# Wildflower Surveys, 2010 and 2011: Corkscrew Swamp Vicinity

Final Report June 7, 2011

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#### INTRODUCTION

Surveys of the Corkscrew Swamp vicinity are part of an ongoing effort to expand the number of documented routes where motorists, cyclists, and hikers can view showy stands of Florida native wildflowers.

This report represents the cumulative results of our site evaluations based on our observations from spring 2010 (reconnaissance trip) through spring 2011. Survey dates were based on the experience of the investigators and input from local experts.

#### **METHODS**

The surveys of Corkscrew sites were primarily walking forays. The surveys were conducted on the following dates:

- Spring (reconnaissance trip) April 4, 5; 2010
- Summer June 8, 9; 2010
- Fall October 26, 27; 2010
- Spring April 29, 30; 2011

Our goal was to provide the best possible route that:

- 1. Highlighted showy stands of native wildflowers and native wildflower communities typical of the Corkscrew Swamp vicinity.
- Occurred along roadsides and where applicable, natural areas (parks, wildlife management areas, etc.) easily accessible to the public that occur along those routes.

Our plan was to utilize survey methods similar to those used for the St. Johns River-to-Sea Bike Loop and for development of wildflower routes in the Panhandle and Big Bend:

- Site has existing showy native wildflower or grass species that are flowering
  - Enhancement Has (or has the potential to be) substantial, aesthetically-pleasing impact, if managed appropriately, the existing native wildflower species should be sustainable, and the extent of species should expand.
  - View only All Corkscrew sites (all but one occur in parks, preserves, etc.; the other occurs on private land)

- **New planting** Site is suitable for establishing a native wildflower planting that would have substantial, aesthetically-pleasing impact.
- Do not develop Sites to avoid developing into or establishing as a native wildflower site:
  - Sites that would have had potential as new wildflower sites but were excluded because of invasive, nonnative species

Species are referred to by their scientific name; common names of all species mentioned in this report are listed in Table 1 (p. 28).

All information and statements about each site reflect our consensus opinion.

#### For all sites:

- We described the site, and recorded GPS coordinates (accurate to 5 m or less) and at least one digital image
- Indicated the best season(s) to view wildflowers.

A full-color map, ESRI-compliant shape files, and accompanying Excel spreadsheet are included as attachments to this report.

#### **RESULTS**

PhotoSite is the term used to describe the wildflower and wildflower communities that we observed in the Big Bend and Panhandle; to be consistent, we used the same terminology in this report.

The Corkscrew Swamp Vicinity Route is unlike those of the Big Bend and Panhandle in that the PhotoSites in this region are comprised mainly of important parks and preserves in Collier, Lee, and Hendry counties that are connected by a network of major roads and highways. The parks and preserves provide a varied collection of readily accessible short walks—some on attractive and easy-to-negotiate boardwalks—all of which feature an assortment of native wildflowers embedded within excellent examples of southwest Florida's natural ecosystems.

The emphasis on parks and preserves was because showy displays of roadside wildflowers were few and far between, with the exception of the CR 832 region (Hendry Co.) of the Okaloacoochee Slough State Forest. The limited displays result from ditch and swale vegetation being mechanically or chemically eradicated, which all but eliminates the possibility of showy native wildflowers that often colonize moist roadside areas, especially in rural regions.

A potential PhotoSite mentioned in our summer interim report was Estero Bay Preserve State Park (Lee County). Based on our summer visit, we decided not to re-visit the site. A significant amount of trail work remains before this site is suitable for viewing wildflowers in a salt marsh community. This site is undergoing major restoration efforts, including the removal of existing nonnative and invasive trees, which has left it in disarray and in some places not particularly attractive. Species observed on June 9, 2010 were: *Bidens Alba*, *Borrichia frutescens*, *Buchnera americana*, *Coreopsis leavenworthii*, *Eupatorium* 

mikanioides, Flaveria linearis, Galactia elliottii, Ipomoea saggitata, Phyla nodiflora, Pluchea foetida, Pluchea odorata, Polygala grandiflora, Rhynchospora colorata, and Sabatia stellaris.

All PhotoSites were classified as 'View Only' since all locations were on state or privately owned land.

Other observations, issues, and suggestions that we want to highlight:

- 1. Recently burned forested areas and savannahs are good areas to view wildflowers, especially 2 to 4 weeks after a warm season burn.
- 2. Wildflower blooming times [as well as length of the blooming period] can be strongly affected by environmental conditions, especially by time elapsed since prescribed fire, so what we observed blooming might not be in bloom to the same degree in future years. For example, in fall 2009 there were spectacular displays of *Helianthus* spp. at the CREW Land & Trust Marsh Trail (see Anecdotal Obs. 2, p. 35) as well as at Audubon's Corkscrew Sanctuary.
- Winter 2010 thru mid-spring 2011 was relatively warm and dry. Areas that are normally wet or covered with water were dry and not as showy as expected in late April 2011.
- 4. In moist areas, showy displays of the yellow and purple fall blooming Asteraceae— Helianthus spp., Liatris spp. and Carphephorus spp.—were unexpectedly limited given that a) the habitats seemed suitable for these species, and b) the sites were not mowed. The lack of display could have been due to any number of environmental conditions that affected seed set, germination, and growth of these species. In addition, some of these species simply might not occur in areas where we expected them to occur.

#### **PhotoSites**

Because of the nature of these locations, descriptive information is formatted differently than PhotoSites of the Big Bend and Panhandle.

- Corkscrew Swamp Audubon Sanctuary
- Corkscrew Regional Ecosystem Watershed (CREW) Trails
- Okaloacoochee Slough State Forest CR 832 region in Hendry County
- Koreshan State Historic Park
- Six-Mile Cypress Slough Preserve

PhotoSite details begin on the next page. Page locations for images of species in this report are referenced in parentheses. All species mentioned were blooming, except as noted.

