

QUARTERLY WILDLIFE MORTALITY REPORT

October 1990 to December 1990

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Atlantic Flyway</u>						
Sanibel Island	FL	11/01/90-12/15/90	Double-crested Cormorant	28	Open	NW
Huguenot Park	FL	11/28/90-01/10/91	Herring Gull Ring-billed Gull Osprey Unidentified Pelican	27	Botulism type C	NW
Earlville	MD	10/15/90-10/16/90	Canada Goose	39	Botulism type C	NW
Edwin B. Forsythe NWR	NJ	08/01/90-10/17/90	Mute Swan	9	Emaciation	NW
<u>Mississippi Flyway</u>						
Riverton WMA	IA	12/11/90-12/19/90	Snow Goose	709	Avian cholera	NW
Northbrook/Deerfield	IL	10/15/90-11/16/90	Canada Goose Mallard	41	Lead poisoning	NW
Deerfield	IL	10/14/90-10/17/90	Mallard	27	Botulism suspect	IL
Rollins Road	IL	11/25/90-12/01/90	Canada Goose	17	Toxicosis: organophosphorus cmpd.	NW
Savage	MN	12/05/90-12/13/90	Mallard	30	Open	NW
St. Paul	MN	12/14/90-12/14/90	Mallard	110	Botulism type C	NW
Lac Qui Parle WMA	MN	12/21/90-12/22/90	Canada Goose	200	Open	NW
Montrose Wildlife Area	MO	10/11/90-10/11/90	Tree Swallow	200	Trauma: power line suspect	NW
Grand Pass Wildlife Area	MO	12/11/90-12/20/90	Snow Goose	26	Avian cholera	NW
Squaw Creek NWR	MO	11/26/90-12/17/90	Snow Goose Canada Goose White-fronted Goose Mallard	501	Avian cholera suspect	NW
Dayton	OH	10/05/90-10/06/90	Mallard Domestic Duck	40	Botulism type C	NW

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<u>Mississippi Flyway cont.</u>						
Kenosha	WI	10/08/90-10/15/90	Canada Goose	40 (e)	Open; toxicosis suspect	NW
Green Bay	WI	10/10/90-10/15/90	Mallard	165	Botulism type C	NW
<u>Central Flyway</u>						
Cheyenne Bottoms WMA	KS	10/11/90-11/20/90	Green-winged Teal Northern Pintail Blue-winged Teal Northern Shoveler American Wigeon	4044	Botulism type C	NW
Barton County	KS	12/09/90-ongoing	Red-tailed Hawk	6	Toxicosis: organophosphorus compd. suspect	NW
Tuttle	ND	10/01/90-10/09/90	Canada Goose	48	Necrotic enteritis	NW
Des Lacs NWR	ND	11/01/90-11/07/90	Snow Goose Ross' Goose Canada Goose Mallard	93	Necrotic enteritis	NW
Tewaukon NWR	ND	11/10/90-11/26/90	Snow Goose Mallard	422	Necrotic enteritis	NW
MARC Reservoir	NE	10/25/90-12/12/90	White-fronted Goose Snow Goose Canada Goose Mallard Northern Pintail	2036	Avian cholera	NW
Lincoln	NE	11/10/90-01/15/91	Canada Goose	30 (e)	Lead poisoning	NW
Benedict	NE	11/24/90-12/07/90	Snow Goose White-fronted Goose Mallard	300 (e)	Avian cholera	NW
Bitter Lake NWR	NM	11/26/90-01/15/91	Snow Goose Ross' Goose Canada Goose American Wigeon	29	Avian cholera	NW

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QUARTERLY WILDLIFE MORTALITY REPORT

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PAGE: 3

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<i>Central Flyway cont.</i>						
Grass Lake	SD	09/20/90-10/01/90	Unidentified Duck American White Pelican	75 (e)	Botulism suspect	NW
Long Lake	SD	10/25/90-11/07/90	Snow Goose Canada Goose Mallard	318	Necrotic enteritis	NW
Robert Matthews Lake	TX	09/30/90-10/04/90	Blue-winged Teal Northern Pintail Mallard Unidentified Shorebird	119	Botulism suspect	NW
Matthews	TX	10/12/90-10/15/90	White-fronted Goose	8	Open	NW
Wise County	TX	10/22/90-10/31/90	American White Pelican	32	Open; trauma suspect	NW
Texas Rice Belt	TX	11/08/90-01/30/91	White-fronted Goose Snow Goose	1,882	Aflatoxin/avian cholera	NW
Haskell County	TX	12/05/90-ongoing	Sandhill Crane Canada Goose Mallard	60 (e)	Avian cholera/open	NW
Castro County	TX	12/07/90-ongoing	Canada Goose Snow Goose Northern Pintail Mallard Gadwall	70	Avian cholera	NW
<i>Pacific Flyway</i>						
Kootenai River, Creston	BC	12/07/90-12/31/90	Mallard	250 (e)	Aspergillosis	BC
Yakutat	AK	10/14/90-10/14/90	Snow Goose Trumpeter Swan Canada Goose Unidentified Duck	220 (e)	Drowning suspect	NW

