

Wildflower Survey, 2010: Big Bend

Final Report October 25, 2010

Investigators

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Introduction

The goal of this survey is to document routes that motorists, cyclists, and hikers can view showy stands of native wildflowers in the Big Bend region of Florida. For the purpose of this survey, this region was defined as the area south of I-10 and east of I-75 from Madison to Levy County.

This report represents the cumulative results of our site evaluations based on our observations in spring (April and May), summer (June), and fall (September/October 2010). Survey dates were based on the experience of the investigators.

Methods

The majority of the survey was conducted by car, accompanied by walking forays into many of the sites. The surveys were conducted on the following dates:

- Spring – April 26, May 13
- Summer – June 7*, July 5**
- Fall – September 2, October 8

*Based on June 7 observations and existing phenological data (data about life cycle stages, such as flowering), it was determined that a second complete summer trip would not yield results substantially different than on June 7.

**Only surveyed the 8-mile segment on I-10 west in Suwannee County, between the US 129 exit [Exit 283] and the US 90 exit [Exit 275]; area is known for *Rudbeckia mollis*.

NOTE: The survey dates are only “snapshots” of the native wildflowers blooming during any season. Many species native to the Big Bend flower in the interim. Check the anecdotal observations on page 46 to read about what others have observed.

Our goal was to provide the best possible route(s) (loop routes, if possible) that:

1. Highlighted showy stands of native wildflowers and native wildflower communities typical of the Big Bend.
2. Occurred along roadsides and where applicable, natural areas (parks, wildlife management areas, Forest Roads, etc.) easily accessible to the public that occur along those routes.

We proposed to utilize methods similar to those used for the survey of the St. Johns River-to-Sea Bike Loop as listed below.

- 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** – Applies only to PhotoSite S-2, the road to Hagen's Cove (p. 39).
- **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.

'Existing Species' refers to species within the right-of-way (ROW) as well as showy native species immediately adjacent to the ROW and easily seen. Species are referred to by their scientific name; common names of all species mentioned in this report are listed in Table 1 (page 40).

All PhotoSite information, recommendations, etc. reflect our consensus opinion.

For all PhotoSites:

- We recorded habitat, GPS coordinates (accurate to 5 m or less), at least one digital image, and a general management recommendation.
- Indicated the best season(s) to view wildflowers.
- For any species recommended for enhancing a site, we provided a list of commercially available, showy native wildflower and grass species suitable for site conditions and that are consistent with the 'sense of place' concept. Species availability (seeds or containerized plants) is based on information on the Florida wildflower seed producers' co-op web site (<http://www.floridawildflowers.com>) and the Association of Florida Native Nurseries web site (<http://www.afnn.org>). If using containerized plant materials, we suggest the use of well-rooted plugs or liners to minimize costs.

All species observed are listed in Table 1 (page 40).

A full-color map, ESRI-compliant shape file, and accompanying Excel spreadsheet are included as separate electronic files; a hard copy of the color map is also included.

Results

Four wildflower routes were designated in this report, along with two side trips, based on the spring, summer, and fall survey results, proximity of wildflower areas, and routes we believe will sustain viewer interest. Many of the wildflower and wildflower communities occurred along long stretches of rural roadsides in nonresidential/noncommercial areas. Hence, we decided to highlight PhotoSites at particular areas along these long stretches. One of the side trips (Hagen's Cove) is not near the four routes, but the outstanding display of *Sabatia stellaris* (p. 39) and several other species makes visiting this site a worthwhile side trip, especially in the summer.

We classified many of these PhotoSites as ‘**Enhancement**’ but only to the extent of recommending management practices that would 1) facilitate sustainability and spread of the native species, and 2) not alter the potentially delicate balance of composition and relative proportion of native species. Most of the areas that we recommended for enhancing by seeding were areas in which *Coreopsis basalis* and/or *Phlox drummondii* were dominant – primarily Columbia, Gilchrist, Levy, and Suwannee County, and eastern Madison County.

Observations, issues, and suggestions that we want to highlight:

1. Showiness, length of showiness, and diversity of several of these rural roadsides have the potential to rival that of SR 65 in Liberty County, the premier native wildflower road in the state, by reducing the width of the mow zone and frequency of mowing. Moreover, we are confident that we missed seeing impressive stands of wildflowers that might have occurred between our visits, or that were obliterated by tree-line to tree-line mowing prior to one or more of our visits.
2. Nonnative species in significant numbers are noted. Turf species commonly used on roadside for soil stabilization are not mentioned (*Paspalum notatum* [bahiagrass] and *Cynodon dactylon* [bermudagrass]).
3. Moist to periodically inundated roadside ROWs in sites with bright light located in nonresidential/noncommercial, rural areas frequently have showy displays of native wildflowers.
4. Wildflower blooming times [as well as length of the blooming period] can be strongly affected by environmental conditions (rain and temperature) and mowing. Mowing, can serve to “deadhead” wildflowers, and in years with adequate rain can result in significant reblooming of species when blooming would not necessarily be expected. Hence, what we observed blooming might not be in bloom to the same degree in future years, or at the same time. Also, in PhotoSites with mixed species, the relative proportion of each species might vary in subsequent years.
5. We did not observe any ‘**Do not develop**’ sites along the wildflower routes in which nonnative, invasive species would interfere with an existing stand or the establishment of a new site (See also, no. 6)
6. For all PhotoSites, except those dominated by *Coreopsis basalis* and/or *Phlox drummondii*, travelers might consider pulling off the road in a location where it is safe to park, and then explore the site. Wildflowers often are best viewed when walking.
7. We did not mention any ‘**New planting**’ sites mainly because we selected routes characterized by numerous existing stands of native wildflowers. However, if new planting sites are desired, an option is to establish Florida ecotypes (see #8) of *Coreopsis basalis* and/or *Phlox drummondii* in nonresidential, noncommercial areas where either of these species commonly occur:
 - US 129 in Gilchrist, Levy, Suwannee County; open, mesic to dry sandy sites where bahiagrass is dominant; goal is to fill in gaps between existing stands of *Coreopsis* and *Phlox*.
 - I-10 in Columbia County (west of I-75), Suwannee County, and eastern Madison County; open, mesic to dry sandy sites where bahiagrass is dominant.

At any of these locations, the showiness season can be extended by seeding with Florida ecotypes of *Ipomopsis rubra*, *Mimosa strigillosa*, and/or *Rudbeckia mollis*.

8. Florida ecotypes – Plants, or seed from plants, that are derived from plants that naturally occur in Florida. Seed of Florida ecotypes is the only type of seed that we recommend, and concurs with the Foundation's policies. For more information, read the Foundation's definition of a native wildflower and its policy about native wildflower cultivars, both of which will be available on the [Foundation web site](#) in November 2010.
9. *Coreopsis basalis* and *Phlox drummondii* – While these species are native to the U.S., some do not consider these species native to Florida. Inclusion of these species in this report is consistent with the Foundation's definition of a native wildflower.

Routes – The four routes were designated for the Big Bend region were in parts of Dixie, Gilchrist, Lafayette, Levy, Suwannee, and Taylor counties. Many excellent displays of naturally-occurring native wildflowers and grasses inhabit the roadside along these routes. Spring was the best time for showy wildflower displays, highlighted by large contiguous, or nearly contiguous, stands of *Helenium pinnatifidum* along CR 357 in Dixie County (Route 1, page 4), and *Coreopsis basalis* in Suwannee County (Route 3, page 29). Route 1 had the showiest stands of wildflowers in the summer, although there was a spectacular population of the pink *Sabatia stellaris* along the gravel road into Hagen's Cove (PS S-2, page 39). In the fall, the showiest stands of wildflowers were on Routes 1 and 2 (pages 4 and 16, respectively.)

Side trip options include:

- SR 51, just south of US 27/98 near Tennille (PhotoSite S-1)
- Road leading to Hagen's Cove (PhotoSite S-2)

Route 1: Begins on SR 51 at Tennille (Taylor County), then north on SR 51 to Cooks Hammock, south onto CR 357 (Hines Highway), to the Junction CR 357 and CR 358, then west on 358 to US 19, or south on CR 358 to US 27/98. PhotoSites occur both east and west of junction of 357 and 358. Many of the species observed on this route were present in numerous places, though in lesser quantities than the numbered sites.

