

**Vegetation Monitoring at Dutex East
Northwest Florida Water Management District
Mitigation Site**

Fall 2025

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Dutex East Restoration Site
Qualitative and Quantitative Monitoring
December 2025

INTRODUCTION

The Dutex Restoration Site consists of 820 acres in Escambia County managed by the Northwest Florida Water Management District (

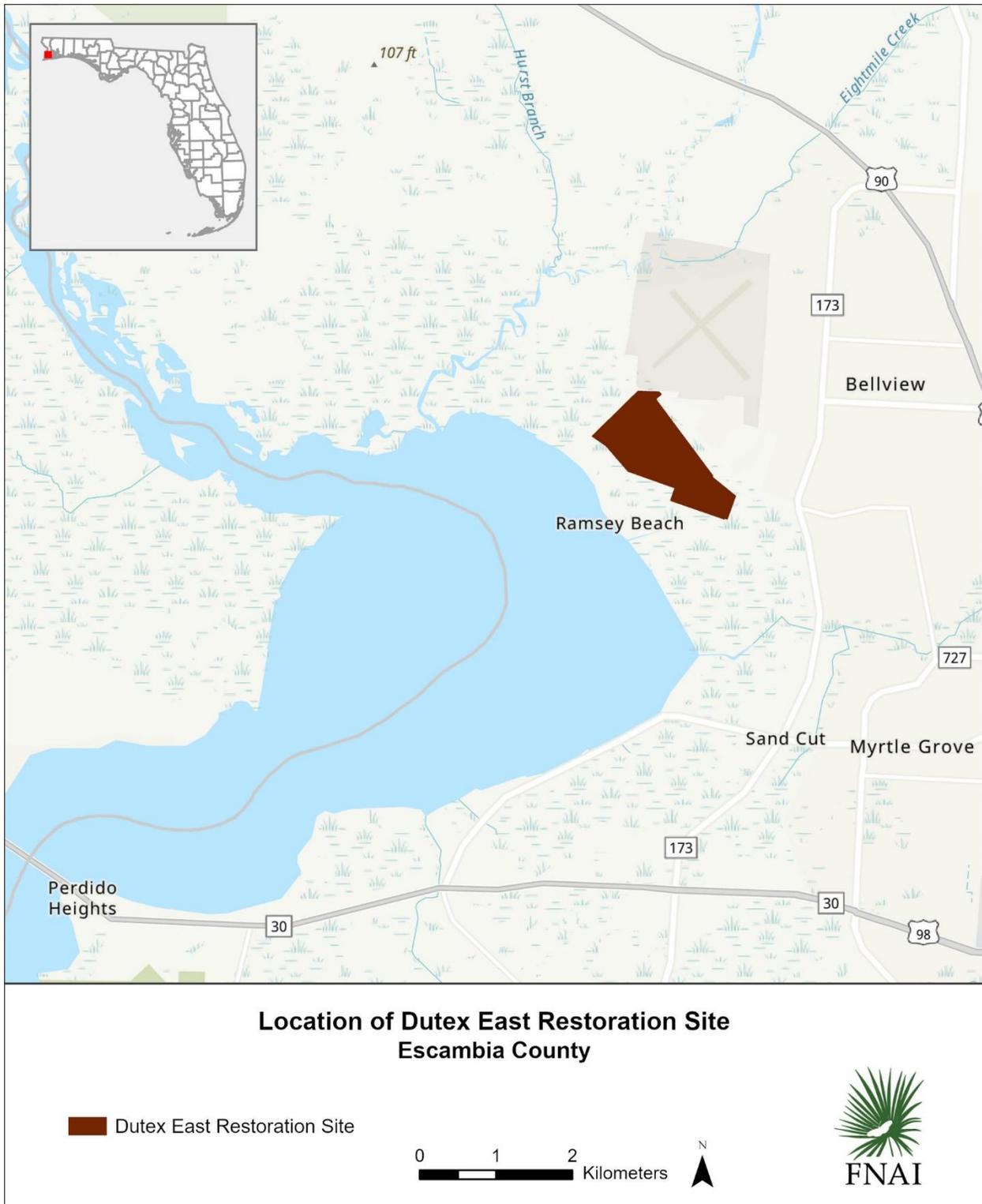


Figure 1). It is located on Perdido Bay, just to the southwest of Saufley Field. This site mitigates current and future Florida Department of Transportation (FDOT) wetland impacts and is split into two tracts. The eastern tract comprising 339 acres is accessed by taking Saufley Pines Road west from North Blue Angel Parkway approximately 2.7 miles and then turning southwest at the gated entrance.

The NFWMD goal is to return the Dutex Restoration Site to pre-disturbance conditions. Target communities include Hydric Pine Flatwoods (HPF), Hydric Pine Savanna (HPS), Bay Swamp (BS), Titi Swamp (TS), and Wetland Forested Mixed (WFM) (

