

QUARTERLY WILDLIFE MORTALITY REPORT

October 1993 to December 1993

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Atlantic Flyway</u>						
Marco	FL	10/19/93-11/15/93	Royal Tern Sandwich Tern	66	Open	SC
Mattamuskeet NWR	NC	12/14/93-01/10/94	Tundra Swan	100 (e)	Visceral gout	NW
Virginia Beach (Windsor Lake)	VA	12/08/93-12/12/93	Double-crested Cormorant Mallard Pekin Duck American Coot	20 (e)	Trauma: gunshot suspect	NW
<u>Mississippi Flyway</u>						
Moline	IL	12/05/93-12/09/93	Mallard Domestic Pigeon Wood Duck	100 (e)	Toxicosis: organophosphorus compound	NW
Atchafalaya Delta WMA	LA	10/26/93-12/25/93	Mottled Duck Green-winged Teal Unidentified Duck Unidentified Shorebird	1,000 (e)	Botulism type C	NW
Oak Hammock Marsh	MAN	10/24/93-12/08/93	Snow Goose Canada Goose Mallard Unidentified Duck Unidentified Gull	2,000 (e)	Avian cholera	CWS
Monroe County	MI	12/03/93-12/17/93	Herring Gull Ring-billed Gull	50 (e)	Toxicosis: carbamate compound	NW
Lac qui Parle WMA	MN	11/02/93-01/04/94	Canada Goose Mallard Snow Goose Bufflehead Lesser Scaup	719	Avian cholera	NW
Correll (Marsh Lake)	MN	11/29/93-12/15/93	Mallard	30 (e)	Lead poisoning	NW
Shakopee	MN	12/08/93-12/22/93	Mallard	50 (e)	Toxicosis: diazinon	NW
Sumner	MO	12/04/93-12/08/93	Canada Goose Mallard	5	Avian cholera	NW
Warren County	OH	09/15/93-09/15/93	Canada Goose	5	Toxicosis: diazinon	NW

continued.....

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<u>Mississippi Flyway cont.</u>						
Muskingum	OH	09/25/93-09/26/93	Mallard Hybrid Mallard	25 (e)	Toxicosis: diazinon suspect	NW
Mercer Waterfowl Area	OH	08/12/93-08/14/93	Canada Goose	25 (e)	Aspergillosis	NW
Goshen	OH	08/13/93-08/30/93	Mallard	5	Botulism type C	NW
Wood County	OH	12/10/93-12/10/93	Ring-billed Gull	50 (e)	Open	NW
Meigs County	OH	10/03/93-10/03/93	Canada Goose	12	Toxicosis: organophosphorus compound	NW
Muscoda	WI	09/28/93-09/28/93	Cedar Waxwing	18	Toxicosis: chlorpyrifos	WI
<u>Central Flyway</u>						
Bosque del Apache NWR	NM	12/03/93-ongoing	Snow Goose Whooping Crane Ross' Goose Mallard Sandhill Crane	1,300 (e)	Avian cholera	NW
Sequoyah NWR	OK	11/01/93-12/01/93	Snow Goose	45	Impaction: soybean	NW
Hidalgo County	TX	10/27/93-10/28/93	Common Grackle	16	Toxicosis: organophosphorus compd. suspect	NW
Texas Rice Belt	TX	11/15/93-ongoing	Snow Goose Ross' Goose Canada Goose Green-winged Teal Northern Shoveler	948	Avian cholera	NW
Corpus Christi Bay	TX	12/10/93-12/13/93	American White Pelican	8	Open	NW
Rita Blanca Lake	TX	12/19/93-ongoing	Mallard Canada Goose	1,000 (e)	Avian cholera	NW
Armstrong Playa	TX	12/01/93-12/29/93	Canada Goose Mallard Coyote Sandhill Crane	120 (e)	Open	
<u>Pacific Flyway</u>						
Soldotna	AK	11/26/93-11/26/93	Bald Eagle	2	Toxicosis suspect	NW
Corcoran	CA	07/28/93-07/28/93	Mallard Unidentified Shorebird	57	Botulism type C	CFG