Hypericum crux-andreaei often occurred along this route and was not included at specific PhotoSites:

PhotoSites on Route 1 begin on the next page.

PhotoSite Number 1-1

Type	Enhancement
Season	Spring, summer, fall
Location	SR 51, Dixie north into Lafayette Co.
Size of entire site	~ 2 miles
Lat./long.	South end: +29.81165 -83.31753 North end: +29.84030 -83.31211
Habitat	Ruderal; moist to dry



Images: 5-13-10 (UL, MR), 6-7-10 (ML), 10-8-10 (LR)

Existing Species

Showy	<i>Asclepias lanceolata</i> , <i>Bidens mitis</i> , <i>Buchnera americana</i> , <i>Campanula floridana</i> , <i>Chamaecrista fasciculata</i> , <i>Erigeron quercifolius</i> , <i>Helianthus angustifolius</i> , <i>Heterotheca subaxillaris</i> , <i>Iris hexagona</i> , <i>Mikania scandens</i> , <i>Oenothera laciniata</i> , <i>Phlox drummondii</i> , <i>Pyrrhopappus carolinianus</i> , <i>Rhexia mariana</i> , <i>Rudbeckia hirta</i> , <i>Rumex hastatulus</i> , <i>Rhynchospora colorata</i> , <i>Ruellia caroliniensis</i> , <i>Sabatia stellaris</i> , <i>Sagittaria lancifolia</i> , <i>Salvia lyrata</i> , <i>Saccharum giganteum</i> , <i>Saururus cernuus</i> , <i>Sisyrinchium angustifolium</i> , <i>Solidago odora</i> , <i>Tradescantia ohiensis</i> , <i>Triodanis perfoliata</i> , <i>Verbena officinalis halei</i> , <i>Zephyranthes treatiae</i>
Other	<i>Allium canadense</i> , <i>Gaura angustifolia</i> , <i>Ptilimnium capillaceum</i>

Management Recommendation

Avoid mowing between Feb. 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

PhotoSite 1-1 continued on next page

Notes

Discontiguous stands of native species along this 2 mile segment of SR 51. Many of the wetland species are not in mow zone. While showy wildflowers occur from spring to fall, spring displays were better than fall, and fall better than summer.

PhotoSite Number 1-2

Type Enhancement

Season Spring

Location Jct. of CR 357
 and SR
 51(Cooks
 Hammock),
 and proceed
 southeast on
 CR 357;
 Lafayette Co.

Size of
entire site ~ 1.3 miles

Lat./long. North end:
 +29.92939
 -83.27609

 South end:
 +29.91855
 -83.26731

Habitat Ruderal; mesic



Image: 4-26-10

Existing Species

Showy *Baptisia alba*, *Coreopsis leavenworthii*, *Erigeron quercifolius*, *Lonicera sempervirens*, *Oenothera laciniata*, *Penstemon multiflorus*, *Phyla nodiflora*, *Pontederia cordata*, *Pyrrhopappus carolinianus*, *Rhexia mariana*, *Rhynchospora colorata*, *Sabatia stellaris*, *Salvia lyrata*, *Saururus cernuus*, *Sisyrinchium angustifolium*, *Tradescantia ohiensis*

Other *Gaura angustifolia*

Management recommendation

Avoid mowing between Feb. 15 and Aug. 31, except for 6 feet from edge of pavement for safety purposes.

Notes

Discontiguous stands of native species along this 1.3-mile segment of CR 357. Best displays at northern and southern ends. A significant stand of *Lonicera* is at the southern end of this segment.

PhotoSite Number 1-3

Type Enhancement

Season Spring

Location Lafayette Co.,
CR 357

Size of
entire site ~ 0.5 miles

Lat./long. +29.87740
 -83.23712

Habitat Ruderal; dry to
 moist



Image: 4-26-10

Existing Species

Showy *Coreopsis basalis*, *Phlox drummondii*

Other *Glandularia pulchella* (nonnative)

Management Recommendation

Avoid mowing between March 1 and June 30, except for 6 feet from edge of pavement for safety purposes. Supplement with seed of Florida ecotypes of *Coreopsis basalis* and/or *Phlox drummondii*.

Notes

While this PhotoSite is showiest in spring, in June *Erigeron vernus* and *Penstemon multiflorus* occurred sporadically, and between this PhotoSite and PhotoSite 1-2 to the north, we observed sporadic occurrence of *Eupatorium mohrii*, *Pterocaulon pycnostachyum*, *Rhexia mariana*, and *Rhynchospora colorata* in moist areas.

PhotoSite Number 1-4

Type	Enhancement
Season	Spring
Location	Lafayette Co., CR 357
Size of entire site	~ 0.5 miles
Lat./long.	+29.83108 -83.23635
Habitat	Ruderal; moist to dry



Image: 4-26-10

Existing Species

Showy	<i>Asclepias lanceolata</i> , <i>Asclepias perennis</i> , <i>Campanula floridana</i> , <i>Cirsium horridulum</i> , <i>Coreopsis basalis</i> , <i>Coreopsis leavenworthii</i> , <i>Hibiscus aculeatus</i> , <i>Hydrolea quadrivalvis</i> , <i>Hyptis alata</i> , <i>Iris hexagona</i> , <i>Lythrum alatum</i> var. <i>lanceolatum</i> , <i>Mitreola sessilifolia</i> , <i>Phlox drummondii</i> , <i>Polygala lutea</i> , <i>Polygonum hydropiperoides</i> , <i>Rhexia mariana</i> , <i>Rhynchospora colorata</i> , <i>Ruellia caroliniensis</i> , <i>Sabatia brevifolia</i>
Other	<i>Gaura angustifolia</i> , <i>Phyla nodiflora</i> , <i>Ptilimnium capillaceum</i> ; <i>Glandularia pulchella</i> (nonnative)

Management Recommendation

Avoid mowing between March 15 and October 31, except for 6 feet from edge of pavement for safety purposes.

Notes

Several colonies of *Iris*. While this PhotoSite is showy mainly in spring, there was sporadic occurrence of some showy species in June (*Asclepias lanceolata*, *Polygonum hydropiperoides*, *Rhexia mariana* and *Rhynchospora colorata*), and in early September (*Hydrolea quadrivalvis* and *Sabatia brevifolia*).

PhotoSite Number 1-5

Type	Enhancement
Season	Spring, summer, fall
Location	Dixie Co., CR 357 at Hines, and then south
Size of entire site	~ 1 mile
Lat./long.	North end: +29.74129 -83.23679 South end: +29.72625 -83.23855
Habitat	Ruderal; moist



Images: 4-26-10 (UL), 6-7-10 (MR), 9-2-10 (LL)

Existing Species

Showy	<i>Acmella oppositifolia</i> , <i>Aletris obovata</i> , <i>Arnoglossum ovatum</i> , <i>Asclepias lanceolata</i> , <i>Asclepias longifolia</i> , <i>Boltonia diffusa</i> , <i>Cephalanthus occidentalis</i> , <i>Chamaecrista fasciculata</i> , <i>Coreopsis floridana</i> , <i>Coreopsis leavenworthii</i> , <i>Erigeron quercifolius</i> , <i>Eryngium aquaticum</i> , <i>Helenium pinnatifidum</i> , <i>Hypericum mutilum</i> , <i>Hypericum myrtifolium</i> , <i>Justicia angusta</i> , <i>Liatris tenuifolia</i> , <i>Liatris spicata</i> , <i>Linum</i> sp., <i>Lobelia glandulosa</i> , <i>Mitreola sessilifolia</i> , <i>Piriqueta cistoides</i> , <i>Pluchea baccharis</i> , <i>Pterocaulon pycnostachyum</i> , <i>Polygala baldunii</i> , <i>Rhexia marina</i> , <i>Rhynchospora colorata</i> , <i>Rudbeckia fulgida</i> , <i>Sabatia stellaris</i> , <i>Saccharum giganteum</i> , <i>Sagittaria graminea</i> , <i>Silphium asteriscus</i> , <i>Sisyrinchium angustifolium</i> , <i>Solidago odora</i> , <i>Spiranthes vernalis</i> , <i>Viola lanceolata</i> , <i>Xyris</i> sp., <i>Zephyranthes simpsonii</i>
Other	<i>Buchnera americana</i> , <i>Buchnera floridana</i> , <i>Gaura angustifolia</i> , <i>Phyla nodiflora</i> , <i>Polygala grandiflora</i>

Management Recommendation

Avoid mowing between March 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes; in October, mow zone was 15 to 20 feet.

