

QUARTERLY DIE-OFF REPORT  
 January 1988 - March 1988  
 National Wildlife Health Research Center

Location	State	Date	Species	Mortality	Causes
Catahoula Lake	LA	11/10/87-02/25/88	Duck, Canvasback	30	Lead poisoning
Delevan NWR	CA	11/16/87-01/22/88	Goose, Snow Goose, White-fronted Goose, Ross'	171	Avian cholera
Sutter NWR	CA	11/16/87-01/15/88	Duck, Northern Pintail Duck, Shoveler Goose, Snow Duck, Mallard	488	Avian Cholera
Sacramento NWR	CA	11/16/87-02/08/88	Goose, Snow Duck, Shoveler Duck, Northern Pintail	1,212	Avian cholera
Parker River NWR	MA	12/03/87-01/14/88	Goose, Canada Owl, Snowy	12(e)	Lead poisoning
Rush Lake	WI	12/22/87-12/25/88	Goose, Canada	40	Lead poisoning
Humboldt Bay NWR	CA	12/24/87-01/01/88	Coot, American Swan, Tundra	56	Avian cholera
Modesto Oxidation Ponds	CA	12/30/87-04/09/88	Goose, Aleutian Duck, Ruddy Coot, American Duck, Shoveler	6,908	Avian cholera
Devil's Lake	WI	01/01/88-01/25/88	Goldfinch, American	10(e)	Salmonella
Porterville	CA	01/04/88-01/04/88	Coot, American Duck, American Wigeon Duck, Ruddy Gull	1,200(e)	Avian cholera <sup>1/</sup>
Maumee River	OH	01/11/88-01/12/88	Gull Duck, Goldeneye Duck, Mallard Duck, Merganser	54	Lead poisoning Trauma

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Sutter NWR	CA	01/16/88-03/31/88	Duck, Northern Pintail Goose, Snow Coot, American	924	Botulism type C Avian Cholera
Sacramento NWR	CA	01/16/88-03/31/88	Duck, Green-winged Teal Duck, Northern Pintail Duck, Mallard	491	Botulism type C
Forsythe NWR	NJ	01/17/88-01/17/88	Goose, Canada	7	Toxin: Organophosphate
LaGrande	OR	01/18/88-04/06/88	Duck, Mallard Duck, Shoveler Duck, American Wigeon Goose, Canada	110	Lead poisoning
Ballard County	KY	01/21/88-02/01/88	Goose, Canada	358	Avian cholera
Lake Dardenelle	AR	01/23/88-01/29/88	Goose, Canada	6	Undetermined
San Bernard NWR	TX	01/24/88-02/18/88	Heron, Great Blue	8(e)	Intestinal nematodiasis
Hart	TX	01/30/88-02/28/88	Duck, Northern Pintail Duck, American Wigeon Goose, Snow	500(e)	Avian cholera
Greeley	CO	01/31/88-03/01/88	Duck, Mallard Goose, Canada Coot, American Duck, Northern Pintail	150(e)	Avian cholera <sup>1/</sup>
Tipton	OK	02/01/88-02/11/88	Sandhill Crane	30(e)	Toxin suspect
Manteca Gun Club	CA	02/06/88-02/06/88	Swan, Tundra	8	Avian cholera
Wheeler NWR	AL	02/15/88-03/15/88	Heron, Great Blue	4	Open <sup>1/</sup>
Green Bay	WI	02/15/88-03/08/88	Duck, Mallard	14	Toxin: Oil suspect <sup>1/</sup>

