

## QUARTERLY WILDLIFE MORTALITY REPORT

January 1993 to March 1993

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| LOCATION                  | STATE | DATES             | SPECIES  | MORTALITY | DIAGNOSIS              | *REPORTED BY |
|---------------------------|-------|-------------------|--|-----------|------------------------|--------------|
| <u>Atlantic Flyway</u>    |       |                   |  |           |                        |              |
| Hobe Sound NWR            | FL    | 12/25/92-03/09/93 | Common Loon<br>Northern Gannet                                     | 100 (e)   | Emaciation             | NW & FL      |
| Pensacola                 | FL    | 02/04/93-02/05/93 | Common Grackle   | 9         | Toxicosis: diazinon    | SC           |
| Gulf Breeze               | FL    | 02/05/93-02/28/93 | American Robin   | 250 (e)   | Toxicosis: Dursban     | SC           |
| Fort Lauderdale           | FL    | 03/08/93-03/31/93 | Northern Gannet<br>Brown Pelican<br>Common Loon                    | 65        | Aspergillosis          | NW           |
| Daytona Beach             | FL    | 02/24/93-02/26/93 | Brown Pelican  | 30 (e)    | Trauma                 | FL           |
| Port Wentworth            | GA    | 02/01/93-02/05/93 | Boat-tailed Grackle<br>Common Grackle                              | 50 (e)    | Toxicosis: diazinon    | SC           |
| Rincon                    | GA    | 02/13/93-02/14/93 | Red-shouldered Hawk<br>Slate-colored Junco<br>Unidentified Vulture | 10 (e)    | Toxicosis suspect      | SC           |
| Plum Island               | MA    | 03/01/93-03/05/93 | Black Duck   | 20        | Emaciation             | NW           |
| Charlottesville           | VA    | 12/29/92-12/30/92 | Canada Goose   | 10 (e)    | Open                   | NW           |
| Charles City              | VA    | 02/15/93-02/16/93 | Cedar Waxwing  | 160       | Toxicosis: carbamate   | NW           |
| Grafton                   | VA    | 02/21/93-02/21/93 | Common Grackle   | 21        | Toxicosis suspect      | SC           |
| <u>Mississippi Flyway</u> |       |                   |  |           |                        |              |
| Lee County                | AR    | 02/23/93-03/01/93 | Snow Goose   | 40        | Open                   | NW           |
| Lonoke County             | AR    | 02/23/93-02/28/93 | Snow Goose   | 76        | Open/soybean impaction | NW           |
| Stark County              | OH    | 01/13/93-02/10/93 | Canada Goose   | 100 (e)   | Lead poisoning         | NW           |
| Lake Geneva               | WI    | 03/01/93-03/08/93 | American Coot  | 60 (e)    | Emaciation             | NW           |
| <u>Central Flyway</u>     |       |                   |  |           |                        |              |
| Grand Junction            | CO    | 01/06/93-03/05/93 | English Sparrow<br>Unidentified Finch                              | 100 (e)   | Salmonellosis          | NW           |

