

Oral Statement of  
**DR. JOHN T. EVERETT**  
HEARING ON

**Atlantic Menhaden Conservation and Harvesting: H.R. 3840 and H.R.  
3841**

BEFORE THE  
**COMMITTEE ON NATURAL RESOURCES**  
**SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS**  
**U.S. HOUSE OF REPRESENTATIVES**

May 8, 2008

**Menhaden: Considerations for Resource Management\***

Madam Chairwoman and Members of the Committee, thank you for inviting me. I am John Everett. My written statement runs counter to general beliefs, so it is heavily referenced. It can be tested inexpensively. I believe it is correct.

The analysis comes from a dozen years of personal inquiry on “forage fish” that are closely related to menhaden in biology and ecology. Considering these bills before the House, what I have found is too important to wait for journal publication. This work on menhaden is being developed with additional analyses and ideas, and co-authors, for publication. This information is from the scientific literature – except the ideas that pull it all together.

Omega Protein, Inc., learned of my work from my NMFS colleagues and funded me to explain my ideas as they apply to regulatory actions and the menhaden studies underway. The idea of forage fish as predators comes

from a Russian scientist. It took a dozen years of inquiry to validate it and to learn the mechanisms and the enormous implications. The integrating concepts and their impacts are my own ideas and predate any involvement with industry. I developed these ideas while Chief of the NMFS Research Division. You will see them in the budget justification from some 8 years ago for the new Research Vessels now joining the NOAA fleet. The ideas are not necessarily endorsed by anyone else affiliated with Ocean Associates, Inc., or any of its clients.

Professionally, I am President of Ocean Associates, Inc.

(<http://www.OceanAssoc.com>), an oceans and fisheries and climate change consulting business, and own two web-based businesses<sup>1</sup> I am also the Chief Editor and Project Manager for the UN Atlas of the Oceans.

Madam Chairwoman, the Chesapeake and other bays are choking on algae, but menhaden, the presumed filtering savior is mostly protected and abundant, and they filter all the water nearly every day. Why isn't the Bay clean? Why are menhaden skinny?

Most of us know menhaden are filter feeding plant eaters, that they are a key species to clean up our bays and estuaries of excess algae, that having more menhaden is the key to bringing back sportfish, and menhaden abundance may be essential to clean the water so we can have more crabs and oysters. Further, we also know that fewer young menhaden indicates the population is in trouble, and localized depletion can leave hungry fish behind.

***Most of us are wrong!***

Menhaden eat the animals that eat the algae and excrete them as fertilizer – enough to degrade water quality. This is why the water is still green. They are not fussy eaters and they cannot discriminate. They also eat some larger algae and all that are present of the eggs and larvae of sportfish, menhaden, crabs, oysters, clams, lobsters, and anything else they can catch. Menhaden also eat the food of these young animals. Menhaden start life with teeth for chasing down individual prey. This is when they are most abundant. In a few months they develop a capability for filter-feeding both plant and animal plankton. When ready to leave the estuary, they lose the ability to capture most algae. They swim in vast schools as a feeding strategy to enable animal capture. Any of appropriate size will soon tire and be consumed.

Look at that 7 year old fish in front of you. Imagine it swimming at 7 knots with its mouth open equivalent to the huge diameter of its body. Anything that goes in will likely stay in, except the algae. It cannot filter them except for a few large particles.

The average weight of a menhaden has dropped by a third since states started to restrict catches. There is a clue here! They have out-eaten their food, and that of nearly all young fish as well. Swimming at two ft. per second with large open mouths, each adult can clear all animals from over 25 quarts of water per minute. And, they do not swim alone.

If the goal is clean water or improved sport fishing, or restored fisheries, or fewer algae blooms and fish kills, the path cannot include menhaden abundance that is out of balance. Let us consider that nearly all animal life near menhaden is filtered every day and perhaps nearly as many are eaten by those too young to filter-feed. With many species spending several days to several months as plankton, having more menhaden mouths is not a great idea.

If menhaden ate algae, there would not be any algae in the Bay at the end of the day. But there is. And menhaden are starving. At all life stages, menhaden primarily eat the animals that eat the algae. If your favorite fish or shellfish has a planktonic larval or egg stage, and the ratio of its biomass to that of menhaden is lower than in a virgin population, it is time to worry, and to think a little deeper. With the ratio of menhaden to oysters now about 100 times what it used to be, this is over 10 times beyond the threshold for concern. The menhaden to blue crab ratio is less, but the crabs are vulnerable for several weeks and eat much the same food.

Many states have strictly regulated menhaden fishing over the last several decades. They have not done their sport and commercial fishermen any favors. Menhaden have important roles as prey and as predators. Both roles are important.

I would be pleased to answer questions.

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<sup>1</sup> <http://www.OceansArt.us> sells and shares ocean-related photos, while <http://www.TechnologySite.org> provides information and photos about inventions.

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Also, I have a website where I try to keep track of all the latest information about climate change: <http://www.ClimateChangeFacts.info>. The UN Atlas of the Oceans is at <http://www.OceansAtlas.org>.