

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 1

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<i>Atlantic Flyway</i>						
Huntington	CT	07/06/92-08/02/92	Eastern Bluebird	23	Emaciation	NW
Atlanta	GA	06/17/92-07/17/92	European Starling Common Grackle	10 (e)	Electrocution suspect	SC
Duluth	GA	07/10/92-07/14/92	Mallard Mallard Hybrid Domestic Duck Unidentified Goose Unidentified Swan	25 (e)	Botulism type C	SC
Bartow County	GA	07/15/92-07/15/92	Canada Goose	3	Toxicosis suspect	SC
Marietta	GA	07/15/92-07/22/92	Mallard Domestic Duck	8	Botulism type C	SC
Joppatowne	MD	07/06/92-07/28/92	Mallard	30 (e)	Botulism suspect	MD
Baltimore	MD	09/01/92-09/04/92	Laughing Gull Herring Gull	100 (e)	Toxicosis suspect	NW
Mechanicsville	MD	09/22/92-09/24/92	Brown-headed Cowbird	50 (e)	Toxicosis: organophosphorus compd.	NW
Conscience Point NWR	NY	07/23/92-07/23/92	Diamond-backed Tarrapin	50 (e)	Open	NW
Westmoreland County	VA	05/29/92-07/01/92	Common Grackle Brown-headed Cowbird Chipping Sparrow	16	Toxicosis suspect	SC
Covington	VA	07/25/92-07/27/92	American Robin Northern Cardinal Common Grackle House Sparrow Blue Jay	100 (e)	Toxicosis: diazinon	NW
Virginia Beach	VA	07/10/92-08/07/92	Mallard	40 (e)	Botulism type C	NW
Hanover County	VA	06/07/92-06/07/92	Common Crow	2	Toxicosis suspect	SC
Williamsburg	VA	08/30/92-09/02/92	Mallard Canada Goose Muscovy Duck	12	Toxicosis: organophosphorus compd.	NW
Virginia Beach	VA	09/03/92-09/07/92	Mallard Pekin Duck Mallard Hybrid	9	Toxicosis: organophosphorus compd.	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 2

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Atlantic Flyway cont.</u>						
Bena, Perrin River	VA	09/18/92-09/21/92	Pekin Duck Mallard	4	Lead poisoning	NW
Hampton	VA	09/18/92-10/01/92	Mallard Pekin Duck Muscovy/Mallard	100 (e)	Botulism type C	NW
<u>Mississippi Flyway</u>						
Chicago area	IL	07/25/92-08/05/92	Mallard Unidentified Gull Great Blue Heron	5	Botulism type C	NW
Cook County	IL	07/13/92-07/25/92	Mallard	6	Botulism suspect	IL
Mt. Prospect	IL	07/27/92-07/27/92	Mallard	8	Botulism suspect	IL
Lincoln Park Zoo	IL	08/21/92-09/16/92	Mallard Wood Duck	13	Botulism type C	NW
Upper Great Lakes	WI, MI	06/24/92-09/01/92	Double-crested Cormorant Ring-billed Gull Herring Gull Caspian Tern	900 (e)	Newcastle Disease Virus (confirmed & suspected); open; <i>S. typhimurium</i>	MSU, NW
Marsh Lake	MN	06/20/92-09/14/92	Double-crested Cormorant American White Pelican Ring-billed Gull Forester's Tern	2,595	Newcastle Disease Virus (confirmed & suspected); open; <i>S. typhimurium</i>	NW
Big Stone NWR	MN	07/07/92-07/07/92	Great Blue Heron Double-crested Cormorant	6	Salmonellosis	NW
Dassel	MN	07/07/92-07/07/92	Double-crested Cormorant	3	Emaciation	NW
Fergus Falls	MN	07/01/92-08/21/92	Double-crested Cormorant American White Pelican Ring-billed Gull Common Tern Black Tern	800	Newcastle Disease Virus (confirmed & suspected); open; <i>S. typhimurium</i>	NW
Swan Lake	MN	07/15/92-08/20/92	Western Grebe	456	Parasitism: <i>Schistosomiasis</i>	NW
Brentwood Hills Lake	MO	08/10/92-08/12/92	Mallard	40 (e)	Botulism type C	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 3

