACCP) systems, which do not require on-site inspectors. As a result there are only four seafood processors with USDA inspection to be allowed to process blue catfish in Maryland. This raises costs and limits expansion of blue catfish harvests and processing.
- **Changes to Original Project Scope of Work.** These developments made it impractical for this assignment to specifically examine the feasibility of expansion by BSA Seafood or Tilghman Island Seafood, though both were consulted multiple times in the course of the project. MDA discussed this situation with USDA and received guidance that the scope of this research should be adjusted to provide broader market insights and strategic guidance for those who might consider processing blue catfish on Maryland's Eastern Shore.



Executive Summary

- **Exploring Blue Catfish Supply Challenges.** Based on the blue catfish supply challenges both processors reported, Market Solutions LLC agreed with MDA to explore Commercial Blue Catfish harvests, challenges and opportunities. This involved substantial assistance from DNR, including a special tabulation of commercial harvest data by month and above and below the William Preston Lane Jr. Memorial Chesapeake Bay Bridge.
- **Maryland's Eastern Shore below the Chesapeake Bay Bridge** accounted for at most 267,000 lbs out of Maryland's 4 million lb commercial Blue Catfish harvest in 2025, based on DNR statistics. All could have been processed by the existing processors.
- With limited availability of blue catfish near processors' current Eastern shore locations, they report purchasing blue catfish from all parts of Maryland, and as far south as North Carolina's Albemarle Sound, in order to get the blue catfish volumes needed to fill orders.
- **Transportation costs.** Whether paid for by watermen or processors, there is currently substantial transportation cost to get blue catfish to processors. This affects what watermen can get paid for fish. With the USDA inspection requirement limiting the number of businesses that can process blue catfish, transportation costs are likely to remain higher than might otherwise be the case. This ultimately makes Maryland processors less cost effective, and limits the prices that can be paid to motivate more watermen to spend more days harvesting blue catfish.
- **Reliable Data on Commercial Harvests, Markets and Blue Catfish Biomass and Diets** are all important to a strategy to help reduce Maryland's Blue Catfish Problem. At a time when federal research funding in many areas is being reduced, this will be an important consideration for Maryland. In 2024, DNR named its Invasive Fishes Program Manager and created the Invasive Catfish Advisory Committee (ICAC), to coordinate efforts to improve research and develop pilot projects to expand the commercial harvesting of blue catfish, while protecting other managed fishery species. ICAC discussions have revealed that there has not always been clarity among stakeholders on regulations on catching and selling blue catfish.
- **Balancing By-Catch Concerns with Predation of Important Economic Species.** *DNR is a regulator, charged with enforcing fishery management rules to prevent by-catches of other managed species when fishing for blue catfish. It would be useful for DNR and other stakeholders to be able to evaluate tradeoffs where increased blue catfish harvests may actually help protect populations of some of those same species, such as juvenile blue crabs, rockfish and others that are being consumed by this aggressive apex predator.*
- **A Blue Catfish Market Expansion Action Plan.** Market Solutions LLC provides recommendations related to:
- **Market News.** Wider and more timely reporting of blue catfish commercial harvest and handler/processor purchases to help encourage more watermen to harvest blue catfish and help processors reduce the time and transportation required to get the supplies needed to keep processing lines running cost effectively.



Executive Summary

- **Addressing Seasonality of Supplies: Licenses, Gear, Other Regulations, Pilot Projects.** One objective of pilot projects under study is to help even out supplies during winter and summer when blue catfish supplies are low and fishing with trot lines is less effective. More regular seasonal supplies would allow processors to operate more efficiently and retain employees year round. To the extent that this helps to drive down processing costs, it can make blue catfish a more attractive option for price conscious consumers, and also leave more to pay watermen for fish and improve earnings of processing businesses.
- **Processing Facility Business Models.** Most USDA inspected processors in Maryland are primarily seafood distributors. They still have to schedule staff separately to work under USDA inspection, and are governed by the hours that inspectors are available to work. Processing of all of the other seafood handled by distributors is under FDA HACCP rules, allowing businesses to operate on normal eight hour shifts, rather than 8-12 hours shifts with overtime pay required to accommodate availability of USDA inspectors.
- **Neither Eastern Shore processor currently has sufficient freezer capacity to handle the processed blue catfish they would like to freeze.** In other parts of the seafood industry, processing of seasonal harvests is sometimes spread out by freezing fish to hold for processing, or to ship elsewhere for processing. Quality of twice frozen seafood is only acceptable for some customers, however.
- **Positioning Wild Chesapeake Blue Catfish in the U.S. market for White Fish.** If Maryland's wild blue catfish harvest expands to 7.7 million lbs by 2030, it will represent only about 4% of 192 million lbs of total 2026 U.S. farmed and wild-caught catfish consumption and less than 1 percent of 1.2 billion lbs of major white fish species like catfish, tilapia, Alaska Pollock, Pangasius and Cod.
- *Wild Chesapeake Bay Blue Catfish has the potential to be positioned as higher valued than some of these species in some foodservice and retail applications, but to move large volumes, it will compete for the market.*
- **A Market Segmentation Strategy to Build Blue Catfish Sales.** This underscores the importance of a strategy to pursue segmented market opportunities for wild caught Chesapeake blue catfish, described below, to help obtain maximum potential value for Maryland watermen and processors. Target segments should include:
 - Upscale full service restaurants and retailers, helping to build awareness and a positive image for wild Chesapeake Blue Catfish;
 - Broader foodservice and retail market opportunities;
 - Institutional foodservice, including school meals;
 - Maryland's Certified Local (CLFF) program;
 - USDA and DOD food purchase programs;
 - Value-added processors for fillets, portions, cakes, nuggets and new products like surimi; and
 - New markets for by-products such as collagen, Omega-3 fish oil, protein, calcium, minerals.



Executive Summary

- **A Three Tier Segmented Strategy to Build Wild Chesapeake Blue Catfish Sales with Foodservice, Retail and Value-Added Processors:**
- **Market Solutions LLC Recommends:**
- Tier 1. Premium Foodservice and Retail: Strategy: Educate and Grow
 - A Premium Foodservice and Retail Focus to help Build the Story and Image of Wild Chesapeake Blue Catfish, and tell of taste, health, nutrition (protein, Omega-3s), safety and sustainability (Consumption is good for the Bay and helps protect threatened species).
 - Target top 10% - Frequent Seafood Buyers who account for 40% of retail seafood purchases
- Tier 2. Broader Retail and Foodservice, Institutional, School Foods, CLFF: Strategy: Educate and Grow- short, medium term
 - Build on Tier 1 successes and messaging as expand blue catfish harvest and processing capabilities to be able to meet demand without supply interruptions. With increased volume and additional value-added, become more price competitive; able to supply on a reliable and timely basis.
- Tier 3. USDA and DOD, Commercial Institutional Foodservice: Strategy: Educate for Medium & Long Term Opportunity.
 - Expanded harvest, processing and cold storage capability allow to become cost competitive and leverage marketing lessons to expand volumes cost competitively & profitably.

Developing Wild Chesapeake Blue Catfish Opportunities with Foodservice, Retail and Value-Added Processors

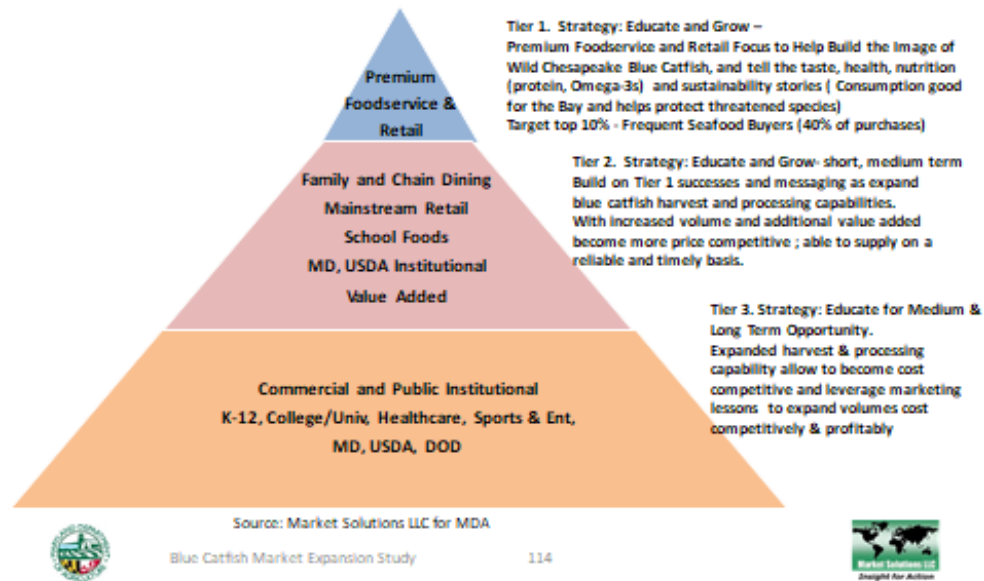


Table of Contents

• Executive Summary.....	i
• Introduction.....	1
• Opportunities for Expanding Blue Catfish Markets and Processing: Project Background and Highlights.....	2
– Blue Catfish Supplies for Processing on the Middle Eastern Shore of Maryland.....	4
– Maryland Commercial Blue Catfish Harvest Reached 4 million lbs valued at \$2.7 million in 2025	5
– Maryland Commercial Blue Catfish Dockside Prices	6
– Geographic Distribution of Blue Catfish, 2023	7
– Maryland Blue Catfish Harvest by Area, 2025.....	8
– Maryland Commercial Blue Catfish Harvest by Month.....	9
– Potential 7.7 Million Lb Maryland Blue Catfish Processing Required by 2030.....	10
– Commercial Blue Catfish Harvest in MD, VA and NC.....	11
– Commercial Blue Catfish Values in MD, VA and NC.....	12
• Commercial Fishing for Blue Catfish in Maryland	13
– Commercial Harvesting & Dealer’s Licenses.....	14
– Blue Catfish Harvest Seasonality by Numbers of Maryland Licensed Commercial Harvesters Reporting.....	15
– 2025 Blue Catfish Harvest by Gear Type.....	16
– Pilot Programs for Harvesting Blue Catfish.....	17
• Consumer Acceptance of Blue Catfish.....	18
– Catfish in American Seafood Consumption.....	19
– How Consumers Shop for Seafood.....	20
– Where Consumers Buy Seafood.....	21
– New Dietary Guidelines Promote Seafood.....	22
– Wild Blue Catfish Rich in Protein and Omega-3s.....	23
– Consumer Research Findings on Blue Catfish.....	24



Table of Contents

–	Consumer Perspectives on Blue Catfish Taste.....	25
–	Health, Taste, Wild-Caught, Chesapeake Positive Blue Catfish Messages: MDA/DNR Focus Groups Found	26
–	Consumer Education Increases Purchase Likelihood and Willingness to Pay: Survey Found.....	27
–	Consumer Acceptance of Blue Catfish: Potential for Rebranding?	28
•	Growing Market Opportunities for Blue Catfish.....	30
•	Blue Catfish Market Channels: Retail, Foodservice, Value- Added Manufacturing.....	31
–	Opportunities by Market Channel for Blue Catfish.....	32
•	Blue Catfish Processing in Maryland.....	33
–	About BSA Seafood LLC.....	34
–	About Tilghman Island Seafood LLC.....	35
–	Blue Catfish Processing in DC and Virginia.....	36
–	Creating Markets for Blue Catfish and By Products to Make Processing More Profitable	37
–	The Value Proposition of What Can Be Produced and Sold: Breaking Down a Wild Blue Catfish.....	38
–	Expanding Blue Catfish Processing on Maryland’s Eastern Shore: Economics, USDA Inspection.....	39
–	Adding Value to Blue Catfish By Products.....	41
•	Potential Retail Market Opportunities.....	42
–	– Retail Marketing Materials Should Share Facts on Wild Caught Chesapeake Blue Catfish.....	43
–	Seafood Nutrition Partnership Retail Marketing Playbook.....	44
–	Educating Consumers on Seafood Safety	45
–	Retail Frozen Food Opportunities.....	46
–	Frozen and Chilled Seafood Product Examples, Suppliers and Brands.....	47
•	Foodservice Market Opportunities and Segments	48
–	Foodservice Target Market Segments & Strategies.....	49
–	Blue Catfish on Menus in the Delmarva Region and Washington, DC.....	50



Table of Contents

- Potential Opportunities with Maryland’s Certified Local Farm & Fish (CLFF) Program51
- Market Potential for Blue Catfish in School Lunches.....52
 - Seafood Purchases by State for School Lunches.....53
 - Caroline County School Lunch Success.....54
 - School Lunches and Child Nutrition (CN) Labels55
 - Seafood Nutrition Partnership for School Foods.....56
- USDA Food Purchases.....57
 - USDA AMS Fish Purchases, FY 202558
 - New Federal Purchase Program Specification (FPPS): Wild-Caught Blue Catfish Fillets.....59
 - Blue Catfish on USDA TFAP Foods Available List.....60
 - Competition For USDA Procurement61
 - Example of USDA Pre-Solicitation Announcement62
 - Web-Based Supply Chain Management (WBSCM)63
- Defense Department Fish and Seafood Procurement: The Berry Amendment64
- Opportunities and Challenges of Large Government and Commercial Sales65
- Value-Added Processing and Manufacturing66
 - Tilghman Island Seafood: Value Added Products.....67
 - Other Value-Added Seafood Product Examples68
 - Channel Fish Spanakopita Wild Blue Catfish.....69
 - Channel Fish CN Label Fish Nuggets & Portions.....70
 - Safe Catch Fish Nuggets.....71
 - Seafood Snackers Surimi.....72
 - Trident Salmon Burgers and Pollock Portions73
 - Highliner Foods: Mrs. Paul’s and Other Value-Added Branded and Private Label Seafood.....74
 - Potential Maryland Value-Added Product Development and Co-Packing Partners.....75



Table of Contents

•	Conclusions and Recommendations: A Blue Catfish Market Expansion Action Plan.....	76
–	Blue Catfish Harvests, Prices, Outlook.....	77
–	Maryland Eastern Shore Processors.....	78
–	Reliable Data on Commercial Harvests, Markets and Blue Catfish Biomass and Diets.....	79
–	Encouraging Increased Blue Catfish Harvests.....	80
–	Market News, Seasonality, Business Models.....	81
–	Potential 7.7 Million Lb Maryland Blue Catfish Processing Required by 2030.....	82
–	Building Demand for Maryland Blue Catfish.....	83
–	Market Segments & Strategies.....	84
–	Developing Wild Chesapeake Blue Catfish Opportunities with Foodservice, Retail, Value-Added Processors.....	85
•	Appendices.....	86
–	Economic Impact of Blue Catfish Processing on Maryland’s Economy.....	87
–	Improving MD Blue Catfish Commercial Harvest and Sales Data Collection.....	89
–	• What is Causing the Shift to Blue Catfish Harvest on Upper Chesapeake Bay.....	90
–	Consumption Advisories for Eating Blue Catfish	94
–	Policy and Regulatory Issues Important to Blue Catfish.....	98
–	Potential Resources to Support Expanded Blue Catfish Processing.....	99
•	For Additional Information.....	101

Disclaimer: Market Solutions LLC has exercised reasonable professional care and diligence in the collection, analysis and reporting of information presented here. As most data are from third party sources, we have not independently verified, validated or audited the data. Market Solutions LLC makes no warranties with respect to the accuracy of the information or whether it is suitable for the purposes to which it may be put by users. Please note that mention of a company or its products does not constitute an endorsement by Market Solutions LLC.



Introduction

- The Maryland Department of Agriculture (MDA) selected Market Solutions LLC, a leading food, agriculture and seafood consulting firm, to conduct strategic research on growth opportunities for blue catfish into new products and markets; and to develop an action plan, including potential partnerships to help achieve this growth. The project is funded under USDA Rural Business-Cooperative Service Rural Business Development Grant RBS-24-Business-0014.
- Primary objectives of the assignment include:
 - Willingness of consumers to accept blue catfish as a viable and valued food source;
 - The market areas, including diverse blue catfish products and different market streams (different areas of the country, schools, institutions, ...) that have the **greatest growth potential for blue catfish**;
 - The **challenges** with entering these new/expanded market; and
 - The **strategies for market entry and processing center business models** that will support this growth.
- MDA's grant indicated a special interest in examining the feasibility of expand processing and jobs at two rural processing centers on Maryland's Eastern shore, BSA Seafood and Tilghman Island Seafood, including potential multiplier impacts on Maryland's economy, such as employment at the centers, jobs and incomes of commercial watermen, and others who would potentially benefit along the supply chain.
- The Market Solutions LLC team for this assignment was led by Mark D. Newman, President, with contributions from Senior Consultants Amanda Blair and Kathleen McNulty.
- Matthew Scales, MDA Seafood Marketing Director has been the contracting officer for the assignment. Appreciation is extended to BSA Seafood and Tilghman Island Seafood, many MDA, DNR staff, Maryland watermen and seafood and other food industry participants who provided information and insights to help with the project.

Wild Chesapeake Bay Blue Catfish



source: MD DNR



Opportunities for Expanding Blue Catfish Markets and Processing

Project Background and Highlights

- MDA's original grant proposal suggested examining feasibility of Expanding Blue Catfish Processing at:
 - BSA Seafood in Queen Anne County Maryland (BSA)
 - Tilghman Island Seafood, Talbot County Maryland (TIS)
- Both companies have been successfully expanding blue catfish processing, but have been unable to get approval to expand to meet growing demand in their current locations.
- In August, 2025, USDA announced \$6 million in available funding through the Meat and Poultry Processing Expansion Program (MPPEP) to help existing blue catfish processors expand at their current locations.
 - BSA Seafood received funding, under the program in March, 2026, but reports challenges limiting what the money can be used for because they need to expand in a different location.
 - Tilghman Island Seafood was the site of the Secretary of Agriculture's press conference announcing the grant program, but was not able to mobilize sufficient matching funds to get a grant. It also determined that it needed to expand or move, neither of which could be supported by the MPPEP grant program.
- BSA Seafood reports that it received state funding from Maryland Agricultural & Resource-Based Industry Development Corp ([MARBIDCO](#)), but reportedly had to return it because of delay in other funding availability.
 - BSA Seafood planned to purchase or lease a site in Caroline County, but that was no longer available when the grant was awarded. It is currently considering a site in Talbot County.
 - BSA's business model is primarily as a wholesaler/distributor of a full range of commercial seafood. In its current facility, it can only process Blue Catfish on a limited basis, as they have to clear out their processing area of other seafood to permit on-site USDA inspection of Blue Catfish processing.



Opportunities for Expanding Blue Catfish Markets and Processing

Background and Highlights – Continued

- Tilghman Island Seafood (TIS) is primarily a Blue Catfish processor. It also handles oysters in season and some other finfish.
 - TIS have invested in a processing line, refrigeration and freezing capabilities and a flaking machine to be able to produce blue catfish fillets and provide raw materials for manufacturing Blue Catfish Cakes, Nuggets and other products with a private label manufacturer.
 - TIS reports that local restrictions have limited their ability to expand their plant footprint and capacity.
 - They report that they have also faced challenges with regular reliable local blue catfish availability; and challenges with limited hours of USDA inspector availability, which limits the hours they can process fish when they are available.
 - During the course of this research, TIS has been considering several alternatives, including changing the use of their current facility to handle blue catfish processed elsewhere, moving to a facility on Virginia's Eastern Shore, and/or selling the current facility to a company whose primary interest is in potential by products of blue catfish.
- Market Solutions LLC received approval to begin this assignment in March, 2026. Given the above developments it was not possible to work directly with BSA and TIS to examine the feasibility of expansion at their current locations as originally specified. After discussion with USDA, MDA requested that this report provide more broadly targeted information and guidance to support expansion of Blue Catfish processing on Maryland's Eastern Shore.
- The scope of work was also modified to examine blue catfish supply issues. This was not originally expected to be necessary. The very limited commercial harvest of blue catfish on Maryland's Eastern Shore South of the Bay Bridge; seasonality of the blue catfish harvest; and regulations governing who can harvest blue catfish, where, and using what gear, will all influence the economic potential for expanding blue catfish processing.



Blue Catfish Supplies for Processing on the Middle Eastern Shore of Maryland

Highlights

Blue Catfish Supplies for Processing on the Middle Eastern shore of Maryland.

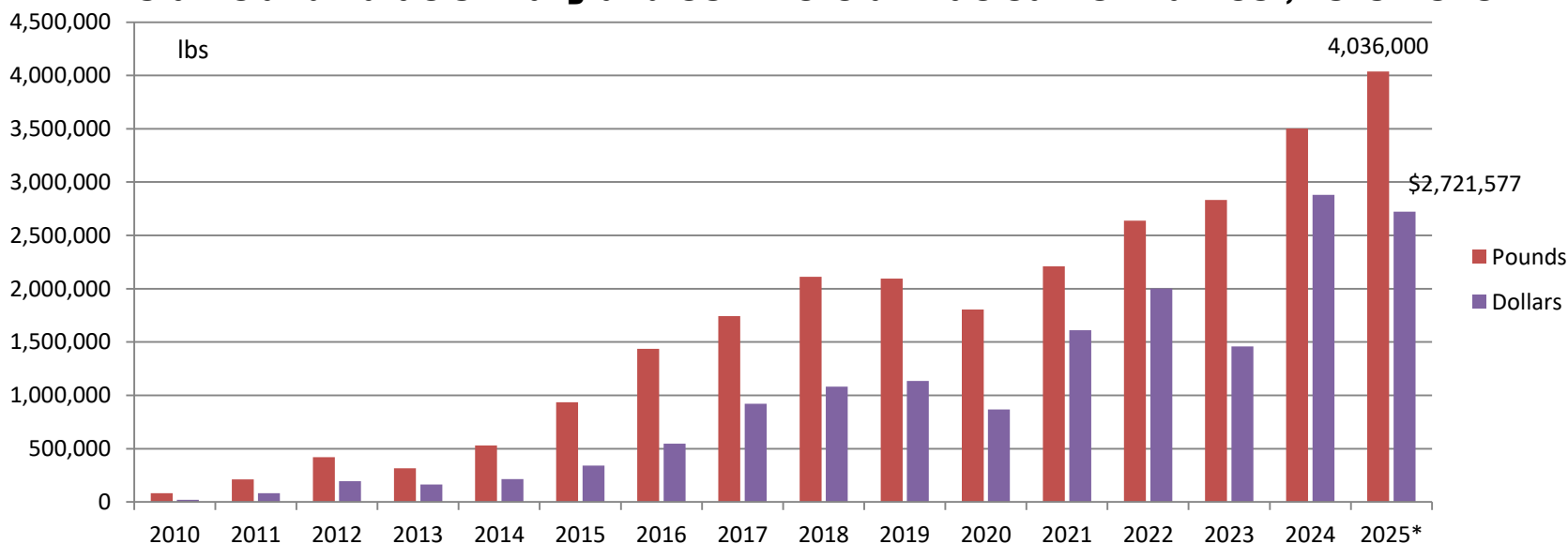
- Opportunities and Challenges.
 - Maryland's Commercial Blue Catfish harvest exceeded 4 million lbs in 2025.
 - Eastern Shore Processors currently report having to travel long distances from their processing locations in order to buy needed blue catfish.
 - BSA Seafood reports purchasing and trucking from as far as Southern, MD.
 - Tilghman Island Seafood reports going as far South as North Carolina, and North above the Bay Bridge.
- A special tabulation of MD DNR statistics provided to assist with this project shows limited commercial blue catfish harvest on the Eastern shore South of the Bay Bridge.
- Interviews with DNR and watermen, along with public meeting discussions of the Invasive Catfish Advisory Committee (ICAC), indicate some confusion over who is permitted to harvest blue catfish commercially and how in terms of license and gear options; and pilot blue catfish harvest programs.
- DNR reports that it has difficulty getting reporting from commercial watermen and dealers to have good statistics. An appendix discusses these reporting issues.
- DNR allows reporting on paper or electronically, using the Fishing Activity & Catch Tracking System (FACTSTM). Paper forms do not specify blue catfish as a reporting option, potentially leading to undercounting. Some watermen indicate that the online harvest reporting system involves risks of fines for late reporting, while paper forms do not. This may contribute to delays in Maryland reporting on commercial blue catfish harvests compared to neighboring states.



Maryland Commercial Blue Catfish Harvest Reached 4 million lbs valued at \$2.7 million in 2025

- **Maryland's commercial blue catfish harvest reached 3.5 million lbs valued at \$2.9 million in 2024, according to NOAA statistics.** Maryland's Department of Natural Resources (DNR) reported 1.6 million lbs commercially harvested during 2024, with a dockside value of \$1.35 million. Another 3.2 million lbs was reported harvested in the Potomac River Mainstem by the Potomac River Fisheries Commission. NOAA statistics allocate 1.9 million lbs of this harvest (59%) to Maryland, and 1.3 million lbs (41%) to Virginia.
- For 2025, DNR reported 2.5 million lbs harvested, valued at \$1.68 million. Another 2.6 million lbs was reported harvested in the Potomac River Mainstem. **Based on a similar share attributed to Maryland, the total commercial harvest would be 4.036 million lbs valued at \$2.7 million.**

Volume and Value of Maryland Commercial Blue Catfish Harvest, 2010-2025



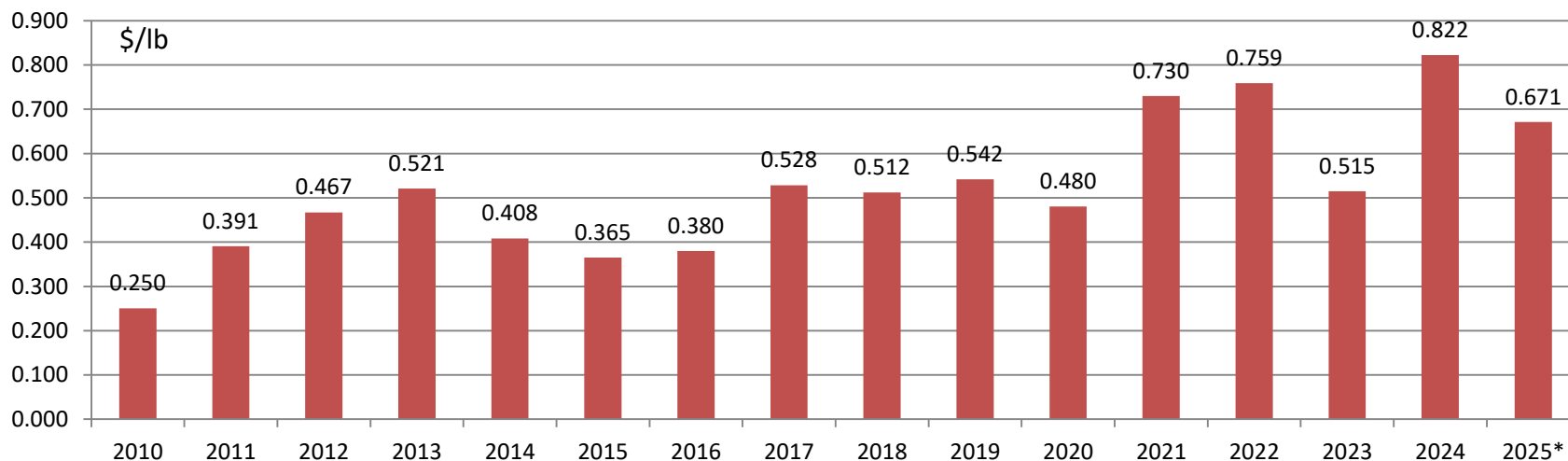
Source: NOAA FOSS data, and *2025 estimate based on DNR and PRFC, Market Solutions LLC analysis



Maryland Commercial Blue Catfish Dockside Prices

- The average dockside value of commercially harvested blue catfish in Maryland reached 82 cents per lb in 2024, according to NOAA statistics, but fell to 67 cents per lb in 2025 .
- Based on Maryland DNR statistics, the average dockside value was 85.1 cents per lb, up from 58.5 cents per lb in 2023, but fell to 67.1 cents per lb in 2025. The Potomac River Fisheries Commission also reported an average 67 cents per lb dockside value in 2025.
- Some commercial harvesters fish for blue catfish with a pre-arranged contract and pricing. A challenge facing some watermen is to ensure that they have markets when they harvest blue catfish. With a record commercial harvest in 2025, the decline in average reported prices may reflect some limitation in buying and processing capacity. Eastern shore processors reported paying more than the 2025 state average.