Location	State	Date	Species	Mortality	Causes
Twin Cities	MN	02/17/88-03/04/88	Duck, Mallard	21	Klebsiella pneumonia <sup>1</sup> / <sub>1</sub>
Brown Co.	WI	02/18/88-02/19/88	Goose, Canada Duck, Mallard	4	Open
St. Louis	MO	02/22/88-03/20/88	Duck, Mallard Goose, Canada Duck, Pekin	43	Toxin: OP suspect
Rainwater Basin	NE	02/22/88-03/31/88	Goose, Canada Goose, Snow Goose, White-fronted Duck, Northern Pintail	2,387	Avian cholera Trauma (storm-related) Pb poisoning
Clarksville	AR	02/26/88-03/04/88	Turtle, Red-eared Slider	50(e)	Open
Quartzsite	AZ	03/18/88-04/01/88	Duck, Green-winged Teal	500(e)	Toxin: Cyanide
Shawano	WI	03/21/88-04/12/88	Siskin, Pine	300(e)	Salmonellosis
Yellowstone County	MT	03/27/88-04/12/88	Duck, Mallard Duck, Pintail Duck, Cinnamon Teal	11	Parasitism- Sphaeridiotrema
<u>Update*</u>					
Monterey	CA	10/03/87-03/01/88	Pelican, Brown	600(e)	Erysipelis Salmonella typhimurium
Tule Lake NWR	CA	11/05/87-03/01/88	Goose, Snow Goose, Ross' Goose, White-fronted Duck, Mallard	5,760(e)	Avian cholera

## NWHRC Quarterly Die-Off Report 01/88 - 03/88

Location	State	Date	Species	Mortality	Causes
Lower Klamath NWR	CA	11/27/87-03/01/88	Duck, American Wigeon Duck, Mallard Duck, Northern Pintail	14,000(e)	Avian cholera
Monte Vista NWR	CO	11/30/87-03/15/88	Duck Mallard Duck, Northern Pintail Crane, Sandhill	5,000	Avian cholera
Butte Sink NWR	CA	12/01/87-01/01/88	Coot, American Duck, Canvasback Duck, Mallard Duck, Northern Pintail	1,200	Avian cholera
Merced NWR	CA	12/15/87-01/21/88	Goose, Snow Goose, Ross' Goose, White-fronted	100(e)	Avian cholera
Monongahela River	PA/WV	12/20/87-01/30/88	Waterfowl	1,500(e)	Toxin: Oil <sub>1</sub> /

(e) = estimated mortality

\* = final mortality information from cases ongoing last quarter

1/ = no specimens submitted to NWHRC

For specific information, contact the following Resource Health Team members:

Pacific Flyway - Kathryn Converse; Central Flyway - Ronald Windingstad; Mississippi Flyway - Karen Roertgen;

Atlantic Flyway - Thomas Roffe.

National Wildlife Health Research Center Quarterly Mortality Report.

The following summarizes mortalities reported to NWHRC for January-March 1988.

NWHRC received reports of 32 wildlife disease die-offs. The primary causes of mortality were avian cholera (47%), lead poisoning (16%), and other toxins (16%).

Avian cholera losses were unusually high at Modesto Oxidation Ponds in Modesto, California. These ponds are roosting areas for Aleutian Canada geese, and are the site of record high losses to avian cholera for this species in 1987. The ponds currently comprise 334 acres with construction underway to expand the total water surface area to 843 acres. The avian cholera die-off near Porterville, California, is the first reported from this area.

In January, botulism and lead poisoning occurred concurrently with an avian cholera die-off at Sutter NWR a Refuge in the Sacramento NWR Complex, California. Botulism losses occurred in ducks while the other two diseases affected geese. Another Refuge in the same Complex, Sacramento NWR, also had an outbreak of winter botulism; botulism outbreaks usually occur in late summer at these areas.

Salmonellosis killed 300 pine siskins near Shawano, Wisconsin, in March.

In January, Salmonella typhimurium killed about 10 goldfinches in the vicinity of Devil's Lake State Park in Wisconsin. Goldfinches and pine siskins are known to flock together.

A flock of 106 mallard ducks died of acute lead poisoning in La Grange, Oregon, after feeding in a private field that belongs to a gun club. The field recently mined for lead pellets (14,000 lbs.) was planted in winter barley. This area will not be planted with a crop attractive to waterfowl if it is mined again.

Approximately 20 mallard and pintail ducks were found sick or dead in Yellowstone County, Montana, from a parasitic enteritis caused by the fluke Sphaeridotrema globulus. Stomach contents included remnants of snails from the family Amnicolidae, suspected to be the intermediate host.

About 500 ducks, mostly teal, died of cyanide poisoning after landing on a holding pond maintained by a gold mine near Quartzsite, Arizona. Sodium cyanide is used to extract the gold from ore. Similar mortality of waterfowl occurred on a holding pond at a gold mine in Nevada 2-years ago.