

QUARTERLY WILDLIFE MORTALITY REPORT

January 1994 to March 1994

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Atlantic Flyway</u>						
Lakeland	FL	12/25/93-02/07/94	Laughing Gull	1,625	Botulism type C	SC, MW
Grassville	MD	01/03/94-03/04/94	Mallard American Black Duck Lesser Scaup Canada Goose Gadwall	75 (e)	Aflatoxicosis	MW
Chesapeake Bay	MD, VA, NC	02/21/94-04/07/94	Oldsquaw Bufflehead Black-backed Gull Common Goldeneye Osprey	35,000 (e)	Avian cholera	MD, MW
Keuka Lake	NY	02/17/94-04/11/94	American Black Duck Mallard Canada Goose Hybrid Mallard	1,400 (e)	Duck plague	NY, MW
Jobos, Combate, Mayagilez	PR	12/19/93-02/01/94	Brown Pelican	9	Emaciation	MW
Carretera	PR	01/21/94-01/21/94	Greater Antillean Grackle	6	Toxicosis: carbamate suspect	MW
Eastern Shore of VA NWR	VA	01/24/94-02/07/94	American Woodcock Killdeer	12	Emaciation/viral infection	MW
Greenville County	VA	02/22/94-02-23-94	Common Grackle	50	Toxicosis: organophosphorus compound	MW
Back Bay NWR	VA	03/30/94-04/06/94	Common Loon Red-throated Loon Horned Grebe	235	Drowning suspect	MW
<u>Mississippi Flyway</u>						
Cook County	IL	08/31/93-09/08/93	Mallard Wood Duck Canada Goose Blue-winged Teal	47	Botulism type C	MW
Wm. Powers Conservation Area	IL	01/07/94-01/24/94	Mute Swan Canada Goose	34	Hemorrhagic enteritis - cause undetermined; trauma: gunshot	MW, IL
Dent County	MO	03/09/94-03/09/94	American Robin	16	Toxicosis: CHE inhibiting compound	MW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

January 1994 to March 1994

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Central Flyway</u>						
Antonito	CO	02/01/94-03/01/94	House Sparrow	200 (e)	Salmonellosis	NW
North Platte	NE	03/01/94-03/18/94	American Goldfinch	9	Salmonellosis	NW
W.S. Huey Waterfowl Area	NM	02/04/94-02/10/94	Snow Goose	24	Open	NW
Buffalo Lake NWR	TX	01/03/94-01/10/94	Northern Pintail Mallard American Wigeon	193	Avian cholera	NW
Cactus Lake	TX	01/01/94-03/01/94	Canada Goose Snow Goose Ferruginous Hawk White-fronted Goose Mallard	600 (e)	Avian cholera Trauma: gunshot	NW
Houston	TX	02/14/94-03/15/94	Brown-headed Cowbird	200 (e)	Salmonellosis	NW
Texas Panhandle area	TX	12/01/93-ongoing	Golden Eagle	20	Electrocution	NW
Shepherds Air Force Base	TX	03/10/94-04/30/94	Common Grackle	450 (e)	Open	NW
<u>Pacific Flyway</u>						
Fresno	CA	12/01/93-12/15/93	Mallard Ruddy Duck American Coot	3,000 (e)	Botulism type C	CFG
Lake McGrath, Ventura	CA	12/25/93-01/05/94	Unidentified Waterfowl Unidentified Shorebird Brown Pelican Unidentified Wadingbird	150 (e)	Toxicosis: petroleum (oil)	OSR
Klamath Basin Refuges	CA	12/01/93-03/15/94	Trumpeter Swan Tundra Swan	15	Lead poisoning	NW
Palm Desert	CA	01/21/94-03/23/94	Mallard American Wigeon American Coot Green-winged Teal Northern Pintail	869	Botulism type C	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

January 1994 to March 1994

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<i>Pacific Flyway cont.</i>						
Salton Sea NWR	CA	01/24/94-02/01/94	American Coot Eared Grebe Ring-billed Gull California Gull Northern Shoveler	25 (e)	Open	NW
Salton Sea	CA	02/16/94-03/30/94	Eared Grebe Ruddy Duck Unidentified Gull	2,111	Open	NW
Klamath Basin NWRs	CA	03/06/94-04/19/94	Snow Goose Ross' Goose Canada Goose Lesser Scaup Tundra Swan	1,900 (e)	Avian cholera	NW
San Luis Obispo County	CA	02/06/94-ongoing	Sea Otter	2	Coccidiodomycosis	NW
Redwood National Park	CA	12/28/93-01/31/94	American Coot American Wigeon Ruddy Duck Bufflehead Canvasback	2,700 (e)	Avian cholera	NWB
Kaloko-honokahau National Park	HI	01/15/94-ongoing	Hawaiian Coot Northern Shoveler Hawaiian Stilt Northern Pintail	57	Botulism type C	NW
Key Pittman Wildlife Area	NV	09/16/93-09/16/93	Northern Pintail Mallard White-faced Ibis	200 (e)	Botulism suspect	NW
Rockaway	OR	03/16/94-03/18/94	Herring Gull	36	Open	NW
Ankeny NWR	OR	01/04/94-01/31/94	Canada (Cackling) Goose Canada (Taverner's) Goose Canada Goose	3	Avian cholera	NW
Ridgefield NWR	WA	01/06/94-01/06/94	Tundra Swan	3	Avian cholera	NW
Renton	WA	02/01/94-02/01/94	American Crow	17	Open	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

