

QUARTERLY WILDLIFE MORTALITY REPORT
July 1988 - September 1988

State	Location	Date	Species	Mortality	Diagnosis
<u>Atlantic Flyway</u>					
NJ	Beach Haven	08/13/88-08/21/88	Duck, Mallard	35(e)	Botulism type C
SC	Murrel's Inlet	09/04/88-09/18/88	Duck, Mallard Duck, Domestic Mallard Goose, Unidentified Duck, Muscovy Swan, Mute	25(e)	Botulism type C
VA	Lafayette River	08/01/88-08/15/88	Duck, Mallard	14	Botulism type C
VA	Virginia Beach	09/16/88-ongoing	Duck, Mallard Duck, Muscovy Duck, Black Duck, Blue-winged Teal Duck, Green-winged Teal	120(e)	Open
VA	Lake Accotink Park	09/16/88-09/18/88	Duck, Mallard	12(e)	Botulism type C
WV	Upshur Co.	02/27/88-03/24/88	Goose, Canada Duck, Mallard Crow, American Duck, Black	53	Open; suspect organophosphate
WV	Kanawha Co.	07/26/88-07/28/88	Duck, Mallard	40(e)	Open
WV	Tygart River	09/21/88-09/22/88	Duck, Unidentified	24	Aspergillosis; suspect toxicosis

State	Location	Date	Species	Mortality	Diagnosis
<u>Central Flyway</u>					
CO	Monte Vista NWR	09/30/88-ongoing	Duck, Mallard	1	Avian cholera suspect
KS	Copeland	09/01/88-09/02/88	Robin, American	40(e)	Open; suspect toxicosis
MT	Benton Lake NWR	06/24/88-09/08/88	Duck, Unidentified ducklings Avocet, American Teal, Unidentified Duck, Pintail Gull, Franklin's Duck, Mallard	629	Avian botulism suspect
MT	Bowdoin NWR	07/03/88-09/13/88	Duck, Green-winged Teal Duck, Unidentified	3,000(e)	Botulism type C
ND	McKenzie Slough	07/18/88-07/19/88	Pelican, American White	1	Open
ND	Kulm WMD	08/11/88-09/13/88	Duck, Mallard Duck, Blue-winged Teal Coot, American Pelican, Unidentified Cormorant, Unidentified	350(e)	Botulism type C
ND	J. Clark Salyer	08/14/88-08/30/88	Duck, Mallard Duck, Gadwall Coot, Unidentified	128	Botulism type C
ND	Lake Sakakawea	08/15/88-09/05/88	Gull, Ring-billed Cormorant, Unidentified Tern, Unidentified Goose, Canada Duck, Unidentified	300(e)	Open; suspect chlamydiosis
ND	Lake Darling	08/16/88-08/16/88	Grebe, Pied-billed Coot, American Duck, Green-winged Teal Duck, Blue-winged Teal	8	Botulism type C
NE	Valentine NWR	08/04/88-08/30-88	Duck, Unidentified Coot, American Cormorant, Double-crested	170	Botulism type C

State	Location	Date	Species	Mortality	Diagnosis
NE	Crescent Lake NWR	08/23/88-09/06/88	Duck, Ruddy Duck, Mallard Duck, Blue-winged Teal Duck, Green-winged Teal Duck, Gadwall Duck, Northern Shoveler	690(e)	Botulism type C
OK	Altus AFB	08/25/88-08/25/88	Kite, Mississippi Owl, Unidentified	16	Open; suspect organophosphate
SD	Blue Blanket	07/08/88-09/09/88	Duck, Unidentified Coot, American Pelican, Unidentified Cormorant, Unidentified	2,900(e)	Botulism type C
SD	Sand Lake NWR	07/25/88-09/01/88	Duck, Mallard Duck, Pintail Duck, Gadwall	300	Botulism type C
SD	Waubay NWR	08/04/88-09/06/88	Duck, Mallard Duck, Gadwall	400(e)	Botulism type C
TX	Corpus Christi	08/18/88-08/28/88	Duck, Mottled Duck, Fulvous Tree	30(e)	Open
TX	Fort Worth Public Park	08/20/88-08/20/88	Goose, Greater White-fronted Duck, Unidentified Egret, Unidentified	4	Open
<u>Update</u>					
ND	Long Lake NWR	06/07/88-09/12/88	Gull, Various Spp. Pelican, White Duck, Mallard Duck, Pintail Duck, Gadwall Duck, Shoveler Duck, Green-winged Teal Duck, Blue-winged Teal Shorebirds	3,443	Botulism type C

