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Menhaden (Pogies) Perish in Large Numbers Leaving Mystic River Shoreline Awash in Dead Fish

This week, at least one natural kill of menhaden – about 40-50,000 fish – has been documented along the Mystic River in Everett and Somerville. There are no perpetrators responsible for this mortality. Menhaden are victims of their own success, flourishing in large, dense schools that can cause them to "suffocate" and die off from lack of oxygen.

Menhaden are very abundant and an important forage species for many large predators like striped bass, bluefish, tunas, and whales. When large schools of fish enter warm-water estuaries and rivers in large numbers during the summer months, they can deplete the water's dissolved oxygen, making survival impossible. Oxygen must pass across and through fish gills, and when used up by tightly packed fish in shallow waters of narrow embayments, the inevitable occurs.

As in an un-aerated aquarium tank, belly-up fish are the rule, and when happening in densely populated areas, decomposition and odor are particularly offensive to the public and business owners. Dead-fish removal from along river shores and in shallow basins becomes challenging for cities and towns.

These kills – many being massive – happen throughout the menhaden's range along the New England and Mid-Atlantic coasts. Long stretches of cloudy, hot weather contribute to lowered oxygen levels. Large schools of fish in tight embayments often, in a sense, smother themselves.

Management and regulation of menhaden is overseen by the Division of Marine Fisheries (DMF), having adopted compliance criteria of the Atlantic States Marine Fisheries Commission Menhaden Plan and approaches best suited for the Massachusetts menhaden fishing industry. Our commercial quotas were raised this year by ASMFC as were quotas in other New England states due to high menhaden abundance finally re-establishing itself north of Cape Cod and (somewhat expectedly) causing re-occurrences of past years' typical hot-weather kills – over 20 years ago.

Our commercial fishery is tightly regulated and monitored allowing us to extend catches into late summer and fall. Allowing increased catches too early, such as to reduce abundance in estuaries thereby reducing the potential for die-offs, jeopardizes fishing later on because the quota is taken earlier rather than extending later into the season. Moreover, recreational fishermen prefer high menhaden abundance close to shore drawing larger predators inshore for improved recreational fishing. Menhaden mortality in the wrong places at the wrong times are the unpleasant down-side to an otherwise great conservation story.

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Mystic River fish kill, July 27, 2018.