

of Virginia Rail calls were elicited by conspecific calls (78%), while Soras responded best to interspecific broadcasts (71%); however, he had a small sample of Sora responses ($N = 17$). Our data indicate that where Virginia Rails and Soras are sympatric, both species may be counted successfully during the prelaying period by broadcasting recordings of the Sora's primary advertising call. During the postlaying phase of the breeding season, however, best results are achieved by alternating broadcasting calls of both species.

Night counting seems to be useful for obtaining indices to breeding rail densities. Night counts stimulated greater Virginia Rail response rates, and they responded over a greater radius than they did during morning surveys. Further investigation is needed to assess the value of night surveys in counting rails during prelaying.

Acknowledgments.—Our most sincere appreciation is extended to J. White and J. Judson whose energetic field work made this study possible. Special thanks are due the Iowa Conservation Commission, particularly W. Souer, T. Neal, and D. Harr, whose assistance was invaluable, and R. Renken, M. Ryan, and E. Klaas for their comments and advice. Funding was provided by the U.S. Fish and Wildlife Service's Accelerated Research Program for Migratory Shore and Upland Game Birds and the Iowa Agriculture and Home Economics Experiment Station, Project 2466. This is Journal Paper No. J-11548 of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa 50011.—REX R. JOHNSON AND JAMES J. DINSMORE, *Dept. Animal Ecology, Iowa State University, Ames, Iowa 50011. Received 22 Oct. 1984, accepted 2 Oct. 1985.*

Wilson Bull., 98(2), 1986, pp. 306–308

Food robbery of wintering Ring-necked Ducks by American Coots.—Several species of waterfowl (e.g., American Wigeons [*Anas americana*] and Gadwalls [*A. strepera*]) steal food from American Coots (*Fulica americana*) (Munro 1949, Knapton and Knudsen 1978, Ryan 1981), but there are few reports of coots robbing waterfowl. Bent (1926) reported that coots rob Canvasbacks (*Aythya valisineria*) and Redheads (*A. americana*). In this paper we describe observations of coots robbing Ring-necked Ducks (*A. collaris*).

Study area and methods.—The study was conducted on Par Pond, an 1120-ha cooling reservoir for nuclear production reactors at the Savannah River Plant, South Carolina. Observations were made between 17 January and 1 April 1985, at three sites (two coves and one open lake site) approximately 3.0 km from one another.

The shallow zones (<2 m) of Kenyon Bay and Loyal's Lair, the two cove sites, were dominated by white water-lily (*Nymphaea odorata*), American lotus (*Nelumbo lutea*), and water-shield (*Brasenia schreberi*). Big-floating bladderwort (*Utricularia inflata*) and lemon balm (*Bacopa caroliniana*), shallow water submergents, were also found in both coves. Abundant deep-water (>2 m) submergents included wild celery (*Vallisneria spiralis*) and Eurasian water milfoil (*Myriophyllum spicatum*). Loyal's Lair contained sparse stands of cattails (*Typha latifolia*) and slender spike rush (*Eleocharis acicularis*), whereas an extensive border stand of cattails and a shallow-water zone of dense spike rush were found in Kenyon Bay. The third site, Cold Dam, had a deep-water zone that was dominated by wild celery. Slender pondweed (*Potamogeton pusillus*) and snailseed pondweed (*P. diversifolius*) were present in the shallow-water zone. Lotus was the dominant floating macrophyte on the site, and cattail was present along the shoreline.

Ring-necked Ducks were selected randomly and observed with a 15–45× spotting scope for 5 min. Approximately equal numbers of males and females were observed. The sex of each Ring-necked Duck robbed was recorded.

Encounters were classified into three categories: (1) direct robbery occurred when a coot took food directly from a Ring-necked Duck's bill, (2) forced food-drop occurred when a coot pursued a surfacing duck and caused it to drop vegetation held in its bill, and (3) scrap-feeding was performed by coots near feeding Ring-necked Ducks that churned up vegetation. Scrap-feeding by coots was recorded as food robbery only when coots fed near Ring-necked Ducks that failed to surface with vegetation. In these instances coots were using a food source that ducks created and were also attempting to consume.

Results and discussion.—Thirty-five encounters were recorded at all three sites during 376 5-min periods (31.3 h). All interactions occurred in water less than 2 m deep, where emergent and floating vegetation were common. Eddleman (1983) observed no similar interactions between coots and Ring-necked Ducks in Oklahoma. Male Ring-necked Ducks were robbed more often ($\chi^2 = 19.3$, $P < 0.05$) than were females (18.2% [N = 170] vs 1.9% [N = 206]). We hypothesize males were robbed more often because they shared a more similar feeding niche with coots than did female ducks. Sixty percent (21/35) of the observed encounters took place at the Cold Dam site even though this site held the lowest density of Ring-necked Ducks and coots. Kenyon Bay and Loyal's Lair accounted for 14.3% (5) and 25.7% (9) of the encounters, respectively. We believe that most encounters were observed at the Cold Dam site because of the vegetation available at the site, as coots pursued only Ring-necked Ducks that possessed a narrow-leaved submergent. Although identification was not always possible, the vegetation appeared to be narrow-leaved pondweed (*Potamogeton* spp.).