Maryland Commercial Blue Catfish Dockside Prices, 2010-2025



Source: NOAA FOSS data, and *2025 estimate based on DNR and PRFC, Market Solutions LLC analysis



Geographic Distribution of Blue Catfish, 2023

- Blue Catfish have expanded their range from lower Chesapeake Bay rivers (VA) where they were introduced for sports fishing in 1970s to most sub watersheds in the tidal basin by 2020. They continue to expand their range throughout the upper Chesapeake Bay.



NOTE: Areas depicted are boundaries of sub watershed and not all areas within them are inhabited by Blue Catfish.

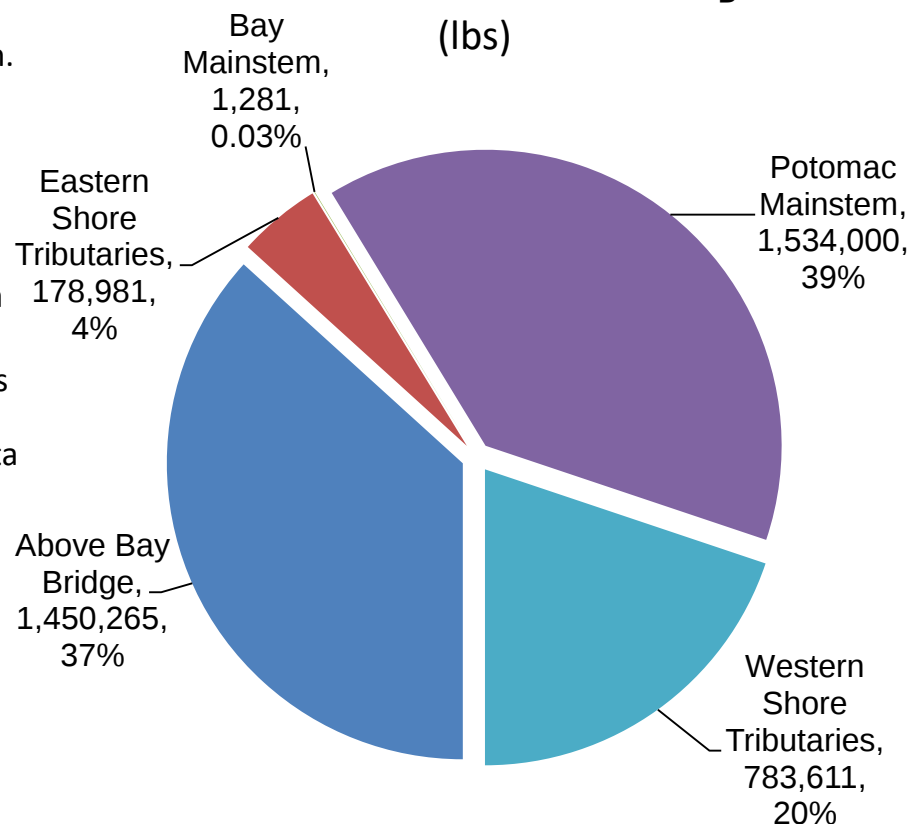
Source: DNR. Data from angler and agency reports, including: Coastal Conservation Association (2021, 2022). Great Chesapeake Invasives Count (2023). <https://storymaps.arcgis.com/stories/508bda04273f4cdca22f2108c1c8863e>



Maryland Blue Catfish Harvest by Area, 2025

- In 2025, 4.036 million lbs of blue catfish were harvested commercially in Maryland.
 - About 1.63 million lbs, 41% was harvested Above the Chesapeake Bay Bridge (37%), from Eastern Shore tributaries (4.5%) or from the Chesapeake Bay Mainstem.
 - About 2.3 million lbs, 59%, was harvested from the Potomac River Mainstem or Western Shore tributaries..
- Eastern shore blue catfish processors currently rely heavily on trucking to obtain blue catfish for processing. These findings help explain why they reported some challenges in obtaining a steady supply of blue catfish for processing during 2025.
- Adjusting for Confidential Data.** Maryland's DNR treats data as confidential when there were reports from 3 or fewer commercial harvesters. Most of the 2025 monthly harvest data that were considered confidential is from the Eastern Shore tributaries or Bay Mainstem. The exception was confidential reporting during August for the Western Shore tributaries.
- Confidential data accounted for only 3.5% of the total 2025 harvest reported to DNR, so at most Eastern Shore tributaries and the Bay Mainstem accounted for 11% of the total Maryland blue catfish harvest excluding the Potomac River Mainstem in 2025, or 267,000 lbs harvested.
- If Blue catfish populations are as prevalent in Eastern Shore tributaries, including the Choptank and Nanticoke River watersheds, then encouraging increased blue catfish harvesting by mid and lower Eastern shore watermen will be important to expanding mid-shore processing competitively.***

2025 MD Blue Catfish Harvest by Area



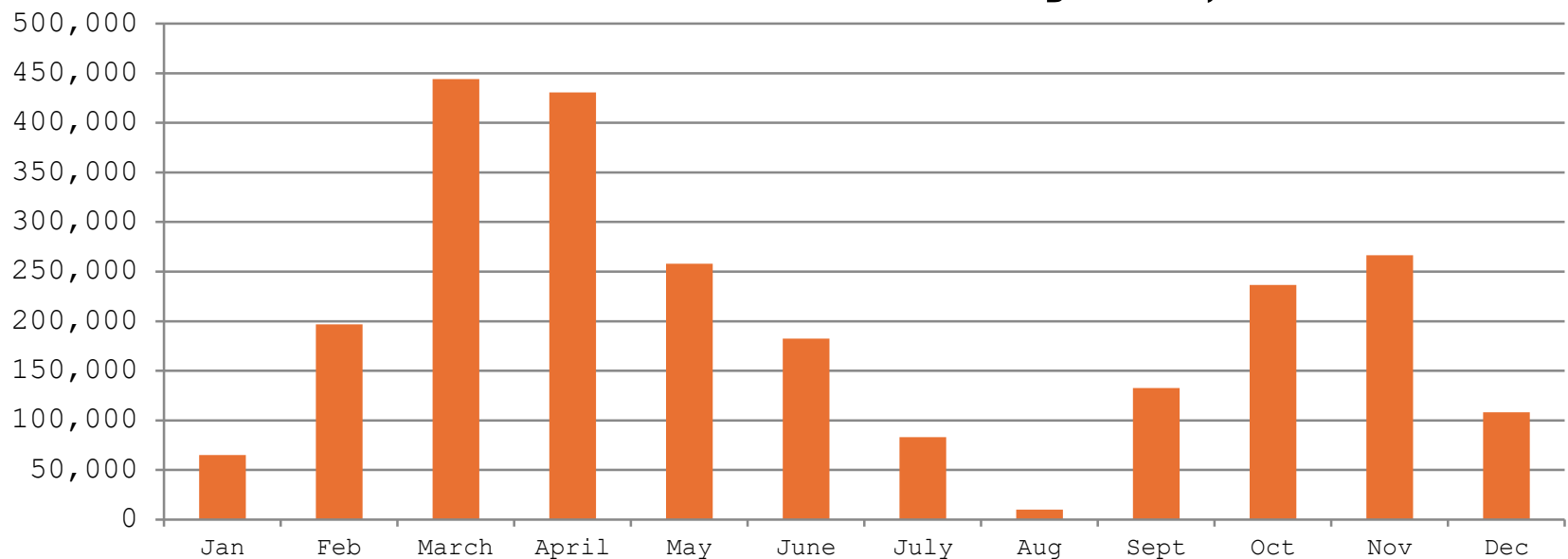
Source: MD DNR, Potomac River Fisheries Commission and NOAA data, Market Solutions LLC analysis



MD Commercial Blue Catfish Harvest by Month

- Maryland's commercial blue catfish harvest is influenced by a combination of competition for the attention of watermen due to returns in other fisheries and the biology of blue catfish.
- Based on Maryland DNR special tabulation of monthly data on the Commercial Blue Catfish harvest during 2025 other than in the Potomac River Mainstem, the harvest peaked during March and April before the opening of the blue crab season, and declined sharply in July and August; and again in December and January. While seasonality is the norm for many fisheries, it presents special challenges for expanding processing focused exclusively on blue catfish.

2025 MD Blue Catfish Harvest by Month, Lbs



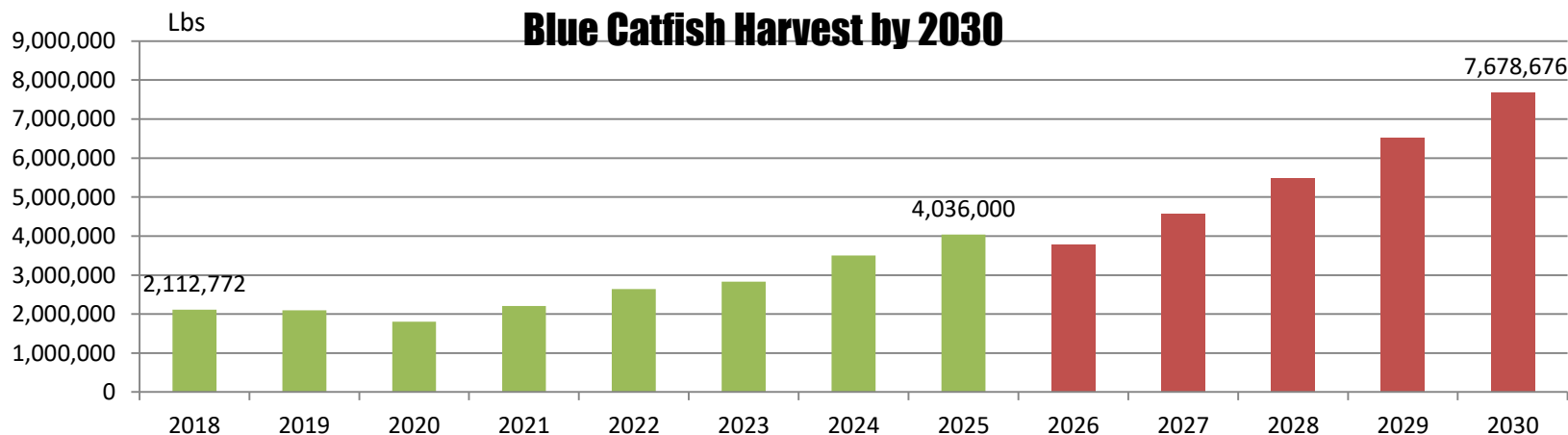
Source: MD DNR data, Market Solutions LLC analysis



Potential 7.7 Million Lb Maryland Blue Catfish Processing Required by 2030

- From 4 million lbs harvested in 2025, If Maryland's Commercial blue catfish harvest continues to grow as it has over the last seven years, 7.7 million lbs in annual processing capacity could be required by 2030.
- This would represent a 93% increase over the 2025 harvest, and assumes that there are not major changes in incentives to commercially harvest blue catfish or sales or processing options in the state. The harvest increased 91% from 2018 to 2025.
- While this seems like an aggressive goal, it represents only one fourth to one half of the 15-30 million lb annual blue catfish harvest target reported in some press reports as required to control the threat. [Maryland's DNR](#) and a number of researchers at VIMS/William & Mary, Virginia Tech, University of Maryland and USGS have been working to develop better estimates of blue catfish densities in Maryland and Virginia waterways, and models of how harvests could affect their growth and threats to other species.
- Market Solutions LLC developed a polynomial linear regression model to project the potential commercial blue catfish harvest to 2030 based on reported Maryland commercial blue catfish harvests 2018-2025.

Potential 7.7 Million Lb Maryland Commercial Blue Catfish Harvest by 2030



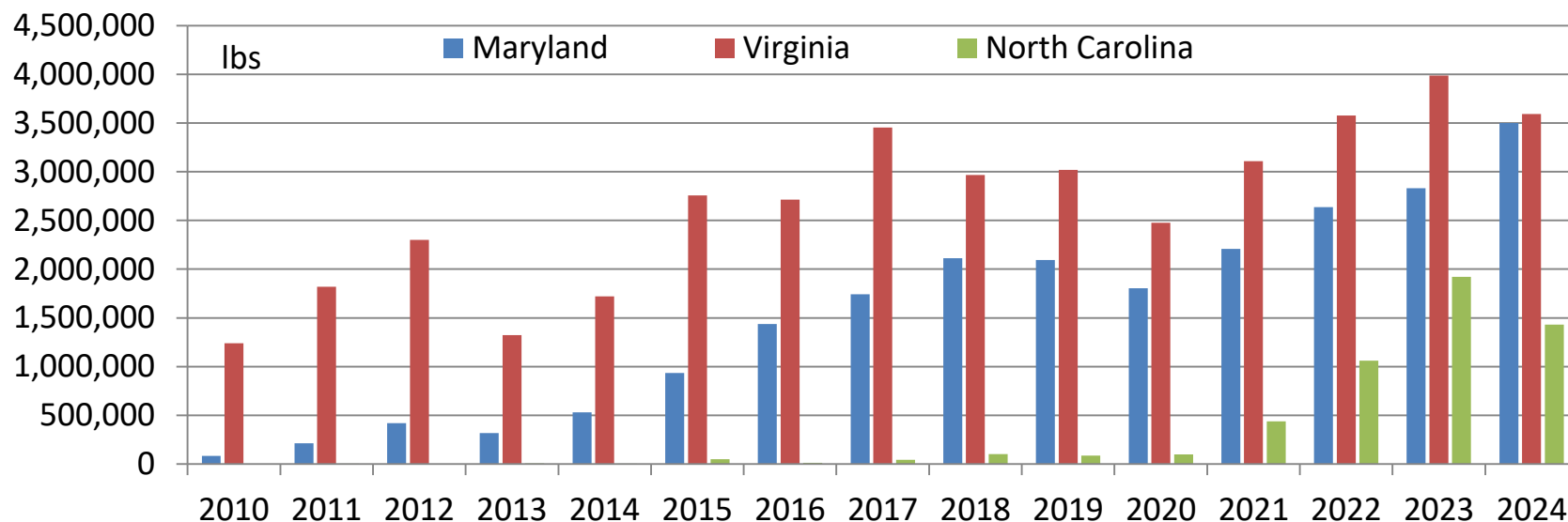
Source: DNR and Potomac River Fisheries Commission data and estimates, 2018-2025, Market Solutions LLC projections, 2026-2030.



Commercial Blue Catfish Harvest in MD, VA and NC

- The combined commercial blue catfish harvest in Maryland, Virginia and North Carolina was 8.5 million lbs in 2024 according to NOAA statistics. Since 2020, the Maryland harvest nearly doubled, while the harvest in Virginia increased 45% and the North Carolina harvest increased 14 times.
- *Since 2010, the Maryland commercial harvest increased 42x, the Virginia harvest tripled. North Carolina's commercial blue catfish harvest increased from 1,250 lbs in 2011 to 1.4 million lb 2024. North Carolina also has important commercial channel catfish aquaculture, with one integrated processor harvesting 5 million lbs annually.*

Growing Blue Catfish Harvests in MD, VA and NC



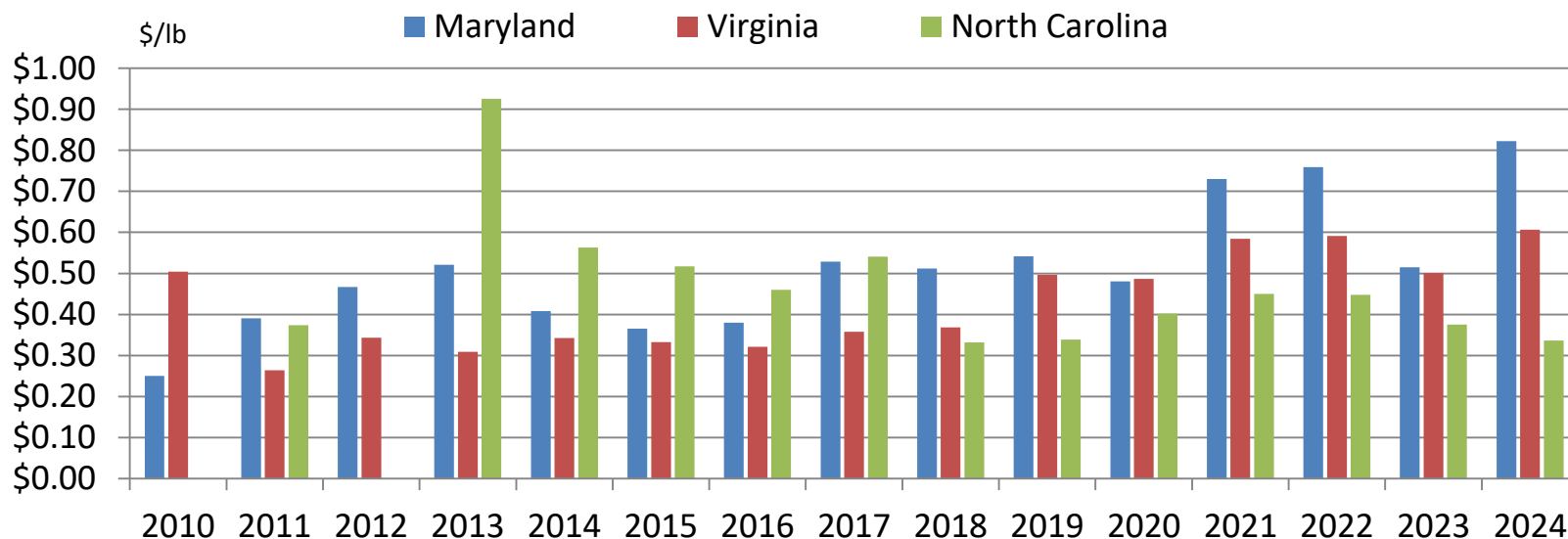
Source: NOAA FOSS data, Market Solutions LLC analysis



Commercial Blue Catfish Values in MD, VA and NC

- Dockside values for Blue catfish have generally increased more in Maryland than in neighboring Virginia and North Carolina, according to NOAA reporting based on state and Potomac River Fisheries Commission data.
- Variability in Maryland prices may create a disincentive for commercial watermen to harvest blue catfish. At the same time, higher Maryland prices may create an incentive for Maryland processors to buy from watermen in Virginia and North Carolina.
- Increased processing and emphasis on market development has contributed to higher prices and larger harvests since 2020 in Maryland and Virginia.

Average Dockside Blue Catfish Prices by State



Source: NOAA FOSS data, Market Solutions LLC analysis



Commercial Fishing for Blue Catfish in Maryland

Highlights

- **Licenses**
- Blue Catfish are considered an invasive species, so that there are not limits on catching blue catfish.
- At the same time, because of concerns with potential by-catch including Rockfish/Striped Bass, there are restrictions on who can fish for blue catfish, what gear can be used, and when they can fish.
- **Sales and Processing Limitations due to USDA Inspection requirement**
- There are restrictions on who can buy and process blue catfish because of the requirement for USDA inspection.
- According to MDA, only four seafood processors in Maryland and one in DC have USDA inspection required to process blue catfish.
- While anyone with a seafood dealer's license in Maryland is potentially allowed to purchase blue catfish from harvesters, they are not permitted to process them for sale without USDA inspection, effectively limiting watermen's options if they harvest blue catfish.
- For farmed catfish producers, this is not a problem, because fish are harvested from ponds and go directly to processors. For watermen in Maryland, being able to sell to only five potential customers statewide severely limits their options.



Commercial Harvesting & Dealer's Licenses

Who Can Harvest, Buy and Sell Blue Catfish in Maryland

LICENSE TYPES AND FEES	
Check license type(s)	
Permits can be added by filling out supplemental form	
Section A	
☐ Harvester Registration.....	215.00
☐ Fishing Guide * Fishing Guides must ATTACH copy of current USCG Captains License	
☐ Resident	100.00
☐ Nonresident	200.00
☐ Finfish - Hook and Line	100.00
☐ Unlimited Finfish Harvester.....	150.00
** Indicate Crabbing Day Off: ☐ Sunday ☐ Monday	
☐ Limited Crab Harvester **	100.00
☐ Limited Crab Harvester: Male Only **	100.00
☐ Crab Harvester - up to 300 pots **	150.00
☐ 600 pot Authorization **	100.00
☐ 900 pot Authorization **	150.00
☐ Clam Harvester.....	100.00
☐ Oyster Harvester	100.00
☐ Oyster Dredge Boat	250.00
☐ Conch, Cancer Crab, Turtles and Lobster Harvester	100.00
☐ Chesapeake Channa	15.00
☐ Blue & Flathead Catfish Finfish Trotline License	15.00
☐ Unlimited Tidal Fish **	300.00
☐ Master Guide (per vessel) *	100.00
☐ Bait Harvester Permit	25.00
☐ Seafood Landing License	350.00
☐ Tidal Fish Dealer (only)	250.00
☐ Tidal Fish Dealer (with harvester license)	50.00
Total Section A	
Section B	
☐ Marketing Surcharge (Dealer)	50.00
☐ Marketing Surcharge (Non Dealer)	20.00
☐ Transfer Fee (per Item)	50.00
☐ Other	
☐ Late Fee.....	50.00
If renewed between 9/03/25 and 3/31/26	
☐ Nonresident Surcharge	
TOTAL SECTION B	
GRAND TOTAL (SECTIONS A + B)	

C-1-10/25

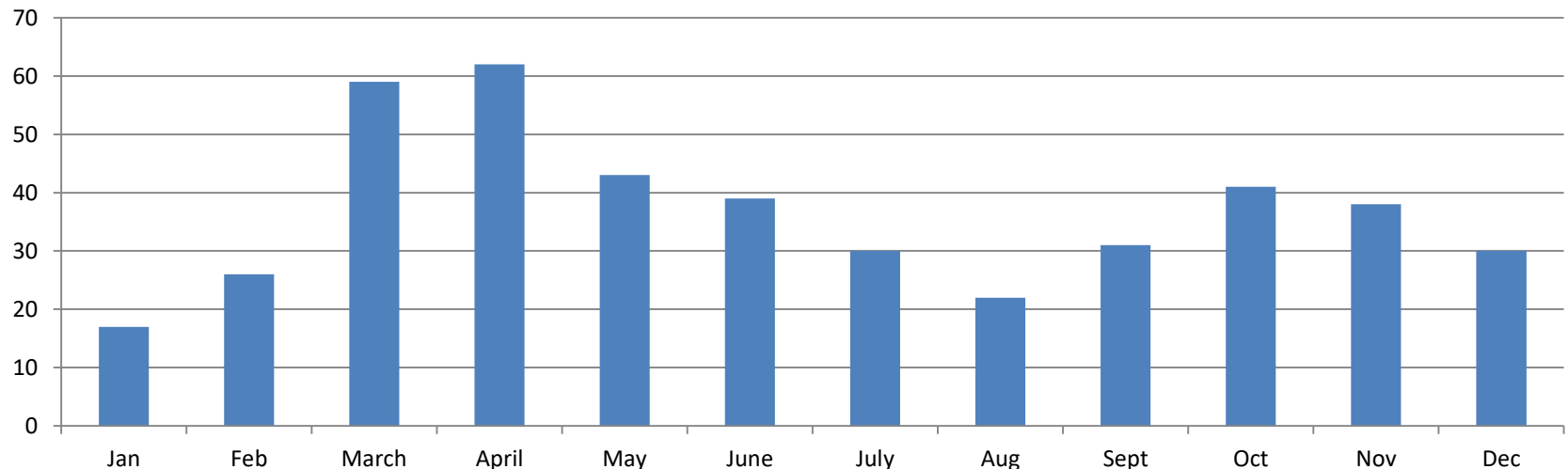
- All Maryland Commercial Harvesters must be registered. The registration is not transferrable. \$215
- Maryland offers a \$15 Blue and Flathead Catfish Finfish trotline license for watermen who only want to fish for Blue Catfish and only with trotlines.
- There is also a \$15 Chesapeake Channa (Snakehead) license for those who want to harvest only snakeheads using a bow and arrow attached to a retrieval line or hook and line.
- For other commercial watermen, who want to harvest blue catfish for sale using gear other than trotlines and/or harvest other species, the options include licenses for:
 - Finfish – Hook and Line (HLI) \$100
 - Unlimited Finfish Harvester (FIN) \$150
 - Unlimited Tidal Fish (TFL) \$300
- DNR indicates that there are long waiting lists for these licenses.
- Tidal Fish Dealer - May process, pack, resell, market or otherwise deal in fish caught in tidal waters. Harvesters must either sell to a licensed dealer or be a licensed dealer in order to sell their catch. (\$50 with harvester license, otherwise \$250).
- Seafood Landing License \$350 - May land fish caught out of state without a harvester's license or registration.



Blue Catfish Harvest Seasonality by Numbers of MD Licensed Commercial Harvesters Reporting

- During 2025, the number of licensed commercial watermen reporting harvests of blue catfish peaked at 59-62 during March and April, 2025, but was 30-40 per month for most of the year except January and August.
- To put this in perspective, Maryland currently has 1,231 permits to harvest striped bass/rockfish and a waiting list. The total allowable catch for 2026 is 82,644 pounds.