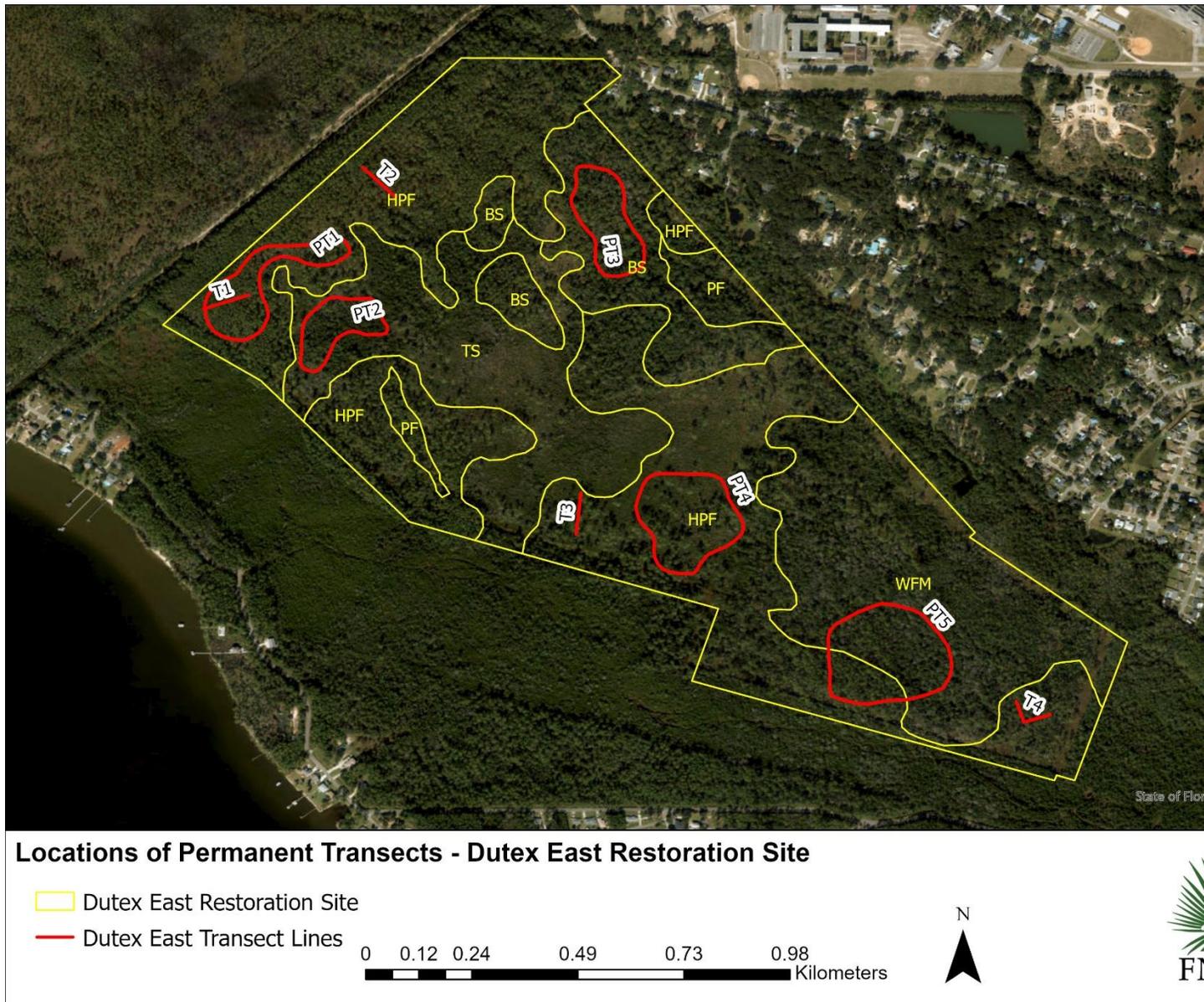
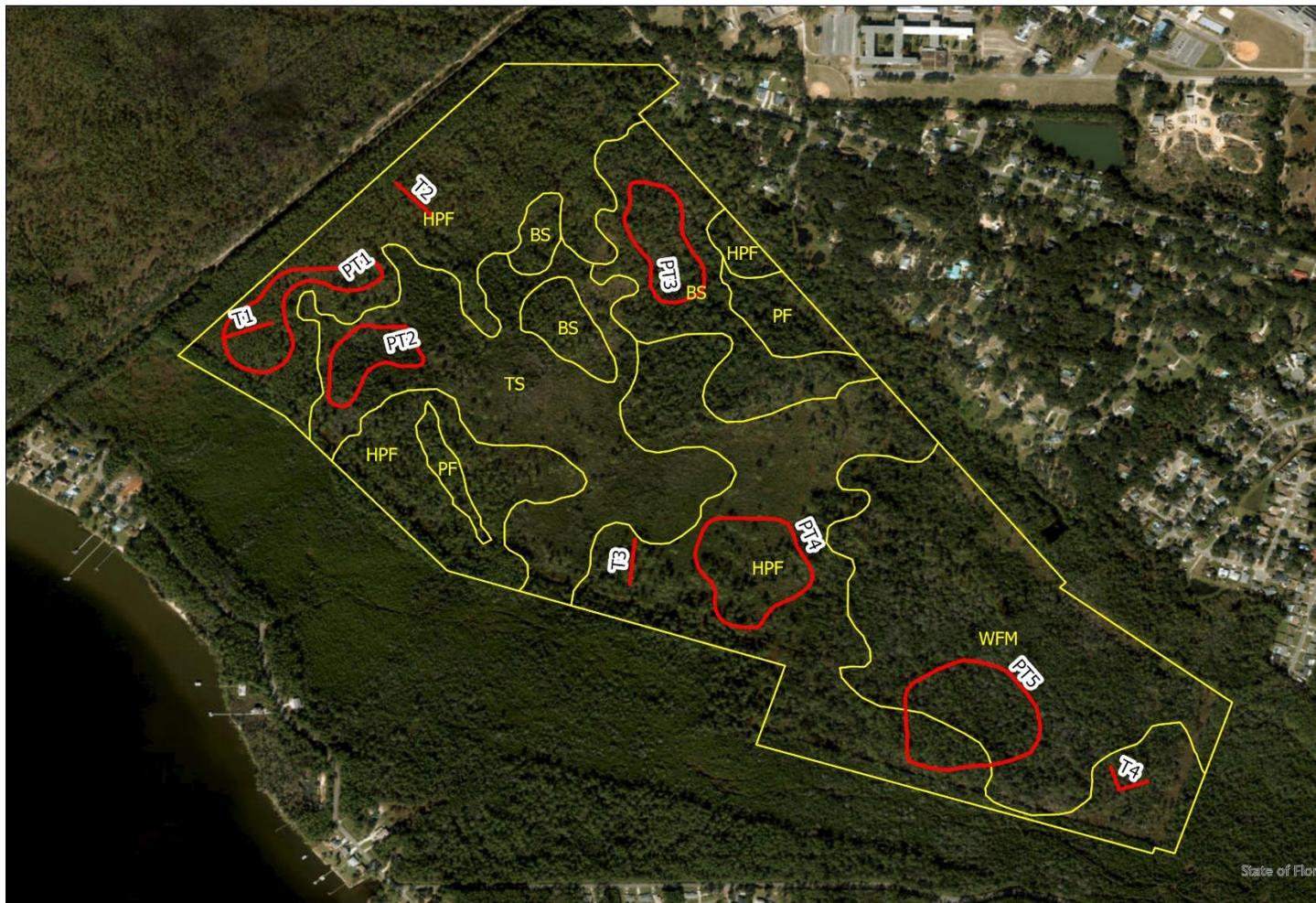


