# QUARTERLY WILDLIFE MORTALITY REPORT
October 1989 to December 1989

<table>
<thead>
<tr>
<th>Location</th>
<th>State</th>
<th>Date</th>
<th>Species</th>
<th>Mortality</th>
<th>Diagnosis</th>
<th>Reported By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Flyway</td>
<td></td>
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<tr>
<td>Wilmington</td>
<td>DE</td>
<td>11/27/89-12/04/89</td>
<td>Canada geese</td>
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<tr>
<td>Assowoman</td>
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<td>12/25/89-12/29/89</td>
<td>Snow geese, black ducks</td>
<td>26</td>
<td>Visceral gout</td>
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<tr>
<td>Columbus</td>
<td>GA</td>
<td>08/01/89-11/28/89</td>
<td>Northern cardinals</td>
<td>30 (e)</td>
<td>Salmonellosis</td>
<td>SE</td>
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<tr>
<td>Blackwater NWR</td>
<td>MD</td>
<td>10/07/89-10/07/89</td>
<td>Mallards</td>
<td>12 (e)</td>
<td>Botulism type C</td>
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<tr>
<td>Concord</td>
<td>NH</td>
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<tr>
<td>Ridgeway</td>
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<td>12/02/89-12/02/89</td>
<td>Ring-billed gulls</td>
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<td>Toxin: cyanide</td>
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<td>Burke</td>
<td>VA</td>
<td>10/14/89-11/20/89</td>
<td>Mallards, Canada geese</td>
<td>22</td>
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<td>NW;VA</td>
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<td>Canada geese, domestic geese, domestic turkeys, domestic mallards</td>
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<td>12/21/89-01/03/90</td>
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<td>Douglas Lake</td>
<td>AR</td>
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<td>09/23/89-09/30/89</td>
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<td>IA</td>
<td>11/06/89-11/07/89</td>
<td>Coots, scaup ducks, ring-necked ducks</td>
<td>30</td>
<td>Trauma: suspect weather</td>
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<tr>
<td>Location</td>
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<td>Species</td>
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<td>Panora</td>
<td>IA</td>
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<td>Coots, scaup ducks</td>
<td>50 (e)</td>
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<td>Desoto NWR</td>
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<td>11/18/89-12/13/89</td>
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<td>IA</td>
<td>11/20/89-12/20/89</td>
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<td>Richmond</td>
<td>IL</td>
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<td>Canada geese</td>
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<td>Lead poisoning</td>
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<td>Ambroy</td>
<td>IL</td>
<td>12/11/89-12/21/89</td>
<td>Canada geese, mallards</td>
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<td>Union Co. Refuge</td>
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<td>Canada geese, mallards</td>
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<td>Crab Orchard NWR</td>
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<td>Lac qui Parle</td>
<td>MN</td>
<td>10/19/89-12/31/89</td>
<td>Canada geese, mallards</td>
<td>7,600 (e)</td>
<td>Avian cholera</td>
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<td>Big Stone NWR</td>
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<td>Swan Lake NWR</td>
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<td>Slater</td>
<td>MO</td>
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<td>40 (e)</td>
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<td>Montross Wildlife Area</td>
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<td>Akron</td>
<td>OH</td>
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<td>Memphis</td>
<td>TN</td>
<td>03/01/89-05/01/89</td>
<td>Mourning doves, house sparrows, green-winged teal</td>
<td>250 (e)</td>
<td>Open: trichomoniasis suspect</td>
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<td>Fitchburg</td>
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<td>10/07/89-10/07/89</td>
<td>Mallards, green-winged teals</td>
<td>25</td>
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<td>11/27/89-12/08/89</td>
<td>Mallards, Canada geese, black ducks</td>
<td>1,500 (e)</td>
<td>Lead poisoning</td>
<td>NW;WI</td>
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<td>Central Flyway</td>
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<td>Monte Vista NWR</td>
<td>CO</td>
<td>12/11/89-ongoing</td>
<td>Mallards, great blue herons</td>
<td>85</td>
<td>Avian cholera Trauma</td>
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<td>Kerwin NWR</td>
<td>KS</td>
<td>10/28/89-11/14/89</td>
<td>Double-crested cormorants, white pelicans, unidentified ducks, geese</td>
<td>200 (e)</td>
<td>Renal coccidiosis</td>
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<td>Bosque del Apache NWR</td>
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<td>Lake Yankton</td>
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<td>Aspergillosis</td>
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<td>Rice Belt</td>
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<td>White-fronted geese, snow geese, Canada geese, pintails, shovelers</td>
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<td>Avian cholera/aflatoxicosis</td>
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<td>Location</td>
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<td>Date</td>
<td>Species</td>
<td>Mortality</td>
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<td>Reported By</td>
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<td>Pacific Flyway</td>
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<td>09/16/89-10/22/89</td>
<td>Shovelers, pintails, wigeons, coots, white-fronted geese</td>
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<td>Ross' geese, snow geese, white-fronted geese, mallards, tundra swans, pintails</td>
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<td>Avian cholera</td>
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<td>Colusa NWR</td>
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<td>Snow geese, Ross' geese, white-fronted geese, coots, cackling Canada geese, wigeons</td>
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<td>12/17/89-ongoing</td>
<td>Aleutian Canada geese, cackling Canada geese</td>
<td>14</td>
<td>Avian cholera</td>
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<td>Merced NWR</td>
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<td>Snow geese, Ross' geese, pintails, unidentified teals, sandhill cranes, mallards</td>
<td>60</td>
<td>Avian cholera</td>
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<td>Mill Creek</td>
<td>OR</td>
<td>09/13/89-09/14/89</td>
<td>Domestic ducks</td>
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<td>Sacramento</td>
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<td>11/07/89-ongoing</td>
<td>Snow geese, Ross' geese, wigeons, coots, white-fronted geese, pintails</td>
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<td>Mortality</td>
<td>Diagnosis</td>
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<td>Alaska Penninsula</td>
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<td>08/28/89-10/09/89</td>
<td>Shearwaters, black-legged kittiwakes, murrels, tufted puffins, murrellets, unidentified gulls</td>
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<td>07/07/89-10/20/89</td>
<td>Wigeons, mallards, pintails, shovelers, coots, green-winged teals</td>
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<td>Oregon Coast</td>
<td>OR</td>
<td>07/02/89-10/31/89</td>
<td>Common murres, Cassin's auklets, rhinoceros auklets</td>
<td>1,543</td>
<td>Emaciation/starvation</td>
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<td>Prince William Sound</td>
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<td>03/24/89-10/18/89</td>
<td>Murres, sea otters, waterfowl, grebes, cormorants, loons</td>
<td>38,000</td>
<td>Toxin: oil</td>
<td>NW</td>
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</tbody>
</table>

