

QUARTERLY WILDLIFE MORTALITY REPORT
July 1989 to September 1989

Location	State	Date	Species	Mortality	Diagnosis	Reported By *
<u>Atlantic Flyway</u>						
Congressional Garden Pond	DC	07/17/89-07/25/89	Mallards	24 (e)	Botulism type C	NW
West Palm Beach	FL	08/30/89-08/30/89	Mourning doves	5	Trichomoniasis	SE
Cumberland Island	GA	03/26/89-03/26/89	Gannets	3	Open	SE
Gainsville	GA	07/17/89-07/24/89	Mallards	5 (e)	Botulism suspect	SE
Seneca Creek	MD	07/10/89-08/30/89	Mallards	100 (e)	Botulism type C	NW
Fort Meade	MD	07/12/89-07/28/89	Mallards	4	Open	NW
Stratton Island	ME	07/01/89-07/06/89	Common terns	170	Open	NW
Popham and Seawall Beaches	ME	07/01/89-07/29/89	Common terns, Least terns	550 (e)	Open	NW
Woodbridge	NJ	07/10/89-07/17/89	Canada geese	300 (e)	Botulism type C	NJ
Ridgeway	SC	01/30/89-01/30/89	Mallards, Wood Ducks, Ring-billed gulls	4	Cyanide toxicosis suspect	SE
Newberry Co.	SC	07/20/89-07/21/89	Canada geese	3	Oil toxicosis suspect	SE
Virginia Beach	VA	07/10/89-07/15/89	Mallards, Pekin ducks	50 (e)	Botulism type C	NW
Norfolk	VA	08/26/89-09/06/89	Wood ducks, Mallards, Black-necked swans, Green-winged teals, Ruddy ducks, Herons	20 (e)	Open	NW

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<u>Atlantic Flyway (cont.)</u>						
Frederick County Barbour, Kanawha, and Lewis Counties	VA WV	05/01/89-05/30/89	Purple martins	35 (e)	Open	SE
Charleston	WV	07/10/89-07/21/89	Muscovy ducks, Mallards	40 (e)	Open	NW
<u>Mississippi Flyway</u>						
Birmingham Zoo	AL	07/06/89-08/04/89	Exotic waterfowl, Mallards	55	Botulism suspect	NW
Springdale	AR	07/01/89-07/20/89	Mallards	30 (e)	Pasteurella anatipestifer	NW
Rock Island	IA	08/09/89-08/13/89	Mallards, Blue winged teals, Unidentified ducks	80 (e)	Botulism type C	NW
San Belle Reservoir	IA	09/26/89-09/29/89	White Pelicans	40 (e)	Open	NW
Quiver Creek Study Area	IL	05/04/89-10/03/89	Blue-winged teals, Wood ducks, Green-winged teals, Pintails, Wigeons, Mallards	50 (e)	Botulism suspect	NW
Lombard	IL	06/25/89-06/26/89	Mallards	7	Botulism suspect	IL
Lisle	IL	07/20/89-07/30/89	Mallards, Canada geese	6	Botulism suspect	IL
Lincoln Park Zoo	IL	08/08/89-10/30/89	Mallards, Wood ducks, Redheads	125 (e)	Botulism type C	NW
Schaumburg	IL	08/21/89-08/23/89	Mallards	12	Botulism suspect	IL

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<u>Mississippi Flyway (cont.)</u>						
Hoffman Estates Lake	IL	08/28/89-09/02/89	Mallards	50 (e)	Botulism suspect	NW
Arlington Heights	IL	09/01/89-09/02/89	Mallards, Hybrid Mallards	25 (e)	Botulism suspect	IL
Union	KY	07/20/89-07/26/89	Domestic Chickens, Unidentified ducks	15	Botulism type C	NW
Agassiz NWR	MN	08/11/89-09/25/89	Mallards, Canvasbacks, Redheads	371	Botulism type C	NW
Holiday Acres Lake	MO	07/06/89-07/06/89	Canada geese	5	Organophosphate toxicosis suspect	NW
Toledo	OH	08/17/89-08/18/89	Common grackles, Starlings, House Sparrows, Mourning doves	12	Open	NW
Indian Lake	OH	08/23/89-08/24/89	Mallards, Hybrid Mallards	28 (e)	Botulism type C	NW
Ottawa NWR	OH	09/02/89-09/06/89	Mallards	8	Botulism type C	NW
Memphis	TN	03/01/89-05/01/89	Mourning doves, House Sparrows	250 (e)	Trichomoniasis suspect	NW
Cat Island	WI	07/17/89-08/01/89	Double-crested cormorants, Herring gulls	41	Open	NW
Milwaukee Zoo	WI	07/22/89-07/28/89	Mallards, Canada geese	54	Botulism type C	NW
Lake Du Bay	WI	08/08/89-08/10/89	Herring gulls, Double- crested cormorants, Bald eagles	16	Airsacculitis; etiology unknown	NW