2025 MD Blue Catfish Harvest by Month and Number of Commercial Licenses Reporting

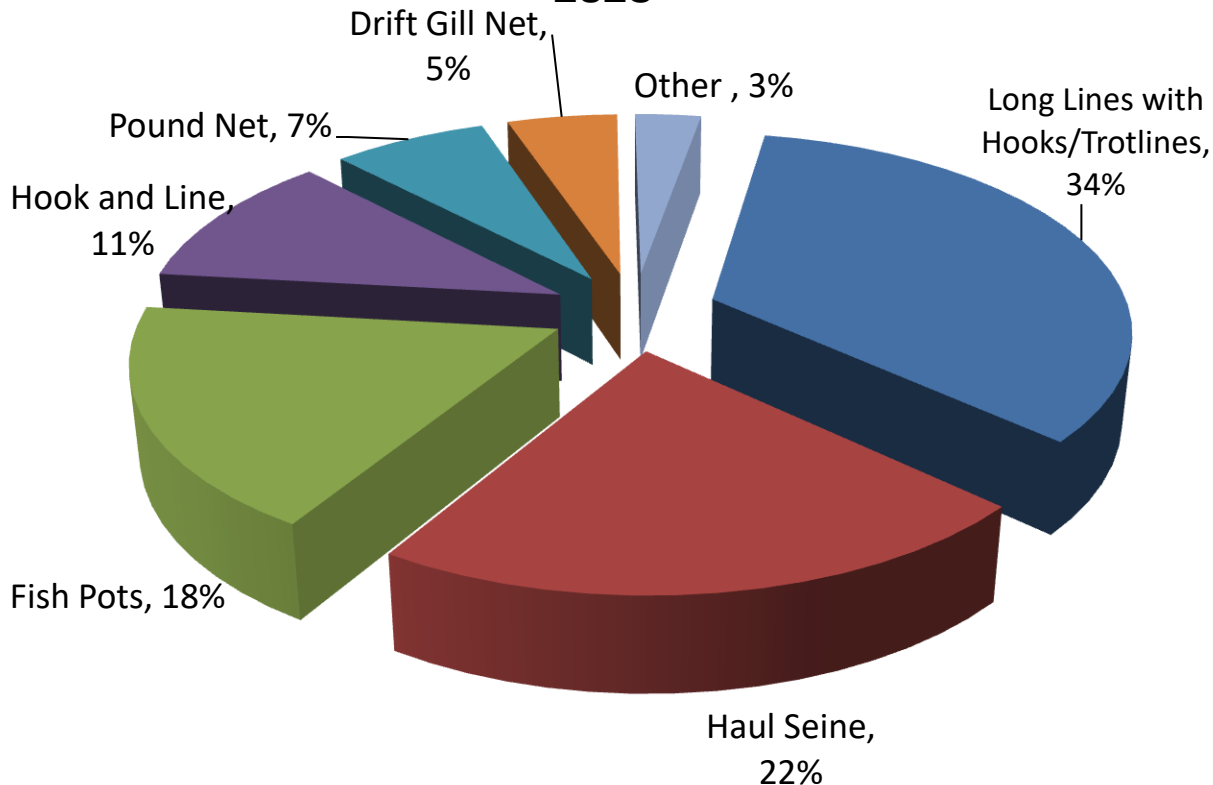


Source: MD DNR data, Market Solutions LLC analysis



2025 Blue Catfish Harvest by Gear Type

Commercial Blue Catfish Harvest by Gear Type, 2025



Source: MD DNR, March, 2026 data, Market Solutions LLC analysis

- Blue catfish can be commercially harvested using various gear types. In 2025, the majority of harvest was reported being caught using long lines with hooks, haul seines, fish pots, hook and line, pound nets, and drift gill nets, according to [DNR](#).
- Trot lines accounted for about one third of Maryland's 2025 commercial blue catfish harvest, according to preliminary DNR data.
- DNR reports that on average, about one fourth (26%) of Maryland's commercial blue catfish harvest used trot lines, i.e.. Long lines with hooks during 2019-2023.
- *With multi-year waiting periods to get TFL, FIN and HLI licenses, options for expanding the blue catfish harvest are:*
 - *to create incentives for current license holders to fish for blue catfish;*
 - *to encourage new watermen to fish for blue catfish with trotlines; and/ or*
 - *to take a fresh look at the regulations.*



Pilot Programs for Harvesting Blue Catfish

- Two-thirds to three fourths of Maryland's annual commercial blue catfish harvest is caught using gear that would not be permitted for harvesters with only a \$15 blue catfish commercial trotline license.
- In 2024, Maryland's DNR named an invasive species coordinator, Branson Williams, and an Invasive Catfish Advisory Committee to help address the growing invasive blue catfish situation. In addition to efforts to better understand the blue catfish population in Maryland waters, [several pilot projects](#) have been launched or are under consideration to change regulations for harvesting blue catfish, while protecting other fisheries.
- **Blue Catfish For-Hire/Commercial Pilot Program** allows participants to run for-hire and commercial fishing trips simultaneously and removes crew limits on commercial hook-and-line fishing trips that target blue catfish. This action will financially incentivize captains to sell excess blue catfish after a charter rather than releasing the fish alive. DNR indicates that this has not attracted much interest.
- **The Mid- and Lower-Bay Finfish Trotline Pilot Program launched in 2025.** DNR is considering relaxing regulations prohibiting finfish trotlines south of the William Preston Lane Jr. Memorial (Bay) Bridge to combat invasive catfish through additional commercial harvest. Program participants must possess a Maryland Unlimited Tidal Fish License (TFL) or Unlimited Finfish Harvester License (FIN). Current license holders can still use finfish trotlines to harvest blue catfish and other fish in legal waters of the state without participating in this program.
- [Gill Net Pilot Project.](#) The DNR is working with other stakeholders on rules for a pilot to allow limited use of gill nets to harvest blue catfish in the Upper Chesapeake Bay. Blue catfish are often a by-catch when fishing using gill nets for Rockfish. DNR has believed that those catfish should not have been sold commercially, though watermen indicate that they have been sold for decades. The pilot would allow use of gill nets to target blue catfish, while monitoring to ensure that the by-catch would not harm other regulated fisheries. Gill nets may offer potential to increase summer blue catfish harvests when supplies are low and catfish are hard to catch with other gear.
- [Electrofishing Pilot Project.](#) DNR has used electrofishing as part of its program of estimating Maryland finfish populations. Because catfish do not have scales, they are sensitive to low level electric currents. The sensitivity varies based on water salinity. The pilot program allows DNR to have commercial watermen harvest blue catfish after a low voltage electric shock, especially at times of the year when other methods are less productive. DNR is monitoring the impact on blue catfish, including impacts on follow up harvests using other gear, by-catch along with blue catfish, and impact on other fisheries, including blue crabs.



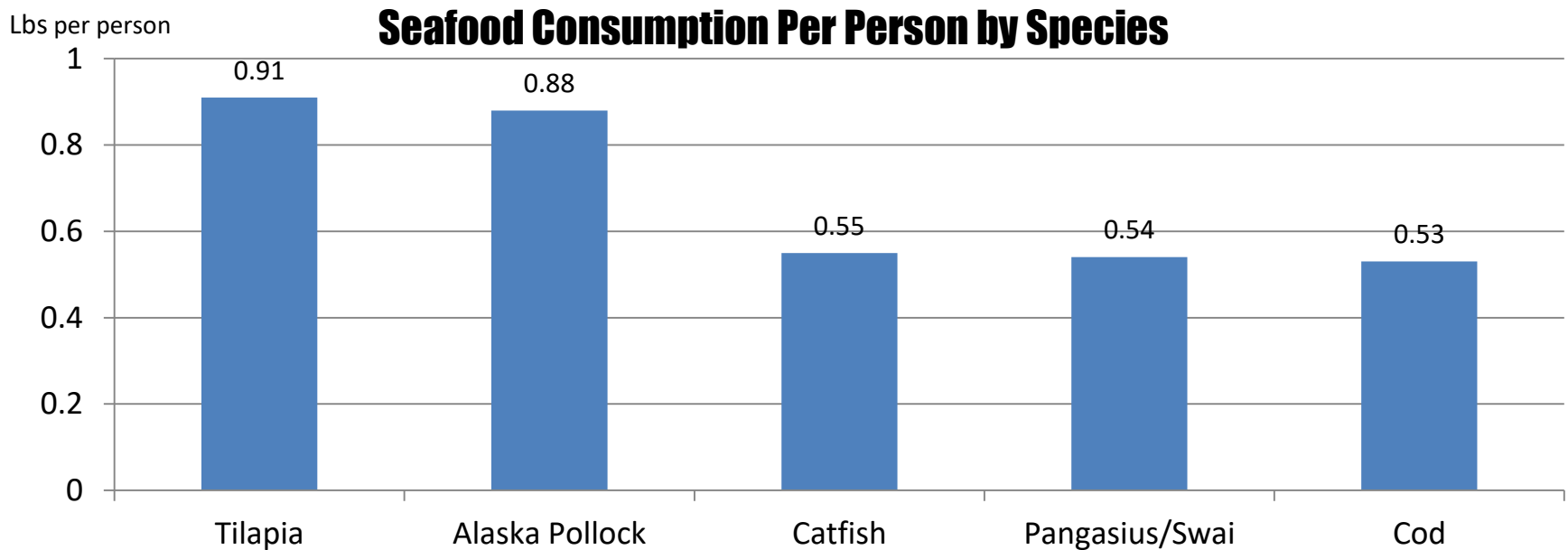
Consumer Acceptance of Blue Catfish

- ***Potential consumer markets require segmentation to get the highest potential value for the entire fish, in order to be able to pay prices that are high enough to encourage harvest by commercial watermen.***
- Consumer research findings, summarized below, suggest that consumer demand for Wild Chesapeake Blue Catfish will be driven by its value as a tasty, white, flaky fish, high in protein and Omega-3 fatty acids with a story that includes that it is good for you and your family, with consumption good for the Chesapeake Bay.
 - Invasive/Sustainable proposition.. MDA/DNR focus groups found some negative association with the term “invasive.” School lunch programs in Maryland and large scale consumer research in the Mid-Atlantic and Southern U.S., have found that the positive sustainability story of eating blue catfish increases likelihood of trying and eating blue catfish, and willingness to pay more for it: ‘Help save the Chesapeake Bay and other seafood such as blue crabs, rockfish, clams and oysters’
- Market Opportunities:
- Premium, consistently-sized fresh fillets, portions and other products for white tablecloth foodservice and premium retail.
- Fresh, breaded and frozen fillets, portions, cakes and other products for fish and chips, other family dining, bar/restaurants
- Frozen and breaded fillets, portions, nuggets, sticks etc. for family dining and retail sales
- Blue Catfish Cakes, Nuggets and other products for school lunches
- Institutional foodservice K-12, Colleges and Universities, Sports and Entertainment, Healthcare, Business and Industry, Military, Food Banks, Correctional facilities.
 - Maryland 20% Certified Local Farm and Fish set asides are reportedly limited to raw products without breading or other ingredients, although reporting is based on value of purchases. Pro-rate value added?
 - Institutional foodservice needs to provide consistent product that can be served with limited cooking skills. Pre-cooked products, often providing protein and whole grain are preferred.
 - Target processors want to move large volumes of fish, get co-packer support for value-added processing.
 - Interested in exploring potential options for value-added processing in Maryland and elsewhere.
 - Blue Catfish cakes being served in Maryland schools are actually produced from Maryland processed catfish with value-added processing outside the state.



Catfish in American Seafood Consumption

- Americans consumed an average of 19.7 lbs per person of seafood in 2023. Catfish, largely farmed, accounted for .55 lbs of this, rising from eighth to sixth place among the ten most frequently consumed seafood species in the United States.
- Other top whitefish species consumed include Tilapia, Alaska Pollock, Pangasius, Basa or Swai (Asian farmed catfish) and Cod. Together these species account for about 3.4 lbs per person, or one sixth of total seafood consumption. This amounts to 1.2 billion lbs of whitefish sales annually.
- Wild Chesapeake Bay Blue Catfish has the potential to be positioned as higher valued than some of these species in some foodservice applications, but to move large volumes, it will compete for the market***
- Shrimp, Salmon and canned tuna top the list, and accounted for 10.61 lbs of consumption. Crabs accounted for .45 lbs of consumptions, followed by clams, which replaced oysters on the 2023 list.
- NFI reports that the top ten species accounted for 77% of all U.S. seafood consumption, down from over 90% ten years before. **This indicates that Americans are increasingly trying new seafood species.**



Source: NFI “Top 10 List Reveal a Continued Diversification,” March, 2026, Market Solutions LLC analysis



How Consumers Shop for Seafood

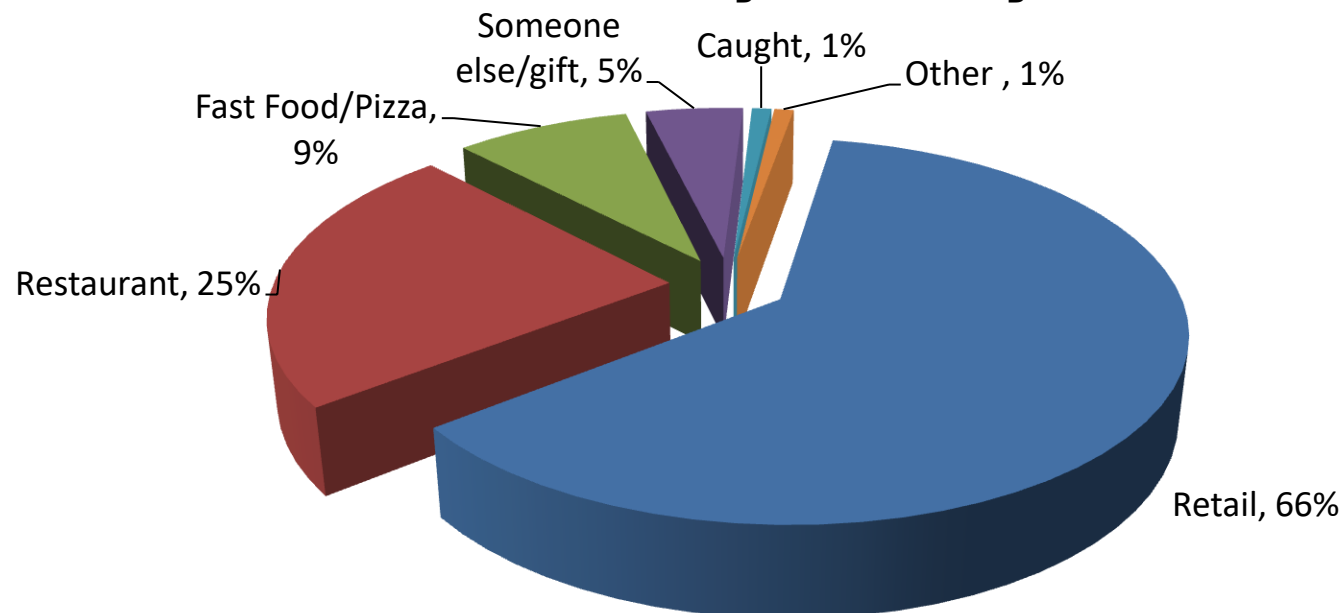
- FMI, The Food Industry Association, representing America's retailers, conducts annual consumer surveys on retail seafood purchases. Highlights of the FMI Power of Seafood 2025 and 2026 findings include:
 - There is a health halo around seafood: high quality protein that supports heart, brain and overall health.
 - Higher income shoppers purchase more seafood, prioritize quality, health benefits, sustainability.
 - Lower income shoppers are interested in these things, but are more price sensitive.
 - For retailers, seafood buyers are important.
 - Seafood buyers tend to spend more when they shop, spending an average of \$225 weekly on groceries vs \$158 for non-seafood consumers in 2025.
 - When seafood is purchased, the market basket is twice as large – \$103 versus \$48.
 - Frequent seafood consumers are only 10% of shoppers, but account for 40% of seafood purchases. They tend to have higher incomes and education, larger families that often include children.
 - Retailers say they reach these shoppers through promotions, larger package sizes and a mix of products.
 - More than half of shoppers (52%) are Occasional seafood consumers, accounting for almost 60% of seafood purchases.
 - Almost one in four shoppers (37%) are not seafood consumers.
 - Online shoppers tend to buy less seafood. However,
 - Among Frequent seafood consumers – 74% shop online and spend an \$450 average per month.
 - Among Occasional seafood shoppers 59% shop online, spend an average \$266 per month.
 - Two-thirds of seafood buyers shop for seafood in more than one place:
 - 37% shop in their primary grocery store
 - 28% shop in supercenters or discount stores
 - 12% shop in club stores
 - 23% list seafood specialty, limited assortment, natural, ethnic, online retailers
- FMI found that for retailers selling seafood, variety, quality, and knowledgeable staff are important, as is consistent merchandising across fresh, frozen, shelf stable and prepared seafood.



Where Consumers Buy Seafood

- A National Academy of Sciences (NAS) Maternal and child health study based on 25 million observations 2011-2020 among women of child bearing age across the United States found that.
 - Two thirds of seafood consumed was purchased at retail stores such as supermarkets.
 - One fourth was from restaurants.
 - Another 9% from fast food or pizza restaurants.
 - The balance were received as a gift or caught.

Where Consumers Buy Seafood They Eat



Source: NAS. NHANES, 2011 -2020, Market Solutions LLC analysis



New Dietary Guidelines Promote Seafood

- The new [2025–2030 Dietary Guidelines for Americans](#) prioritize eating whole, nutrient-dense foods and recommend:
 - A variety of Protein rich foods, including seafood at every meal.
 - Incorporating Healthy fats, such as from omega-3–rich seafood.
- Getting Consumers to Eat More Seafood.
 - According to Trade Press reporting from Supermarket News and Progressive Grocer:
 - Generation X and Baby Boomers, consumers over age 45, tend to have more money and buy more seafood.
 - Younger and older consumers are influenced by sampling.
 - Generation Z and Alpha, consumers under age 30, are interested in sushi, protein in general and social media influencers.



Wild Blue Catfish Rich in Protein and Omega-3s

Comparison of Omega-3 Content of Fish Species

Fish	Total omega-3 FA (mg/100 g)
Atlantic salmon	2,252 ¹
Mackerel	1,677 ²
Chesapeake Bay blue catfish	852³
Squid	584 ¹
Rainbow trout	415 ¹
Prawn (shrimp)	375 ¹
Red snapper (bight redfish)	357 ¹
Deep sea cod (ribaldo)	340 ¹
Tilapia	329 ⁴
Southern bluefin tuna	230 ¹

Sources:

¹ Soltan, S. S. A. M., and R. A. Gibson. 2008. "Levels of Omega 3 Fatty Acids in Australian Seafood." *Asia Pacific Journal of Clinical Nutrition* 17 (3): 385-90. <https://apicn.nhri.org.tw/server/APJCN/17/3/385.pdf>.

² Rincón-Cervera, M. Á., V. González-Barriga, J. Romero, R. Rojas, and S. López-Arana. 2020. "Quantification and Distribution of Omega-3 Fatty Acids in South Pacific Fish and Shellfish Species." *Foods* 9 (2): 233. <https://doi.org/10.3390/foods9020233>.

³ Data collected by the authors at the Virginia Seafood AREC, 2025.

⁴ Young, K. 2009. "Omega-6 (n-6) and Omega-3 (n-3) Fatty Acids in Tilapia and Human Health: A Review." *International Journal of Food Sciences and Nutrition* 60 (Supp. 5): 203-11. <https://doi.org/10.1080/09637480903140503>.

"Blue Catfish fillets are rich in high-quality protein (16.63 g/100 g) and omega-3 fatty acids (852 mg/100 g), including 598 mg of EPA and DHA, surpassing many common fish species except for salmon and mackerel. " With consistent nutritional value across size ranges, Blue Catfish represents a healthy, sustainable seafood choice that addresses both public health and environmental stewardship." according to Virginia Tech researcher Yiming Feng and colleagues' [2025 research](#).

Healthy, Tasty and Safe Blue Catfish

- Blue catfish are high in protein and generally low in fat.
- Research at [Virginia Tech University](#) has found that Wild Blue Catfish have as much as four times the healthy Omega 3 content as farmed catfish and more than double other commonly consumed species like tilapia.
- *USDA Nutrition profiles used by retailers, foodservice and dieticians are based on farmed catfish, with a much less attractive health profile.*
- Blue catfish lag only oily wild fish species, such as salmon and mackerel in Omega-3 content.
- When cooked, Blue catfish has a firm white flaky flesh and a neutral taste that supports a variety of added flavors.



Consumer Research Findings on Blue Catfish

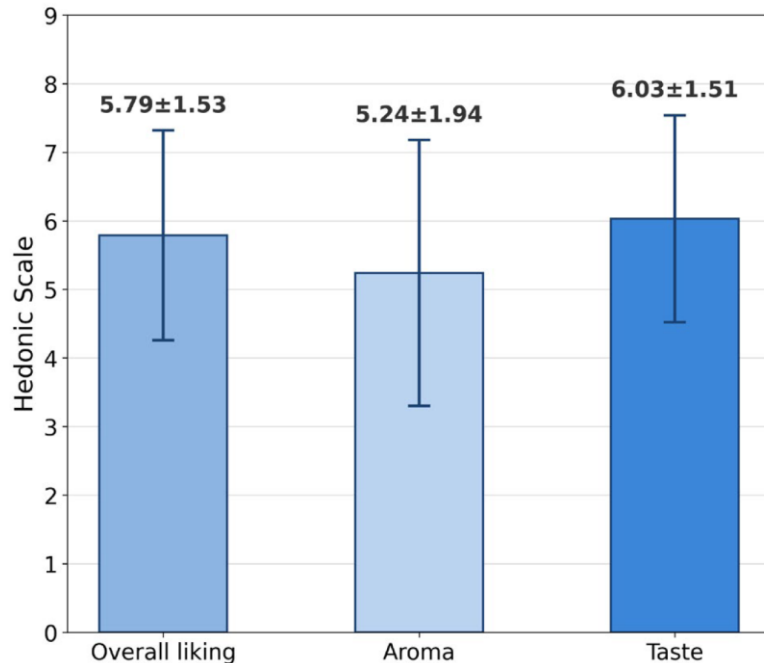
Highlights

- Virginia Tech University Sensory Testing has found that consumers have a **somewhat positive appreciation overall and of the taste and aroma of wild Blue Catfish cooked without seasoning**. Research comparing blue catfish to farmed catfish found blue catfish to have a richer flavor.
- Focus groups conducted for MDA and DNR with a small groups totaling 14 consumers from Maryland, DC, Virginia and Pennsylvania found that:
 - The name “Wild-Caught Chesapeake Blue Catfish” is a very positive enticement.
 - The phrase “wild-caught” conveys a sense of freshness, healthiness, and a good taste.
 - The word “Chesapeake” is a major plus.
 - ‘The health benefits of eating fish, coupled with good taste, are the primary motivators for eating Chesapeake Blue Catfish. Those benefits should always be front and center....
 - Benefits to the Bay are a secondary motivator.” Within the groups there was some skepticism of the benefits to the Bay. Using the term “invasive” was viewed as a negative.
- Scheld et al at VIMS/William and Mary surveyed 1,010 consumers in the Mid-Atlantic and Southern U.S. in order to understand factors influencing their demand, and willingness to try and eat blue catfish.
 - Taste, health benefits and ease of preparation were the top reasons respondents eat seafood at home.
 - The wild-caught blue catfish products respondents were most interested in buying include fresh fillets (51%), breaded products (38%), and frozen fillets (32%).
 - Sharing information that seafood was wild caught, and where it was caught was found to increase consumer demand across seafood products.
 - Providing additional information including that blue catfish is a harmful invasive species and listed as a “Best Choice” on the Monterey Bay Aquarium’s Seafood Watch List was also found to increase demand, especially in the Mid-Atlantic region.
 - The study found that consumers were willing to pay a bit more on average for blue catfish than for channel catfish, but less than for flounder, tilapia and red snapper.
 - Sharing the story of taste, nutrition and other benefits of eating wild-caught blue catfish was found to increase the probability that consumers would buy it, and how much they were willing to pay for it.



Consumer Perspectives on Blue Catfish Taste

Consumer Acceptance of Wild Blue Catfish



Average hedonic scores for Chesapeake Bay wild blue catfish sensory evaluation (N = 67) where 9= like extremely and 1= dislike extremely.

Source. [Feng et al, June, 2026](#)

- *New findings of consumer sensory research on taste, aroma and overall appreciation of unseasoned cooked, wild Chesapeake Bay blue catfish found moderate to positive acceptance.*
- *Elsewhere, Chefs and consumers report positive consumer response when seasoned Blue Catfish is on the menu.*

- A June, 2026 research report by Prof Yiming Feng and colleagues at Virginia Tech University presents findings of sensory tests with 67 untrained consumers ages 18-60+.
- Skinless blue catfish fillets without seasoning were cooked in vacuum-sealed bags immersed in boiling water to allow evaluation of natural flavor attributes.
- “Consumers rated Chesapeake Bay blue catfish favorably, with an average score near 6 (“like slightly”) on a 9-point hedonic scale (1 = “dislike extremely,” 5 = “neither like nor dislike,” 9 = “like extremely”), indicating moderate-to-good acceptance,” according to the authors.
- https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/BSE/bse-386/BSE-386.pdf
- Other sensory research at Virginia Tech led by Prof. Sean O’Keefe found that Wild Blue catfish have richer flavor than farmed catfish.



Health, Taste, Wild-Caught, Chesapeake Positive Blue Catfish Messages: MDA/DNR Focus Groups Found

- MDA and DNR commissioned three online focus groups to get perspectives on blue catfish (Opinion Works, 2024).
- Focus groups are a valuable qualitative research tool to help get in-depth ideas about consumer perspectives from small targeted groups. In this case participants were from Maryland, DC, Virginia and Pennsylvania.. In this case, the focus groups included: 5 consumers who sometimes or seldom eat seafood; 6 consumers who eat seafood often or very often; and 3 recreational anglers. Focus group findings from 14 people are not expected to be representative of the overall population. They often provide a good basis for considering what questions to test with a broader consumer survey. Key findings include:
 - ‘Almost none of the seafood consumers we interviewed were aware of Blue Catfish or their severe impact on the ecosystem. Anglers had a much better awareness of those problems.
 - ‘While there is work to do to educate the public, the good news is that once exposed to the right information, consumers quickly open up to the possibility and the appeal of consuming Blue Catfish.
 - ‘The name “Wild-Caught Chesapeake Blue Catfish” is a very positive enticement. The phrase “wild-caught” conveys a sense of freshness, healthiness, and a good taste. The word “Chesapeake” is a major plus, even though focus group participants came to understand this fish is non-native, because it communicates that the fish comes from local waters, making people more likely to try it.
 - ‘The health benefits of eating fish, coupled with good taste, are the primary motivators for eating Chesapeake Blue Catfish. Those benefits should always be front and center.
 - ‘Benefits to the Bay are a *secondary* motivator. Arresting factoids such as, “Blue Catfish now make up as much as 70% of the biomass in some local rivers,” are attention-getting and should be employed in this campaign. But they are not reason-enough for many people to eat Blue Catfish, and a large number of people doubt whether dramatic facts like that are even true.
 - ‘Focus group participants were also clear about what not to do. They do not want to ever see the word “invasive” in connection with a fish they are meant to eat. And most consumers do not ever want to see the whole fish, just the final prepared dish.
- Source: **Blue Catfish Focus Groups November 2024 Final Report. Conducted by Opinion Works for MDA and DNR**



Consumer Education Increases Purchase Likelihood and Willingness to Pay: Survey Found

- *Scheld, et al (2024) surveyed 1,010 seafood consumers in the Mid-Atlantic and Southern Atlantic United States. They found that providing consumers with Information on Wild-caught, local origin and environmental impacts of blue catfish more than doubled the probability that respondents said they would buy blue catfish and increased how much they would be willing to pay per lb.*
- **Why and How Consumers Buy, Prepare and Eat Seafood.**
- **Taste, health benefits and ease of preparation** were the top reasons respondents eat seafood at home.
- Seven out of ten respondents purchase seafood at grocery stores to prepare and consume at home.
- **Fresh fillets (51%), frozen fillets (45%), and breaded products (41%) are most frequently purchased.**
- Most often, those surveyed eat shrimp (65%), salmon (36%), crab (34%), and catfish (26 %).
- **Two thirds of respondents had eaten catfish** at least once in the previous year.
 - **Catfish products purchased to prepare at home included fresh fillets (33%), breaded products (28%), and frozen fillets (17%).**
 - Top reported reasons for eating catfish by those who consumed it were taste (56%), availability (26%), and price (23%).
- **About one third of respondents had tried blue catfish, and another third were open to trying blue catfish.**
 - The **wild-caught blue catfish products** respondents were most interested in buying include fresh fillets (51%), breaded products (38%), and frozen fillets (32%).
- **Preference for Wild Caught Seafood.** Almost one third of respondents (29%) said they prefer wild caught seafood, while 11% said they prefer U.S. farmed seafood. Most respondents (49%) were ambivalent between U.S. wild caught and farmed seafood.

