Florida Native Plant Society

Pine Lily Chapter

News & Notes
January 2020

Plant Profile

Native Groundcover: Coreopsis lanceolata

- Grows in full sun to partial shade.
- Blooms intermittently all year long.
- Native plants provide food for butterflies and other pollinators.
- Low water requirements after plant establishment.

Native Plant Nursery

Green Isle Gardens Native Plant Nursery
11303 FL-33
Groveland, FL 34736
(352) 396-6831

Next Chapter Meeting
February 27, 2020; 6:30PM

Kissimmee Utility Authority Building (KUA)
1701 W. Carroll Street, Kissimmee, FL

Speaker Linda Wilinski

Central Florida Springs and Their Associated Plants and Wildlife

Linda Wilinski is a freelance photographer focused on the conservation of wild Florida. She is a certified Master Naturalist and Spring Ambassador and has completed a year-long photo series at Oakland Nature Preserve. Linda is deeply passionate about the environment and her infectious enthusiasm has inspired many to explore the outdoors. She is an artist who immerses herself into Florida's gems : The Springs. Linda's mission is to serve as the bridge between people and the outdoors. Her wish is to inspire others to Explore, Experience and Embrace Wild Florida. Come and learn about Linda's experiences.

For more information, contact Karina Veaudry at (321) 388-4781.

Volunteers Needed for Phone Calling

The Pine Lily Chapter is starting to contact Presidents of Homeowner's Associations to seek to put an ad in their HOA newsletter or website to promote the chapter, events and speakers to expand the membership. We need volunteers to follow a script and help make these phone calls. If you can assist with this task, please contact Karina at kveaudry@nfclandscape.com or (321) 388-4781

Swamp In the Disney Wilderness Preserve

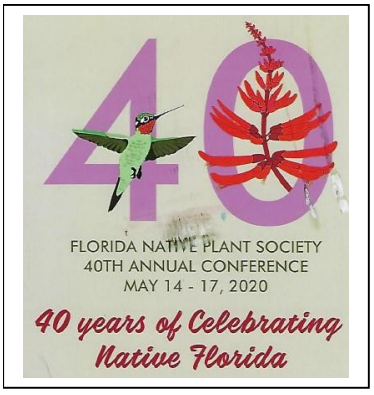
Upcoming Events

- **Saturday, February 22 : Field Trip – 9:00A to 12:00P**
  Reedy Creek Swamp, 4300 S. Poinciana Boulevard Kissimmee, FL Meet at the Natural History Museum at the south end of the parking lot**.**
  To register go to the Pine Lily Chapter's EventBrite page: **https://pinelilyft012520.eventbrite.com**
  For more information, see our Facebook **events page**.
- **Thursday, February 27 : Chapter Meeting 6P**
  Florida's Springs and Their Native Plants and Wildlife
  By Linda Wilinski
- **Thursday, March 26 : Chapter Meeting 6P**
  Backyard Bee-Keeping - Jessica Sullivan
- **Saturday, March 28 : Field Trip – 9:00A to 12:00P**
  Lake Lizzie Preserve
  To register go to the Pine Lily Chapter's EventBrite page: **https://pinelilyft032820.eventbrite.com**
  For more information, see our Facebook **events page**.

40TH ANNUAL FLORIDA NATIVE PLANT CONFERENCE SET FOR MAY 14-17, 2020

- Three different tracks of programming with interesting speakers
- Hear from members of Native Plant Societies from 6 different states

- Social Gatherings
- Workshops
- Plant Sale
- Silent Auction



To register, go to
https://fnps.org/conference/register

February Field Trip

Saturday, February 22, 2020
9:00am to 12:00pm

Osceola School District
Reedy Creek Swamp Site

4300 S Poinciana Blvd
Kissimmee, FL 34759
Phone: (407) 870-0551

Please register on the Pine Lily chapter's Eventbrite page so we know who plans to attend:
https://pinelilyft022220.eventbrite.com

The Reedy Creek Swamp encompasses thousands of acres of wetlands adjacent to Reedy Creek in northwestern Osceola County. Reedy Creek is a slow-moving creek which drains into Lake Russell, and eventually, through the chain of lakes, into the Kissimmee River, Lake Okeechobee, and the Everglades.

