

NOTES

WHITE IBIS (*Eudocimus albus*) FEEDING ON BIVALVES IN SOUTHWEST FLORIDA

THEODORE H. BELOW
3697 North Rd., Naples, Florida 34104

E-mail: thaovb3rd@comcast.net

White Ibis (*Eudocimus albus*) feed mainly on aquatic crustaceans and insects (Kushlan and Kushlan 1975, Nesbitt et al. 1975, Kushlan 1979, Bildstein 1983). But they are opportunistic feeders, and the range of prey items is broad: in the most recent survey of the literature, Heath et al. (2009) note instances in which they have taken “polychaetes, snails, frogs, lizards, young snakes, and small fish,” as well as cockroaches and earthworms. Despite this latitude, there are few published reports of White Ibis feeding on an entire class of common aquatic invertebrates, the bivalves. The only ones I have found are Nellis (2001) and Yoder (2010), who briefly reported instances of feeding on coquina (*Donax variabilis*), a small clam locally abundant in sandy saltwater shallows from Virginia to the Caribbean. On the other hand, Kaplan (1999) described White Ibis feeding on small fish and crabs while ignoring beds of coquina within easy reach. The literature, and my own observations over four decades, incline me to think that White Ibis feed on coquina only rarely. Here I recount my sole observation of this behavior.

For the last 37 years I have been censusing a 10-km transect of beach along the Gulf of Mexico at Naples, Florida, centered at 26°06'55" N, 81°48'16" W. Censuses (n = 968 as of this writing) are done by one observer starting in the north and working south, stopping where street-end parking allows access to the beach and walking when necessary to record coastal waterbirds. A few White Ibis were recorded in 1976, 77, and 80 (\bar{x} = 17), then none for 20 years, followed by a few from 2001 to 2004 (\bar{x} = 7.5) and increasing in 2005-2010 (\bar{x} = 155). The largest numbers were recorded in 2007-08 (\bar{x} = 250), during the severe inland dry-down at Corkscrew Swamp Sanctuary 32 km inland to the northeast.

On 31 October 2010, while censusing the southern end of the transect, I saw 27 White Ibis feeding in a manner I had never seen before. The ibis were in a compact group moving slowly back and forth near low surf (30 cm). They fed in cloudy water that reached as high as their bellies, and also on exposed wet sand composed primarily of quartz, carbonate, and shell fragments characteristic of the southwest Florida coastline. They seemed to be probing in patches of shell hash more than pure sand. Often individuals would completely submerge the head, draw back in a few seconds with a backward jerk, raise the head out of the water, then with a quick thrust of the head forward, flick the item back to be swallowed (Fig. 1). The individual food items were small, handled quickly, and seemed similar to one another. I took a photo, shot at 1/400th of a second, which shows a 2 cm coquina wedge clam (Fig. 2). Feeding in these conditions could only be done tactilely and it should take very sensitive bills to do so.

On these beach censuses I have recorded five other bird species feeding on coquina: Black-bellied Plover (*Pluvialis squatarola*), Willet (*Tringa semipalmata*; also reported by Kaplan 1999), Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*), and Red Knot (*C. canutus*). Ibises may feed so rarely on coquina because these small bivalves provide a smaller nutritional reward for the amount of effort expended than they do for smaller birds.



Figure 1. White Ibis ingesting prey.



Figure 2. White Ibis with captured coquina.

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