PhotoSite 1-5 continued on next page

Notes

Near the south end of this site, and to the south of this PhotoSite, excellent displays on the wide shoulder on the east side of CR 357; especially noted for a spectacular population of *Helenium pinnatifidum* (spring) stretching more or less continuously south to the junction of CR 357 and CR 358. **This PhotoSite would be much showier, and probably more diverse, if width and frequency of mowing were reduced.**

PhotoSite Number 1-6

Type	Enhancement
Season	Spring, summer, fall
Location	CR 358 as it approaches US 27/98 south of Tennille; Dixie Co.
Size of entire site	~ 0.3 miles
Lat./long.	+29.70809 -83.27001
Habitat	Ruderal; moist



Images: 4-26-10 (UL), 5-13-10 (MR), 10-8-10 (LL)

Existing Species

Showy	<i>Acmella oppositifolia</i> , <i>Agalinis purpurea</i> , <i>Asclepias longifolia</i> , <i>Asclepias perennis</i> , <i>Bidens mitis</i> , <i>Campanula floridana</i> , <i>Cephalanthus occidentalis</i> , <i>Chaptalia tomentosa</i> , <i>Cirsium horridulum</i> , <i>Clematis crispa</i> , <i>Dyschoriste oblongifolia</i> , <i>Erigeron quercifolius</i> , <i>Erigeron strigosus</i> , <i>Eryngium aquaticum</i> , <i>Helianthus radula</i> , <i>Helenium pinnatifidum</i> , <i>Hyptis alata</i> , <i>Iris hexagona</i> , <i>Liatris spicata</i> , <i>Melanthera nivea</i> , <i>Mikania scandens</i> , <i>Mitreola sessifolia</i> , <i>Oxypolis filiformis</i> , <i>Physalis</i> sp., <i>Pluchea baccharis</i> , <i>Polygala boykinii</i> , <i>Pontederia cordata</i> , <i>Rhexia marina</i> , <i>Rhynchospora colorata</i> , <i>Rosa palustris</i> , <i>Rudbeckia fulgida</i> , <i>Ruellia caroliniensis</i> , <i>Saccharum giganteum</i> , <i>Sagittaria graminea</i> , <i>Salvia lyrata</i> , <i>Saururus cernuus</i> , <i>Silphium asteriscus</i> , <i>Sisyrinchium angustifolium</i> , <i>Spiranthes vernalis</i> , <i>Tridens flavus</i> , <i>Zephyranthes treatiae</i>
Other	<i>Buchnera floridana</i> , <i>Gaura angustifolia</i> , <i>Polygala grandiflora</i>

Management Recommendation

Avoid mowing between March 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

PhotoSite 1-6 continued on next page

Notes

A particularly rich area, with locally abundant populations of the showy *Asclepias longifolia*, *Polygala boykinii*, *Pontederia cordata*, *Rudbeckia fulgida*, and *Zephyranthes treatiae*. A pull-off is available here. **This PhotoSite would be much showier, and probably more diverse, if width and frequency of mowing were reduced.**

PhotoSite Number 1-7

Type Enhancement

Season Spring,
 summer, fall

Location CR 358,
 approaching
 US 27/98
 toward Cross
 City; Dixie Co.

Size of
entire site ~ 0.5 miles

Lat./long. North end:
 +29.67774
 -83.19038

 South end:
 +29.65902
 -83.17911

Habitat Ruderal; moist
 to dry



Images: 4-26-10 (UL), 9-2-10 (MR), 10-8-10 (LL)

Existing Species

Showy *Acmella oppositifolia*, *Asclepias lanceolata*, *Asclepias longifolia*, *Asclepias perennis*, *Bidens mitis*, *Campanula floridana*, *Cephalanthus occidentalis*, *Chaptalia tomentosa*, *Cirsium horridulum*, *Elephantopus elatus*, *Erigeron quercifolius*, *Erigeron strigosus*, *Erigeron vernus*, *Helianthus radula*, *Helenium pinnatifidum*, *Hydrolea quadrivalvis*, *Hypericum mutilum*, *Hyptis alata*, *Iris hexagona*, *Juncus marginatus*, *Lachnanthes caroliniana*, *Lobelia glandulosa*, *Lonicera sempervirens*, *Lythrum alatum* var. *lanceolatum*, *Mikania scandens*, *Oxypolis filiformis*, *Physostegia purpurea*, *Pluchea baccharis*, *Polygala boykinii*, *Polygonum hydropiperoides*, *Pontederia cordata*, *Pyrrhopappus carolinianus*, *Rhexia marina*, *Rhynchospora colorata*, *Rudbeckia fulgida*, *Ruellia caroliniensis*, *Sabatia stellaris*, *Salvia lyrata*, *Silphium asteriscus*, *Solidago fistulosa*, *Spiranthes vernalis*, *Utricularia foliosa*, *Xyris* sp.

Other *Gaura angustifolia*, *Hyptis mutabilis* (nonnative), *Phyla nodiflora*, *Polygala grandiflora*, *Ptilimnium capillaceum*

Management Recommendation

Avoid mowing between March 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

PhotoSite 1-7 continued on next page

Notes

Pull-out at north end on east side. **This PhotoSite would be much showier, and probably more diverse, if width and frequency of mowing were reduced.**

Route 2: While this route begins just north of Chiefland on US 27 (PhotoSite 2-1), most of this route is along CR 345 and CR 347. From Chiefland, the route proceeds due east on NW CR 345, and then due south on this same road. Proceed due east on NW 70th St., and then follow CR 347 south to SR 24. Proceed northeast on SR 24, and then turn north on CR345, which goes back to Chiefland.

In the spring, parts of this route, including much of CR 347 from NW 25th St. to Chiefland is lined almost continuously with *Phlox drummondii*.

PhotoSites along this route begin on the next page.

PhotoSite Number 2-1

Type	Enhancement
Season	Spring
Location	US 27, just north of Chiefland, Levy Co.
Size of entire site	~0.5 miles
Lat./long.	+29.50577 -82.87317
Habitat	Ruderal; dry



Image: 4-26-10

Existing Species

Showy *Coreopsis basalis* (median), *Phlox drummondii*

Management Recommendation

Avoid mowing between Feb. 15 and June 30, except for 6 feet from edge of pavement for safety purposes. This PhotoSite can be supplemented with seed of Florida ecotypes of *Coreopsis basalis* and/or *Phlox drummondii* as needed to enhance aesthetics.

PhotoSite Number 2-2

Type	Enhancement
Season	Spring
Location	Park-like, pull-off on CR 345 (NW 100 th St., just south of CR 341, Chiefland; Levy Co.
Size of entire site	~0.5 acres
Lat./long.	+29.47485 -82.87726
Habitat	Ruderal; dry



Image: 4-26-10

Existing Species

Showy	<i>Coreopsis basalis</i> , <i>Phlox drummondii</i> , and <i>Erigeron strigosus</i> on north side of CR 345; also <i>Hydrangea quercifolius</i> , <i>Mimosa strigillosa</i> , <i>Tradescantia ohiensis</i>
Other	<i>Glandularia pulchella</i> (nonnative)

Management Recommendation

Avoid mowing between Feb. 15 and June 30, except for 6 feet from edge of pavement for safety purposes. PhotoSite can be supplemented with seed of Florida ecotypes of *Coreopsis basalis*, *Mimosa strigillosa*, and/or *Phlox drummondii* as needed to enhance aesthetics.

