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Feeding Association Between Brown Pelicans and Wood Storks

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GENERAL NOTES

Leach's Storm-Petrel sighted in the eastern Gulf of Mexico. — On 15 August 1976 a Leach's Storm-Petrel (*Oceanodroma leucorhoa*) was sighted in the Gulf of Mexico eighty nautical miles west of Clearwater, Pinellas County, Florida. While our boat was lying at anchor, a storm-petrel was sighted at some distance, whereupon it turned and flew toward us. As the bird approached to within 10-13 m of the stern, a prominently forked tail was observed, quickly separating this species from a more expected Wilson's Storm-Petrel (*Oceanites oceanicus*) with which we are familiar. Feeding several times before flying away, this petrel dipped into the water holding its slender wings very high. It did not dance or "patter" off the water with its feet and its flight was more erratic and less graceful than that of a Wilson's. Although the gray feathers that partially divide the white rump in most populations of Leach's were not detected, the white appeared to be confined to the rump without extending to the flanks or undertail coverts.

Wilson's Storm-Petrel is regular in the Gulf of Mexico during the summer, albeit in small number. However, only three specimens of Leach's Storm-Petrel from the Gulf are known to us. The first two were discussed by Rohwer and Woolfenden (1968, Auk 85: 319); one was from Florida and the other from Louisiana. More recently a third specimen was taken near Tallahassee (Ogden 1976, Amer. Birds 30: 945-948). — CHARLES B. BUHRMAN, 3926 34th Terrace S. Apt. L, St. Petersburg, Florida 33711, and LARRY A. HOPKINS, 538 Garland St., St. Petersburg, Florida 33703.

Feeding association between Brown Pelicans and Wood Storks. — In interspecific-feeding assemblages between ciconiiforms and other waterbirds, one species serves as a "beater," thus stirring up prey items that become available to the associate species. Ciconiiforms are the opportunistic species in most reported commensal foraging relationships (Emlen and Ambrose 1970, Leck 1971, Mueller et al. 1972, Courser and Dinsmore 1975, and references therein); there are few observations of interspecific feeding associations where other waterbirds derive benefit from foraging with ciconiiforms (Meyerriecks 1967, Clancey 1976).

On 15 September 1977 I observed 21 yearling and 2 adult Brown Pelicans (*Pelecanus occidentalis*) feeding with 53 Wood Storks (*Mycteria americana*) along the western shoreline of Terra Ceia Bay, Manatee County, Florida. The concentrated, rapid moving flock of storks were grope feeding (Rechnitzer 1956) in 25-35 cm of water about 10 m from the mangrove shoreline. The pelicans were predominantly swimming and scoop feeding (Dinsmore 1974) among and around the storks. However, when left 10-12 m behind the moving storks, the pelicans repeatedly leap frogged forward and dove among the storks and began scoop feeding again. After 45 minutes the storks became dispersed, probably resulting in lower efficiency at stirring up prey, and the pelicans ceased feeding.

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- JAMES A. RODGERS JR., *Department of Biology, University of South Florida, Tampa, Florida 33620.*

Wood Storks using White Pelicans as beaters. — The Wood Stork (*Mycteria americana*) is frequently observed foraging amidst aggregations of various wading birds. Generally the storks wander through the assemblages as individuals or in small groups without utilizing a beater. Although the birds in the assemblage may be mutually benefited by the disturbance which renders prey easier to capture.

On 6 November 1977 I observed a large feeding assemblage of wading birds in a mosquito control impoundment on the Merritt Island National Wildlife Refuge in Brevard County, Florida. The shallow brackish water impoundment (approximately 300 by 1200 m) was ringed by cordgrass (*Spartina bakeri*). In the open area, about 50 White Pelicans (*Pelecanus erythrorhynchos*) were scoop feeding in a compact flock which was moving the length of the impoundment. About 15 Wood Storks were grope feeding and walking rapidly in a row, 1-2 m parallel to each side of the "raft" and moving constantly except when they paused to swallow fish. As the line of storks moved more slowly than the pelicans, the storks at the rear would rise, fly to the front of the line, and resume feeding. This "leapfrogging" was repeated numerous times as the pelicans dispersed and the storks formed several small groups which then began feeding among other wading birds in the cordgrass.

Heatwole (1965) and Dinsmore (1973) found the feeding efficiency of Cattle Egrets (*Bubulcus ibis*) increased several fold when foraging in close proximity to cows or tractors. Consequently, I assume the storks captured prey more efficiently when using the flock of pelicans as beaters. The relationship appeared to be commensal since the pelicans determined the direction of movement and did not directly interact with the storks. Thus, I assume the storks were exploiting the feeding habits of the pelicans. I have observed over 200 groups of foraging storks and this was the first time a single species was used as a beater and the second time "leapfrogging" was observed.

The several reports of ciconiiforms using another animal as a beater (Parks and Bressler 1963, Emlen and Ambrose 1970, Leck 1971, Courser and Dinsmore 1975) or "leapfrogging" (Meyerriecks 1960, Wiese and Crawford 1974, Gladstone 1977) have all been restricted to the family Ardeidae. The use of an interspecific beater and "leapfrogging" are, to my knowledge, unreported for the Wood Stork.

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