

FIRST RECORD OF THE ZONE-TAILED HAWK IN FLORIDA

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The Zone-tailed Hawk (*Buteo albonotatus*) nests from central South America north to the southwestern United States (American Ornithologists' Union 1998), where it is uncommon (Kennedy 1995, Johnson et al. 2000). Its manner of soaring, shape, and plumage pattern resemble the larger Turkey Vulture (*Cathartes aura*): long remiges paler than the dark wing linings, wings held in a shallow V, a similar wing-beat cadence, and a long, narrow tail (Milsap et al. 1988, Dunn et al. 2000). These similarities, the hawk's sometimes frequent association with Turkey Vultures—a species that potential prey of Zone-tailed hawk may consider innocuous—and the hawk's habit of stooping from vulture flocks to pursue prey, have led to the suggestion that this hawk profits by mimicry of the vulture (Willis 1963, but see Mueller 1972).

The Zone-tailed Hawk seldom winters in the United States (Johnston et al. 2000). Occasionally an individual wanders widely (Dunn et al. 2000), as evidenced by a fall record of a bird in Halifax County, Nova Scotia (McLaren and MacInnis 1977). Prior to my observation, the easternmost U.S. record of a wintering Zone-tailed Hawk was in Louisiana (American Ornithologists' Union 1998).

Shortly before sunset on 3 December 2000, I observed briefly an adult Zone-tailed Hawk on Big Pine Key, Monroe County, Florida (24°42'N, 81°22'W). The bird was at a low altitude (<100 m) amid several Turkey Vultures that were flying to a habitual night roost on Big Pine Key. The hawk's smaller size, white subterminal tail band, and erratic rocking of the wings held in a dihedral V were readily apparent. After this brief encounter, I did not see the bird again on Big Pine Key.

Shortly after noon on 12 December 2000, I saw a Zone-tailed Hawk on Boca Grande Key (24°32'N, 82°01'W), a 78-ha island 19 km west of Key West, FL in the Key West National Wildlife Refuge. This island is 64 km west of the first sighting on Big Pine Key. The reported wind speed was 11 kph (National Weather Service) and skies were clear.

I video-taped and simultaneously recorded comments on the hawk's movements above Boca Grande Key for 20 min. Later examination of the tape proved essential for matching the hawk's maneuvers with the recorded audible alarm calls of potential prey species that were not seen on film. The latter consisted of a multi-species group of ca. 150 shorebirds, including 17 Piping Plovers (*Charadrius melodus*), on the island's interior mudflats.

The Zone-tailed Hawk's sex was determined by freezing single video frames and confirming the presence of only two whitish tail bands. Thus, the bird was an adult male (Clark and Wheeler 1987, Dunn et al. 2000).

The Zone-tailed Hawk remained aloft during my observations and it may have been hunting. Its movements and behavior were remarkably similar to the hunting methods described by Milsap et al. (1988). These included holding its head downward and scanning the terrain, soaring expansively at ca 15-60 m with wings held in a shallow dihedral, and making several low, non-vertical stoops at prey.

None of the hawk's stoops resulted in the capture of prey. Shorebird alarm calls were audible well before the hawk's approach, and they flushed en masse as the bird neared. The Zone-tailed Hawk might have been at a disadvantage for two reasons. One was a lack of cover. Milsap et al. (1988) observed that once this hawk has sighted prey, it may drop behind cover to draw closer for an attack. The shorebirds at Boca Grande Key were

in flat, open terrain, and the closest trees were small. After the hawk's first stoop, the shorebirds likely were wary of its approach and may have kept track of its whereabouts. Each time after launching an attack, the hawk flew away from the mudflats, its wings-beats deep and labored until it reached a higher altitude and began soaring.

A second disadvantage may have been a pair of nesting Ospreys (*Pandion haliaeetus*) that had built their nest on the ground near the mudflats. As the Zone-tailed Hawk approached the mudflats, it elicited the Ospreys' loud vocalizations, likely alerting the shorebirds of the hawk's approach. After one such incident, an Osprey determinedly escorted the Zone-tail Hawk away from the Osprey nesting area.

After one unsuccessful strike on the shorebirds, the hawk gained altitude until it reached a flock of 11 soaring Magnificent Frigatebirds (*Fregata magnificens*). It remained aloft with them for nearly a minute, whereupon it descended slowly—twice extending its legs—before entering a flat shallow stoop at the shorebirds. Lacking Turkey Vultures, perhaps the Zone-tailed Hawk used the Frigatebirds as surrogates for vulture mimicry.

ACKNOWLEDGMENTS.—I thank the Florida Ornithological Society's Rare Bird Committee for examining the videotape. R. Bowman, K. Meyer, and P. Hughes provided helpful comments that improved the manuscript.

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