



Notes on the First Known Avian Cholera Epizootic in Wildfowl in North America

Author: Gordus, Andrew G.

Source: Journal of Wildlife Diseases, 29(2) : 367

Published By: Wildlife Disease Association

URL: <https://doi.org/10.7589/0090-3558-29.2.367>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

LETTER TO THE EDITOR . . .

Notes on the First Known Avian Cholera Epizootic in Wildfowl in North America

The following was told to me by Edward J. O'Neill, refuge manager at Muleshoe National Wildlife Refuge (NWR), Muleshoe, Texas (USA). Ed witnessed perhaps the first avian cholera epornitic in wild waterfowl (Quortrup et al., 1946) and the following is a summary about that epornitic at Muleshoe NWR.

Ed first observed ducks dying or dead on the refuge and in the surrounding area in 1944. The source and identity of the epornitic were unknown. Being well acquainted with botulism in Utah and North Dakota, he contacted the Bear River Wildlife Disease Research Station in Brigham, Utah (USA). Transportation was by Rail Road Express in those days, and it took several days for specimens to be shipped to Utah from Texas. Fast communication was by Western Union telegraph, 22 miles away. After Dr. E. R. Quortrup arrived, Ed took him on a tour of the sites with mortality. Most locations off the Refuge were playa lakes and roadside washes. Ed remembered that there was a fowl cholera epornitic in chickens on small farms during the previous fall and winter in the area. In those days dead chickens often were indiscriminately discarded in road-side washes or waste areas. To dispose of occasional barnyard dead chickens, dead birds sometimes were placed on the running board of a car or truck and allowed to fall along the gravel roads or into the ditches. The following winter, rains filled the playa lakes and washes. The migratory waterfowl that arrived, commonly ranged and gleaned fields and water areas off of the refuge onto these contaminated areas, returning at night to roost on the refuge. Ed believed the dead chickens in the ponds

and ravines were the contact source of *Pasteurella multocida* to wild waterfowl. About 300 wild ducks were collected and buried in the winter of 1944.

Rosen and Bischoff (1949, 1950) also proposed a connection of their first observed avian cholera epornitic in California to domestic birds. They suggested that the source of bacteria for wild birds was the carcasses or offal of chickens that were discarded at a dump site near San Francisco Bay. Gulls were observed scavenging on the chicken remains and returned to ponds in the surrounding area. Rosen and Bischoff (1950) suggested the gulls transported bacteria to the surrounding area ponds, thereby serving as a source of infection to wild waterfowl. Thus, the first two reported wild wildfowl avian cholera epornitics in North America may have been due to the lack of proper disposal of infected domestic chickens.

LITERATURE CITED

- QUORTRUP, E. R., F. B. QUEEN, AND L. S. MEROVKA. 1946. An outbreak of pasteurellosis in wild ducks. *Journal of the American Medical Association* 108: 94-100.
- ROSEN, M., AND A. I. BISCHOFF. 1949. The 1948-49 outbreak of fowl cholera in birds in the San Francisco Bay area and surrounding counties. *California Fish and Game* 35: 185-192.
- ROSEN, M., AND A. I. BISCHOFF. 1950. The epidemiology of fowl cholera as it occurs in the wild. *Transaction of the North American Wildlife Conference* 15: 147-154.

Received for publication 28 September 1992.

Andrew G. Gordus, Department of Medical Microbiology and Immunology, School of Medicine, University of California, Davis, California 95616, USA