

GENERAL NOTES

Hérons leaving the water to defecate.—Watching herons fish in Gwynns Falls, a shallow stream about 25 yards wide, at Woodlawn, Baltimore County, Maryland, I have noticed that when they need to defecate both the Common Egret (*Casmerodius albus*) and the Snowy Egret (*Leucophoyx thula*) leave the water to do so, going onto rocks or mud bars in the stream or onto the bank. Then they reenter the water and resume their fishing.

I have 12 records of Common Egrets leaving the water to defecate, and 9 of the birds then at once reentered the stream and resumed fishing; another returned merely to the brink and fished on from there; 2 stayed ashore. I have 10 records for the Snowy Egret (3 for one bird during a single period of watching); on 9 of the occasions an immediate return into the water was made. In contrast, I have never seen a bird of either species defecate in the stream, although on an 11th occasion a Snowy Egret which went from the water onto a mud bar defecated at its edge, some of the excrement going into the stream. The dates have been 25 July to 16 September 1954 to 1964.

Possibly the Great Blue Heron (*Ardea herodias*) also has this habit. On 5 November a Great Blue that was fishing in or at the edge of an arm of the Falls just a few yards wide—tall weeds blocked my view—went high up on the opposite bank, defecated, then stayed there. The only record of this behavior that I have found for any heron is one by Utley (1942. *Naturalist*, No. 801:104) for the Common Heron (*Ardea cinerea*) of England, the counterpart of our Great Blue.—HERVEY BRACKBILL, 2620 Poplar Drive, Baltimore, Maryland, 20 September 1965.

Distributional notes on Costa Rican birds.—While associated with the Louisiana State University School of Medicine and its International Center for Medical Research and Training in Costa Rica from September 1964 through August 1965, I obtained significant distributional data on several species of birds. All specimens are on deposit in the Louisiana State University Museum of Zoology.

Ixobrychus exilis. Least Bittern.—Two individuals were repeatedly flushed from a shallow, grassy marsh on the experimental finca of the Ministry of Agriculture and Cattle Industry on Hacienda Taboga, 12 km S of Cañas, province of Guanacaste, on 6 August. There are few records for this species in Costa Rica according to Slud (1964. *Bull. Amer. Mus. Nat. Hist.*, 128:43).

Milvago chimachima. Yellow-headed Caracara.—On 12 June I shot a female (ovaries not enlarged) as it perched in a tree alongside the road 3.2 km E of Golfito, province of Puntarenas. This record is the first for the species north of Panamá.

Amaurolimnas concolor. Uniform Crane.—A female (15-mm ovum in oviduct) was obtained on 13 July in a palm swamp approximately 1.2 km N of Los Chiles de Grecia, province of Alajuela. Slud (op. cit.:82) says that this rail has been taken at only six Costa Rican localities.

Panyptila cayennensis. Lesser Swallow-tailed Swift.—This species is listed by Slud (op. cit.:142) on the basis of sight reports but no specimens. On 1 May I collected two specimens from a flock of swifts (*Chaetura spinicauda* and *C. vauxi*) on the Río Damitas, 14.5 km N of Quepos, province of San José. There were four other individuals of *P. cayennensis* in the flock. The two individuals obtained are a female (ovary enlarged) and a male (testes: left, 9 × 7 mm; right, 7 × 5 mm).

Thryothorus maculipectus. Spot-breasted Wren.—A male (testes: left, 8 × 4 mm; right, 6 × 4 mm) collected on 11 July approximately 1.2 km N of Los Chiles de Grecia,

province of Alajuela, represents the first record for Costa Rica. The specimen is assigned to *T. m. umbrinus*.

Agelaius phoeniceus. Red-winged Blackbird.—This blackbird has been known from two restricted regions in the republic. The birds of the Río Frio region, the more northern of the two areas, were tentatively assigned by Slud (op. cit.:343) to *A. p. brevisrostris* recently described by Monroe (1963. *Occas. Papers Mus. Zool., Louisiana State Univ.*, No. 26:6-7), while the population around the head of the Gulf of Nicoya is *A. p. costaricensis*. On 25 March Gordon Orians, Paul Cook, and I observed Red-winged Blackbirds in a large marsh known as Laguna de Arenal located approximately 25 km NE of the area known to be populated by *A. p. costaricensis*. I returned to this marsh on 3 August, secured a male (testes, 13 × 8 mm), and located a nest with two eggs near the collection site. This specimen belongs to the race *costaricensis*. On 8 July I shot a pair in wet meadow along the Río Frio; the female specimen was subsequently destroyed. The male (testes: left, 11 × 7 mm; right, 6 × 5 mm) fits the description of *brevisrostris*.

The field work was supported in part by Public Health Service Research Grant TW00148 from the Office of International Research of the National Institutes of Health.—KEITH A. ARNOLD, *Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana* (Present address: *Department of Wildlife Sciences, Texas A&M University, College Station, Texas*), 7 October 1965.

Mallard predation by a Goshawk.—In late afternoon, 15 January 1964, I flushed several Mallards (*Anas platyrhynchos*) from a tree-bordered drainage ditch on the Duck Creek Wildlife Management Area in southeastern Missouri. As they flew down the ditch ahead of me one female veered to pass through the trees and out over an adjacent, ice-covered reservoir. At the edge of the reservoir an adult Goshawk (*Accipiter gentilis*) struck it from behind and brought her down on the ice. For a moment the hawk paused, standing on the duck, then flew up and carried it off. The Mallard, though still alive, made no effort to escape.

The Goshawk flew about 50 yards and landed on the ditch bank. When I moved closer to observe, it flew off and left the duck to which it returned in about 12 minutes. The Mallard was now dead and the hawk quickly plucked some feathers and began feeding. It fed steadily for one-half hour, pausing only to change position or to pluck more feathers. Then it flew off in the gathering darkness.

I examined the remains and found the breast meat on the left side entirely eaten and the underlying sternum clean of flesh. About one-fourth of the right breast and part of the left wing and leg was also eaten. The body cavity was open and one lung plus the left lobe of the liver had been eaten. No other internal organs were touched. Most of the left ribs were gone and pieces of bone were bitten from the sternum. These were probably swallowed with the meat.

The partly eaten Mallard weighed 1.6 pounds. Weights of female Mallards range from 2 to 3 pounds according to Kortright (1942. "The Ducks, Geese and Swans of North America," p. 383). This female was in good flesh but not fat. I believe it was at the lower end of the weight range for females and probably weighed a little over 2 pounds. I estimate that the Goshawk ate about one-half pound of flesh while feeding for one-half hour. In a similar observation, Ammann (1959. *J. Wildl. Mgmt.*, 23:110-111) reported 7 ounces eaten in one-half hour by a Goshawk feeding on a Sharp-tailed Grouse (*Pedioecetes phasianellus*).

Fevold and Craighead (1958. *Auk*, 75:312-317) reported that a captive Goshawk maintained its weight in fall and winter on a daily ration of 124 grams (4.4 ounces) of