Figure 2). FNAI conducted quantitative and qualitative monitoring to document the current plant species composition and vegetation structure of these targeted communities. In December 2024, FNAI began annual monitoring on the eastern tract. Prior to 2016, vegetation was monitored by Ecological Resource Consultants, Inc. (ERC).

METHODS

We conducted quantitative monitoring utilizing 300-foot-long permanent transect lines that were established and marked by ERC. Two transects were located in the Hydric Pine Flatwoods target

community and two in Hydric Pine Savanna (



Locations of Permanent Transects - Dutex East Restoration Site

- Dutex East Restoration Site
- Dutex East Transect Lines

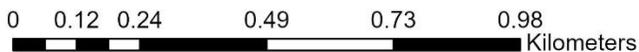


Figure 2). FNAI botanists did not find the posts for T3 and T4 in 2024, so we established new posts at the approximate locations given in the 2016 report. We placed fifteen 1m x 1m quadrats spaced every 20 feet along the left side of each transect line, beginning at 0 and ending at 280 feet.

In each quadrat, we visually estimated the percent cover of each plant species, including individuals rooted in the the quadrat as well as overhanging. Canopy over 2 m in height was excluded from cover estimates. Only the lower 2 m portions of larger individuals were counted as cover, including the lower portions of tree trunks rooted in quadrats. We converted plant cover estimates to mid-point values and averaged them across each transect. We also calculated relative cover (in which all plant cover and open ground is given as a proportion of the total plant cover); this is reported in separate pie charts.

In addition to cover by species, cover was also estimated as a whole number for all plants, all herbs, and all shrubs. Relative covers for each plant species were calculated as a portion of the total plant cover.

For each quad, the height of shrubs was recorded in centimeters. The observer used a measuring pole marked in decimeters and estimated the average height over the quad. Woody vines and tree species were omitted from this measurement.

To conduct qualitative monitoring, we walked meandering transects established by ERC in 2016 and recorded the species and vegetation structure observed. These transect lines were drawn in ArcGIS Pro and used on a Trimble TDC running ESRI Field Maps. FNAI botanists Kelly Anderson Jenna Annis, Amy Jenkins, and Ethan Hughes conducted field surveys on December 2-3, 2025.

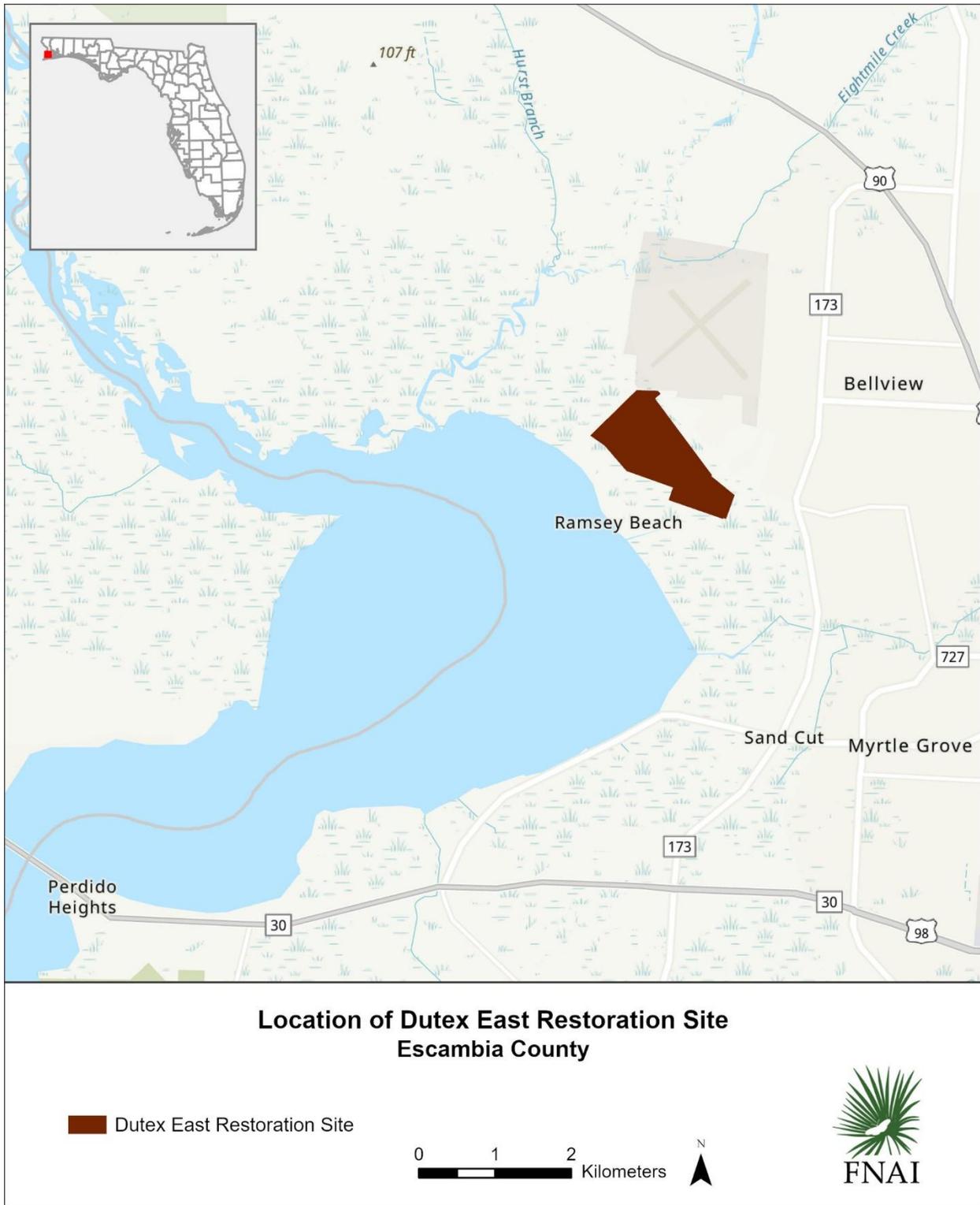


Figure 1. Location map of Dutex East Restoration Site.



