

2002 Fish Kill Events (by County)

Total 2002 Fish Kills: 46

Total 2002 Fish Mortality: 269635

Date	Kill Number	Waterbody	Location	Mortality	Comments
Beaufort					
1/24/2002	WA02001	Bay Lake		500	Cause of fish kill is unknown, fish found at event were severely decomposed and water conditions were within reasonable expectations. The weather on the day the kill was reported was 70+ F and winds 20+ WSW, and there were multiple rainfall events within the last two weeks. Past several days were rainy with approx. 1.5" rain. Fish had been reported dead one or two here and there within the last week or so, wind had pushed all of dead fish together in corner of canal and drawn the attention of residents. Salt was high and DO was low in some canals. Canals closest to outlet were fresher with normal DO those farthest from canal outlet were saltier and had lower DO near the bottom.
4/12/2002	WA02003	Canal	Middle Street Aurora	50	Fish seen floating along the surface being pushed out toward main body of Pamlico river. Neighbor along the canal reported seeing dead fish on 4/11/02. Parameters were within normal ranges for south side of Middle St. with the exception of high DO % Sat., bloom suspected. Parameters on the north side of Middle St. had a low DO. Other canals were observed in the area and a few dead fish were also found in them, again parameters for these canals were within normal ranges. Water samples contained a dense algal bloom of dinoflagellates, ciliates, and some euglenoids and cryptomonads.
5/9/2002	WA02005	Pamlico River	Hawkins Beach	250	95 percent of affected fish had lesions. Increasing water temperatures and sudden changes in water conditions due to wind shifts may have caused a marked change in DO or salinity. Lesioned fish may not have been able to adjust to these changes, having difficulty in osmoregulating and moving to areas where oxygen, salinity, and temperatures would not have been at such stressful levels.
7/11/2002	WA02012	Back Creek	near Hwy 92 Bridge	33	Juvenile croakers 3- 5 in. in length were found over a 200m stretch of Back Creek, a tributary of Bath Creek. The fish appeared to have been dead for 12 - 24 hrs. Low DO levels and recent heavy storms may have contributed to the kill.
8/1/2002	WA02014	Albemarle Sound	near Sandy Point	150	NC DMF personnel discovered 150 dead striped bass in the Albemarle Sound from the Hwy 32 bridge west to the Chowan River bridge, a distance of approximately 7.6 mi. Although gill nets were present in the area, no apparent net marks were found on the fish. Dissolved Oxygen levels were within normal ranges, however high water temperatures throughout the kill zone may have been a contributing factor in the kill.
8/7/2002	WA02015	Blounts Creek	below Hwy 33 Bridge	50	Water was green in color. Several phyto samples were sent to ESB for analysis. Stress from high salinity and low Do were suspected as factors in the death of the fish. The phyto samples were dominated by a benign Peridinium dinoflagellate, and euglenoids were common.
8/23/2002	WA02018	Chocowinity Creek	Hwy 33 Bridge	500	Combination of high salinities and low DO stressed fish. At time of investigation there were approx. 3000 fish gasping for air upstream of bridge. Expected these fish to perish in next few days. Fish very visible from Hwy 33 bridge.
8/23/2002	WA02017	Blounts Creek	near Cotton Patch Landing	13024	Extremely elevated salinity levels and low dissolved oxygen levels were the cause of the kill. Salinity readings of 12 ppt in a creek with an average reading of 3 ppt or below created stressful conditions too difficult for the fish to overcome. Some fish are still in distress, prolonging the kill.
8/26/2002	WA02021	South Creek	near Idalia	850	Investigators responded to a call from a concerned citizen regarding dead carp in South Creek. The kill was several days old and the majority of fish were in advanced stages of decay. Low DO's and high salinity levels appeared to be the cause of the kill.