PhotoSite Number 2-3

Type Enhancement

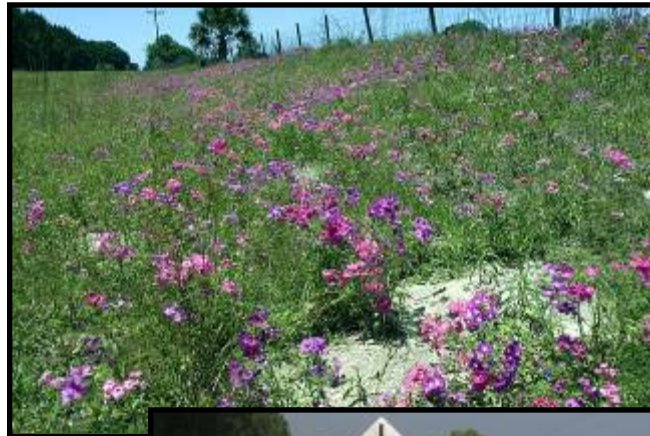
Season Spring, fall

Location Beginning
near junction
of NW 70th
Ave. and CR
345, and
westward
toward
junction with
CR 347; Levy
Co.

Size of
entire site ~ 3 miles

Lat./long. +29.43127
 -82.89042

Habitat Ruderal; dry



Images: 4-26-10 (UL), 9-2-10 (LR)

Showy *Bidens alba*, *Chamaecrista fasciculata*, *Commelina erecta*, *Coreopsis leavenworthii*, *Erigeron strigosus*, *Froelichia floridana*, *Heterotheca subaxillaris*, *Monarda punctata*, *Phlox drummondii* (nearly continuous in spring), *Solidago odora*

Other *Croton glandulosus*, *Gaura angustifolia*, *Phyla nodiflora*

Management Recommendation

Avoid mowing between Feb. 15 and Nov. 21 except for 6 feet from edge of pavement for safety purposes. PhotoSite can be supplemented with seed of the Florida ecotype of *Mimosa strigillosa* as needed to enhance aesthetics.

Notes

This PhotoSite was mowed between Sept. 2 and Oct. 10. **This PhotoSite would be much showier (and maybe showy in the summer), and probably more diverse, if width and frequency of mowing were reduced.**

PhotoSite Number 2-3A

Type Enhancement

Season Fall

Location Just north of
PS 2-4 on CR
347, Levy Co.

Size of
entire site ~0.75 – 1 mile

Lat./long. North end:
+29.43076
-82.97910

South end:
+29.42870
-82.98702

Habitat Ruderal;
mainly moist
on east side,
and dry on
west side



Images: 9-2-10 (UL), 10-8-10 (LR)

Showy

Acmella oppositifolia, *Aesclepias lanceolata*, *Bidens mitis*, *Boltonia diffusa*,
Chamaecrista fasciculata, *Cirsium nuttallii*, *Conoclinium coelestinum*,
Coreopsis floridana, *Coreopsis leavenworthii*, *Eryngium aquaticum*,
Eupatorium perfoliatum, *Helianthus angustifolius*, *Helianthus radula*, *Hibiscus*
aculeatus, *Hydrolea corymbosa*, *Hyptis alata*, *Liatris spicata*, *Lobelia*
glandulosa, *Ludwigia maritima*, *Lythrum alatum* var. *lanceolatum*, *Melanthera*
nivea, *Mitreola sessilifolia*, *Oxypolis filiformis*, *Pityopsis graminifolia*, *Pluchea*
foetida, *Pontederia cordata*, *Rhexia mariana*, *Rhynchospora colorata*, *Ruellia*
caroliniensis, *Saccharum giganteum*, *Solidago stricta*, *Strophostyles umbellata*,
Symphotrichum dumosum, *Xyris* sp.

Other *Phyla nodiflora*

Management Recommendation

Avoid mowing between Apr. 1 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

Note

Reducing the width and frequency of mowing would make this PhotoSite showier, and probably at more times of year; diversity likely would increase as well.

PhotoSite Number 2-4

Type Enhancement

Season Spring,
 summer, fall

Location CR 347 (SW
 Creek 347),
 Levy Co.

Size of
entire site ~ 1 mile

Lat./long. North end:
 +29.42371
 -82.99224

 South end:
 +29.41215
 -83.00396

Habitat Ruderal; moist



Images: 5-13-10 (UL), 6-7-10 (MR), 9-2-10 (ML), 10-8-10 (LR)

Existing Species

Showy *Acmella oppositifolia*, *Aletris obovata*, *Asclepias lanceolata*, *Boltonia diffusa*, *Buchnera floridana*, *Calopogon tuberosus*, *Campanula floridana*, *Centrosema virginianum*, *Cirsium horridulum*, *Coreopsis leavenworthii*, *Dalea carnea*, *Elephantopus elatus*, *Erigeron vernus*, *Erigeron quercifolius*, *Eryngium aquaticum*, (abundant in Sep.), *Eupatorium mohrii*, *Helenium pinnatifidum*, *Helianthus angustifolius*, *Helianthus radula*, *Hibiscus aculeatus*, *Hypericum myrtifolium*, *Iris hexagona*, *Lachnocaulon* sp., *Liatris gracilis*, *Liatris spicata*, *Linum medium*, *Lobelia glandulosa*, *Ludwigia maritima*, *Lythrum alata* var. *lanceolatum*, *Mikania scandens*, *Mitreola petiolata*, *Oxypolis filiformis*, *Pinguicula pumila* (large conc.), *Pluchea baccharis*, *Pityopsis graminifolia*, *Polygala lutea*, *Polygala nana*, *Polygonella gracilis*, *Pontederia cordata*, *Pterocaulon pycnostachyum*,

PhotoSite 2-4 continued on next page

Showy	<i>Rhexia mariana</i> , <i>Rhexia petiolata</i> , <i>Rhynchospora colorata</i> , <i>Ruellia caroliniensis</i> , <i>Saccharum giganteum</i> , <i>Sagittaria</i> sp., <i>Sabatia</i> (<i>difformis</i> or <i>quadrangula</i>), <i>Sabatia stellaris</i> , <i>Salvia lyrata</i> , <i>Scutellaria integrifolia</i> , <i>Sisyrinchium angustifolium</i> , <i>Solidago odora</i> , <i>Strophostyles umbellata</i> , <i>Symphotrichum dumosum</i>
Other	<i>Drosera capillaris</i> , <i>Phyla nodiflora</i> , <i>Polygala grandiflora</i> , <i>Ptilimnium capillaceum</i>

Management Recommendation

Avoid mowing between Feb. 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

Notes

In spring, discontinuous populations, with the showiest displays at north and south ends; *Erigeron quercifolius* was dominant at south end of this PhotoSite in May. **This PhotoSite would be much showier if width and frequency of mowing were reduced.**

Just south of PhotoSite2-4 there was a showy stand of native wildflowers and grasses, which was comprised mainly of *Aristida spiciformis*, *Balduina angustifolia*, *Carphephorus corymbosus*, *Carphephorus odoratissimus*, *Chrysopsis gossypina*, *Eryngium aquaticum*, *Hyptis alata*, *Liatris tenuifolia*, and *Sorghastrum secundum*.



PhotoSite Number 2-5

Type	Enhancement
Season	Spring, summer, fall
Location	CR 347 near entrance to Lower Suwannee NWR complex; Levy Co.
Size of entire site	~ 5 miles
Lat./long.	North end: +29.37217 -83.03761 South end: +29.30017 -83.03254
Habitat	Ruderal; moist



Images: 6-7-10 (UL); 9-2-10 (MR, LL)

Existing Species

Showy	<i>Acmella oppositifolia</i> , <i>Arnoglossum ovatum</i> , <i>Asclepias lanceolata</i> , <i>Asclepias michauxii</i> , <i>Bidens mitis</i> , <i>Buchnera americana</i> , <i>Campanula floridana</i> , <i>Centrosema virginianum</i> , <i>Cephalanthus occidentalis</i> , <i>Chamaecrista nictitans</i> , <i>Cirsium horridulum</i> , <i>Cirsium nuttallii</i> , <i>Coreopsis floridana</i> , <i>Coreopsis leavenworthii</i> , <i>Erigeron vernus</i> , <i>Erigeron quercifolius</i> , <i>Eryngium aquaticum</i> , <i>Eupatorium mohrii</i> , <i>Eupatorium perfoliatum</i> , <i>Helenium pinnatifidum</i> , <i>Hypericum mutilum</i> , <i>Hypericum myrtifolium</i> , <i>Liatris spicata</i> , <i>Linum medium</i> , <i>Lobelia glandulosa</i> , <i>Melanthera nivea</i> , <i>Mitreola sessilifolia</i> , <i>Oxypolis filiformis</i> , <i>Pluchea baccharis</i> , <i>Rhexia mariana</i> , <i>Rhynchospora colorata</i> , <i>Ruellia caroliniensis</i> , <i>Sabatia stellaris</i> , <i>Saccharum giganteum</i> , <i>Salvia lyrata</i>
Other	<i>Gaura angustifolia</i> , <i>Phyla nodiflora</i> , <i>Polygala grandiflora</i>

PhotoSite 2-5 continued on next page

Management Recommendation

Avoid mowing between Feb. 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes.

