

Mystery Disease in GA & NC Coots

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A neurologic disease that killed bald eagles and American coots in southwestern Arkansas in 1994 and 1996 (*SCWDS BRIEFS* Vol. 12, No. 4) has been detected in coots at two additional locations. During autumn 1997, unusual mortality was observed in coots at lakes near Fayetteville, North Carolina, and Macon, Georgia. Coots exhibiting neurologic abnormalities also were observed at the site of the previous mortalities in Arkansas. Dead coots submitted to the National Wildlife Health Center (NWHC) had microscopic vacuoles, technically termed vacuolar myelinopathy, in the white matter of the central nervous system. One affected bald eagle picked up in early January 1998 in the vicinity of the previous Arkansas die-offs had the same lesion. These lesions are similar to those previously seen in Arkansas eagles and coots.

Field investigations were conducted in December 1997 by wildlife health specialists from NWHC and SCWDS, as well as state and federal wildlife biologists. Coots exhibiting difficulty while flying, swimming, or diving were captured by investigators, and lesions were confirmed by microscopic examination. The Georgia and North Carolina sites have little resemblance to the region in Arkansas where coot and eagle mortality has occurred, and a common thread between the Arkansas, Georgia, and North Carolina lakes has not yet been identified.

The cause of the lesions in coots and eagles and its source remain unidentified despite extensive diagnostic investigations. Only a small number of chemical compounds and genetic diseases are known to cause the ultrastructural intramyelinic edema observed in the brains and spinal cords of affected birds. However, none of these compounds has been detected in affected birds, and genetic disease is unlikely. Infectious agents including viruses, bacteria, and parasites do not appear to be involved. Investigations into the cause of this mysterious problem will continue, and recognition of additional sites with affected birds is important. To report observations of unusual mortality or neurologic abnormalities characterized by uncoordinated flight or swimming, contact NWHC at 608-270-2448 or SCWDS at 706-542-1741.