

BLACK-CROWNED NIGHT HERON DIVING FOR PREY

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The food ecology of the Black-crowned Night Heron (*Nycticorax nycticorax*), summarized by Bent (1926), and Collins (1970), is characterized by a highly diversified diet ranging from insects, crustaceans, and mollusks to fish, amphibians, mammals, and birds. Diet varies in different areas, between nearby colonies, and annually and seasonally in the same location (Collins, 1970; Wolford and Boag, 1971).

Despite having a food ecology characterized by opportunism in the utilization of a wide range of potential food resources, the known feeding behavior of the Black-crowned Night Heron is limited. Five feeding methods have been previously described for the species: Stand and Wait, and Walk Slowly being the most common; Bill-vibrating, standing in shallow water while rapidly vibrating the bill at the surface, (Stone, 1937; Drinkwater, 1958); Hovering, flying in place above the surface and catching prey without settling into the water (Meyerriecks, 1960); and Swimming-feeding, alighting on the water and catching prey while afloat (Wetmore, 1920).

On 2 March 1969 at a pond in the Big Cypress Swamp, I observed the Black-crowned Night Heron utilize another aerial feeding method, diving from flight, a behavior which I call Plunging. At dawn (06:00), 8 night herons were feeding in the pond; within the next 15 minutes 30 more joined the initial group. They fed along the periphery of the pond using Stand and Wait behavior while perched on matted-down stems of emergent grass. Around 07:00 several birds began feeding aerially. These flew out to the center of the pond, which was free of emergent plants, and dove into the water head-first with wings held slightly away from the body. The birds submerged up to their chest and then surfaced and remained there floating or swimming. Fish caught by this method were either swallowed at the surface or carried back to a perch. Herons also alighted on the water and fished while swimming. Swimming-fishing and Plunging are distinct behaviors. While there are a number of reports of Black-crowned Night Herons Swimming-feeding, Plunging has, to my knowledge, not been described previously.

It is to be expected that relatively short-legged herons of predominantly crepuscular and nocturnal feeding habits would depend primarily upon inactive feeding methods such as Stand and Wait, and Walk Slowly. Certainly, in night herons active feeding behavior is relatively rare. However, in some circumstances much feeding takes place diurnally, particularly in the hours immediately after sunrise, at which time the use of more active techniques becomes more feasible. A possible factor limiting the use of such behavior is suggested by my observations made during a period when the water level was falling, thereby concentrating fish in the pond. On 2 March Black-crowned Night Herons successfully defended

feeding territories of up to 3 m in diameter from encroachment by Louisiana Herons (*Hydranassa tricolor*) and Little Blue Herons (*Florida caerulea*), but were not able to repel Great Egrets (*Casmerodius albus*). As the water level continued to drop, the numbers of day herons utilizing the pond increased until 20 days later 150 Great Egrets were feeding there. By this time, although the food supply was greater than previously, Black-crowned Night Herons fed in the pond only prior to dawn and left as the day herons arrived. It is possible that the increased number of day herons prevented the night herons from utilizing this concentrated food resource during the day. A result of such competition is that it would also lessen the opportunity for Black-crowned Night Herons to employ the more active feeding behaviors often advantageous in diurnal feeding.

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FOOD HABITS OF FLORIDA BURROWING OWLS

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Food habits of Florida Burrowing Owls (*Speotyto cunicularia floridana* Ridgway) have been described only in general terms (Howell, Florida Bird Life, New York, Coward-McCann, Inc. 1932). These birds live in prairie or prairie-like habitat that has been diminishing as a result of encroachment by industry, cities, and agriculture. An understanding of the food habits and related habitat needs of Burrowing Owls is necessary to ensure their preservation.