Notes

In May, *Erigeron quercifolius* was dominant, and along much of CR 347 where it borders the refuge; *Helenium pinnatifidum* was dominant for ~2 miles near south end. **This PhotoSite would be much showier in fall if width and frequency of mowing were reduced;** site was very showy in early Sep. but looked like it had been mowed in very late Sep. or early Oct.

PhotoSite Number 2-6

Type	Enhancement
Season	Spring, summer, fall
Location	CR 347, Levy Co.
Size of entire site	~0.5 acre; ROW on both sides of road
Lat./long.	+29.2469 -83.00716
Habitat	Ruderal; moist to dry



Images: 6-7-10 (UL),9-2-10 (LR)

Existing Species

Showy	<i>Acmella oppositifolia</i> , <i>Asclepias lanceolata</i> , <i>Campanula floridana</i> <i>Coreopsis leavenworthii</i> , <i>Crotalaria rotundifolia</i> , <i>Eryngium aquaticum</i> , <i>Evolvulus sericeus</i> , <i>Helenium pinnatifidum</i> , <i>Linum medium</i> , <i>Mitreola sessilifolia</i> , <i>Oxypolis filiformis</i> , <i>Pluchea baccharis</i> , <i>Polygala balduinii</i> , <i>Polygala incarnata</i> , <i>Rhynchospora colorata</i> , <i>Rudbeckia fulgida</i> (widespread in early Sep.), <i>Rudbeckia hirta</i> , <i>Sabatia stellaris</i> , <i>Sisyrinchium angustifolium</i> , <i>Spiranthes vernalis</i>
Other	<i>Buchnera floridana</i> , <i>Gaura angustifolia</i> , <i>Phyla nodiflora</i> , <i>Polygala grandiflora</i>

Management Recommendation

Avoid mowing between March 15 and Nov. 21, except for 6 feet from edge of pavement for safety purposes. Consider enhancing spring and summer display by sowing seed of Florida ecotypes of *Coreopsis leavenworthii*, *Mimosa strigillosa*, and/or *Penstemon multiflorus*.

Notes

Good diversity; density of any one species was sparse to moderate. **In the fall, this PhotoSite would be much showier, and probably more diverse, if width and frequency of mowing were reduced.**

PhotoSite Number 2-7

Type	Enhancement
Season	Spring
Location	Junction of CR 347 and SR 24; Levy Co.
Size of entire site	~ 500 ft ²
Lat./long.	+29.18079 -83.02023
Habitat	Ruderal; mesic



Image: 4-26-10

Existing Species

Showy *Campanula floridana*, *Erigeron strigosus*, *Mimosa strigillosa*, *Rhynchospora colorata*, *Sisyrinchium angustifolium*, *Zephyranthes treatiae*

Management Recommendation

Avoid mowing between Feb. 15 and May 31, except for 6 feet from edge of pavement for safety purposes.

Note

PhotoSite noted for a small but showy colony of *Zephyranthes treatiae*.

PhotoSite Number 2-8

Type	Enhancement
Season	Spring, summer*
Location	CR 345, Levy Co.
Size of entire site	~ 3 miles
Lat./long.	North end: +29.30153 -82.91621 South end: +29.26217 -82.93337
Habitat	Ruderal; moist



Image: 4-26-10

Existing Species

Showy *Asclepias lanceolata*, *Cirsium horridulum*, *Coreopsis leavenworthii*, *Erigeron quercifolius*, *Erigeron strigosus*, *Helenium pinnatifidum*, *Iris hexagona*, *Sagittaria lancifolia*, *Salvia lyrata*, *Sisyrinchium angustifolium*, *Stachys floridana*, *Utricularia foliosa*

Management Recommendation

Avoid mowing between Feb. 15 and May 31, except for 6 feet from edge of pavement for safety purposes. *Since this PhotoSite is minimally showy in summer due to sporadic occurrence of summer flowering species, consider enhancing with seed of Florida ecotype of *Coreopsis leavenworthii* to improve summer aesthetics. If seeded with *C. leavenworthii*, avoid mowing until Aug. 31.

Notes

Spring – Showy colonies of *Helenium pinnatifidum* and some *Iris hexagona*. **In the fall, this PhotoSite probably would be showy and diverse if width and frequency of mowing were reduced.**

PhotoSite Number 2-9

Type	Enhancement
Season	Spring
Location	CR 345, Levy Co.; mostly adjacent to farms
Size of entire site	~2.3 miles
Lat./long.	South end: +29.38047 -82.88857 North end: +29.41347 -82.88863
Habitat	Ruderal; dry



Images: 5-13-10

Existing Species

Showy	<i>Mimosa strigillosa</i> (especially at south end), <i>Phlox drummondii</i> ; locally dense populations of <i>Phlox</i> , especially at north and south ends
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Management Recommendation

Avoid mowing between Feb. 15 and June 15, except for 6 feet from edge of pavement for safety purposes. Supplement with seed of Florida ecotypes of *Coreopsis basalis*, *Mimosa strigillosa*, and /or *Phlox drummondii* as need for aesthetics. If seeded with *Coreopsis basalis* or *Mimosa strigillosa*, avoid mowing until June 30.

Route 3: Unlike Routes 1 and 2, which are loops for the most part, Route 3 is comprised of a long segment of US129 from Chiefland (at Junction with US 27/US 98) and northward to Live Oak, then an 8-mile segment on I-10 west in Suwannee County, between the US 129 exit (Exit 283) and the US 90 exit (Exit 275). Featured on this route are numerous showy stands of *Coreopsis basalis* (much of which are contiguous in Suwannee County), and secondarily, *Phlox drummondii*. Much of this route is best viewed in mid- to very late spring. The main exception is the 8-mile segment on I-10 west in Suwannee County between Exits 283 and 275 (PhotoSite 3-6, p. 35). Showy stands of softhair coneflower occur intermittently during early to mid summer.

PhotoSites along this route begin on the next page.

PhotoSite Number 3-1

Type	Enhancement
Season	Spring
Location	US 129, just north of Chiefland Levy Co.; east ROW
Size of entire site	~300-500 ft long
Lat./long.	+29.49541 -82.84609
Habitat	Ruderal; dry



Image: 5-13-10

Existing Species

Showy *Erigeron strigosus*, *Phlox drummondii*

Management Recommendation

Avoid mowing between Feb. 15 and June 15, except for 6 feet from edge of pavement for safety purposes. PhotoSite can be supplemented with seed of Florida ecotypes of *Coreopsis basalis*, *Mimosa strigillosa*, and/or *Phlox drummondii* as needed to enhance aesthetics. If seeded with *Coreopsis basalis* or *Mimosa strigillosa*, avoid mowing until June 30.