Consumer Education Increases Purchase Likelihood and Willingness to Pay: Survey Found

- **Top concerns regarding US wild-caught seafood production included overfishing (34 %), habitat damage (28%), and marine debris (22%).** Less than a third of respondents (29%) indicated they had no concerns regarding US wild-caught seafood production. **Survey respondents were generally unsure of the environmental impacts of wild caught compared to farmed seafood.**
- **Mid-Atlantic Consumers Prefer Wild-Caught Seafood, but eat catfish less often.** Compared to respondents from the US South Atlantic, Mid-Atlantic respondents were more likely to regularly consume salmon and flounder and less likely to consume catfish.
- **Respondents from the US Mid-Atlantic were more likely to prefer wild-caught seafood** compared to respondents from the US South Atlantic.
- When questioned about their **likelihood to purchase blue catfish with no additional information**, about one-third of respondents said they would do so.
- Adding that blue catfish are a harmful invasive species and listed as a “Best Choice” on the Monterey Bay Aquarium’s Seafood Watch List ([Monterey Bay Aquarium Seafood Watch](#), 2023) was found to increase demand.
- When provided **additional information including that Blue catfish is wild-caught, local/from the Chesapeake Bay, and its environmental impact, the probability that they say they would purchase increased to 74%.** This information also sharply increased what consumers said they would be willing to pay per lb for blue catfish.
- Source: Scheld, Andrew M., W. Reid Calhoun, Caela B. Gilsinan, and Shelby B. White. “Market development for an invasive fish species: Blue catfish in the Chesapeake Bay, US.” *Fisheries Research*. 278 (2024).
<https://doi.org/10.1016/j.fishres.2024.107099>



Consumer Acceptance of Blue Catfish: Potential for Rebranding?

- **Consumer Acceptance.** As one restaurant manager interviewed explained: ‘Consumers who are not normally catfish eaters are happy when they eat it. Some are hesitant buyers when they hear the name “catfish.” Traditional farmed catfish consumers are often surprised when they eat it. Some say it does not taste like catfish. Others find it more flavorful and like it.’
- Another manager commented that ‘when blue catfish is offered with a story, customers order it. It doesn’t fly off the shelves, but people order it and like it.’
- **Potential Rebranding?** Several people asked about changing the name from blue catfish, but there was no agreement on a good alternative.
- FDA has accepted a number of seafood name changes that have helped with marketing: Patagonian toothfish is marketed as Chilean Sea Bass; dolphinfish is marketed as Mahi Mahi; slimehead is marketed as Orange Roughy; scup is marketed as Golden Sea Bream.
- Snakehead can now be marketed as “Chesapeake Channa” in Maryland, but this has not yet been accepted by FDA.
- There have also been a number of less successful seafood rebranding attempts. For example, Pollock as unsuccessfully promoted as Colin; and Asian Carp as Copi, Kentucky Tuna and Silverfin, none of which caught on.



Growing Market Opportunities for Blue Catfish

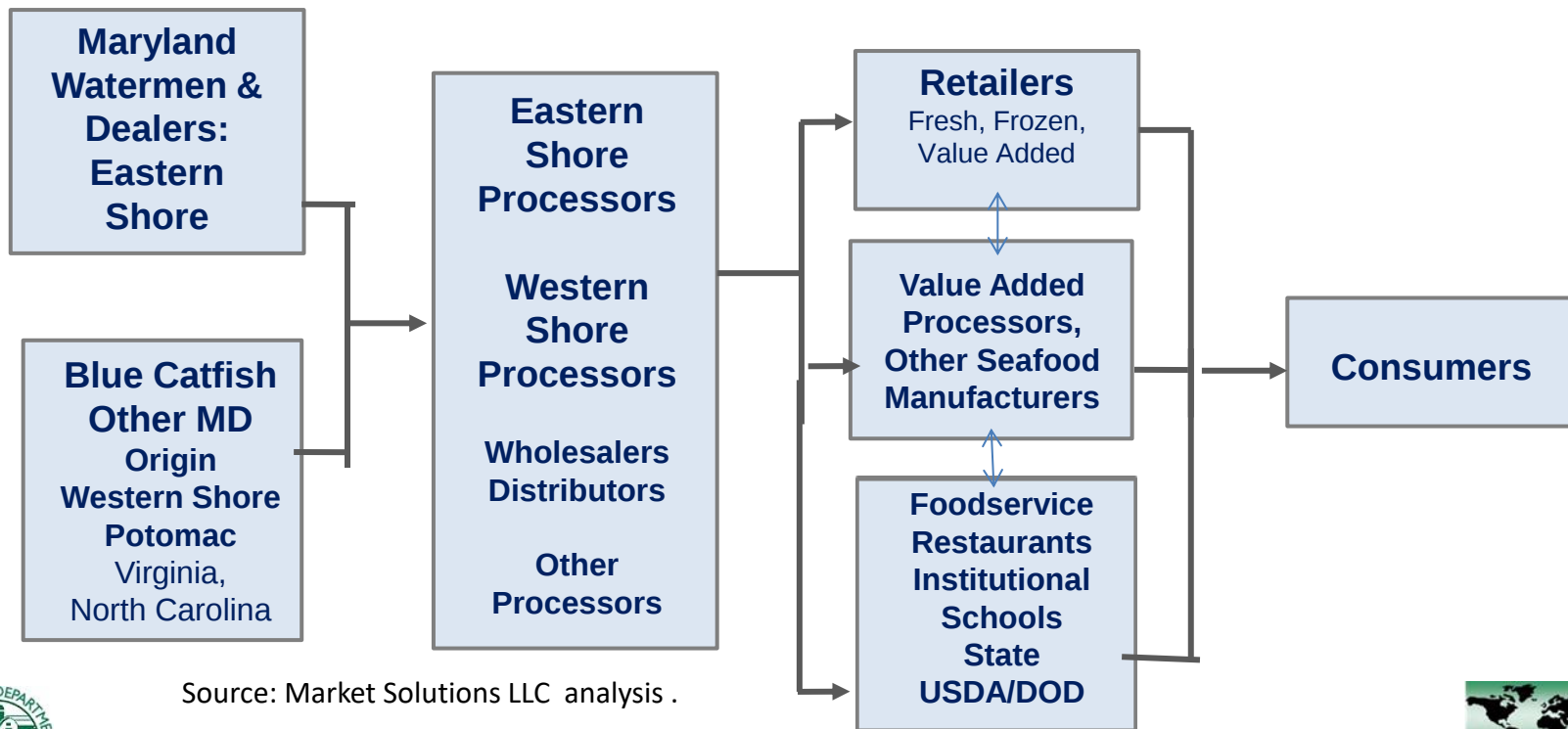
Highlights

- As Maryland considers potential opportunities to expand the market for Wild Chesapeake Blue Catfish, a segmentation approach should address:
 - What can potentially be produced and sold; and
 - Where and how it can be sold.
- Success in growing markets for blue catfish has to work for watermen, processors, consumers and other key stakeholders.
- **The Value Proposition of What Can Be Produced and Sold: Breaking down a Wild Blue Catfish**
 - 4 million lbs of Blue Catfish harvested in Maryland during 2025 could produce about:
 - 1 million lbs of fillets and portions;
 - 3 million lbs of remaining trim and carcasses including meat, heads, skin, bones.
 - The value of products from the entire catfish influence what processors can pay watermen to harvest catfish; and the profitability of processing.
 - Options for adding value to fillets and by products are discussed.
- **Opportunities by Market Channel** are also examined, including retail sales, value-added processing, commercial foodservice and commercial and public institutional food service, including K-12 school lunches, state agencies and institutions, USDA and DOD programs, and institutional foodservice for colleges and universities, health care, business, sports and entertainment, the military and correctional institutions.



Blue Catfish Market Channels: Retail, Foodservice, Value-Added Manufacturing

- **Direct and Dealer Purchases, Wholesalers, Distributors** - Watermen/Dealers supply Eastern Shore Processors and others, who in turn supply retailers, value-added manufacturers and foodservice, including commercial and public institutional foodservice, directly and through wholesalers/distributors.
- **Retail, Club and Specialty stores** – Fresh & Frozen Fillets and products: breaded, portions, nuggets, blue catfish cakes, new products.
- **Foodservice, Restaurants, Commercial & Public Institutional** food service, including K-12 school lunches, state agencies and institutions, USDA and DOD programs, and institutional foodservice for colleges and universities, health care, business, sports and entertainment, the military and correctional institutions.



Source: Market Solutions LLC analysis .

Blue Catfish Market Expansion Study

Opportunities by Market Channel for Blue Catfish

- **Watermen**
- **Processors/Distributors**
- **Retail** - Home Meals – fresh – wild, high omega 3, invasive/sustainable, safety – mercury, pcbs
 - Prepared foods, frozen - portions, sticks, snacks, appetizers
- **Further Processing:** portions, cakes, nuggets, portions, steaks, appetizers, surimi, other prepared foods
- **Commercial Foodservice**
 - Premium Foodservice - limited quantities, trend setting and increasing consumer interest
 - Fillets, portions, nuggets, cakes, other value added
 - Family Dining, Limited Service, Quick Serve seafood menu options - fish and chips, cajun, fillets, portions, fish sticks
- **Commercial Institutional and Contract Foodservice**
- **Public Sector Institutional Foodservice**
 - School Meals
 - Other Public Institutional
 - MD Certified Farm and Fish
 - Value added by institutional foodservice provider
 - Food Banks
 - USDA and DOD procurement
- **Export** - MDA and Virginia are exploring market opportunities in Singapore under a project funded by the USDA/FAS Market Access Program(MAP) through the Southern U.S. Trade Association (SUSTA).



Blue Catfish Processing in Maryland

- Processors report solid market demand for fresh blue catfish fillets. **Tilghman Island Seafood (TSI)** reports that it could sell more if it had a more regular blue catfish supply to process; and fewer constraints to operating at full or expanded capacity. TSI indicates that they need 18,000-25,000 lbs of blue catfish per day, and processed 2.7 million lbs of blue catfish in 2025.
- BSA Seafood (BSA)** reports that can process up to 10,000 lbs of blue catfish per week and that there is demand for the Blue Catfish they process, With the USDA processing grant they indicated a goal of processing 500,000 lbs of blue catfish annually.
- JJ McDonnell** in Elkton, MD and **Reliant** in Jessup, MD on Maryland's Western shore both have USDA inspection to process blue catfish, as does **ProFish** in Washington, DC.
 - Reliant reports processing up to 100,000 lbs of blue catfish per week.
 - JJ McDonnell reports that it processes up to 10,000 lbs of blue catfish per day and 3 million lbs of seafood annually.
- There are a number of other Maryland seafood processors who could process Blue Catfish or have previously processed blue catfish, but may not currently have USDA inspection in addition to standard FDA HACCP that applies to all other seafood products.
 - Congressional/NAFCO**, previously provided blue catfish fillets to state agencies under a 2018 purchase program. NAFCO has 20,000 lbs per day seafood processing capacity and Congressional Seafood can hand cut up to 15,000 lbs of seafood to customer specifications daily.
- While this project did not specifically examine the feasibility of potential expansion by BSA Seafood and Tilghman Island Seafood, the following highlight their business models, goals and challenges they have faced.*
- One concern in investing in expanding USDA inspected catfish processing facilities is that the market could become much more competitive if wild caught invasive blue catfish processing faced the same HACCP requirements that apply for all other seafood.*
- At the same time, fewer restrictions on who can buy and process blue catfish, could potentially address a top issue for watermen with having a very limited number of potential buyers if they do fish for blue catfish.*



About BSA Seafood LLC

- BSA Seafood LLC in Grasonville, MD in Queen Anne's County has been distributing fresh and frozen seafood since 2006. Customers include grocery stores, restaurants, hotels, hospitals, schools, colleges and institutions. BSA Seafood operates under the US Federal Food and Drug Act & HACCP Guidelines.
- Some of BSA's grocery customers asked for blue catfish, so they became USDA inspected. They now buy and process blue catfish two times per week. They cut fresh fillets, catfish nuggets, some headed and gutted and for some Asian markets, sell whole.
- Blue Catfish have to be processed separately from other fish because of USDA inspection. A USDA inspector usually comes for 6 to 10 hours per day, when requested, allowing them to process up to 2,000-3,000 lbs of catfish in a shift, so 4-6,000 lbs per week, with the ability to do up to 10,000 lbs per week.
- BSA advertises locally for watermen to supply blue catfish and snakehead. They also buy from watermen on the Western shore and Southern Maryland. Some deliver. For some they provide tubs and ice, and pick up the fish.
- There has been some demand for Blue Catfish from their regular customers, but they expect that there will be more opportunity if they can supply foodservice chains and institutional markets. They looked into USDA/AMS purchases of 4 oz portions, but could not provide the 300,000 lbs needed with current capacity and off-site storage.
- BSA Seafood needs a larger cutting room and cold storage to expand in order to be able to compete for larger volume procurements, whether from chains, school districts, or government programs. They could not get permission to expand at their current location, and initially looked at a new facility in Caroline County. They applied for a variety of grants and commercial funding to support expansion.
- BSA received some funding from MARBIDCO but were not able to use it in time, and had to return it. Then, in March, 2026, received a USDA Meat and Poultry Processing Expansion Program (MPPEP) grant to support expansion of blue catfish processing to 500,000 lbs per year. The location they had hoped to move to was no longer available. They are currently considering a location in Talbot County. There are major restrictions on what the MPPEP grant can be used for, so they expect that it will help with adding freezer capacity.



About Tilghman Island Seafood LLC

- Tilghman Island Seafood LLC (TIS) has been processing Blue Catfish on Tilghman Island in Talbot County, MD since 2024. Their facility is dedicated primarily to processing blue catfish. The company handles blue catfish and oysters year round, and offers seasonal wild products such as striped bass, rockfish, flounders and yellow perch. TIS offers retail and foodservice ready fresh, frozen and value-added products.
- While other Maryland USDA inspected wild blue catfish processors are primarily seafood distributors, TIS supplies a number of major distributors in the region.
- As we launched this project, TIS indicated that they have been able to sell all of the blue catfish they can buy and process, so their need is to have a more reliable supply of wild blue catfish, and to have the USDA inspection available to be able to process cost effectively when wild blue catfish are available.
- The company reports having processed 2.7 million lbs of wild blue catfish in 2025, requiring 18,000- 25,000 lbs of wild caught blue catfish per week. This has required them to buy for watermen north of the Bay Bridge to Rock Hall, MD and South all the way to North Carolina's Albemarle Sound.
- TIS has long term contracts and pricing with some watermen and compete for supplies from others. They report that prices paid for catfish have increased from an average of 58 cents per lb during 2024, to 72 cents per lb in 2025, to 80 cents per lb in early 2026.
- TIS hand cuts blue catfish fillets seven days a week, 8-12 hours per day depending upon the availability of USDA inspectors. Because they can only get an inspector for one 10-12 hour shift, sometimes reduced to 8 hours, they have to pay their workers overtime, rather than being able to operate two shifts.
- They have wanted to expand and upgrade their plant as a more efficient way to increase capacity, but have not been able to get local permission to enlarge the plant footprint. TIS has gained a lot of attention for their role in increasing the market for blue catfish and other endeavors, and hosted the USDA Secretary of Agriculture when she announced the USDA Meat and Poultry Processing Expansion Program (MPPEP) grant program to support expansion of blue catfish processing. However, they did not receive a grant because they could not provide the required matching funding, and needed to be able to expand their physical facility. As a result, the company has been exploring a number of different options, including moving to another facility in Virginia.



Blue Catfish Processing in DC and Virginia

- **Profish**, based in Washington, DC, has increased their blue catfish processing from 1,000 lbs in 2010 to 800,000 lbs in 2023. USDA inspection was added in 2017, when required for all catfish by the farm bill. Profish typically delivers wild caught, local, skin off fillets and portions to its 2,500 foodservice and retail accounts

Catfish, Fillet Skin Off Wild Local Fresh

- Product #: 11105F
- Scientific Name: *Ictalurus furcatus*
- Country of Origin: United States
- \$9.28 /LB
- **Catch Info:**
- **Method:** [Hooks and Lines](#)



- Virginia has four USDA certified processors who can handle Blue Catfish. The state has been encouraging expansion of processing capacity, blast freezing and packing capacity with a grant program that has so far benefited three of the processors:
 - **Wanchese Fish Company**, which received a \$248,000 state grant early in 2026 to enable it to automate processing to be able to increase blue catfish processed from 1 million lbs in 2025 to 5 million lbs annually over five years.
 - **Armory Seafood** in Hampton, VA received a \$247,000 grant in 2024 to enable it to increase quick freezing and packaging capacity to be able to process more blue catfish.
 - **Sea Farm Inc.**, in Hayes, VA in Gloucester County received at \$247,000 grant in 2024 to expand blast freezing to be able to handle more catfish.
- Early in 2026, Virginia's Governor announced a grant to help Accomack County, VA evaluate the feasibility of expanding blue catfish processing at a facility with 35,000 square feet of refrigerated and freezer space on Virginia's Eastern Shore.

Creating Markets for Blue Catfish and By-Products to Make Processing More Profitable

Highlights

- Markets have to work for both watermen and processors.
 - Yield and value of products and by products affects price that can be paid to watermen.
 - Yields depend in part on the skill of the workers and mechanization.
- Much of the processing for farmed catfish has been mechanized, though a substantial amount of labor is still required.
 - For wild blue catfish, mechanical processing is more complicated due to the size variability of wild fish.
 - For farmed catfish processing, discounts for size variability leads to better sorting before delivery to processors.
- Fillets and portions generally capture highest value when can be sold fresh.
 - Other options include flash frozen and breaded fillets, portions, products.
 - Trim from fillets and bellies can be used to make products like catfish cakes and nuggets
 - Other potential for value from by products: collagen, omega 3 fish oil, surimi discussed below.
- Larger fish, longer than 30", are important for recreational sport fishing, but may offer limited value due to ENV recommended consumption restrictions. Older fish may also be less tender, flaky and tasty.
- Small fish are expensive to hand fillet. Some small fish are cleaned and flaked for portions and fish sticks. Equipment is required.
- Congressional MAWS act seeks to promote larger fish use for pet food.
 - USDA has funded a company to process Blue Catfish in Illinois for pet treats.
 - Heads, guts and carcasses already being sold for use in pet food. Prices of about ten cents per lb mentioned.
 - Some industry concern that promotion as pet food may harm image for human consumption

The Value Proposition of What Can Be Produced and Sold: Breaking Down a Wild Blue Catfish

- **Fresh Blue Catfish fillets are the highest valued product, with a yield of 25-30% of the live weight.**
- With about 4 million lbs of Blue Catfish harvested commercially in Maryland during 2025, this places potential blue catfish fillets and portion that could potentially be produced at about 1 million lbs.
 - Some fish are sold whole, or headed and gutted.
 - Some fish are not suitable for processing. For example, USDA may not approve processing those over 30 inches in length.
- The other 70-75% of the Blue Catfish Carcass: Meat, Bones, Skin, Fish not suitable to fillet
- Options for adding value to what remains of the 3 million lbs left after removing fillets are important to the ultimate cost of delivering a fillet to a wholesale customer, the price that can be paid to watermen, and the returns to investment in processing,
 - Removing flaked meat from the remaining carcass and head, together with trim and belly meat, can be used for value added processed products using flaked fish meat, such as blue catfish cakes, blue catfish nuggets, portions or catfish sticks.
 - Without adding further value, what remains may be sold for 10-20 cents per lb for use in fertilizer or pet food, or may be a waste disposal cost.
 - For many years, there have been research projects looking at potential to produce surimi, artificial crab meat, from catfish.
 - Recent Virginia Tech research, described below, has examined the potential to produce collagen from blue catfish skins, omega-3 rich fish oil from bones, protein products from frames and heads, and minerals from bone materials.



Expanding Blue Catfish Processing on Maryland's Eastern Shore: Economics

- **Blue Catfish Supplies and Economics of Processing**
- For processors seeking to expand blue catfish processing on Maryland's Middle Eastern Shore, local supplies are already reported to sometimes present challenges.
- Seasonality is also an issue. Whether hiring labor for hand processing or investing in equipment to mechanize part of the product, inconsistent blue catfish supplies from month to month make it hard to retain employees and make investments in plant and equipment payoff.
- Both result in higher processing costs making it more difficult for Blue Catfish to be price competitive with alternative products.
- **Transportation Requirements**
- Both of the Eastern Shore Blue Catfish processors report transporting blue catfish long distances for processing. This includes going to Southern Maryland and the Western Shore, and on the Eastern shore, North of the Chesapeake Bay Bridge and further South as far as North Carolina's Albemarle Sound.
- In many cases, watermen deliver to the processors by truck. For larger quantities, processors sometimes provide tubs and ice, and pick the fish up. In either case, this involves transportation costs that affect the net returns to watermen and processors.
- **Processing Technology and Costs**
- Both Eastern shore processors of special interest for this project hand fillet individual blue catfish.
- Processing yields vary somewhat by fish size and operator skill, but are generally reported to be in the 25-30% range. This means that it requires 3-4 lbs of live blue catfish to produce 1 lb. of fillets.
 - With the right equipment for trimming and flaking, other meat can be used for value added products, such as nuggets and cakes with further processing.
- The net return to the business depends on fixed and operating costs; on potential returns to fillets and value added products; and what is done with the rest of the fish.
 - For others it can offer a range of values depending on use:
 - Fertilizer or pet food; extraction of omega 3 fish oil, collagen, and or other co-products, surimi
 - Some portion of what is left may become a waste disposal cost.



Expanding Blue Catfish Processing on Maryland's Eastern Shore: USDA Inspection

- **USDA Inspection.** USDA seafood inspection is required only for catfish. One challenge reported has been expanding processing when fish are available. When **USDA inspectors are available for only one 8-12 hour shift**, processors report having trouble keeping up with arriving fish. **They also have to pay their employees overtime beyond 8 hours**, rather than potentially being able to add another 8 hour shift seasonally. This also limits the market options for watermen harvesting blue catfish, especially because processors have limited cold storage to hold fish for processing.
- **Seafood Inspection.** All seafood in the United States has to be processed under a Hazard Analysis and Critical Control Points (HACCP) plan. HACCP is an internationally recognized, proactive food safety management system designed to prevent, reduce, or eliminate biological, chemical, and physical hazards in food production. For all seafood other than Catfish, this is under the supervision of the [U.S. Food and Drug Administration \(FDA\)](#).
- In order to protect farmed Catfish producers from foreign competition, a succession of U.S. Farm Bills have included a requirement that Catfish inspection include on site inspection by [USDA's Food Safety Inspection Service \(FSIS\)](#), which also oversees meat and poultry inspection. This program also requires processors to have a HACCP plan. USDA treats catfish inspection as equivalent to meat inspection. One goal in requiring USDA inspection is to ensure that imported catfish species such as Pangasius and Swai cannot be labeled as catfish and compete directly with U.S. farmed catfish. Blue catfish have gotten caught in the middle.
- *For seafood processors who handle other seafood in addition to catfish, **the requirements of USDA inspection mean that other fish and seafood cannot be processed in the same space at the same time as blue catfish, and catfish processing has to done as a standalone activity.***
- *Once a seafood processor is set up for USDA inspection, there is some incentive to consider it as a useful competitive advantage, since it limits competition from other seafood processors who do not have USDA inspection.*
- *For the state of Maryland, limited options for USDA inspection of Blue Catfish means that locally harvested seafood is being trucked long distances around the state, which entails costs reducing the net return to commercial harvesters. There are more sales and processing options for other finfish that do not require USDA inspection.*



Adding Value to Blue Catfish By Products

- Wild Blue Catfish processed for fillets have a yield of 25-30%.
- Virginia Tech University researchers led by Prof Yiming Feng, have examined the potential value to be found in the remaining 70-75% of the blue catfish as fish protein products, collagen, fish oil, and mineral ingredients for use in food, feed, nutraceuticals, and cosmetic product formulations.
- When accounting for processing yields, labor, energy, and equipment costs, the researchers estimated that it would be realistic to achieve \$0.30-\$0.50 per lb for the remaining products that might otherwise be considered a waste disposal cost, or sold for animal feed or fertilizer at \$.10-.20 per lb.
- The 2025 study found that:
- **'Blue catfish skin, with about 49% collagen** is the highest value byproduct stream. Fish-derived collagen commands premium prices of \$9-\$14 per lb at wholesale for cosmetic, nutraceutical, and biomedical markets. Highly purified pharmaceutical- grade collagen can command significantly higher prices because it serves as an alternative to mammalian-derived collagen with fewer religious and dietary restrictions.
- **Viscera** can be processed to produce **purified fish oil**. Given the favorable omega-3 fatty acid profile of blue catfish, the resulting fish oil carries an estimated market value of \$3.50 -\$7 per lb, depending on purity and refinement grade. Applications include dietary supplements, animal nutrition, and aquaculture feed formulations.
- **Catfish frames and heads** can be processed into **protein components**. The resulting protein products have an estimated market value of \$2.25-\$4.50 per lb, suitable for use in animal feed, aquaculture feed supplements, or food ingredient applications.
- Remaining **bone material** can be processed to recover **calcium and phosphate minerals**, which carry an estimated market value of \$1.40- \$2.25 per lb as mineral supplements or fertilizer inputs.'

Source: Based on [Yiming Feng, et al](#), 2025.



Potential Retail Market Opportunities

Highlights

- Seafood consumers are good customers for retailers.
- Wild Chesapeake Blue Catfish can and should be part of their strategy to catch and retain them.
- Offering good taste, a compelling, health, nutrition, safety and sustainability story; and good value.
- Fresh and frozen offerings generally come through distributors.
- Retailers know that they need both wild and farmed seafood to satisfy customers.
- Local/Chesapeake/Maryland/Delmarva/USA all distinguish from imported.
 - Country of Origin labeling requirements help make the case.
- **Seafood Nutrition Partnership** provides marketing resources to retailers, a seasonal promotional calendar, and health and nutrition information, as seen below.
- The **National Fisheries Institute (NFI)** provides information on HACCP FDA's Hazard Analysis and Critical Control Point (HACCP) standards, and a fact sheet on Mercury.
- **Maryland's Best programs** can be supportive with promotions and educational materials.
- MDA and the Maryland Seafood Industry should also leverage other efforts to promote seafood consumption by retailers, distributors and importers, such as the Seafood Nutrition Partnership.
- **Purchase Specifications for Retailers.** NFI and FMI have developed standardized glossaries of terms and specification sheets to assist retail seafood buyers. This is also potentially helpful in educating their seafood department staff.
- *MDA might consult with the industry on developing similar materials for Wild Blue Catfish and other local farm and seafood products. Since Maryland products will often be more expensive, providing specifications that help make clear how they offer good value can help to make them more competitive.*



Retail Marketing Materials: Need to Share Facts on Wild Chesapeake Blue Catfish



AMERICA: WHEN IT COMES TO OUR HEALTH, WE CAN DO BETTER

Inflammation is the leading cause of chronic diseases, such as stroke, heart attacks, high blood pressure and diabetes. Heart disease is the #1 cause of death in the US.

DID YOU KNOW:
A third of the brain's key functional units are made up of omega-3 fatty acids.



To learn more about how you can increase your seafood intake, visit our website or follow us on social media.
#Seafood4Health
seafoodnutrition.org | #Seafood2xWk

Seafood includes vital nutrients needed for overall health and wellness, such as iron, B-6, B-12, selenium, and protein.

The fats found naturally in seafood, omega-3s EPA and DHA, are essential to our health. On average, Americans consume only 80 of the recommended 250-500mg of omega-3s EPA+DHA per day.

PROMINENT STUDIES SHOW THAT...

- 7 out of 10 premature deaths in the US are preventable through diet and lifestyle changes¹ - like adding omega-3s to your diet.
- Eating seafood two to three times per week reduces the risk of death from any health-related cause by 17 percent.²
- Older adults with highest fish consumption lived an average of 2.2 years longer.³
- Children who ate seafood and supplemented with omega-3s had improved attention span and fewer adverse behavioral outcomes.⁴
- Moms who ate seafood twice a week had babies with higher IQ and improved brain and eye development.⁵
- Leading health organizations recommend Americans eat seafood at least twice a week.⁶

¹Holm G, et al. Association Between Dietary Factors and Mortality From Heart Disease, Stroke, and Type 2 Diabetes in the United States. JAMA. 2017 Mar 7;317(9):933-944. ²Hu FB, et al. Fish intake, contaminants, and human health: evaluating the risks and the benefits. JAMA. 2002;286:1885-90. ³Hu FB, et al. Plasma Phospholipid Long-chain Omega-3 Fatty Acids and Total and Cause-Specific Mortality in Elder Adults. Ann Intern Med. 2010 Apr 20;152(8):535-45. ⁴Heckel JE, et al. Maternal seafood consumption in pregnancy and neurodevelopmental outcomes in childhood (ALSPAC study): an observational cohort study. Lancet. 2007;369(9581):939-45. ⁵Report of the Joint FAO/WHO Expert Consultation on the Status and Benefits of Fish Consumption. Rome, Food and Agriculture Organization of the United Nations. Geneva, World Health Organization. 2015. ⁶U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015-2020 Dietary Guidelines for Americans. 8th Edition, December 2015.