# **PhotoSite: Corkscrew Swamp Sanctuary**

Ownership: Audubon Society

Address: 375 Sanctuary Road West, Naples, FL 34120

GPS: +26.375973 / -81.603470

Web: http://www.corkscrew.audubon.org/

Fee: Yes

Corkscrew Swamp Sanctuary offers a 2.25-mile raised boardwalk (suitable for strollers and wheel chairs) traversing four distinct natural communities, including pine upland, wet prairie, cypress swamp (with outstanding fern displays), and freshwater marsh. A shorter, 1-mile loop is also available. The potentially showiest wildflower displays are in mid-fall – mainly stands of *Helianthus* species in the moist, open areas. Otherwise, from spring to fall the Sanctuary is characterized by small stands or individuals of showy native wildflowers, including two rare orchids – the famous ghost orchid, *Dendrophylax lindenii*, which can be viewed via a telescope when flowering in early spring, and *Sacoila lanceolata* var. *paludicola*, which occurs in several locations along the boardwalk.

#### Spring wildflowers

Early spring 2010 was much showier than mid-spring 2011, with showy wildflowers few and far between in late April 2011.

April 6, 2010 – Annona glabra, Coreopsis leavenworthii (p. 18), Iris hexagona (p. 27), Pontederia cordata, Sacoila lanceolata var. paludicola (below), Sagittaria graminea, Dendrophylax lindenii, Tillandsia fasciculata (below; p. 14)

April 29, 2011 – Annona glabra, Campanula floridana, Cephalanthus occidentalis, Cirsium nuttallii (p. 16), Dyschoriste oblongifolia, Pluchea baccharis (p. 9), Pontederia cordata, Sacoila lanceolata var. paludicola (below)







#### Summer wildflowers (observed 6-9-10):

Ampelopsis arborea, Bidens alba, Cephalanthus occidentalis, Chamaecrista fasciculata, Cirsium lecontei, Conoclinium coelestinum, Coreopsis leavenworthii (p. 18), Crinum americanum (below), Eryngium yuccifolium, Helianthus agrestis, Hibiscus coccineus (below), Hibiscus grandiflorus (p. 21), Ipomoea sagittata (p. 6), Itea virginica, Kosteletzkya pentacarpos (below), Lythrum alatum var. lanceolatum (below), Melanthera nivea (p. 12), Phyla nodiflora, Pluchea baccharis (p. 9), Polygala balduinii (p. 17), Pontederia cordata Rhynchospora colorata (p. 16), Sagittaria graminea, Sambucus nigra subsp. canadensis, Thalia geniculata (p. 6)









#### Fall wildflowers (observed 10-27-10):

Baccharis halimifolia, Bidens alba, Boltonia diffusa, Crinum americanum (p. 5), Elephantopus elatus, Eulophia alta (p. 10), Euthamia caroliniana, Hamelia patens, Hypericum cistifolium, Hyptis alata, Ipomoea alba, Ipomoea sagittata (below), Itea virginica, Ludwigia peruviana (questionably native), Melanthera nivea (p. 12), Mikania scandens (p. 15), Oxypolis filiformis (p. 20), Polygonum hydropiperoides, Pontederia cordata, Saccharum giganteum, Sagittaria lancifolia (p. 24), Sarcostemma clausum (below), Solidago fistulosa, Solidago stricta, Symphyotrichum carolinianum (p. 11), Thalia geniculata (below)







#### PhotoSite: Corkscrew Regional Ecosystem Watershed (CREW) Trails

Ownership: CREW Land & Water Trust

Address: 23998 Corkscrew Road, Estero, FL 33928

Web: <a href="http://www.crewtrust.org/">http://www.crewtrust.org/</a>

Fee: No

#### Marsh Trails

Location: Trailhead entrance on CR 850 (Corkscrew Rd.), ~1.5 miles south of SR 82

GPS (lat./long.): +26.49244 / -81.53416

Map: http://www.crewtrust.org/comartrail.html

The CREW Marsh Trails are comprised of over 5 miles of trails through pine flatwoods, sawgrass marsh, oak hammocks, pop ash sloughs, and along seasonal ponds. Shorter walks can be fashioned via numerous loops. A trail map is available at each trailhead. If normal rainfall occurs, some portions of the trails may be covered with up to several inches of water.

From spring to fall, the showiest displays are in moist sunny areas alongside the trails, including the meadows comprised of native grasses and wildflowers. Individuals of showy native wildflowers occur along most portions of the trails, moist or dry. The potentially showiest wildflower displays are in mid-fall – mainly stands of *Helianthus* species in the moist, open areas.

## Spring wildflowers (observed)

Early spring 2010 was much showier than mid-spring 2011, mainly due to very limited rain during winter and spring 2011.

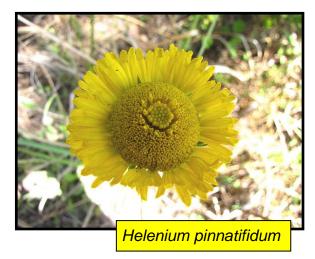
April 5, 2010 – Amorpha fruticosa, Buchnera americana (p. 24), Chaptalia tomentosa (p.

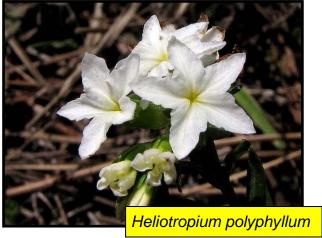


8), Coreopsis leavenworthii (p. 18), Crotalaria sp., Gaura angustifolia, Helenium pinnatifidum (p. 8), Heliotropium polyphyllum (p. 8), Hieracium megacephalon, Hypericum crux-andreae, Linaria canadensis (p. 22), Lobelia feayana, Melanthera nivea (p. 12), Piloblephis rigida, Pinguicula pumila, Polygala nana, Polygala grandiflora, Rhynchospora colorata (p. 16), Rudbeckia hirta, Ruellia caroliniensis, Sabatia stellaris (left), Salvia lyrata, Samolus ebracteatus (p. 8), Sisyrinchium angustifolium, Viola sp.

