

Wood Stork, Listed as Threatened:

The wood stork (WOST) was listed as endangered in 1984 and was reclassified as threatened in 2014.

<https://www.federalregister.gov/documents/2014/06/30/2014-14761/endangered-and-threatened-wildlife-and-plants-reclassification-of-the-us-breeding-population-of-the>.

Wood Stork Range in North America:

This map shows the wood stork range in North America.

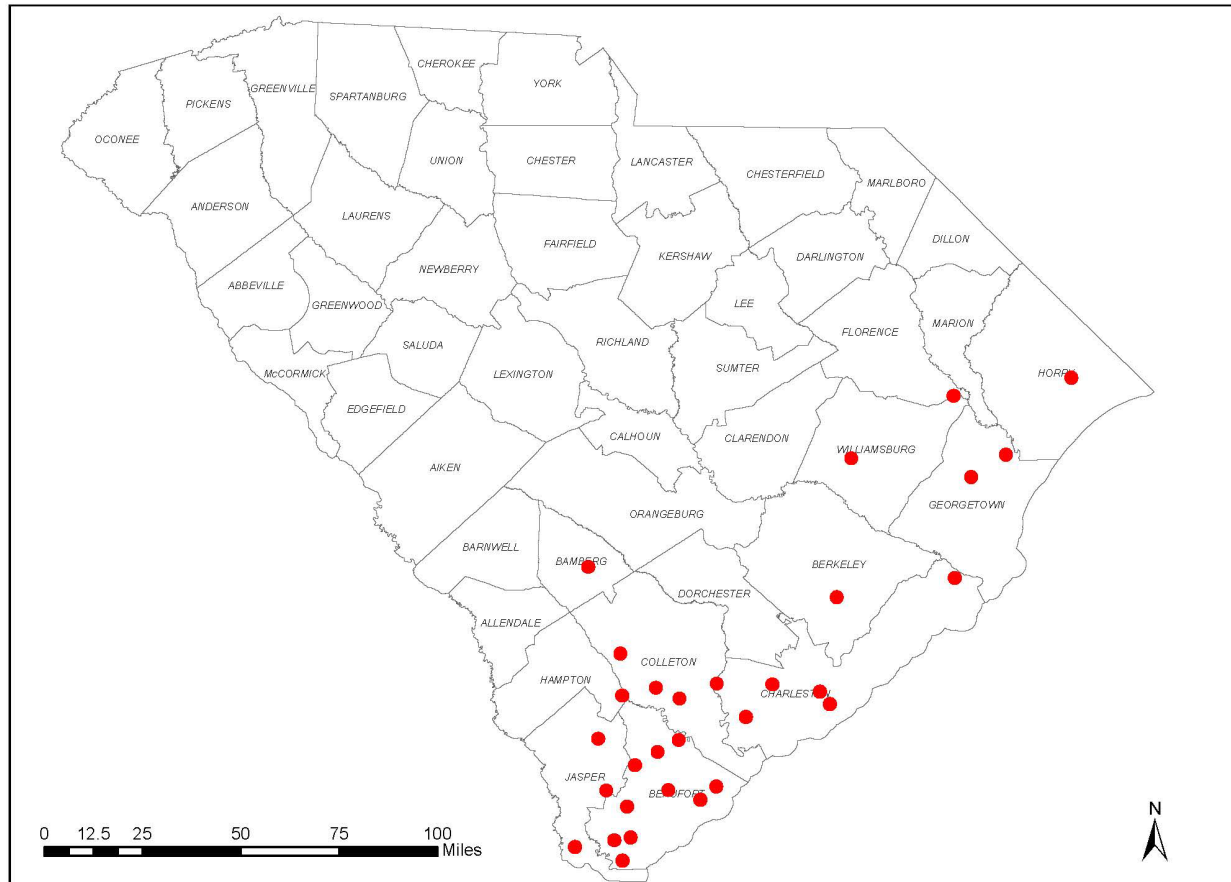
<https://ecos.fws.gov/ecp/species/8477>



Wood Stork Colonies in South Carolina:

This map shows WOST breeding colonies monitored by South Carolina Department of Natural Resources (SCDNR).

Distribution of Wood Stork Colonies in South Carolina, 2020



Primary Conservation Provision: Avoid Disturbance of Breeding Colonies within WOST Range.

Wood storks may use their breeding colonies for many years ('colony' refers to the entire extent of habitat the birds are using for nesting at a particular site). The breeding season in South Carolina is March through August. Check the T&E database in Desktop and work with an NRCS biologist to determine if your project area might contain WOST. Plan needed management activities within colony (nesting trees/structure) outside of the breeding season only.