WHICH FISH IS THE RICHEST IN OMEGA-3s? (PER 3 OUNCE COOKED PORTION)

Studies show omega-3s can reduce risk of heart disease, depression, dementia and arthritis, and improve overall happiness. Prominent health organizations suggest eating a variety of seafood at least twice a week, aiming to consume an average of 250 to 500 milligrams of omega-3s EPA and DHA per day.

> 1,000 milligrams



Anchovies
Herring
Mackerel (Atlantic & Pacific)
Oysters (Pacific)
Sablefish (Black Cod)
Salmon (Atlantic & Chinook)
Sardines
Tuna (Bluefin)
Whitefish

500 - 1,000 milligrams



Barramundi
Mussels
Salmon (Chum, Coho, Pink & Sockeye)
Sea Bass
Swordfish
Tilefish
Trout
Tuna (Albacore)

250 - 500 milligrams



Alaska Pollock
Crab
Flounder/Sole
Mackerel (King)
Rockfish
Snapper
Tuna (Skipjack, canned)
Walleye

< 250 milligrams



Catfish
Clams
Cod
Crayfish
Grouper
Haddock
Halibut
Lobster
Mahi Mahi
Scallops
Shrimp
Tilapia
Tuna (Yellowfin)

Source: U.S. Department of Agriculture, FoodData Central at fdcdan.usda.gov

If you are not able to meet the omega-3 recommendation from seafood then consider supplementing with omega-3 EPA + DHA capsules.



seafoodnutrition.org

- The Seafood Nutrition Partnership provides marketing resources to retailers, a seasonal promotional calendar, and health and nutrition information, as seen here and below.
- Their materials do not distinguish the that Wild Blue Catfish have four times the Omega-3's as farmed catfish, ranking just below salmon and mackerel.
- MDA, Processors and Distributors should offer specific Retail Merchandising Support Materials to Share the Facts on Wild Chesapeake Blue Catfish: Tasty, Healthy, High in Protein and Omega 3's, and Consumption helps protect other species.

<https://www.seafoodnutrition.org/resources/retail/>



Seafood Nutrition Partnership Retail Marketing Playbook



Fall in Love with Seafood campaign

- Multi-media campaign customized by retailer
- Driving seafood consumption & sales
- Seen over 95 million times since Q1'24 Launch
- Returning an average \$4.45 ROI - target of \$3-\$5

FILWS Return-on-Investment



- <https://www.seafoodnutrition.org/resources/retail/>



2026 Seafood Calendar

Eat Seafood 3+ Times a Week & Glow All Year

JANUARY Nutrition New year, new you—seafood makes healthy eating deliciously easy. Start 2026 smart, tasty, and full of flavor.	FEBRUARY Heart Health A healthier heart starts on your plate. Seafood helps reduce heart disease risk. Eat smart. Eat seafood. Love your heart.	MARCH Maternal Health Pregnant and powerful: seafood fuels baby's development and helps cut preterm birth by 2/3rds.
APRIL Sustainability Seafood that's responsibly caught? Check. Delicious? Double check. Let customers savor the sustainable difference.	MAY Brain Health Feed your brain, lift your mood, and support mental wellness—one delicious seafood bite at a time.	JUNE Protein Seafood is protein that works harder: lean, nutrient-rich, and packed with omega-3s for more nutrition per bite.
JULY Summer Grilling Flip it, sizzle it, love it! Seafood on the grill is summer made easy. Shrimp, tuna, salmon—pick your obsession.	AUGUST Back-to-School Make this school year a smart one—seafood fuels little minds and keeps kids sharp, happy, and ready to learn.	SEPTEMBER Family Meals Gather 'round, dig in, and enjoy seafood together—family dinners never tasted so good.
OCTOBER National Seafood Month Reel in the flavor and benefits! Show shoppers how seafood is done - easy to cook, amazing to eat, and packed with health perks.	NOVEMBER Celebrate with Seafood Score big at every gathering! From game day to holidays, seafood steals the show—delicious, crowd-pleasing, and brimming with health benefits.	DECEMBER Holidays Hosting or attending, make a splash this season—seafood is the crowd-pleasing, guilt-free hero of holiday menus.



Content and Promotion Ideas by Month

<https://www.seafoodnutrition.org/resources/retail/#>



Educating Consumers on Seafood Safety



MERCURY FACT SHEET

Overview: There are no confirmed cases of methylmercury toxicity in the United States from consumption of commercial seafood. The amount of mercury equated with serious illness has only been seen in international industrial accidents and poisonings several decades ago. The levels present in those instances are on a scale dramatically different than the levels seen in commercial seafood, which fall well below FDA limits. Meanwhile, it is estimated that low omega-3 (seafood) consumption is responsible for 84,000 deaths each year in the U.S.



MERCURY IN SEAFOOD

Essentially all seafood includes traces of mercury, a compound that originates primarily from natural volcanic activity and thermal events in oceans. Although some mercury has been contributed by human activity, studies show that mercury in the oceans has remained virtually unchanged over time.

The U.S. Food and Drug Administration (FDA) has jurisdiction over the food safety of commercial seafood. As part of its duties, the FDA has established a mercury level of concern for commercial fish of 1.0 parts per million (ppm). This number contains a built-in 1,000 percent safety factor. As FDA describes, "1.0 ppm for methyl mercury in fish was established to limit consumers' methyl mercury exposure to levels 10 times lower than the lowest levels associated with adverse effects."

FDA has calculated the average commercial fish in the U.S. weighted for consumption contains 0.072 ppm mercury, nearly 14 times lower than the level of concern and over 100 times lower than the lowest levels associated with adverse effects.

Fish caught in internal waterways largely for recreation or sport may be subject to higher levels of mercury as a result of pollution. The Environmental Protection Agency (EPA) has jurisdiction over the food safety of non-commercial seafood from domestic lakes, rivers and streams.



WHAT IS METHYLMERCURY TOXICITY?

Mercury toxicity is not defined by a specific lab test. Toxicity is dependent on the type of mercury (organic, inorganic and vapor) and the type of test that is administered. Organic mercury, specifically methylmercury, is the type that exists in trace amounts in fish. Methylmercury levels in humans are usually detected through blood or hair analysis. Lab tests generally measure total (inorganic plus organic) mercury, which is not an accurate gauge of methylmercury from eating fish. Methylmercury lab test results and seafood consumption data alone demonstrate the relationship between eating fish and methylmercury exposure—not the relationship between methylmercury and health effects.

- The National Fisheries Institute (NFI) provides information on HACCP FDA's Hazard Analysis and Critical Control Point (HACCP) standards, and a fact sheet on Mercury.
- **MDA and Maryland's Seafood Industry need to make decisions on what can be said about Wild Chesapeake Blue Catfish safety, based on USDA/FSIS HACCP and inspections; Maryland Department of Environment (ENV) Alerts; and EPA guidelines.**
- The Maryland Department of Environment provides alerts on eating Blue Catfish and other seafood species from different Maryland watersheds due to PCBs, Mercury and other chemicals. These are based on lower thresholds than those of the U.S. Environmental Protection Agency (EPA), because they assume that fish are being eaten by recreational fishermen who rely on caught seafood as their primary protein source.
- There are relatively few alerts or cautions on eating Wild Blue Catfish from Maryland's Middle and Lower Eastern Shore watersheds. There are alerts for other parts of the state suggesting limitations on consumption of Blue Catfish larger than 30 inches due to potential PCB concentrations.
- **Additional details, including MD ENV alerts and other research findings are provided in a report appendix below.**

Retail Frozen Food Opportunities

- TIS has developed several packaged frozen and chilled blue catfish products that are packaged for retail, including breaded, frozen blue catfish fillets, blue catfish cakes and blue catfish nuggets. They have also developed chilled blue catfish spreads.
- Frozen food sales have reached \$87 billion, up \$27 billion over 2019, due to a 4.5% increase in volume and inflation. Frozen protein products, especially meat and poultry, have seen the most growth.
- Based on FMI and the American Frozen Food Institute (AFFI)'s 2026 Power of Frozen, Retail report, as reported in [Progressive Grocer](#):
 - Seven in 10 shoppers said that they occasionally or often look for new frozen food items.
 - Parents look for fast-prep and restaurant-quality meals.
 - Four in 10 consumers are very interested in better-for-you frozen foods that they perceive as using “real” ingredients, being minimally processed, and containing high-protein but no artificial ingredients.
 - Frozen food’s nutrition and quality perceptions are improving. They are strongest among Gen Z and Millennials, but education gaps remain among light consumers.
- While opportunities for fresh blue catfish fillets and portions will be important, frozen food opportunities should not be overlooked, especially if processors add quick freezing and storage capacity to be able to compete for USDA, DOD and other public procurement opportunities.



Frozen and Chilled Seafood Product Examples, Suppliers and Brands

- As Maryland seafood processors consider potential frozen and chilled products for retail distribution, it may be useful to look at the range of seafood products being distributed from the Maryland and Delaware warehouses of DOT Foods, a less than container load (LCL) retail distributor:
- Eastern Fish – Just Fish brand - All natural, USA sustainable fish portions
- Handy Seafood – Crab House Brand - Seafood cakes, Seafood appetizers; Handy brand fish
- Harbor Seafood – Stone Silo Foods- Seafood cakes
- Heartland Catfish – Heartland and Southern Pride Catfish
- High Liner Foods – multiple brands and value added products - Mrs. Paul's?
- Phillips Foods – fish products
- Tampa Maid Dip N Dusted - flour coated seafood
- Trident – Artic Ice Brand- premium whitefish fillets; Pubhouse Battered cod, Pollock, haddock, Trident brand
- MD and DE 6/26
- Above distributed by DOT Foods 1 800 366 3686 customer service



Foodservice Market Opportunities and Segments

Highlights

- Premium Foodservice - Full Service restaurants and clubs;
 - Fresh Fillets, portions, value added trim, flavors
- Important to premium image – telling the story of good taste, good for you, good for the Bay & Delmarva
 - Top Chefs prepare Wild Chesapeake Bay Blue Catfish
 - Cook-off, recipes, promotions, where to buy, Chefs/Restaurants and Retailers featuring Blue Catfish
- Family Restaurants, Commercial Foodservice and Limited Service Restaurant Chains, Distributors
 - Fresh and Frozen Fillets, portions, steaks?, Breaded portions, sticks, Blue Catfish cakes and nuggets.
- Institutional
 - School Foods K-12, College and University
 - Certified Farm and Fish
 - Commercial Foodservice Contractors: Health care, Athletics and Entertainment, Business and Industry
 - Correctional Institutions
 - Food Banks
 - USDA and DOD programs, CN for USDA school foods
- Raw materials for contract processing, fillets, portions, trim, Blue Catfish cakes



Foodservice Target Market Segments & Strategies

- **Premium full service restaurants** can play an important role in attracting consumers to try blue catfish and are willing to pay premium prices for the best food products and portions.
 - At the same time, most have limited seating and blue catfish represents one or two dishes on the menu. Volumes moved often measured in 30-40 lb cartons per week.
 - This make them valuable customers, just not likely to be enough to sell 1 million lbs of Maryland Blue catfish fillets alone.
- **Limited service, family dining, taverns and quick serve seafood restaurants** can help to move larger volumes, but there will be more price competition. Blue catfish may be offered as a premium local, sustainable seafood option for fish sandwiches, fish and chips, premium Wild Chesapeake Blue Catfish cakes or nuggets with the knowledge that less expensive fish options are available to the restaurant.
- For chain restaurants, Blue catfish might be promoted as a limited time seasonal menu item, given challenges with year round supply.
- **Foodservice Market Outlook.** The National Restaurant Association (NRA) projects that inflation adjusted restaurant sales across the U.S. will rise only 1.3% during 2026. Higher ingredient costs and pressure on margins, even with menu price increases are making restaurant operators and consumers more cautious about spending. NRA reports that 42% of restaurant operators said they were not profitable during 2025.
- ***Despite cost caution, and diner focus on deals and promotions, some consumers continue to pay for dishes with premium ingredients with good taste and solid health, nutrition, safety and sustainability stories. Wild Chesapeake Blue catfish can be a part of operators' solution, especially if they have confidence that consumers will buy Blue Catfish when it is offered.***



Blue Catfish on Menus in the DEL-MAR-VA Region

- Blue Catfish is being featured on a variety of upscale foodservice menus in Maryland and across the Delaware, Maryland, Virginia (DELMARVA) region. Some examples were featured at the May, 2026 Chesapeake Catfish Cook-Off at the Annapolis Maritime Museum:
- [Crispy Chesapeake Blue Catfish Toast Appetizers](#) from **Chef Matt Lego** from *Leo Annapolis* were voted the most popular at the show. The Leo Annapolis menu also features a Napville Hot Dry Rubbed Blue Catfish Sandwich. Chef Matt Lego was separately named 2026 Maryland's Best Chef Partner of the Year.
- James Beard winner **Chef Jeremiah Langhorne** of the Michelin-star restaurant [The Dabney](#) in Northwest Washington, D.C, the defending champion, was runner up with a Blue Catfish tea sandwich. The Dabney's menu features a Smoked Catfish Dip and a Fried Chesapeake Catfish Larb.
- [Chef John Shields](#) of [Gertrude's Chesapeake Kitchen](#) in Baltimore, renowned for his sustainable Chesapeake Bay dishes, was the Master of Ceremonies, and shared his [Blue Catfish Imperial Recipe](#). Gertrude's menu features Chesapeake Blue Catfish with Shrimp Creole.
- [Long Shot Hospitality](#) of **The Salt Line and Dauphines** presented a Blue Catfish sausage at the cook-off. They feature blue catfish in their Crispy Fish Sandwich with lettuce, pickled shallot, tartar sauce, chili and on their Waterman's Platter on The Salt Line menu. New Orleans inspired Dauphine's serves a Blackened Catfish Spread Appetizer and Blackened Catfish Creole, both featuring Chesapeake Blue Catfish. The Dubliner serves Fried Catfish. The group has been selected as Restaurateur of the year by the Restaurant Association of Metropolitan Washington, DC (RAMW).



Potential Opportunities with Maryland's Certified Local Farm & Fish (CLFF) Program

- Under a 2020 Maryland state law ([COMAR 15.01.19](#)), since 2021, Maryland state agencies and public four-year universities have been encouraged to meet a target of sourcing 20% of their food and fish purchases from Certified Local Farm and Fish Suppliers listed in MDA's directory, or to have their foodservice contractors do so. There are 9 Invasive Fish Species Providers listed in MDA's [directory](#).
- Rules of the program specify that: "Each procurement agency shall structure its procurement procedures for food to try to achieve an overall goal of 20 percent of the unit's total dollar value of all such procurement contracts made directly or indirectly from Certified Local Farm Enterprises."
- ***This could potentially create substantial opportunities for Maryland Blue Catfish processors. MDA indicates that although the program rules specify that it applies to dollars spent on food, it does not apply to value-added products made with local fish or food, potentially excluding breaded catfish fillets, portions, blue catfish cakes or nuggets, all of which are likely to be attractive to some state institutions and schools. This should be clarified as part of efforts to support increased progress toward the goals of the legislation.***
- [MDA reporting](#) indicates that state agencies and universities primarily purchase products from CLFF providers indirectly through their food distributors or institutional foodservice contractors. The only exceptions are the Department of Juvenile Services, Department of Veteran Services, and UMD College Park which have purchased directly from CLFF providers for some of their products. MDA reporting indicates that \$1.5 million in local food and fish purchases were made from 16 Certified providers during FY 2025. This amounted to 1.64% of the total \$91 million in total food purchases. This represents important progress from \$238,000 from 16 Certified providers reported in FY 2024.
- Maryland Correctional Enterprises (MCE) has a USDA-inspected processing plant and a fleet of refrigerated trucks from their processing plant in Hagerstown, MD. MCE indicates that they purchased 36,590 pounds of blue catfish during FY 2025 according to MDA reporting.



Market Potential for Blue Catfish in School Lunches

- With the success of Wild Chesapeake Blue Catfish Cakes in Caroline County, MD school lunches, there is special interest in expanding use of Blue Catfish in other school lunch programs in Maryland, the Delmarva region, and elsewhere.
- As part of the “Bay to Tray” program, Real Good Fish, with support from MDA and USDA has been supporting introduction of Blue Catfish dishes in schools in Maryland and other states. Most recently introducing “Catty Patties” in Cecil County after “Catfish” received a negative response.
- MDA indicated interest in exploring market potential for blue catfish in school lunches in others states. One specific example mentioned was Ohio, which purchases very little seafood for school lunches.
- Market potential may be higher in competing for seafood purchases by states that already buy more seafood, and states where the story of benefits to the Chesapeake region of reducing an invasive species may resonate.
- Seafood only accounted for 1-2% of the annual animal protein purchased by USDA for school lunch programs during 2014 -2019, according to a GAO study. This amounted to an average of 3 ounces of seafood per student per year.
- Starting in 2014, USDA purchased only bulk Alaska Pollock and breaded farmed catfish strips for school lunches. Breaded Alaska Pollock fish sticks were added to the program in 2017 in response to requests from states.
- The map shows the average quantity of seafood available per student per state during 2014-19. Further detail is provided in the following chart.

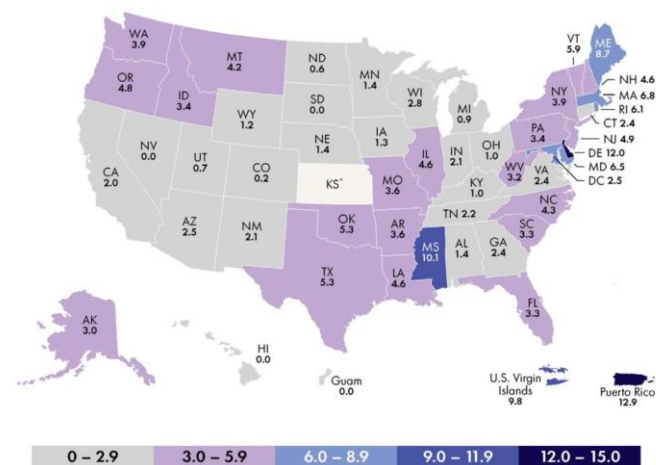
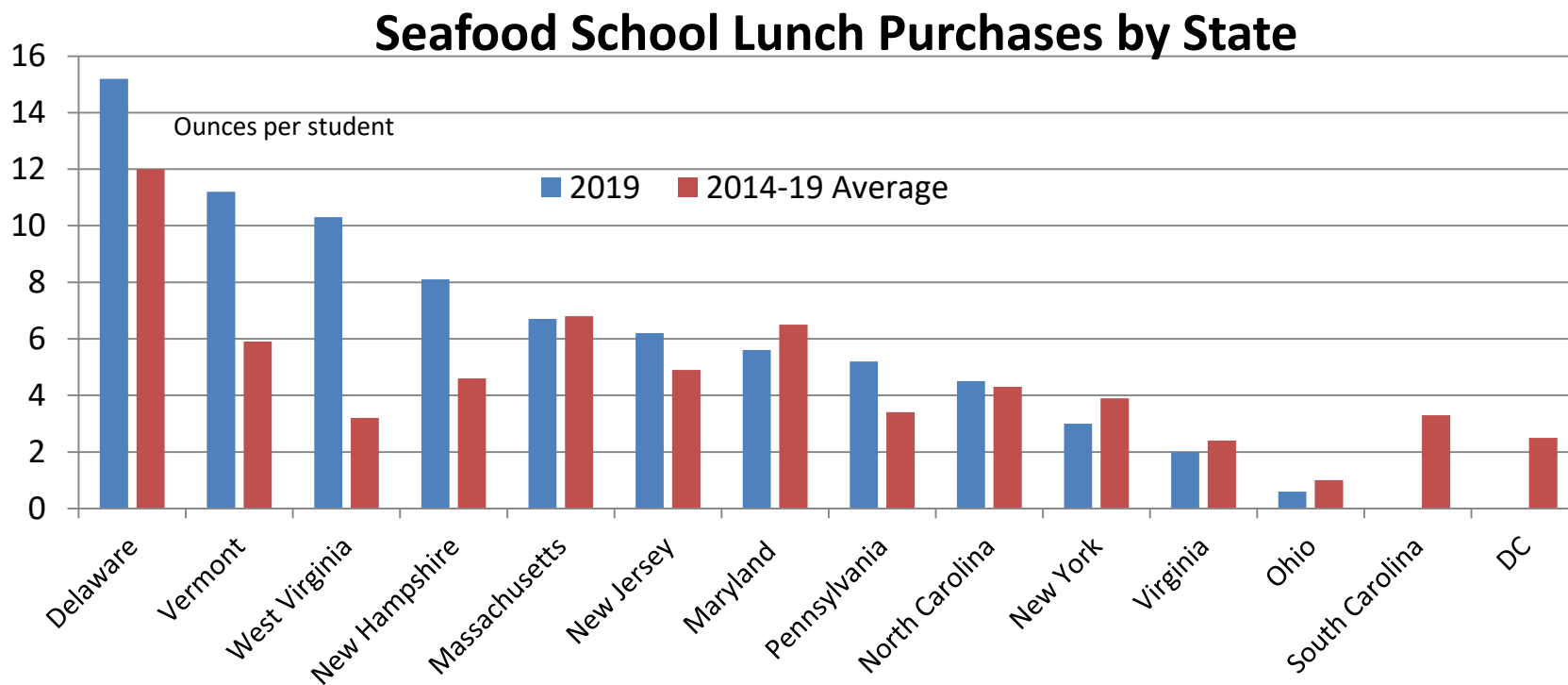


FIGURE 3-2 Average quantity of seafood that USDA purchased per student participating in the National School Lunch Program by state per fiscal year, 2014–2019.
SOURCE: U.S. Government Accountability Office analysis of USDA information; Map Resources (map). GAO-23-105179.

Seafood Purchases by State for School Lunches

- The chart below shows average ounces of seafood purchased by USDA for school lunch programs in selected states during 2019 and on average during 2014-19, as reported in a GAO analysis of the national school lunch program.
- Maryland purchased 5.6 ounces of seafood per student in 2019, and 6.5 ounces on average over five years. More was purchased in 2017 and 2018.
- While Maryland seafood purchases per student were almost double the national average, this information may be useful in considering ways to further expand blue catfish use in Maryland, and priorities among other states. Under the 'Bay2Tray' program, Real Good Fish is already investigating some state options.



Source: Government Accounting Office GAO-23-105179 data , Market Solutions LLC analysis



Caroline County School Lunch Success

- Caroline County Schools introduced the Chesapeake Blue Catfish Cake sandwich in 2024.
- "It has been a long, extensive group effort to finally bring these catfish cakes to a Caroline student's lunch tray," said Supervisor of Food Services Beth Brewster. "We had to make sure we had the perfect blend of ingredients to satisfy students, while meeting the nutritional requirements."
- **THE FOOD CONNECTION PROJECT**
- **Farm to School & Bay2Tray**
- [CCPS / FES on WBOC News](#)
- **The Chesapeake Blue Catfish is on the lunch menu in all of our schools. The catfish cake recipe is not only delicious and nutritious, it benefits the Chesapeake Bay environment by ridding it of an invasive species. Our partnership with the Bay2Tray initiative seeks to get more seafood in school cafeterias.**
- <https://www.carolineschools.org/page/food-services#menus>
- <https://www.carolineschools.org/article/1764931>



School Lunches and Child Nutrition (CN) Labels

- There are a number of challenges to be addressed in increasing the use of Blue Catfish in school lunches. Most school food service does not have HACCP certified kitchens to permit from scratch cooking. As a result, many of the products used must be pre-cooked or par-cooked to be able to be heat and serve.
- Another challenge is in ensuring that the product provides required nutritional contributions, such as protein and whole grains. Child Nutrition (CN) labeling, provides that assurance. There are a limited number of value-added processors who are approved to offer CN labeled products. For Chesapeake Blue Catfish Cakes, Tilghman Island Seafood provides raw materials to a further processor in Pennsylvania.

A [Child Nutrition \(CN\) Label](#) is a voluntary USDA-approved stamp found on processed food products (e.g., chicken nuggets, pizza) used in school meals, verifying their exact contribution to meal pattern requirements. It provides a warranty against audit claims, confirming to menu planners how much meat, grain, or vegetable is in the product.

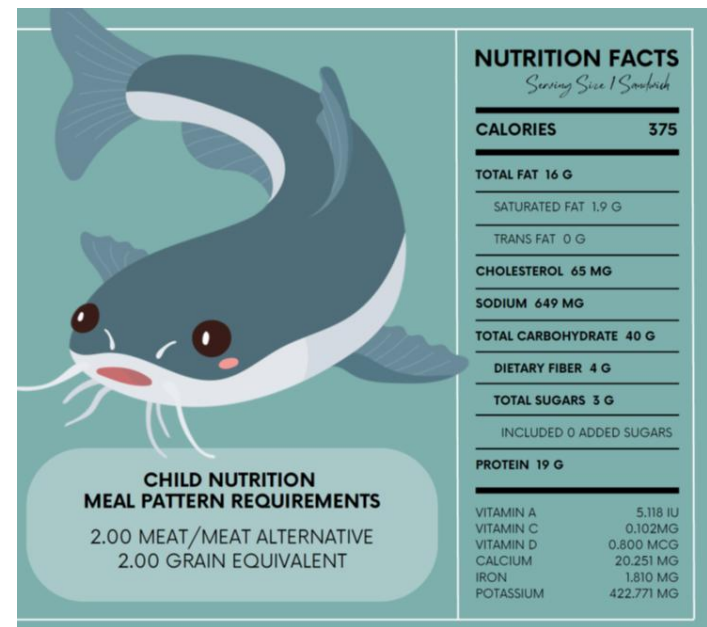
Key Aspects of a CN Label:

Content: The label includes the product name, ingredients, contribution amount, and a specific 6-digit identification number.

Warranty: Purchasers are protected against audit claims if the product is served according to the manufacturer's instructions.

Usage: Commonly found on items in school cafeterias, but rarely on items sold in retail grocery stores.

Requirement: While not mandatory, it is highly recommended for processed foods to prove they meet the [USDA](#) standards.



Tilghman Island Seafood Blue Catfish Cakes

Seafood Nutrition Partnership for School Foods

“DID YOU KNOW: kids who eat fish at least once per week may do better in school?”

Research shows an association between fish intake and better grades!

- The same [Seafood Nutrition Partnership](#) that supports retailer seafood marketing has a program and materials to help schools serve more seafood in school lunches.
- Their materials for school foodservice teams recommend purchasing products regularly available through USDA, including Alaska Pollock blocks, Alaska Pollock fish sticks, farmed catfish fillet strips or canned tuna.
- They also mention that other seafood is periodically available from USDA or can be ordered through foodservice distributors.
- It will be important for MDA, perhaps working with “Bay2 Tray” and Real Good Fish, to build a partnership to ensure that Wild Caught Chesapeake Blue Catfish is on the radar and gets on menus.

5 SIMPLE STEPS TO SUCCESSFULLY SERVING SEAFOOD IN SCHOOLS

Seafood, including fish and shellfish, is an important part of a well-balanced diet. The Dietary Guidelines for Americans and the American Heart Association both recommend people consume seafood at least twice per week.^{1,2} Seafood is a natural source of omega-3s — good fats that have been shown to be beneficial at every age. They promote growth, development and heart health.^{3,4} Follow these simple steps to add more seafood into your school meals.