April 30, 2011 – Asclepias lanceolata (p. 8), Buchnera americana (p. 24), Calopogon tuberosus (p. 8), Commelina erecta, Conoclinium coelestinum, Galactia elliottii, Ipomoea sagittata (p. 6), Licania michauxii, Melanthera nivea (p. 12), Pluchea baccharis (p. 9), Polygala balduinii (p. 17), Pterocaulon pycnostachyum (p. 12), Rhynchospora colorata (p. 16), Rudbeckia hirta, Ruellia caroliniensis, Sabatia stellaris (above), Serenoa repens

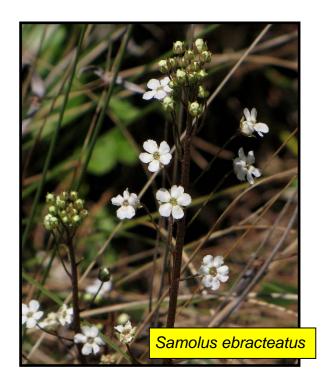
# **Spring wildflowers** (continued)

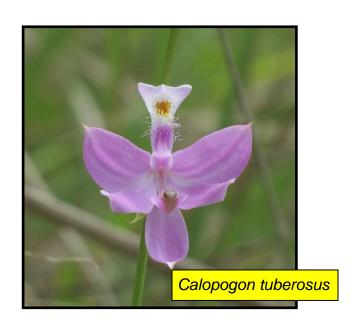








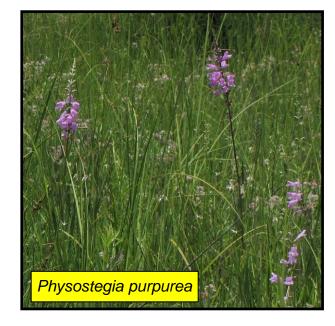




#### Summer wildflowers (6-8-10):

Asclepias lanceolata (p. 8), Asclepias tuberosa (below), Asimina reticulata, Bacopa monnieri, Bejaria racemosa, Bidens alba, Buchnera americana (p. 24), Callicarpa americana, Calopogon tuberosus (p. 8), Chamaecrista fasciculata, Conoclinium coelestinum, Coreopsis leavenworthi (p. 18), Elytraria caroliniensis, Eryngium yuccifolium, Gallactia elliottii, Heliotropium polyphyllum (p. 8), Hypericum cistifolium, Hypericum crux-andreae, Hypericum tenuifolium, Ipomoea sagittata (p. 6), Justicia angusta (p. 10), Kosteletzkya pentacarpos (p. 5), Lygodesmia aphylla (p. 23), Lyonia fruticosa, Melanthera nivea (p. 12), Melochia spicata, Mitreola petiolata, Penstemon multiflorus, Physostegia purpurea (below), Pinguicula pumila, Pluchea baccharis (below), Polygala balduinii (p. 17), Polygala grandiflora, Polygala incarnata, Pterocaulon pycnostachyum (p.12), Rhynchospora colorata (p.16), Rudbeckia hirta, Ruellia caroliniensis, Sabatia stellaris (p. 7), Sagittaria lancifolia (p. 24), Teucrium canadense, Vernonia blodgetti (below)









#### Fall wildflowers/ showy grasses observed (10-26-10):

Acmella oppositifolia, Aristida spiciformis, Baccharis halimifolia, Bacopa monnieri, Bidens alba, Boltonia diffusa, Buchnera americana (p. 24), Carphephorus odoratissimus, Chrysopsis mariana, Conoclinium coelestinum, Coreopsis floridana, Coreopsis leavenworthii (p. 18), Elephantopus elatus, Elytraria caroliniensis, Eulophia alta (below), Euthamia caroliniana, Flaveria linearis, Hydrolea corymbosa, Justicia angusta (below), Lilium catesbaei, Lobelia glandulosa, Melanthera nivea (p. 12), Melochia corchorifolia (p.13), Mikania scandens (p. 15), Mitreola sessilifolia, Oxypolis filiformis (p. 20), Pinguicula pumila, Pityopsis graminifolia (p. 26), Polygala balduinii (p. 17), Saccharum giganteum, Solidago sempervirens, Sorghastrum secundum, Stillingia aquatica, Symphyotrichum carolinianum (p. 11), Verbesina virginica (p. 11)





# Fall wildflowers (continued)



#### **Cypress Dome Trails**

Location: Trailhead entrance on CR 850 (Corkscrew Rd.), ~5 miles south of SR 82

GPS (lat./long.): +26.456110 / -81.562752

Map: http://www.crewtrust.org/cypdome.html

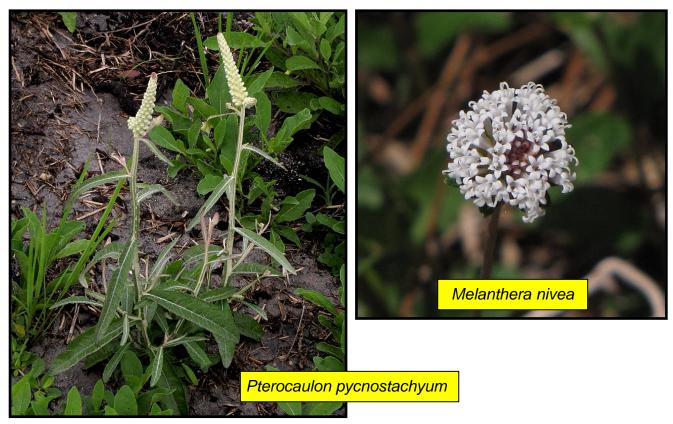
The CREW Cypress Dome Trails are comprised of about 6 miles of trails that traverse pine flatwoods, seasonal freshwater marshes and the margins of cypress domes.

From spring to fall, the showiest displays are in moist sunny areas alongside the trails, including the meadows comprised of native grasses and wildflowers. Individuals of showy native wildflowers occur along most portions of the trails, moist or dry. The potentially showiest wildflower displays are in mid-fall – mainly stands of *Helianthus* species in the moist, open areas.

Spring (2010) and summer wildflowers were the same as the Marsh Trail.

