

Conflict between a Mallard hen with brood and a male Red-winged Blackbird.—On 2 June 1971, from 18:45 until 19:00 (EST) while conducting routine behavioral studies of Mallard (*Anas platyrhynchos*) and Blue-winged Teal (*A. discors*) on a state-owned flooding in Roscommon County, 6 miles southeast of Houghton Lake Heights, Michigan, I watched a brooding Mallard hen defend her seven 4-day-old ducklings against the agonistic behavior of a male Red-winged Blackbird (*Agelaius phoeniceus*). The following observation was made with the aid of a 20 × spotting scope from a 15-m high tower at a distance of 50 m.

The Mallard hen and brood were proceeding in a zigzag manner through a flooded meadow of sedge (*Carex* spp.) containing irregularly spaced clumps of blue joint grass (*Calamagrostis canadensis*) toward an isolated island of willows (*Salix* sp.) When the hen and brood approached the sedge-willow ecotone an adult male Red-winged Blackbird flew from his perch on the nearest willow toward the approaching family. As the Red-winged swooped low over the brood, the hen uttered a raucous quack and rushed with flapping wings from the rear to lead the brood. When the hovering Red-wing dove again, the hen flew vertically from the water to a height of approximately 0.3 m and struck the antagonist with her breast, knocking the blackbird to the water. As the blackbird rose at an oblique angle from the water, the hen gave immediate chase for a distance of 6 m, flapping her wings, quacking, and running on the surface. The Red-wing retreated directly to the willows; the hen then abandoned her chase and returned to the brood, now concealed in the flooded meadow. The hen's clamorous quacking was heard for an additional 2 minutes after she disappeared from my view.

At the same location 5 hours earlier I saw a Red-winged Blackbird repeatedly strike the back of a Great Blue Heron (*Ardea herodias*) as it moved through the area foraging. After about 2 minutes of this harassment the heron took flight and landed in another patch of sedge and open water about 300 m away.

According to Nice (1949, Bird-Banding 20: 192) the defense of precocial young by a parent is greatest shortly after hatching. Sows (Prairie ducks, Harrisburg, Pennsylvania, The Stackpole Co., and the Wildl. Mgmt. Inst., 1955, p. 149) reported that a Mallard hen successfully defended her newly hatched brood against a mink (*Mustela vison*) by flapping her wings in the face of the predator. Although the documentation of physical defense and feigning on water by Mallard hens against predators appears to be common (Hochbaum, The Canvasback on a prairie marsh, Harrisburg, Pennsylvania, The Stackpole Co., and Wildl. Mgmt. Inst., 1959, pp. 105–108), published accounts of a hen defending her brood against other marsh inhabitants appear to be uncommon.

Leslie W. Gysel and Harold H. Prince critically read the manuscript and their helpful criticisms are appreciated. This research is financed by the Michigan Department of Natural Resources, Game Research, Waterfowl/Wetlands Unit.—E. PAUL PELOQUIN, Fisheries and Wildlife Department, Michigan State University, East Lansing, Michigan 48823. Accepted 1 Apr. 72.

Jaçana breeding in Brazoria County, Texas.—The Northern or Middle American Jaçana (*Jacana spinosa*) is widely distributed through tropical Mexico to western Panama and the Greater Antilles; the A.O.U. check-list (Check-list of North American birds, fifth ed., Baltimore, Amer. Ornithol. Union, 1957) considers it "casual" in Texas. Most of the Texas records are from Cameron and Hidalgo Counties, but individuals, mainly immatures, have occurred in Mitchell, Bexar, Victoria, Matagordo, and Brazoria Counties. According to Peterson's "A

field guide to the birds of Texas" (Boston, Houghton Mifflin Co., 1960), the Jaçana has nested in the Rio Grande delta near Brownsville. There is also a sight report by Gene W. Blacklock (Audubon Field Notes, 22: 626, 1968) of an adult and one chick near Kingsville, Texas in 1968.

On 22 June 1971 H. M. Garner and I investigated a herony at Eaglenest and Manor Lakes, approximately 17 miles northwest of Angleton, Brazoria County, in the southeastern part of Texas, a subregion of the coastal plain. John J. Jones, custodian of the lakes, which are leased and managed as a hunting and fishing preserve, told us he had seen two adult Jaçanas on 20 June on the upper part of Manor Lake. We went to the locality by boat, but failed to see the birds. Both Mr. and Mrs. Jones maintained they had seen Jaçanas since the fall of 1968 and that they are present throughout the year. I asked them to watch the Jaçanas and keep records.

In August Jones reported to Garner that he had seen a pair of adults with three young only a few days old, and Jones continued to see adult and young birds almost daily in September and October 1971. On 7 November Garner saw three immature and three adult birds on an arm of Manor Lake near the Jones residence, where the Joneses had previously observed three adults and four immatures.

Manor Lake, comprising approximately 1,200 acres, is nearly $\frac{3}{4}$ of a mile wide and over 1 mile long, generally rectangular in shape. Water is not over 5 feet deep, except where alligators have their holes. About one-third of the lake is open water and the remaining two-thirds is covered with clumps of California bulrush, American lotus, and maidencane. Draws and a slough entering the lake are choked by water hyacinths. The water level is kept fairly constant by pumping, so the habitat is ideal for this tropical bird.

On 1 December 1971 Garner and I made another trip to Manor Lake, arriving at 07:50. We immediately found three adults and three immatures feeding on the mass of water hyacinths. The lake apparently supports a small breeding colony. General the Jaçanas can be seen through the window of the Jones' residence. Several other observers have seen and photographed the birds.

An immature bird, possibly from this colony, wandered to the Brazoria National Wildlife Refuge during the last week of December 1969 and spent 4 months on a short stretch of Big Slough. The Brazoria Refuge occurrence represents the most northeastern record for Texas.

I am grateful to Mr. and Mrs. John J. Jones and H. M. Garner for their cooperation and data.—RAYMOND J. FLEETWOOD, *Bureau of Sport Fisheries and Wildlife, Angleton, Texas 77515*. Accepted 17 Mar. 72.

Egg size and shell thickness in the Franklin's Gull.—Decreases in eggshell thickness have been reported in wild populations of many raptorial and fish-eating birds, and these decreases have been shown to be related to an increase in chlorinated hydrocarbons in ecosystems (cf. Hickey and Anderson, 1968; Anderson et al., 1969, Porter and Wiemeyer, 1969). I have used the thickness index developed by Ratcliffe (1967) to estimate eggshell thickness for Franklin's Gull, *Larus pipixcan*. Thickness index, in order to relate best to thickness, must always assume a constant eggshell density between groups being compared. This may not be true in all cases of chemical effect (see McFarland et al., 1971).

Shell thickness indices for 60 eggs (20 clutches) T. S. Roberts collected at Heron Lake, Jackson County, Minnesota, in 1893, were compared with 20 clutches I collected in 1969 at Agassiz National Wildlife Refuge, Marshall County, in north-