Good morning Committee Members,

My name is Phil Zalesak and I am the originator of this resolution working with Delegate Brian Cosby and Senator Jack Bailey.

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission manages the Atlantic menhaden on the Atlantic Coast.

The Board has determined that there are insufficient menhaden on the Atlantic Coast to support the survivability of commercially important predator fish such as striped bass, bluefish and weakfish.

Therefore, the Board cut the total allowable catch for the entire Atlantic Coast by 10% this past August from 216,000 metric tons to a little over 192,000metric tons to ensure the survivability of these predator fish.

However, the Board did not reduce the total amount of menhaden which can be harvested in the Virginia portion of the Chesapeake Bay by the <u>industrial reduction fishery</u>. Omega Protein is the last remaining reduction fishery on the Atlantic Coast. <u>This cap is still 51,000 metric tons and represents 26.5% of the total allowable catch for the entire Atlantic Coast</u>. Clearly overharvesting of menhaden is occurring in the Chesapeake Bay

Further, there is nothing to preclude Omega Protein from harvesting menhaden migrating into and out of the Chesapeake Bay at the ocean entrance to the Bay which they do throughout the fishing season. The Atlantic States Marine Fisheries Commission allocates over 78% of the menhaden harvest to Virginia and Virginia allocates over 90% of its harvest to Omega Protein. This means that Omega Protein's quota for the year is over 136,000 metric tons or 71% of the total allowable catch for the entire Atlantic Coast.

So, what is the impact?

- Over the last 22 years there has been a devastating decline in the commercial harvest of striped bass, bluefish, and weakfish with reductions of 34%, 76%, and 98%, respectively.
- Over the last 20 years there has been a devastating decline in commercial fishermen in Maryland and Virginia for a total of 668 fishermen with reductions of 32% and 40% respectively.
- Over 60% of the ocean-going striped bass on the Atlantic Coast originate as spawn in the Chesapeake Bay and its tributaries.
- GDP associated with the striped bass recreational fishing industry alone on the Atlantic Coast amounts to 7.7 billion dollars and over 104,000 jobs as reported in the 2019 striped bass fishery management report. Clearly this is impacting the business base of other states not just Maryland and Virginia.

In conclusion, I fully support the resolution as written with one addition to the page 2 beginning at line 8. The addition should read as follows:

"RESOLVED, That, the Atlantic States Marine Fisheries Commission estimate the ecological and economic benefits of restricting reduction fishing to the Atlantic Ocean outside the 3 nautical mile Exclusive Economic Zone."

This would preclude reduction fishing within the Bay and the entrance to the Bay.

I thank you for your time. I will answer any questions you may have.

Phil Zalesak
President
Southern Maryland Recreational Fishing Organization
www.facebook.com/groups/598428253621775/

Finfish Advisory Committee Member
Potomac River Fisheries Commission
http://prfc.us/finfish advisory committee.pdf

REFERENCES AND DATA IN SUPPORT OF THIS PROPOSAL

References:

- (a) http://www.asmfc.org/calendar/2/2021
- (b) http://www.asmfc.org/uploads/file/5e4c4064AtlMenhadenERPAssmt_PeerReviewReports.pdf
- (c) http://www.asmfc.org/uploads/file/5f8f5e30pr23AtlMenhaden2021-2022TAC.pdf
- (d) https://law.lis.virginia.gov/admincode/title4/agency20/chapter1270/section30/
- (e) http://www.asmfc.org/uploads/file//5a4c02e1AtlanticMenhadenAmendment3 Nov2017.pdf
- (f) https://www.facebook.com/william.dunn.1272
- (g) https://wilberglab.cbl.umces.edu/pubs/Liljestrand%20et%20al%202019a.pdf
- (h) http://www.asmfc.org/files/Meetings/2019SpringMeeting/SAW66 AssessmentReport AtlStripedBassOnly red uced.pdf
- (i) http://www.asmfc.org/uploads/file/5dd447baStripedBassAddendumVI Amend6 Oct2019.pdf
- (j) Letter to Virginia Governor Ralph Northam from Dr. Bryan Watts of 8/21/20

Overharvesting of Atlantic Menhaden and Its Impact on the Entire Atlantic Coast

Overharvesting of Atlantic menhaden by the Omega Protein Corporation reduction fishery has adversely impacted the sustainability of important recreational and commercial predator fish such as <u>striped bass</u>, <u>bluefish</u>, and <u>weakfish</u>. The latest assessment of Atlantic menhaden is contained in the <u>Atlantic Menhaden Ecological Reference Points Stock</u>

<u>Assessment Report</u> (reference (b)). This report was approved by the Atlantic Menhaden Management Board in August 2020 as reported in reference (c). The report states that when survivability of predator fish is considered, versus simply viewing Atlantic menhaden from a single species standpoint, a lower Atlantic menhaden mortality rate is required in order to ensure the survivability of striped bass. See pages iv and 375 of reference (b)). That is why the ASMFC reduced the total allowable catch for the Atlantic Coast from <u>216,000 metric tons</u> to <u>192,456 metric tons</u> (reference (c)).