The Environmental Center Swamp site is a 19 acre segment of this vast ecosystem. In this area otter, deer, turkey, alligators, osprey, herons, woodpeckers and many other bird and animal species have been observed. Many plants are part the this particular swamp ecosystem. Major tree species include bald and pond cypress, gum, hickory, and ash. Orchids, mosses, epiphytes, and ferns are readily observable from the 1,800 foot elevated boardwalk.

Start Time of Field Trip:	Field Trip begins **9:00** promptly at the Natural History Museum at the south end of the parking lot**.**
End Time of Field Trip:	12:00 noon
Contact # Day of Event:	Eleanor Foerste, 407-908-4379Pine Lily Chapter Education Chair

Driving Directions

- From Highway 192, turn south onto N John Young Pkwy/US-17 S/US-92 W. Continue to follow US-17 S/US-92 W. 5.14 miles
- Turn **left** onto Ham Brown Rd. for 4.35 miles
- Turn **right** onto Reaves Rd. for 0.11 miles
- Turn **left** onto S Poinciana Blvd. for 2.26 miles

4300 S POINCIANA BLVD entrance is on the right.

Native Plants from St. Joe Buffer; Photographs by Peg Urban, Lake Beautyberry Chapter

Threatened

Verbesina heterophylla
Chapman's Crownbeard

Endangered & Endemic

Scutellaria floridana
Florida Skull Cap

Threatened

Calopogon pallidus
Pale Grass-Pink

Endangered & Endemic

Justicia crassifolia
Thick-leaved Water-Willow

Cleistes divaricata
Rosebud Orchid

Pine Lily Chapter Leadership Team

- Karina Veaudry – President
- President Elect - VACANT
- Christi Kapp – Secretary
- Sandra Johnson – Treasurer and Publicity Coordinator
- Tayler Figueroa – Chapter Representative and Membership Coordinator
- Valerie Anderson – Policy & Legislation Committee
- Sandy Webb – Conservation Committee Chair
- Eleanor Foerste – Education & Outreach Coordinator
- Laura Bennett-Kimble – Director at Large

Chapter meetings are the 4th Thursday of each month

at 6:30 p.m. on the 3rd Floor
Kissimmee Utility Authority Building
1701 W. Carroll Street, Kissimmee, FL

Doors open at 6 p.m.; We hope to see you there!

Support Pine Lily Through AmazonSmile

Please consider choosing **Florida Native Plant Society Pine Lily Chapter Inc** as your charity when placing Amazon orders through AmazonSmile. Amazon will donate 0.5% of the purchase price of eligible products to the Pine Lily Chapter of the Florida Native Plant Society. **Thanks!**

Florida Native Plant Society Mission

Promote the preservation, conservation, and restoration of the native plants and native plant communities of Florida.

For information on FNPS activities in Central Florida and beyond, check out the **FNPS blog**.

Volunteer Positions Needed

- Additional Field Trip Coordinator
- Program/Speaker Coordinator
- Membership Director
- Newsletter Editor

Let's keep in touch!

Click the icons below to visit Pine Lily Chapter Facebook, Instagram and Twitter pages.

Pine Lily Chapter Website:
www.pinelily.fnpschapters.org

The Pine Lily Chapter of the Florida Native Plant Society serves all communities in Osceola County

PROTECTING FLORIDA'S RARE PLANTS FROM EXTINCTION

From Vol. 77, No. 7 July/August 2003 Pg 70 Kevin E. Regan Environmental & Land Use Law

"Speak for the trees, for the trees have no tongues."[1]

Dr. Seuss, The Lorax

There is increasing scientific, political, and legal concern about the loss of biodiversity and protecting species from extinction. This concern is manifested in a number of legislative efforts to protect species, many of which have focused on protecting animal species. There has been disproportionately little interest in the problems associated with the decline of plant species. Florida is an interesting case study because it contains a large number of rare plant species and its plant protection laws are typical in that they are weaker than the laws that protect animal species. Analysis of the problems associated with rare plant protection in Florida suggests the need to improve the existing legal framework and its implementation at both the federal and state level.

