

# TPO News, Events and Opportunities



## Upcoming Events

### **August 19 10:00.**

Regular Tree Peace Meeting at Middleton Park in front of the Community Center

### **September 10:00**

Regular Tree Peace Meeting at Middleton Park in front of the Community Center

### **September 17 6:30 - 8:30**

Native Plant Festival New Hanover County Arboretum with NCSU Cooperative Extension~ Tree Peace OKI has been asked to present!

## Thank You Kash Family!

The family of Morgan and Leslie Kash have renewed their Live Oak level sponsorship for another year. By going public with the donation this year Morgan said he hoped his friends and neighbors would act in-kind.

All of us at Tree Peace OKI are grateful for their generous donation to the cause of restoring the tree canopy in the Town of Oak Island. 100% of money received in our sponsorship program goes to the Town of Oak Island's designated fund for planting trees on public property.

## The Geology of Carolina Bays

Carolina Bays are not named after a body of water but are purely an indication of where they are found and what trees -scrubs grow in them. The majority of Carolina Bays are found along the Atlantic Coastal Plains of North and South **Carolina**. The prevalent vegetation is the freshwater wetland variety. These would include evergreen trees, and shrubs from the **Bay** family (e.g., Sweet Bay, Red Bay, and Loblolly Bay). The Carolina Bays were first documented in the 1930's and estimated to have developed near the end of the Pleistocene Age (14,000-11,000 yrs ago). This article will provide a discussion of the geologic origins of the bays, ecological-wetland significance of the bays, and their importance to our community.

Carolina Bays is a mysterious and unique geomorphic feature. There are about 500,000 Carolina Bays features from Southern New Jersey to the north to Northern Florida to the south. They range in size from thirty (30) feet to three (3)

## About Us

Tree Peace OKI is a 509 (c) (3) non profit incorporated in the State of North Carolina dedicated to promoting and educating about the value of trees to Oak Island, NC. We may endeavor to influence legislation for that purpose but we may not support any candidates or political parties.

## Contact us

We meet the third Wednesday every month at 10:00 a.m. Message us on our Tree Peace OKI Facebook page.

## Our Officers

Phil Dudley, President

Paula Byerly, Vice President

Eileen Soderberg, Treasurer

David Merkle, Secretary

Judy Reid, Events Coordinator

John Schweikart, Chief Information Officer

Ann White, Membership Chairperson

## Join or Donate to Tree Peace OKI

at [treepeaceoki.org](https://treepeaceoki.org)

A one year membership is only \$20

miles long, have a depth of less than 10 feet, and have a consistent long direction of about SE-NW. They are oriented in a SE-NW direction. The Carolina Bays observed in the Williamson Tract and depicted in the image provided below show the form described above. The largest bay in the Williamson Tract (yellow ellipse in image below) is about 0.82 miles long and oriented up to the left at 306 degrees (NW). All the other bays are smaller but oriented with a couple of degrees of the largest bay.



**Diagram:** Carolina Bays are present in the Williamson Tract, Oak Island (left undeveloped side of image) Can you find them all? Notice how St. James built around or integrated the geomorphic features in their development.

The origin of Carolina Bays is still a mystery. No one has nailed down the genesis or origin of how they were formed, or what process is responsible for the development of Carolina Bays. There are several hypotheses on their origin but none of them fully hold up against the observable data collected, computer modeling, or the known geologic processes. Some of the more reasonable hypotheses cited in the geologic journals and websites include wind altered rainwater ponds; groundwater dissolution of the Atlantic Coastal Plains unconsolidated, non-cohesive sediments (shallow sinkholes); sediment compaction of finer grained sediments and wind alteration of depressions formed when

filled with rainwater or groundwater; meteorite impacts; and altered permafrost karst (i.e., thermokarst) depression sites.

The origin that seems more reasonable and conforms to their uniform development is for the shallow round ponds being deformed over time from the prevailing winds sometime between the end of the Pleistocene age to the present. The prevailing winds created eddies in the shallow water ponds forming their ellipsoid shape, and fluctuating water levels in the ponds created distinctive sand rims. Even with this hypothesis, there are questions, but it is the simplest and the most reasonable without more conclusive data.

Carolina Bays support a highly specialized biodiversity and are critical freshwater wetland habitats for rare plants, amphibians, reptiles, and migratory birds. Wetlands are natural carbon sinks (absorb carbon) that are important to mitigate sea-level rise and are temporary repositories for storm water reducing flooding of developed areas. Most of the standing water related to the bays is ephemeral. Unlike wetlands with direct access to open bodies of seawater that are affected by the influx of tide water, Carolina Bays are not. They depend on rainwater and in some instances ground water for their standing water. Why is the Tree Peace Organization (TPO) interested in the Carolina Bays present in the Williamson Tract? Because of the environmental harm non-sustainable development (non-protection of the environment) can cause the existing Carolina Bays found there. TPO would like to know early in the development process how the current developer and the Town of Oak Island will protect the bays and their unique fragile wetland habitats.

In closing, Carolina Bays are elliptical depressions, marshy, occurring along the Atlantic Coastal Plain from Southern New Jersey to Northern Florida. They support a unique wetlands habitat for specialized flora- including Bay tree species and scrubs, and related fauna -including amphibians, reptiles, and migratory birds. If other communities can employ development practices to protect Carolina Bays, the Town of Oak Island can too in the Williamson Tract.

*Article Submitted by David Sonnenfeld, Geology MSc, Louisiana State University ( Geaux Tigers!)*



## Beach Sweep

Thanks to all that showed up on Tuesday August 11 to participate in the Oak Island Beach Preservation Society beach sweep. In five to ten minutes eight dedicated Tree Peace OKI members scoured the beach at the 57th Street West beach access and accumulated the pictured trash. Thanks also to Andy Spradley of OIBPS who made this a fun activity!!



Beach Sweepers L. To R. Janet Helms, Rose Byrnes, Sue Dudley, Phil Dudley, Judy Reid, Jim Reid, Eileen Soderberg, and Paula Byerly



## Brunswick County Habitat for Humanity

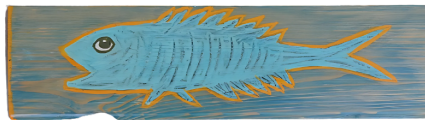
Tree Peace OKI continues its support of BCHH with the donation of a Live Oak Tree from Penderlea Farms to every new home. Thanks to Pat Young, Sue Dudley and Phil Dudley for assisting with the planting on what was a very hot morning in Leland July 16.

## Recognizing our Sponsors!

### Live Oak Level Sponsors



Julian Creek Artworks



Oak Island NC



*The Kash family, a multi-generation Oak Island family has donated \$1,000.00 to continue our efforts to preserve and restore the tree canopy.*

### Magnolia Level Sponsors

**Adam Powell, AAMS, Financial Advisor, EDWARD JONES**  
**Better Beach Rentals and Sales**

### Yaupon Holly Level Sponsors

Pelican Pack and Ship

Francesca Slaughter, Realtor, Keller Williams Innovate

Paula@Coastal Beauty Salon / Spa

Crossroads - A Gathering Place