

DWQ Fish Kill Summary Report



Waterbody NEUSE RIVER

Total Fish Mortality

Location New Bern to Minnesott Beach

100000

Kill Number	Date Reported	Date Investigated	Time Investigated
WA12008	10/1/2012	10/12/2012	1500
County	HUC:	Latitude	Longitude
CRAVEN	03020204	34.974750	-76.8777700

Species Reported

ATLANTIC MENHADEN

Suspected Cause	Other Species Affected	Waterbody Type	Duration	Kill Area
Other	NONE	Estuary	20 days	14 miles

Tributaries Affected	Samples
GOOSE CR, BROAD CR, NORTHWEST CR, B	NONE

Notes:

Citizens of the New Bern area and local Riverkeeper called in various fish kills beginning near the end of September/early October. Initially these kills were smaller in number and located downstream on the Neuse River adjacent to Flanner's Beach and east towards the Ferry Terminal near Minnesott Beach. The kills consisted of juvenile menhaden (100-400 mm). Lesions/red sores were observed on a high percentage of these fish (>50%). Locations of these lesions were documented near the anal pore, dorsal fin, and ventral areas. Samples taken to NOAA laboratory for analysis documented the slime mold *Aphanomyces invadens*. This species of fungus tends to reproduce more frequently as falling ambient temperatures begin to cool the river temperatures down. It is ubiquitous in fresher waters worldwide and has been documented as a significant factor in NC coastal fish kills. In October, the Estuarine Monitoring Team continued to receive phone calls regarding dead, dying and/or distressed menhaden. These fish were observed to have a slightly lower percentage of lesion (<50%) coverage. The location of the kill seemed to continue upstream from the original areas into many major tributaries of the Neuse. This included Goose Creek, Broad Creek, Duck Creek, Northwest Creek, and Beard Creek. Heavy salinity stratification continued to add to the complexity of physical changes in the Neuse River estuary. Hypoxia began to attenuate in some areas as the water temperatures and sunlight became less problematic. However, recent afternoon rainshowers produced runoff from adjacent riparian wetland areas into the headwaters of the Neuse's major tributaries. These factors (*A. invadens*, heavy precipitation) in concert with salt stress were determined to be a major reason for localized die-offs of menhaden and other species that were possibly compromised.