This article briefly explores the rationales for protecting plant species in general and describes the problems associated with the loss of rare plant species in Florida. The article examines the legal bases for rare plant[2] protection in Florida and explores some of the obstacles that hinder plant protection and conservation efforts in the state, beginning with an overview of federal laws, focusing on §9 of the Endangered Species Act,[3] and ending with a discussion of Florida laws regulating rare plant species.[4]

Importance and Difficulty of Protection

• *Rationales for Protecting Plant Species*

There is a complex relationship between plant and animal species, including humans.[5] Because humans depend on plants for oxygen, food, shelter, and many other needs, there are many anthropocentric justifications for protecting plant species. In addition, there is increasing acceptance of the biocentric argument that plants have inherent value independent of humans and deserve to be protected.

Plants provide a number of ecological functions upon which humans and other animals rely. Most of the oxygen in the earth's atmosphere is a product of the photosynthetic activity of plants, which are usually the basis of the food chain. A single plant may support as many as 15 to 20 different species, including bacteria, fungi, insects, and other plants and animals.[6] T hus, the destruction of a plant species may cause the destruction of many other organisms that depend on it. The maintenance of biological diversity, including plant species, enhances the ability of the biosphere to respond to changes in the world's physical conditions.[7]

Plants offer a number of direct and indirect economic benefits to humans. They may represent future sources of food, medicines, or other useful products. Plants produce thousands of complex chemicals that have been profitably exploited for business and industrial uses. Throughout history the lives of humans have been intertwined with plants,[8] a nd the extent of humans' reliance on plants for survival and livelihood mandates the conservation of plant species.

• *Florida's Rare Plant Species*

Florida is among the states with the greatest plant diversity, along with Hawaii, California, and Texas.[9] There are approximately 3,500 species of vascular plants in Florida, the majority of which are native.[10] Florida also has a high number of globally rare plant species.[11] A number of these species are found nowhere else on Earth.[12] Rare plant species typically require a particular set of environmental conditions, or microhabitat, in order to grow. The specific microhabitat requirements of rare plants increases their susceptibility to endangerment when humans alter particular habitats occupied by rare plants.

As is the case in many other parts of the U.S., the native plant species of Florida have been negatively affected by habitat disturbances. Development pressures have affected portions of Florida for over 400 years.[13] These anthropogenic disturbances have included logging and agriculture in the northern portions of the state, conversion to citrus in central Florida, and drainage in southern Florida.[14] A s a result, large portions of the habitats of Florida's native plants have been lost.[15]

In addition, as a result of collecting, a significant number of rare plant species are being removed from undisturbed habitats.[16] An active trade exists in Florida, partly commercial but largely informal, by which plants are gathered from the wild and distributed to

horticulturists and hobbyists for backyard and greenhouse cultivation. It has been exceedingly difficult to protect certain species from collectors.[17] These species include orchids, bromeliads, cacti, ferns, and insectivorous species. Pressure from collecting may be more pronounced among plant species than animal species.

Exotic species pose another significant threat to Florida's rare plant species. Hundreds of exotic plants have been introduced into Florida, a number of which are aggressively invasive. Such invasive species not only dominate disturbed sites, but they are capable of out-competing and supplanting native species. For example, Brazilian pepper (*Schinus terebinthifolius*) and melaleuca (*Melaleuca quinquenervia*) have overrun thousands of acres in Everglades National Park. As a result of these problems, there has been increasing recognition of the need for a statewide plan to deal with exotic species issues.