PhotoSite Number 3-2

Type	Enhancement
Season	Spring, summer
Location	US 129, east side ROW and adjacent field; Gilchrist Co.
Size of entire site	~ 1+ acre
Lat./long.	+29.71513 -82.85751
Habitat	Ruderal; dry



Images: 5-13-10 (UL), 6-7-10 (LR)

Existing Species

Showy	<i>Ascepias tomentosa</i> , <i>Asimina obovata</i> , <i>Coreopsis basalis</i> , <i>Coreopsis lanceolata</i> , <i>Erigeron strigosus</i> , <i>Gaillardia pulchella</i> , <i>Phlox drummondii</i> (mostly in field, ~0.75 -1 acre)
Other	<i>Gaura angustifolia</i>

Management Recommendation

Avoid mowing ROW between Feb. 15 and July 30 (Aug. 31 where *Gaillardia* occurs), except for 6 feet from edge of pavement for safety purposes. PhotoSite (ROW) can be supplemented with seed of Florida ecotypes of *Coreopsis basalis*, *Mimosa strigillosa*, and/or *Phlox drummondii* as needed to enhance aesthetics.

PhotoSite Number 3-3

Type	Enhancement
Season	Spring
Location	US 129, east side ROW; Gilchrist Co.
Size of entire site	~ 1000 ft
Lat./long.	+29.82689 -82.86714
Habitat	Ruderal; dry



Image: 5-13-10

Existing Species

Showy *Mimosa strigillosa*, *Phlox drummondii* (dominant)

Management Recommendation

Avoid mowing between Feb. 15 and June 15, except for 6 feet from edge of pavement for safety purposes. PhotoSite can be supplemented with seed of Florida ecotypes of *Coreopsis basalis*, *Mimosa strigillosa*, and/or *Phlox drummondii* as needed to enhance aesthetics. If seeded with *Coreopsis basalis* or *Mimosa strigillosa*, avoid mowing until June 30.

PhotoSite Number 3-4

Type	Enhancement
Season	Spring
Location	US 129, north, then west; Suwannee Co.
Size of entire site	~ 5 miles
Lat./long.	South end: +29.921524 -82.860294 North end: +29.953507 -82.906643
Habitat	Ruderal; dry



Images: 5-13-10

Existing Species

Showy *Coreopsis basalis*, *Erigeron strigosus*, *Phlox drummondii*

Management Recommendation

Avoid mowing between Feb. 15 and June 30, except for 6 feet from edge of pavement for safety purposes.

Note

Nearly contiguous stands of *Coreopsis basalis* along this 5-mile segment; *Phlox* and *Erigeron* mostly at northern end.

PhotoSite Number 3-5

Type	Enhancement
Season	Spring
Location	US 129, north of O'Brien; Suwannee Co.
Size of entire site	~ 7 miles
Lat./long.	South end: +30.05478 -82.94220 North end: +30.15805 -82.95760
Habitat	Ruderal; dry



Images: 5-13-10

Existing Species

Showy *Asclepias tuberosa*, *Coreopsis basalis* (dominant), *Phlox drummondii*, *Tradescantia ohiensis*

Management Recommendation

Avoid mowing between Feb. 28 and June 30, except for 6 feet from edge of pavement for safety purposes. Seed with Florida ecotypes of *Coreopsis basalis* and *Phlox drummondii* as needed for aesthetics.

Notes

Nearly contiguous stands of *Coreopsis basalis* along this ~7-mile segment; ~10 acre field of *Coreopsis* on east side near north end of this segment. Summer – *Asclepias tuberosa* and *Tradescantia ohiensis* only occurred sporadically so this PhotoSite is only showy in spring.

PhotoSite Number 3-6

Type	Enhancement
Season	Spring, summer
Location	I-10, Exit 275 to Exit 283 Suwannee Co.
Size of entire site	8 miles
Lat./long.	West end: +30.34389 -83.08867 East end: + 30.33332 -82.96656
Habitat	Ruderal; dry



Images: 5-13-10 (UL), 6-7-10 (MR), 7-5-10 (LL)

Existing Species

Showy *Coreopsis basalis*, *Erigeron strigosus*, *Gaillardia pulchella*, *Phlox drummondii*, *Rudbeckia mollis*, *Salvia lyrata*

Other *Gaura angustifolia*, *Licania michauxii*

Management Recommendation

Except for 10 feet from edge of pavement for safety purposes, avoid mowing between March 1 and June 30 in areas dominated by *Coreopsis* and/or *Phlox*, and from March 1 to Aug. 31 in areas dominated by *Gaillardia* and/or *Rudbeckia*. To expand bloom season and reduce mowing, seed with Florida ecotypes of *Ipomopsis rubra* and *Rudbeckia mollis* for summer flowers. If seeding with *Ipomopsis rubra*, avoid mowing until after Aug. 31.

PhotoSite 3-6 continued on next page

Notes

Spring - *Coreopsis* and *Phlox* were dominant. Discontinuous populations of these species occur on the north and south side ROWs from Exit 275 to Exit 283. Summer – *Rudbeckia* (discontinuous populations), and secondarily *Gaillardia*, were dominant. *Rudbeckia* showier than *Gaillardia*, as turfgrass and taller species overgrew *Gaillardia*. Late July mowing precluded potential presence of showy stands of native wildflowers in the fall. Patchy populations of the following species occurred in October: *Bidens alba*, *Croptilon divaricatum*, *Eragrostis* sp. and *Tridens flavus*. Also observed in October was *Solidago fistulosa*.

Route 4: Route 4 is a 5 to 6-mile segment of US 27 in Levy County. The segment begins on the northern end of Perry and extends northward on US 27 toward Tallahassee. Featured on this route are numerous showy springtime stands of *Coreopsis basalis* (much of which are contiguous) and secondarily, *Phlox drummondii* and *Salvia lyrata*.

PhotoSite Number 4-1

Type	Enhancement
Season	Spring
Location	US 27, north end of Perry and northward; Levy Co.
Size of entire site	~5.6 miles
Lat./long.	South end: +30.12535 -83.59527 North end: +30.19266 -83.64795
Habitat	Ruderal; mesic



Images: 5-11-10

Existing Species

Showy *Coreopsis basalis*, *Phlox drummondii*, *Salvia lyrata*

Management Recommendation

Avoid mowing between Feb. 15 and June 30, except for 6 feet from edge of pavement for safety purposes.

Side trips: S-1. SR 51, just south of US 27/98 at Tennille at US; **S-2.** Road leading to Hagen's Cove

PhotoSite Number S-1

Type	Enhancement
Season	Spring, summer
Location	SR 51, just south of Tennille at US 19/27; Taylor Co.
Size of entire site	~500 ft
Lat./long.	+29.77536 -83.32928
Habitat	Ruderal; dry



Image: 6-7-10

Existing Species

Showy	<i>Centrosema virginianum</i> , <i>Clitoria mariana</i> , <i>Erigeron strigosus</i> , <i>Gaillardia pulchellus</i> , <i>Lonicera sempervirens</i> , <i>Passiflora incarnata</i> , <i>Penstemon multiflorus</i> , <i>Verbena officinalis</i> subsp. <i>halei</i>
Other	<i>Buchnera americana</i> , <i>Gaura angustifolia</i> , <i>Polygala grandiflora</i>

Management Recommendation

Avoid mowing between March 15 and Aug. 31, except for 6 feet from edge of pavement for safety purposes.

Note

Showy vines (*Centrosema*, *Clitoria*, *Lonicera*, *Passiflora*) on south side woodland edge. **Reducing the width and frequency of mowing would make this PhotoSite showier, and probably at more times of year; diversity likely would increase as well.**

PhotoSite Number S-2

Type	View only
Season	Spring, summer, fall
Location	Road leading to Hagan's Cove; Taylor Co.
Size of entire site	~0.6 mile
Lat./long.	West end: +29.77295 -83.57944 East end: +29.77650 -83.56052
Habitat	Ruderal; moist to dry



Images: 6-7-10 (UL), 10-8-10 (LR)

Existing Species

Showy *Cirsium horridulum*, *Eustachys glauca*, *Rhynchospora colorata*, *Sabatia quadrangula*, *Sabatia stellaris*, *Sagittaria lancifolia*, *Samolus ebracteatus*, *Solidago sempervirens*, *Solidago stricta*

Management recommendation

N/A; Hagen's Cove is a Wildlife Management Area owned and maintained by the state.

Notes

Summer – outstanding display of *Sabatia stellaris*; site starts just west of entrance. Oct. – *Solidago* species at west end parking area.