State	Location	Date	Species	Mortality	Diagnosis
ND	Devils Lake WMD	06/20/88-09/22/88	Grebe, Eared Cormorant, Double-crested Duck, Mallard Duck, Gadwall Duck, Green-winged Teal Duck, Blue-winged Teal Duck, Pintail Coot, American	6,900	Botulism type C
MT	Medicine Lake NWR	06/17/88-08/30/88	Duck, Green-winged Teal Duck, Gadwall	100(e)	Botulism type C
CO	Denver	06/22/88-09/18/88	Duck, Mallard Goose, Canada	54	Botulism type C

State	Location	Date	Species	Mortality	Diagnosis
<u>Mississippi Flyway</u>					
IA	Boone	08/13/88-08/27/88	Sparrow, Unidentified Hawk, Red-tailed Owl, Unidentified	25	Toxicosis; suspect organophosphate
IL	Chicago	07/01/88-07/29/88	Duck, Mallard	50(e)	Botulism type C Ruptured egg yolk peritonitis
IL	Buffalo Grove	07/18/88-07/19/88	Duck, Mallard	15	Avian botulism suspect
IL	Arlington Heights	07/23/88-07/26/88	Duck, Mallard	7	Avian botulism suspect
IL	Elk Grove Village	07/23/88-07/26/88	Duck, Mallard	3	Avian botulism suspect
IL	Lake Kalumet	07/27/88-08/23/88	Gull, Ring-billed Gull, Herring	500	Open
IL	Henry	07/29/88-07/29/88	Duck, Mallard Goose, Domestic White	17	Avian botulism suspect
IL	Northbrook	08/08/88-08/10/88	Duck, Mallard	6	Avian botulism suspect
IL	Wheeling	08/10/88-08/19/88	Duck, Mallard	30	Avian botulism suspect
IL	Lake Bluff	08/15/88-08/20/88	Duck, Mallard Duck, Wood	26	Avian botulism suspect
IL	Lake Decatur	08/16/88-08/18/88	Duck, Mallard Goose, Canada	38	Botulism type C
IL	Great Lakes Naval Ctr.	08/16/88-08/24/88	Duck, Mallard	60(e)	Botulism type C
IL	Mississippi River	09/10/88-ongoing	Gull, Unidentified Duck, Shoveler Duck, Green-winged Teal Duck, Blue-winged Teal Duck, Pintail Duck, Mallard	551	Botulism type C
IL	Palatine	09/13/88-09/20/88	Duck, Mallard	24	Avian botulism suspect

State	Location	Date	Species	Mortality	Diagnosis
LA	Atchafalaya Delta	07/18/88-07/20/88	Duck, Mottled Ibis, Glossy Ibis, White Egret, Snowy	46	Botulism type C
MN	Chaska	07/08/88-07/09/88	Goose, Canada	22	Toxin; Diazinon
MN	Twin Cities	08/15/88-08/22/88	Duck, Mallard	50(e)	Botulism type C
MO	Lake of the Ozarks	06/22/88-06/30/88	Duck, Mallard Duck, Ring-necked	20	Open
OH	Ottawa River	07/19/88-07/23/88	Duck, Mallard Gull, Unidentified	70	Open
OH	Columbus	08/12/88-08/17/88	Duck, Mallard Goose, Canada Dove, Mourning Killdeer	26	Toxin; Diazinon
WI	Kidney Island	06/05/88-06/24/88	Tern, Forster's Gull, Ring-billed	230	Open; emaciation
WI	Northridge Lake	07/21/88-07/31/88	Duck, Mallard Goose, Canada Gull, Herring	13	Botulism type C
WI	Horicon	08/01/88-08/19/88	Duck, Mallard Duck, Wood	40(e)	Avian botulism suspect
WI	Mississippi River	08/08/88-08/13/88	Duck, Mallard Duck, Wood	31	Botulism type C
WI	Sturgeon Bay	08/10/88-08/20/88	Duck, Mallard	55(e)	Botulism type C
WI	Milwaukee Harbor	08/19/88-08/25/88	Duck, Mallard Gull, Herring	105	Botulism type C
<u>Update</u>					
WI	Upper Mississippi NWR	06/13/88-07/07/88	Duck, Mallard	250	Botulism type C

State	Location	Date	Species	Mortality	Diagnosis
WI	Horicon NWR	06/13/88-10/01/88	Duck, Mallard Duck, Blue-winged Teal Duck, Green-winged Teal Duck, Shoveler Coot, American Duck, Wood Merganser, Hooded Heron, Great Blue Shorebirds, Unidentified Egret, Great	217	Botulism type C