Existing Legal Protection for Rare Plant Species

• *Distinction Between Plants and Animals at Common Law*

Traditionally, there has been a legal distinction between plants and animals,[18] which has shaped the existing legal protection for plant species. At common law, the legal characteristics of plants differed significantly from those of animals. Because of their mobility, wild animals were regarded as incapable of individual ownership. Although an individual might have had a temporary possessory interest in a wild animal, that interest was extinguished if the animal escaped from the individual's control and moved to another person's property.[19] I n contrast, the ownership of plants accompanied title to the property on which they grew.[20] I t seems that the most important reason for the distinction between plants and animals was the limited mobility of plants, rather than their classification as plants.[21] A recognition that legal distinctions between plants and animals have traditionally existed helps explain the discrepancy of protection levels for plants and animals under statutes such as the Endangered Species Act (ESA).

• *Federal Legal Protection for Rare Plants*

The ESA is one of the primary sources of legal protection for rare plants within individual states,[22] a nd thus is an important source of protection for rare plant species in Florida. Section 9 of the ESA provides protection for "endangered species"[23] b y prohibiting certain actions by any "person."[24] 1 6 U.S.C. §1538. Perhaps the most

controversial aspect of the ESA from a plant conservation perspective is the fact that §9's prohibition on "taking" is very limited with regard to plant species.[25]
Originally, the ESA did not prohibit the "taking"[26] o f listed plants. A provision added in 1982 made it illegal to "remove and reduce to possession" or "maliciously damage or destroy" any listed plant on federal land.[27] T he U.S. Fish and Wildlife Service (FWS) has interpreted the phrase "remove and reduce to possession" to proscribe the removal of an endangered plant only when combined with possession of the plant.[28]
With regard to plants not on federal land, the ESA makes it illegal to "remove, cut, dig up, or damage or destroy" a listed plant "in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law." 16 U.S.C. §1538(a)(2)(B). It may be difficult to prove a "knowing violation" occurred. In addition, if there is no state restriction, private landowners are free to destroy listed plants on their property.

The ESA even ignores landowners who intentionally destroy listed plants on their property. Destruction of endangered plant species and their habitats by owners who are resentful of the presence of the plants on their property has been observed in several instances.[29] Similarly, destruction by landowners that is incident to activities such as land development does not violate the regulations of the ESA.[30] I n addition, the act does not address commercial or private collecting on private land for sale, home gardens, scientific research, or herbariums. These activities can be especially damaging to populations of rare plant species.[31]
One empirical study indicated that plants that depend on private property for their habitat do not fare well, and that they fare much worse in those states that do not restrict private landowners from destroying plants on their property.[32] Such results illustrate that legal distinctions between plants and animals under the ESA can have real world effects on the prospects of survival for rare plant species.
In terms of implementation of the ESA in Florida, the FWS has made substantial progress in documenting the distribution and habitats of the state's rarest plants and has succeeded in developing recovery plans for species in some areas, most notably the Everglades. In the past, the FWS has been criticized for being slow to add new listings in Florida despite strong evidence of endangerment.[33] Until recently, the FWS recovery plans were formulaic documents that provided little guidance for resource managers and funding for these plans was very limited.[34]

• *State Protection for Rare Plant Species in Florida*

The Preservation of Native Flora of Florida statute (PNFFS), F.S. §81.185, and the related Endangered Plant Advisory Committee statute (EPACS), F.S. §581.186, are the primary state legal protections for rare plants in Florida. Essentially, these statutes regulate the "harvesting"[35] and commercial exploitation of protected plant species. This section highlights the key provisions of these statutes and explores their limitations.
The PNFFS was intended to "provide recognition of those plant species native to the state that are endangered, threatened, or commercially exploited." F.S. §581.185(1). The statute provides for the goal of protecting native flora from unlawful harvesting on both public and privately owned lands. It also establishes a permitting system in an effort to "provide an orderly and controlled procedure for restricted harvesting of native flora from the wild, thus preventing wanton exploitation of native species of flora." F.S. §581.185(1).

The Florida Department of Agriculture and Consumer Services administers the PNFFS. The department is authorized to adopt rules relating to the "listing, delisting, and changing from one category to another category any plant on the regulated plant index." F.S. §581.185(4). The regulated plant index is the list of plant species that are designated as "endangered,"[36] & #x201c;threatened,"[37] or "commercially exploited"[38] by the department.[39]
The Endangered Plant Advisory Council, a committee created by the EPACS, consists of seven members and has specified duties. **F.S.** §581.186. These duties include advising the department about proposals for revising the two statutes, reviewing the species on the regulated plant index, and considering native plants proposed for inclusion. F.S. §581.186(3).

