

**Whirling and territorial behaviors of feeding Little Blue Herons.**—On 18 February 1980 at 1214, I observed a Forster's Tern (*Sterna forsteri*) fishing about 90m from shore in a cul-de-sac on the east side of Old Tampa Bay, Hillsborough County, Florida. The tide was on the ebb and the tern made repeated successful dives into water approximately 15-20 cm deep. As the tern plunged for one dive, an adult Little Blue Heron (*Egretta caerulea*), which had been quietly stalking prey along the near shore, flew to the shallows and landed approximately 1.5 m from the tern. When the tern surfaced the heron opened its wings, ran two steps, and stabbed at the tern with its bill. The tern avoided the heron, flew into position for another dive, dove, and captured a prey item. With both wings flapping, the heron ran about 1 m toward the tern, stabbed directly at it, and struck the water as the tern avoided the attack. The tern flew about 30 m to an exposed sand bar while the heron remained in the shallow water. The heron slowly but unsuccessfully stalked in the shallows for about 6 min. before flying to the far shore where it resumed feeding.

After spending 3 or 4 min. walking slowly in water 10-15 cm deep, the heron opened both wings and began running back and forth, crisscrossing its path three times. It suddenly stopped and folded its wings, the open wing feeding described by Meyerriecks (1962). Within 2 min. this bird raised its left wing, whirled in a tight circle to the left, stopped with its wing upraised and peered into the water under its wing for about 5 sec. This behavior was similar to pirouetting as described by Meyerriecks (1962) for the Tricolored Heron (*Egretta tricolor*) but was performed at a faster tempo. The terminal portion of this activity resembled underwing feeding as described by Meyerriecks (1962) and Kushlan (1978a). The heron repeated the open wing feeding three times and whirling once within the next 15 min. The bird folded its wing at the end of each subsequent whirl. On one occasion the heron made a successful strike within 5 sec. after an open wing chase. It did not attempt to feed while running. Between bouts (which lasted 2-5 sec each) the heron used the slow walk and stand and wait techniques typical of this species.

I observed a second instance of whirling while feeding by a Little Blue Heron on the north side of the campground at Fort DeSoto Park, Pinellas County, Florida on 12 October 1981. Two Great Blue Herons (*Ardea herodias*), an adult and a juvenile, a Tricolored Heron, and one adult Little Blue Heron were foraging in shallow water along 1/2 km of beach as the tide ebbed at 1130. The Little Blue Heron and the juvenile Great Blue Heron were foraging actively in that they waded constantly and made three to five running dashes of 1/2 to 2 sec about every 10 min. In one instance the Little Blue Heron opened its right wing about 3/4 and ran 7 steps in a tight semicircle to its right. The heron stopped with its wing upraised and peered into the water in front of it for about 3 sec before slowly lowering its wing. It did not capture prey as a result of this activity.

Kushlan (1978a) noted that wading birds, including the Little Blue Heron, defend feeding areas both from members of their own and other species of all sizes of birds. The winners of territorial defense were always larger or the same size as the losers. In accounts of territorial and robbing encounters between members of different species, the approach of an individual of a larger or dangerous species usually was sufficient to displace the smaller individual (Kushlan 1978a, 1978b, Mock and Mock 1980). Sometimes a smaller individual resisted displacement by fighting with the threatening individual (Mock and

Mock 1980). The interaction between the Little Blue Heron and Forster's Tern I saw did not follow either of these methods; rather the larger heron made a determined effort to displace the smaller tern, which initially ignored the heron.

Meyerriecks (1962), Kushlan (1976, 1978b), and Willard (1977) described the foraging behavior of the Little Blue Heron as primarily of the slow walking or stand and wait type. In his summary table Meyerriecks (1960) indicated that the Little Blue Heron displays open wing feeding. Willard (1977) mentioned that the Little Blue Heron only infrequently displays "active pursuit" and stated that the Louisiana Heron was the only species he saw whirling while feeding, although both it and the Snowy Egret (*Egretta thula*) made open wing dashes similar to those described here. It would seem that the observations I report are the first mention of whirling while feeding by the Little Blue Heron.

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**Solitary nesting by the Great Blue Heron in central Florida.**—The Great Blue Heron (*Ardea herodias*) usually nests in colonies with other species of herons (Ogden 1978, Pp. 137-154 in *Wading birds*. National Audubon Society Research Report 7. New York, National Audubon Society; Palmer 1962, *Handbook of North American birds*, New Haven, Connecticut, Yale Univ. Press; Bent 1926, *Life histories of North American marsh birds*, U. S. Natl. Mus. Bull. 135). In Florida, Meyerriecks (1960, Comparative breeding behavior of four species of North American herons, Publ. Nuttall Ornithol. Club 2) reported that mainland birds may nest singly, but I found no detailed description of a solitary nest of Great Blue Herons in the literature.