Figure 2. Permanent transects at Dutex Restoration Site – East Tract.

RESULTS AND DISCUSSION

Quantitative sampling

Hydric Pine Savanna – QT1, QT4

The western Transect 1 (Table , Figure) had a total of 33 species and 65% total plant cover. Species cover is somewhat reduced compared to last year. According to the 2016 monitoring report, this transect was dominated by black titi. In 2024 and 2025, this species continues to be the most abundant by cover, with sweetbay and gallberries also common. Shrub cover was 49%, and herbs averaged 16%. Tenangle pipewort contributed the most herbaceous cover, similar to last year. Average shrub height was almost 2 meters.

The eastern Transect 4 (Table , Figure) had a total of 49 species and a total plant cover of 34%. Plant cover was much reduced compared to last year, owing in part to a large reduction in sawtooth blackberry. However, diversity was unchanged. Black titi and large gallberry contributed the most cover. Shrub cover was 28%, and herbs averaged 8%. Broomsedge bluestem contributed the most herbaceous cover. Average shrub height was 1 meter. The eastern end of the transect is markedly wetter.

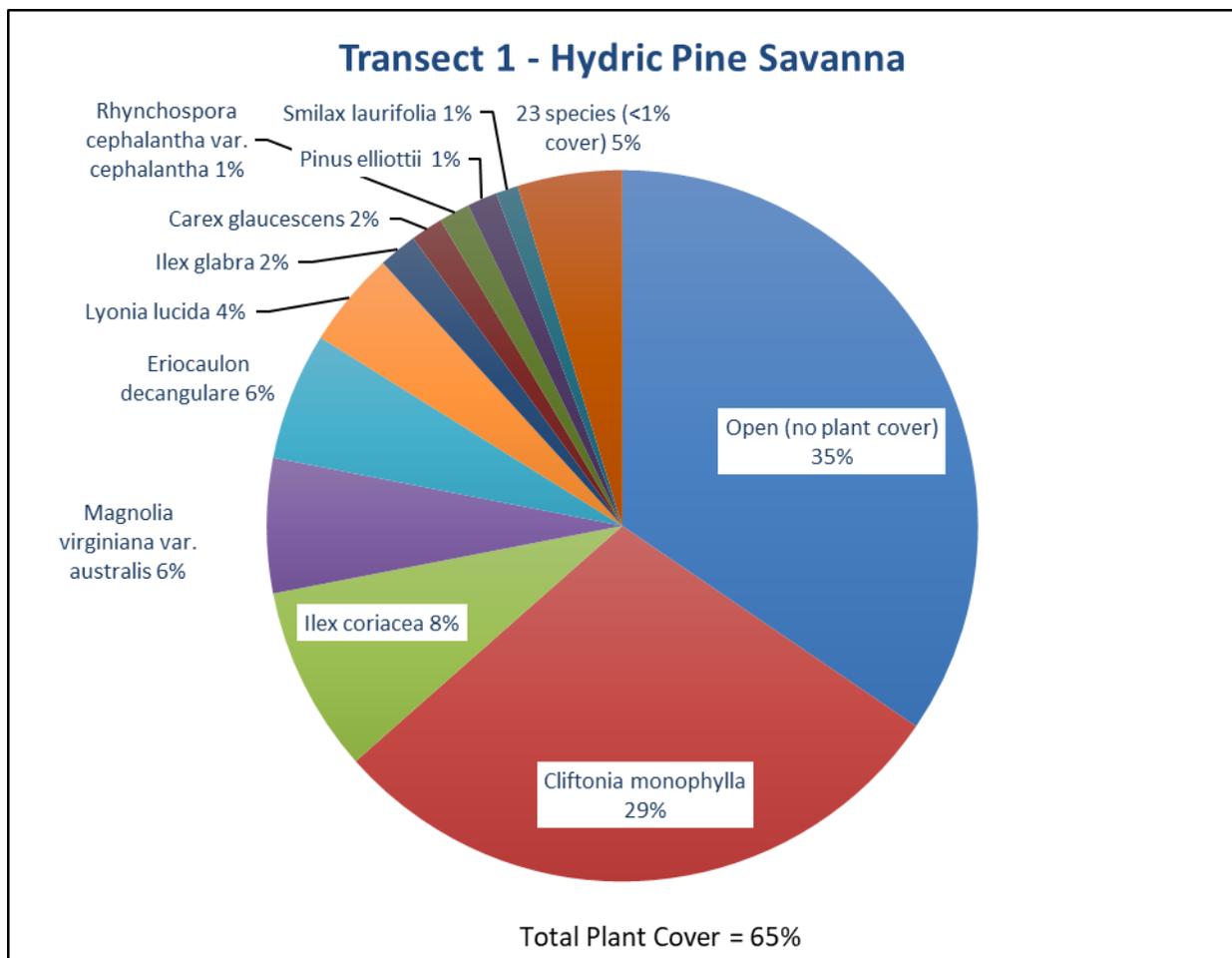


Figure 3. Percent cover of plant species in Hydric Pine Savanna Transect 1.

