

Andrew (1961) reported this behavior as definitely absent in 3 species of *Emberiza*, *Melospiza melodia* and *Z. leucophrys*. Blanchard (Univ. Calif. Publ. Zool. 46:1-177) studied White-crowned Sparrows in great detail and did not report courtship feeding. The behavior described herein must be rare in this species. Miller and Miller (Caldasia 47:105, 1968) noted that males of the congeneric Rufous-collared Sparrow (*Z. capensis*) do not bring food to the female at the nest or elsewhere.

Courtship feeding may be more widespread among emberizines than previously thought. If confined to the nest-site, this behavior may be easily overlooked. The behavior may be rare in species from temperate regions but common in tropical forms; investigators should look for it.—EILEEN ZERBA AND LUIS F. BAPTISTA, *Moore Lab. Zoology, Occidental Coll., Los Angeles, California 90041. Accepted 15 Mar. 1979.*

Wilson Bull., 92(2), 1980, pp. 246-248

Cleptoparasitism by Ring-billed Gulls of wintering waterfowl.—Cleptoparasitism, or interspecific robbing of food, has been reported in several gull species, and was recently reviewed by Payne and Howe (*Wilson Bull.* 88:349-351, 1976). They reported Ring-billed (*Larus delawarensis*) and Bonaparte's gulls (*L. philadelphia*) stealing earthworms from Dunlin (*Calidris alpina*) and Black-bellied plovers (*Pluvialis squatarola*). Bent (U.S. Natl. Mus. Bull. 113, 1921) reported Ring-billed Gulls apparently trying to steal food from Red-breasted Mergansers (*Mergus serrator*). Kallander (*Bird Study* 24:186-194, 1977) reported piracy by Black-headed Gulls (*L. ridibundus*) on Lapwings (*Vanellus vanellus*), and Fuchs (*Ibis* 119:183-190, 1977) studied cleptoparasitism by Black-headed Gulls of Sandwich Terns (*Sterna sandvicensis*). The purpose of this note is to report observations of cleptoparasitism by Ring-billed Gulls of wintering waterfowl in the Texas Panhandle.

Interactions between Ring-billed Gulls and wintering waterfowl were observed at Buffalo Springs Lake (91 ha), 6.5 km east of Lubbock, Lubbock Co., Texas. Twenty-four hours of observation were conducted between 09:00 and 13:00 CST from 28 January to 4 March 1978. Observations were made by driving the lake perimeter and watching gulls and waterfowl with 8 × 50 binoculars.

Species and numbers of ducks on the lake varied considerably from day to day, with low numbers on days of high human activity (i.e., boating and fishing on the warmer, sunny days); 92% of the observations of cleptoparasitism were made on stormy, overcast days.

Pied-billed Grebes (*Podilymbus podiceps*), Western Grebes (*Aechmophorus occidentalis*), American Coot (*Fulvia americana*), Ring-billed Gulls and some ducks fed on small fish that were apparently abundant and easily caught. Seven species of anatiline ducks were present, with Pintail (*Anas acuta*), Mallard (*A. platyrhynchos*) and Green-winged Teal (*A. crecca*) in greatest abundance. Aythyine ducks included Redhead (*Aythya americana*), Canvasback (*A. vassalineria*), Lesser Scaup (*A. affinis*), Common Goldeneye (*Bucephala clangula*) and Bufflehead (*B. albeola*).

Fish stealing behavior of Ring-billed Gulls was of 2 types: the "air drop" and the "surface drop." The "air drop" started when a gull, flying over ducks, suddenly plummeted downward with partially folded wings toward a duck. At the last moment the gull extended its wings and settled on the water as the duck dived. The "surface drop" was observed approximately 90% of the time and began when a gull, sitting on the water near a duck, flew along the surface toward the duck. The gull then swooped downward as if to land on the duck's back. Gulls never actually contacted a duck as the duck always dived at the last moment. This is

TABLE I
VICTIMS OF RING-BILLED GULL FISH STEALING

Species	Gull "drops"			Successful steals		
	male	sex?	female	male	sex?	female
Common Goldeneye	14		20	2		0
Common Merganser	1		12	0		0
Bufflehead	10		0	2		0
Lesser Scaup	6		4	1		1
Canvasback	0		4	0		1
Mallard	1		0	0		0
American Coot		3			3	
Total	32	3	40	5	3	2

similar to the food stealing behavior described by Bent (1921) for Ring-billed Gulls, and Sage (Br. Birds 48:117, 1955) for Black-headed Gulls. The steal was successful if the gull immediately picked up a small fish from where the duck had been sitting on the water.

Often 3-5 gulls sat near a diving duck and appeared to watch the duck closely. Gulls never sat among the anatinine ducks unless an aythyinine duck was present. When a gull flew toward a solitary duck, the duck waited until the gull was about to touch it before diving. This occurred even though it seemed apparent that the gull was flying toward the lone duck.

Of the recorded drops (Table 1), 55 of 75 occurred in a series of 2 or more. The gull dropped toward a duck, sat looking around until the duck surfaced, and then flew over and dropped toward it again; 6 consecutive drops by a gull on a female Common Goldeneye was the longest recorded series.