#### Spring wildflowers (observed 4-29-11)

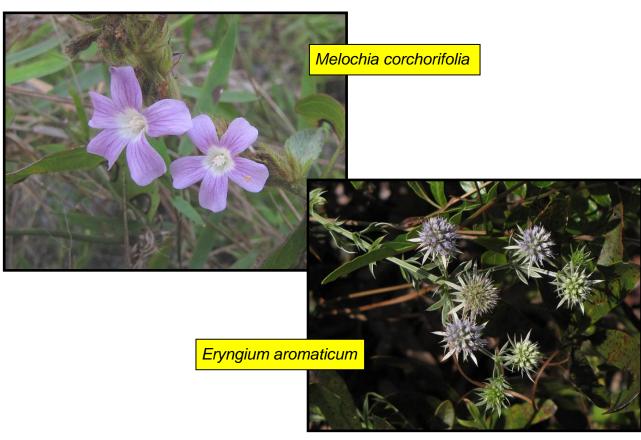
Asclepias tuberosa (p. 9), Buchnera americana (p. 24), Erigeron quercifolius (p. 18), Galactia elliottii, Gaura angustifolia, Hypericum reductum, Lyonia fruticosa, Melanthera nivea (below), Pluchea baccharis (p. 9), Polygala balduinii (p. 17), Pterocaulon pycnostachyum (below), Rudbeckia hirta



# Fall wildflowers observed (10-26-10):

Carphephorus corymbosus (p. 26), Elephantopus elatus, Eryngium aromaticum (below), Euthamia caroliniana, Hypericum crux-andreae, Liatris tenuifolia (below), Melochia corchorifolia (below), Piloblephis rigida, Solidago odora





# **Bird Rookery Tram Trail**

Location of trailhead parking area: 989 Shady Hollow Blvd W, Naples, FL 34120 (Calculated by MS Virtual Earth based on GPS coordinates)

GPS (lat./long.): +26.311614 / -81.633725

The Bird Rookery, which is owned and managed by the South Florida Water Management District, is within the 60,000-acre Corkscrew Regional Ecosystem Watershed Project. The CREW Trust has an informal arrangement with the SFWMD to conduct outreach and education activities at the Bird Rookery.



We were made aware of this site in summer 2010. At that time, we only observed a very small portion of the area, a short walk from the roadside parking area to the boardwalk at the trailhead. The area accessible to the public will be an ~11-mile tram road that surrounds a cypress swamp. The north end of this site borders the south end of Audubon's Corkscrew Sanctuary. Opening of the tram trail to the public is expected in early summer 2011.

From spring to fall, the Bird Rookery Tram Trail is characterized by occasional small stands or individuals of showy native wildflowers.

# Spring wildflowers (observed 4-29-11):

Apios americana, Bidens alba, Canna flaccida (p. 15), Cephalanthus occidentalis, Cicuta maculata, Cirsium nuttallii (p. 16), Erechtites hieraciifolius, Erigeron quercifolius (p. 18), Gaura angustifolia, Hamelia patens, Ipomoea alba, Packera glabella, Pontederia cordata, Psychotria nervosa (not blooming), Rhynchospora colorata (p. 16), Sabatia calycina (below), Sagittaria lancifolia (p. 24), Sagittaria latifolia, Tillandsia fasciculata (below; p. 4), Vicia acutifolia



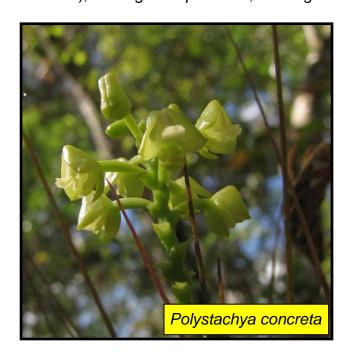


# Spring wildflowers (continued)



# Fall wildflowers (observed 10-27-10):

Bidens alba, Crinum americanum (p. 5), Hamelia patens, Ipomoea alba, Ipomoea cordatotriloba, Ludwigia peruviana (questionably native), Mikania scandens (below), Nymphaea odorata, Polystachya concreta (below), Pontederia cordata, Sagittaria sp. (prob. S. filiformis), Solidago sempervirens, Thalia geniculata (p. 6), Utricularia foliosa (p. 20)





#### PhotoSite: Okaloacoochee ("OK") Slough State Forest

Ownership: Florida Division of Forestry

Address: 6265 County Road 832, Felda, FL 33930

Web site: <a href="http://www.fl-dof.com/state\_forests/okaloacoochee.html">http://www.fl-dof.com/state\_forests/okaloacoochee.html</a>

Fee: Required for some designated areas, and for use of some facilities

This 32,000-acre state forest northeast of Immokalee spans Collier and Hendry counties. The region of this state forest on the wildflower route is along CR 832 in Hendry County. Stands of showy wildflowers occur along the entire length of CR 832 in the OK Slough State Forest but are most prevalent along the eastern portion of CR 832 where the state forest is on both sides of the road. The showiest wildflower displays we observed along CR 832 occurred in spring and summer.

Along CR 832 there are five areas that we have highlighted: Oil Well Pad Road, Sic Island Road, two stands of *Hibiscus grandiflorus*, and a very large stand of *Linaria canadensis* just to the east of the OK Slough State Forest.

#### Oil Well Pad Road

Location: Intersection of Oil Well pad Road / CR 832, about 5.3 miles east of SR 29 GPS (lat./long.): +26.60136 / -81.36002

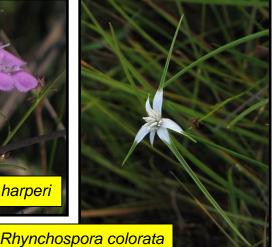
Fee: No

This site starts to become showy in mid-spring, with the showiness extending into summer. It was unexpectedly nonshowy in fall 2010.

#### Spring wildflowers (observed 4-30-11)

Agalinis harperi (below), Bacopa caroliniana, Bigelowia nudata subsp. australis (p. 17), Cirsium nuttallii (below), Coreopsis leavenworthii (p. 18), Erigeron quercifolius (p. 18), Gaura angustifolia, Helenium pinnatifidum (p. 8), Heliotropium polyphyllum (p. 8), Mikania scandens (p. 15), Pluchea baccharis (p. 9), Polygala balduinii (p. 17), Rhynchospora colorata (below), Sabatia stellaris (p. 7), Sagittaria graminea, Sagittaria lancifolia (p. 24), Stillingia aquatica, Utricularia gibba







Cirsium nuttallii

# Summer wildflowers (observed 6-8-10)

Bacopa moseiri, Bigelowia nudata subsp. australis (below), Caperonia castaneifolia, Coreopsis leavenworthii (p. 18), Elytraria caroliniensis, Hibiscus grandiflorus (p. 21), Linum medium, Mitreola petiolata, Phyla nodiflora, Pluchea baccharis (p. 9), Polygala balduinii (below), Rhynchospora colorata (p. 16), Sabatia stellaris (p. 7)







#### **Sic Island Road**

Location: CR 832, about 3.9 miles east of SR 29; trailhead – less than 0.2 miles

south of CR 832 on Sic Island Road

GPS (Boardwalk trailhead; lat./long.): +26.59927 / -81.37430

Fee: Yes; \$2 per person

The birding boardwalk trail is a short hike through flatwoods and terminates at a birding boardwalk overlooking a freshwater marsh. Various carnivorous *Utricularia* spp. (bladderworts) flower from spring to fall, except during droughts when the marsh is dry. And from spring to fall, occasional small stands or individuals of showy native wildflowers occur along the trail.



