

wing-fluttering was noted, but no other specific motions were seen in either "mating." Both birds were frightened by approaching people, and took wing during the second mounting. Starling C was unusual in that it was in spring-like plumage, with yellow bill and noticeable spots, although D was in usual winter plumage.

Kessel gives a list of references which record sexual behavior in the Starling throughout the year, and they need not be repeated here. However, the observation raises the problem of winter sexuality in general. Although many of the "ultimate" causes (e.g., increasing day length) affecting sexual behavior have been investigated, published observations on immediate environmental conditions eliciting winter display and copulation seem to be scarce. An investigation of weather maps for the week prior to the second observation here reported showed no unusually warm or changing temperatures. Any conclusive correlation with weather would involve watching marked birds over a considerable period of time.

Kessel does not mention reverse mounting in Starlings, although it has been reported in a brief note by Glick (1954. *Auk*, 71:204). There seems to be no other mention of this in the literature, but it is well known in other species of birds. The second observation also contradicts Kessel's belief that pecking of the female directed at the male's neck or shoulder is a necessary "releaser" for mounting.

In addition to the questions of the origin of courtship-billing and the cause of winter sexuality, it is apparent that there are still many problems concerned with the sexual behavior of the Starling. Although other components of sexual display have been reported (see Kessel's paper with references), we still lack a coherent ethological description of the frequency of display components in the Starling.

Drs. Ernst Mayr and Lawrence Kilham helpfully led me to references and made suggestions about the subject matter, and Andrew Meyerriecks critically read the note and supplied several pertinent references.—JACK P. HAILMAN, *Harvard University, Cambridge, Massachusetts, February 7, 1958.* (Present address: 4401 Gladwyne Drive, Bethesda, Maryland.)

Black-crowned Night Herons using bill motion to lure prey.—The late Witmer Stone, in writing about the Black-crowned Night Herons, *Nycticorax nycticorax* (1937. "Bird Studies at Old Cape May" Vol. 1, p. 148), relates how the birds would stand along the shores of a shallow pond, with the neck deflected and the point of the bill just touching or slightly submerged in the water. On July 14, 1956, while observing a number of those herons feeding along a tidal channel in the Tuckerton Meadows in Ocean County, New Jersey, I had the opportunity to observe three of them at close range and discovered what I believe to be the reason for their odd behavior.

The birds I had under observation were not more than 100 feet from my parked car, from which I watched them through a 20× Balscope held rigid in a window mount. The channel along which they slowly stalked, or stood with bill tip submerged for a few seconds at a time, was partially covered with a green algae that thickened along the shoreline, screening any underwater activity. But the bill tips were not held motionless in that medium. Rather they were opened and closed so rapidly that the motion may best be described as a vibration, the distance between the upper and lower mandibles during the action being very slight but clearly discernible through the glass. This motion would continue for a few seconds; then with a quick thrust of the entire bill into the water, a small fish would be withdrawn and swallowed.

During the hour or more that I kept the birds under observation this maneuver was

repeated time after time. Sometimes the birds would miss a thrust and move forward a few feet and try again. At no time did they move their bills in either a circular or back and forth movement such as they would if they sought to clear the surface in order to see their prey. It is my opinion that in agitating the algae covered surface they were in effect creating a disturbance that would be interpreted by the small fishes as the hapless struggles of their own small prey. It is possible that in their haste to engulf that prey they brush against the herons' bills, thus triggering the quick thrust that results in their own capture.

I have not since had the opportunity to observe herons "fishing" in that fashion nor do I know if they use the same technique when the surface of the water is clear.—HOWARD DRINKWATER, *Old Road, Whitehouse, New Jersey, February 18, 1958.*

NEW LIFE MEMBER



Mrs. J. Murray Speirs (Doris Huestis) received her formal education at Havergal College and the University of Toronto. From an early age she has been intensely interested in animal behavior. The writings of Thoreau inspired her to commence a series of nature journals. Later she began studying the Evening Grosbeak and has travelled to remote places observing the stages of its life history. She is a director of the Federation of Ontario Naturalists, a founder-member of The Margaret Nice Ornithological Club, past-president of the Toronto Junior Field Naturalists' Club and a member of the British Ornithologists' Union.