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| <u>Central Flyway cont.</u>                      |       |                   |  |            |                         |              |
| Billings   | MT    | 12/21/92-12/24/92 | Mallard  | 63         | Aspergillosis suspect   | NW           |
| Sequoyah NWR                                     | OK    | 01/28/93-02/14/93 | Snow Goose<br>Ross' Goose  | 137        | Soybean Impaction       | NW           |
| McFaddin NWR                                     | TX    | 01/22/93-01/25/93 | Snow Goose   | 44         | Avian cholera           | NW           |
| <u>Pacific Flyway</u>                            |       |                   |  |            |                         |              |
| Coastal Southeastern Alaska                      | AK    | 02/02/93-05/10/93 | Common Murre   | 50,000 (e) | Emaciation; open        | NW           |
| British Columbia                                 | BC    | 11/01/92-02/01/93 | Pine Siskin<br>Evening Grosbeak<br>English Sparrow   | 10,000 (e) | Salmonellosis           | BC           |
| Lower Klamath NWR                                | CA    | 09/25/92-09/25/92 | Northern Pintail   | 30 (e)     | Open; toxicosis suspect | NW           |
| Butte Sink                                       | CA    | 12/29/92-01/10/93 | American Coot<br>Wood Duck<br>American Wigeon<br>Ring-necked Duck<br>Gadwall                 | 1,238      | Avian cholera           | CFG          |
| Modesto Oxidation Pond,<br>Faith & Mapes Ranches | CA    | 12/24/93-02/09/93 | American Coot<br>Ruddy Duck<br>Aleutian Canada Goose<br>Cackling Canada Goose<br>Ross' Goose | 300 (e)    | Avian cholera           | NW           |
| San Luis NWR area                                | CA    | 11/04/92-03/10/93 | American Coot<br>Ruddy Duck<br>Gadwall<br>Northern Pintail<br>Common Merganser               | 800 (e)    | Avian cholera           | CFG & NW     |
| Riverside County                                 | CA    | 01/08/93-01/12/93 | Eared Grebe  | 870 (e)    | Open                    | CFG & NW     |
| Salton Sea NWR                                   | CA    | 03/01/93-04/09/93 | Ruddy Duck<br>Snow Goose<br>Northern Shoveler  | 500 (e)    | Avian cholera           | NW           |
| Marin, Sonoma, Alameda &<br>San Mateo Counties   | CA    | 01/01/93-02/10/93 | Pine Siskin<br>English Sparrow   | 5,000 (e)  | Salmonellosis           | CFG & NW     |

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| <i>Pacific Flyway cont.</i> |       |                   |   |           |                              |              |
| Sacramento NWR Complex      | CA    | 02/03/93-02/23/93 | Snow Goose<br>Ross' Goose<br>American Wigeon<br>Northern Pintail                                    | 1,000 (e) | Avian cholera                | NW           |
| Klamath Basin Refuges       | CA    | 02/14/93-03/16/93 | Tundra Swan<br>Unidentified Duck<br>White-fronted Goose<br>Snow Goose<br>Canada Goose               | 1,500 (e) | Avian cholera                | NW           |
| Yuba County                 | CA    | 02/19/93-02/19/93 | Snow Goose<br>Ross' Goose<br>Green-winged Teal<br>American Wigeon<br>Gadwall                        | 1,500 (e) | Trauma/electrocution (storm) | CFG          |
| San Joaquin Valley NWR      | CA    | 02/22/93-03/01/93 | American White Pelican  | 8         | Emaciation                   | NW           |
| San Luis Obispo County      | CA    | 02/04/93-ongoing  | Sea Otter   | 1         | Coccidioidomycosis           | NW           |
| Lee Metcalf NWR             | MT    | 12/30/92-01/27/93 | Mallard   | 25 (e)    | Open; emaciation             | NW           |
| Rivalli County              | MT    | 01/13/93-01/13/93 | House Finch   | 4         | Open                         | NW           |
| Sauvie Island               | OR    | 02/05/93-02/13/93 | Dusky Canada Goose<br>Northern Pintail<br>Mallard<br>Herring Gull<br>American Crow                  | 282 (e)   | Avian cholera                | NW           |
| Filomath                    | OR    | 02/07/93-02/07/93 | Evening Grosbeak  | 2         | Salmonellosis                | NW           |
| Olympia                     | WA    | 01/06/93-01/06/93 | Pine Siskin   | 120 (e)   | Open                         | NW           |
| Southwest Washington        | WA    | 12/01/92-02/15/93 | Pine Siskin<br>Purple Finch<br>Evening Grosbeak<br>Chestnut-backed Chickadee<br>Rufous-sided Towhee | 3,900 (e) | Salmonellosis                | NW           |
| National Elk Refuge         | WY    | 01/11/93-04/30/93 | Elk   | 220       | Septicemic pasteurellosis    | NW           |

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| <i>Update</i>     |       |                   |   |           |               |              |
| Bosque del Apache | NM    | 11/25/92-02/07/93 | Snow Goose<br>Ross' Goose<br>Lesser Sandhill Crane<br>Mallard         | 523       | Avian cholera | NW           |
| Texas Rice Belt   | TX    | 10/19/92-01/13/93 | Snow Goose<br>White-fronted Goose<br>Ross' Goose<br>Green-winged Teal | 701       | Avian cholera | NW           |

(e) = estimated mortality

\*National Wildlife Health Research Center (NW); Laboratory of Wildlife Disease Research-Gainesville, Florida (FL); Southeastern Cooperative Wildlife Disease Study (SC); Abbotsford Laboratory, British Columbia (BC); California Department of Fish and Game (CFG).