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Mississippi Flyway cont.</u>						
Gatlinburg	TN	09/17/92-09/24/92	Gray Catbird Wood Thrush Swainson's Thrush Tennessee Warbler Common Yellowthroat	400 (e)	Trauma	SC
La Crosse	WI	07/01/92-ongoing	Mallard Canada Goose Unidentified Swan	6	Botulism type C	NW
Apostle Islands	WI	07/23/92-08/15/92	Double-crested Cormorant	250 (e)	Newcastle Disease Virus suspect	NW
Beaver Dam	WI	08/05/92-09/21/92	Mallard Green-winged Teal Blue-winged Teal Wood Duck American Coot	356	Botulism type C	NW
Oshkosh	WI	07/16/92-07/28/92	Mallard Gadwall American Wigeon	25 (e)	Botulism type C	NW
Upper Mississippi NWR	WI	08/25/92-ongoing	Mallard Wood Duck	450 (e)	Botulism type C	NW
<u>Central Flyway</u>						
Denver Zoo	CO	07/02/92-08/31/92	Mallard Domestic Duck Redhead Duck Wood Duck Barrow's Goldeneye	113	Botulism type C	NW
Bowdoin NWR	MT	09/10/92-09/22/92	American White Pelican	174	Open	NW
Chase Lake NWR	ND	07/10/92-10/06/92	American White Pelican Double-crested Cormorant California Gull Ring-billed Gull Wilson's Phalarope	3,479	Newcastle Disease Virus suspect; open	NW
Willow Lake	ND	07/15/92-09/11/92	Double-crested Cormorant American White Pelican	349	Newcastle Disease Virus suspect; open; <i>S. typhimurium</i>	NW
Devil's Lake WMD	ND	08/08/92-09/08/92	Double-crested Cormorant Ring-billed Gull California Gull	1,292	Newcastle Disease Virus (confirmed & suspected); open; <i>S. typhimurium</i>	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 4

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<u>Central Flyway cont.</u>						
Crescent Lake NWR	NE	07/15/92-08/15/92	Double-crested Cormorant	66	Newcastle Disease Virus; <i>S. typhimurium</i>	NW
Valentine NWR	NE	07/10/92-09/01/92	Double-crested Cormorant	83	Newcastle Disease Virus suspect; <i>S. typhimurium</i>	NW
Day County, Roberts Co., Codington Co.	SD	06/25/92-08/15/92	Double-crested Cormorant American White Pelican Franklin's Gull Unidentified Gull	1,057	Newcastle Disease Virus (confirmed & suspected); open; <i>S. typhimurium</i>	NW
Sand Lake NWR	SD	07/29/92-09/15/92	Western Grebe Mallard Wood Duck Gadwall American Coot	86	Botulism type C	NW
Mud Lake	MN, SD	07/15/92-09/08/92	Mallard Wood Duck American Coot Blue-winged Teal Green-winged Teal	2,135	Botulism type C	NW
Goose Lake	SD	08/20/92-08/31/92	Blue-winged Teal Green-winged Teal American Wigeon Mallard Northern Shoveler	750	Botulism type C	NW
Swan Lake	SD	08/20/92-10/01/92	Mallard Green-winged Teal	217	Botulism type C	NW
Garland	TX	07/06/92-07/15/92	Mallard Domestic Duck Pekin Duck	6	Botulism suspect	TX
<u>Pacific Flyway</u>						
Cape Suckling	AK	08/18/92-08/26/92	White-winged Scoter Surf Scoter Unidentified Scoter	130 (e)	Emaciation	NW
Yukon Delta NWR	AK	06/17/92-07/08/92	Common Eider Spectacled Eider	2	Lead poisoning	NW
Scottsdale	AZ	07/06/92-07/06/92	Curve-billed Thrasher Unidentified Passerine	9	Toxicosis: organophosphorus compd. suspect	NW
San Diego Bay	CA	06/20/92-07/31/92	Brown Pelican	12	Trauma	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 5

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<i>Pacific Flyway cont.</i>						
Kettleman City	CA	06/17/92-06/24/92	Short-eared Owl	16	Open	CFG
Klamath NWR	CA	07/26/92-09/24/92	Mallard Green-winged Teal American Coot Gadwall Northern Pintail	3,070 (e)	Botulism type C	NW
San Francisco Bay Area	CA	08/15/92-08/25/92	Mallard Snowy Egret Gadwall California Gull Green-winged Teal	40 (e)	Botulism type C	NW
Lake Elsinore	CA	08/17/92-09/09/92	Mallard Mallard Hybrid Domestic Duck Great Blue Heron Great Egret	400 (e)	Botulism type C	NW
Sutter NWR	CA	09/01/92-09/20/92	Mallard Northern Shoveler Green-winged Teal Northern Pintail Gadwall	750 (e)	Botulism type C	NW
Benton Lake NWR	MT	08/03/92-08/27/92	Green-winged Teal Northern Pintail American Coot Unidentified Gull Long-billed Dowitcher	50 (e)	Botulism type C	NW
Las Vegas	NV	06/01/92-06/15/92	Mallard	15	Botulism type C	CFG
Malheur NWR	OR	06/14/92-08/10/92	Sandhill Crane	9	Parasitism: <i>Cyathostoma</i> sp.	NW
Malheur NWR	OR	08/12/92-09/16/92	Green-winged Teal Northern Shoveler Mallard Northern Pintail Unidentified Duck	2,400 (e)	Botulism type C	NW
Hines	OR	08/11/92-09/15/92	Swainson's Hawk	2	Open	NW
Kennecott Copper Mine	UT	07/13/92-07/16/92	California Gull	25 (e)	Open	NW

continued.....