Total Kills for County: 9 Total Mortality for County: 15407

Date	Kill Number	Waterbody	Location	Mortality	Comments
Bladen					
6/1/2002	FA02003	Black Lake	behind Clubhouse	300	Hot weather days prior. No causes suggested by investigators.
9/12/2002	FA02005	White Lake		300	Water quality parameters within normal range at time of investigation.
9/16/2002	FA02006	White Lake		200	Fish reported dead near marina on the downwind side of the lake.
Total Kills for County: 3 Total Mortality for County: 800					
Brunswick					
10/2/2002	WL02007	Rice Creek, Town Creek	At confluence	50	Low dissolved oxygen levels reported throughout the sample area. Aquatic weed (Elodea?) very prevalent throughout the creeks.
Total Kills for County: 1 Total Mortality for County: 50					
Catawba					
10/31/2002	MO02003	Ut to Clark Creek	near Newton	200	Most fish removed and buried before investigators arrived. Carp and sunfish were abundant in the pond and not affected. the Surface water samples contained filamentous bluegreen microalga Anabaena, a common species in North Carolina. Investigators suspected a bacterial infection of the catfish caused by environmental stress.
Total Kills for County: 1 Total Mortality for County: 200					
Chowan					
5/12/2002	WA02006	Village Creek	Edenton	500	Discharge water from a fire at the Chowan Veneer facility on Thursday, May 9, was observed running into the headwaters of Village Creek. Firefighters placed hay at the entry and exit outlets on a small impoundment on Village Creek to contain the runoff. No chemicals were known to be in the plant during the time of the fire, with the exception of wood dye (makeup unknown). The cause of the fire was traced to a faulty conveyor belt; the origin of the fire was not under suspicion.
Total Kills for County: 1 Total Mortality for County: 500					
Craven					
6/17/2002	WA02008	Slocum Creek	Near Cherry Point	62	Approximately 62 Channel catfish were found severely decomposed in the upper reaches of navigable waters of Slocum Cr. Dissolved oxygen levels were found to be less than 1 mg/L from 1 meter down to the bottom in the area of the fishkill. Heavy rains two days prior most likely caused a flushing type event, which pushed stagnant water from upstream areas containing very little if any dissolved oxygen into the area of the fishkill. Persistent drought conditions have caused many creeks along the neuse River estuary to become highly saline which could also stress freshwater fish species. Salinity levels at the site of the fishkill were higher than expected, and were found throughout most of the water column. In the area of the fishkill thousands of healthy Atlantic Menhaden were observed swimming in the uppermost layer of the water column. No other species were found dead in this fishkill, although several other were observed in the area after the event.

Date	Kill Number	Waterbody	Location	Mortality	Comments
7/3/2002	WA02009	Neuse River	near Fairfield Harbor	400	A small kill comprised of Atlantic Menhaden with all fish showing lesions. This kill is most likely a result of high temperatures stressing lesioned fish. Many healthy schools were sampled in the area of the kill and those fish that were sampled showed less than 1% lesions. No algae bloom activity was found at the kill area and most fish were found in a small very shallow bay.
7/4/2002	WA02010	Neuse River	Bridgeton	6500	Approximately 6500 dead Atlantic Menhaden were found along a stretch of the Neuse River at Bridgeton. Fish appeared to be around 12 hours old, and had died in the area offshore of Bridgeton and were blown onto the shoreline, and into grass beds along the eastern shoreline of the Neuse River. Conditions in the area of the fishkill were stratified for several days prior to this event and, several smaller similar kills had also occurred just downstream along the same shoreline. Hot conditions and a persistent salt wedge caused severe stratification in the Neuse River from Johnson Pt. to upstream of New Bern. These conditions most likely caused the death of lesioned fish swimming in that area due to added stress of high water temperatures, and low oxygen conditions.
7/30/2002	WA02013	Neuse River	between Stately and Carolina Pines	25330	It is likely that these fish did not die in the area where they were counted. Northwest winds were blowing them into the Stately Pines/Carolina Pines area. Just upriver at CM# 11 and Flanner's Beach the water column was very stratified with very little if any DO in the lower layers. Water temperatures were over 32° C (90° F) throughout the area where dead fish were found. Nearly all of the fish found were juvenile, and were most likely killed by stress related to extremely high water temperatures/low DO.

Total Kills for County: 4 Total Mortality for County: 32292

Dare

7/9/2002	WA02011	Pamlico Sound	near Oregon Inlet	54	Commercial gill netting for flounder and mullet occurring in area prior to kill. Fish looked dead for quite some time. Investigators unable to definitely conclude that fish were net discards.
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Total Kills for County: 1 Total Mortality for County: 54

Davidson

9/27/2002	WS02003	High Rock Lake	Abbotts Creek arm	1000	Investigators reported strong wastewater and sulfur smell in area. Water color reported as very dark.
10/3/2002	WS02004	High Rock Lake	Abbotts Creek Arm	1000	Investigators reported pH and DO levels indicative of an algal bloom. Fish kill attributed to low DO levels. Water reported dark and turbid in some areas. Green surface film also observed in Abbotts Creek. Results of ESB analysis indicated that High Rock Lake (near Buddle Creek) experienced a extremely dense algal bloom (> 140,000 units/ml). The bloom was dominated by filamentous blue greens, primarily (36%) Oscillatoria geminata. O. geminata is a common bloom former and found in many waters throughout the state. The alga is known to discolor water and cause taste and odor problems.