2. Localized Overharvesting of Atlantic Menhaden and Its Impact on the Chesapeake Bay

While the above reduced allowable catch may improve the survivability of predator species overall, the concentrated overharvesting of Atlantic menhaden by Omega Protein Corporation will continue in the Chesapeake Bay and its ocean entrance for the following reasons:

- the massive ASMFC quota allocation to Virginia
- the massive ASMFC quota allocation for the Chesapeake Bay reduction fishery cap
- the concentration of Omega Protein Corporation fishing ships within the Chesapeake Bay and at the Bay's ocean entrance
- the migration patterns of Atlantic menhaden in Virginia and Maryland waters

These quotas and harvesting activities are adversely impacting predator fish coast-wide.

The <u>Virginia allocation</u> for 2021-22 is <u>151,392 metric tons</u> and constitutes <u>78.66 % of the total allowable catch for the entire Atlantic Coast</u> (reference (c)). See Table 1.

The <u>Virginia reduction fishery allocation (Omega Protein Corporation)</u> is <u>136,313 metric tons</u> and constitutes <u>70.83 %</u> <u>of the total allowable catch for the entire Atlantic Coast</u>. It also constitutes 90.04% of the total Virginia allocation (reference (d)).

The <u>Chesapeake Bay reduction fishery cap</u> is <u>51,000 metric tons</u> and constitutes <u>26.50 % of the total allowable catch</u> <u>for the entire total Atlantic Coast</u> in accordance with the latest ASMFC fishery management plan (page v, reference (e)). This cap is an allocation for the Virginia portion of the Chesapeake Bay, from the state line in the north to the Chesapeake Bay Bridge-Tunnel in the south (see figures 1 and 2). <u>This clearly represents overharvesting of the Chesapeake Bay region.</u>

Note from Table 1 that the Atlantic Coast allocation is the only allocation that is based on an ecological reference point study. There is no scientific justification for the others.

| Region | ASMFC Allocation in Metric Tons | Percent of Atlantic Coast Total Allowable Catch | Scientific Justification |
|---|--|--|--------------------------|
| ASMFC Atlantic Coast | 192,456 | 100.00% | ERP Stock Assessment |
| Virginia Allocation | 151,392 | 78.66% | None |
| Virginia Reduction Fishery Allocation – | | | |
| Omega Protein Corporation (90.04%) | 136,313 | 70.83% | None |
| ASMFC Chesapeake Bay Reduction Cap | 51,000 | 26.50% | None |

Table 1. Atlantic Menhaden Allocation by Region

Because of the geographically concentrated locations associated with the Omega Protein Corporation reduction fishery allocation and the Chesapeake Bay reduction cap, Omega Protein Corporation positions their fishing ships inside the Chesapeake Bay and south of the Chesapeake Bay Bridge-Tunnel, just outside the cap area. See Figures 1 and 2 below (reference f). The locations at the mouth of the Bay allow their ships to intercept all menhaden migration into and out of the Bay while still being outside the Cap area. This effectively reduces the protection that is intended by the Chesapeake Bay Reduction Cap.

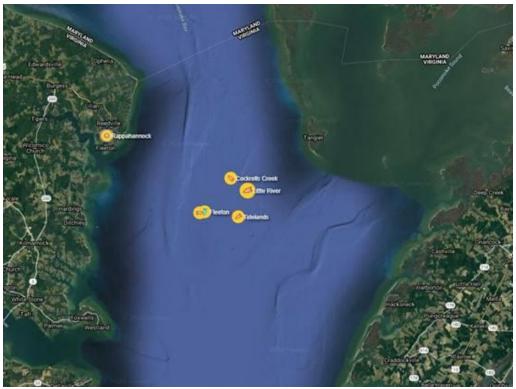


Figure 1. Deployment of Omega Protein Corporation Reduction Fishing Ships within the Chesapeake Bay – 6/26/20 (Source: William Dunn Facebook Page)