January 1994 to March 1994

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Pacific Flyway cont.</u>						
Norsehead Harbor	WA	02/10/94-02/10/94	American Wigeon	15 (e)	Toxicosis: CHE inhibiting compound	NW
Ephrata	WA	02/17/94-02/17/94	Canada Goose	14	Electrocution/lightning strike	NW
<u>Update</u>						
Sacramento NWR	CA	11/25/93-03/01/94	Snow Goose Northern Shoveler White-fronted Goose Gadwall Ross' Goose	2,660	Avian cholera	NW
Bosque del Apache NWR	NM	12/03/93-02/18/94	Snow Goose Sandhill Crane Ross' Goose Mallard Whooping Crane	1,528	Avian cholera	NW
Texas Rice Belt	TX	11/15/93-01/19/94	Snow Goose Ross' Goose Canada Goose Green-winged Teal Northern Shoveler	948	Avian cholera	NW
Rita Blanca Lake	TX	12/19/93-02/15/94	Canada Goose Mallard	1,000	Avian cholera	NW

(e) = estimated mortality

* Southeastern Cooperative Wildlife Disease Study (SC); National Wildlife Health Center (NW); Maryland Department of Agriculture (MD); New York State Department of Environmental Conservation (NY); University of Illinois - Urbana (IL); California Department of Fish and Game (CFG); California Department of Fish and Game Oil Spill Response Team (OSR); Humboldt State University (HMB).

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

Quarterly Wildlife Mortality Report. The following highlights wildlife mortality reported to the National Wildlife Health Center (NWHC) from January through March 1994.

Avian cholera occurred on the Atlantic Coast from the Chesapeake Bay Bridge at Annapolis, Maryland to Cape Hatteras, North Carolina. Avian cholera was confirmed in 23 species; oldsquaw (70%), bufflehead, and scoters were the primary species affected. This outbreak occurred under similar weather conditions as the last reported outbreak during 1978 in Chesapeake Bay. It is speculated that sea ducks were unable to continue their northern migration due to the weather and concentrated in the Bay area. In the Central Flyway, avian cholera mortality of 600 geese and dabbling ducks was reported at Cactus Lake in Moore County, Texas. Water sources for Cactus Lake include 2 1/2 million gallons/day of water from meat packing plants and municipal sewage. Up to one third of the mortality may be attributed to gunshot trauma. Bosque del Apache NWR in New Mexico reported their highest avian cholera mortality ever. Also included, was the first wild whooping crane diagnosed with this disease. In the Pacific Flyway, Klamath Basin NWR in northern California, reported low level mortality with an upsurge in mortality (100/day) in mid April. Redwood National Park reported avian cholera mortality, primarily in American coots, on a small body of water in the park. Avian cholera was also confirmed at the Western Oregon Refuge Complex and Ridgefield NWR's in Oregon and Washington for the first time since 1977. Fortunately, mortality was confined to a small number of geese and swans. In addition to the avian cholera mortality at the Oregon refuges, Canada geese with a peculiar drooping wing syndrome have been observed intermittently during the past several years. No mortality has been noted and numbers affected vary from a few to dozens per year. The cause of this condition is still unknown.

Over 2,100 eared grebes, ruddy ducks, gulls and other waterbirds died at Salton Sea NWR in southern California. This outbreak is similar to the one which occurred in 1992 with an estimated 75% of the mortality occurring in eared grebes. Pasteurella multocida, the causative agent of avian cholera, was isolated from some, but not all, of the eared grebes and all of the ruddy ducks examined. However, the role of this agent as a contributing factor in the overall grebe mortality is unclear. As with the previous outbreak, many of the grebes were observed to exhibit unusual behaviors including excessive preening, congregating at freshwater tributaries, repeatedly gulping fresh water, and moving out of the water onto land. The potential involvement of biotoxins is also being investigated.

An estimated 1,400 ducks and geese were picked up on the Finger Lakes in south central New York. The cause of death was attributed to duck plague in 1,300 black and mallard ducks and Canada geese; 597 of 640 birds necropsied had typical lesions of duck plague. Approximately 100 diving ducks and other species collected during the outbreak were diagnosed with a variety of other chronic disease problems. This event represents the only known large scale duck plague outbreak that involved wild migratory waterfowl since 1973 at Lake Andes, South Dakota. Many of the ducks that died were considered resident ducks that were fed by local residents living on the lakes and at parks associated with the lakes. A disease contingency plan was developed and activated at a meeting of state, provincial and federal biologists from the United States and Canada.

Waterfowl mortality due to botulism occurred at the Palm Desert Water Treatment Plant in Riverside County. The treatment ponds are surrounded by oleander bushes and a large amount of oleander clippings was present in the water. Oleander produces a digitalis-like water soluble toxin. Although the toxin could not be detected, the presence of oleander is suspicious as a possible contributing factor in the epizootic.

Salmonellosis was confirmed from three sites in the Central Flyway. Two of the sites, Antonito, Colorado and North Platte, Nebraska were associated with backyard bird feeders. The third, in Houston, Texas has been an annual mortality event involving brown-headed cowbirds. It is speculated that the migrating birds are weak from the flight across the Gulf and are very susceptible to disease.