

A *Salmonella typhimurium* Outbreak at a Bird Feeding Station

Unexplained mortality among small passerine birds is frequently reported to the Wildlife Research Projects Office of the Florida Game and Fresh Water Fish Commission. Pesticide poisoning has been suspected in many of these incidents, but chemical analyses have usually failed to reveal pesticide levels sufficient to cause death. Investigation of mortality incidents involving small birds has revealed that at least one infectious disease is an important factor in some die-offs.

A die-off involving birds frequenting a feeding station was reported by Mrs. Howard Pearl at her home near Salt Springs, Marion County, Florida, from 1971 through December, 1973. Species involved were the Blue Jay (*Cyanocitta cristata*), Tufted Titmouse (*Parus bicolor*), Brown Thrasher (*Toxostoma rufum*), House Sparrow (*Passer domesticus*), Red winged Blackbird (*Agelaius phoeniceus*), Common Grackle (*Quiscalus quiscula*), Cardinal (*Cardinalis cardinalis*), Chipping Sparrow (*Spizella passerina*), White-throated Sparrow (*Zonotrichia albicollis*), and Ground Dove (*Columbigallina passerina*). Specimens that could not be examined fresh were frozen for later examination. Heaviest mortality was observed in late winter and early spring. Mrs. Pearl reported that, at times, every bird coming to her feeder appeared to be affected to some degree. Some of the Cardinals, Common Grackles, Red-winged Blackbirds, Chipping Sparrows, and House Sparrows had subcutaneous lesions in the pectoral region similar to pustular lesions previously described for *Salmonella typhimurium* infections in birds (Wobese, G. A. and C. F. Finlayson. 1969. *Salmonella typhimurium* infection in House Sparrows. *Arch. Environ. Health*, 19: 882-884). Cultures taken from birds with lesions and affected birds without lesions were positive for *Salmonella typhimurium*.

As a partial test of our diagnosis that an agent in or on the soil caused the death of these wild birds, we suggested birds be discouraged from frequenting the feeding site in large numbers and that food be elevated and moved to another part of the yard. This was practical only to a limited extent. A collection of individuals of most of the same passerine species that had been infected earlier was made on 10 March 1974. All specimens were devoid of any lesions and otherwise in good condition. Cultures made from them were negative for *Salmonella*. Possibly the decline in incidence of infection was caused by the disease-induced reduction in the population using the feeding station.

Salmonella typhimurium is orally communicable to man and other animals by infected feces or other contaminated sources. Birds feeding on foods scattered on the ground or on elevated platforms that go uncleaned for long periods of time are highly susceptible to salmonellosis. As a

matter of course, those who feed birds regularly should avoid the use of ground feeding stations and occasionally should clean and thoroughly disinfect elevated platforms, particularly if sick or dead birds are observed in the vicinity. If feed is made available on the ground, the site should be changed regularly to reduce the likelihood of contact with infected feces. The Florida Game and Fresh Water Fish Commission, Wildlife Research Projects Office, 4005 South Main Street, Gainesville, Florida 32601 (phone 904-376-6481) should be contacted in the event of any unexplained bird mortality. Fresh specimens should be wrapped in aluminum foil and frozen as soon as possible. More specific instructions will be provided after notification. -Stephen A. Nesbitt, Florida Game and Fresh Water Fish Commission, Wildlife Research Projects, 4005 S. Main Street, Gainesville, Florida 32601; Franklin H. White, Department of Veterinary Science, University of Florida, Gainesville, Florida 32601.

NOTICE: HAWK MIGRATION ASSOCIATION OF NORTH AMERICA

This notice will serve to introduce the Hawk Migration Association of North America, a newly-formed organization which will strive to increase communication between hawk-watchers, to standardize the recording and processing of hawk-migration data, and to expand and improve the coverage of hawk migration in North America.

For the purpose of the Association's work, North America has been divided into nine regions, each with a regional representative/editor. Before each spring and fall migration season, all participating hawk-watch and hawk-banding stations will receive, free, as many copies of the HMANA Report Form as are needed. After each season, hawk-watchers will return completed forms to their regional representatives, who will write a regional report. All of these regional reports, plus a continent-wide summary, will be published twice annually, and will be sent to each member.

The association is vitally interested not only in lookouts that are manned regularly, but also in those that are covered infrequently. This allows the exploring hawk-watcher leeway for searching out new watches which will help to expand the coverage throughout the South. If you are interested in learning more about the Hawk Migration Association please contact Robert S. Kennedy, Southern Regional Representative HMANA, Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana 70803.