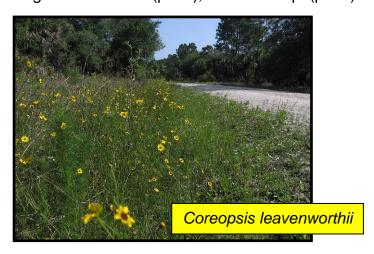


Wildflowers also occur along Sic Island Road north (~0.2 miles) and south (~0.6 miles) of the Boardwalk trailhead parking area; the showiest wildflower displays seem to be in mid-spring.

Erigeron quercifolius

Spring wildflowers observed (trail + Sic Island Road; 4-5-10 and/or 4-30-11):

Boltonia diffusa, Cirsium horridulum, Cirsium nuttallii (p. 16), Coreopsis leavenworthii (p. 18), Hibiscus sp., Pluchea odorata (below), Pontederia cordata, Sabatia stellaris (p. 7), Sagittaria lancifolia (p. 24), Utricularia sp. (p. 20)





# Summer wildflowers (trail + Sic Island Road; 6-8-10):

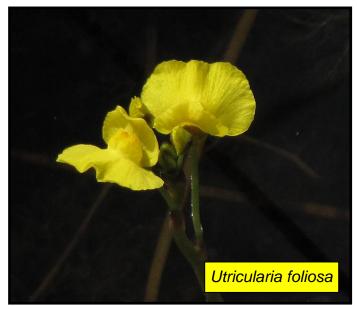
Conoclinium coelestinum, Coreopsis leavenworthii (p. 18), Phyla nodiflora, Pluchea odorata (p. 18), Polygala lutea (below), Rhynchospora colorata (p. 16), Sabatia stellaris (p. 10)



# Fall wildflowers (observed 10-26-10):

Boltonia diffusa, Oxypolis filiformis (below), Pontederia cordata, Sagittaria lancifolia (p. 24), Utricularia foliosa (below) Utricularia purpurea (below)







# Hibiscus grandiflorus

Location: CR 832 (north side), about 5.0 miles east of SR 29

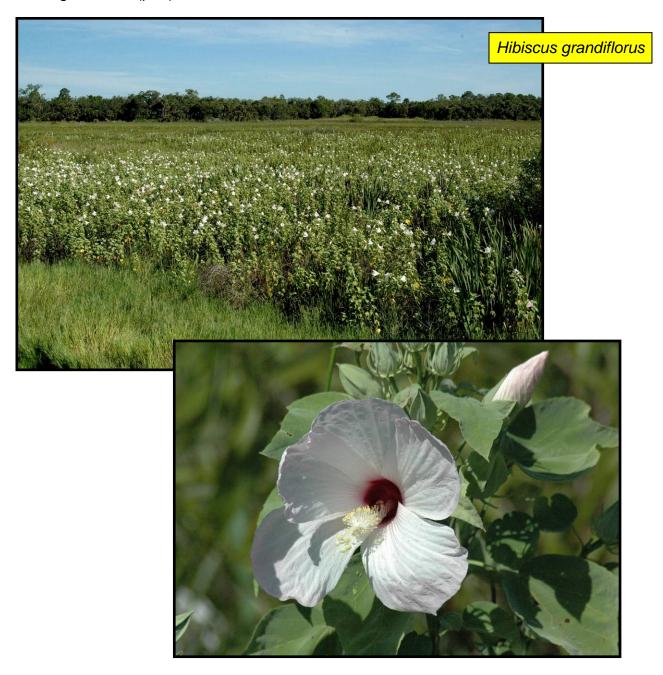
GPS (lat./long.): west - +26.60046 / -81.36643; east - 26.60261, -81.34687

Fee: No

Two showy stands of *Hibiscus grandifloru*s occur on the north side of CR 832 in the OK Slough State Forest. The east stand is substantially larger than the western stand.

# Summer wildflowers (6-20-10):

Hibiscus grandiflorus (below; images recorded on 6-20-10 by Brenda Thomas, CREW), Thalia geniculata (p. 6)



# Linaria canadensis

Location: CR 832, Hendry Co., just east of OK Slough State Forest, about 2.9 miles

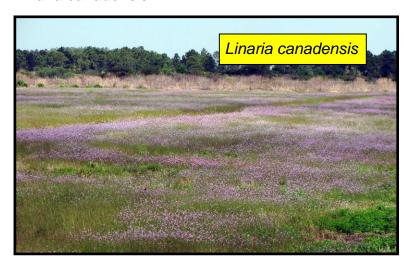
east of SR 29

GPS (lat./long.): +26.596333 / -81.390278

On 10+ acres of private land on the north side of CR 832, an outstanding population of *Linaria canadensis* was blooming in early spring 2010. This showy display should occur every year in late March/early April provided that the landowner manages this site as he/she has done in the past.

# Spring wildflowers observed (4-6-10):

#### Linaria canadensis





#### PhotoSite: Koreshan State Historic Site

Ownership: Florida Division of Recreation and Parks Address: 3800 Corkscrew Road, Estero, FL 33928 GPS (trailhead; lat./long.): +26.43601 / -81.81942

Web site: http://www.floridastateparks.org/koreshan/default.cfm

Fee Required: Yes

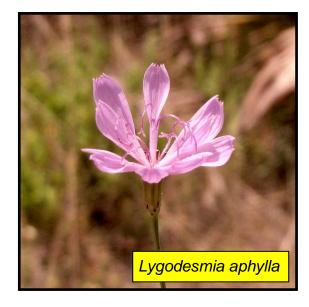
This 200-acre park is located in southern Lee County on Corkscrew Road, about 2.2 miles west of I-75. The park has a short, grassy trail (fire lane trail; ~0.3 miles) on the western edge of the park that borders a pine flatwoods on its east side.

From mid-spring to fall, small stands and individuals of showy native wildflowers occur along the trail. To see the most wildflowers, ramble throughout the flatwoods, but seek permission first. The showiest wildflower displays occur the year of a prescribed burn, like in 2010.

