

2005 Fish Kill Events (by County)

Total 2005 Fish Kills: 22

Total 2005 Fish Mortality: 2298927

Date	Kill Number	Waterbody	Location	Mortality	Comments
Bladen					
6/27/2005	FA05001	Black Lake	north end	1000	Investigators suspected die-off of yellow perch due to natural causes. No other species affected.
Total Kills for County: 1 Total Mortality for County: 1000					
Carteret					
10/19/2005	WA05005	Private Pond	Golf Course near Brandywine	52	NRRT staff responded to a call about dead fish in a subdivision pond. The kill was three days old and the fish were badly decomposed. Physical water quality data appeared normal at the time of investigation. There were 49 gizzard shad and 2 large mouth bass washed up on the shore. The cause of the kill is unknown. Complainant was notified and asked to call immediately next time an event takes place.
Total Kills for County: 1 Total Mortality for County: 52					
Chowan					
5/24/2005	WA05001	Chowan River	Arrowhead Beach	150	Kill affected only one species of fish (catfish). Lesions/sores noted on some fish. Investigators suspected bycatch discard from commercial fishing operation.
Total Kills for County: 1 Total Mortality for County: 150					
Columbus					
4/18/2005	WL05001	Lake Tabor		300	Chlorpyriphos (Dursban) detected in water samples.
Total Kills for County: 1 Total Mortality for County: 300					
Craven					
7/20/2005	WA05003	Neuse River	near Flanners Beach	20970	NRRT discovered a fishkill during regular ambient sampling. Investigation of the fish kill area showed primarily juvenile Atlantic Menhaden with approximately 10% lesions. The kill appeared to be 6-12 hours old, and was being transported across the river by wind to the east. USGS in-situ monitors at CM 11 showed a drop in dissolved oxygen throughout the water column the previous night. The age of the dead fish, and time of the drop in dissolved oxygen coincide enough to link this as a possible cause to the fish kill. Data from channel marker 11 is very close to the site of the fishkill investigation.

Date	Kill Number	Waterbody	Location	Mortality	Comments
7/21/2005	WA05004	Neuse River	near Neuse Harbor	201000	A fish kill was called in to NRRT from a citizen at 5:00 pm July, 21st. NRRT staff responded to this kill near the Neuse Harbor community. The fish kill event extended approximately 1 mile north of the Flanner's Beach area, over a 3/4-mile stretch of beach with a total mortality of 201, 245. Over 95% of this kill consisted of Atlantic Menhaden, with the remaining abundance to be blue crab, spot, and white perch. No lesions were observed. Judging from the condition of the fish, this kill could have occurred within 6 to 12 hours prior to investigation. Real-time data from Channel Marker 11 indicated consistent hypoxic conditions for several days prior to the event, and an increase in wind strength and a directional shift in the early hours on the day of the kill. It is possible that these factors combined to cause localized upwelling, which may have exacerbated hypoxic conditions to already physiologically stressed fish.
					Total Kills for County: 2 Total Mortality for County: 221970

Currituck

10/24/2005	WA05006	Atlantic Ocean	near Currituck NWR	1600	Investigation was done on site(10/23/05) by a Marine Patrol Officer. Information was relayed to PRRT via Morehead DMF communications. The officer found fish on beach from Currituck Beach, at off road access North toward VA line. Fish averaged 1/2-1 lb and were all spot, thought to be dumped from trawl or beach seine. On 10/24/05 DMF Wanchese office was contacted as asked if any further investigation was made. Commercial beach seining was observed to be taking place in that area over the course of the weekend. On the final net fishermen caught to many fish to pull seine on beach and had to cut the net. This activity was likely the cause of the kill. DMF Wanchese employee's counted 1600 spot and 2 skates on the beach concentrated in a 1.25 mile area with scattered fish extending a total of 3 miles.
					Total Kills for County: 1 Total Mortality for County: 1600

Edgecombe

7/8/2005	RA05005	Stormwater Pond	Mary Francis Center	510	Some lesions noted on fish. Lesions reported to be 1/4 inch in size. Cause unknown.
					Total Kills for County: 1 Total Mortality for County: 510

Montgomery

8/31/2005	FA05002	Badin Lake		1500	Random DO readings in the area indicated lower than normal DO (as low as 2.8 mg/l at the surface with most readings near 3.5 mg/l at the surface and to 3m below surface. Large rainstorm in the area the prior night may have rapidly destratified the lake causing anoxic water to cause a partial fish kill. Approximately 1500-2000 fish of at least three species were estimated to have been killed. However this was not a complete kill as fish were seen swimming alive and being caught by anglers during our investigation. No additional reports were made after our investigation.
					Total Kills for County: 1 Total Mortality for County: 1500