*Delicious, kid-friendly
seafood is simple*

STEP 1: Plan It! Put seafood on the menu

Seafood is gaining popularity, making it a trendy addition to your menu. Seafood can also be used to meet the National School Lunch Program guidelines and credits as a meat/meat alternate.

- There are many kid-friendly seafood recipes your students will love.
- Take ‘Taco Tuesday’ to a new level — offer fish tacos with crunchy slaw
 - Help students explore a taste of the sea with Alaska pollock burgers
 - Change it up with fish and chips, instead of chicken tenders
 - Make a vegetable side dish mainstream — combine canned tuna, fresh tomatoes, bell peppers and an olive oil dressing for a simple entrée

STEP 2: Buy It! Seafood in quantity

Frozen and canned fish are available year-round. Fresh varieties are available based on the season. Look for products that are once-frozen or canned for optimal taste and ease in preparation. Seafood is delicate — when buying frozen, look for products that have not been previously cooked.

The USDA Foods Available List offers four different seafood options. Other varieties of seafood are periodically available from the USDA, or can be ordered through your foodservice distributor.

ITEM	WBSCM ID	PACK SIZE	PORTION	NATIONAL SCHOOL LUNCH PROGRAM CREDITING ¹⁻⁴
Alaska Pollock, Frozen	110601	49.5 lb. block	2.6 oz.	2 oz. meat/meat alternate
Alaska Pollock, Whole Grain-Rich Breaded Sticks, Frozen	110851	8/5 lb. or 4/10 lb. package	4 oz.	2 oz. meat/meat alternate 1 oz. whole grain
Catfish, Whole Grain-Rich Breaded Fillet Strips, Frozen	100201	4/10 lb. package	2 oz.	1 oz. meat/meat alternate
Tuna, Chunk Light, Canned	100195	6/66.5 oz. can	1 oz. drained	1 oz. meat/meat alternate

For the most accurate crediting, refer to the label on your purchased product.



USDA Food Purchases

- USDA's Agricultural Marketing Service (AMS) is responsible for purchasing the USDA Foods that are distributed through four Food and Nutrition Service (FNS) programs:
- [Commodity Supplemental Food Program](#) (CSFP),
- [Food Distribution Program on Indian Reservations](#) (FDPIR),
- [The Emergency Food Assistance Program](#) (TEFAP), and
- [USDA Foods in Schools](#).
- The following links provide information for vendors interested in participating in the USDA Foods program.
 - [Selling Food to USDA](#) – Information on all AMS procurements including solicitations and product specifications.
 - [How to Become a Vendor](#) – Details on how to apply to become a USDA Foods vendor. This site also includes qualified bidders lists outlining which vendors are already approved to bid on which USDA Foods product(s).
 - [Providing Product Information to USDA](#) - Resources on how to supply product information to the USDA Foods Database through the GS1 Global Data Synchronization Network (GDSN).
 - **Foods Commonly Purchased** The [USDA Foods Available Lists](#) outline the USDA Foods that are available or expected to be purchased through each program. The lists are subject to change based on market availability.

USDA AMS Fish Purchases, FY 2025

- USDA purchased over 82,000 lbs of frozen fish valued at over \$251 million during the fiscal year ending September, 2025. The largest purchases were 21.5 million lbs each of Alaska Pollock sticks and nuggets, 14.7 million lbs of Alaska Pollock fillets and almost 9.8 million lbs of raw, unbreaded farmed catfish fillets.
- There were smaller purchases of Atlantic Pollock filets, Catfish strips, Haddock fillets, Ocean Perch fillets, Wild Salmon fillets and Walleye Fillets.

FY25-Domestic/International Purchasing Group- Material Group- Material	Pounds	Dollars
FISH, FROZEN	82,532,800	\$251,096,824
ATLANTIC POLLOCK FILLET FRZ PKG-20/2 LB	2,412,000	\$14,538,680
CATFISH FLTS UNBRD RAW PKG-20/2 LB	9,766,000	\$44,808,251
CATFISH STRIPS BRD OVN RDY PKG-4/10 LB	160,000	\$812,800
FISH AK PLCK FILLETS FRZ PKG-20/2 LB	14,744,000	\$38,718,234
FISH AK PLCK FRZ BULK CTN-49.5 LB	1,702,800	\$3,163,644
FISH AK POLLOCK NUGGETS FRZ PKG-20/2 LB	21,660,000	\$49,646,860
FISH AK POLLOCK STICKS BRD FRZ CTN-40 LB	1,216,000	\$2,909,996
FISH AK POLLOCK STICKS FRZ PKG-20/2 LB	21,470,000	\$48,430,097
HADDOCK FILLET FRZ PKG-20/2 LB	180,000	\$1,934,406
OCEAN PERCH FILLET FRZ PKG-20/2 LB	360,000	\$2,873,732
PACIFIC SALAD SHRIMP 250-350 PKG-20/2 LB	1,548,000	\$6,689,118
PACIFIC SALAD SHRIMP 350-500 PKG-20/2 LB	2,448,000	\$9,038,280
SALMON FILLETS WILD FRZ PKG-40/1 LB	144,000	\$1,769,328
SHRIMP PEELED & DVND 21-30 PKG – 10/2 LB	1,650,000	\$10,341,163
SHRIMP PEELED & DVND 31-50 PKG–10/2 LB	1,950,000	\$10,069,888
SHRIMP PEELED & DVND 51-70 PKG–10/2 LB	1,050,000	\$4,367,746
WALLEYE FILLETS FRZ PKG-40/1 LB	72,000	\$984,600

Source: <https://www.ams.usda.gov/reports/ams-purchases-commodity>



New Federal Purchase Program Specification (FPPS) Freshwater Wild-Caught Catfish Fillets, Unbreaded, Raw, Frozen

- MDA and the industry have been working with USDA/AMS to ensure that there is a purchase specification to permit USDA purchases of blue catfish.
- USDA has announced that \$2 million will be available for blue catfish purchases.
- The next challenge is for one or more Maryland processors to be able to supply truckload quantities to meet USDA specifications, and to bid on a procurement.

Federal Purchase Program Specification (FPPS) for Freshwater Wild-Caught Catfish Fillets, Unbreaded, Raw, Frozen **100 Item Description**

110 Freshwater Wild-Caught Catfish (WCC) Fillets, Unbreaded, Raw, Frozen

110.1 Catfish fillet portions shall be derived from wild-caught freshwater blue catfish (*Ictalurus furcatus*), including fish caught in brackish waters.

120 Portion Weight – The weight for WCC fillet or fillet portions shall be 4.0 ounces.

130 Packing – The catfish fillets or fillet portions shall be packaged in four (4) 10-pound, five (5) 8-pound, eight (8) 5-pound, or twenty (20) 2-pound immediate containers and placed into shipping containers weighing 40 pounds.

140 Delivery Unit – Each delivery unit shall consist of 950 shipping containers with a net weight of 38,000 pounds.

Source: USDA/AMA. [Federal Purchase Program Specification \(FPPS\) for Freshwater Wild-Caught Catfish Fillets, Unbreaded, Raw, Frozen](#), July, 2024. page 30.



Blue Catfish on USDA TFAP Foods Available List

- One positive result of efforts by MDA and Maryland Blue Catfish processors is that Wild-Caught Frozen Catfish Fillets have been added to USDA's [list of Foods Available for The Emergency Food Assistance Program \(TFAP\)](#) for the first time for the current fiscal year ending September, 2026.
- ***In order for purchases to take place, there must be a food bank or other emergency food assistance organization with funding eligible to request them and a processor able to supply the desired products in the quantities USDA wants to purchase. In this case, truckload quantities of 40 lb cases with 20 2lb bags of frozen wild caught catfish fillets, packed 950 cases per truck. USDA can then issue a solicitation.***
- It is important to note that in the absence of a better estimate, USDA listed the expected cost per lb for wild blue catfish fillets to be \$9.99 per lb, compared to \$4.94 per lb for farmed catfish fillets.
- **Maryland Food Bank indicates that they have been very happy with Blue Catfish fillets received through other programs. Testimonial might help encourage other TFAP interest.**

USDA Foods Available List for The Emergency Food Assistance Program (TEFAP) Fiscal Year 2026

USDA Foods Description	Pack Size	Cases per Truck	Case Weight (lb)	Truck Weight (lb)	Estimated Price per Pound	Estimated Case Price	Estimated Truck Price	Variable Weight Material
Alaska Pollock, Whole Grain Breaded Fish Sticks, Frozen	20/2 lb bag	950	40	38,000	\$2.34	\$93.77	\$89,083.40	No
Alaska Pollock, Fillet, Frozen	20/2 lb bag	950	40	38,000	\$2.79	\$111.42	\$105,849.00	No
Atlantic Pollock, Fillet, Frozen	20/2 lb bag	900	40	36,000	\$6.01	\$240.52	\$216,468.00	No
Atlantic Haddock, Fillet, Frozen	20/2 lb bag	900	40	36,000	\$10.95	\$437.84	\$394,052.40	No
Atlantic Ocean Perch, Fillet, Frozen	20/2 lb bag	900	40	36,000	\$7.92	\$316.75	\$285,073.20	No
Catfish, Fillets, Farm-Raised, Frozen	20/2 lb bag	950	40	38,000	\$4.94	\$197.80	\$187,906.20	No
Catfish, Fillets, Wild-Caught, Frozen	20/2 lb bag	950	40	38,000	\$9.99	\$399.60	\$379,620.00	No
Salmon, Pink, Canned	24/14.75 oz can	1,520	22.125	33,630	\$3.04	\$67.33	\$102,336.09	No
Salmon, Pink, Canned (Kosher)	24/14.75 oz can	1,520	22.125	33,630	\$2.97	\$65.73	\$99,911.37	No
Chicken, Split Breast, Frozen	6/5 lb bag	1,300	30	39,000	\$4.25	\$127.50	\$165,750.00	No
Chicken, Drumsticks, Frozen	8/5 lb bag	950	40	38,000	\$0.77	\$30.99	\$29,442.40	No
Chicken, Canned	24/12.5 oz can	1,800	18.75	33,750	\$2.53	\$47.40	\$85,316.63	No
Chicken, Boneless Breast, Frozen	10/3 lb bag	1,248	30	37,440	\$2.37	\$71.00	\$88,609.25	No
Turkey, Deli Breast, Sliced, Frozen	20/2 lb package	960	40	38,400	\$4.30	\$171.92	\$165,043.20	No
Source: TEFAP List of Materials Report FY 2026								



Competition For USDA Procurement

USDA Seafood Purchases by Species

- During FY 2025, USDA/AMS purchased over 12 million lbs of farmed catfish valued at over \$60 million. Six companies were selected to provide the products, primarily raw frozen unbreaded fillets and some oven ready breaded catfish strips.
- Alaska Pollock, including whole fish, fillets, nuggets and fish sticks represent the largest frozen fish purchases. Shrimp, canned salmon and canned tuna are also important.
- There were also some purchases of frozen haddock, ocean perch, salmon and walleye fillets.

Comparative Pricing Among Seafood Species Purchased

- Farmed catfish purchases averaged \$4.30 - \$5.08 per lb,
 - Ocean Perch purchases averaged \$7.77 to \$7.96 per lb,
 - Haddock averaged \$10.75 per lb,
 - Wild salmon fillets averaged \$10.75 to \$12.80 per lb
 - Walleye fillets averaged \$13.68 per lb.
-
- There were relatively few suppliers and smaller purchases of species and products other than farmed catfish during FY 2025:.
 - Channel Fish – Alaska Pollock fillets, nuggets, sticks, haddock, ocean perch
 - Dulcich Inc /Pacific Seafood - Wild salmon fillets, shrimp, also sell Chinese catfish and U.S. farm raised catfish nuggets
 - Trident - Alaska Pollock, sticks and nuggets, wild salmon fillets
 - Silver Bay - canned salmon and Alaska Pollock
 - High Liner Foods - Alaska Pollock sticks and nuggets
 - Pier Fish Co Inc – Ocean Perch
 - Red Lake Nation – Walleye fillets
 - Channel Fish, based in Massachusetts, also processes and sells Chesapeake Blue Catfish and has developed value-added products. .



Example of USDA Pre-Solicitation Announcement

Section 32 Purchase of Farmed Raised Catfish and Alaska Pollock

- The U.S. Department of Agriculture (USDA) today announced plans to purchase commercially available Farmed Raised Catfish and Alaska Pollock for distribution to various food nutrition assistance programs. Purchases will be made under the authority of Section 32 of the Act of August 24, 1935 (Pub. L. 74-320) as amended (Section 32).
- Potential materials may include:
- | Material Code | Material Description |
|---------------|--|
| 110390 | CATFISH FLTS UNBRD RAW PKG-20/2 LB |
| 110850 | FISH AK POLLOCK STICKS FRZ PKG-20/2 LB |
| 110851 | FISH AK POLLOCK STICKS BRD FRZ CTN-40 LB |
| 110345 | FISH AK PLCK FILLETS FRZ PKG-20/2 LB |
| 111280 | FISH AK POLLOCK NUGGETS FRZ PKG-20/2 LB |
- Solicitations will be issued in the near future and will be available electronically through the Web-Based Supply Chain Management (WBSCM) system. A hard copy of the solicitation will not be available. Public WBSCM information is available without an account on the WBSCM Public Procurement Page. All future information regarding this acquisition, including solicitation amendments and award notices, will be published through WBSCM and on the Agricultural Marketing Service's website. Interested parties shall be responsible for ensuring they have the most up-to-date information about this acquisition. The contract type is anticipated to be firm-fixed-price. Deliveries are expected to be to various locations in the United States on a Freight on Board (FOB) destination basis.

Source: USDA/AMS [Pre-Solicitation Announcement](#).



Web-Based Supply Chain Management (WBSCM)

Web-Based Supply Chain Management (WBSCM) is used for all federal food and commodity orders, solicitations, offers, awards, deliveries, invoices and payments. Suppliers are required to use the system.

- “The Web Based Supply Chain Management (WBSCM) system is an integrated, internet-based commodity acquisition, distribution, and tracking system built on Systems, Applications and Products (SAP). WBSCM supports domestic and international food and nutrition programs administered by three United States Department of Agriculture (USDA) agencies, including Food and Nutrition Service (FNS), Agricultural Marketing Service (AMS), and Foreign Agricultural Service (FAS), and the United States Agency for International Development (USAID). Multiple programs, including the National School Lunch Program (NSLP), the Emergency Food Assistance Program (TEFAP), and Food Distribution Program on Indian Reservations (FDPIR), serve over 30 million Americans and are administered through 98 State Distributing Agencies (SDAs), supporting over 100,000 Recipient Agency (RA) school districts, food banks, and feeding centers, and 110 Indian Tribal Organizations (ITOs), supporting over 75,000 program participants.
- Household-level programs, such as Commodity Supplemental Food Program (CSFP), TEFAP, and FDPIR, serve food to insecure groups such as senior citizen, Native Americans, and low-income citizens. International programs, which include Food for Peace, Food for Progress, and Food for Education, serve over 280 million people in over 65 countries with aid provided through the United Nations World Food Program and over 30 foreign governments, and approximately 70 private voluntary organizations (PVOs).
- USDA Foods account for nearly 20 percent of the value of school districts food purchases menus. On a yearly basis, WBSCM directly supports the order, procurement, and delivery of over 6.5 billion pounds of American farm food commodities with a value in excess of \$4 billion.”
- Source: USDA/FNS. [Web-Based Supply Chain Management \(WBSCM\)](#)



Defense Department Fish and Seafood Procurement: The Berry Amendment

- Defense Logistics Agency (DLA) Troop Support Subsistence provides food services across the globe. “We are proud to support the warfighter and federal partners with quality, nutritious foods to meet a variety of demands. Total DLA procurement including food, uniforms, equipment, medical supplies is \$25 billion annually.
 - Information on working with DLA Food Services is available via this [link](#).
 - A listing of active and pending contracts is available via this [link](#).
- The [Berry Amendment](#), requires only American sourced products to be purchased using Defense Appropriations. For fish and seafood purchased, all must be obtained by fishing within the United States and processing must be performed within the United States, potentially creating opportunities for Wild Caught Chesapeake Blue Catfish.
- ‘All fish, shellfish or seafood contained in food, even if it was manufactured or processed in the US, MUST come from a US-flag vessel or be obtained from fishing within the United States; AND any processing or manufacturing of the fish, shellfish or seafood must be performed on a US-flag vessel or in the United States. However, non-seafood food items that are used in the manufacture of fish products (i.e.. bread crumbs, spices, etc.) are not subject to the restrictions that apply to seafood and can be produced outside the United States.’ <https://www.acq.osd.mil/asda/dpc/cp/ic/berry-amendment.html>



Opportunities and Challenges of Large Government and Commercial Sales

- An important challenge to increasing demand for frozen and value added products has been processor capacity to meet the volume requirements of federal and state government and institutional program purchases.
 - USDA purchases of truckload quantities require large processing lines, reliable fish supplies, labor, chilling, freezing and packaging capacity.
- As long as there is strong demand for fresh fillets, there may be limited incentive to freeze and store to be able to fill large institutional and commercial orders.
- At the same time, with large seasonal variability in blue catfish harvests, additional freezing and cold storage capacity can help ensure that blue catfish products are available to meet year-round demand, a key to diversifying and growing markets.
- With a growing number of processors planning to become suppliers of wild blue catfish fillets, the ability to store frozen products can also help to manage processor risks.



Value-Added Processing and Manufacturing

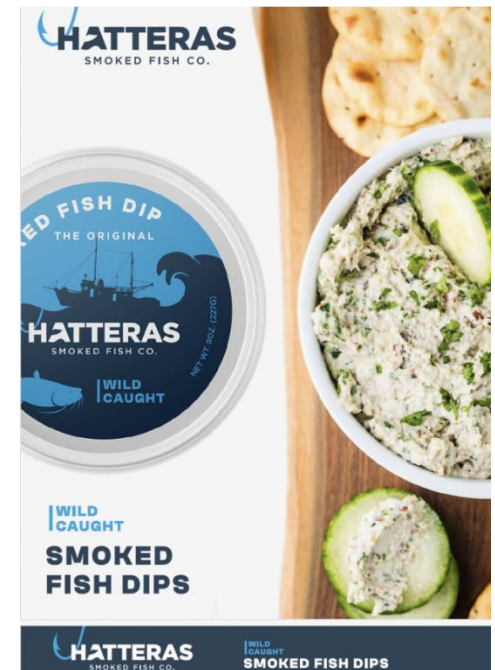
Highlights

- Tilghman Island Seafood processes blue catfish to produce processed by hand. whole dressed, natural fillets, portions, value added and by-products with a variety of distributor, retail and foodservice packaging options. They also sell catfish by products for pharmaceutical, pet food and other applications.
- As Maryland Blue Catfish processors explore potential innovations and new product opportunities to add value to Blue Catfish fillets, portions and flakes/meat, some examples of products, labeling and marketing propositions from other seafood processors may be of interest.
 - Channel Fish Spanikopita Wild Blue Catfish with feta cheese and spinach.
 - Channel Fish Child Nutrition Labeled Nuggets and Portions.
 - Safe Catch Fish Nuggets – Mercury Tested.
 - Snackers Surimi “Artificial Crab” Snacks made with Alaska Pollock.
 - Trident Wild Alaska Salmon Burgers and Wild Alaska Pollock Portions: High in Protein and Omega-3.
 - Highliner Foods: Mrs Paul’s: Certified Sustainable Breaded Fish portions using minced fish.
- There are several Maryland value-added seafood processors with research and development and co-packing, private label manufacturing for retail and foodservice products that could potentially be approached about value-added products using blue catfish. Three of these include [Handy](#), [Phillips Foods](#) and [Sea Watch International](#).



Tilghman Island Seafood: Value Added Products

- Tilghman Island Seafood processes blue catfish to produce processed by hand. whole dressed, natural fillets, portions, value added and by-products with a variety of distributor, retail and foodservice packaging options. They also sell catfish by products for pharmaceutical, pet food and other applications.
- Examples of value added products include Wild Blue Breaded Catfish fillets, portions and nuggets. They produce branded Wild Blue Catfish Cakes for school foodservice. Also, smoked fish dips for retail.



Other Value-Added Seafood Product Examples

- As Maryland Blue Catfish processors explore potential innovations and new product opportunities to add value to Blue Catfish fillets, portions and flakes/meat, some examples of products, labeling and marketing propositions from other seafood processors may be of interest.
 - Channel Fish Spanikopita Wild Blue Catfish with feta cheese and spinach.
 - Channel Fish Child Nutrition Labeled Nuggets and Portions.
 - Safe Catch Fish Nuggets – Mercury Tested.
 - Snackers Surimi “Artificial Crab” Snacks made with Alaska Pollock.
 - Trident Wild Alaska Salmon Burgers and Wild Alaska Pollock Portions: High in Protein and Omega-3.
 - Highliner Foods: Mrs Paul’s: Certified Sustainable Breaded Fish portions using minced fish.



Channel Fish Spanakopita Wild Blue Catfish

- ‘Savor an innovative reimagining of a beloved Greek classic, Spanakopita Wild Blue Catfish. Mild, flaky wild blue catfish meets the vibrant flavors of feta cheese and spinach. This culinary delight incorporates phyllo dough seconds upcycled into a uniquely crunchy breading system. You will uncover a new favorite species and improve the ecosystem of the Chesapeake Bay with every bite.’



Nutrition Facts

4 servings per container

Serving Size 2 pieces (142g)

Amount Per Serving

Calories 260

% Daily Value*

Total Fat 12g 15%

Saturated Fat 1.5g 8%

Trans Fat 0g

Cholesterol 55mg 18%

Sodium 410g 18%

Amount Per Serving **% Daily Value***

Total Carbohydrates 21g 8%

Dietary Fiber <1g 3%

Total Sugars 0g

Includes 0g Added Sugars 0%

Protein 17g

Vitamin D 12mcg 60%

Calcium 32mg 2%

Iron 1mg 6%

Potassium 381mg 8%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

- “Channel Fish has a research kitchen onsite at its Braintree headquarters. It employs a team of culinary professionals, research and development specialists, and seafood enthusiasts. The Research and Development team can innovate new seafood offerings and produce samples from concept to line tests to flavor evaluation and prides itself on working collaboratively with customers.”

Source: Channel Fish

Channel Fish CN Label Fish Nuggets & Portions

- **CN Whole Grain Fish Nuggets**
- “A top-selling item in our K-12 line of seafood products for schools, our CN Whole Grain Fish Nuggets are filled with nutrients without sacrificing the incredible crunchy flavor that kids love. And, honestly, we wouldn’t be surprised to see adults enjoying this delicious, healthy snack as well!”
- **Nutritious And Delicious Whole Grain Goodness!**
- ‘Made from once frozen deep-skinned domestic Pollock, our CN Whole Grain Fish Nuggets also make a fantastic retail or food service item, delivering on both taste and nutrition in the home, at school, and even facility cafeterias or mess halls. Our fish nuggets are also oven-ready, making them easy to cook and serve, ensuring that you don’t have to skimp out on incredible savory flavor to serve a healthy meal for hungry bellies.’
- **CN Whole Grain Fish Portions**
- ‘Channel Fish’s Whole Grain Fish Portions are one of the most popular items in our line of Child Nutrition (CN) children’s products. These sandwich-style, deliciously crunchy fish squares are filled with essential nutrients, making them a perfect meal for your little ones.’
- **Multiple Flavor-Styles To Experiment With**
- ‘Made from our domestic, once frozen deep-skinned Alaskan Pollock, these squares come in various crunchy whole grain flavors, such as whole grain, potato crunch, cornmeal, and more. They are the perfect addition to any frozen retail inventory, children’s menu, or school cafeteria dining service offerings.’

Source: Channel Fish



Safe Catch Fish Nuggets

- 2/16/2026 **Safe Catch Fish Nuggets**
- Mercury-tested brand enters frozen aisle nationwide at Sam's Club
- Long known for its mercury testing, ingredient transparency and responsible sourcing, [Safe Catch](#) has now landed in the frozen aisle with the launch of Safe Catch Fish Nuggets, marking the brand's first expansion into the category in a nationwide rollout across all U.S. Sam's Club locations.
- Although frozen seafood nuggets have traditionally prioritized convenience, **Safe Catch Fish Nuggets were created to deliver both convenience and clarity.**
- Made with 100% sustainably wild-caught Alaskan Pollock, the family-friendly nuggets are lightly breaded with simple ingredients and cooked in avocado oil.
- They contain no seed oils or added sugar and no artificial fillers while providing 18 grams of protein per serving.
- Safe Catch applies its **proprietary mercury-testing technology** to every catch of Pollock used, screening each batch to a strict mercury limit of 0.1 ppm. No other frozen seafood brand operates at this level of testing or transparency, positioning Safe Catch Fish Nuggets as a differentiated and premium offering within the category.
- Additionally, the product is the only plastic-neutral seafood item currently available in the frozen aisle. Safe Catch Fish Nuggets are available nationwide at Sam's Club locations and retail for a suggested \$13.98 per 32-ounce box.



Source: [Progressive Grocer](#)

Seafood Snackers Surimi

Perfect for C-Stores!

Snack on this:

Seafood Snackers are America's #1 selling seafood snack.



- Ready-to-Go snack or light meal.
- Healthy alternative to meat-based snacks.
- 3 oz size with attractive retail pricing.
- Seafood Snackers are top sellers at conventional grocery.

15-pack tray makes merchandising easy.



Circa unit sales 52 wks 3/24/26



Choose Crab Classic for delicious, in-store seafood salads. Whether you produce in-store or at a commissary, Trans-Ocean can deliver exceptional product quality in a range of packaging sizes.

transOCEAN Products
Bellingham, WA 98225 • 888-215-4815 • trans-ocean.com

Ad Source: Convenience Store News

- Seafood Snackers surimi (artificial crab), for snacks, sandwiches and salads are being promoted for sale at convenience stores.
- Other surimi products are sold at retail and foodservice, with bulk packages available at club stores.
- [TransOcean](#) manufactures a variety of “artificial crab” products using Alaska Pollock and Pacific Whiting.
- Remaining meat on Blue Catfish carcasses after filleting can be used to make surimi, according to researchers at [Louisiana State University](#) and elsewhere. Their work was with farmed catfish. There is [substantial research](#) on producing surimi from Asian farmed catfish species (*Pangasius*).
- *Wild Chesapeake Blue Catfish Surimi is a potential topic for further investigation, though with some potential for sensitivities. It could take advantage of Maryland's reputation for crab, but may be viewed as competing with Genuine Maryland Blue Crabmeat,*



Trident Salmon Burgers and Pollock Portions

Trident Wild Alaska Salmon Burgers and Wild Alaska Pollock Portions, both promoted for protein, Omega-3 content and Wild caught.

FROZEN

TRIDENT U.S. RETAIL



TRIDENT SEAFOODS® ESSENTIALS™ 3.2 oz ALASKA SALMON BURGERS

Delicious, lightly seasoned Wild Alaska Salmon Burgers packed with protein and no added fillers.



- 16g Protein
- 1060mg Omega-3
- Wild Caught Alaska Salmon

Item	Description	Case Pack	Gross Case Wt.	Net Case Wt.	TI/Hi	Shelf Life from Date of Manufacture	GTIN #	UPC
144142	Trident Essentials Alaska Salmon Burgers	8/12.8 oz	7.55 lb	6.4 lb	12/7	730		



TRIDENT SEAFOODS® ESSENTIALS™ CRUNCHY BREADED WILD ALASKA POLLOCK PORTIONS VALUE PACK

Wild Alaska Pollock portions wrapped in a delicious crunchy breading.



