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CANNIBALISM IN AMERICAN COOTS INDUCED BY SEVERE SPRING WEATHER AND AVIAN CHOLERA¹

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The food habits of American Coots (*Fulica americana*) have been well documented (Jones 1940; Stollberg 1949; Eley and Harris 1976, Ivey 1987). These studies have shown that plant food is the primary component of American Coot diets, although invertebrates are commonly taken. However, coots may occasionally attempt to eat larger vertebrates (McCurdy 1983). Bent (1926) reported that coots have been known to pluck and partially eat dead ducks.

Cannibalism includes both the killing and eating or scavenging of conspecifics and in birds is most commonly reported among raptors, where younger, weaker nestlings are sometimes killed and eaten by siblings or parents to reduce fratricidal strife (Newton 1979). I know of no records of cannibalism in American Coots, although, Castwon (1983) reported it for the closely related Common Moorhen (*Gallinula chloropus*).

On 21 February 1984 at 14:37 I observed two American Coots eating a fresh carcass on ice adjacent to a small open water area on Malheur National Wildlife Refuge (NWR), Harney County, Oregon. Closer examination (from a distance of approximately 25 m)

revealed the carcass was a fresh coot. The sternum and ribs were completely exposed and most of the pectoral muscle tissue had been removed. The cause of death was unknown but since the carcass was beneath a powerline it was assumed that death had resulted from a collision with the overhead wires. The two feeding coots were immediately joined by four others, and the six began vigorously tearing and consuming the remaining muscle tissue and viscera. I returned to the site within 1 hr to continue observations; however, strong winds had broken the ice and the carcass had sunk. The feeding coots had dispersed.

By 22 February the number of dead coots had increased to seven and by 23 February there were 15 dead coots, all near the powerline. I observed no cannibalistic behavior on 22 February but on 23 February I observed two coots separately feeding on two mostly intact coot carcasses. Throughout February and March American Coots continued to die in the few areas of open water. I observed American Coots cannibalizing coot carcasses on five occasions during this period.

By late February it was apparent that not all dead coots could be attributed to powerline collisions because of the widening distribution of carcasses away from the powerline. On 11 March five fresh coot carcasses were collected and sent to the National Wildlife Health Laboratory in Madison, Wisconsin for necropsy. All five birds were diagnosed as dying from avian cholera (*Pasteurella multocida*). Before the epizootic subsided following ice breakup in late March, 317 dead coots were picked up and disposed of. Sixty additional

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birds, primarily waterfowl, were also picked up. Total estimated kill from the epizootic was 2,000 birds.

American Coots are commonly affected by avian cholera (Rosen 1969, Klukas and Locke 1970). Vaught et al. (1967) suggest that American Coots might be carrier birds for avian cholera. Trautman et al. (1939) and Fredrickson (1969) reported that coots are susceptible to starvation and high mortality during periods of severe weather.

In the winter of 1983–1984 the California Central Valley (the major wintering area for Pacific Flyway coots), was experiencing unseasonably warm temperatures. Above average temperatures apparently resulted in coots migrating from there in early February, which is earlier than normal. However, the winter of 1983–1984 in Harney County was one of the most severe on record. Prolonged cold, with temperatures as low as -30°C persisted locally through late February. When these early migrants arrived on Malheur NWR open water was limited. At the time of the initial observation the only open water consisted of approximately 2 ha. Water depth at the site was approximately 2 m and there was little food present. Coots had been increasing at the site for two weeks before the initial observation, and numbered approximately 500 birds by 21 February. I suspect that the prolonged severe cold weather resulted in coot mortality from starvation and disease, and the limited food forced surviving coots to resort to cannibalism.

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