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## “PRACTICE” FORAGING BY A SUB-ADULT GREAT BLUE HERON

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“Play”, including “practice” aggression and foraging, has been reported in at least 14 orders of birds (Fagen 1981), and is thus a widespread, if relatively rare, behavior among birds. I report here on observations of practice foraging behavior (considered a category of play) by a sub-adult Great Blue Heron (*Ardea herodias*) at the National Audubon Society’s Corkscrew Swamp Sanctuary, in Collier County, Florida on 5 March 2000.

The heron was an immature-plumaged bird. It had a diffuse gray crown with a small patch of white on the back of the crown, and only a hint of the black superciliary stripes that characterize an adult bird (Butler 1992, 1997). It was in a shallow, mostly open pool, but with floating clumps of water lettuce (*Pistia stratioides*), and patches of a smaller floating plant (*Salvinia* sp.). Emergent clumps and decaying stems of alligator flag (*Thalia geniculata*) and other plant debris cluttered the water.

I noticed the heron walking slowly about 30 m from me, in about 0.3 m of water, making repeated strikes with its bill at objects in the water. When I watched through 10× binoculars I found that the bird was not attacking fish, as I had assumed, but rather was striking fragments of floating and submerged plant debris. From 09:28 to 09:40 I counted 70 strikes in which the heron successfully “captured” a piece of plant debris and about 20 stabs, often in rapid succession, in which no object was retrieved from the water. In three additional cases, I cannot rule out the possibility that the heron caught a small fish, since the captured object appeared to move. However, I believe that in these cases movements by the captured item were the result of the heron shaking its head. All attacks were typical bill-stabs, usually resulting in the heron grasping a piece of subsurface vegetation, but on several occasions large plant fragments were speared. The plant fragments ranged in size from <2.5 cm to 45-50-cm soggy stems of alligator flag. The heron typically mandibulated the plant fragments in a manner identical to mandibulation of captured fish prior to ingestion. It sometimes shook a fragment or tossed a stabbed fragment and re-caught it. In one case, the heron “captured” an eight-inch stick, mandibulated it cross-wise in its bill, and then repositioned it parallel to its bill, with its head slightly raised, simulating ingestion. It then dropped the stick and pursued other plant debris. The extensive mandibulation of the items suggests that the heron was not incidentally spearing the vegetation in efforts to flush prey. Observations ended when the bird flew from my view.

Many young birds have been observed performing behaviors variously described as “play” or “practice” that mimic adult behaviors. “Play” in juvenile birds may be a way of developing and practicing skills eventually needed for survival (Kilham 1974). Kilham gave examples of play agonistic behavior, play food storing, and play courtship in captive juvenile woodpeckers. Juvenile herons do not forage as efficiently as adults (e.g., Recher and Recher 1969), and the high mortality rate among immature birds may be in part due to starvation or starvation-induced disease (Bayer 1978, Recher and Recher 1980). The common phenomenon of predatory birds playing with objects suggests that play (or practice) may be important in young birds acquiring skills in prey capture and manipulation (Ficken 1977). Hence, practice foraging might be an expected behavior in immature herons. However, reports of play or practice by herons are few: nestling and fledgling Great Blue Herons stab at inanimate objects (Butler 1992), but adult play is unreported; the same has been reported for Cattle Egrets (*Bubulcus ibis*; Telfair 1994). Fledgling Tricolored herons (*Egretta tricolor*) display mock aggression to one another

before independence (Frederick 1997). The paucity of practice foraging or other forms of play in herons is puzzling since it occurs with higher frequency in other predatory birds (Ficken 1977, Fagen 1981).

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