#### Spring wildflowers (observed 4-30-11):

Aletris lutea, Amorpha herbacea (below), Buchnera americana (p. 24), Coreopsis leavenworthii (p. 18), Erigeron quercifolius (p. 18), Eriocaulon compressum, Gaura angustifolius, Heliotropium polyphyllum (p. 8), Hypericum crux-andreae, Lygodesmia aphylla (below), Lyonia fruticosa, Lythrum alatum var. lanceolatum (p. 5), Pluchea baccharis (p. 9), Polygala grandiflora, Pterocaulon pycnostachyum (p. 12), Rhexia mariana, Sacoila lanceolata (p. 25), Sagittaria lancifolia (p. 24), Xyris sp. (p. 25), Yucca filamentosa





#### Summer wildflowers (6-9-10):

Ageratina jucunda, Aletris lutea, Asimina reticulata, Bejaria racemosa, Bucherna americana (below), Callicarpa americana, Chamaecrista fasciculata, Coreopsis leavenworthii (p. 18), Diodia virginiana, Eupatorium mohrii, Euphorbia polyphylla, Hypericum reductum, Hypericum tetrapetalum, Indigofera caroliniana, Lachnocaulon anceps, Lobelia paludosus, Lygodesmia aphylla (p. 23), Lyonia fruticosa, Mitreola sessifolia, Piloblephis rigida, Pluchea baccharis (p. 9), Polygala grandiflora, Polygala nana, Polygala setacea, Peltophorum pterocarpum, Rhexia mariana, Rhexia nutallii, Sabatia grandiflora (below), Sacoila lanceolata (p. 25), Saggitaria gramnifolia, Saggitaria lancifolia (below), Vaccinium myrsinites, Xyris caroliniana (p. 25), Xyris sp. (p. 25)







# Summer wildflowers: (continued)







#### Fall wildflowers (observed 10-26-10):

Ageratina jucunda, Andropogon glomeratus, Aristida spiciformis, Aristida stricta, Balduina angustifolia, Bejaria racemosa, Bigelowia nudata subsp. australis (p. 17), Carphephorus corymbosus (below), Carphephorus odoratissimus, Chamaecrista fasciculata, Coreopsis leavenworthii (p. 18), Crotalaria rotundifolia, Eryngium aromaticum (p. 13), Euthamia caroliniana, Liatris tenuifolia (p. 13), Mikania scandens (p. 15), Mitreola sessilifolia, Muhlenbergia capillaris, Palafoxia feayi, Piloblephis rigida, Pityopsis graminifolia (below), Sabatia brevifolia, Saccharum giganteum, Sericocarpus tortifolius, Sorghastrum secundum, Xyris caroliniana (p. 25)





## PhotoSite: Six Mile Cypress Slough Preserve

**Ownership: Lee County** 

Address: Six Mile Cypress Parkway, 1.5 miles north of Daniels Parkway, accessed

via I-75 Exit 13

GPS (trailhead; lat./long.): +26.57132 / -81.82598

Web site: <a href="http://www.leeparks.org/sixmile/">http://www.leeparks.org/sixmile/</a>

Fee Required: Yes (parking)

This 2,500-acre county park includes a fully accessible 1.2-mile-long boardwalk traversing hammock, pine flatwoods, cypress slough, and lakeside habitats. Based on our spring, summer, and fall observations, this is an early spring site noted mainly for showy displays of *Iris hexagona*. By mid-spring, showy native wildflowers are sporadic.

The occurrence of summer and fall wildflowers was very sporadic: **summer** (6-9-10) – *Bidens alba*, *Callicarpa* 



americana, Cephalanthus occidentalis, Conoclinium coelestinum, Coreopsis leavenworthii (p. 18), Hypericum hypericoides, Ipomoea sagittata (p. 6), Lythrum alatum var. lanceolatum (p. 5), and Pluchea baccharis (p. 9); fall (10-26-10) – Baccharis halimifolia, Bacopa caroliniana, Bidens pilosa, Melochia corchorifolia (p. 13), Mikania scandens (p. 15), Pontederia cordata, Sagittaria lancifolia (p. 24), Sarcostemma clausum (p. 6), Symphyotrichum carolinianum (p. 11), Thalia geniculata (p. 6), and Utricularia sp. (p. 20); nonnative: Ludwigia peruviana (questionably native)

#### Spring wildflowers (observed 4-6-10 and/or 4-30-11):

Conoclinium coelestinum, Coreopsis leavenworthii (p. 18), Iris hexagona (below), Pontederia cordata, Sagittaria lancifolia (p. 24)



Table 1. Scientific and common names of species mentioned in this report. The common names are those listed by the Atlas of Florida Vascular Plants (<a href="http://florida.plantatlas.usf.edu/">http://florida.plantatlas.usf.edu/</a>) as of May 15, 2011. Form: WF = Wildflower; GR = Grass; SG = Sedge; SH=Showy shrub; VN = Showy vine; TR=Tree.

Scientific name (image page no.)	Туре	Common name
Acmella oppositifolia	WF	Oppositeleaf Spotflower
Agalinis harperi	WF	Harper's False Foxglove
Ageratina jucunda	WF	Hammock Snakeroot
Aletris lutea	WF	Yellow Colicroot
Amorpha fruticosa	WF	Bastard False Indigo
Amorpha herbacea	WF	Clusterspike False Indigo
Ampelopsis arborea (showy fruit)	VN	Heartleaf Peppervine
Andropogon glomeratus	GR	Bushy Bluestem
Annona glabra	TR	Pond Apple
Apios americana	TR	Groundnut
Aristida spiciformis	GR	Bottlebrush Threeawn
Aristida stricta	GR	Wiregrass; Pineland Threeawn
Asclepias lanceolata	WF	Fewflower Milkweed
Asclepias tuberosa	WF	Butterfly Milkweed
Asimina reticulata	SH	Netted Pawpaw
Baccharis halimifolia	SH	Groundsel Tree
Bacopa caroliniana	WF	Blue Waterhyssop
Bacopa monnieri	WF	Herb-of-Grace
Balduina angustifolia	WF	Coastalplain Honeycombhead
Bejaria racemosa	SH	Tarflower
Bidens alba	WF	Beggarticks
Bidens pilosa	WF	Spanish Needles
Bigelowia nudata subsp. australis	WF	Pineland Rayless Goldenrod
Boltonia diffusa	WF	Smallhead Doll's Daisy
Borrichia frutescens	WF	Bushy Seaside Oxeye