Table 1. Percent cover of species in Hydric Pine Savanna Transect 1 sampled on December 3, 2025.

Scientific name	Common name	Average percent cover per quadrat
<i>Anchistea virginica</i>	Virginia chain fern	0.03
<i>Andropogon glomeratus</i>	bushy bluestem	0.33
<i>Andropogon</i> sp.	bluestem	0.13
<i>Andropogon virginicus</i>	broomsedge bluestem	0.37
<i>Aronia arbutifolia</i>	red chokeberry	0.03
<i>Carex glaucescens</i>	clustered sedge	1.40
<i>Cliftonia monophylla</i>	black titi	27.60
<i>Dichantherium longiligulatum</i>	long-ligule witchgrass	0.63
<i>Eriocaulon decangulare</i>	tenangle pipewort	5.53
<i>Gaylussacia mosieri</i>	woolly huckleberry	0.13
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	0.13
<i>Hypericum cistifolium</i>	roundpod St. John's wort	0.23
<i>Hypericum</i> sp.	St. John's wort	0.07
<i>Ilex coriacea</i>	large gallberry	8.07
<i>Ilex glabra</i>	gallberry	1.67
<i>Kelochloa verrucosa</i>	warty panicgrass	0.07
<i>Lachnanthes caroliniana</i>	Carolina redroot	0.10
<i>Lyonia lucida</i>	fetterbush	4.17
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	5.83
<i>Muscadinia rotundifolia</i>	muscadine	0.10
<i>Nyssa biflora</i>	swamp tupelo	0.10
<i>Pinus elliottii</i>	slash pine	1.30
<i>Rhexia petiolata</i>	fringed meadowbeauty	0.03
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	1.33
<i>Rhynchospora gracilentia</i>	slender beaksedge	0.50
<i>Rubus pensilvanicus</i>	sawtooth blackberry	0.30
<i>Smilax glauca</i>	cat greenbriar	0.03
<i>Smilax laurifolia</i>	laurel greenbriar	0.97
<i>Sphagnum</i> sp.	sphagnum moss	0.20
<i>Tamala palustris</i>	swamp bay	0.60
<i>Viola primulifolia</i>	primroseleaf violet	0.10
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	0.27
<i>Xyris</i> sp.	yellow-eyed grass	0.03
Open (no plant cover)		34.53

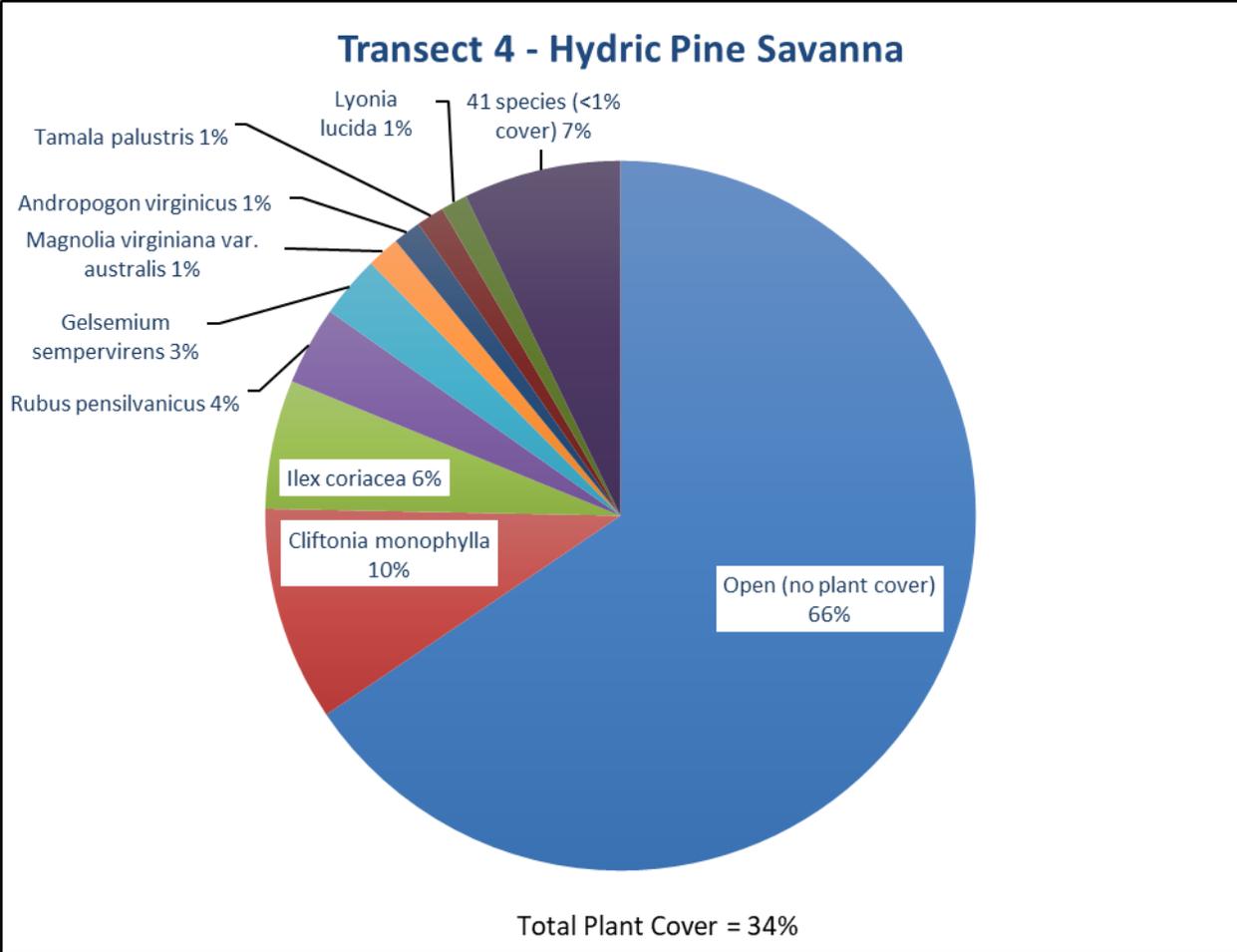


Figure 4. Percent cover of plant species in Hydric Pine Savanna Transect 4.

