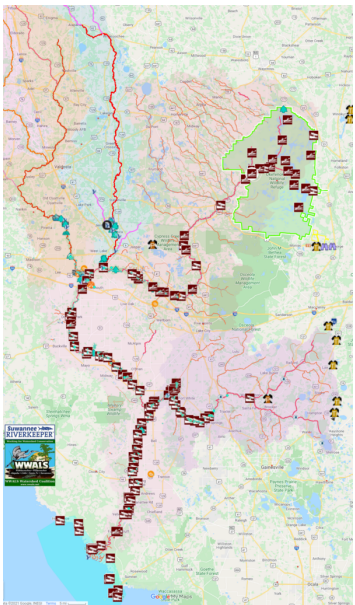


June 28, 2023

To: Jonathan Putnam
Office of International Affairs
National Park Service
1849 C Street NW
Washington, DC 20240

jonathan_putnam@nps.gov
(202) 354-1809

Re: Nominating Okefenokee NWR for UNESCO World Heritage List, Docket Number
[NPS-WASO-OIA-DTS-35557, PPWODIREI0-PIN00IO15.XI0000-234P104215](https://www.nps.gov/wwals/wwals-1809.htm)



Dear Mr. Putnam,

As Suwannee Riverkeeper and for our umbrella organization WWALS Watershed Coalition, Inc., I thank the U.S. for submitting a nomination for the Okefenokee National Wildlife Refuge (ONWR) from the U.S. World Heritage Tentative List (“Tentative List”) to the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List.

<https://whc.unesco.org/en/tentativelists/5252/>

The vast majority of the Okefenokee Swamp is in the Suwannee River Basin, and some 85% of the outflow of the Swamp goes down the Suwannee River, which continues through Georgia and across Florida, where it is the subject of the state song, to the Gulf of Mexico.

In addition to our previous letter of January 26, 2021 (attached), please accept the comments in the present letter.

Operational Guidelines

Here are a few suggestions for some of the items in the Operational Guidelines

3.1.c. Statement of Integrity:

The ONWR includes 92% of the Okefenokee Swamp and thus includes all elements of Outstanding Universal Value and is of adequate size to represent the features and processes of the property’s significance. The ONWR suffers adverse effects of development: see 4.b (i).

3.1.e. Protection and management requirements

The ONWR has federal legal protections as a Wilderness Area and a National Wildlife Refuge. Further protections are needed to fend off development beyond the boundaries of the ONWR. See 4.b. (i).

4.b (i) Development pressures and management response:

For the second time in twenty years, a titanium dioxide strip mine threatens the Okefenokee Swamp, this time within three miles of the southeast border of the ONWR, organized by coal miners from Alabama. The U.S. Army Corps of Engineers has abdicated oversight, leaving only the Georgia Environmental Protection Division (GA-EPD), standing between the miners and the Swamp. <https://epd.georgia.gov/twin-pines> GA-EPD has received more than 100,000 comments on the five permit applications, the overwhelming majority against the mine. The ONWR Manager testified in uniform for the Swamp and against the mine in a Georgia legislative hearing about a bill that would prohibit further mining on Trail Ridge east of the Swamp.¹

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WWALS is an IRS 501(c)(3) nonprofit charity
est. June 2012

WWALS Watershed Coalition WWALS advocates for conservation and stewardship of the surface waters and groundwater of the Suwannee River Basin and Estuary, in south Georgia and north Florida, among them the Withlacoochee, Willacoochee, Alapaha, Little, Santa Fe, and Suwannee River watersheds, through education, awareness, environmental monitoring, and citizen activities.

Suwannee RIVERKEEPER® is a program and a paid staff position of WWALS.



¹ Early County News, March 21, 2023, “Okefenokee Swamp mining debate reaches legislature,” <https://www.earlycountynews.com/articles/okefenokee-swamp-mining-debate-reaches-legislature/>

4.b (ii) Environmental pressures, natural disasters and risk preparedness

Fires in and around the Okefenokee Swamp are an increasing risk beyond natural prevalence, because of drought and land use. Wildfires in 2007 put some people in the hospital 70 miles away, and sent smoke as far west as Mississippi, as far north as North Carolina, and as far south as Fort Lauderdale. Wildfires in 2015 required assistance from counties throughout south Georgia. This is all in addition to adverse local effects such as destruction of trees and other wildlife habitat. Dewatering of the land around the Swamp or lowering of the water level of the Swamp itself would increase fire pressures. The proposed strip mine near the Swamp could cause such dewatering or water level change, thus increasing the prevalence of wildfires. Public and private landowners around the Swamp cooperate in firebreaks and other measures to minimize wildfire risks. Prohibiting mining near the Swamp would also help.

