

News from the watershed

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Wood stork (*Mycteria americana*)

Have you seen a wood stork in Highlands County? If you take note of big aquatic birds then the chances are good. The wood stork stands more than 3.5 feet tall (about the height of a kindergartner) and has a wingspan of more than five feet. This long-legged wader also has a distinctively large, thick and slightly decurved bill. The head and neck are unfeathered showing black skin. Similar to other wading birds the wood stork's plumage is white. In flight you can see that the primary and secondary feathers are black. Most other large white birds lack black flight feathers.

Wood storks will fly as many as 50 miles to search for food. They are tactile feeders that locate food not by sight but by groping with their bill in shallow water. They eat small fish, tadpoles, and crayfish. Walking slowly forward the stork sweeps its submerged bill from side to side. Touching prey, mostly small fish, the bill snaps shut with a 25 millisecond reflex action, the fastest known for vertebrates.

This feeding technique is most effective when water levels are dropping throughout broad marshes as a result of prolonged dry periods, and fish are being concentrated in ever-diminishing pools. Only seasonally drying wetlands concentrate (mostly in drying ponds) enough fish to provide the 440 pounds (200 kg) a pair of these big birds requires in a breeding season.

Wood storks are on the federal endangered species list. Storks used to be more abundant in southern Florida wetlands than in any other region throughout the southeastern states. The Everglades of the 1930s, largely undrained and without complex water control structures, supported a nesting population of approximately 4,000 pairs of wood storks. Accelerated development of water control structures and unnatural water delivery schedules have sharply increased the birds' decline. By the mid-1980s, only 250 pair of wood storks were still nesting in Everglades National Park!

Wood Storks are monogamous birds that pair during a breeding season and raise their offspring together. Breeding often occurs in early November through December followed by the incubation period. The incubation period lasts from 28 to 32 days. Both the male and the female sit on the eggs, which average three. A Wood Stork nest is usually large. In fact, it can be as large as 48 inches in diameter. The favorite place to build a nest is a tall tree, usually the Cypress or the Mangrove tree. The number of nests in one tree can count up to twenty.

In order to delist the wood stork from the endangered species list the Fish and Wildlife Service has set a recovery goal of at least 10,000 nesting pairs producing at least 1.5 chicks per nest over a 5 year period. Of those 10,000 pairs, a minimum of 2,500 must occur in south Florida.

Wet conditions in the last five years resulted in the inundation of more wetland acreage and as a result led to high nesting success in wood storks. Unfortunately, excessively wet hydrologic conditions are unlikely to persist as evidenced by this past year. Consequently, nesting success for this season is proving to be poor. There are currently no nesting pairs at Corkscrew Swamp Sanctuary, historically the largest nesting colony for storks in the nation.

Wood storks have failed to nest successfully when natural wetlands cycles are upset by human water management. This close association of the past population decline of the wood stork and the decline in quality habitat makes the wood stork a good indicator species for ecosystem health. Close monitoring of an indicator species will tell us much about the success of habitat restoration. This is important for the Everglades restoration project currently underway.

Our understanding of the habitat requirements of wood storks makes it possible to revise water management practices in order to restore good wading bird feeding conditions. The challenge, however, is to implement these improved water management programs in the face of the rapidly growing human demands for water and space in southern Florida.