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Palmetto



Lakela's & Savannas Balm • Memories of a Champion • Sawgrass • Sandhill Rescue



Above: Volunteers working at Castle Hill.

Emergency Sandhill Rescue: The Story of Castle Hill

Article and photos
by Juliet Rynear

Spock: To hunt a species to extinction is not logical.

Dr. Gillian Taylor: Whoever said the human race was logical?

– Star Trek IV: The Voyage Home

In the aggregate, the human species has a long history of illogical behavior which is often based on a perception of immediate and short-term needs. Yet as individuals, we humans are quite capable of understanding the complexity of the world around us and planning for our long-term needs. As individuals we have the capacity for a great depth of character, one of empathy and concern for the well-being of others and a willingness to serve causes greater than our individual selves.

This is the story of individuals who donated their time, money, and equipment to save what they could of one of the last pieces of natural Florida before it was lost forever.

Castle Hill was the name given to one of the few intact remnants of the sandhill community in Central Florida. By the middle of the 20th century, most of this habitat had been modified by logging, agriculture, and development. It was part of the longleaf pine ecosystem that once encompassed 90 million acres and spread from Texas to the Carolinas. Now fewer than 3 million acres remain (Jose et al. 2007). Castle Hill was famous among plant and nature lovers for its beauty, its rich diversity of plant species, and its rolling hills, all of which provided an escape from the world of concrete and automobiles that soon engulfed it.



Above left: Ray Jarrett (FNPS Land Management Partners Committee Chair) removing *Polygala lewtonii* plants. **Above right:** Susan Knapp of the Passionflower Chapter (left) and Jackie Rolly of the Tarflower Chapter (right) worked nearly every rescue day. Susan brought her trailer and transported and unloaded rescued plants at Green Isle Gardens. Jackie helped organize the rescue days, recruited volunteers, and oversees restoration work at the Oakland Nature Preserve.



Above: Irrigation lines and introduced plants can be seen at this new home for Castle Hill plants at one of the “Little Italy” sandhill restoration sites managed by the St. Johns River Water Management District.



Above: An underground cleistogamous flower (the white bud) of a *Polygala lewtonii* plant. Underground cleistogamy is a rare form of reproduction in which non-opening, self-pollinating flowers can produce viable seeds underground.



Above: From left to right: Mac Camacho, Terry Godts, and Jackie Rolly (all from the FNPS Tarflower Chapter) are shown planting rescues at one of the sandhill restoration sites at Lake Louisa State Park.

The history of the property is one that is sadly shared by many others in our state. Despite being identified more than 30 years ago by the state of Florida as a high priority for acquisition and protection, the property never received acquisition funding from either the state or Lake County. Numerous citizens worked to preserve the property from development and they were able to get a county land-acquisition referendum on the ballot that was approved by 72% of voters. However, by the time funding became available, newly elected leaders were not in favor of acquiring the property, choosing instead to purchase abandoned agricultural lands degraded by non-native invasive species. They believed that “more was better” and that buying more acres of degraded land was a better investment of tax-payer dollars than purchasing fewer acres of biodiverse habitat.



Above: Tina Meadows (Passionflower Chapter) holds one of the *Baptisia lecontei* plants that she carefully excavated. Tina worked on nearly every rescue and planting day and is helping with the sandhill restoration work at Oakland Nature Preserve.



Above: Masters of patience and dedication, Tayler Figueroa of the FNPS Pine Lily Chapter (left) and Kara Driscoll of the Naples Chapter (right), spent hours carefully excavating each imperiled *Matelea pubiflora* plant.

In the years since the county referendum, funding for Florida Forever was gutted, Castle Hill was subdivided and parcels were sold and developed until only about 40 acres remained. During this time, members and staff from Florida Native Plant Society (FNPS), Archbold Biological Station, Lake Louisa State Park, and Lake County Water Authority obtained permission to survey and collect seeds from one of the remaining parcels. Seeds were used to propagate plants for protected populations and for long-term safeguarding within the Center for Plant Conservation’s National Collection.