- 12g Protein
- 720mg Omega-3
- Wild Caught in Alaska
- Made with Minced Fish

Item	Description	Case Pack	Gross Case Wt.	Net Case Wt.	TI/Hi	Shelf Life from Date of Manufacture	GTIN #	UPC
143947	Trident Essentials Crunchy Breaded Wild AK Pollock Ptn.	5/19 oz	6.60 lb	5.94 lb	24/4	730 Days	100-28029-43947-9	0-28029-43947-2



Highliner Foods: Mrs. Paul's and Other Value-Added Branded and Private Label Seafood



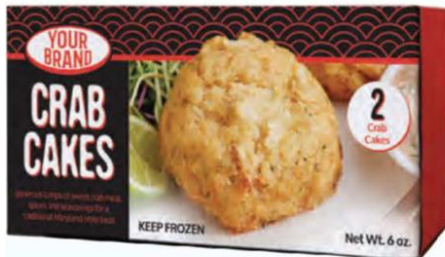
Breaded minced fish for sandwiches.
Made with wild caught Alaska Pollock.

- “At Mrs. Paul’s, 100% of our wild-caught seafood is certified sustainable by MSC meaning that the seafood you enjoy is sourced with MSC’s Chain of Custody Standard”.
- High Liner Foods acquired Van de Kamp's® and Mrs. Paul's® from ConAgra brands in June, 2025. High Liner Foods previously co-manufactured products for ConAgra.
- [High Liner Foods](#) is a Canadian company with U.S. Headquarters in Newport News, VA. They sell branded value added seafood products to retailers and foodservice across the U.S. and Canada, and are also major supplier of private-label, value-added frozen seafood products to North American food retailers and foodservice distributors.

Potential Maryland Value-Added Product Development and Co-Packing Partners

- There are several Maryland value-added seafood processors with research and development and co-packing, private label manufacturing for retail and foodservice products that could potentially be approached about value-added products using blue catfish. Three of these include [Handy](#), [Phillips Foods](#) and [Sea Watch International](#).

HANDY®
TRUSTED SEAFOOD SINCE 1894



Phillips®



“At Phillips, we keep our eyes on the future, anticipating industry trends and demanding innovation from our research and development team..” In addition to crab cakes, Phillips Foods now offers other seafood including lobster, shrimp and barramundi.



“Sea Watch takes pride in its ability to respond quickly and cost-efficiently to co-packing customers’ outsourcing requirements. Sea Watch has decades of co-packing experience in developing branded seafood products, which can be baked or fried. Sea Watch has state of the art manufacturing plants in Delaware, Maryland, Virginia, and Massachusetts. These facilities have multiple packing options...”



Conclusions and Recommendations: A Blue Catfish Market Expansion Action Plan



Blue Catfish Harvests, Prices, Outlook

- Market Solutions LLC was retained by the Maryland Department of Agriculture (MDA) Seafood Marketing Program to assess opportunities and strategies for expanding markets and processing for Wild caught Chesapeake Blue Catfish, with a special emphasis on Maryland's Middle Eastern Shore. Funding to MDA for the assignment was provided by a grant from USDA's Rural Business-Cooperative Service.
- **Maryland watermen harvested 4 million lbs of blue catfish in 2025, with a dockside value of \$2.7 million. This represents a doubling of the commercial harvest since 2018.** While average year-to-year dockside prices paid to watermen for blue catfish have been variable, they increased 41% from an average of 53 cents per lb during 2017-19 to about 75 cents per lb during 2024-25, based on Maryland Department of Natural Resources (DNR) reporting.
- **Maryland has led neighboring states in support for marketing blue catfish**, including state purchases starting in 2018, initiatives with school lunch programs, and [Maryland's Best](#) marketing support to promote blue catfish consumption. Processors have also been very active in marketing blue catfish. *Maryland marketing support for blue catfish appears to be paying off in terms of stronger demand, higher prices than neighboring states, and in turn growing commercial blue catfish harvests.*
- **If the harvest increase trend of the last 7 years continues, Maryland could need to process and build markets for 7.7 million lbs of blue catfish annually by 2030**, nearly double the 2025 level, based on Market Solutions LLC projections. While this is an aggressive target, it is only one fourth to one half of the 15-30 million lb required annual blue catfish harvest cited in some press reports as required to control this invasive species problem.
- [Maryland's DNR](#) and a number of researchers at [VIMS/William & Mary](#), Virginia Tech, University of Maryland and USGS have been working to develop better estimates of blue catfish densities in Maryland and Virginia waterways, and models of how harvests could affect their growth and threats to other species.
- **Maryland Eastern Shore Processing.** This project was initially proposed by MDA to explore feasibility of expansion of blue catfish processing and marketing for two Eastern Shore processors, BSA Seafood and Tilghman Island Seafood. By the time this assignment was begun, both wanted to expand processing, but had been unable to get required approvals to expand at their current locations in Queen Anne's and Talbot Counties. They were already considering other options.



Maryland Eastern Shore Processors

- **USDA Inspection Requirement Limits Blue Catfish Processing.** Under Farm Bills since 2008, farmed catfish and other *siluriformes* (fish without scales), including wild blue catfish, have been treated like livestock, with inspection by the U.S. Department of Agriculture (USDA). The safety of all other seafood in the U.S. is under Food and Drug Administration (FDA) Hazard Analysis Critical Control Point (HACCP) systems, which do not require on-site inspectors. One goal of the USDA on-site inspection requirement is to reduce competition by preventing Asian catfish species (*Pangasius* - basa, swai, or tra) from being labeled as catfish in the U.S. market. The net result is that there are only four seafood processors with USDA inspection to be able to process blue catfish in Maryland.
- **Tilghman Island Seafood reports** that it processed 2.7 million lbs of blue catfish during 2025, and was facing challenges with getting access to sufficient blue catfish to process. They also reported challenges with limitations on availability of USDA inspection, which limited processing capacity and increased labor costs. They reported sourcing blue catfish from North of the Chesapeake Bay Bridge to the Albemarle Sound in North Carolina to keep their plant running. They were exploring multiple options for next steps with their business, including an option to move their operations to Virginia.
- **BSA Seafood has been processing up to 6-10,000 lbs of blue catfish per week.** BSA reported having to source some Blue catfish in Southern Maryland on the Western Shore of the Chesapeake Bay. They received a USDA MPPEP grant in March, 2026 just before the contract for this assignment was approved, but were exploring alternative new sites for their business as the research began.
- **Changes to Original Project Scope of Work.** These developments made it impractical for this assignment to specifically examine the feasibility of expansion by BSA Seafood or Tilghman Island Seafood, though both were consulted multiple times in the course of the project. MDA discussed this situation with USDA and received guidance that the scope of this research should be adjusted to provide broader market insights and strategic guidance that could be useful to others who might consider processing blue catfish on Maryland's Eastern Shore.
- **Exploring Blue Catfish Supply Challenges.** Based on the blue catfish supply challenges both processors reported, Market Solutions LLC agreed with MDA to explore Commercial Blue Catfish harvests, challenges and opportunities, although it was not part of the original scope of work for the assignment. This involved substantial assistance from DNR, including a special tabulation of commercial harvest data by month and above and below the Bay Bridge.



Reliable Data on Commercial Harvests, Markets and Blue Catfish Biomass and Diets

- **Maryland's Eastern Shore below the Chesapeake Bay bridge** accounted for at most 267,000 lbs out of Maryland's 4 million lb commercial Blue Catfish harvest in 2025, based on DNR statistics. All could have been processed by the existing processors. With limited availability of blue catfish near processors' current Eastern shore locations, they report purchasing blue catfish from all parts of Maryland, and as far south as North Carolina's Albemarle Sound in order to get the blue catfish volumes needed to fill orders.
- **Transportation costs.** Whether paid for by watermen or processors, there is currently a lot of transportation cost to get blue catfish to processors. This affects what watermen can get paid for fish. With the USDA inspection requirement limiting the number of businesses that can process blue catfish, transportation costs are likely to remain higher than might otherwise be the case. This ultimately makes Maryland processors less cost effective, and limits the prices that can be paid to motivate more watermen to spend more days harvesting blue catfish.
- **Reliable Data on Commercial Harvests, Markets and Blue Catfish Biomass and Diets** are all important to a strategy to help reduce Maryland's Blue Catfish Problem. At a time when federal research funding in many areas is being reduced, this will be an important consideration for Maryland. In 2024, DNR named its Invasive Fishes Program Manager and created the Invasive Catfish Advisory Committee (ICAC) to coordinate efforts to improve research and develop pilot projects to expand the commercial harvesting of blue catfish, while protecting other managed fishery species. ICAC discussions have revealed that there has not always been clarity on regulations on catching and selling blue catfish. DNR believes that there is underreporting of commercial harvests. Market Solutions LLC explored some potential reporting challenges, along with ways they might be addressed. (See Appendix.)
- **Balancing By-catch Concerns with Predation of Important Economic Species.** *DNR is a regulator, charged with enforcing fishery management rules to prevent by-catches of other managed species when fishing for blue catfish. It would be useful for DNR and other stakeholders to be able to evaluate the tradeoffs where increased blue catfish harvests may actually help protect populations of some of those same species, such as juvenile blue crabs, rockfish and others that are being consumed by this aggressive apex predator.*



Encouraging Increased Blue Catfish Harvests

- **Incentives for Commercial Watermen to Catch More Blue Catfish.** VIMS survey research with Virginia watermen found that two keys to willingness to harvest more blue catfish are: 1) knowing who will buy them; and 2) generally higher price levels, even if variable. They estimated that a 25 cents per lb average ex vessel price increase would lead to a doubling of days fished (White, et al, 2025).
- Maryland's average dockside prices increased 41%, from about 53 cents per lb during 2017-19, to about 75 cents per lb. during 2024-25, and the commercial harvest increased 91%, indicating a similar actual response by Maryland Commercial watermen.
- **For Maryland's Commercial Blue Catfish harvest to nearly double again, to 7.7 million lbs by 2030, might an increase in dockside price to nearly \$1 per lb provide the required incentive?**
 - Several sources report prices at about 80 cents per lb in 2026.
 - With 3.5% inflation, prices would reach 95 cents per lb in 2030.
- **Transportation costs will be a key consideration. Whether paid for by watermen or processors, there is currently a lot of transportation cost in get blue catfish to processors. This affects what watermen can get paid for fish.**
- **With the USDA inspection requirement limiting the number of businesses that can process blue catfish, and the hours that those with inspection can operate, higher transportation costs will likely result.**
- While USDA inspection is required under the 2008 Farm Bills in order to protect U.S. farmed catfish processors from foreign competition, there are reported cases where this has contributed to some consolidation among U.S. farmed catfish processors, as **large farmed catfish processing companies have invested in automation** to achieve processing economies, and smaller processors have gone out of business. This in turn has left some catfish farmers with higher transportation costs to get to processors. Even automated plants require substantial labor, as can be seen in this [video](#).
- **Research with wild-caught blue catfish processors in Louisiana**, which has been the largest wild-caught blue catfish harvester in the U.S., surveyed processors before and after enforcement of USDA inspection starting in 2017. There were 25 Louisiana facilities processing wild-caught blue catfish before enforcement. Ten introduced USDA inspection. Fifteen were reportedly "exempted" from the rule. Among 9 processors participating in the study, **78% reported reduced blue catfish production due to limited hours of operation due to USDA inspection hours and loss of fisherman**. Otherwise, processing practices were found to have remained the same. ([Parraga, Watts et al. Journal of Food Protection, 2021](#)) This is consistent with challenges reported in Maryland.



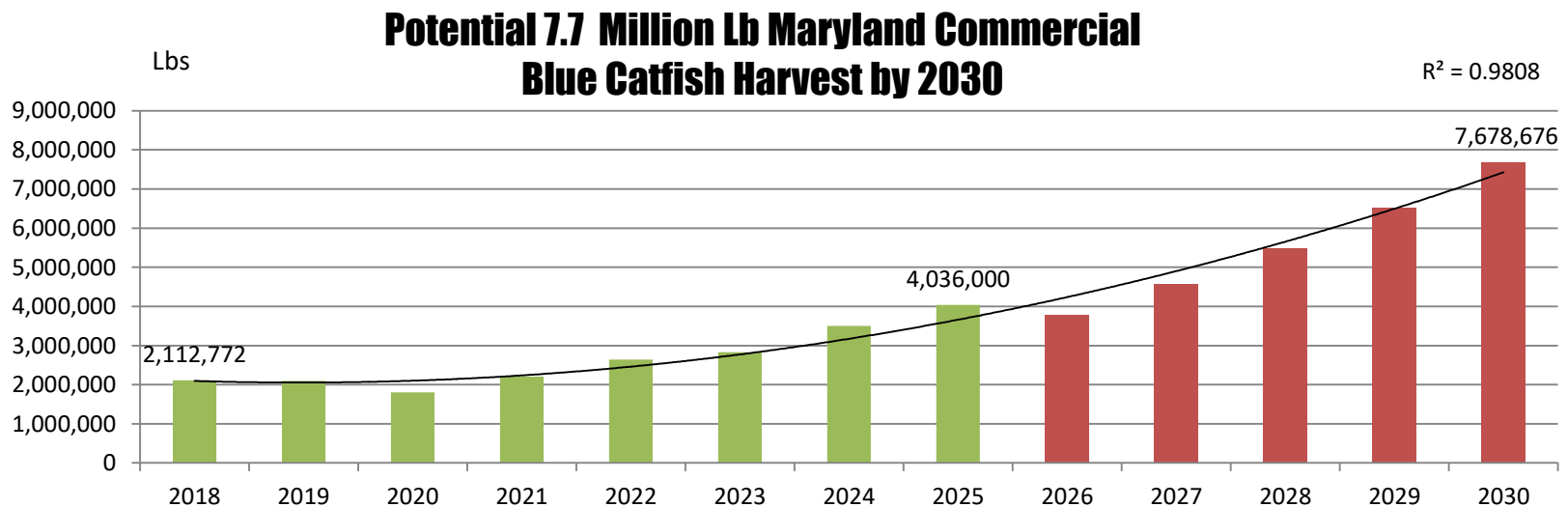
Market News, Seasonality, Business Models

- **Market News.** Processors and Watermen might both benefit for more accurate and closer to real time information that DNR collects from commercial watermen and dealers. There are limited numbers of watermen reporting harvesting blue catfish commercially, and limited numbers of USDA inspected processors who can buy blue catfish. Wider and more timely availability of market information on commercial harvests, and who is buying blue catfish, could potentially help to encourage more watermen to fish for blue catfish. It could also potentially help processors reduce the time and transportation required to get the blue catfish they need to keep their processing lines running cost effectively.
- **Addressing Seasonality of Blue Catfish Harvests: Licenses, Gear, Other Regulations.** One objective of pilot projects under study is to help even out supplies during winter and summer when blue catfish supplies are low and fishing with trot lines is less effective.
- More regular seasonal supplies would allow processors to operate more efficiently and retain employees year round. To the extent that this helps to drive down processing costs, it will permit more competitive sales of blue catfish to cost conscious consumers, and leave more money to pay watermen and improve earnings of processing businesses.
- **Processing Facility Business Models.** Most USDA inspected processors in Maryland are primarily seafood distributors. They still have to schedule staff separately to work under USDA inspection, and are governed by the hours that inspectors are available to work. Processing of all of the other seafood handled by distributors is under FDA HACCP rules, allowing businesses to operate on normal 8 hour shifts, rather than 8-12 hours shifts required to accommodate availability of USDA inspectors, which mean paying workers overtime, rather than simply adding another shift when seasonal supplies merit.
- In other parts of the seafood industry, processing of seasonal harvests is sometimes spread out by freezing fish to hold for processing, or to ship elsewhere for processing. Quality of twice frozen seafood is only acceptable for some customers, however. Neither Eastern Shore processor currently has sufficient freezer capacity to handle the processed blue catfish they would like to freeze.



Potential 7.7 Million Lb Maryland Blue Catfish Processing Required by 2030

- From 4 million lbs harvested in 2025, If Maryland's Commercial blue catfish harvest continues to grow as it has over the last seven years, 7.7 million lbs in annual processing capacity could be required by 2030.
- This would represent a 93% increase over the 2025 harvest, and assumes that there are not major changes in incentives to commercially harvest blue catfish or sales or processing options in the state. The harvest increased 91% from 2018 to 2025. While an aggressive target, this is only one fourth to one half of the 15-30 million lb annual blue catfish harvest cited in some press reports as required to control the invasive threat. [Maryland's DNR](#) and a number of researchers at VIMS/William & Mary, Virginia Tech, University of Maryland and USGS have been working to develop better estimates of blue catfish densities in Maryland and Virginia waterways, and models of how harvests could affect their growth and threats to other species.
- Market Solutions LLC developed a polynomial linear regression model to project the potential commercial blue catfish harvest to 2030 based on reported Maryland commercial blue catfish harvests 2018-2025,



Source: DNR and Potomac River Fisheries Commission data and estimates, 2018-2025, Market Solutions LLC projections, 2026-2030.



Building Demand for Maryland Blue Catfish

- If Maryland's catfish harvest expands to 7.7 million lbs by 2030, it will represent only about 4% of total U.S. catfish consumption of about 192 million lbs in 2026 and less than 1 percent of 1.2 billion lbs of major white fish species consumption including:
 - 188 million lbs of less expensive imported Asian Pangasius catfish species;
 - 318 million lbs of Tilapia
 - 307 million lbs of Alaska Pollock; and
 - 185 million lbs of Cod.
- The U.S. produced 354 million lbs of farmed catfish in 2023, at an average value of \$1.25 per lb and an average size of 1.6 lbs, according to USDA's 2023 Census of Agriculture.
- **Market Segmentation to Build Blue Catfish Sales.** The relatively limited availability of wild Chesapeake blue catfish compared to other white fish, makes it important to target opportunities offering maximum potential value to Maryland watermen and processors, including:
 - Upscale full service restaurants and retailers, helping to build awareness and a positive image for wild Chesapeake Blue Catfish;
 - Broader foodservice and retail market opportunities;
 - Institutional foodservice, including school meals;
 - Maryland's Certified Local (CLFF) program;
 - USDA and DOD food purchase programs;
 - Value-added processors for fillets, portions, cakes, nuggets and new products; and
 - New markets for by products.



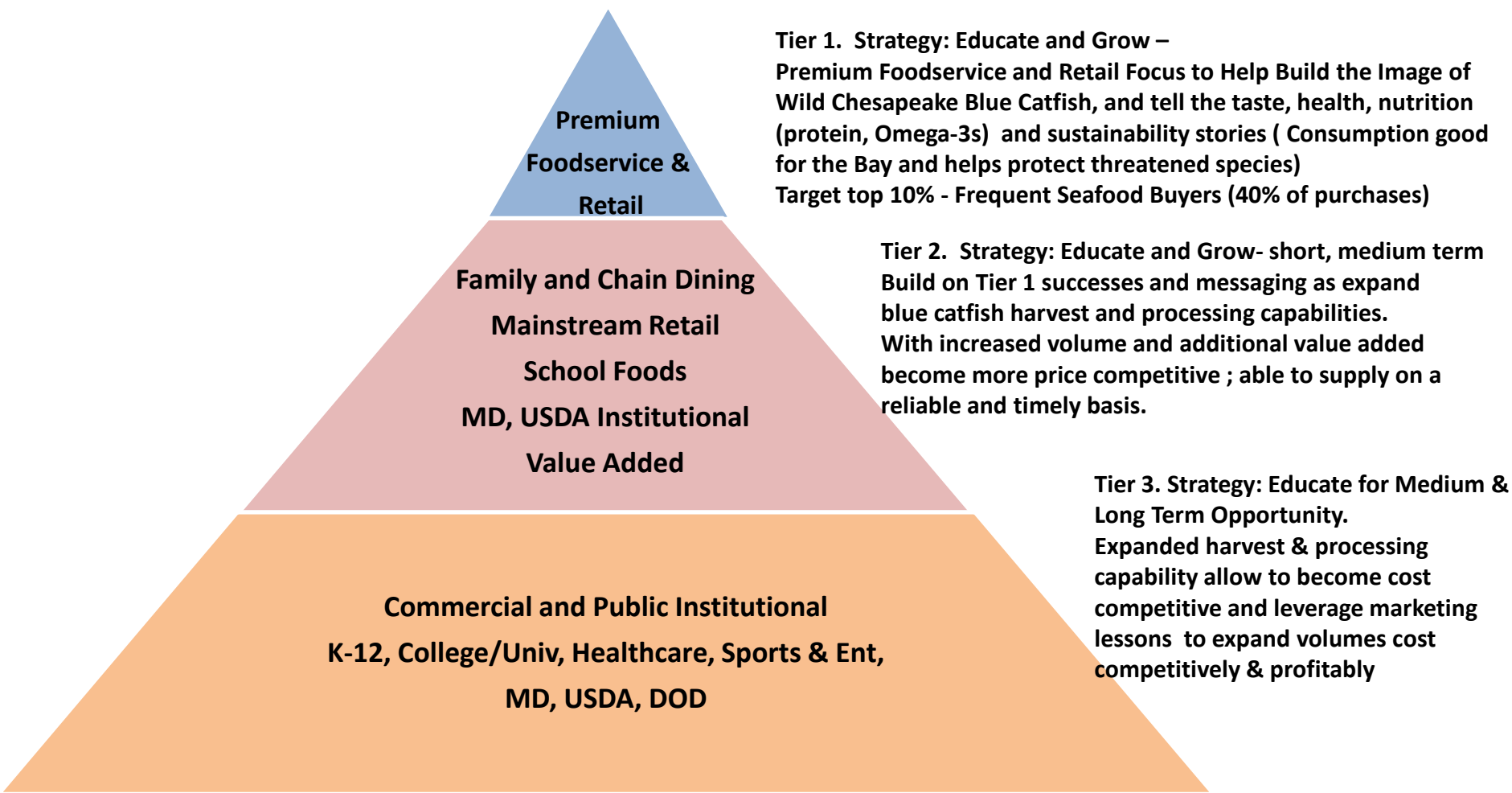
Market Segments & Strategies

The list and graphic below suggest a market segmentation and strategies to help strengthen demand for Wild Caught Chesapeake Blue Catfish.

- **Premium Foodservice** - Full Service white tablecloth restaurants and clubs.
- **Upscale retail:** Wegman's, Whole Foods, Graul's/St Michaels Market, others.
 - Fresh Fillets, portions, value added trim, flavors.
- Important to premium image – telling the story of good taste, good for you, good for the Bay & Delmarva.
 - Top Chefs prepare Wild Chesapeake Bay Blue Catfish.
 - Cook-off, recipes, promotions, where to buy, merchandising materials
 - Chefs/Restaurants and Retailers featuring Blue Catfish.
- **Mainstream Retail:** Support with educational materials for staff and customers, promotions.
- **Family Restaurants, limited service and other Commercial Foodservice,** Chains, Distributors.
 - Fresh and Frozen Fillets, portions, breaded portions, sticks, Blue Catfish cakes and nuggets
- **Institutional**
 - School Foods K-12, College and University
 - Certified Farm and Fish
 - Commercial Foodservice Contractors: Health care, Athletics and Entertainment, Business and Industry.
 - Correctional Institutions.
 - Food Banks.
 - USDA and DOD programs, CN for USDA school foods.
- **Raw materials for contract processing,** fillets, portions, Blue Catfish Cakes, Nuggets, New Products.
- **Adding Value to Blue Catfish By Products:** collagen, Omega-3 fish oil, protein, calcium, minerals, surimi.



Developing Wild Chesapeake Blue Catfish Opportunities with Foodservice, Retail and Value-Added Processors



Source: Market Solutions LLC for MDA



Appendices

•	Economic Impact of Blue Catfish Processing on Maryland’s Economy.....	87
–	Mid- Eastern Shore Workforce Overview	
•	Improving MD Blue Catfish Commercial Harvest and Sales Data Collection.....	89
–	What is Causing the Shift to Blue Catfish Harvest on Upper Chesapeake Bay	
–	Maryland Commercial Harvester Reporting	
–	MD Seafood Dealer Monthly Buying Report	
–	Potomac River Fisheries Commission Reporting	
•	Consumption Advisories for Eating Blue Catfish	94
–	Maryland Blue Catfish Consumption Advisories	
–	Eating Blue Catfish Safely	
–	Virginia Findings on PCBs and Mercury in Blue Catfish	
•	Policy and Regulatory Issues Important to Blue Catfish.....	98
–	Chesapeake Bay Conservation Act Removing USDA Inspection of Wild Catfish	
–	Mitigation Action & Watermen Support (MAWS) Act of 2026	
–	2008, 2014 and 2025 “Farm Bills”	
•	Potential Resources to Support Expanded Blue Catfish Processing.....	99
–	USDA Meat and Poultry Processing Expansion Program (MPPEP)	
–	Maryland Agricultural & Resource-Based Industry Development Corp (MARBIDCO) Seafood Loans and Grants	



Economic Impacts of Blue Catfish Processing on Maryland's Economy

- Maryland's Seafood industry contribute about \$317 million to the state's economy including \$315 million to the economy of Maryland's Eastern Shore in 2023. This includes direct, indirect and induced impacts based on findings reported in BEACON at Salisbury University's 2025 analysis of [The Impact of Resource-Based Industries on the Maryland Economy](#). Their analysis indicates that the seafood industry also contributed:
 - 3,014 jobs in Maryland, including 2,212 on the Eastern Shore, and
 - \$11.9 million in state and local tax revenue, including \$8.6 million on the Eastern Shore.
- Blue catfish harvesting, processing and marketing represent a small share of these totals, but are important in providing income and employment opportunities, especially during periods when more economically important species are not in season. Among the direct impacts in 2025:
 - \$2.7 million in direct payments to watermen for the 2025 harvest.
 - \$6-7 million in processor product sales, which in turn paid for processing labor, investments in plant and equipment, etc.
 - Spending on supplies, equipment and transportation, plus investments by watermen and processors.
 - Spending and labor for processing, storage and sales costs for foodservice, retailers, and value added processors.
- Based on Beacon's Economic Impact analysis, every direct job in fishing or processing on the Eastern shore generates another .45 jobs in indirect employment with suppliers to those businesses, and induced employment as income from those jobs is spent.



Mid- Eastern Shore Workforce Overview

- When considering expansion of blue catfish processing on Maryland's Middle Eastern Shore, it is useful to consider the available workforce on the Middle and Lower Eastern Shore. As seen in the table below, projected unemployment rates are relatively low, though slightly higher for Wicomico and Dorchester Counties.