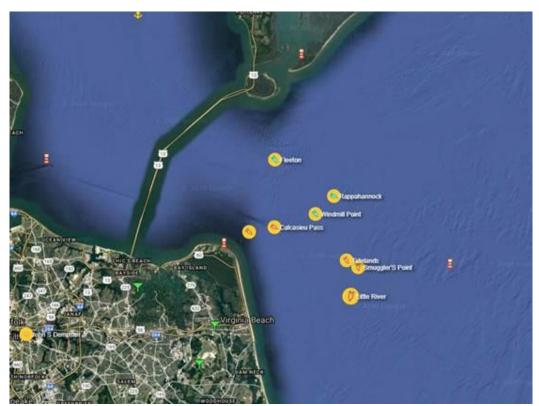


Figure 2. Deployment of Omega Protein Corporation Reduction Fishing Ships within the 3 nautical mile Exclusive Economic Zone – 12/7/20 (Source: William Dunn Facebook Page)

The impact of this geographically concentrated overharvesting is made worse in the Maryland and Virginia waters (Region 2) by the lack of migration that occurs during summer and fall months, which is the principal time period when Omega Protein Corporation conducts its reduction fishing (See Figures 3 and 4, taken from pages 205 and 210, respectively, reference (g)). Page 209 of reference (g) states:

"More than 95% of individuals were expected to stay in the same region from month to month during June-October, with a single exception; approximately 25% of individuals were estimated to move from region 3 to region 2 in June."

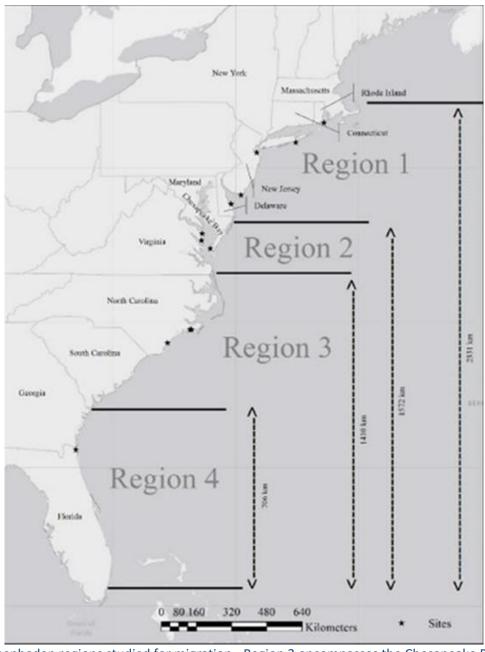


Figure 3. Atlantic menhaden regions studied for migration - Region 2 encompasses the Chesapeake Bay Region (page 205, reference (g))

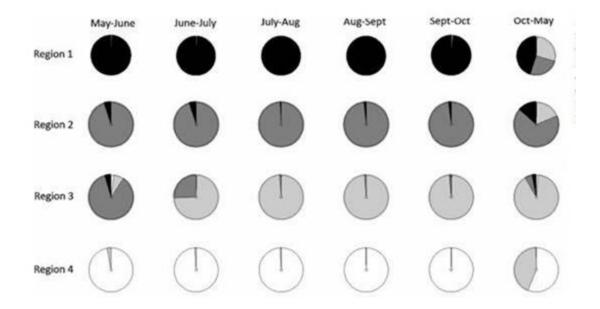


Figure 4. Estimated movement rates for each month May through October and between October and May. Each pie chart shows the fraction of the population in a region that was estimated to move to each of the other regions. Colors indicate regions: Region 1- black, Region 2- dark gray, Region 3- light gray, and Region 4-white. Note the lack of migration during the reduction fishing season in Region 2.

3. <u>Localized Overharvesting of Atlantic Menhaden and Its Impact on Chesapeake Bay Commercial Fisheries and Osprey</u>

Overharvesting of Atlantic menhaden by the Omega Protein Corporation reduction fishery is adversely impacting the <u>commercial harvest</u> of <u>striped bass</u>, <u>bluefish</u>, and <u>weakfish</u>. Data provided by the Maryland Department of Natural Resources, the Virginia Marine Resources Commission, and the Potomac River Fisheries Commission indicates a steady decline in the commercial harvest of striped bass, bluefish, and weakfish in the Chesapeake Bay and Potomac River. Over the last 22 years the <u>commercial harvest for these fish has declined 34%, 76%, and 98%, respectively (figures 5, 6, and 7).</u>

