Harry Darrow (pers. comm.) reported that a few days before this incident (4 December 1982), he had observed an encounter between an immature Bald Eagle and an immature Broad-winged Hawk that may have a bearing on our sighting, especially in that it occurred about 2 km from where we found the kill. The two birds were circling at about 200 m, and once the eagle had gained a superior position, it made three determined dives at the hawk. On the first, the Broad-winged Hawk easily evaded the eagle; the second was much closer, and the third stoop was so close it appeared that the eagle hit the hawk. In fact it had narrowly missed; and before the eagle could reorganize, the Broad-winged Hawk closed its wings and plummeted into the nearby pines.

It seems interesting that both of the incidents we observed were related to food and not in defense of nests or young, as reported by Roberts (1985 Fla. Field Naturalist 13: 41-42).

I wish to thank H. Darrow for his cooperation and W. B. Robertson for his help in preparing these notes.—**Marge Brown,** P. O. Box 239, Summerland Key, Florida 33042.

Florida Field Naturalist 15: 19-20, 1986.

American White Pelicans feeding in freshwater marshes in Everglades National Park, Florida.—The range of the American White Pelican (*Pelecanus erythrorhynchos*) extends from the western Canadian provinces, south through the midwestern and western states, and along the Gulf and Pacific coasts of the United States and Mexico (Palmer 1962). Most of its summer range includes exclusively freshwater habitats. Although Palmer (1962) depicts all of Florida as wintering range, there are no records of White Pelicans utilizing interior freshwater marshes in southern Florida (Audubon Field Notes/Amer. Birds 1950-1986, Florida region). White Pelicans are common winter residents in coastal areas of Everglades National Park (ENP) where several hundred to several thousand birds have been counted on 29 annual Christmas bird counts from 1951-1979 (Bolte and Bass 1980). Kushlan (1978) described the importance of Everglades estuaries as feeding habitat for White Pelicans. He also stated that the birds move to inland streams and ponds in the spring dry season but did not give the exact location of those feeding areas. During years of drought (1977, 1981, and 1985), we also observed hundreds of White Pelicans in streams and pools at the marsh-mangrove interface in ENP. However, we have found no published accounts of White Pelicans feeding in the strictly freshwater marshes of the Everglades. In this note, we introduce unpublished records of freshwater marsh utilization and present our observations for freshwater feeding during the 1985 dry season by White Pelicans.

Shark River Slough in ENP is the major drainage basin of the southern Everglades. This shallow, slowly flowing slough consists of densely vegetated sawgrass (*Cladium jamaicense*) and spikerush (*Eleocharis* spp.) marshes. It extends approximately 35 km from Tamiami Trail (U. S. Highway 41) on the north to the tidal creeks at the marsh-mangrove interface. All White Pelican observations in the Everglades marsh have centered in northern Shark River Slough, often in the vicinity of the Shark Valley observation tower, where groups of pelicans were reported on three occasions during the 1950's (E. Winte, 11 April 1951, N=2, ENP Field Observation File; W. E. Dilley, 27 May 1954, N=2, ENP Field Observation File; R. Miele, 4 May 1959, N=75, ENP Field Observation File). No further sightings in Shark River Slough were reported until 1985 when we observed 16 White Pelicans on 27 March 1985 at an alligator pond approximately 5 km SE of the Shark Valley observation tower. The pelicans were feeding with Wood Storks (*Mycteria americana*), Great Blue Herons (*Ardea herodias*), and Great Egrets (*Casmerodius albus*). As we approached the pond by airboat, all birds took flight. The pelicans and storks landed in the airboat trail approximately 500 m to the east and resumed feeding. On 28 March, we sighted a group of 13 White Pelicans, again in association with Wood Storks, in a marsh

approximately 8 km SE of the Shark Valley observation tower. The following week, White Pelicans were observed in northern Shark Slough during aerial surveys of wading birds (D. M. Fleming, ENP, 1 April 1985; pers. comm.). We saw 15 White Pelicans with Wood Storks and Great Egrets on 17 April, and several White Pelicans feeding in association with Wood Storks on 25 April. We did not observe White Pelicans in northern Shark Slough after 25 April, although there remained many White Pelicans on the tidal creeks at the southern end of the slough. In all of our observations White Pelicans were associated with Wood Storks, but we were unable to observe interspecific feeding interactions as reported by Clark (1978).

Sightings of White Pelicans in the freshwater marshes of the Everglades have been recorded only from March to May, typically the months of minimum water depths. Fishes concentrate then in deeper areas of the marsh where they are preyed upon by wading birds and other predators (Loftus and Kushlan, in press). Sampling data from February to April 1985 showed high densities of fishes and invertebrates in Shark Slough marshes and ponds (Loftus and Chapman, unpublished data). Records of White Pelicans only during dry season months probably relate to high prey availability, although the infrequency of observations and small numbers of pelicans indicate that freshwater marshes are not favored feeding habitats in southern Florida. White Pelicans capture prey near the water surface by scoop-feeding while swimming or wading, rather than by diving like the Brown Pelican (*Pelecanus occidentalis*; Goss 1888, Bent 1922, Howell 1932, Forbush 1955). The dense aquatic vegetation of the Everglades marsh probably hinders the White Pelican's scoop feeding, resulting in limited utilization of the marsh for foraging. Only alligator ponds and airboat trails would provide deep, open-water conditions suitable for scoop-feeding.

We appreciate the comments of William B. Robertson, Jr., Lance Gunderson, and Oron L. Bass, Jr. of the South Florida Research Center. We also want to thank T. H. Below and R. T. Paul for their reviews of the manuscript, and J. A. Rodgers, Jr. for his editorial comments.

Literature Cited

Bent, A. C. 1922. Life histories of North American petrels and pelicans and their allies, order Tubinares and order Steganopodes. Washington, D.C.: U. S. Nat. Mus. Bull. 121.

Bolte, W., and O. L. Bass, Jr. 1980. Twenty-nine year synopsis of the Coot Bay Christmas bird count, Everglades National Park. Homestead: South Fla. Res. Ctr. Rpt. T-605.

Clark, E. S. 1978. Wood Storks using White Pelicans as beaters. Fla. Field Nat. 6: 45-46.

Forbush, E. H. 1955. A natural history of American birds of eastern and central North America. New York: Bramhall House.

Goss, N. S. 1888. Feeding habits of *Pelecanus erythrorhynchos*. Auk 5: 25.

Howell, A. H. 1932. Florida bird life. New York: Coward-McCann, Inc.

Kushlan, J. A. 1978. White Pelican numbers in Everglades National Park. Fla. Field Nat. 6: 16.

Loftus, W. F., and J. A. Kushlan. In press. Freshwater fishes of southern Florida. Gainesville: Bull. Florida State Mus.

Palmer, R. S. (Ed.). 1962. Handbook of North American birds. Vol. 1. New Haven, Connecticut: Yale Univ. Press.

James D. Chapman and William F. Loftus, South Florida Research Center, Everglades National Park, P. O. Box 279, Homestead, Florida 33030.