

GENERAL NOTES

A case of Turkey Vulture piracy on Great Blue Herons.—One of the parent Turkey Vultures (*Cathartes aura*) in a nest that I studied near Huntington, Ohio had an unusual method of obtaining food for its two, two-week-old young. In the swampy, Elm-Maple woods where the vultures nested, there was also a small heronry containing about 20 nests of the Great Blue Heron (*Ardea herodias*). On 9 June 1964, the adult vulture twice flew into the heronry for a short time and then returned to its own nest where it fed its young. On 10 June I watched this activity from a vantage point with a view of the heronry, and the reason for the vulture's visits became clear. After landing on a heron's nest which contained two, three-week-old young, the vulture beat the young herons with its wings and jabbed at them with its beak. This caused the young herons to regurgitate their last meal. The vulture then stopped beating them, ate the mass of semi-digested food, and returned to its own nest to feed its young. This behavior was repeated once more during the day but at a different heron nest. This was not the only method used to obtain food for the young since the adult also made longer foraging trips and returned with food which was obviously carrion. The adult herons were never at their nests while the vulture was present.

Mehner (Wilson Bull., 64:242, 1952) has speculated about the possible effect Turkey Vultures might have in causing the abandonment of heron nests. In the heronry under observation, the landowner noticed a steady decline in the number of herons nesting during the previous two years. Perhaps repeated attacks by the vulture caused the death of many young herons by starvation or injury. Turkey Vultures are also known to kill and eat young herons on the nest (Pearson, Bird Lore, 21:321, 1919). It is possible that the vulture could seriously affect the heron's nesting success by such activities and thereby cause the abandonment of nests.

The vulture could have acquired its piratic behavior from experiences it had while attempting to kill a young heron on the nest. If the heron was too large for the vulture to kill easily and regurgitated during the struggle, the vulture may have been satisfied to take the regurgitated food. After several incidents like this, the vulture may have learned that it could get an easy meal by merely beating the young herons.—STANLEY A. TEMPLE, *Laboratory of Ornithology, Cornell University, Ithaca, New York 14850*, 22 December 1967.

Unusual cases of re-nesting Mallards.—The importance of re-nesting in waterfowl as compensation for losses caused by nest destruction has been much discussed. One question dealt with is in what way the stage of incubation at the time of destruction affects the interval to the new attempt. Hochbaum (The Canvasback on a prairie marsh. Amer. Wildl. Inst., 1944) doubted that re-nesting would be possible if the destruction occurred after the incubation had started. Sowls (A preliminary report on re-nesting in waterfowl. Trans. N. Amer. Wildl. Conf., 14, 1949) investigated this by removal of eggs at various stages of egg laying and incubation and found that the re-nesting interval (the time from the destruction of the first nest to the laying of the first egg in the second), as observed in 6 species of Anatinae, mainly Pintail (*Anas acuta*), Gadwall (*A. strepera*), and Blue-winged Teal (*A. discors*), was directly proportional to the time spent on the first nest. Every female waited at least 4 days and for each additional day of incubation on the first nest before destruction, an average of 0.57 day was added to the re-nesting interval. Later these figures were modified to 3 and 0.62 day respectively (Sowls, Prairie ducks. Harrisburg, Pa., 1955). Based upon observations