State	Location	Date	Species	Mortality	Diagnosis
<u>Pacific Flyway</u>					
AK	Kachemak Bay	08/17/88-ongoing	Kittiwake, Black-legged	40(e)	Open; emaciation
CA	Arcata	06/09/88-09/20/88	Owl, Spotted	3	Open; emaciation
CA	Lower Klamath NWR	07/21/88-09/12/88	Duck, Mallard Duck, Gadwall Duck, Shoveler Duck, Pintail	850(e)	Avian botulism suspect
CA	Sacramento NWR	09/12/88-ongoing	Duck, Wigeon Coot, American	4	Avian cholera
HI	Laysan Island	06/15/88-06/15/88	Albatross, Black-footed	18	Open; suspect toxicosis
ID	Coeur d'Alene River WMA	03/15/88-04/22/88	Swan, Tundra Goose, Canada Duck, Mallard	11	Lead poisoning
ID	Market Lake WMA	07/05/88-08/18/88	Duck, Green-winged Teal Duck, Blue-winged Teal Duck, Scaup Goose, Canada Coot, American	1,550	Botulism type C
ID	Camas NWR	08/24/88-9/25/88	Duck, Mallard Duck, Wigeon Duck, Gadwall Duck, Redhead	480	Botulism type C
NV	Stillwater NWR	07/05/88-ongoing	Gull, California Gull, Ring-billed Duck, Pintail	462	Botulism type C
NV	Stillwater	09/24/88-ongoing	Duck, Pintail Duck, Green-winged Teal Duck, Shoveler Duck, Mallard	4,940	Avian botulism suspect
NV	Ruby Lake NWR	08/05/88-08/09/88	Duck, Mallard Coot, American Grebe, Pied-billed Duck, Canvasback	50(e)	Parasitism; suspect <u>Streptocara</u>

State	Location	Date	Species	Mortality	Diagnosis
NV	Alligator Ridge	08/26/88-ongoing	Duck, Ruddy Duck, Shoveler Shorebirds, Unidentified	1,000(e)	Open; suspect toxicosis
OR	Malheur NWR	05/13/88-07/01/88	Crane, Sandhill	6	Parasitism; Gapeworm Airsacculitis
OR	Malheur NWR	07/29/88-08/25/88	Duck, Mallard Duck, Northern Pintail Duck, Green-winged Teal Duck, Cinnamon Teal Duck, Gadwall Coot, American	1,400	Botulism type C
OR	Oregon Coast	08/16/88-ongoing	Murre, Common	180(e)	Open; emaciation

Prepared by the 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.

This information was submitted to NWHRC by the following groups: National Wildlife Health Research Center (NWHRC); Southeast Cooperative Wildlife Disease Study (SCWDS); other Federal agencies; State conservation organizations; Canadian Wildlife Service; and private organizations.

(e) = estimated mortality

National Wildlife Health Research Center
6006 Schroeder Road
Madison, Wisconsin 53711, U.S.A.
(608)-271-4640 or FTS 634-5411

Quarterly Wildlife Mortality Report

The following highlights wildlife mortality reported to NWHR for July-September, 1988.

NWHR received reports of 67 wildlife die-offs. Avian botulism accounted for 27 (40%) of the die-offs, and was suspected in another 11 cases. Twenty cases remain open; of these, five are suspect toxicoses.

Nationally, estimates of waterfowl losses due to confirmed avian botulism totalled 35,425, and losses due to suspected avian botulism totalled 1,647. Greatest losses occurred in the Central Flyway states of North and South Dakota and Montana. In the Pacific Flyway, losses were greatest in Oregon, Idaho, and Nevada.

For the second consecutive year, a population of Forster's terns (a species endangered in Wisconsin) inhabiting Kidney Island, Wisconsin, experienced mortality associated with extreme weight loss. To date, laboratory tests have not indicated infectious disease or toxicants to be involved.

Two episodes of emaciation and death occurred in immature seabirds along the Pacific coast. Birds examined from both areas were free of infectious disease, but very emaciated; starvation is suspected. Losses of common murrelets and rhinoceros auklets that occur yearly in Oregon are thought to be due to adverse weather conditions and food shortages. This year, environmental conditions were considered favorable, and the mortality was unexpected. On Gull Island in Kachemak Bay, Alaska, black-legged kittiwakes were observed weak and displaying begging behavior, and no adults were found dead. Population numbers were declining as birds moved to their winter feeding areas.

Three hundred gulls and cormorants were found dead on Lake Sakakawea in North Dakota this year, an area where chlamydiosis was confirmed in gulls two years ago. Unfortunately, the post-mortem condition of the carcasses was poor, and the cause of death remains undetermined.