

To: Natural Resource/Conservation Managers
From: Leslie Dierauf, Director, USGS National Wildlife Health Center
Title: **Virulent Newcastle Disease Confirmed in Minnesota**
Date: September 5, 2008

The USGS National Wildlife Health Center (NWHC) is investigating double-crested cormorant mortalities from multiple locations in Minnesota. Biologists from the Minnesota Department of Natural Resources (MNDNR) contacted the NWHC after discovering dead double-crested cormorants in mid-July 2008. To date, combined cormorant mortalities are estimated to be over 1,200 in the counties of Meeker, Faribault, Mille Lacs, Cass, St. Louis (Voyageurs National Park), Lake of the Woods, and Lac Qui Parle. After preliminary testing at NWHC, samples were sent to the USDA National Veterinary Services Laboratory where virulent Newcastle disease was confirmed in samples from four of the counties. Final results from samples from the other counties are pending.

Newcastle disease (ND) is highly contagious and capable of infecting a variety of avian species. Double-crested cormorants are the wild birds most commonly affected with virulent ND virus. Prior to 1990, virulent ND had not been reported as a cause of mortality in free-living native birds of the U.S. or Canada. In 1992, multiple mortality events occurred in double-crested cormorant colonies across the Great Lakes, upper Midwest, and Canada with over 35,000 birds estimated dead. Sporadic outbreaks in cormorants have occurred in California, Utah, Nevada, and Oregon since 1990.

For the domestic poultry industry, ND is a concern because of severe economic losses from illness, death, reduced egg production, and potential trade restrictions. ND is transmitted through direct contact, feces, and excretions from infected birds. Quarantine and disinfection are necessary for any areas, clothing, or equipment that may have come in contact with infected poultry. ND is not a major concern for human health although it may cause a mild conjunctivitis and influenza-like symptoms.

Further investigations are in progress to assess the extent of the outbreak. NWHC staff are working with officials from the National Park Service, MNDNR, USDA Wildlife and Veterinary Services, the MN State Veterinarian's office, and the Canadian Cooperative Wildlife Health Centre to manage the outbreak by reducing possible impacts to wild birds and preventing spread to domestic poultry.

Additional information on Newcastle Disease Virus

USGS National Wildlife Health Center, Field Manual of Wildlife Diseases, Newcastle Chapter

http://www.nwhc.usgs.gov/publications/field_manual/chapter_21.pdf

World Organization for Animal Health http://www.oie.int/eng/maladies/fiches/a_a160.htm -

USDA Animal and Plant Health Inspection Service http://www.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/fs_ahend.html

University of Georgia, College of Veterinary Medicine http://www.vet.uga.edu/VPP/gray_book02/fad/vnd.php

News Reports

The Daily Journal, Fergus Falls, Minn., August 19

<http://www.fergusfallsjournal.com/news/2008/08/19/newcastle-disease-confirmed-minnesota-water-birds/>

Minnesota DNR News Release, August 15

<http://news.dnr.state.mn.us/index.php/2008/08/15/virulent-newcastle-disease-confirmed-in-minnesota-water-birds/>

Voyageurs National Park News Release, June 13

<http://www.nps.gov/voya/parknews/upload/2008%20Cormorant%20Study.pdf>