Maryland Middle Eastern Shore Workforce Overview

County	Population	Median Age	Median Household Income	Average Annual Pay	Total Employees	Projected Unemployment rate	Labor Force Participation Rate
Caroline	33,576	40.7	66,066	53,786	10,374	2.7%	63.1%
Queen Anne's	52,043	44.7	110,943	56,415	19,916	2.5%	67.4%
Talbot	38,185	50.4	84,756	56,684	26,111	1.9%	55.7%
Dorchester	32,808	44.7	60,222	52,568	17,163	3.5%	58.0%
Wicomico	105,534	38.7	76,538	56,568	59,260	3.8%	66.1%
Easton Commute (20)	34,549	47.6	81,347		25,399	1.9%	
Easton Commute (40)	131,733	44.6	77,799		68,114	2.5%	
Tilghman Commute (40)	19,667	50.5	75,687		20,744	1.3%	
Source: Delmarva Index data, Market Solutions LLC analysis							



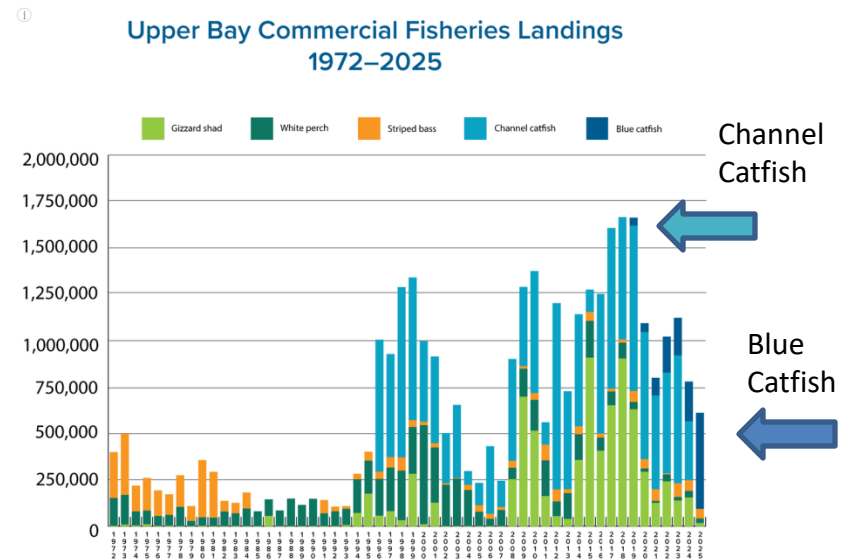
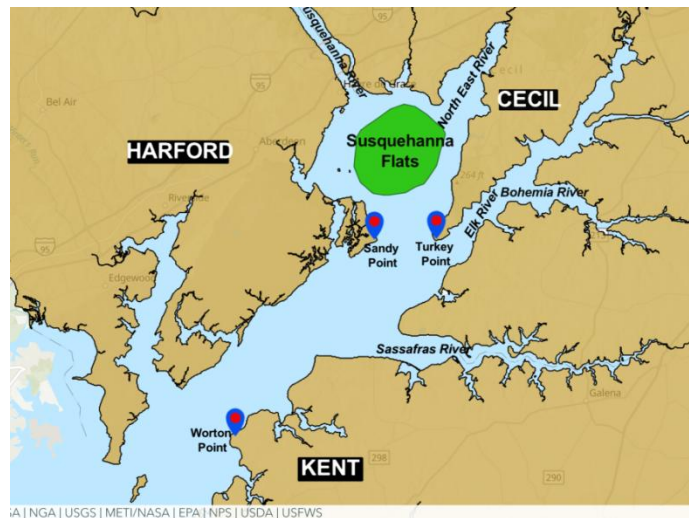
Improving MD Blue Catfish Commercial Harvest and Sales Data Collection

- Good data will be one key to successfully managing Maryland's Invasive Blue Catfish problem. Without good data, potential new processors will not be able to make the case to financial institutions that there will be a reliable supply of blue catfish for processing, potentially leading to under investment in required capacity.
- Maryland requires either paper or electronic reporting on commercial fish harvested. Surprisingly, despite many years of making Blue Catfish a priority, the commercial finfish reporting form, shown below, lists channel catfish, but does not list blue catfish. Watermen must write in "blue catfish" and the specific code.
- Likewise the Maryland DNR Monthly Dealer Buying Report form has a line for "Catfish (specify)" Code 7. It includes a separate code for Snakehead purchases, another invasive species, but not Blue Catfish.
- While DNR does not believe this is a major issue, DNR staff believe that there is underreporting of the Commercial Maryland Blue Catfish harvest because not all licensed watermen submit reports. With other commodity reporting, if there is perceived potential value in the results of reporting, such as with monthly or at least timely and regular updates, compliance may be easier to achieve.
- In Market Solutions LLC's many years of business and consumer data collection experience, pre-coded response options tend to get much higher response levels than an open-ended option for which a code must be looked up and then written in.
- At a minimum, including blue catfish on the pre-coded list on the forms would reduce the reporting burden on watermen and dealers. It may also help to capture more accurate harvest and sales statistics.
- In contrast, the Potomac River Fisheries Commission Finfish catch report specifies "Blue Catfish," as seen below. Preliminary data from the Potomac River Fisheries Commission indicate that blue catfish accounted for 78.3% of total finfish lbs harvested in 2025.



What is Causing the Shift to Blue Catfish Harvest on Upper Chesapeake Bay

- New June, [2026 reporting by the University of Maryland Sea Grant Program](#) on Commercial fishing in the Susquehanna Flats portion of the upper Chesapeake Bay found a major shift in 2025 from harvesting Channel Catfish to Blue Catfish. Other findings show the evolution of the harvest as Invasive Catfish replaced Striped bass, White perch and Gizzard shad in the commercial harvest.
- With increased focus on invasive species, especially blue catfish, starting in 2024, it would be useful to know the extent to which the shift from Channel catfish to Blue catfish in the commercial fisheries statistics represents an increase in the Blue catfish population, and the extent to which it represents a change in reporting, since Blue catfish are not listed on reporting log.



This graphic representation of the commercial catch in the upper Chesapeake Bay, north of Worton Point and including all tributaries and the Susquehanna Flats, shows the fluctuations in numbers and species. Note the arrival of blue catfish in 2019 and the subsequent jump in the catch of that species in the years since.

Maryland Commercial Harvester Reporting

- Maryland requires either paper or electronic reporting on commercial fish harvested. Surprisingly, despite many years of making Blue Catfish a priority, the commercial finfish reporting form, shown below, lists channel catfish, but does not list blue catfish. Watermen must write in blue catfish if they want to report. The code is available inside the cover of the log.

Channel catfish 026
Must write in blue catfish in
blank column

MD Vessel Registration Number
OR
Federal Documentation Number

☐ Did Not Fish This Month
Will Not Fish Again Until /20
☐ Check Here If Done Fishing For The Year

If the labels for additional license holders are unavailable
- place the numbers in the boxes below
License #2
License #3
License #4

If you use more than one fishing gear type in
one day, or fish more than one area, you must
use a separate page for each gear area.

Additional License Holders
Please place any additional
barcode labels for other
license holders on the back of
this form and
Check here ☐

Day of Month	NOAA FISH- ING AREA CODE	Gear Code	Quantity of Gear	Duration	Number of Sets	Trip Length (Hours)	Number of Crew	Pounds By Species (If not pounds, show units)								County Landed Code	Catch Disposition Code
								Striped Bass 001	White Perch 002	Menhaden 009	Channel Catfish 028	Croaker 013	Flounder Summer 017	Eel 016	Cow Nosed Ray 177		
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	

https://youtu.be/l_pDptYltwg



MD Seafood Dealer Monthly Buying Report

- Likewise the Maryland DNR Monthly Dealer Buying Report form has a line for “Catfish (specify) Code 7. It includes a separate code for Snakehead purchases, another invasive species, but not for Blue Catfish.

MONTHLY DEALER BUYING REPORT

Please Only List Purchases Intended For Resale

Mail to: DNR Fishing and Boating Services,
580 Taylor Ave B-2, Annapolis, MD 21401

Fax to: 410-260-8279

INSTRUCTIONS: This report is to be completed each month (due by the 10th of the following month). Fill in the lines for the total monthly amount and average price for the species you have purchased. Be sure to indicate the units applicable to each (i.e. pounds, bushels, dozens, etc.). *If you are given any seafood from a collaborator (spouse or partner) please indicate that in the column for Amount Received For Free (\$0.00), also indicate the license(s) that gave you the product.

Catfish
(specify)
Code 7



SPECIES	GRADE	CODE	AMOUNT BOUGHT FROM IN-STATE HARVESTERS	AVERAGE PRICE	AMOUNT BOUGHT FROM OUT-OF-STATE SOURCES	AVERAGE PRICE	*AMOUNT RECEIVED FOR <u>FREE</u>	*PARTNER LICENSE #(5)
STRIPED BASS		1						
MENHADEN		9						
WHITE PERCH		2						
CROAKER		13						
CATFISH /SPECIFY)		7						
SPOT		21						
EELS		16						
FLOUNDER (FLUKE)	SUMMER	17						
BLACK SEA BASS		33						

Potomac River Fisheries Commission Reporting

- The Potomac River Fisheries Commission Finfish Catch report form specifies blue catfish, making it easy for harvesters to report.
- Preliminary data (April, 2026) from the Potomac River Fisheries Commission indicate that blue catfish accounted for 78.3% of total finfish lbs harvested in 2025.

(1) Place label in shaded area (if no label, handwritten all info)

Bar Code #	Tag #
Week Ending Date	
Name	
Address	
City State Zip	

POTOMAC RIVER FISHERIES COMMISSION



P.O. Box 9
Colonial Beach, Virginia 22443
804/224-7148



Report of FINFISH Catch

Use a separate sheet for each gear

SPECIES OF FISH				(6)	DAY						(8)	Avg. price / lb for species sold this week	(9)	Estimate POUNDS of each species Released below by reason			
				SUN	MON	TUES	WED	THURS	FRI	SAT	No Market		Closed Season	Size (Too Small)	Size (Too Large)		
STRIPED BASS (ROCK)	18" TO 6 lbs.	4182	lbs.														
	6 lbs and up	4181	lbs.														
	Mixed Sizes	4180	lbs.														
# SB ID TAGS USED (each day)			no.								Record total lbs AND # tags used						
SHAD	Am. White Roe	3472	lbs.														
	Am. White Buck	3471	lbs.														
	Gizzard (Mud)	1340	lbs.														
PERCH	White	5060	lbs.														
	Yellow	5170	lbs.														
CATFISH	Cobia	0086	lbs.														
	White	0666	lbs.														
	Channel	0663	lbs.														
	Blue Catfish	0670	lbs.														
	Bullhead	0450	lbs.														
	Eel	1150	lbs.														

Blue Catfish
0670



Consumption Advisories for Eating Blue Catfish

- Maryland's Department of Environment (MDE) provides consumption advisories for blue catfish and other seafood, including blue crabs and rockfish in Maryland waterbodies. These include recommended limits on the number of meals to be eaten per month for the general population, for women and for children.
- Contaminants such as polychlorinated biphenyls (PCBs), a group of man-made industrial compounds that linger in the environment, and mercury accumulate in larger fish, so the most stringent advisories are for fish over 30 inches in length. MDE reports that removal of the dark lateral line (belly) meat from larger fish can reduce PCB's by up to 80%.
- There are also some recommended consumption limits on 12" to 15," 15" to 24," and 24" to 30" from some waterbodies on both shores of the Chesapeake Bay. There are fewer restrictions on fish from tributaries on Maryland's Eastern Shore.
- *It is important to point out that MDE advisories for PCBs use a much lower threshold (296-399 parts per billion (ppb) than does the U.S. Food and Drug Administration (FDA) (2,000 ppb). This is because MDE guidelines are intended for "subsistence fishers who may consume recreationally caught fish as their main source of protein several times per week." The FDA threshold is directed at commercial fisheries.*
- *The need to transport Blue Catfish fairly long distances to keep processors operating challenges the potential marketing advantage to being a Maryland Eastern shore processor handling primarily blue catfish harvested on the Eastern shore from a consumption advisory perspective.*
- *This is an issue that MDA, DNR and ENV might want to consider further. Current advisories and additional background information follow.*
- [Virginia's Department of Health](#) issues consumption advisories for blue catfish.
- [Liu and Fisher](#) report Fisher's research on mercury and PCBs in blue catfish from Virginia's James River found levels below FDA's thresholds.



Maryland Blue Catfish Consumption Advisories

- MDE Blue Catfish PCB advisories are lower than federal standards with the goal of protecting recreational fishermen who subsist on their catch.
- “Blue catfish bioaccumulate contaminants including PCBs and mercury that result in advisories for human consumption, especially for larger catfish (> 30 inches). Recent data suggests that PCBs, often the driving pollutant for advisories, can be reduced in consumable tissue up to 80% by removal of the lateral line meat (dark meat).
- “There are currently consumption advisories in Maryland, DC, and Virginia for recreationally caught Blue Catfish that can differ due to eating preferences and exposure to pollutants (location). Advisories exist for other fish species, such as striped bass, for the same reasons.”
- **“The current FDA and MDE PCB consumption advisory thresholds for any fish are very different. The FDA PCB threshold for all populations is > 2,000 ppb (parts per billion), whereas the MDE PCB threshold to avoid is > 339.99 ppb for general population and > 296.54 ppb for children and women who are pregnant or may become pregnant.”**
- “The reason for this difference is because the FDA threshold is directed to commercial fisheries. The advisory threshold was derived by testing fish from many different locations and weighing their potential effects on all populations. The MDE threshold is directed specifically for Maryland’s recreational fishery, and with the most vulnerable populations in mind. The vulnerable populations of concern in Maryland are subsistence fishers who may consume recreationally caught fish as their main source of protein several times per week. Recreationally caught fish should be consumed based upon MDE guidelines.”
- Source: [Maryland’s Department of the Environment \(MDE\) Blue Catfish Consumption: What You Need to Know](#), December, 2022.
- MDE Advisories, June, 2026
- [Maryland Fish Consumption Advisories by Species](#)
- [Maryland Fish Consumption Advisories by Location](#)



Maryland Fish Consumption Advisories

Guidelines for Recreationally Caught Fish Species in Maryland Fresh, Estuarine, and Marine Waters

Recommended Meal Size: 8 oz or 9 crabs - General Population and Women; 3 oz or 4 crabs - Children

Note: Consumption recommendations based on spacing of meals to avoid elevated exposure levels, fish contaminated

1 **Women** = women of childbearing age (women who are pregnant or may become pregnant, or are nursing)

2 **Children** = all young children up to age 6

♥ = Fish contains more than 1g beneficial fatty acids in a fillet the size of 2 decks of cards

✱ = Fish where all dark meat and/or Belly Fat has been removed, this leads to a reduction in PCB contamination

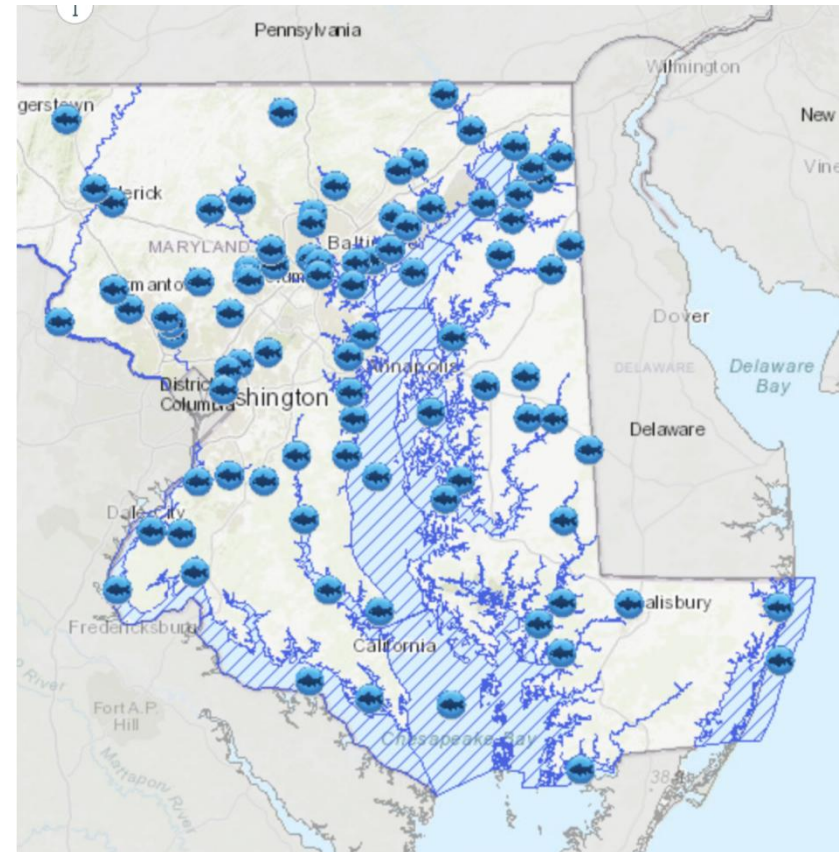
Contaminant present in fish: * Mercury Δ PCBs + Pesticides ◊ PFOS

Species	Waterbody		Recommended Meals/Month		
			General Population	Women ¹	Children ²
Blue Catfish	Anacostia River	15" - 19" Δ	4	3	2
	Anacostia River	> 19" Δ	Avoid	Avoid	Avoid
	Choptank River	15" - 24" ◊	No Limit	8	5
	Lower Patuxent River	15" - 24" Δ	3	3	1
	Mattawoman Creek	12" - 15" Δ	4	4	4
		15" - 24" Δ	4	3	2
		24" - 30" Δ	1	1	1 every other month
		> 30" Δ	Avoid	Avoid	Avoid
		> 30" Δ ✱	2	2	1
	Middle Patuxent River	15" - 24" Δ	No Limit	No Limit	6
	Middle River	15" - 24" Δ	4	3	2
	Nanticoke River	15" - 24" Δ	7	7	6
	Nanticoke River: Marshy Hope Creek	15" - 24" Δ	No Limit	No Limit	No Limit
		12" - 15" Δ	4	4	4
		15" - 24" Δ	4	3	2
	Potomac - 301 Bridge to DC Line	24" - 30" Δ	1	1	1 every other month
		> 30" Δ	Avoid	Avoid	Avoid
		> 30" Δ ✱	2	2	1
		12" - 15" Δ	4	4	4
	Potomac: Mouth to 301	15" - 24" Δ	2	2	1
		24" - 30" Δ	1	1	1 every other month
		> 30" Δ	Avoid	Avoid	Avoid
		> 30" Δ ✱	2	2	1
	Upper Patuxent River	15" - 24" Δ	No Limit	No Limit	6
	Wicomico River	15" - 24" Δ	No Limit	No Limit	6



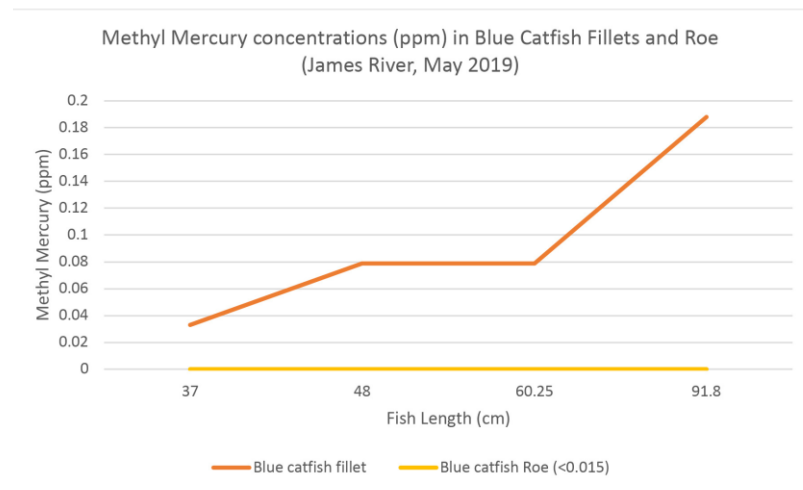
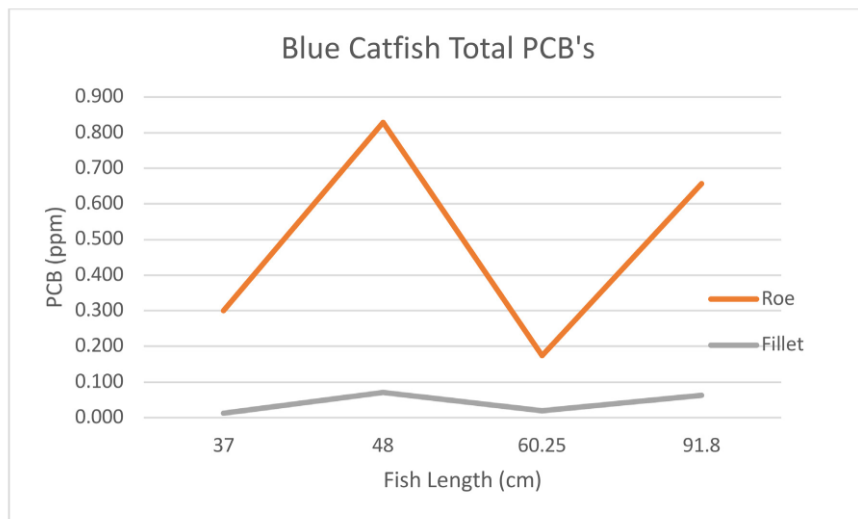
Eating Blue Catfish Safely

- **Dive Deeper: Eating Blue Catfish Safely:** One size does not fit all when it comes to fish consumption advisories
- By Madeleine Jepsen
- “Like other fish, blue catfish can accumulate harmful chemicals by eating other contaminated fish or insects, a process known as bioaccumulation. Similar to bioaccumulation in the aquatic food chain, these contaminants can accumulate in people who eat fish. Blue catfish from 12 water bodies are included in current fish advisories as of fall 2024.
- “Many of these consumption advisories are related to polychlorinated biphenyls or PCBs, a group of man-made industrial compounds that linger in the environment and are linked to negative health effects. These advisories range from “avoid entirely” in sections of the Anacostia River, to “no limit” for adults eating blue catfish from Marshyhope Creek, a tributary of the Nanticoke River.”
- <https://storymaps.arcgis.com/stories/a687331adb884941bebce6707639604a>
- A map of Maryland fish consumption advisory locations in Maryland. Currently, 25 of MDE's advisories focus on blue catfish. Click the map to access the full list of MDE fish consumption advisories.
- <https://mde.maryland.gov/fca>



Virginia Findings on PCBs and Mercury in Blue Catfish

- “Fisher (2020) ..investigate(d) the levels of methyl mercury and PCBs of Chesapeake Bay Blue Catfish (15 to 36 inches long) caught in the James River in Virginia. The methyl mercury levels in fish fillets ranged from 0.033 ppm to 0.188 ppm and PCBs from 0.012 ppm to 0.071 ppm. These results confirm that the methyl mercury and PCBs levels of Chesapeake Bay Blue Catfish (15-36 inches long) are much lower than those required in the [FDA and EPA Safety Levels in Regulations and Guidance for commercial seafood](#) (2020).”
- Source: [Liu and Fisher](#)



Source: Fisher, R.A. 2020. *Virginia Wild-Caught Blue Catfish: Nutrition and Contaminant Analysis*. VIMS Marine Resource Report No. 2020-8 and VSG-20-30.

Policy and Regulatory Issues Important to Blue Catfish

- **Policy and Regulatory Issues Important to Blue Catfish**
 - **Remove USDA Inspection of Wild Catfish**
 - [S. 971 House 2091 119th Congress. Chesapeake Bay Conservation Acceleration Act of 2025](#)
 - Introduced by Senator Chris Van Hollen March 11, 2025 and referred to the Committee on Agriculture, Nutrition and Forestry.
 - “USDA FSIS Federal Meat Inspection Act 3 (21 U.S.C. 601(w)(2)) is amended by inserting “, except for domestic, wild-caught blue catfish (*Ictalurus furcatus*) and flathead catfish (*Pylodictis olivaris*) invasive to the Chesapeake Bay ecosystem”
- **Promote Blue Catfish in Pet Food, Animal Feed or Aquaculture Feed.**
 - Mitigation Action & Watermen Support (MAWA) Act of 2026
 - [H.R.4294 - MAWS Act of 2026 119th Congress](#)
 - Introduced by Rep Sarah Elfreth. Passed by the House 3/17/26
 - Received by the Senate. referred to the Committee on Commerce, Science and Transportation.
 - Secretary of Commerce to establish a pilot program with respect to the sale of blue catfish caught within the Chesapeake Bay Watershed for pet food; animal feed; or aquaculture feed.
 - Abundance Estimates. Not later than September 30, 2027, and annually thereafter through fiscal year 2032, the Secretary shall develop and make publicly available on the website of the National Oceanic and Atmospheric Administration an estimate of the abundance of blue catfish in the Chesapeake Bay Watershed.
- **USDA Inspection Requirement for All Catfish.**
 - Originally part of 2008 and 2014 Farm Bills to treat catfish like livestock for purposes of inspection by USDA/FSIA in order to limit competition from Asian catfish (*Pangasius*) species.
 - 2026 Farm Bill [H.R.7567 - Farm, Food, and National Security Act of 2026](#)
 - Passed House and received in Senate May 2026



Potential Resources to Support Expanded Blue Catfish Processing

- **USDA [Meat and Poultry Processing Expansion Program](#) (MPPEP) [Phase III](#) announced in August, 2025, with two grants announced March, 2026**, made competitive grant funding available specifically to process wild-caught invasive catfish for purchasing and installing equipment in an existing facility to increase processing capacity of invasive, Wild-Caught catfish and overall volume of Processing. The maximum award amount was \$1 million, or 50 percent of total project costs, whichever is less. The minimum award amount is \$250,000. A cost share of 50 percent of the total project was required
 - Two grants were awarded in March 2026 to
 - BSA Seafood with plans to expand blue catfish processing to 500,000 lbs annually.
 - A pet treat processor with a facility in Illinois that currently processes carp.
 - Another phase of grant funding is expected.
- **(Washington, D.C., August 6, 2025)** – U.S. Secretary of Agriculture Brooke L. Rollins today announced the U.S. Department of Agriculture is making \$6 million in grant funding available for seafood processors to expand operations, transform the food supply chain and create new and better markets for the processing of invasive, wild-caught catfish. Additionally, USDA, in partnership with the Maryland Department of Agriculture, is launching a one-year pilot program to purchase up to \$2 million through Section 32 of Chesapeake Bay blue catfish. The effort will support regional processors, remove invasive catfish from the Bay, and provide nutritious protein to families in need through food banks and other food distributors.





MARBIDCO Seafood Loans and Grants

MARBIDCO

- **Maryland Agricultural & Resource-Based Industry Development Corp ([MARBIDCO](#)) Maryland Resource-Based Industry Financing Fund (MRBIFF)**
- The MRBIFF Loan Program is available as a Direct Lending program or a Participation Loan program. Both MRBIFF programs offer low-interest loans to agricultural/RBI-industry enterprises to purchase land and capital equipment for production and processing activities.
- **Bue Catfish Processing Loans.**
- Loan amounts can range from a minimum of \$250,000 to a maximum of \$2,500,000. Loan proceeds can be used to purchase real estate, construct a new or expand an existing livestock processing facility, and purchase livestock processing equipment. Priority will be given to the construction of new facilities, especially in underserved parts of Maryland.
- MARBIDCO will also match the equity contribution of an approved applicant on a dollar-for-dollar basis up to 10% of the project costs, with the maximum equity grant award amount capped at \$250,000.
- **Loan Terms & Conditions**
- **Equity Requirement and Match:** The borrower must provide at least 7.5% of a project's total cost as an equity contribution. MARBIDCO will match on a dollar-for-dollar basis the equity contribution up to 10% of the project cost (with a cap of \$250,000).
- **Working Capital Requirement:** Applicants constructing a new facility must demonstrate that they have a minimum working capital available of at least 10% of the project cost (either in cash or through a bank line of credit).
- **MARBIDCO Interest Rate:** 4.00% (fixed).
- The loan proceeds for this program will be derived from the **USDA Meat and Poultry Intermediary Lending Program Grant**, with matching funds provided by MARBIDCO. MARBIDCO must submit all projects to the USDA for approval before MARBIDCO can disburse funds.
- **Maryland Watermen's Microloan**, designed to assist commercial watermen in obtaining necessary equipment or a workboat via low-interest, unsecured loans.
- Commercial watermen are allowed to purchase physical equipment like boats, motors, and harvesting tools. In contrast, seafood processors are limited to acquiring only seafood processing machinery. The equipment purchased must have a useful life of at least 7 years. Max 20-40,000



For Additional Information

For Questions and Comments, Please Contact:

Mark D. Newman, President

Market Solutions LLC

4306 Leland Street, Suite 101

Chevy Chase, MD 20815 USA

Phone: (301) 654-2949

Fax: (301) 654-4742

marknewman@marketsrus.com

www.marketsolutionsllc.com