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 (<http://florida.plantatlas.usf.edu/>) as of October 8, 2010. Form: WF = Wildflower; GR = Grass; SG = Sedge; SH=Showy shrub; STr = Small tree; VN = Showy vine; R = Rush; TR=Tree.

Scientific name	Type	Common name
<i>Acmella oppositifolia</i>	WF	Oppositeleaf Spotflower
<i>Agalinis purpurea</i>	WF	Purple False Foxglove
<i>Aletris obovata</i>	WF	Colicroot
<i>Allium canadense</i> var. <i>canadense</i>	WF	Meadow Garlic
<i>Amsonia ciliata</i>	WF	Fringed Bluestar
<i>Aristida spiciformis</i>	GR	Bottlebrush Threeawn
<i>Arnoglossum ovatum</i>	WF	Ovateleaf Indian Plantain
<i>Asclepias humistrata</i>	WF	Pinewoods Milkweed
<i>Asclepias lanceolata</i>	WF	Fewflower Milkweed
<i>Asclepias longifolia</i>	WF	Longleaf Milkweed
<i>Asclepias michauxii</i>	WF	Michaux's Milkweed
<i>Asclepias perennis</i>	WF	Swamp Milkweed
<i>Asclepias tomentosa</i>	WF	Velvetleaf Milkweed
<i>Asimina ovobata</i>	SH	Bigflower Pawpaw
<i>Baldiuna angustifolia</i>	WF	Coastalplain Honeycombhead
<i>Baptisia alba</i>	WF	White Wild Indigo
<i>Bidens alba</i>	WF	Beggarticks
<i>Bidens mitis</i>	WF	Smallfruit Beggarticks
<i>Boltonia diffusa</i>	WF	Smallhead Doll's Daisy
<i>Buchnera americana</i>	WF	American Bluehearts
<i>Buchnera floridana</i>	WF	American Bluehearts
<i>Callisia graminea</i>	WF	Grassleaf Roseling
<i>Calopogon tuberosus</i>	WF	Tuberous Grasspink
<i>Campanula floridana</i>	WF	Florida Bellflower
<i>Carphephorus corymbosus</i>	WF	Florida Paintbrush

<i>Carphephorus odoratissimus</i>	WF	Vanillaleaf
<i>Centrosema virginianum</i>	VN	Spurred Butterfly Pea
<i>Cephalanthus occidentalis</i>	SH	Common Buttonbush
<i>Chamaecrista fasciculata</i>	WF	Partridge Pea
<i>Chamaecrista nictitans</i>	WF	Sensitive Pea
<i>Chaptalia tomentosa</i>	WF	Wooly Sunbonnets
<i>Chrysopsis gossypina</i>	WF	Cottony Goldenaster
<i>Cirsium horridulum</i>	WF	Purple Thistle
<i>Cirsium nuttallii</i>	WF	Nuttall's Thistle
<i>Clematis crispa</i>	WF	Swamp Leather-flower
<i>Clitoria mariana</i>	VN	Atlantic Pigeonwings
<i>Commelina erecta</i>	WF	Whitemouth Dayflower
<i>Conoclinium coelestinum</i>	WF	Wild Ageratum
<i>Coreopsis basalis</i>	WF	Goldenmane Tickseed
<i>Coreopsis floridana</i>	WF	Florida Tickseed
<i>Coreopsis lanceolata</i>	WF	Lanceleaf Tickseed
<i>Coreopsis leavenworthii</i>	WF	Leavenworth's Tickseed
<i>Croptilon divaricatum</i>	WF	Slender Scratchdaisy
<i>Crotalaria rotundifolia</i>	WF	Rabbitbells
<i>Croton glandulosus</i>	WF	Vente Conmigo
<i>Dalea carnea</i>	WF	Whitetassels
<i>Drosera capillaris</i>	WF	Pink Sundew
<i>Dyschoriste oblongifolia</i>	WF	Oblongleaf Twinflower
<i>Elephantopus elatus</i>	WF	Tall Elephantsfoot
<i>Eragrostis</i> sp.	GR	Lovegrass
<i>Erigeron quercifolius</i>	WF	Oakleaf Fleabane
<i>Erigeron strigosus</i>	WF	Prairie Fleabane

<i>Erigeron vernus</i>	WF	Early Whitetop Fleabane
<i>Eryngium aquaticum</i>	WF	Rattlesnakemaster
<i>Eupatorium mohrii</i>	WF	Mohr's Thoroughwort
<i>Eupatorium perfoliatum</i>	WF	Common Boneset
<i>Eustachys glauca</i>	GR	Saltmarsh
<i>Evolvulus sericeus</i>	VN	Silver Dwarf Morning-Glory
<i>Froelichia floridana</i>	WF	Cottonweed
<i>Gaillardia pulchella</i>	WF	Firewheel
<i>Gaura angustifolia</i>	WF	Southern Beeblossom
<i>Gelsemium sempervirens</i>	VN	Carolina Jessamine
<i>Geranium carolinianum</i>	WF	Carolina Cranesbill
<i>Helenium pinnatifidum</i>	WF	Southeastern Sneezeweed
<i>Helianthus angustifolius</i>	WF	Narrowleaf Sunflower
<i>Helianthus radula</i>	WF	Rayless Sunflower
<i>Heterotheca subaxillaris</i>	WF	Camphorweed
<i>Hibiscus aculeatus</i>	WF	Comfortroot
<i>Hydrangea quercifolius</i>	SH	Oakleaf Hydrangea
<i>Hydrolea quadrivalvis</i>	WF	Waterpod
<i>Hypericum crux-andreae</i>	SH	St. Peter's-Wort
<i>Hypericum mutilum</i>	SH	Dwarf St. John's-Wort
<i>Hypericum myrtifolium</i>	SH	Myrtleleaf St. John's-Wort
<i>Hyptis alata</i>	WF	Clustered Bushmint
<i>Iris hexagona</i>	WF	Dixie Iris
<i>Justicia angusta</i>	WF	Pineland Waterwillow
<i>Lachnanthes caroliana</i>	WF	Carolina Redroot
<i>Lachnocaulon</i> sp.	WF	Bogbutton
<i>Lepidium virginicum</i>	WF	Virginia Pepperweed
<i>Liatris gracilis</i>	WF	Slender Blazingstar
<i>Liatris spicata</i>	WF	Dense Blazingstar
<i>Liatris tenuifolia</i>	WF	Shortleaf Blazingstar

<i>Licania michauxii</i>	SH	Gopherapple
<i>Linum medium</i>	WF	Stiff Yellow Flax
<i>Linum</i> sp.	WF	Flax
<i>Lobelia glandulosa</i>	WF	Glade Lobelia
<i>Lonicera sempervirens</i>	VN	Coral Honeysuckle
<i>Ludwigia maritima</i>	WF	Seaside Primrosewillow
<i>Lupinus diffusus</i>	WF	Skyblue Lupine
<i>Lygodesmia aphylla</i>	WF	Rose-Rush
<i>Lythrum alatum</i> var. <i>lanceolatum</i>	WF	Winged Loosestrife
<i>Melanthera nivea</i>	WF	Small-Leaf Squarestem
<i>Mikania scandens</i>	WF	Climbing Hempvine
<i>Mimosa strigillosa</i>	WF	Powderpuff
<i>Mitreola petiolata</i>	WF	Lax Hornpod
<i>Mitreola sessifolia</i>	WF	Swamp Hornpod
<i>Oenothera laciniata</i>	WF	Cutleaf Eveningprimrose
<i>Oxypolis filiformis</i>	WF	Water Cowbane
<i>Passiflora incarnata</i>	WF	Purple Passionflower
<i>Penstemon multiflorus</i>	WF	Manyflower Beardtongue
<i>Phlox drummondii</i>	WF	Annual Phlox ; Drummond's Phlox
<i>Phyla nodiflora</i>	WF	Turkey Tangle Frogfruit; Capeweed
<i>Physalis</i> sp.	WF	Groundcherry
<i>Pinguicula pumila</i>	WF	Small Butterwort
<i>Pityopsis graminifolia</i>	WF	Narrowleaf Silkgrass
<i>Pluchea baccharis</i>	WF	Rosy Camphorweed
<i>Pluchea foetida</i>	WF	Stinking Camphorweed
<i>Polygala balduinii</i>	WF	Baldwin's Milkwort
<i>Polygala boykinii</i>	WF	Boykin's Milkwort
<i>Polygala grandiflora</i> (<i>Polygala violaceae</i>)	WF	Showy Milkwort
<i>Polygala incarnata</i>	WF	Procession Flower
<i>Polygala lutea</i>	WF	Orange Milkwort
<i>Polygala nana</i>	WF	Candyroot