Ten Criteria

In our previous letter, we addressed each of the ten Criteria. Here are a few more notes.

(x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation

Our previous letter includes many examples, with some drawn from the application that made the ONWR a RAMSAR wetland of international importance since 1986.

<https://rsis.ramsar.org/ris/350>

In addition, the Okefenokee Swamp includes old-growth cypress trees more than 400 years old.²

There is “a unique remnant stand of old-growth pond cypress (*Taxodium ascendens*) occurring in a shallow peaty area of the Okefenokee. Apparently, the community has not been sufficiently disturbed in the last few centuries to alter its natural succession to a bay swamp dominated by broadleaf evergreen hardwoods. . . . The stand lies on the northeastern perimeter of Grand Prairie in the southeastern section of the Okefenokee Swamp, Georgia.”

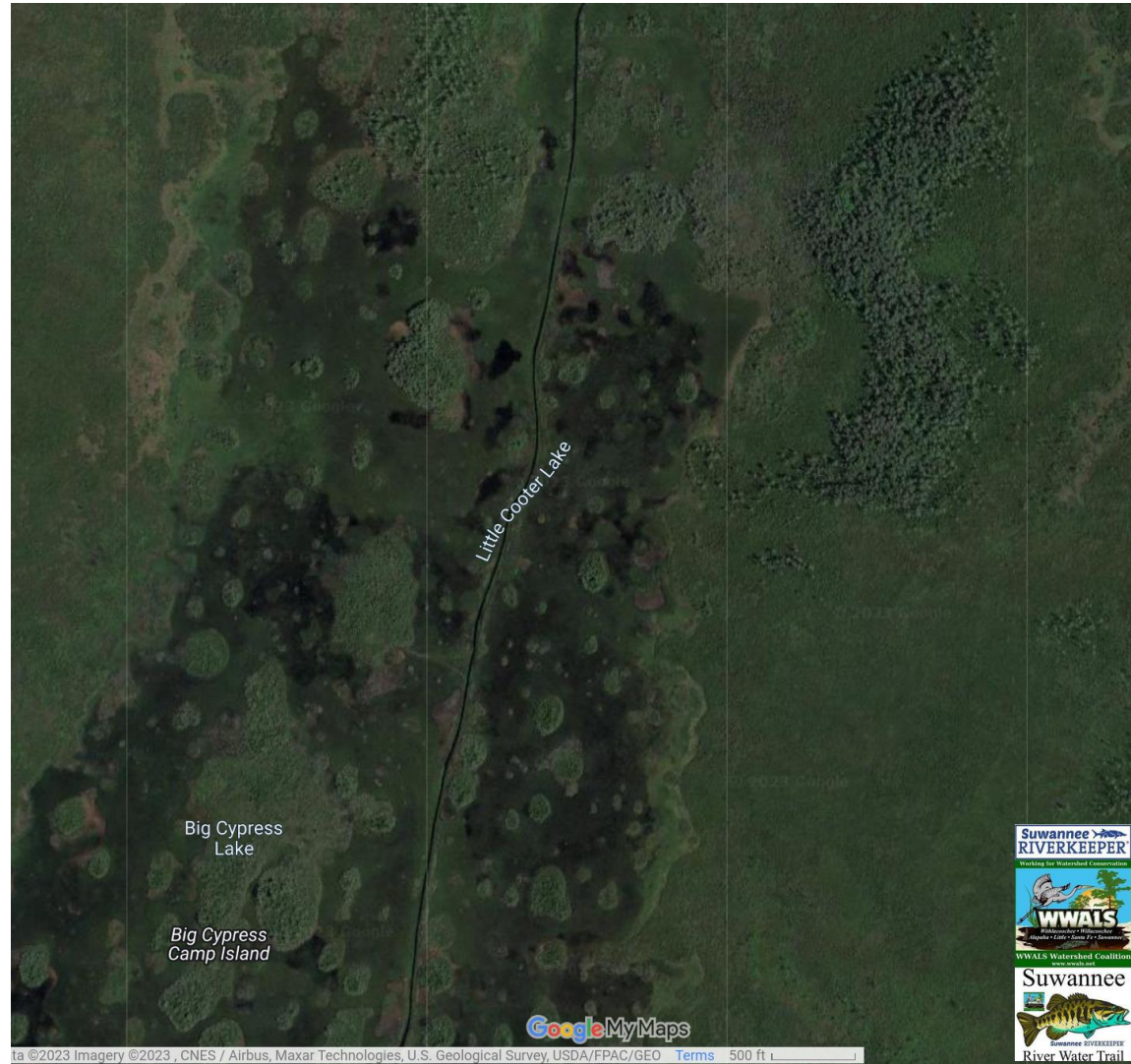


Grand Prairie in USGS The National Map

² G. Ronnie Best, et al., “An Old-Growth Cypress Stand in Okefenokee Swamp,” University of Florida, 1984.