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<i>Pacific Flyway cont.</i>						
Picacho Lake Reservoir	AZ	09/27/90-10/09/90	Green-winged Teal Mallard Blue-winged Teal Northern Shoveler Northern Pintail	150 (e)	Botulism type C	NW
Butte Sink NWR	CA	10/12/90-11/10/90	Mallard Northern Pintail Northern Shoveler American Wigeon Unidentified Duck	1,600 (e)	Botulism type C	NW
Sunnyvale	CA	09/15/90-11/01/90	Ring-billed Gull Unidentified Gull	250 (e)	Open	NW
San Francisco NWR	CA	06/01/90-11/30/90	Unidentified Duck	400 (e)	Botulism type C	CA
Santa Clara River	CA	10/05/90-12/01/90	Western Gull	300 (e)	Botulism type C	NW
Lower Klamath NWR	CA	11/12/90-12/31/90	Ross' Goose Snow Goose White-fronted Goose Cackling Canada Goose Unidentified Goose	2,500 (e)	Avian cholera	NW
Sacramento NWR	CA	11/07/90-02/01/91	Snow Goose Ross' Goose White-fronted Goose Cackling Canada Goose	3,500 (e)	Avian cholera	NW
San Francisco Bay	CA	12/10/90-12/31/90	Northern Shoveler Ruddy Duck Unidentified Duck	36 (e)	Avian cholera	NW
Market Lake WMA	ID	07/10/90-09/25/90	American Coot Mallard Northern Shoveler Unidentified Teal Lesser Scaup	238 (e)	Botulism type C	ID

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QUARTERLY WILDLIFE MORTALITY REPORT

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PAGE: 5

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<i>Pacific Flyway cont.</i>						
Benton Lake NWR	MT	07/01/90-09/10/90	Green-winged Teal Unidentified Duck American Coot	500 (e)	Botulism type C	NW
Flathead River	MT	12/12/90-12/20/90	Mallard Northern Pintail	97 (e)	Aspergillosis	NW
Everett	WA	10/01/90-12/06/90	Pacific Brant	8	Open	NW
Olympia	WA	11/18/90-11/19/90	Glaucous-winged Gull	28	Toxicosis suspect	NW
<i>Update</i>						
Puerto Pinasco, Sea of Cortez	Mex	07/01/90-11/01/90	Brown Pelican	1,500 (e)	Open	NW

(e) = estimated mortality

*National Wildlife Health Research Center (NW); Illinois Department of Conservation (IL); Provincial Diagnostic Laboratory in Abbotsford, British Columbia (BC); California Wildlife Investigations Laboratory (CA); Idaho Fish and Game Department (ID).

Compiled and prepared by Gregory Kidd, NWHRC. For specific information on these mortalities contact the following NWHRC Resource Health Team Members: Pacific Flyway, Charlotte Quist; Central Flyway, Linda Glaser; Mississippi and Atlantic Flyways, Kathryn Converse; Endangered Species and Legal Cases, Ron Windingstad. 608-271-4640
FTS-364-5411 National Wildlife Health Research Center, 6006 Schroeder Rd., 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 1990. NWHRC received 49 reports this quarter; the main mortality factors were botulism (31%) and avian cholera (24%).

Botulism continued into October with several epizootics. Butte Sink NWR in the Sacramento Valley of California lost an estimated 1,600 birds. An epizootic was reported at Cheyenne Bottoms, Kansas where botulism had not been reported since the late 1960's. Despite the cold temperatures in December, botulism killed 110 mallards along a small creek south of St. Paul, Minnesota. Dredging may have released pre-formed botulism toxin in the soils. Fish were found dead in the same area, however, all were too decomposed for evaluation.

Avian cholera was reported in California at both Sacramento NWR and Lower Klamath NWR. Large losses were incurred at each refuge. Avian cholera was confirmed for the first time at Bitter Lake NWR in New Mexico. Avian cholera began early in the season in the Rainwater Basin of Nebraska; the disease was confirmed in Clay County and later in submissions from mortality occurring in York County. In the Mississippi Flyway, avian cholera caused the loss of 709 snow geese on the Riverton WMA in Fremont County, Iowa, and 26 birds on the Grand Pass Wildlife Area in north central Missouri. This was the first year that this new refuge was available for waterfowl use. Squaw Creek NWR, Missouri lost 500 geese; while avian cholera is suspected, none of the carcasses submitted to NWHRC were diagnosed as having the disease.

The Texas Rice Belt reported mortality in several different areas. Diagnoses of aflatoxicosis and avian cholera have been the most consistent findings. Many sites of a six county area were involved including goose roosting sites. In the Texas panhandle, mortality has been reported from a number of counties with avian cholera confirmed in three major outbreaks.

Relatively warm weather conditions persisting into December triggered outbreaks of acute aspergillosis in mallards in the Pacific Flyway. Mortality occurred at three different locations in western Montana as well as along the Kootenai River in British Columbia.

California Fish and Game reported a die-off of various species of gulls along the central coast of California. The California Wildlife Investigations Laboratory in Sacramento and NWHRC have been unsuccessful in implicating any single etiological agent.

An estimated 200 tree swallows were found dead in Montrose, Missouri. Necropsy examination showed multiple fractures and bruises. It is suspected that the birds flew into power lines.

A die-off of approximately 200 snow geese and swans near Yakutat, Alaska may have been caused by a storm; however, no definite signs of trauma were seen in the necropsied birds. The case is still undergoing investigation.

Necrotic enteritis was seen in four separate areas this year, the most reported in a single season. North Dakota reported mortality on three areas this fall: Tewaukon and Des Lacs NWRs and near Tuttle. South Dakota reported only one outbreak of the disease at Long Lake near Waubay NWR. Mortality on all of the areas was low in proportion to the population at risk.