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<u>Mississippi Flyway (cont.)</u>						
Madison	WI	09/09/89-09/10/89	Ovenbirds, Red-eyed Vireos, Yellow-throated Vireos, Tennessee Warblers, American Redstarts	250 (e)	Trauma: tower strike	NW
<u>Central Flyway</u>						
Marais des Cygnes	KS	07/17/89-07/19/89	Canada geese	11	Toxin: Strychnine	NW
Big Grass, Oak Hammock, and Provin Lake	MAN	08/01/89-09/06/89	Mallards, Unidentified Ducks and Shorebirds	19,901	Botulism type C	MA
Benton Lake NWR	MT	07/17/89-09/20/89	Mallards, Pintails, Gadwalls, Coots, Unidentified Gulls, Eared Grebes	530 (e)	Botulism type C	NW
Bowdoin NWR	MT	08/04/89-09/11/89	California Gulls, Ring-billed gulls, Mallards, Green-winged teals, Scaup, Eared Grebes	283	Botulism type C	NW
DeWald Slough	ND	07/12/89-09/25/89	Eared Grebes	288	Open	NW;ND
DeWald Slough	ND	07/12/89-09/25/89	Ring-billed gulls, Scaup, Mallards, Green-winged teals, Sandpipers	639	Botulism type C	ND
J. Clark Salyer NWR	ND	07/15/89-08/15/89	Mallards, Green-winged teals, Blue-winged teals, Pintails, Unidentified Ducklings, Coots	1,600 (e)	Botulism type C	NW

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<u>Central Flyway (cont.)</u>						
Lake Alice NWR	ND	07/18/89-09/26/89	Mallards, Pintails, Green-winged teals, Franklin's Gulls, Coots, Gadwalls	800 (e)	Botulism type C	NW
Mennewaukon Flats	ND	07/24/89-09/26/89	Ruddy ducks, Blue- winged teals, Green- winged teals, Double- crested cormorants, Unidentified Shorebirds, Mallards	600 (e)	Botulism type C	NW
Baumgartner Lake	ND	08/01/89-09/15/89	Pintails, Mallards, Blue-winged teals, Green-winged teals, Wood ducks, Shovelers	461	Botulism type C	NW
Jamestown	ND	08/04/89-08/20/89	Mallards, Shovelers, Green-winged teals, Wood ducks, Pintails, Wigeons	50 (e)	Botulism type C	NW
Crescent Lake NWR	NE	07/27/89-09/30/89	Mallards, Double- crested cormorants, Coots, Green-winged teals, Canvasbacks, Pintails	405	Botulism type C	NW
Victoria	TX	08/09/89-08/09/89	Boat-tailed Grackles	4	Avian Pox	NW
<u>Pacific Flyway</u>						
Alaska Peninsula	AK	08/28/89-ongoing	Shearwaters, Black- legged Kittiwakes, Murre, Tufted Puffins, Murrelets, Unidentified Gulls	1,404	Emaciation	NW

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<u>Pacific Flyway (cont.)</u>						
Brawley Gun Club	CA	05/01/89-05/30/89	Pintails, Shovelers, Wigeons	200 (e)	Lead Poisoning	CF
Brawley	CA	06/11/89-09/29/89	Cattle Egrets	4,515	Salmonellosis	NW;CF
Lower Klamath NWR	CA	06/12/89-09/24/89	Mallards, Coots, Pintails, Green-winged teals, Gadwalls, Wigeons	2,194	Botulism type C	NW
Marin/Sonoma Co.	CA	07/12/89-08/09/89	Grebes, Common Murres	47	Emaciation/trauma	CF;NW
Sacramento NWR	CA	07/31/89-ongoing	Mallards, Pintails, Coots, Shovelers, Green-winged teals	192	Botulism type C	NW
Market Lake WMA	ID	07/28/89-09/20/89	Blue-winged teals, Mallards, Shovelers, Canvasbacks, Pintails, Scaup	236	Botulism suspect	NW
Camas NWR	ID	08/21/89-09/01/89	Mallards, Pintails, Wigeons, Sora Rails, Shovelers, Coots	252	Botulism type C	NW
6 Man Gun Club	NV	07/21/89-08/15/89	Pintails	60 (e)	Botulism type C	NW
Oregon Coast	OR	07/02/89-ongoing	Common Murres, Cassin's Auklets, Rhinoceros Auklets	1,543	Emaciation/starvation suspect	NW
Ladd Marsh Wildlife Area	OR	07/11/89-07/11/89	Canada geese	2	Lead Poisoning	NW
Salt Lake City	UT	09/18/89-09/20/89	Mallards	12	Botulism suspect	NW

