

# WILDLIFE MISSISSIPPI

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**MEMBERSHIP DOLLARS AT WORK**

# The Sky Lake Boardwalk



The dedication and opening of the Sky Lake Boardwalk was held on November 3, 2011.

**O**n November 3, Governor Haley Barbour, First Lady Marsha Barbour and others announced the opening of the Sky Lake Boardwalk. Wildlife Mississippi's involvement in the preservation of Sky Lake began when the organization was founded. Wildlife Mississippi worked with the owners of the property, Mark and Peggy Simmons, the Office of the Governor and the Mississippi Department of Wildlife, Fisheries, and Parks to acquire the property so that it would be preserved, not only for its fish and wildlife values, but for scenic, ecological and scientific values as well. The ancient baldcypress trees of Sky Lake are one of the largest remaining tracts of old-growth cypress on earth.

### **SIGNIFICANCE OF SKY LAKE**

Baldcypress trees are a wetland species often characterized by their moss-draped crowns, buttressed trunks and protruding "knees" emerging around them from the swamp. It is a deciduous conifer which means its needles fall off in the winter months, hence the name "bald." It grows naturally throughout the Southern Coastal states and north into the Lower Mississippi River Valley.

Dr. David Stahle, the director of the Tree Ring Laboratory at the University of Arkansas, is a dendrochronologist who has specialized in the analysis of tree-ring records from ancient baldcypress forests to determine past weather patterns. He has discovered the oldest-known living trees in Eastern North America, the ancient baldcypress at Black River North Carolina. The oldest of these are 1,500 to 2,000 years old. Stahle analyzed thousands of tree ring samples of ancient baldcypress and used these climate proxies to reconstruct past rainfall amounts and to study the impact of drought on the first colonial settlements in the United States at Roanoke Island and Jamestown.

Dr. Stahle says, "Based on our field inspections and core samplings, I can state with certainty that Sky Lake contains some of the largest and oldest baldcypress trees that remain on earth, and they have international scientific significance. Here at Sky Lake one can see what native Mississippi was truly like in the heart of her forested wetlands, an ecosystem of such diversity and productivity that it was rivaled only by the tropical rainforests of Amazonia."

**The ceremony began at the Sky Lake amphitheater.**



**First Lady Marsha Barbour and Governor Haley Barbour address attendees at the Sky Lake Boardwalk opening ceremony.**

Even before Wildlife Mississippi began working on this important acquisition, Stahle had visited the area and said, "The record size and age of the Sky Lake baldcypress are a unique natural and scientific resource, and in my opinion they should be preserved for future generations."

Peyton Self, a past-president of Wildlife Mississippi agrees, "Early on, I had the opportunity view the Sky Lake property. Aside from the obvious need to protect the area for its scientific and scenic beauty, it will provide valuable habitat for a diversity of bird life, especially neotropical migratory birds such as the roseate spoonbill."

### **HISTORY OF SKY LAKE**

The age of the magnificent trees at Sky Lake proves the area itself to be old. The meandering Mississippi River dropped sediments that are thousands of years old. Sky Lake is an old Mississippi River distributary of the Wisconsin or Holocene age, about 7,700 years ago. It probably functioned as a distributary for 1,700 to 2,800 years. The meander belts and natural levees of Sky Lake were high enough for Indians to have occupied the area 6,500 years ago, yet the oldest known evidence of humans in the Sky Lake area was 4,000 years ago.



Ceremony attendees  
enjoy a tour of Sky Lake  
from the boardwalk.

## *The Sky Lake Boardwalk was made possible by the following:*

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Humphreys County Board of Supervisors  
Humphreys County Sheriff's Department

Mississippi Department of Wildlife, Fisheries, and Parks  
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### **A FUNCTIONING BACKWATER ECOSYSTEM**

Sky Lake is a functioning backwater ecosystem. Backwater areas are often dominated by baldcypress and water tupelo. Cypress-tupelo swamps are actually one of the most biologically-productive ecosystems in the world. They can produce more plant biomass per acre than just about any other forest ecosystem because the water flow is constantly bringing in fresh nutrients. They also provide abundant food and habitat for plants and wildlife.

Cypress trees take advantage of the ability to reproduce and thrive in very wet conditions where other trees cannot survive. Interestingly enough, cypress will grow just as well in many other soil types, but by growing where there is little competition, they are often able to become giants.

