

Wood Stork

Mycteria americana

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DESCRIPTION

Taxonomy and Basic Description

The wood stork is one of 19 species in the family Ciconiidae and one of four species in the genus *Mycteria*. They are morphologically indistinguishable across the species' range and no subspecies have been proposed. Likewise, genetic studies on 15 nesting colonies in Florida showed little genetic variation (Stangel et al. 1990).



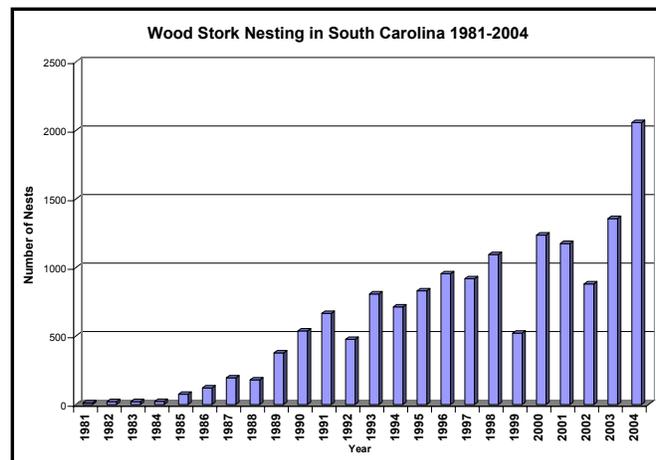
Wood storks are the only stork species and the largest wading bird that breeds in the United States. They are large, long-legged birds with a head to tail length of 85 to 115 cm (33 to 45 inches) and a wingspan of 150 to 165 cm (59 to 65 inches). Adults are white except for their primary and secondary wing and tail feathers, which are black with a greenish sheen. Adults have an unfeathered head and neck with a long, thick black bill. The legs and feet are dark; toes are pink during the breeding season. Subadults are similar except the head and neck have grayish feathers that are gradually lost as the bird matures. Subadults also have a pale yellow bill.

Status

Wood storks were listed as endangered on February 28, 1984, pursuant to the Endangered Species Act of 1973, as amended (U.S. Fish and Wildlife Service 1984). They are also listed as endangered under the South Carolina Nongame and Endangered Species Conservation Act. The South Carolina Heritage Trust Program lists the wood stork as threatened in this state (S1/S2) and uncommon but not rare or apparently secure globally (G4) (NatureServe 2005).

POPULATION DISTRIBUTION AND SIZE

The United States breeding population of wood storks was listed as endangered after nesting pairs declined from between 15,000 and 20,000 in the 1930's to 2,500 pairs by 1978. The low number in 1978 was a combination of a decrease in the regional population and poor conditions for nesting that particular year (U.S. Fish and Wildlife Service 1996). Historically, wood storks have used South Carolina as a post-nesting foraging area during the summer and fall (Murphy 1995). In 1981, the first



successful wood stork nests were documented in South Carolina (11 nests). By 2004, the population had grown to 2,057 nests at 14 sites.

HABITAT AND NATURAL COMMUNITY REQUIREMENTS

Wood storks typically nest in the upper branches of black gum (*Nyssa biflora*) or cypress (*Taxodium distichum*) trees that are in standing water. Standing water deters mammalian predators and is an essential element of colony sites. Storks require open access to nest trees and are frequently found in trees adjacent to open water areas. Range-wide, there has been a trend towards the use of manmade wetlands as colony sites in recent years as these sites are not totally dependent on rainfall for water (Rodgers 1996). In South Carolina, colony sites are surrounded by extensive wetlands, in particular palustrine forested wetlands (Mitchell 2002).



Wood storks are tactile feeders. They frequently feed in large groups in open wetlands where prey species are available and water depths are less than 50 cm (20 inches). Forested riverine floodplain habitats are frequently used, but a variety of ponds, ditches and diked marsh impoundments are important habitats. Use of these habitats is enhanced by receding water. Storks also forage around low tide along many coastal tidal creeks.

CHALLENGES

Loss of feeding habitat from alteration of natural hydroperiods has resulted in abandonment of nesting colonies or widespread nesting failures in south Florida. Development, lowered water tables and disturbance also degrade nesting sites. Therefore, as their natural range has become depleted, South Carolina has become an important population source in recent years.

CONSERVATION ACCOMPLISHMENTS

Most importantly, standardized surveys of nesting effort have been completed for the southeastern United States. In addition, a regional wood stork working group has been organized to facilitate information exchange and to set research and management priorities. Regional management guidelines for wood stork nesting, feeding and roosting habitats have been developed. A wood stork recovery plan has been completed by the U.S. Fish and Wildlife Service and an information brochure to inform landowners of conservation and management needs of storks has been completed as a joint production of the U.S. Fish and Wildlife Service (USFWS) and the Savannah River Ecology Laboratory. A general information pamphlet for distribution to the public has also been completed by Clemson University, Department of Pesticide Regulation.

Techniques for management of fresh water ponds to enhance stork use have been developed and implemented at the National Audubon Society's Silver Bluff Plantation Sanctuary in Jackson, South Carolina. Finally, artificial nesting platforms have been developed to enhance stork nesting at colony sites with limited vegetation for nest construction. This technique was developed by USFWS- Refuges Division.

CONSERVATION RECOMMENDATIONS

- Determine survivorship of fledgling, immature and adult wood storks.
- Document important wood stork winter habitats and determine if the amount of habitat limits species recovery. This will involve general census and satellite radio tagging.
- Conduct complete ground counts of wood stork nests at colony sites in South Carolina each year.
- Estimate wood stork nesting success by counting chicks in a sample of nests each year.
- Conduct aerial surveys to locate new wood stork nesting colonies.
- Participate in and contribute to the regional wood stork working group.
- Provide technical guidance and assistance to landowners where wood storks occur.
- Develop a South Carolina Department of Natural Resources web page on wood storks for public outreach and information exchange with existing and potential management partners.
- Consider protecting storks and their habitats through an interagency permit review system.

MEASURES OF SUCCESS

Efforts to restore wetlands in south Florida may significantly impact wintering and nesting wood storks in the future. In addition, during the past several decades, wood stork nesting has shifted north and is significantly changing management of the species. Both of these activities will require responsive and adaptive management to reach the recovery goal of 10,000 breeding pairs.

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