

GENERAL NOTES

Tongue-flicking by a feeding Snowy Egret.—On 6 May 1967 while working in the Royal Tern (*Thalasseus maximus*) colony on Fisherman's Island, Cape Charles, Virginia, we observed through a 20× spotting scope what appeared to be an unusual feeding method by a nearby Snowy Egret (*Leucophoyx thula*). Judging from the aigrettes on the head and back, it was probably a local breeder.

The bird was wading in a small tidal pool in water covering its feet and sometimes reaching up to the feathered part of the leg. Its neck was fully outstretched, and with the long axis of the head almost parallel to the water surface, the terminal two-thirds of the bill was in the water. With its bill held very slightly open, its tongue was visibly and quite rapidly flicked in and out of the bill, appearing as a peculiar silvery flashing at the water surface. We initially watched this behavior for about twenty minutes at distances of 20 to 100 meters; several hours later as we passed by the pool again, the egret was still tongue-flicking.

Our immediate interpretation was that the egret was lapping up drinking water, but for several reasons this had to be incorrect: (1) most herons probably do not drink salt water very often, although we are not aware of published data on this facet of their behavior, nor of studies on the relative sizes of heron nasal glands; (2) this bird continued the behavior for an extended length of time; (3) it repeatedly stabbed the water and lunged at several small fish (probably *Cyprinodon*, *Fundulus*, and *Menidia*, abundant in these waters), although we never saw a successful capture. The egret seemed to be using its rapidly flicking tongue either as a lure to attract small fish, or to create a water disturbance that might scare resting fish from the shallows.

The use of the tongue as a lure or to flush hiding fish does not seem to have been recorded previously in birds. The reputed function of some larids' foot-paddling luring marine worms to the undersea surface is probably an incorrect interpretation of foot-paddling (P. A. Buckley, *Z. Tierpsychol.*, 23: 395-402, 1966), although skimmers (*Rynchops* spp.) are reported to retrace their skimming route, thus catching fish attracted to the water disturbed by the first skimming passage (P. H. T. Hartley, Feeding habits. In *A new dictionary of birds* (A. L. Thomson, ed.), New York, McGraw-Hill, 1964, p. 287). Foot-stirring, where the feet (bright yellow in Snowy Egrets) are moved to attract fish or flush them from resting places, is a common feeding behavior in herons and other ciconiiform birds (A. J. Meyerriecks, *Wilson Bull.*, 71: 153-158, 1959). Thus a Snowy Egret's use of the tongue in similar fashion is not too surprising although it has never been reported, and Meyerriecks (pers. comm.) has never seen tongue-flicking in any of the herons he has studied. The writers would appreciate hearing of any similar observations.

On 4 April 1968 at the same tidal pool we watched another or the same Snowy Egret tongue-flicking for about 20 minutes. In this time the bird made three lunges at the numerous small fishes in the pool, each resulting in a capture. Once it suddenly withdrew its head from the water, focussed on a spot, and then stabbed a fish; twice it seized fish without first withdrawing its bill from the water. In all three instances the egret resumed tongue-flicking immediately after swallowing the fish, usually a meter or so away from the capture site. No other method of feeding (e.g. foot-stirring, rushing) was alternated with tongue-flicking. These additional observations confirm the feeding nature of this behavior and show that at least one egret (probably) performs it regularly.—P. A. BUCKLEY AND F. G. BUCKLEY, *Department of Biology, Old Dominion College, Norfolk, Virginia 23508; present address Dept. of Biology, Hofstra University, Hempstead, Long Island, New York 11550.*