Table 2. Percent cover of plant species in Hydric Pine Savanna Transect 4 sampled on December 3, 2025.

Scientific name	Common name	Average percent cover per quadrat
<i>Andropogon sp.</i>	bluestem	0.23
<i>Andropogon virginicus</i>	broomsedge bluestem	1.27
<i>Baccharis halimifolia</i>	groundsel tree	0.03
<i>Bidens mitis</i>	smallfruit beggarticks	0.10
<i>Callicarpa americana</i>	American beautyberry	0.10
<i>Carex glaucescens</i>	clustered sedge	0.63
<i>Carex sp.</i>	sedge	0.23
<i>Centella erecta</i>	spadeleaf	0.03
<i>Cephalanthus occidentalis</i>	common buttonbush	0.03
<i>Cliftonia monophylla</i>	black titi	9.77
<i>Dichanthelium scabriusculum</i>	woolly witchgrass	0.10
<i>Dichanthelium sp.</i>	witchgrass	0.30
<i>Eriocaulon compressum</i>	flattened pipewort	0.53
<i>Eriocaulon decangulare</i>	tenangle pipewort	0.10

Scientific name	Common name	Average percent cover per quadrat
<i>Eupatorium semiserratum</i>	smallflower thoroughwort	0.27
<i>Eupatorium</i> sp.	thoroughwort	0.03
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.27
<i>Gelsemium sempervirens</i>	yellow jessamine	2.83
<i>Habenaria</i> sp.	false rein orchid	0.03
<i>Hypericum</i> sp.	St. John's wort	0.03
<i>Ilex coriacea</i>	large gallberry	5.87
<i>Ligustrum sinense</i>	Chinese privet	0.03
<i>Lorinseria areolata</i>	netted chain fern	0.13
<i>Ludwigia pilosa</i>	hairy primrosewillow	0.17
<i>Lycopus rubellus</i>	taperleaf waterhorehound	0.27
<i>Lyonia lucida</i>	fetterbush	1.20
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	1.50
<i>Mikania scandens</i>	climbing hempvine	0.13
<i>Mitchella repens</i>	partridgeberry	0.03
<i>Morella cerifera</i>	Southern bayberry	0.03
<i>Muscadinia rotundifolia</i>	muscadine	0.13
<i>Nyssa biflora</i>	swamp tupelo	0.23
<i>Pinus elliotii</i>	slash pine	0.07
<i>Pluchea</i> sp.	camphorweed	0.03
<i>Poaceae</i>		0.10
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	0.23
<i>Rhynchospora chalarocephala</i>	loosehead beaksedge	0.03
<i>Rhynchospora gracilentia</i>	slender beaksedge	0.13
<i>Rubus pensilvanicus</i>	sawtooth blackberry	3.57
<i>Sacciolepis striata</i>	American cupscale	0.10
<i>Scleria ciliata</i>	fringed nutrush	0.13
<i>Smilax laurifolia</i>	laurel greenbriar	0.70
<i>Tamala palustris</i>	swamp bay	1.27
<i>Thelypteris palustris</i> var. <i>pubescens</i>	marsh fern	0.70
<i>Triadica sebifera</i>	Chinese tallow tree	0.37
Unknown herb		0.03
<i>Viola primulifolia</i>	primroseleaf violet	0.23
<i>Viola</i> sp.	violet	0.03
<i>Xyris</i> sp.	yellow-eyed grass	0.03
Open (no plant cover)		65.53

Hydric Pine Flatwoods – QT2, QT3

The eastern Transect 2 (Table , Figure) had a total of 41 species and a total plant cover of 74%. Shrub cover was 38%, and herbs averaged 48%. This is the most herbaceous of the four quantitative transects on Dutex East, despite having a fairly high woody cover. The transect is similar to last year in diversity and species dominance. Tenangle pipewort contributed the most cover, with coastalplain St. John's wort and sphagnum moss also dominant. Average shrub height was 1.1 meters.

The western Transect 3 (Table , Figure) had a total of 17 species and a total plant cover of 76%, generally unchanged from last year. Shrub cover was 74%, and herbs averaged 3%. This is a tall, dense, almost impenetrable shrub thicket of mostly large gallberry intertwined with laurel greenbrier. A wide edge had been mowed last year along the boundary trail. Average shrub height was 2.6 meters.