Date	Kill Number	Waterbody	Location	Mortality	Comments
New Hanover					
7/3/2005	WL05002	Hewletts Creek	Wilmington	200	A raw sewage spill of 3,000,000 gallons from a pump station occurred July 1 in the middle branch of Hewletts Creek (freshwater section). UNCW scientists Mike Mallin and Doug Parsons sampled on July 3 by boat, just after high tide. Made it about halfway up the creek in the main channel. Encountered dead fish about 2 km downstream of spill site; counted about 100 in the channel (salinities 20 upstream, 35 at creek mouth), including mullet, 15 eels, 8 flounder, and numerous small fish. Lots of decomposing fish with birds and crabs feeding on them. Dissolved oxygen 1.9 mg/L. Went by truck to a bridge over the north branch, salinity 2 ppt, 200 dead fish along shore visible from bridge, DO 4.4 mg/L. Went to south branch to a bridge site, salinity 10.8, DO 2.4 mg/L, counted 140 dead fish near bridge; many more floating down with the outgoing tide. Strong sewage odor, obviously the sewage was sloshed upstream and downstream with the tides into all three channels. water temperatures 23.5-28.0 oC. Took samples for nutrients and fecal coliforms at 6 locations. Because of creek geography and access, investigators suspect numerous dead fish could not be counted. Numerous small unidentified fish were reported. Fecal coliform testing in the creek showed levels as high as 270,000 colonies per 100 milliliters.
12/18/2005	WL05003	Mason Inlet	Wrightsville Beach	2000000	The fish were distributed from the high tide line down to the low tide line a distance of approximately 50 feet. It was estimated that there were 1000 fish in a 15 feet x 50 feet area. Dead fish, in approximately this same concentration were scattered along the entire length of Wrightsville Beach a distance of four miles. However, the densest concentration of fish was seen in the old Mason's Inlet Channel behind Shell Island on the north end of Wrightsville Beach. This area was completely blanketed by dead fish at low tide with additional fish in the water below the low tide line. The large number of fish at this site indicated the kill had probably originated there. A possible scenario is that large schools of small menhaden were migrating south down the beach. Some of these fish entered Mason's Inlet, became entrapped in the small water body behind Shell Island and died, either from a lack of oxygen or from being stranded on the creek banks. The next falling tide then carried some of these fish back into the ocean and down Wrightsville Beach. However, it is also possible that the fish stranded on the beach could have died in the ocean. The fish all appeared healthy with none of the sores usually associated with toxic dinoflagellates. Samples of the fish and water sent to Dr. Carm Tomas at UNCW were also negative for both the toxins and organisms that have been documented to cause fish kills.
12/23/2005	WL05004	Masonboro Channel	Wrightsville Beach	20000	Fish we observed were dead either on the bottom or along the shorelines. Fish were also seen alive but in distress exhibiting behavior that has been associated with "spinning disease" which is caused by a virus and disorients fish so that they swim in circles. The kill was entirely age 0 menhaden. Mr. Beck returned to this site on December 24 and observed the same distribution of dead fish as the day before. Temperature, salinity and D.O. readings collected at the location of the kills were all within the range expected at this time of year. This kill involved tens of thousands of fish. However, it is possible that these fish actually were part of a larger school that entered Masonboro Inlet and many more fish may have died in the ocean. Dr. Tom Lankford of UNCW was conducting travel surveys 1/8 to 1/4 mile off Wrightsville Beach on December 20 and reported large numbers of small menhaden in good condition. He also observed many bluefish and spiny dogfish whose stomachs were packed with these small menhaden.