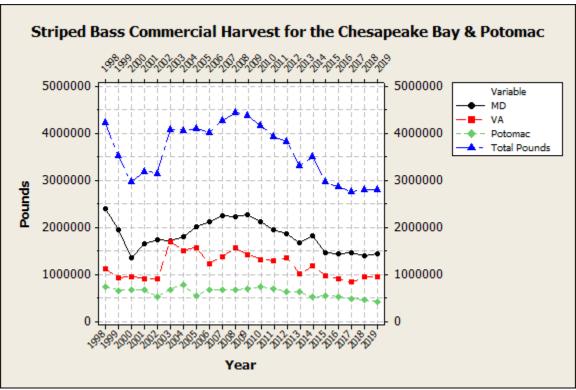


Figure 5. Decline in the Commercial Harvest of Striped Bass in the Chesapeake Bay and Potomac River since 1998 (Source: MD DNR, VMRC, and PRFC)

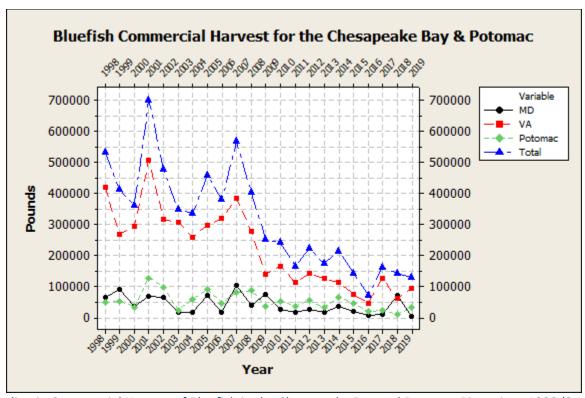


Figure 6. Decline in Commercial Harvest of Bluefish in the Chesapeake Bay and Potomac River since 1998 (Source: MD DNR, VMRC, and PRFC)

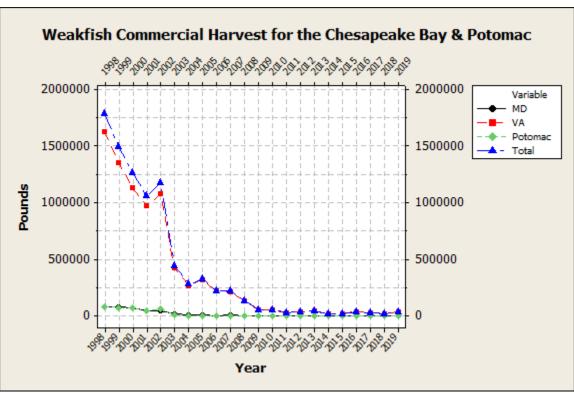


Figure 7. Decline in the Commercial Harvest of Weakfish in the Chesapeake Bay and Potomac River since 1998 (Source: MD DNR, VMRC, and PRFC))

These declines have adversely impacted the commercial fishermen in Maryland and Virginia who are engaged in the harvesting of these predators to make a living. Since 2000, <u>Maryland</u> has experienced a <u>32% decline in commercial</u> <u>fishermen (330)</u>, and <u>Virginia</u> has experienced a <u>40% decline in commercial fishermen (338)</u> (figures 8 and 9).

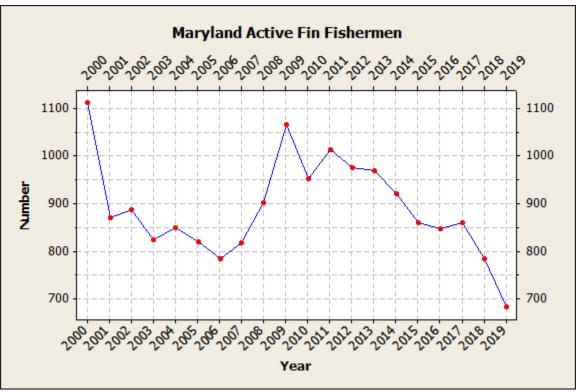


Figure 8. Decline in Maryland Commercial Fin Fish Fishermen since 2000 (Source: Gina Hunt, MD DNR – 2/28/2020)

