

QUARTERLY DIE-OFF REPORT  
October-December 1983  
National Wildlife Health Laboratory

| Location                   | Principal Date | Species                              | Mortality* | Principal cause of mortality |
|----------------------------|----------------|--------------------------------------|------------|------------------------------|
| Tulare Lake Basin, CA      | 6/02-11/05     | Waterfowl, shorebirds                | 28,116(m)  | Botulism C                   |
| Stillwater/Carson Sink, NV | 7/27-11/15     | Waterfowl, shorebirds                | 46,161(m)  | Botulism C                   |
| San Francisco Bay NWR, CA  | 8/08-10/30     | Ducks                                | 60(m)      | Botulism C                   |
| Palo Alta, CA              | 8/15-10/30     | Ducks                                | 100(m)     | Botulism C                   |
| Sunnyvale, CA              | 8/15-10/30     | Ducks                                | 100(m)     | Botulism C                   |
| Klamath Basin NWRs, CA     | 9/02-cont.     | Waterfowl                            | 600(e)     | Avian cholera                |
|                            |                |                                      | 65(e)      | Lead poisoning               |
| Bosque del Apache NWR, NM  | 9/16-10/31     | Waterfowl, shorebirds,<br>waterbirds | 4,300(e)   | Botulism C                   |
| Colusa NWR, CA             | 9/26-11/30     | Ducks                                | 100(e)     | Botulism C                   |
| Sutter NWR, CA             | 10/04-11/15    | Ducks                                | 2,624(m)   | Botulism C                   |
| Evanston, WY               | 10/06          | Waterfowl, shorebirds                | 180(m)     | Botulism C                   |
| Manistique, MI             | 10/10-11/02    | Common loons                         | 500(e)     | Botulism E                   |
| Sacramento NWR, CA         | 10/12-cont.    | Waterfowl                            | 1,300(e)   | Botulism C                   |
| La Moure, ND               | 10/26-10/30    | Snow geese                           | 950(m)     | Pending                      |
| Butte Sink, CA             | 11/07-11/30    | Ducks                                | 45(m)      | Avian cholera                |
| Stink Lake, SD             | 11/10-11/14    | Snow geese                           | 300-400(e) | Pending                      |
| Sacramento NWR, CA         | 11/16-cont.    | Waterfowl                            | 1,000(e)   | Avian cholera                |
| Oakes, ND                  | 11/18          | Snow geese                           | 200(m)     | Unknown <sup>1</sup>         |
| Delevan NWR, CA            | 11/18-11/30    | Ducks                                | 30(e)      | Botulism C                   |
| Little Rock, AR            | 11/23          | Mallard                              | 150(e)     | Pending                      |
| Crescent City, CA          | 12/01-12/06    | Waterfowl                            | 190(m)     | Avian cholera                |
| San Joaquin Delta, CA      | 12/02-cont.    | Whistling swans                      | 20(m)      | Avian cholera                |
| Greeley, Co                | 12/06          | Mallards                             | 900(e)     | Aspergillosis <sup>2</sup>   |
| Parker River NWR, MA       | 12/08-12/29    | Canada geese                         | 200(e)     | Lead poisoning               |
| Delevan NWR, CA            | 12/15-cont.    | Waterfowl                            | 332(m)     | Avian cholera                |
| Lima, OH                   | 12/22          | Mallards                             | 22(m)      | Pending                      |
| Elkin, WV                  | 12/24-12/25    | Mourning doves                       | 17(m)      | Unknown                      |
| Merced NWR, CA             | 12/26          | Geese                                | 15(m)      | Avian cholera                |
| Sacramento NWR, CA         | Dec.           | Rabbits                              | 20(m)      | Coccidiosis                  |

\*m = minimum mortality  
e = estimated mortality

<sup>1</sup> Specimens not received at NWHL

<sup>2</sup> Source of information: Div. Ecological Services (FWS), Denver, CO.

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