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Suspected intraspecific egg dumping in the White Ibis (*Eudocimus albus*).—Bird colonies may present a favorable environment for brood parasitism, as large numbers of synchronously nesting conspecifics are available as potential hosts (Hamilton and Orians 1965, Payne 1977). *Intraspecific* nest parasitism (i.e., egg dumping), however, has been reported in only a handful of colonially nesting birds (Yom-Tov 1980; Fox and Boersma 1983; Brown 1984; Fetterolf and Blokpoel 1984; Emlen and Wrege 1986). Cannell and Harrington (1984) reported *interspecific* nest parasitism by a Great Egret (*Casmerodius albus*) and Black-crowned Night-Herons (*Nycticorax nycticorax*) at a mixed-species heronry and suggested that a low level of inter- and intraspecific nest parasitism may exist in wading birds (Ciconiiformes). A single presumed instance of nest parasitism by a Maguari Stork (*Euxenura maguari*) reported by Thomas (1984) is, to our knowledge, the only published account of *intraspecific* nest parasitism in the Ciconiiformes. Here we provide evidence of the occurrence of this behavior in White Ibises (*Eudocimus albus*).

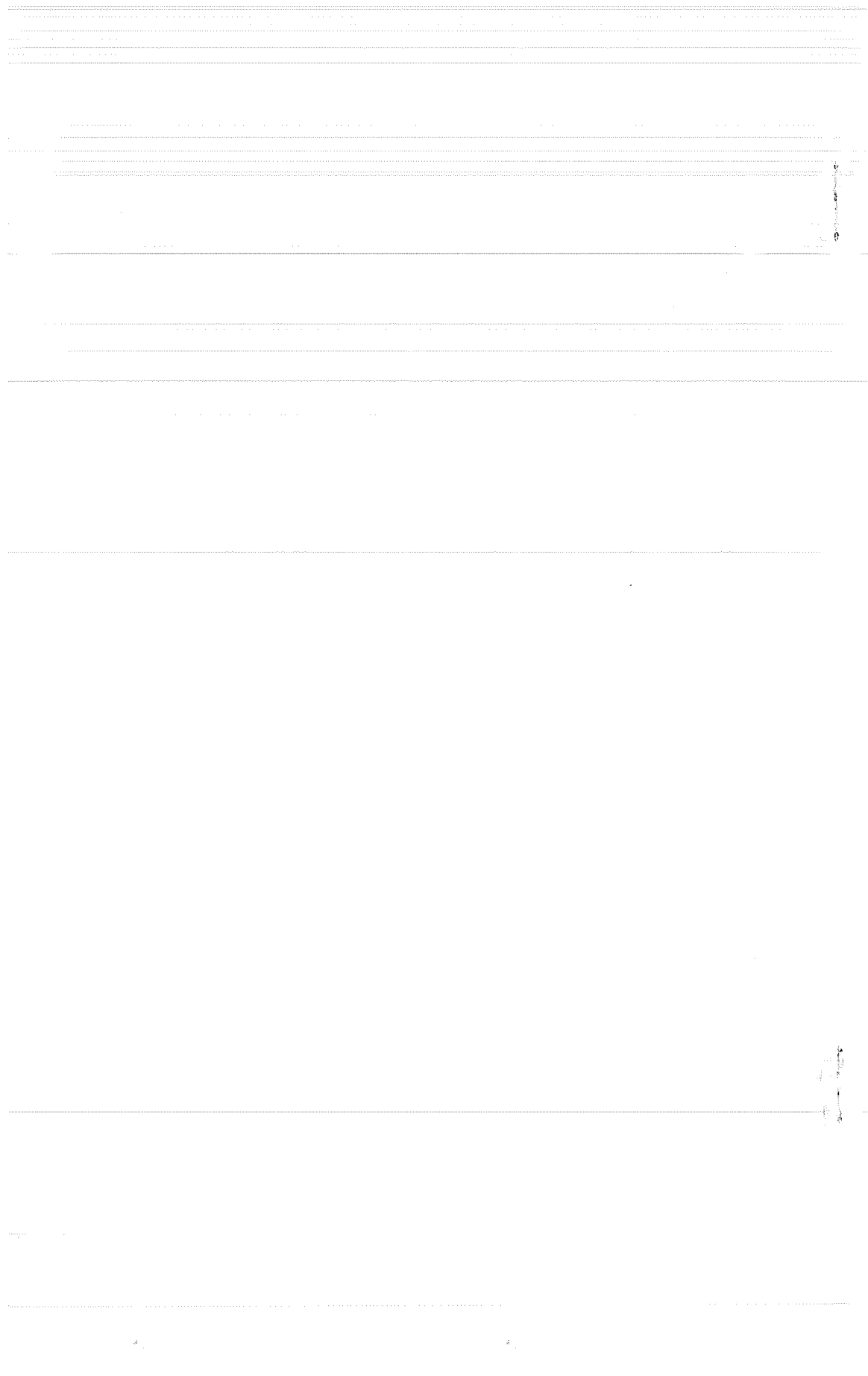
We studied White Ibises at 2 colonies. Battery Island is a 40-ha National Audubon Society sanctuary near the mouth of the Cape Fear River, Brunswick County, North Carolina (33°54'N, 78°01'W), where ibises nest in a 7-ha maritime shrub thicket (Shields 1985). Peak nest numbers were 3737 in 1983 and 4849 in 1984. Pumpkinseed Island is an 8.9-ha colony in Winyah Bay, Georgetown County, South Carolina (33°16'N, 79°12'W), where ibises nest on a dense mat of black needlerush (*Juncus roemarianus*) (Frederick 1985). Peak nest numbers were 7814 in 1982 and 10,035 in 1983.