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<u>Pacific Flyway (cont.)</u>						
Port Angeles	WA	07/17/89-08/01/89	Mallards	5	Botulism type C	NW
<u>Update</u>						
Cobo Rojo NWR	PR	06/20/89-06/27/89	Small Indian Mongoose	2	Rabies	NW
Prince William Sound	AK	03/24/89-ongoing	Murres, Sea Otters, Waterfowl, Grebes, Cormorants, Loons	37,487	Toxin: oil	NW
<u>Correction</u>						
Schuylerville	NY	03/12/89-03/16/89	Canada Geese	50 (e)	Intestinal Trematodes, (Sphaeridiotrema suspect)	NY

* National Wildlife Health Research Center (NW); Southeast Cooperative Wildlife Disease Study (SE); Manitoba Department of Natural Resources (MA); Illinois Department of Conservation (IL); California Fish and Game (CF); New York Department of Conservation (NY); New Jersey Division of Fish, Game and Wildlife (NJ) and North Dakota Veterinary Diagnostic Lab (ND).

Prepared by the NWHRC. For specific information on these mortalities contact the following NWHRC Resource Health Team Members Pacific and Atlantic Flyways, Kathryn Converse; Central and Mississippi Flyways, Ron Windingstad. (608-271-4640; FTS 364-5411

Quarterly Wildlife Mortality Report. The following highlights wildlife mortality for July-September 1989 reported to the National Wildlife Health Research Center (NWHRC) by the following groups: other US Federal Agencies, State Conservation Agencies, Southeast Cooperative Wildlife Disease Study (SECWDS), Canadian Wildlife Service, and private organizations.

NWHRC received 62 reports of wildlife disease die-offs; the primary cause of mortality was confirmed or suspected botulism (57%).

One mongoose submitted to NWHRC from the Caribbean Islands NWR, near Boqueron, Puerto Rico was positive for rabies as was one submitted to the Center for Disease Control (CDC) in Georgia. Warnings of this public health risk were posted throughout the Refuge. The CDC and others are evaluating possible baits to be used in a planned mass vaccination program.

An estimated 5000 cattle egrets died at two rookeries and a lake near Brawley California. NWHRC isolated Salmonella sp. from egrets collected on all three areas. A field investigation by NWHRC, California Fish and Game, and California Animal Health Branch of the Department of Food and Agriculture identified possible exposure to this bacteria from drinking water in nearby canals or feeding in irrigated agricultural fields that are fertilized with manure.

Approximately 24,000 waterfowl and shorebirds were collected in a massive avian botulism die-off at three wetlands in Manitoba, Canada. The largest loss of 20,000 birds occurred at Big Grass Marsh; 80-85% were ducks and the remainder were shorebirds.

Avian pox was diagnosed by SECWDS in waterfowl from two locations in Georgia: a juvenile Canada goose was found weak, unable to fly, with lesions on the bill and near the eye; and two mallards collected from a flock of waterfowl at another site had lesions on the bill, legs, and feet. All lesions were histologically characteristic of avian pox. Avian pox virus was isolated by NWHRC in trumpeter swans being used as part of a restoration program in Wisconsin. In addition, avian pox is suspected to have occurred in an egret and Canada goose in Wisconsin and in mallards in Vermont. In the later case, Vermont Fish and Game personnel noted lesions similar to avian pox around the bill and eyelids of 10-20% of 60 wood ducks caught for banding.

Collaborative efforts between the North Dakota Game and Fish Department and Veterinary Diagnostic Laboratory, and the NWHRC resulted in the isolation of a Bordetella bronchiseptica like organism from livers of 3 out of 288 eared grebes collected during a die-off near Long Lake NWR, North Dakota; most grebes were immatures. The significance of this isolation remains unknown; no other pathogens were found.

The Arkansas State Diagnostic Lab isolated Pasteurella anatipestifer from a wild mallard with pericardial effusion. A bacterial culture sent to NWHRC verified this isolation. This mallard was from a group of mallards that died over a 2-3 week period at a privately owned pond in Arkansas.