Conservation Measures for WOST:

- Do not conduct any activities within 1,000 feet of known, occupied *colony*;
- Do not remove *colony trees*;
- Do not compromise *Core Foraging Areas* (CFA). CFA include suitable foraging habitat (SFH) within a 10km (6.2mile) radius of colony. SFH is described as an area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2-15 inches (5-38 cm). Examples of SFH include freshwater marshes, stock ponds, shallow, seasonally flooded agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs.
- Do not disrupt/drain wetlands critical of WOST habitat and other wetlands that could be potential habitat.
- Do not use pesticides or other chemicals in or near WOST habitat and isolated wetlands.
- Do not destroy black gum and cypress trees over water (typical WOST nesting sites).

Practices That Can Help:

Improve colony success/productivity by impounding suitable sites. While above normal rainfall and high water levels negatively impact the foraging success of wood storks, high water levels in colony sites can improve productivity for the following reasons:

- a. Prolonged flooding increases the likelihood of storks using the site for continuous nesting.
- b. High water levels decrease predation by terrestrial predators.
- c. Prolonged flooding reduces understory vegetation that may contribute to "hot" wildfires and damage to nesting trees.

Not all colony sites respond well to continued inundation and care must be taken to select sites that will benefit. Over time, prolonged flooding can reduce tree recruitment, reduce growth rate of flood tolerant species, and kill flood intolerant trees located within the colony. Some sites may need to be periodically drained to preserve nest trees.

Enhance foraging habitat by modifying hydrologic regimes in existing artificial impoundments to maximize stork use.

In tidal impoundments where water levels can be controlled, there is potential to enhance use by wood storks. Estuarine fishes are recruited during flooding and maintained over the entire acreage while at flood stage. These fish can then be concentrated into perimeter canals when water levels are lowered to a dry marsh bed. By staggering timing of drawdown of different impoundments within a management unit, stork use may be extended for months. Manage to include:

- a. Maintenance of good water quality using a flow-through system, aeration tower, etc.
- b. Stocking of preferred prey species (sunfish, bullhead catfish, etc.). Fish hatcheries are a potential source of fish.
- c. Providing preferred prey size (5-20 cm (2-8 in)) through high density stocking and/or post spawning drawdown.
- d. Prolonging feeding opportunities, using a slow drawdown to desired water depth, approximately 25 cm (10 in).

Encourage management of existing impoundments on public and private lands. Most of the management required to enhance use of artificial impoundments by storks is within the framework of normal waterfowl management practices for brackish and saline marsh impoundments. Incorporate wood stork feeding habitat into current management practices. Coordinated efforts that seize opportunities to provide enhanced feeding areas through the mitigation process.

Restoration and protection of wetlands on private lands. Conservation of existing and former shallow wetlands can provide nesting and foraging sites for wood stork. Farm Bill Conservation programs can provide technical and financial assistance to restore hydrology through wetland restoration practices such as blocking manmade drainage ditches; and removing manmade aquatic obstruction of hydrology such as road fill, undersized pipes, dikes, or berms (obstruction could negatively affect water depth of nesting or foraging areas). Other beneficial practices include native plant establishment to buffer isolated wetlands and wildlife habitat management of adjacent uplands. Farm Bill Easement programs can be useful for preservation of habitat, nesting, and/or foraging sites.

Reduction of thick under-/mid-story plants at nest sites (colonies) can eliminate over-water pathways for mammalian predators. However, this should not be done if other wading birds are using these trees and shrubs as nesting habitat. The removal of thick mats of aquatic vegetation can also limit the ability of predators to reach nest trees. Any vegetation removal should be planned with an NRCS Biologist and should occur outside of the breeding season.

Above recommendations adapted from:

https://www.fws.gov/northflorida/WoodStorks/Documents/19970127_rpp_Wood-stork-recovery-plan-1997.pdf
<https://www.fws.gov/panamacity/resources/WSbrochure.pdf>



Photos from USFWS fact sheet at: <https://www.fws.gov/northflorida/Species-Accounts/PDFVersions/Wood-stork-2005.pdf>



Wood storks and other wading birds foraging at a WRP Conservation Easement site on private land in Berkeley County. *Photo by Ann Bentley (NRCS)*



Aerial photo of a rookery (wading bird nesting site) with wood storks in a backwater oxbow lake on private land in Bamberg County. *Photo by Christy Hand (SCDNR)*