

Second Report of Great Horned Owl Preying on Short-eared Owl.—

On 16 March 1968 I was checking a nest of Great Horned Owls (*Bubo virginianus*) located two miles northeast of Vinland, Douglas County, Kansas. The nest, containing two three-week-old young, was quite well supplied with prey items. The prey found in the nest during one visit included the following: one young pigeon (*Columba livia*), the hindquarters of a rabbit (*Sylvilagus floridanus*), the remains of a wood rat (*Neotoma floridana*), and the posterior half of a Short-eared Owl (*Asio flammeus*). Killpack (1951, *Condor*, 53: 262) reported a similar instance of the Great Horned Owl preying on this smaller owl. It is interesting to note that the stomach of the Short-eared Owl was not eaten (all other viscera had been eaten) so an analysis was made of its contents. The remains of two Prairie Voles (*Microtus ochrogaster*) were found. The finding of this Short-eared Owl is of two-fold interest, for it illustrates the tremendous variety of prey taken by the Great Horned Owl and also offers an indirect means of studying some food habits of the Short-eared Owl.—Bruce R. Wolhuter, Museum of Natural History, University of Kansas, Lawrence, Kansas.

Additional Observations of Defecation by Bobwhite Quail upon Flushing.—In a recent paper, Stewart (1966, Defecation by bobwhites when flushed, *Bird-Banding*, 37(4): 287-288) described a covey flush of Bobwhites (*Colinus virginianus*) in Alabama in which it was presumed all nine birds in the covey defecated when a short distance from the flush point as they flew over a small farm pond, indicated by the disturbance of the smooth water surface by the evacuated feces. Stewart (*id.*) suggested that defecation might frequently occur when Bobwhite are flushed in situations unfavorable for its observation; or, conversely, that defecation upon flushing occurred in the instance described because the birds flushed over water, and would have behaved differently over land.

In a recent intensive study of Bobwhite in South Carolina (Fatora, 1967, Population dynamics and response to land abandonment of the eastern bobwhite quail (*Colinus virginianus virginianus*) in the upper coastal plain of west-central South Carolina, M. S. Thesis, Univ. Ga., Athens, 81 p.), at least 200 coveys, as well as many singles, pairs, and broods, were flushed during the period of the study from March 1964 to December 1966. Many of the birds flushed under conditions favorable for defecation to be observed. The birds were either flushed by the investigator "walking up" the birds on foot, or by being detected and "set" by trained bird dogs and then flushed. Birds were flushed that were actively feeding or otherwise moving about, or that were roosting, singly or in covey formation. Although no quantitative data were recorded on birds that flushed under conditions where defecation could be observed, the percentage defecating was estimated to be high. In no instance were feces collected from a bird that had defecated. Defecation occurred at various times during the year, and apparently is not seasonally related. Birds were generally observed to evacuate during the initial stage of the flush.

Although no quantitative data had been gathered, the fact that Bobwhite often defecate on flushing should be recorded as there appears to be some doubt in the literature on this phenomenon. All birds observed to defecate flushed over land, but they undoubtedly would have behaved in the same manner if flushed over water. Quite possibly, defecation on flushing would not occur at all, or less frequently, during the early morning hours shortly after the birds have left the night roost, and food, if they had commenced morning feeding, had not yet passed through the crop and gizzard to the rectum. Defecation on flushing has been recorded for other species of birds (Stewart, *id.*), and is very probably a fright response.

This research was supported in part by a cooperative project of the University of Georgia School of Forest Resources, Georgia Forest Research Council, and the College Experiment Station of the University of Georgia College of Agriculture Experiment Stations under McIntire-Stennis Project 12 on the lands of the Atomic Energy Commission's Savannah River Plant.—Joseph R. Fatora, School of Forest Resources, The University of Georgia, Athens, Georgia, 30601.