All but 4 incidents of cleptoparasitic behavior were upon diving ducks. The other victims were American Coots and a Mallard. The 3 American Coots victimized were feeding close to the shoreline when a gull flew over and landed nearby. One of the coots immediately dropped its fish, which was then eaten by the gull. On the other 2 occasions, coots flew with a gull in pursuit, dropping their fish while in flight as the gull approached. The gull landed and retrieved the fish. Gulls were not observed sitting near the coots for extended periods of time.

A male Mallard was observed picking up and dropping a small fish in the water. A gull flying 50 m from the Mallard flew toward the duck and performed an "air drop." The Mallard took flight with the fish in its bill as another gull joined in pursuit. An aggressive interaction took place between the 2 gulls and continued for 6 sec as the Mallard landed approximately 100 m away, still in possession of the fish.

The observed success rate of fish stealing by the gulls was 13.3% (Table 1). However, determination of success was difficult due to the speed with which gulls ate a stolen fish, and the generally intense activity at the site of the attack. Sixty percent of the thefts occurred in successive drops with gull aggression terminating upon the release of the fish by the victim.

Ring-billed Gulls commonly secured fish by skimming the water, or by landing to make the catch. At other times the same gulls "air dropped" or sat near ducks and engaged in fish stealing. Feeding gulls also fought among themselves for fish. One gull was observed to

chase another for 30 sec in an attempt to steal a fish. No successful intraspecific fish stealing was observed, however.

Although 10 of the approximately 40 Ring-billed Gulls present during the observation period were in immature plumage, only 1 immature appeared to be "air dropping" onto ducks. As this immature gull flew 0.5 m above 1 male and 2 female Common Mergansers (*M. merganser*), the ducks dived, although the gull did not land.—JIM W. GRACE, *Dept. Range and Wildlife Management, Texas Tech Univ., Lubbock 79409. Accepted 20 Feb. 1979.*

Wilson Bull., 92(2), 1980, p. 248

Commensal foraging of Scissor-tailed Flycatchers with Rio Grande Turkeys.—

During a 15-month study of Rio Grande Turkeys (*Meleagris gallopavo intermedia*) in southern Texas, Scissor-tailed Flycatchers (*Muscivora forficata*) were observed foraging in association with Turkeys on 4 separate occasions in April 1977 and in August in 1976 and 1977. All observations were made on the Welder Wildlife Foundation or Rooke Ranch in San Patricio and Refugio counties near Corpus Christi, Texas. Turkeys were common residents; scissor-tails were common spring and fall migrants and uncommon summer nesters.

Male and female scissor-tails foraged with flocks of 2, 8, 14 and 16 male and female Turkeys. Typically, scissor-tails foraged from low, exposed vegetation adjacent to feeding and/or walking Turkeys, whose movements repeatedly flushed grasshoppers and other insects. Foraging associations lasted 3–8 min and consisted of 1 or more passes over the moving Turkeys; no scissor-tail forays occurred over stationary Turkeys. The following is an example of 1 incident.

On 13 August 1977, at 18:55 CDT 8 adult male Turkeys, in single-file, actively fed in recently bulldozed mesquite-bristlegrass (*Prosopis glandulosa* and *Setaria* spp.). An adult male scissor-tail landed 1 m above the ground on a brush pile that was 2 m from the feeding Turkeys. After 15 sec, it flew over the Turkeys, caught a grasshopper that was flushed by the Turkeys, and returned to its perch. It then flew ahead of the Turkeys and perched at 2 m in a mesquite tree that was 5 m from the feeding Turkeys. As the middle of the Turkey flock passed the tree, the scissor-tail flew over the Turkeys and caught an unknown insect in the air. The scissor-tail then flew 20 m ahead of the Turkeys, landed briefly, flew back to the end of the line, and made 3 quick passes less than 0.5 m over the Turkeys' heads. On the third pass it caught a grasshopper. The Turkeys and scissor-tail were then frightened away by the observer's activities.

Feeding associations are reported among ducks, wading birds and other waterbirds (Siegfried, *Ibis* 113:236–238, 1971; Anderson, *Wilson Bull.* 86:462–463, 1974; Kushlan, *Auk* 95:677–681, 1978). In addition, North (*Ibis* 86:171, 1944) described a behavior similar to the scissor-tail/Turkey association in which he observed Carmine Bee-eaters (*Merops nubicus*) foraging from the backs of bustards (*Choriotis* spp.) as they walked through the grass flushing insects. W. C. Glazener and C. R. Watts (pers. comm.) have also observed foraging associations between scissor-tails and Turkeys on the Welder Refuge. However, my observations represent a commensal foraging association not previously described in the literature.

Financial support was provided by the Rob and Bessie Welder Wildlife Foundation. I am grateful to S. L. Beason and L. D. Foreman for their editorial comments and to F. Rooke, Jr. and the Welder Refuge for providing study areas. Special thanks to W. C. Glazener for discussion of Turkey and scissor-tail behavior.—BRUCE W. BAKER, *Dept. Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, Texas 77843. (Present address: Bur. Land Management, P.O. Box 1869, Rock Springs, Wyoming 82901.) Accepted 10 Mar. 1979.*