Total Kills for County: 3 Total Mortality for County: 2020200

Date	Kill Number	Waterbody	Location	Mortality	Comments
Pamlico					
9/7/2005	WA05008	Canal off South Prong	near Grantsboro	135	NRRT staff responded to a concerned citizen call September 9th, at approximately 11:40 a.m. The Pamlico county health department was notified. Mr. Buck noticed a foul sewage-like smell coming from the canal adjacent to his property. Upon arrival, staff noticed the odor and found decaying fish downstream of the culvert crossing Old Bay River Rd. Those that could be identified were catfish, pirate perch, sunfish, and shiners. Staff walked upstream of culvert noting a more putrid smell, more decaying fish, and ultimately found continuous discharge from a pipe approximately 20 yards upstream of culvert. Total dead fish counted was approximately 135. The pipe lead to a county sewer pipeline. It is uncertain whether this sewer line is connected to the Britthaven Community, situated northwest of the discharge. Fecal, BOD, and TSS samples were taken.
9/17/2005	WA05007	Beard Creek	near Arapahoe	28500	After Hurricane Ophelia, the winds shifted out of the southwest causing the receding flooded swamps to drain into Beard Creek. Swamp water drainage into the creek depleted dissolved oxygen, causing the fish kill.
Total Kills for County: 2 Total Mortality for County: 28635					
Pender					
12/26/2005	WL05005	Atlantic Ocean, Banks Channel	Topsail Beach, Lea and Hutaff	20000	Incident was reported on December 26, 2005 on the south end of Topsail Beach. This kill was observed by Marine Patrol Officer Scott Blythe who indicated that the fish were on a 3 mile stretch of the ocean beach in moderate to high abundance and extended around the southern end of the island and a short distance up Bank's Channel . Fish were also reported by the public to be on the ocean side of Lea and Hutaff islands south of Topsail, indicating that the kill may have occurred off Topsail Beach and spread down the coast. Only 4 5 inch menhaden were observed and the number of fish involved was similar to the kill behind Masonboro Island on 12/ 23.
Total Kills for County: 1 Total Mortality for County: 20000					
Stokes					
2/15/2005	WS05001	Private Pond	near Bailey Town	1100	Water quality parameters appeared normal at time of investigation. Water was sampled for organics and metals contaminants. Cause unknown.
Total Kills for County: 1 Total Mortality for County: 1100					
Wake					
5/24/2005	RA05001	UT to Horse Creek	private pond	100	No water quality problems observed during investigation. Some fish appeared partially eaten. No fish observed dying or in distress at time of investigation. Cause unknown.
5/31/2005	RA05002	UT to Perry Creek	near Raleigh	100	Golfers first noticed a red color and dead fish on Monday (5/30/2005). Fine clay sediment noted in the stream bottom. On 6/1/2005, after contacting the City of Raleigh stormwater program, it was confirmed the sediment had come from a water line leak at a backflow preventer located on Camp Durant Rd. just north of the nature park. Mr. Duffy indicated a water line leak on Camp Durant Road was reported to City of Raleigh on Sunday 5/29. City of Raleigh personnel cut off the leak, but it resulted in sediment and chlorinated water draining through the adjacent Windsor Forest SD storm drain system. Most likely the combination of chlorinated water and sediment caused the fish kill.
6/29/2005	RA05003	Brentwood Lake	Raleigh	60	Filamentous algae identified as Oedogonium was prevalent in the lake at the time of the kill.

Date	Kill Number	Waterbody	Location	Mortality	Comments
8/1/2005	RA05004	Raleigh City Park Pond	Powell Drive Park	50	Fish kill begin at end of the week of July 25th and continued until August 1 according to Richard Costello of Raleigh Parks and Recreation. Counted fifty small fish either dead or decaying along the edge of the pond near the overflow. Other animals in the vicinity (frogs, ducks) did not appear affected. Pond approximately ninety five percent covered with duckweed. Low DO (0.15 to 2.86 mg/L) was measured at several sites in the pond and was the most likely cause of the kill.
8/18/2005	RA05006	Lochmere Lake	Cary	600	Water Temperature was 30.7 degrees Celsius at time of investigation. Locally heavy rains the previous night. All dead fish of one species. D.O. readings taken in area and above area were OK at time of investigation (5-6 mg/l at 4 pm) but readings taken early that morning by Town of Cary staff were reported as 2.2-3.5 mg/l.

Total Kills for County: 5 Total Mortality for County: 910

Washington

7/19/2005	WA05002	Property Line Canal	east of Roper	1000	Investigators noticed very shallow water with no current outflow, input or spills. Observed dead fish along the shoreline of the canal. However, they did notice an abundance of small fish swimming in the shallow water. Tadpoles, frogs and turtles were active within the canal as well. As this fish kill occurred in an extremely shallow canal, the event was associated with the extended period of extremely hot weather. Water temperatures likely exceeded 90F and dissolved oxygen during early morning hours was likely very low during the kill event.
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Total Kills for County: 1 Total Mortality for County: 1000