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AVIAN CHOLERA IN CEDAR WAXWINGS IN OHIO

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Abstract: Avian cholera (*Pasteurella multocida* infection) was responsible for a localized die-off of cedar waxwings (*Bombycilla cedrorum*) at Steubenville, Ohio in late June, 1968.

Avian cholera caused by the bacterium *Pasteurella multocida* has been recognized as a cause of waterfowl mortality since 1944, but the disease has been reported from only seven species of passerine birds in North America.[1,2,3] This note records the occurrence of the infection among cedar waxwings (*Bombycilla cedrorum*) in Ohio and is apparently the first record of the infection in the species in North America.

On June 22, 1968, Mr. Clinton S. Banks was informed of the occurrence of dead cedar waxwings at a residence in Steubenville, Ohio. Upon investigation he learned that 24 dead waxwings had been found. Several sick birds also were found at the site, and were taken home by Mr. Banks, where many later recovered. A few days later, 12 more dead cedar waxwings were found near a cherry tree at another residence.

Two of the first six birds found were examined by Mr. Banks, who found that the gizzards were empty. Four birds were shipped to the Bird and Mammal Laboratories and thence to the Patuxent Wildlife Research Center for diagnostic studies. Three of the four birds were quite fat and in good flesh. All four had hemorrhages in the lungs and in the proventricular tissues. Two had hemorrhages on the heart.

Of the four waxwings submitted for necropsy, only three were suitable for bacteriologic examination. The fourth was in a rather poor state of preservation and was given only a cursory examination and then discarded. Lung material from the three waxwings was inoculated onto 5% sheep blood agar plates and incubated for 24 hours at 37.5 C. Pure cultures of a non-hemolytic, gram-negative, coccobacillus were isolated from the lungs of two of the waxwings; a coagulase-negative *Micrococcus* was isolated from the third. The gram-negative bacteria were subsequently identified by biochemical tests as *Pasteuerlla multocida*. In view of the known pathogenicity of *P. multocida* for avian species, we believe that this bacterium was the most probable cause of the observed losses of cedar waxwings. The *Micrococcus* is regarded as a postmortem contaminant.

We wish to thank Mr. Banks, Steubenville, Ohio, for calling our attention to the losses of cedar waxwings, and Mrs. Sara Hourihan, Department of Veterinary Science, University of Maryland, College Park, for conducting the biochemical tests.

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