Written and compiled by Gregory Kidd, NWHRC. For specific information on these mortalities, contact the following NWHRC Resource Health Team Members: Pacific Flyway - Lynn Hayes Creekmore; Central Flyway - Linda Glaser; Mississippi Flyway - Ron Windingstad; Atlantic Flyway - Kathy Converse; Flyway Alternate - Kim Miller. (608) 271-4640, (608) 264-5411 National Wildlife Health Research Center, 6006 Schroeder Rd., Madison, WI 53711.

**Quarterly Wildlife Mortality Report.** The following highlights mortality reported to the National Wildlife Health Research Center (NWHRC) from January - March 1993.

Mortality due to avian cholera continued in the Pacific Flyway. In California, avian cholera was reported from 10-20 different areas with the greatest loss of 1,500 waterfowl occurring at Klamath NWR. Aleutian Canada geese, a threatened species, died at Faith and Mapes Ranch, but fortunately only a few were affected. Mortality reported from a private duck club near Butte Sink Waterfowl Management Area was unusual in that wood ducks were one of the species found dead in high numbers (142).

An unusually high number of salmonellosis outbreaks were reported this quarter. Mortality in pine siskins, purple finches, and grosbeaks was reported in December and January from Washington State. Bird deaths in the Olympia area were noted to be in association with bird feeders. Birds from this mortality were submitted to NWHRC and were diagnosed as having salmonellosis. Similar mortalities, involving primarily pine siskins, have been reported and confirmed from other areas of Washington, Oregon and northern California. All isolates cultured from birds submitted to NWHRC have been identified as Salmonella typhimurium. Additional information relayed from contacts in British Columbia indicated that significant pine siskin mortality also occurred there in November of last year. Salmonella typhimurium was identified as the pathogen responsible for that die-off as well. It is speculated that the heavy snow and rain that occurred on the west coast this year may have produced additional weather stresses, concentrating the birds at feeders and exacerbating the problem. Salmonellosis also occurred in songbirds in residential areas in Grand Junction, Colorado. Calls were received by Environmental Contaminant personnel in Grand Junction and Salmonellosis was diagnosed by NWHRC. After an article about songbird mortality was published in the local newspaper, calls reporting sick and dead birds in the area increased dramatically.

More than 100 Canada geese died from lead poisoning in a northeastern Ohio marsh. The source of the lead was thought to be from a trap range. Shot sizes found in gizzards were the size used in trap and skeet. The range was closed for a minimum of two months pending corrective action review.

Unusually high elk mortality was reported from the National Elk Refuge this winter. Approximately 8,100 elk wintered on the Refuge this year. Mortality due to septicemic pasteurellosis was confirmed at NWHRC. Approximately 220 elk died this winter. Normal mortality during the winter is about 60-80 elk which die from a variety of causes. Pasteurellosis mortality occurred primarily in two of the four herds on the refuge. Management actions focused on removing potential sources of infection in herds and minimizing inter/intra-herd transmission.

This winter over 50,000 common murrelets died in the waters around Valdez, Seward and Sitka, Alaska. Cooperative investigations to ascertain the scope and cause of the mortality were conducted by Alaska Fish and Wildlife Research Center, NWHRC, Region 7 Migratory Bird Management Office, Environmental Contaminants and the National Park Service. Necropsy examinations and laboratory testing indicate infectious agents or contaminants were unlikely. Analyses for biotoxins are continuing.

Over 100 Northern gannets and common loons were found sick or dead along North Carolina and Florida coasts. Birds necropsied at NWHRC and the University of Florida were emaciated with no indication of infectious disease. The University of Florida did report parasitism in several birds.

An estimated 1,500 waterfowl were killed during a severe lightning storm in Yuba County, California. Birds were found dead in an area one mile wide by 8 miles long.