One of the oldest land plants, *Equisetum* L., commonly called horsetail, is often found living in or near these

backwater areas and is often found growing with baldcypress. They have hollow stems that arise from a series of underground branches. As remnants of the primeval forest, these plants and cypress have co-existed since the age of the dinosaurs. The success of these ancient forest dwellers depends on an adequate water supply, making hydrology key to survival.

Preserving backwater areas helps reduce flooding. As the water levels change naturally throughout the year, different plant species can grow to provide nutrients and habitat for a variety of birds and other wildlife. These cypress trees act as giant water pumps that lower the water table tremendously, which is very helpful for flood control. Through photosynthesis and transpiration, a baldcypress having a diameter of 11 inches can suck up an average of 26 gallons of water per day while providing clean air for us to breathe.

## THE TREES

The baldcypress is in the Cupressaceae family. This is the same family as the famous giant sequoia trees of the West Coast. They both can grow very large trunks and produce small cones and needle-like foliage.

A testament to survival and splendor, the cypress of Sky Lake offer a glimpse into the past. Through core samples from some of the living cypress trees and dead logs that litter the swamp floor at Sky Lake, experts have determined that many of them range from 800 to 1,000 years old. They believe that some of the oldest baldcypress at Sky Lake might be nearly 2,000 years old, but do not know for certain because some of the oldest trees have become hollow with great age.

The largest of Sky Lake's ancient cypress, a previous state record, is now the second largest tree in Mississippi. At the last measurement, it was 46 feet 9 inches in circumference, about 15 feet in diameter and 70 feet in height. This means that the tree could contain enough lumber to build 6 ordinary homes!

## THE PROPERTY

Wildlife Mississippi worked with the Office of the Governor and the Mississippi Department of Wildlife, Fisheries, and Parks to acquire the initial 773 acres from Mark and Peggy Simmons for the Sky Lake Wildlife Management Area (WMA), which now encompasses 4,273 acres.

The U.S. Army Corps of Engineers has acquired nearly 3,500 acres of former agricultural land around Sky Lake and restored the vegetation through reforestation of bottomland hardwoods with a variety of hardwood tree species, including water oak, willow oak and Nuttall oak. This reforestation effort will virtually eliminate contamination and filling-in of the lake bed.

## A DIVERSITY OF FISH AND WILDLIFE

Sky Lake WMA provides overwintering habitat for a variety of migrating birds including shorebirds and neotropical migrant songbirds. It is an important link in the chain of WMAs, refuges and national forests for migrating ducks and geese in the Mississippi Flyway.

The protection of this area will continue the efforts of the Simmons to provide for the habitat needs of threatened and endangered species like the least tern, migratory bird species such as the prothonotary warbler and mallard ducks and resident wildlife species to include turkey, squirrel and white-tailed deer.

Sky Lake provides habitat for a variety of shorebirds, waterfowl and aquatic and amphibious species such as turtles, frogs and crayfish. Several moist-soil areas (areas that grow plant species such as smartweed, sedges and rushes), that were developed several years ago by Tara Development, a division of Tara Wildlife, will be managed for moist-soil plants. This management will benefit a variety of shore and wading birds as well as waterfowl.

## RECREATIONAL OPPORTUNITIES AT SKY LAKE

The Sky Lake WMA offers a variety of recreational opportunities to the public. Visitors may view and photograph birds and other wildlife. No camping is permitted on Sky Lake WMA as of yet.

Limited permit hunting is currently allowed for deer,

turkey, squirrel, rabbit, dove and raccoon. This hunting is an important management tool for keeping wildlife populations within the carrying capacity on the WMA.

The scenic canoe and kayak trail being developed will allow participants to get a close view of these giant cypress and tupelo trees. The trail will be several miles long and can be traversed at a relaxing pace.

## EDUCATIONAL OPPORTUNITIES AT SKY LAKE

Wildlife Mississippi sees the potential of using Sky Lake as an educational tool that will showcase the need to protect valuable habitats in Mississippi.

Stahle agrees, saying, "The extreme scarcity of old-growth baldcypress only heightens the value of Sky Lake, especially as an educational resource."

## THE BOARDWALK

Don Nevels, former Chief of Forest Management for the Mississippi Forestry Commission, before the property was acquired in the late 1990s, stated, "I can imagine raised walkways into the swamp and the tourists that the area might draw. I have worked in the forests of Mississippi for over 30 years, and I know of no other area as unique as Sky Lake."