Total Kills for County: 2 Total Mortality for County: 2000

Davie

8/21/2002	WS02002	South Yadkin River	near Cooleemee	1000	Investigators believe kill was caused by manipulation of pool area behind the run of the river water supply dam at Cooleemee. Two weeks prior to the event the dam gates were closed to raise pool levels above the dam. Except for seepage, no water was allowed to flow downstream from the dam during this time. Clams were reported killed from a lack of water flow.
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Total Kills for County: 1 Total Mortality for County: 1000

Date	Kill Number	Waterbody	Location	Mortality	Comments
Duplin					
4/24/2002	WL02005	Nash Johnson Lake		1000	Water at time of investigation described as green with floating filamentous mats. Water samples analyzed by ESB did not show evidence of bloom event.
Total Kills for County: 1 Total Mortality for County: 1000					
Forsyth					
7/30/2002	WS02001	Peters Creek	Winston Salem	1000	Kill caused by a fire at P&B distributors on Chatham Street in Winston Salem on 7-30-02. Chemicals from the fire migrated to Peter's Creek
Total Kills for County: 1 Total Mortality for County: 1000					
Granville					
8/9/2002	RA02002	Private pond	Creedmore	300	Rain and low pond levels prior to kill. Fish samples showed no signs of disease or lesions.
Total Kills for County: 1 Total Mortality for County: 300					
Mitchell					
4/18/2002	AS02001	Cane Creek	at Bakersville	1062	Kill event was caused by a petroleum spill into Cane Creek on 4/16/02. Most fish appeared to have died quickly from an acute event and did not show signs of disease. Many carcasses contained residues of petroleum. NCWRC requested a reimbursement from the responsible party of \$1825.
Total Kills for County: 1 Total Mortality for County: 1062					
Montgomery					
5/22/2002	FA02002	Pee Dee River	Below Tillery Dam	3000	CP&L biologists investigated the kill. They suspect that shad were schooling near the dam and high wind and wave action forced them over the dam and into the tailrace. Mortalities appeared to be a result of falling over the dam and hitting the dam apron. Dam operators had noticed large schools of shad in the forebay area preceding kill.
Total Kills for County: 1 Total Mortality for County: 3000					
New Hanover					
4/19/2002	WL02004	Pete Dye Lake		200	Investigators suspected prior application of copper based algacide as cause for kill. 5 gallons of Cutrine Plus applied 3 days prior to event. Lake is also shallow and in the vicinity of golf course with no buffers. The lake has experienced fish kill events at numerous times in the past.
Total Kills for County: 1 Total Mortality for County: 200					
Onslow					
1/3/2002	WL02002	Pasture Branch	near Molly's Landing	540	Water quality measurements were normal at time of investigation. Investigators suspected extreme cold may have induced kill.
1/3/2002	WL02001	New River	US 17 in Jacksonville	30	Water quality readings were normal at time of investigation. Marine patrol indicated fish looked fine with no sores or injuries. Investigators suspected cold temperatures induced kill.

Date	Kill Number	Waterbody	Location	Mortality	Comments
4/4/2002	WL02003	Floyd Lake		200	Lake level extremely low - pond had become 2 water bodies. Kill occurred in the larger, deeper pond. Two stations were sampled in the larger pond, one station in the smaller pond. A cold front came in overnight (after the kill) and it was overcast.
7/7/2002	WL02006	Little Northeast Creek	Jacksonville	150	A fish kill was investigated by NRRT on 7/7/02 at 14:30. Upon investigation approximately 150 mixed species of fish were found in Little Northeast Creek, a trib. of the New River. The fish appeared to be about 48hrs old with no obvious signs of sores or lesions. There had been severe thunder storms in the area two days before the kill was reported. The salinity in the creek was high and the DO was very low.