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<i>Pacific Flyway cont.</i>						
El Centro	CA	11/08/93-11/08/93	Ring-billed Gull	12	Open	NW
Sacramento NWR	CA	11/25/93-ongoing	American Wigeon American Coot Northern Pintail Snow Goose Northern Shoveler	2,600 (e)	Avian cholera	NW
Sutter County	CA	12/05/93-12/16/93	White-fronted Goose Snow Goose Ross' Goose Tundra Swan Great Blue Heron	375 (e)	Avian cholera	CFG
Upper Butte Basin	CA	11/13/93-11/13/93	Ross' Goose	6	Avian cholera suspect	CFG
National Bison Range	MT	12/04/93-12/06/93	Mallard Hooded Merganser Northern Harrier	113	Aspergillosis	NW
Malheur NWR	OR	07/01/93-07/21/93	Sandhill Crane	365	Trauma/open	NW
Murray	UT	09/16/93-09/22/93	Mallard	71	Toxicosis: organophosphorus compd. suspect	NW
Park City	UT	10/18/93-10/18/93	Mallard	28	Toxicosis: zinc phosphide	NW

(e) = estimated mortality

* Southeastern Cooperative Wildlife Disease Study (SC); National Wildlife Health Research Center (NW); Canadian Wildlife Service (CWS); Wisconsin Central Animal Health Laboratory (WI); 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 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 Road, Madison, WI 53711.

Quarterly Wildlife Mortality Report. The following highlights wildlife mortality reported to the National Wildlife Health Research Center (NWHRC) from October through December 1993.

Avian cholera mortality was first confirmed in the Mississippi Flyway in late October from waterfowl at Oak Hammock marsh in Manitoba. A total of 1,851 ducks and geese were picked up and many more were frozen in the ice; over 400 ducks were picked up in one day during the peak of mortality. It is known that these Canada geese migrate from Oak Hammock to Lac qui Parle Waterfowl Management Area in western Minnesota and soon after their arrival at Lac qui Parle, over 700 geese died of avian cholera. Fortunately no other areas in the migration pathway reported mortality.

In the Central Flyway, avian cholera first occurred in the Texas Rice Belt, in southeastern Texas. Approximately 1.2 million geese (snow geese and white-fronted geese) had migrated into the area since early October with no significant mortality noted until mid-November. When mortality did explode, over 800 carcasses were collected during the first week. Mortality has subsided considerably with an estimated total pick up of 1,000 birds. At Rita Blanca Lake in the Texas Panhandle near Dalhart, approximately 1,000 birds were picked up from an estimated migratory bird population of 100,000 at risk. Bald eagles and ferruginous hawks were also at the site but were unaffected by avian cholera. Bosque del Apache NWR in New Mexico, reported mortality starting the first week of December with the pick up of 300 birds; mortality is ongoing with over 1,300 birds collected.

In the Pacific Flyway, avian cholera mortality occurred at Sacramento NWR Complex and Sutter County in California. At the Sacramento Complex, over 1 million ducks and 300,000 geese were present. Both areas have had a history of the disease.

Mattamusket NWR in North Carolina reported that an estimated 100 tundra swans died during December from a wintering population of 20-30,000 swans. Visceral gout was present in three of five swans submitted to NWHRC. Lead poisoning was initially suspected based on historic lead problems in birds wintering at this refuge.

In an interesting case from Muscoda, Wisconsin, 18 cedar waxwings were found dying or already dead in a backyard juniper tree. Upon investigation, it was discovered that a pan of stagnant water directly below the tree contained a flea collar. Subsequently, diagnostic tests revealed the birds died from ingestion of the insecticide Chlorprifos which is commonly used in flea collars.

Three cases of diazinon poisoning or suspected diazinon poisoning were reported this quarter. In Warren County and in Muskingum, Ohio, the poison was associated with improper application of the chemical, diazinon, to lawns. In Shakopee, Minnesota, birds died over a two week period, which is relatively long for a poisoning case. Although diazinon poisoning was confirmed as the cause of mortality, no source of the compound was found.

An estimated 28 mallards died on a golf course in Park City, Utah following ingestion of wheat berries treated with zinc phosphide, a rodenticide used to control mice. This is the second episode of zinc phosphide toxicity diagnosed in waterfowl in the past year at NWHRC.