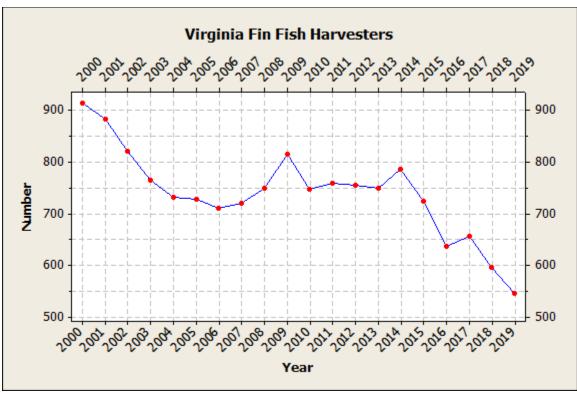


Figure 9. Decline in Virginia Fin Fish Harvesters since 2000 (Source: Pat Geer, VMRC – 4/21/2020)

Overharvesting of Atlantic menhaden by the Omega Protein Corporation reduction fishery has adversely impacted ospreys in the Chesapeake Bay. Dr. Bryan Watts, a professor at William and Mary, stated in a letter to Virginia Governor Northam the following:

"Deep withdraws of menhaden stocks for the reduction fishery is having an impact on consumer species. We have conducted fieldwork with osprey throughout the lower Chesapeake Bay for 50 years and data demonstrate ongoing impacts. . . Reductions in menhaden stocks have caused osprey productivity to decline to below DDT-era rates. These rates are insufficient to support the osprey population within the main stem of the Bay." – see attached

4. Localized Overharvesting of Atlantic Menhaden and Its Impact on the Atlantic Coast Business Base

Atlantic menhaden overharvesting impacts the entire Atlantic Coast as more than <u>60% of striped bass in the Atlantic</u> <u>Ocean may begin as spawn in the Chesapeake Bay</u> and its tributaries (pages 529, paragraph B4.20.14.1 and figure B7.9 in reference (h) appear below.)

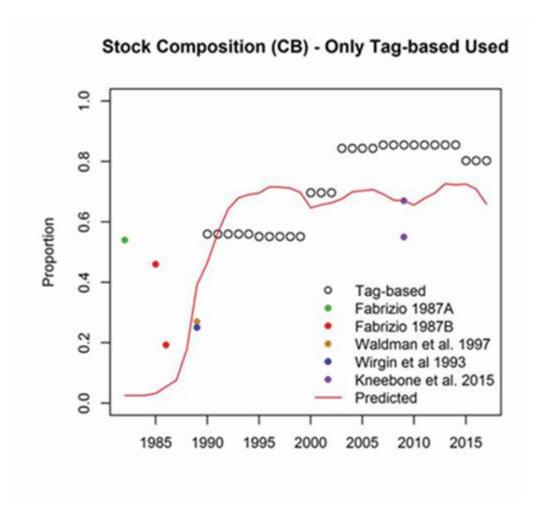


Figure B7.9. Observed versus predicted stock composition for the Chesapeake Bay stock. Literature values not used in the model fitting are indicted by the solid circles for comparison.

Paragraph B4.20.14.1 Stock Composition Index reads as follows:

"The predicted stock composition for the Chesapeake Bay stock showed an increase in the <u>Chesapeake Bay stock composition of the ocean catches</u> (Figure B7.9). However, the predicted index showed the composition leveling off after 1995 at around 0.65, whereas the observed values for fish > 28 inches (711 mm) leveled off at higher proportions."

Overharvesting of Atlantic menhaden by the Omega Protein Corporation reduction fishery has adversely <u>impacted the</u> <u>recreational and commercial business base for the entire Atlantic Coast</u>. The ASMFC documents this impact and how important striped bass are to the recreational fishing industry, and to the commercial fishing industry as well. See page 6 of reference (i). It reads as follows:

"A recent 2019 report from Southwick Associates indicates <u>97% of total economic contribution associated with striped bass fishing came from the recreational sector in 2016.</u> According to the report, total revenues in the commercial sector (from Maine to North Carolina) were \$19.8 million that year, while total expenditures in the recreational sector amounted to \$6.3 billion. The contribution of the <u>commercial sector</u> to the region's gross domestic product (GDP), when attempting to account for all industries involved in harvesting, processing, distributing, and retailing striped bass to consumers, was <u>\$103.2 million</u> and supported <u>2,664 regional jobs</u>. In comparison, the contribution of the <u>recreational sector</u> to the region's GDP was <u>\$7.7 billion</u> and supported <u>104,867 jobs.</u>"

Summary

In summary, the current ASMFC fishery management plan for the Atlantic menhaden reduction fishery is creating an ecological and economic disaster for the entire Atlantic Coast, and the Atlantic Menhaden Management Board needs to take immediate action to rectify the situation.