QUARTERLY WILDLIFE MORTALITY REPORT

July 1992 to September 1992

PAGE: 6

LOCATION	STATE	DATES	SPECIES	MORTALITY	DIAGNOSIS	*REPORTED BY
<i>Pacific Flyway cont.</i>						
<i>Update</i>						
Morro Bay & Pismo Beach	CA	01/24/92-08/07/92	Southern Sea Otter	3	Coccidioidomycosis	NW

(e) = estimated mortality

* National Wildlife Health Research Center (NW); Southeastern Cooperative Wildlife Disease Study (SC); Maryland Department of Agriculture (MD); Illinois Department of Conservation (IL); Michigan State University Diagnostic Laboratory (MSU); California Department of Fish and Game (CFG); Texas A&M University (TX).

Written and compiled by Gregory Kidd, NWHRC. For specific information on these mortalities, contact the following NWHRC Resource Health Team Members: Pacific Flyway - Lynn Hayes; Central Flyway - Linda Glaser; Mississippi Flyway - Ron Windingstad; Atlantic Flyway - Kathy Converse. (608) 271-4640, (608) 264-5411 National Wildlife Health Research Center, 6006 Schroeder Rd., Madison, WI 53711.



Quarterly Wildlife Mortality Report. The following highlights mortality reported to the National Wildlife Health Research Center (NWHRC) from July through September 1992.

Newcastle Disease is the suspected cause of mortality at numerous sites this quarter in the North Central and Great Lakes States. On June 24, NWHRC received reports of greater than expected morbidity and mortality in a double-crested cormorant rookery in Marsh Lake, Minnesota. Cormorant mortality was also detected June 26 in cormorant rookeries on Snake and Little Gull Islands in Green Bay, (Lake Michigan) Michigan. On July 7, NWHRC isolated Newcastle disease virus (NDV) from the cormorants at the Marsh Lake site, and Michigan State University (MSU) reported the isolation of NDV from Lake Michigan cormorants. The USDA National Veterinary Services Laboratory (NVSL) in Ames, Iowa confirmed that NDV isolates from NWHRC and MSU were velogenic neurotropic NDV. Mortality continued to be reported and carcasses were submitted throughout July and August. NDV was isolated by the Canada Cooperative Wildlife Health Center from cormorants collected on several islands in the North Channel and Georgian Bay of Lake Huron, Canada. NVSL also confirmed the isolation of velogenic neurotropic NDV from a flock of 26,000 turkeys in North Dakota near an area of cormorant mortality at Devil's Lake; the turkey flock was depopulated. NVSL determined that the turkey isolate was the same strain of virus isolated from cormorants in Minnesota and Michigan. Additional epizootics, suspected to be NDV were reported in the Central Flyway States of North and South Dakota and Nebraska and in the Mississippi Flyway, the Apostle Islands in Wisconsin. A confirmed diagnosis of NDV required virus isolation; NDV was considered "suspect" in mortality events involving birds with clinical signs and histologic lesions suggestive of the disease, but the virus was not isolated. NDV was isolated from double-crested cormorants only, even though white pelicans, gulls and terns died during the same time period in nearby areas and demonstrated similar clinical signs as cormorants. The cause of mortality in these species was undetermined, although equivocal histopathology in two pelicans suggests a possible central nervous system disease. *Salmonella typhimurium* and *Salmonella typhimurium* (*copenhagen*) were also isolated from several cormorant and white pelican carcasses. Only in cormorants were these bacteria considered to be contributory to morbidity. Control efforts in the Central and Mississippi Flyways included carcass pickup and disposal on the nesting islands, decontamination and disinfection of all equipment and clothing used in investigations and control efforts, and cutting and/or burning vegetation on islands where feasible.

Botulism losses were relatively low this year in both number of outbreaks and total losses. Botulism occurred in a variety of environmental conditions. Mud Lake, Minnesota, a large lake formed by a dam, was being drawn down to accommodate spring rains; at Klamath NWR in California waterfowl died on a recently flooded field; at Lake Elsinore, California, botulism occurred following an algae and fish die-off; and at Upper Mississippi NWR in Wisconsin, ducks died adjacent to a restoration project.

Over 150 laughing gulls died under unusual circumstances in a Maryland freight shipping yard. Dock workers found sick and dead gulls piled up in between boxes. Two birds examined histologically had kidney lesions suggestive of exposure to a toxin. Brain cholinesterase levels appeared within the normal range for most gulls. FWS environmental contaminants and law enforcement were unable to identify a source of the toxin.

The Tennessee Wildlife Resources Agency reported the death of over 400 songbirds in Gatlinburg. The birds were found on a foggy morning in lighted parking lots. All birds examined by the Southeastern Cooperative Wildlife Disease Study had evidence of trauma. It is speculated that the fog reduced visibility and caused the birds to fly into objects.

In July, approximately 460 young-of-the-year western grebes died at Swan Lake in Minnesota. Schistosome related enteritis was seen in some of the birds submitted, however, the diagnosis remains open.