Then the economy crashed and the parcel went into foreclosure. When a new owner purchased the parcel, FNPS worked to locate and contact the new out-of-state owner and obtain permission for additional seed collection. Less than a year after receiving seed collection permission and permits, a development request went before the local planning and zoning commission. FNPS Conservation committee members contacted the attorney for the developer and were able to work out an emergency plant rescue on a timetable approved by the developer and their construction contractor.

As soon as permits were received from the Florida Department of Agriculture and Consumer Services to remove state listed plant species, partners and volunteers were contacted and rescue dates were scheduled. Three days after the first rescue date, Hurricane Irma rolled through Florida.

Undeterred by challenge and adversity, our members, supporters and partners donated money, supplies, equipment, and a total of 1,262 hours of hard labor. Joined by Facebook fans and conservation partners, members of 10 FNPS chapters from the Panhandle to South Florida rescued plants and loaned their equipment. FNPS is very fortunate to be able to work with so many hardworking and dedicated people at Green Isle Gardens, Oakland Nature Preserve, Lake Louisa State Park, St. Johns River Water Management District, Lake County Water Authority, Lake County Parks and Trails, and Mister Landscaper Drip Irrigation and Micro Spray.

Thanks to the outpouring of financial and volunteer support, we rescued more than 4,800 plants and many pounds of seeds and stem cuttings. As of this writing, all of the plants have been relocated to nine restoration sites managed by our partners and many more are being propagated from the seeds that were collected.

In all, 121 species of plants were represented in the rescue. Among those species, 23 are endemic to Florida (occurring only in our state) and 9 are state and federally listed as imperiled.

References

Jose S., Jokela E.J., Miller D.L. 2007. The Longleaf Pine Ecosystem. In: Jose S., Jokela E.J., Miller D.L. (eds) The Longleaf Pine Ecosystem. Springer Series on Environmental Management. Springer, New York, NY.

About the Author

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Above: One of the planting days at the “Little Italy” sandhill site at St. Johns River Water Management District.

Imperiled and endemic plant species benefitting from this project:

Genus/species	Common Name	Family	*Status
<i>Arnoglossum floridanum</i>	Indian plantain	Asteraceae	Endemic
<i>Berlandiera subacaulis</i>	Greeneyes	Asteraceae	Endemic
<i>Bonamia grandiflora</i>	Scrub morning glory	Convolvulaceae	G3S3 endemic
<i>Callisia ornata</i>	Scrub roseling	Commelinaceae	Endemic
<i>Chapmannia floridana</i>	Alicia	Asteraceae	Endemic
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	Scrub buckwheat	Polygonaceae	G3S3 endemic
<i>Lupinus cumulicola</i>	Skyblue lupine	Fabaceae	Endemic
<i>Matelea pubiflora</i>	Pine woods spineypod	Apocynaceae	S1
<i>Nolina brittoniana</i>	Britton's beargrass	Ruscaceae	G3S3 endemic
<i>Palafoxia feayi</i>	Palafoxia	Asteraceae	Endemic
<i>Phoebanthus grandiflorus</i>	Florida false sunflower	Asteraceae	Endemic
<i>Piptochaetium avenacioides</i>	Florida needlegrass	Poaceae	Endemic
<i>Polygala lewtonii</i>	Lewton's milkwort	Polygalaceae	G2G3, S2S3 endemic
<i>Polygonella robusta</i>	Sandhill wireweed	Polygonaceae	Endemic
<i>Prunus geniculata</i>	Scrub plum	Rosaceae	G3S3 endemic
<i>Rhynchosia cinerea</i>	Brownhair snoutbean	Fabaceae	Endemic
<i>Schizachyrium niveum</i>	Pinescrub bluestem	Poaceae	G1G2, S1S2 endemic
<i>Stylisma abdita</i>	Showy dawnflower	Convolvulaceae	G3S3 endemic
<i>Tephrosia misteriosa</i>	Sandhill tippitoes	Fabaceae	Endemic
<i>Warea amplexifolia</i>	Clasping warea	Brassicaceae	G1S1 endemic

*For information on status rankings, visit www.fnai.org/ranks.cfm



Above: Two rare Florida endemics: *Nolina brittoniana* (top) and *Matelea pubiflora* (bottom 2 plants).