

in Georgetown, S.C. in 1955 (Chamberlain, 1955), and by 1957 the estimated summer population was 150-160 (Chamberlain, 1957); similar counts for the Chincoteague, Virginia area are 5 and 20 (Potter and Murray, 1955, 1957). My wife and I have repeatedly observed Glossy Ibis in the Oregon Inlet area north of Pea Island, and saw sixteen feeding in a single flock on Bodie Island (still further north) on 4 July 1959. There were definitely more on the outer banks in 1959 than in any previous year. I believe that there can no longer be any doubt but that the Glossy Ibis is undergoing a definite northward extension of its breeding range, as evidenced by the increase in numbers of individuals, of breeding localities, and of nests at breeding sites.

## LITERATURE CITED

- BOCK, W. and J. TERBORGH. 1957. Breeding of the Glossy Ibis in Virginia. *Bird-Banding* 28: 98.
- CHAMBERLAIN, B. R. 1955. Southern Atlantic Coast Region. *Audubon Field Notes* 9: 371-373.
- CHAMBERLAIN, B. R. 1956. Southern Atlantic Coast Region. *Audubon Field Notes* 10: 376-379.
- CHAMBERLAIN, B. R. 1957. Southern Atlantic Coast Region. *Audubon Field Notes* 11: 396-399.
- POTTER, J. K. and J. J. MURRAY. 1955. Middle Atlantic Coast Region. *Audubon Field Notes* 9: 370-371.
- POTTER, J. K. and J. J. MURRAY. 1956. Middle Atlantic Coast Region. *Audubon Field Notes* 10: 375-376.
- POTTER, J. K. and J. J. MURRAY. 1957. Middle Atlantic Coast Region. *Audubon Field Notes* 11: 394-396.
- POTTER, J. K. and F. R. SCOTT. 1958. Middle Atlantic Coast Region. *Audubon Field Notes* 12: 17-19.
- STEWART, R. E. 1957. Eastern Glossy Ibis nesting in southeastern Maryland. *Auk* 74: 509.
- WETMORE, A. et al. 1957. *Checklist of North American Birds*. American Ornithologists union.
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**Convergence in Passerine Alarm Calls.**—In the January issue (*Bird-Banding* 30: 46-47) Hervey Brackbill noted a marked similarity in the calls uttered by some passerines in response to predators. He suggested that these high pitched calls may have been "evolved because they are inaudible to predatory birds." Actually, high-pitched "eeeeee" calls have been described for a variety of unrelated passerine species (see Marler, 1955. *Nature* 176: 6). Andrew (1957. *Ibis* 99: 27-42) recorded this type of call given by several European emberizines, and in my own studies of North American emberizines I have heard similar calls by the Slate-colored Junco (*Junco hyemalis*), Tree Sparrow (*Spizella arborea*), Lark Sparrow (*Chondestes grammacus*), and White-throat (*Zonotrichia albicollis*).

Marler's proposed explanation for the form of these predator calls is interesting. In a popular review of his work with the audiospectrograph, (1956. *New Biology* 20: 71-87) Marler shows that this form of call has probably been selected for predator alarms because it is difficult to locate (but not necessarily inaudible to the predator). The ears utilize three clues in localizing the source of a sound: (1) difference in the time that the sound reaches one ear before reaching the other; (2) difference in loudness (intensity) of the sound at each ear (especially high-pitched notes); and (3) difference in the phase of sound pulses at each ear (especially low-pitched notes). A sound like the "eeeeee" predator call is difficult to locate because (a) the single pitch is too high for good phase differentiation, but too low for good intensity differentiation, thus falling into the well-known "error zone" of sound localizing; and (b) it is long and drawn out providing no "breaks" which would provide time clues. Thus the predator call is completely audible (probably to both companions and the predator), but is extremely difficult to locate because all of its possible localizing qualities are reduced to a minimum. It is not surprising, then, that Brackbill's thrushes, my emberizines, and a variety of European passerines use highly similar warning calls in the presence of predators.—Jack P. Hailman, 4401 Gladwyne Drive, Bethesda, Maryland.