(e) = estimated mortality.

* National Wildlife Health Research Center (NW); Southeastern Cooperative Wildlife Disease Study (SE); Illinois Department of Conservation (IL); Southern Illinois University (SI); Texas A&M University (TX); California Fish and Game (CA); Delaware Department of Agriculture (DE); Wisconsin Department of Natural Resources ;(WI); Virginia Department of Agriculture (VA).

Prepared by the NWHRC. For specific information on these mortalities contact the following NWHRC Resource Health Team Members: Pacific and Atlantic Flyways, Kathryn Converse; Central and Mississippi Flyways, Ron Windingstad. 608-271-4640 FTS-364-5411 - National Wildlife Health Research Center, 6006 Schroeder Road, Madison, WI 53711.
Quarterly Wildlife Mortality Report. The following highlights wildlife mortality reported to the National Wildlife Health Research Center (NWHRC) for October to December 1989.

NWHRC received 45 reports of wildlife disease die-offs; the primary causes of mortality were avian cholera (38%) and lead poisoning (9%).

An estimated 350 white pelicans and a few grebes died on Crowley Lake in Mono County, California. Carcasses were necropsied by California Fish and Game, the University of California, Davis, and the NWHRC; no cause of death was identified. Pelicans began using this lake 2-3 years ago as a stopover on their migration south from the Central Valley of California. No other areas reported pelican mortality.

Renal coccidiosis was diagnosed as the cause of death of 200 double-crested cormorants at Kirwin National Wildlife Refuge (NWR), Kansas, in late October. Ducks, geese, and pelicans using the lake were not affected. Renal coccidiosis was diagnosed in cormorants at two other reservoirs in eastern Kansas during 1984 and 1986.

The first reported outbreak of avian cholera in Minnesota and the first in the Eastern Prairie Population of Canada geese since 1980 occurred this fall at Lac qui Parle Wildlife Management Area. More than 5,000 of the 160,000 geese at risk were found dead the first week with daily losses of 50-60 birds continuing into December. Despite hazing of geese from identified "hot spots" on the lakes and concerted pickup efforts, 7,600 Canada geese died. In addition to avian cholera, geese were diagnosed as lead poisoning, esophageal impaction, and trauma.

A die-off of 80 woodcocks was reported at Cape May, New Jersey, in December; another 17 were found at the Eastern Shore of Virginia NWR, Cape Charles, Virginia. The NWHR received nine emaciated woodcocks that weighed 50-60% of normal; no lesions of infectious disease were found. Weather conditions prior to these die-offs were severe and woodcocks were reported to be showing signs of stress and displaying unusual behavior.

Bosque del Apache NWR in New Mexico lost 400 snow geese and sandhill cranes to avian cholera. There was great concern for Gray's Lake flock whooping cranes that were using the same refuge impoundments. Disease control measures included raising water levels within impoundments to reduce attractiveness for the cranes; flushing impoundments with "clean" water from canals in attempts to dilute any Pasteurella multocida released from birds with avian cholera; knocking down nearby cornfields to make them attractive as food for cranes but not geese; and the release of water into a nearby dry river bed that was subsequently used by cranes. No whooping cranes were lost.

Avian cholera, aflatoxicosis, and lead poisoning occurred for the second year in snow and white-fronted geese in the Texas Rice Belt, an area where 7,000 geese died last year. More than 7,100 geese of the million geese at risk on the Rice Belt and nearby coastal marshes died this year despite early detection of mortality and flooding of rice stubble that provided additional roost sites and reduced concentrations of waterfowl.

Lead poisoning was reported by the Wisconsin DNR Disease Specialist for the second year near Rush Lake, Wisconsin; 951 mallards, 35 black ducks, and several hundred Canada geese died. Several proposals are being discussed to reduce the risk of exposure to lead for birds using this area.