<https://cfw.essie.ufl.edu/wp-content/uploads/sites/312/2020/07/Best-et-al-1984-OldGrowthCypressStandInOkefenokeeSwamp-BookChapter.pdf>

“The stand appears to be an undisturbed remnant of a more extensive *Taxodium*-dominated swamp forest in the eastern portion of the Okefenokee. Duever (1979),³ who treated the site as an example of a large "tree house" (a peat-formed island), estimated the size of the area to be about 1000 m in diameter. Canopy trees in the site range between 30 and over 90 cm in diameter at breast height and over 30 m in height, suggesting the area was most certainly spared from logging in the early part of the century. Several of these canopy trees are 400-500 years old or older (Duever, 1979).”



The old-growth pond cypress described appear to be visible northeast of Grand Prairie.⁴

More specifically, “The larger *Taxodium* in the stand are rather old with estimated ages of 445, 528, and 587 years for three individuals cored by Duever (1979). Duever states that ring quality for *Taxodium* is "fair-good" (based on a sample size of 126 trees over all of Okefenokee Swamp). Therefore, it is safe to assume that at least several of the older *Taxodium* have been present in the site for over 400 years. If one assumes some reliable correlation between age and diameter, and given that the 587-year-old *Taxodium* is 96 cm dbh, then the younger *Taxodium* must be older than 100-150 years.”

³ Duever M. J. (1979), “Ecosystem analysis of Okefenokee Swamp: Tree ring and hydroperiod studies,” Okefenokee Ecosystem Investigations, Technical Report No. 5. University of Georgia, Athens. 72 pages.

⁴ Map of the WWALS Suwannee River Water Trail.

<https://www.google.com/maps/d/u/0/viewer?mid=19oUN8HLVR1q8sc7oHEgOiWDzNRT5hfFQ&ll=30.68863718368294%2C-82.20187547775997&z=16>

Forty four years later, those three trees are now 489, 572, and 631 years old. Older pond cypress exist elsewhere, but they are rare.

Even though this old-growth cypress stand is deep in the Swamp, it is still threatened by wildfires.

“Fire scars on the larger trees and several of the younger understory trees indicate that the area has been burned, though not severely, during recent fires. Numerous completely burned trunks exist on the outermost perimeter of the forest facing Grand Prairie indicating the forest may have covered a greater area than it presently does.”

This is a practical fire risk: “Under drought conditions, peat fires that burn below the surface of the organic soil may kill the roots of cypress trees, thus killing the plant. A peat fire in the Okefenokee swamp in Florida killed 97 percent of the cypress trees in a 3,000-acre plot (1,214 ha).”⁵

Listing as a UNESCO World Heritage site would encourage legislation and other protections to lower the risk of wildfires.

Conclusion

For all these reasons I recommend that the U.S. nominate the Okefenokee National Wildlife Refuge as a World Heritage site this year.

We continue to support the ONWR through paddle trips into the Okefenokee Swamp, through support of legislation to protect the Swamp, through opposition to the titanium dioxide strip mine proposed far too close to the Swamp, and through support of this nomination.

Thank you for your consideration.

For the rivers and the aquifer,

John S. Quarterman
Suwannee RIVERKEEPER®
/s
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Attachments:

- WWALS letter of January 26, 2021
- G. Ronnie Best, et al., “An Old-Growth Cypress Stand in Okefenokee Swamp,” University of Florida, 1984.

⁵ USDA Fire Effects Information System (FEIS), Index of Species Information, SPECIES: *Taxodium ascendens*, *T. distichum*, <https://www.fs.usda.gov/database/feis/plants/tree/taxspp/all.html#14> which cites Cypert, Eugene. 1961, “The effects of fires in the Okefenokee Swamp in 1954 and 1955,” *American Midland Naturalist*. 66(2): 485-503. [11018]