Total Kills for County: 4 Total Mortality for County: 920

Pamlico

4/14/2002	WA02004	Alligator Creek	NC 55 near Stonewall	3060	Fish kill took place in Pamlico Co. on Alligator Cr. The kill spanned for a quarter mile downstream from HWY55 bridge south of the town of Stonewall. Only menhaden were observed in the kill, none with lesions. The fish appeared to be around 24hrs old. The creek is very shallow and narrow and there were thunderstorms moving through the area for a couple of days. There was an algal bloom present and samples were taken.
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Total Kills for County: 1 Total Mortality for County: 3060

Perquimans

8/3/2002	WA02019	Yeopim River	near Bethel	2000	Approximately 1,000 dead clams in vicinity of boat ramp at Bethel Fishing Center on the Yeopim River. Most clams on shore were without shell. Several more clams floating in shell in water around boat ramp.
8/8/2002	WA02016	Canal off Albemarle Sound	near Holiday Island	300	300 menhaden observed floating on surface of water. Grayish film on water with thick mats of green algae and spots of duckweed. Homeowner reported that there has been no water movement since December. Fish are believed to have swam into area where the number of fish quickly reduced the amount of oxygen in the water to anoxic levels, thus killing the menhaden. No other fish species were present. There were also reports of approximately 75 canadian geese utilizing the area frequently, but no signs of fecal matter that could have affected the water.

Total Kills for County: 2 Total Mortality for County: 2300

Pitt

1/25/2002	WA02002	Private Pond	near Farmville	3800	Community fishing pond next to Farmville Waste Water Treatment Plant. Past several days were rainy with approx. 1.5" rain. Most of fish were several days dead with a few that had died with in a day (still had color to scales). Area around pond was mostly swamp, readings at the time of investigation were with in normal range. Overflow from swamp could have caused pond to turn over.
6/5/2002	WA02007	Weyerhaeuser Pond		200	A fire occurred at the Weyerhaeuser saw mill on Saturday, June 1, 2002 around 5:00. After the fire, many aeration pumps were turned off. The pond where the fish were dead is the last in a series before it discharges into Little Swift Creek. This pond is the last to receive flow and aeration. The intense heat combined with shallow water is believed to be the reason for the low dissolved oxygen.

Total Kills for County: 2 Total Mortality for County: 4000

Richmond

1/10/2002	FA02001	Hitchcock Creek	Lake McKinney	70	Kill caused by uncured concrete coming in contact with water below Lake McKinney spillway. No fines or penalties assessed by NCWRC.
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Date	Kill Number	Waterbody	Location	Mortality	Comments
Total Kills for County: 1 Total Mortality for County: 70					
Rowan					
7/19/2002	MO02001	High Rock Lake	Second Creek arm near Bringle Ferry	2000	Water had receded due to drought trapping fish in a shallow, isolated pool near the Bringle Ferry Rd. bridge. Fish most likely succumbed due to low dissolved oxygen levels.
7/29/2002	MO02002	High Rock Lake	Crane Creek Arm	1000	Water had receded trapping fish in a shallow, isolated pool near the Goodman Lake Rd Bridge. Fish most likely succumbed due to low dissolved oxygen levels.
Total Kills for County: 2 Total Mortality for County: 3000					
Sampson					
8/14/2002	FA02004	Rice's Run	near Beaman Crossroads	100	Fish apparently died from the lack of dissolved oxygen. The kill is a pool located beside SR 1335 on Rice's run which is a small trib. to Great Coharrie. DO was 0.33 mg/L. The pool had no flow associated with it. Weather conditions were hot, humid and dry.
Total Kills for County: 1 Total Mortality for County: 100					
Tyrrell					
7/2/2002	WA02023	Albemarle Sound	Hwy 32, Mackeys side	1000	Mr. Winslow called PRRT and reported that DMF had responded to a fish kill. Approximately 1000 menhaden 8-9" in length washed along shore. The fish had no signs of lesions and were decaying. DO levels 8 mg/L, salinity 4.1 ppt and water temp. 28.5-30.3°C. DMF officials believe the kill to be a release of eel pot bait.
Total Kills for County: 1 Total Mortality for County: 1000					
Washington					
8/22/2002	WA02020	Albemarle Sound	Hwy 32 Bridge	120	Most striped bass showed no signs of disease or lesions. Most fish seen on shore and decomposed. Water temperature was high and was suspected as a cause.
10/15/2002	WA02022	Thirty Foot Canal	between Phelps Lake and	200	none
Total Kills for County: 2 Total Mortality for County: 320					
Wilson					
7/8/2002	RA02001	Private Pond	near Stantonsburg	196000	Ben Smith, Stantonsburg Wastewater Plant ORC, reported seeing fish mortality at about 8 PM July 6, and by 10 AM July 7, all activity had ceased. He measured DO on Sunday AM at about 0.5 mg/l. Strongly suspect hot pond water had relatively low DO, then rainstorm went to the bottom and caused the pond to "turn over". Investigator certain fish died from lack of oxygen. Impacted all sizes and all species over a short period of time.
Total Kills for County: 1 Total Mortality for County: 196000					