At Battery Island, 262 ibis nests in 1983 and 493 nests in 1984 were examined every 3–4 days from the onset of egg laying until chicks left their nests. Eggs were individually marked with indelible ink. At Pumpkinseed Island, 42 nests in 1982 and 71 in 1983 were checked (eggs counted, but not marked) at 10:00 every day from the onset of nest building through the apparent completion of clutches (more than three consecutive days without new eggs). Over 15,500 pair-hours of intensive observation from a blind were performed on Pumpkinseed during the egg-laying period.

Nest parasitism was never witnessed during these observations. We did, however, obtain circumstantial evidence of parasitism based on deviations from a normal egg-laying schedule. White Ibises usually lay eggs every other day (Bent 1926, Rudegeair 1975), and lay from two to four eggs in a clutch. Their eggs are easily distinguished from those of other species nesting on the two study sites. Three types of evidence of nest parasitism were obtained: (1) two eggs appearing in a nest on the same day, (2) a new egg appearing in a nest on each of two consecutive days, and (3) new eggs appearing after apparent clutch completion.

On Battery Island, nest checks were too infrequent to detect type 1 and 2 evidence, but type 3 evidence was noted twice in 1983 and 6 times in 1984. The mean interval between presumed clutch completion and the appearance of the suspected parasitic eggs was 11.7 ± 4.8 days [SD]. None of the apparently parasitic eggs hatched, probably because they had an incomplete incubation period. On Pumpkinseed Island, one case of type 2 evidence was found in 1982, and two cases each of type 1 and 2 evidence were noted in 1983. No type 3 cases were detected on Pumpkinseed, as nests there were not checked after apparent clutch completion. The fates of parasitic eggs on Pumpkinseed were not followed, but these eggs would have had normal incubation periods.

Because no birds are known to lay more than one egg in a single 24-h period (Sturkie 1965), type 1 evidence is the most conclusive circumstantial evidence of nest parasitism. Type 2 cases may represent instances in which nest owners laid eggs in a shorter than usual interval. However, if nest parasitism did occur, type 1 and 2 evidence should have been noted in roughly equal proportions unless the laying periods of hosts and parasites were



always exactly synchronous. Type 3 evidence could be interpreted as nest owners laying late eggs. However, the long time span between the apparent completion of clutches and the appearance of the late eggs indicates that these cases represent instances of nest parasitism. The appearance of late eggs in nests at Battery Island was not preceded by egg loss, thus ruling out the possibility that the late eggs were replacements.

The evidence from both colonies suggests that a low level of intraspecific nest parasitism occurs in the White Ibis. Parasitic females did not always seem to be aware of the hosts' egg-laying period as the parasitic eggs detected at Battery Island were laid far too late to be incubated adequately by the hosts.

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- PETER C. FREDERICK, *Dept. Biology, Univ. North Carolina, Chapel Hill, North Carolina 27514*; AND MARK A. SHIELDS, *Dept. Biological Sciences, Univ. North Carolina at Wil-*

mington, Wilmington, North Carolina 28403. (Present address PCF: Dept. Wildlife and Range Science, Univ. Florida, Gainesville, Florida 32611; MAS: Wyoming Cooperative Fish and Wildlife Research Unit, Univ. Wyoming, Laramie, Wyoming 82071.) Received 26 Sept. 1985, accepted 5 Mar. 1986.