Buchnera americana WF American Bluehearts (syn. = Buchnera floridana)

Callicarpa americana SH American Beautyberry

Calopogon tuberosus WF Tuberous Grasspink

Campanula floridana WF Florida Bellflower

Canna flaccida WF Bandanna-of-the-Everglades

Caperonia castaneifolia WF Chestnutleaf Falsecroton

Carphephorus corymbosus WF Florida Paintbrush

Carphephorus odoratissimus WF Vanillaleaf

Cephalanthus occidentalis SH Common Buttonbush

Chamaecrista fasciculata WF Partridge Pea

Chaptalia tomentosa WF Wooly Sunbonnets

Chrysopsis mariana WF Maryland Goldenaster

Cicuta maculata WF Spotted Water Hemlock

Cirsium horridulum WF Purple Thistle

Cirsium lecontei WF Leconte's Thistle

Cirsium nuttallii WF Nuttall's Thistle

Cirsium sp. WF Thistle

Commelina erecta WF Whitemouth Dayflower

Conoclinium coelestinum WF Wild Ageratum

Coreopsis floridana WF Florida Coreopsis

Coreopsis leavenworthii WF Leavenworth's Coreopsis

Crinum americanum WF String-Lily

Crotalaria rotundifolia WF Rabbitbells

Crotalaria sp. WF Rattlebox

Dendrophylax lindenii (syn. = Polyrrhiza WF Ghost Orchid

lindenii)

Diodia virginiana WF Virginia Buttonweed

Dyschoriste oblongifolia WF Oblongleaf Twinflower

Elephantopus elatus WF Tall Elephantsfoot

Elytraria caroliniensis WF Carolina Scalystem

Erigeron quercifolius WF Oakleaf Fleabane

Erechtites hieraciifolius WF Fireweed

Eryngium aromaticum WF Fragrant Eryngo

Eryngium yuccifolium WF Button Rattlesnakemaster

Eulophia alta WF Wild Coco

Eupatorium mikanioides WF Semaphore Thoroughwort

Eupatorium mohrii WF Mohr's Thoroughwort

Euphorbia polyphylla WF Lesser Florida Spurge

Euthamia caroliniana WF Slender Flattop Goldenrod

Flaveria linearis WF Narrowleaf Yellowtops

Galactia elliottii VN Elliot's Milkpea

Gaura angustifolia WF Southern Beeblossom

Hamelia patens SH Firebush

Helenium pinnatifidum WF Southeastern Sneezeweed

Helianthus agrestis WF Southeastern Sunflower

Heliotropium polyphyllum WF Pineland Heliotrope

Hibiscus coccineus WF Scarlet Rosemallow

Hibiscus grandiflorus WF Swamp Rosemallow

Hieracium megacephalon WF Coastalplain Hawkweed

Hydrolea corymbosa WF Skyflower

Hypericum cistifolium SH Roundpod St. John's-Wort

Hypericum crux-andreae SH St. Peter's-Wort

Hypericum hypericoides SH St. Andrew's-Cross

Hypericum tenuifolium (syn. = H. reductum) SH Atlantic St. John's-Wort

Hypericum tetrapetalum SH Fourpetal St. John's-Wort

Hyptis alata WF Clustered Bushmint

Indigofera caroliniana WF Carolina Indigo

Ipomoea alba VN Tropical White Morning-Glory

Ipomoea cordatotriloba VN Tievine

Ipomoea sagittata VN Saltmarsh Morning-Glory

Iris hexagona WF Dixie Iris

Itea virginica SH Virginia Willow

Justicia angusta WF Pineland Waterwillow

Kosteletzkya pentacarpos WF Virginia Saltmarsh Mallow

Lachnocaulon anceps WF Whitehead Bogbutton

Liatris tenuifolia WF Shortleaf Blazingstar

Licania michauxii WF Gopher Apple

Lilium catesbaei WF Catesby's Lily

Linaria canadensis WF Canadian Toadflax

Lobelia feayana WF Bay Lobelia

Lobelia glandulosa WF Glade Lobelia

Ludwigia peruviana (questionably native) WF Peruvian Primrosewillow

Lygodesmia aphylla WF Rose-Rush

Lyonia fruticosa SH Coastalplain Staggerbush

Lythrum alatum var. lanceolatum WF Winged Loosestrife

Melanthera nivea WF Small-Leaf Squarestem (syn.= H. parviflora)

Melochia corchorifolia WF Chocolateweed

Melochia spicata WF Bretonica Peluda

Mikania scandens VN Climbing Hempvine

Mitreola petiolata WF Lax Hornpod

Mitreola sessifolia WF Swamp Hornpod

Muhlenbergia capillaris GR Hairawn Muhly; Muhly Grass

Nymphaea odorata WF American White Waterlily

Oxypolis filiformis WF Water Cowbane

Packera glabella WF Butterweed

Palafoxia feayi WF Feay's Palafox

Penstemon multiflorus WF Manyflower Beardtongue

Phyla nodiflora WF Turkey Tangle Frogfruit; Capeweed

Physostegia purpurea WF Eastern False Dragonhead

Piloblephis rigida WF Wild Pennyroyal

Pinguicula pumila WF Small Butterwort

Pityopsis graminifolia	WF	Narrowleaf Silkgrass
Pityopsis oligantha	WF	Grassleaf Goldenaster
Pluchea baccharis	WF	Rosy Camphorweed
Pluchea foetida	WF	Stinking Camphorweed
Pluchea odorata	WF	Sweetscent
Polygala balduinii	WF	Baldwin's Milkwort
Polygala grandiflora (syn. = P. violaceae)	WF	Showy Milkwort
Polygala incarnata	WF	Procession Flower
Polygala lutea	WF	Orange Milkwort
Polygala nana	WF	Candyroot
Polygala setacea	WF	Coastalplain Milkwort
Polygonum hydropiperoides	WF	Swamp Smartweed
Polystachya concreta	WF	Greater Yellowspike Orchid
Pontederia cordata	WF	Pickerel Weed
Pterocaulon pycnostachyum	WF	Blackroot
Psychotria nervosa	SH	Wild Coffee
Rhexia mariana	WF	Pale Meadowbeauty
Rhexia nutallii	WF	Nuttall's Meadowbeauty
Rhynchospora colorata	SG	Starrush Whitetop
Rudbeckia hirta	WF	Blackeyed Susan
Ruellia caroliniensis	WF	Carolina Wild Petunia
Sabatia brevifolia	WF	Shortleaf Rosegentian
Sabatia calycina	WF	Coastal Rosegentian
Sabatia grandiflora	WF	Largeflower Rosegentian
Sabatia stellaris	WF	Rose-of-Plymouth
Saccharum giganteum	GR	Sugarcane Plumegrass
Sacoila lanceolata	WF	Leafless Beaked Ladiestresses
Sacoila lanceolata var. paludicola	WF	Leafy Beaked Ladiestresses
Sagittaria filiformis	WF	Threadleaf Arrowhead