Under the PNFFS, the prohibitions and permit requirements of harvesting activities vary with each level of protection. It is unlawful for any person to willfully destroy or harvest any plant listed as endangered on the regulated plant index that is growing on private or public land without first obtaining the written permission of the landowner or legal representative of the landowner[40] and a permit from the department.[41]
Much like the ESA, the PNFFS does not prohibit landowners from destroying protected plants on their property.[42] Threatened species under the PNFFS are afforded less

protection than endangered species because no permit is required.[43] I n the case of plants designated as commercially exploited, permission from the landowner is required to harvest any plants, but a permit is only required if three or more plants are harvested. F.S. §581.186(3)(c). Thus, the protections available for commercially exploited plants are stronger than those for threatened plants.
The PNFFS limits the transport and sale of protected plants, and these limitations even apply to private landowners, but threatened species are exempt from this requirement. F.S. §581.185(3)(d). The fact that landowners must have a permit to sell endangered or commercially exploited plants from their land offers more legal protection than that afforded to plants under the ESA.

As is the case with the ESA, land development activities are exempt from the provisions of the PNFFS. The PNFFS specifically states that the regulated plant index is “not to be used to regulate construction or other land alteration activities on any property.” F.S. §581.185(12). The clearing or other disturbances of land for agricultural, silvicultural, mining assessment, or fire control purposes are exempt from the statute. F.S. §581.185(8). Thus, the statute provides no protection from many activities that destroy habitat and individual rare plants.

Perhaps the greatest limitation of Florida’s rare plant protection statutes is the fact that they regulate the harvesting and commercial exploitation of rare plants as opposed to providing comprehensive protection for rare plant species. The protected status afforded to plants listed on the regulated plant index can only be used for regulating the harvesting of plants. The EPACS states in F.S. §581.186(3):

The regulated plant index must be used solely for the purposes specified in §581.185 and may not be used for regulatory purposes by other agencies. However, this section does not preclude another agency *authorized to protect endangered plants* from including one or more species listed on the regulated plant index on a list developed by that agency under its own regulatory authority (emphasis added).

This language severely limits the use of the regulated plant index for conservation purposes by other agencies. Florida agencies typically involved with conservation programs, such as the Department of Environmental Protection or the Fish and Wildlife Conservation Commission, do not have authority to list plant species. Thus, these

agencies cannot use the regulated plant index as a basis for decision-making or conservation programs. Although the statute provides for cooperation between relevant state agencies with the Endangered Plant Advisory Council,[44] the extent of this cooperation has been limited.

The department's nursery inspection program is also involved in the enforcement of the statute by ensuring that nurseries that sell native plant species comply with the permitting program. However, in practice, enforcement actions regarding illegally harvested plants are rare.[45] There is currently no data available on whether the permitting program under this statute has contributed to the survival of Florida's rare plants.[46] More comprehensive legislation is necessary to protect rare plants in Florida from other threats such as habitat destruction and forms of taking not covered by existing legislation.

Conclusion

This article has provided an introduction to the issues associated with the decline of rare plant species and some of the legal obstacles to protecting rare plant species in Florida. The lack of attention devoted to issues with rare plants, especially among the legal community, is unfortunate. The increasing prevalence of conflicts between developers and existing legal protections for protected species may change this trend.[47] A s the legal mechanisms that attempt to protect ecosystems evolve, an increased recognition of the importance of plant species and the need to protect them will be necessary.

An analysis of Florida's existing protection for rare plant species illustrates that there are currently significant gaps that remain to be filled. Neither federal nor state protection for rare plants is as strong, comprehensive, or effective as it could and should be. Plants and animals are both integral parts of ecosystems that rely on each other for survival. A legal recognition of the value of plant species in the form of strengthened legislation would enhance existing legal efforts to preserve overall ecological integrity.