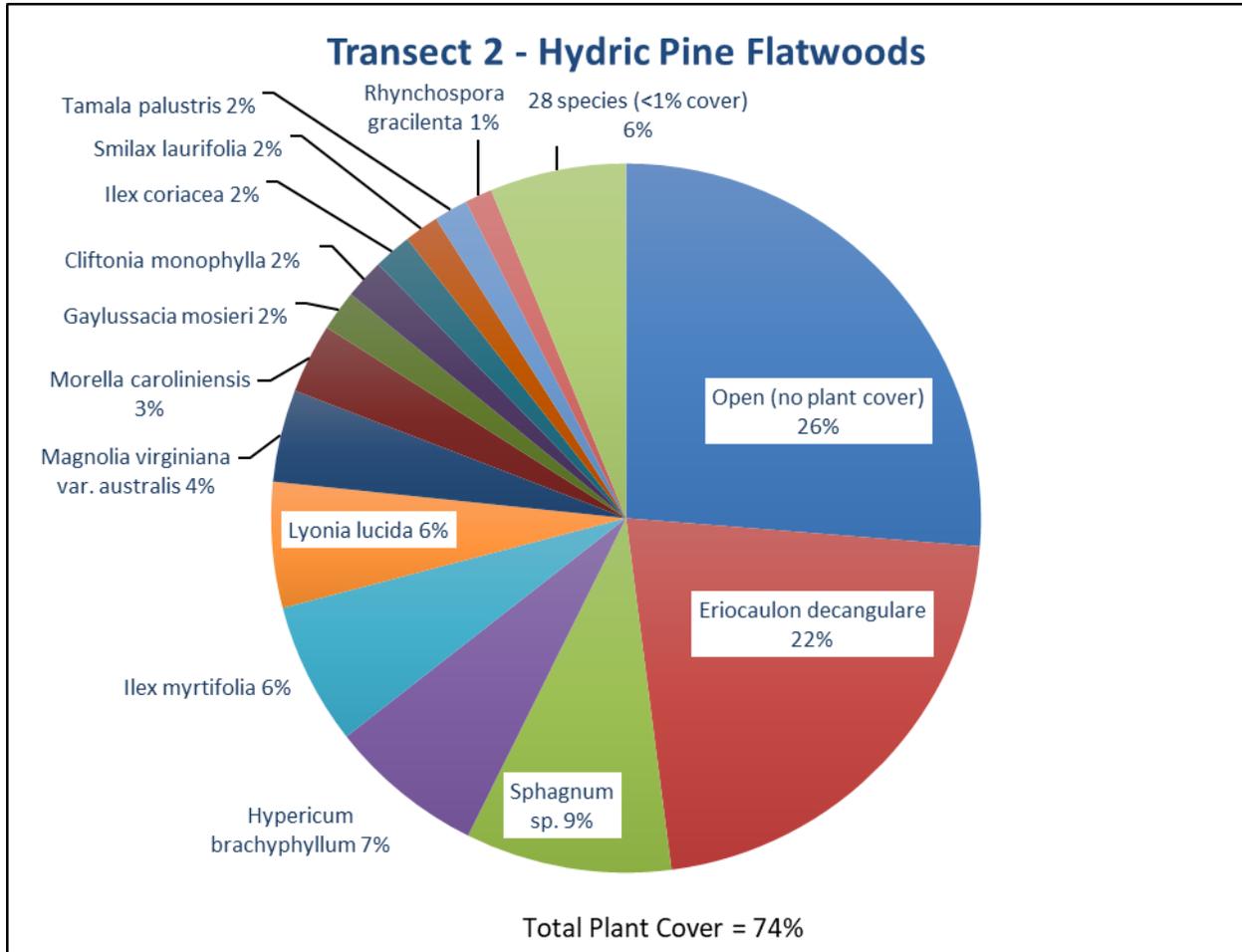


Figure 5. Percent cover of plant species in Hydric Pine Flatwoods Transect 2.

Table 3. Percent cover of plant species in Hydric Pine Flatwoods Transect 2 sampled on December 3, 2025.

Scientific name	Common name	Average percent cover per quadrat
<i>Andropogon sp.</i>	bluestem	0.33
<i>Andropogon virginicus</i>	broomsedge bluestem	0.53
<i>Aristida palustris</i>	longleaf threeawn	0.23
<i>Bidens alba var. radiata</i>	beggarticks	0.03
<i>Bidens mitis</i>	smallfruit beggarticks	0.17
<i>Bigelovia nudata</i>	pineland rayless goldenrod	0.73
<i>Carex glaucescens</i>	clustered sedge	0.40
<i>Cliftonia monophylla</i>	black titi	2.00
<i>Dichantherium leucothrix</i>	rough witchgrass	0.43

Scientific name	Common name	Average percent cover per quadrat
<i>Dichantherium scabriusculum</i>	woolly witchgrass	0.10
<i>Dichantherium</i> sp.	witchgrass	0.13
<i>Eriocaulon decangulare</i>	tenangle pipewort	23.87
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.03
<i>Gaylussacia mosieri</i>	woolly huckleberry	2.03
<i>Gelsemium sempervirens</i>	yellow jessamine	0.23
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	7.80
<i>Ilex coriacea</i>	large gallberry	1.90
<i>Ilex glabra</i>	gallberry	0.23
<i>Ilex myrtifolia</i>	myrtle-leaved holly	7.13
<i>Ludwigia pilosa</i>	hairy primrosewillow	0.23
<i>Lyonia lucida</i>	fetterbush	6.30
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	4.63
<i>Mitchella repens</i>	partridgeberry	0.03
<i>Morella caroliniensis</i>	evergreen bayberry	3.50
<i>Morella cerifera</i>	Southern bayberry	0.03
<i>Nyssa biflora</i>	swamp tupelo	0.90
<i>Proserpinaca pectinata</i>	combleaf mermaidweed	0.20
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	0.73
<i>Rhynchospora gracilentata</i>	slender beaksedge	1.37
<i>Rhynchospora</i> sp.	beaksedge	0.10
<i>Smilax glauca</i>	cat greenbriar	0.03
<i>Smilax laurifolia</i>	laurel greenbriar	1.73
<i>Sphagnum</i> sp.	sphagnum moss	10.33
<i>Tamala palustris</i>	swamp bay	1.70
<i>Toxicodendron radicans</i> var. <i>radicans</i>	Eastern poison ivy	0.03
<i>Vaccinium elliotii</i>	Elliott's blueberry	0.13
<i>Vaccinium</i> sp.	blueberry	0.03
<i>Viola primulifolia</i>	primroseleaf violet	0.03
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	0.57
<i>Xyris fimbriata</i>	fringed yellow-eyed grass	0.10
<i>Xyris</i> sp.	yellow-eyed grass	0.07
Open (no plant cover)		26.27

