

Predation by the Chuck-will's-widow upon migrating warblers.—That the Chuck-will's widow (*Caprimulgus carolinensis*) captures birds was known to Audubon (1859. *Birds of America*, 1:154) who suggested that the species might be "carnivorous." Subsequent reports of bird-capture have shown his supposition to be, to an extent, valid (see e.g., Bent, 1940. *U.S. Natl. Mus. Bull.* 176:506.) and have, as Terres (1956. *Auk*, 73:290) expressed it, indicated that the Chuck-will's-widow may be "a seasonal if not regular eater of small birds." Additional evidence of the seasonal aspect of its predatory habits is herewith presented.

A Chuck-will's-widow, found dead during the morning of 18 October 1961 in Miami Shores, Dade County, Florida, was brought to Mrs. Arthur Gasche of that municipality who presented the specimen to me. Wedged tightly into the throat of the caprimulgid, its head well down into the esophagus, was a male Yellowthroat (*Geothlypis trichas*). Death of both birds would seem to have been by suffocation. During preparation of the two as study skins for the University of Miami Research Collections (UMRC), further pertinent information was obtained.

The Yellowthroat, weighing 12.9 grams, contained much subdermal fat. In its stomach were small insects. The Chuck-will's-widow, a female, weighed—apart from the Yellowthroat—121.4 grams. It likewise contained considerable fat. In the stomach of the Chuck-will's-widow was a nearly intact male Cape Warbler (*Dendroica striata*). Only the warbler's skull, from which the feathers and skin loosened when the bird was removed from the stomach, gave evidence that digestion of it had begun. Remains of this warbler weighed approximately 8.0 grams. (The combined weights of the two warblers, incidentally, are equal to about 17 per cent of the weight of the Chuck-will's-widow minus its warbler content.) In addition, there were in the stomach two large glassy-winged locusts (*Stenacris vitreipennis*), these showing but little evidence of digestion.

In mid-October, migration down the Florida peninsula is at a peak. That the Chuck-will's-widow and the Yellowthroat were migrating seems probable from their considerable content of fat. The Cape May Warbler is present in Florida only as a migrant. It seems logical to assume that, under ordinary circumstances, only during the seasons of migration would small birds such as warblers be available to nocturnal predators seeking flying prey. Here then, within the range of the Chuck-will's-widow, is one more hazard which small night-migrants face. In this instance, however, circumstances allow a certain degree of speculation as to the time of capture of the warblers. Judging from the condition of the three birds, it seems unlikely that they were captured before dusk on 17 October or, for that matter, early that night. Considering the stage of digestion of the insects in the stomach of the Yellowthroat and of that of the diurnal locusts in the stomach of the Chuck-will's-widow, it seems far more likely that these insects were taken in daylight on 18 October. Thayer (1899. *Auk*, 16:273-276) presented a fascinating account of Chuck-will's-widows capturing migrating warblers over the open ocean during daylight. Similarly, this Chuck-will's-widow at Miami Shores may be suspected of gathering its warblers at dawn or during early morning hours, both prey and predator, possibly, being engaged in building up or replenishing fat reserves prior to migration beyond the shores of Florida.

The fact that the Chuck-will's-widow can capture small birds in daylight requires emphasis, for as Thayer's (op. cit.) observations showed, this migrant stands in the unique position of being able to feed while enroute over the ocean, a potential which exclusively terrestrial birds quite generally lack.—OSCAR T. OWRE, *Department of Biology, University of Miami, Coral Gables, Florida 25 August 1966.*