In 2006, Wildlife Mississippi, through funds from the Mississippi Department of Wildlife, Fisheries, and Parks Recreational Trails Program, the Federal Highway Administration and the Yazoo-Mississippi Delta Levee Board, began the Sky Lake Boardwalk Project. The ancient baldcypress of Sky Lake can be seen from a 12-foot-high, 1,735-foot-long boardwalk through the forest canopy.

Approximately 75,000 galvanized nails and 50,000 galvanized screws were used in the walkway. There were approximately 450 6" x 6", 22-foot-long posts used; 15,000 feet of 2" x 4"s; 47,500 feet of 2" x 6"s; 36,000 feet of deck board; and 500 yards of concrete. Over 5,000 hours of labor were put into the project. Pryor and Morrow Architects designed the boardwalk with David Smith Construction building it.

A boardwalk, amphitheater, comfort station, walking path and pavilion were constructed. The cost of the entire project was \$716,000. This consists of \$571,000 from the Recreational Trails Program, which is a cooperative effort



Roger Pryor, the architect of the Sky Lake Boardwalk Project, and Judge Charles Pickering discuss the boardwalk.

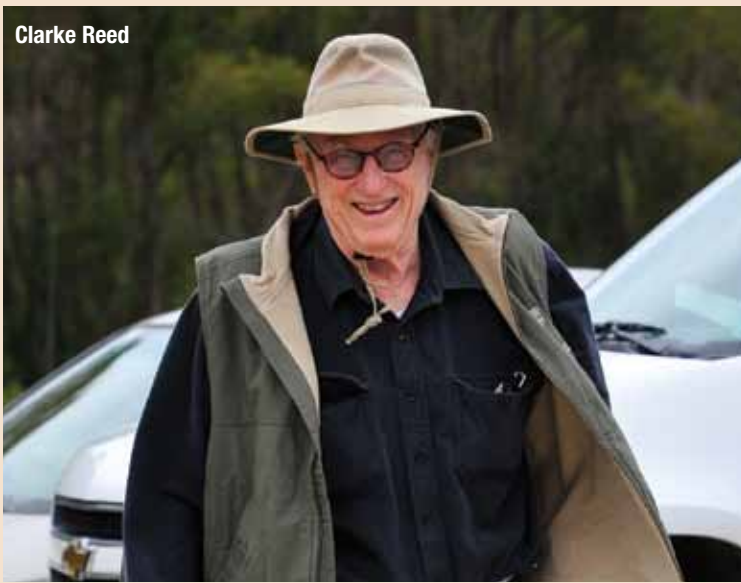
Reggie Barnes



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PHOTOS BY WILD EXPOSURES - MICHAEL KELLY

Sky Lake Boardwalk ceremony speakers.

between the Mississippi Department of Wildlife, Fisheries and Parks and the Federal Highway Administration. Private donors contributed \$145,000. The Yazoo-Mississippi Delta Levee Board purchased 50 acres (includes compound area), constructed one of the parking lots and is developing the canoe/kayak trail system.

The majority of the boardwalk was constructed during the drought of 2010, when the water levels in Sky Lake were some of the lowest they had been in almost 50 years.

Marsha Barbour was involved with the boardwalk from conception of the project. "Rarely does a First Lady have the unique privilege of seeing a dream come true in her state. As Chair of Wildlife Mississippi's Advisory Council, I had the opportunity to be in on the ground level of this amazing project. It has exceeded my expectations. The formally hidden treasure of these ancient forest giants is now easily accessible, making it possible for generations of Mississippians and tourists to appreciate and enjoy their beauty and grandeur," said Barbour.

**THE LOCATION OF THE BOARDWALK**

The boardwalk is located at the Sky Lake Wildlife Management Area, which is north of Belzoni. At the intersection of US Highway 49W and Highways 12 and 7 (at Belzoni), turn east onto Highway 7 (1st Street). At the first traffic light, the intersection of Highway 7 (also named Martin Luther King Drive) and Hayden Street, turn left. When the road forks at Old Highway 49 and Highway 7, bear right on Highway 7 and continue for approximately 4.9 miles to the intersection of Four Mile Road. Turn left and travel approximately 0.9 miles to the intersection of Simmons Road. Turn left on Simmons Road and travel approximately 0.8 miles, staying on the blacktop, to the entrance of the facility, which will be on the right. The coordinates are N 33° 17.101' W 090° 28.961'.

*This project was a cooperative effort by Wildlife Mississippi, the Mississippi Department of Wildlife, Fisheries, and Parks, the Federal Highway Administration and the Yazoo-Mississippi Delta Levee Board.*