WF

Sagittaria graminea

Grassy Arrowhead

Sagittaria lancifolia	WF	Bulltongue Arrowhead
Sagittaria latifolia	WF	Broadleaf Arrowhead
Sambucus nigra subsp. canadensis	SH	American Elder
Samolus ebracteatus	WF	Water Pimpernel
Sarcostemma clausum	VN	White Twinevine
Serenoa repens	SH	Saw Palmetto
Sericocarpus tortifolius	WF	Whitetop Aster
Sisyrinchium angustifolium	WF	Narrowleaf Blue-Eyed Grass
Solidago fistulosa	WF	Pinebarren Goldenrod
Solidago odora	WF	Anisescented Goldenrod
Solidago sempervirens	WF	Seaside Goldenrod
Solidago stricta	WF	Wand Goldenrod
Sorghastrum secundum	GR	Lopsided Indiangrass
Sorghastrum secundum	GR	Lopsided Indiangrass
Stillingia aquatica	SH	Water Toothleaf
Symphyotrichum carolinianum (syn. = Ampelaster carolinianus)	SH	Climbing Aster
Teucrium canadense	WF	Wood Sage
Thalia geniculata	WF	Alligatorflag
Tillandsia fasciculata	WF	Cardinal Airplane
Utricularia foliosa	WF	Leafy Bladderwort
Utricularia gibba	WF	Humped Bladderwort
Utricularia purpurea	WF	Eastern Purple Bladderwort
Utricularia sp.	WF	Bladderwort
Vaccinium myrsinites	SH	Shiny Blueberry
Verbesina virginica	WF	Frostweed
Vernonia blodgettii	WF	Florida Ironweed
Vicia acutifolia	WF	Fourleaf Vetch
Viola sp.	WF	Violet
Xyris caroliniana	WF	Carolina Yelloweyed Grass

WF

Yelloweyed Grass

Xyris sp.

Yucca filamentosa	WF	Adam's Needle
	NonNative	

Peltophorum pterocarpum TR Yellow Poinciana

# **Appendix - Anecdotal Observations**

Information about native wildflowers observed in the Corkscrew Swamp vicinity was provided by Brenda Thomas of the CREW Land & Water Trust, Estero. Anecdotal observations conveyed via email are direct quotes so as to avoid any misinterpretation.

#### AnecObs1

#### Bird Rookery

"...Then it dawned on me last night that I gave you the wrong *Ophioglossum* species. It was not *palmatum*, but *petiolatum* I had seen growing on one of the logs in the ditch, side by side with *Malaxis spicata*."



## AnecObs2

#### **CREW** marsh

"...I attached some pictures of the sunflowers in the marsh...."



# AnecObs3

Attached is a list of some of the more common, showy flowers (including a couple of gorgeous grasses) that you will find at the CREW Marsh Trails and CREW Cypress Dome Trails in Collier county. These trails are located in South Florida between Estero (Lee County) and Immokalee (Collier County) on Corkscrew Rd. (County Road 850). The variety of ecosystems at CREW creates a diversity of habitat choices and so CREW is known for its wildflowers. We hold a Wildflower Festival every March to showcase the beautiful flowers blooming that time of year. CREW Land & Water Trust was established in 1989 to coordinate the land acquisition, management, and public access for the 60,000-acre Corkscrew Regional Ecosystem Watershed.

Common Name	Scientific Name	Date or Season	Habitat Description
Lopsided Indian Grass Sugarcane	Sorghastrum secundum	Fall - Sept. through Oct.	Pine Flatwoods
Plumegrass	Saccharum giganteum	Fall - Sept. through Oct.	Marsh
Pine Lily	Lilium catesbaei	Fall - Sept. through Oct.	Pine Flatwoods
Blazing Star	Liatris species	Fall - Sept. through Nov.	Pine Flatwoods
Pineland Purple	Carphephorus odoratissimus	Fall - Sept. through Nov.	Pine Flatwoods
Climbing Aster	Aster carolinianus	Fall - Sept. through Nov.	Marsh
Bay Lobelia	Lobelia faeyana	Spring	All along trails and in grass along Corkscrew Rd.
Penny Royal	Piloblephis rigida	Spring	Pine Flatwoods
Small Butterwort	Pinguicula pumila	Spring	Pine Flatwoods at edges of marsh
Wild Coco	Eulophia alta	Fall - Sept. through Nov.	Pine Flatwoods
Bluehearts	Buchnera americana	All year	Pine Flatwoods and edges of marsh
Marsh Pink	Sabatia stellaris	All year	Marsh
Wood Sage	Teucrium canadense	Spring and Summer	Marsh
Grass Pink	Calopogon tuberosus	Spring	Marsh
Gulf Muhly Grass	Muhlenbergia capillaris	Fall - Sept. through Nov.	Pine Flatwoods
Prairie Milkweed	Asclepias lanceolata	Spring through Fall	Marsh
Tickseed	Coreopsis leavenworthii	All year	Pine Flatwoods
Southeastern			
Sunflower	Helianthus agrestis	Fall - Sept. through Oct.	Marsh
St. Johnswort	Hypericum species	All year	Pine flatwoods and marshes
Pitted Stripseed	Piriqueta caroliniana	Spring	Pine Flatwoods and edges of marsh
Toothpetal Orchid	Habenaria species	All year	Pine Flatwoods and oak hammock

Ladies-Tresses	Spiranthes species	All year	Pine flatwoods and marsh edges
Water Pimpernel	Samolus ebracteatus	Spring through summer	marsh edges
PawPaw	Asimina reticulata	Spring	pine flatwoods