<i>Polygala ramosa</i>	WF	Low Pinebarren Milkwort
<i>Polygonella gracilis</i>	WF	Tall Jointweed
<i>Polygonum hydropiperoides</i>	WF	Mild Waterpepper; Swamp Smartweed
<i>Pontederia cordata</i>	WF	Pickerelweed
<i>Pterocaulon pycnostachyum</i>	WF	Blackroot
<i>Ptilimnium capillaceum</i>	WF	Mock Bishopweed
<i>Pyrrhopappus carolinianus</i>	WF	Carolina Desertchicory
<i>Rhexia mariana</i>	WF	Pale Meadowbeauty
<i>Rhexia petiolata</i>	WF	Fringed Meadowbeauty
<i>Rhynchospora colorata</i>	SG	Starrush Whitetop
<i>Rosa palustris</i>	SH	Swamp Rose
<i>Rudbeckia fulgida</i>	WF	Orange Coneflower
<i>Rudbeckia hirta</i>	WF	Blackeyed Susan
<i>Rudbeckia mollis</i>	WF	Softhair Coneflower
<i>Ruellia caroliniensis</i>	WF	Carolina Wild Petunia
<i>Rumex hastatulus</i>	WF	Heartwing Dock
<i>Sabatia brevifolia</i>	WF	Shortleaf Rosegentian
<i>Sabatia quadrangula</i>	WF	Fourangle Rosegentian
<i>Sabatia stellaris</i>	WF	Rose-of-Plymouth
<i>Saccharum giganteum</i>	GR	Sugarcane Plumegrass
<i>Sagittaria graminea</i>	WF	Grassy Arrowhead
<i>Sagittaria lancifolia</i>	WF	Bulltongue Arrowhead
<i>Salvia lyrata</i>	WF	Lyreleaf Sage
<i>Samolus ebracteatus</i>	WF	Water Pimpernel
<i>Saururus cernuus</i>	WF	Lizard's Tail
<i>Scutellaria integrifolia</i>	WF	Helmet Skullcap
<i>Seymeria pectinata</i>	WF	Piedmont Blacksenna
<i>Silphium asteriscus</i>	WF	Starry Rosinweed
<i>Sisyrinchium angustifolium</i>	WF	Narrowleaf Blue-Eyed Grass
<i>Solidago fistulosa</i>	WF	Pinebarren Goldenrod
<i>Solidago odora</i>	WF	Anisescented Goldenrod

<i>Solidago sempervirens</i>	WF	Seaside Goldenrod
<i>Solidago stricta</i>	WF	Wand Goldenrod
<i>Sorghastrum secundum</i>	GR	Lopsided Indiangrass
<i>Spiranthes vernalis</i>	WF	Spring Ladiestresses
<i>Stachys floridana</i>	WF	Florida Betony
<i>Strophostyles umbellata</i>	WF	Pink Fuzzybean
<i>Symphyotrichum dumosum</i>	WF	Rice Button Aster
<i>Tradescantia hirsutiflora</i>	WF	Hairyflower Spiderwort
<i>Tradescantia ohiensis</i>	WF	Ohio Spiderwort; Bluejacket
<i>Tridens flavus</i>	GR	Tall Redtop
<i>Triodanis perfoliata</i>	WF	Clasping Venus' Looking-Glass
<i>Utricularia foliosa</i>	WF	Leafy Bladderwort
<i>Verbena officinalis</i> subsp. <i>halei</i>	WF	Texas Vervain
<i>Viola lanceolata</i>	WF	Bog White Violet
<i>Xyris caroliniana</i>	WF	Carolina Yelloweyed Grass
<i>Xyris</i> sp.	WF	Yelloweyed Grass
<i>Zephyranthes simpsonii</i>	WF	Red Margin Zephyr lily
<i>Zephyranthes treatiae</i> (= <i>Zephyranthes atamasca</i> var. <i>treatiae</i>)	WF	Treat's Zephyr lily

Nonnative Species

<i>Glandularia pulchella</i>	WF	South American Mock Vervain
<i>Hyptis mutabilis</i>	WF	Tropical Bushmint
<i>Melilotus indicus</i>	WF	Indian Sweet Clover
<i>Verbena</i> sp.	WF	Vervain

Appendix – Anecdotal Observations

Information about native wildflowers observed in the Big Bend by local native plant experts/enthusiasts. Anecdotal observations conveyed via email are direct quotes so as to avoid any misinterpretation. In most cases, names have been omitted.

AnecObs1

J. Norcini:

April 20, 2010 – Showy stands of *Helenium* sp. and *Iris hexagona* on US 27/98 in Levy County; observed on east side as I was traveling north but could have been on west side as well.

AnecObs2

Columbia County:

1. ... red sorrel, 04-19-09 located adjacent to CR 135 NE Columbia County about three miles S of Suwannee River Bridge road to US 441
2. Image is Tick seed, coreopsis 05-07-09 SR 247-Branford Highway-about 6 miles S of Lake City. Commercial seed farm, but adjacent to highway.

AnecObs3

One of the most spectacular wildflower displays I've seen is around the time of Mother's Day in Hampton, Florida. It is at an older frame house just on the southern outskirts of Hampton on County Road 18. I'm sorry I don't have a house address, but this town has only a few buildings on "Main Street," which is County Road 18. I'll attach a few photos I took on Mother's Day, 2009. The display of mostly coreopsis is located in a pecan grove, but extends to the road. My daughter, who lives nearby, tells me that it is a traditional site for graduating high school seniors of the high school in Starke to have their photos taken.

AnecObs4

Walter Taylor:

It has been some time since I botanized in that area. I think the last time was in the late summer or early fall. I don't recall anything outstanding, but that doesn't mean it shouldn't be checked out. I think I went on 361 which I picked up south of Perry (Taylor Co.) off 98. This road rambles around the coastal area and comes to Steinhatchee. It continues south of Steinhatchee and eventually peters out. I have been on 347 (off 98 again, south of Chiefland) and traveled it until it reaches 24 which goes into Cedar Key. It was a nice road to look for plants, but never saw any fantastic blooms in mass. Seems to me there was a scrub area just before 347 hit 24.

Alternate 27 in Levy Co., between Williston-Bronson is good in April for masses of phlox and other spring flowers provided you can get there before the mowers hit the place. It is one of my favorite places. I know this is not in the Big Bend area proper, but it is a nice place to go.

336 (off 40 and west of Dunnellon) has an exceptional flora of many spring flowers, including several species of *Spiranthes* and *Pinguiculas*. Most of the time I have found this road to be unmowed. Paul Martin Brown lead a field trip there during the Native

Plant Conf that was held in Gainesville. CR 336 goes through the southern area of Goethe State Forest and it eventually runs into 98. I have been on that road at least a half dozen times. May is a good time as well in the fall.

41 north of Williston, through Archer, Newburg, to High Spring (at 441) has some showy spots in the spring (late April-May) when the phlox, *Coreopsis* and other things are blooming. Again, if you can beat the mowers!

AnecObs5

J. Norcini:

Sep. 28, 2010 – Showy stands of *Rudbeckia fulgida* on US 27/98 in Dixie County, mainly for a few miles south of the northern junction of CR 358 with US27/98; observed on east side as I was traveling north but could have been on west side as well.

AnecObs6

J. Norcini:

Oct. 14, 2010 – Small populations of what was probably *Dicerandra linearifolia* var. *robustior* on north side of I-10 in far eastern end of Madison County; also observed locally abundant *Bidens alba* and *Croptilon divaricatum* in far western part of Suwannee County to eastern portions of Madison County.