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Wading bird use of the east Everglades. — Because of drainage, water management and development, the Florida Everglades is now divided into several distinct areas. Former Everglades land immediately south of Lake Okeechobee is now used for farming. North of U. S. Hwy. 41, the remaining Everglades is divided by levees and canals into three Water Conservation Areas. Most of the Everglades south of Hwy. 41, called Shark River Slough, is included within the boundaries of Everglades National Park. However a wedge of Everglades habitat that formerly was part of the upland water source for the park is not presently under public management (Fig. 1). This area, called the east Everglades or eastern Shark River Slough (Dade Co.), covers about 215 km². It is isolated by levees from the Water Conservation Areas to the north and from Everglades National Park to the west and is bounded by State Road 27 on the east and by a higher rock ridge near Chekika State Park on the south.

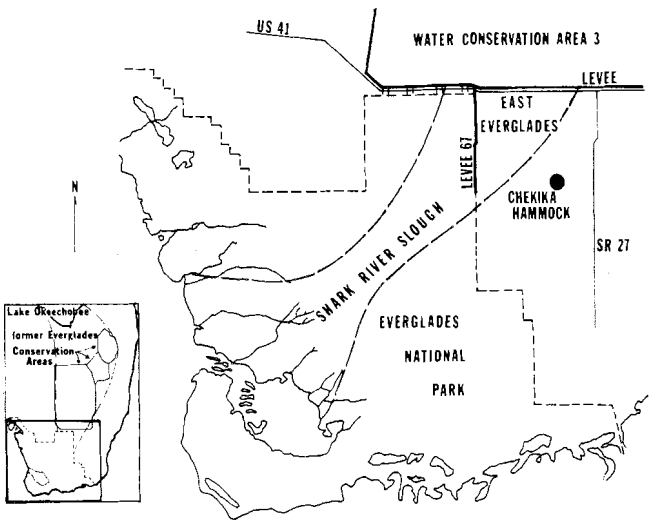

Figure 1. Map of south Florida showing the east Everglades.

Table 1

Numbers of Wading Birds Feeding in the East Everglades, Florida, 1974-1975

Species	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
White Ibis	0	300	7,425	10,851	11,027	448
Glossy Ibis	0	40	15	21	678	12
Roseate Spoonbill	0	0	0	0	60	0
Wood Stork	0	0	2	0	167	38
Great Blue Heron	7[1]	0	45	93	37	25
Great Egret	213	0	766	695	1,180	351
Snowy Egret	10	0	540	24	694	242
Louisiana Heron	0	0	50	92	10	10
Little Blue Heron	135	0	467	648	787	92
Black Cr. Night Heron	P[2]	P	P	P	P	P
Green Heron	P	P	P	P	P	P
American Bittern	0	P	P	P	0	0
Total (rounded)	370	340	9,130	12,420	14,640	1,220

1) Including one Great White Heron.

2) P = Present but not adequately censused.

During the winter and spring of 1974-1975, aerial censuses were conducted over the east Everglades marsh to determine its importance as feeding habitat for wading birds (Ciconiiformes). One morning census was flown each month from October through March. Aerial coverage was exhaustive and, except for some ibis flocks, all birds including cryptic ones were individually counted from a low altitude. As a result the census data appear to be reasonably complete.

Twelve species of wading birds were found in the area (Table 1), including relatively rare birds such as Roseate Spoonbills (*Ajaia ajaja*) and a Great White Heron (*Ardea herodias occidentalis*). The White Ibis (*Eudocimus albus*) was the most abundant species in the area. The east Everglades appeared to be an important feeding area for yearling Wood Storks (*Mycteria americana*). Wading bird use of the area was decidely seasonal. Numbers there increased from several hundred birds in October to over 14,000 birds in February. Because of the seasonal dry period the area was nearly without standing water by April, and most foraging birds had moved to other parts of the Everglades, or had returned north to nest.

Wading birds use of the east Everglades depends on its hydrologic characteristics which are strongly influenced by the roads and levees now delimiting the area. Before construction of the levees surrounding Water Conservation Area 3, the east Everglades and subsequently the more southerly marshes of Everglades National Park were supplied by surface water flow from the slightly higher Everglades marshes to the north. Construction of the east-west levee along U. S. 41 in 1962 eliminated surface discharge and restricted recharge to subsurface seepage beneath the levees (Leach, Kline and Hampton 1972, Fla. Bur. Geol. Rep. Invest. No. 60). Construction of Levee 67 along the eastern boundary of Everglades National Park bisected the southern Everglades and further altered surface water relations in the area. However, seepage, rainfall and surface water flow from the Park around the south end of Levee 67 maintain surface water in the east Everglades for much of the wet season, allowing the production of aquatic prey organisms. Subsequent drying during the spring permits wading birds to use the area for feeding.

These data suggest that the east Everglades is heavily used by feeding wading birds for several months during the year, particularly in late winter (January-February). These are critical months when resident birds are building reserves for nesting and wintering birds are preparing for northward migration. The continued preservation of this area as wildlife habitat may be quite important to some wintering and resident wading birds in southern Florida.

I thank James A. Rodgers, Jr., and John C. Ogden for comments. — JAMES A. KUSHLAN, *U. S. National Park Service, South Florida Research Center, Everglades National Park, Homestead, Florida 33030.*