Only on two occasions did male Ring-necked Ducks respond aggressively to food robbery attempts. In both incidents, the male chased the coots a short distance after surfacing with vegetation in the bill. In both instances, the food was dropped and the coot returned to it while the male Ring-necked Duck resumed feeding.

The most common form of robbery observed was the forced food-drop (62.8%). Ducks did not appear to drop food intentionally when pursued by coots; most attempted to consume the vegetation while fleeing. Direct robbery occurred less often (25.7%), and on three occasions it was observed after most food had been dropped. Scrap-feeding was observed in 42.8% (15) of the encounters, and in all but three cases, it occurred in combination with one of the other food robbery categories. Similar feeding associations have been described for American Coots feeding near Canvasbacks (Anderson 1974), and for Eurasian Coots (*F. atra*) feeding near Pacific Black Ducks (*Anas superciliosa*) and Hardheads (*Aythya australis*) (Woodall 1984).

We believe that the relatively high frequency of food robbery of Ring-necked Ducks by coots on Par Pond can be attributed to different habitat composition and resource distribution in comparison to other areas where coot and waterfowl interactions have been studied.

Acknowledgments.—Helpful comments were provided by E. G. Bolen, K. L. Bildstein, M. R. Ryan, W. R. Eddleman, M. K. Rylander, and S. Demarais. This study was funded by the Savannah River Ecology Laboratory (DOE Contract DE-AC09-76SR00819, to the Institute of Ecology, University of Georgia) and Texas Tech University (College of Agricultural Sciences Manuscript T-9-412).

LITERATURE CITED

- ANDERSON, M. G. 1974. American Coots feeding in association with Canvasbacks. *Wilson Bull.* 86:462-463.
- BENT, A. C. 1926. Life histories of North American marsh birds. *U.S. Nat. Mus. Bull.* 135.
- EDDLEMAN, W. R. 1983. A study of migratory American Coots, *Fulica americana*, in Oklahoma. Ph.D. diss., Oklahoma State Univ., Stillwater, Oklahoma.

- KNAPTON, R. W. AND B. KNUDSEN. 1978. Food piracy by American Wigeons on American Coots. *Can. Field-Nat.* 92:403–404.
- MUNRO, J. A. 1949. Studies of waterfowl in British Columbia. Baldpate. *Can. J. Res., Sect. D.* 27:289–294.
- RYAN, M. R. 1981. Evasive behavior of American Coots to kleptoparasitism by waterfowl. *Wilson Bull.* 93:274–275.
- WOODALL, P. F. 1984. Kleptoparasitism in Hardheads and Pacific Black Ducks, including size related differences. *Emu* 84:65–70.

JAMES F. BERGAN AND LOREN M. SMITH, *Dept. Range and Wildlife Management, Texas Tech Univ., Lubbock, Texas 79409. Received 26 June 1985, accepted 24 Sept. 1985.*

Wilson Bull., 98(2), 1986, p. 308

Polygyny in the Evening Grosbeak.—Evening Grosbeaks (*Coccothraustes vespertinus*) are assumed to be exclusively monogamous (e.g., Verner and Willson, *Ecology* 47:143–147, 1966; Lack, *Ecological Adaptations for Breeding Birds*, Methuen, London, England, 1968; Terres, *The Audubon Society Encyclopedia of North American Birds*, Knopf, New York, New York, 1980). Here we present data suggesting that they are at times polygynous. During the summer of 1984 we observed a banded male Evening Grosbeak in two different nesting areas (A and B; about 1.6 km apart) simultaneously associating with two females. Both nests produced young. Observations were made in the Wild Basin area of Allenspark, Colorado (elevation 2591 m), about 80 km northwest of Boulder, Colorado.

Of the two nests, B lagged behind A by about eight days. While female A was incubating, female B was engaged in courtship and nestbuilding. The male sporadically fed female A while she was incubating, but during this period he spent most of his time with female B, courting, guarding her from other males, and participating in nestbuilding. Once young birds were present at nest A, the male spent most of his time feeding them. During this time the male was observed at nest B feeding the incubating female only once, and was not seen there again until the nestlings at B were about 12 days old.

The forest in which these birds lived had a major outbreak of spruce budworm (*Choristoneura fumiferana*) and a minor outbreak of aspen leaf rollers (*C. conflictana*) during summer 1984. Although Evening Grosbeaks are generally assumed to be exclusively monogamous, polygyny may be facilitated when unusually plentiful food and restricted nesting areas influence the “polygyny threshold” (Verner and Willson, 1966; Orians, *Am. Nat.* 103: 589–603, 1969). In our study area, suitable nesting sites were not restricted. Because polygyny appears to occur very rarely in Evening Grosbeaks regardless of environmental conditions, our observation may be a case of “incidental” polygyny.

Acknowledgments.—We thank the Whitehall Foundation, the National Geographic Society, the American Philosophical Society, and the University of Colorado at Boulder for supporting this ongoing research project. Dr. J. A. Jackson provided helpful comments on an earlier draft of this paper, and numerous students, including B. Roberts, D. Manry, and A. Caul, helped in data collection and analysis.—BARBARA A. FEE AND MARC BEKOFF, *Dept. Environ., Pop. and Organismic Biol., Univ. Colorado, Boulder, Colorado 80309. (Send reprint requests to MB.) Received 23 July 1985, accepted 13 Sept. 1985.*