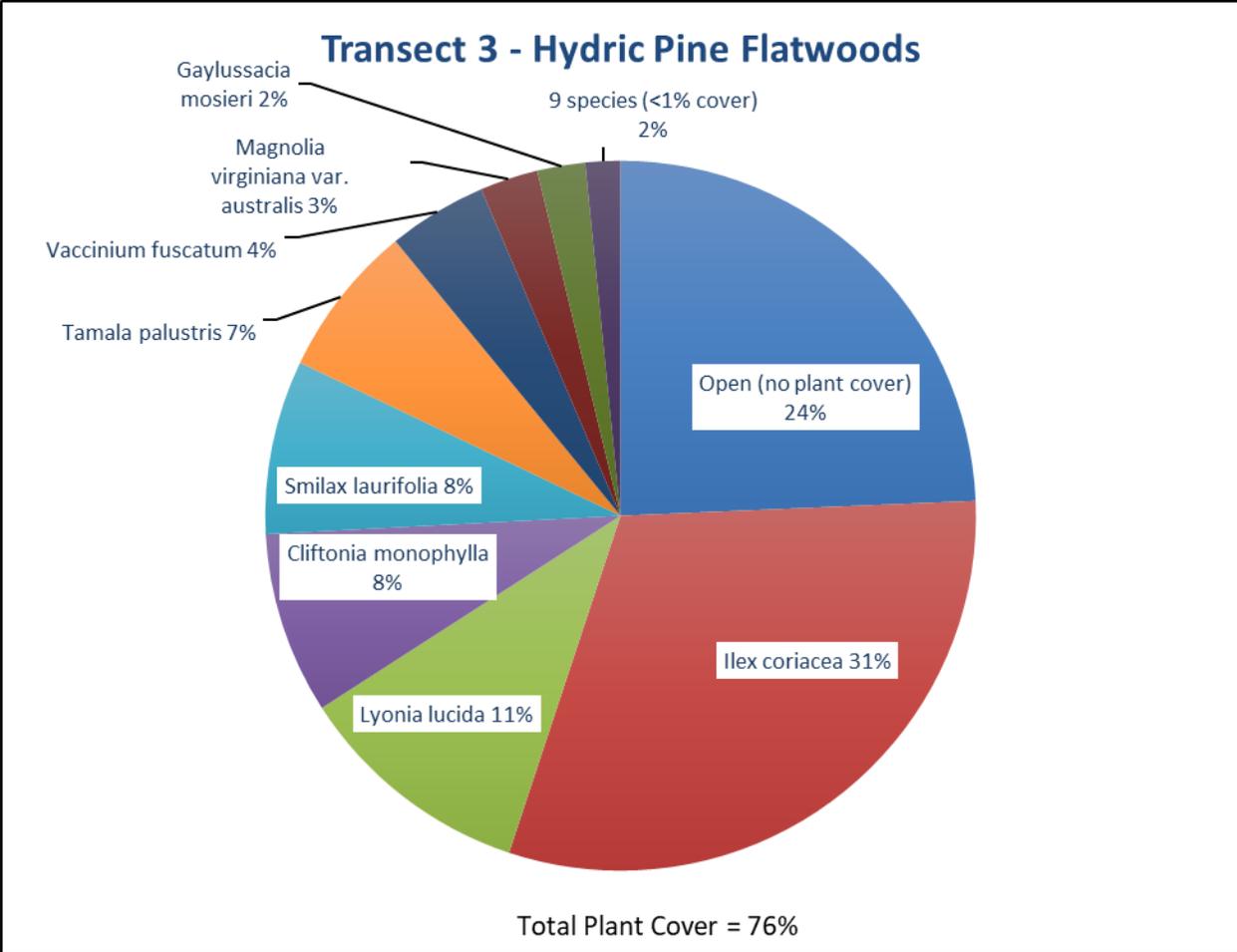


Figure 6. Percent cover of plant species in Hydric Pine Flatwoods Transect 3.

Table 4. Percent cover of plant species in Hydric Pine Flatwoods Transect 3 sampled on December 3, 2025.

Scientific name	Common name	Average percent cover per quadrat
<i>Anchistea virginica</i>	Virginia chain fern	0.23
<i>Andropogon cretaceus</i>	purple bluestem	0.23
<i>Carex glaucescens</i>	clustered sedge	0.10
<i>Cliftonia monophylla</i>	black titi	7.83
<i>Gaylussacia mosieri</i>	woolly huckleberry	2.07
<i>Ilex coriacea</i>	large gallberry	29.10
<i>Lyonia lucida</i>	fetterbush	10.23
<i>Magnolia virginiana var. australis</i>	sweetbay	2.50
<i>Muscadinia rotundifolia</i>	muscadine	0.20
<i>Nyssa biflora</i>	swamp tupelo	0.03
<i>Pinus elliotii</i>	slash pine	0.03
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	0.23
<i>Rhynchospora sp.</i>	beaksedge	0.10
<i>Smilax laurifolia</i>	laurel greenbriar	7.50

<i>Sphagnum</i> sp.	sphagnum moss	0.33
<i>Tamala palustris</i>	swamp bay	6.60
<i>Vaccinium fuscatum</i>	hairy highbush blueberry	4.27
Open (no plant cover)		24.33

Qualitative Sampling

FNAI recorded a total of 113 plant taxa along qualitative pedestrian transects sampled in 2025 in the target communities at Dutex East (Table). Seventeen new species were found during the 2025 monitoring. Taxonomy follows Weakley, A.S., and Southeastern Flora Team. 2023. Flora of the southeastern United States: Florida. University of North Carolina Herbarium, North Carolina Botanical Garden, Chapel Hill, U.S.A.

Table 5. Plant species observed in the target communities at Dutex East Mitigation Site on December 2-3, 2025. (bold name = new species; bold X = new observation in community type; * = threatened or endangered; † = non-native invasive)

Scientific Name	Common Name	Hydric Pine Savanna T1	Titi Swamp T2	Bay Swamp T3	Hydric Pine Flatwoods T4	Wetland Forested Mixed T5	Grand Total
<i>Acer rubrum</i> var. <i>trilobum</i>	Carolina red maple			X		X	2
<i>Anchistea virginica</i>	Virginia chain fern	X		X	X	X	4
<i>Andropogon cretaceus</i>	purple bluestem	X	X	X	X	X	5
<i>Andropogon glomeratus</i>	bushy bluestem	X					1
<i>Andropogon</i> sp.	bluestem			X	X		2
<i>Andropogon virginicus</i> var. <i>1</i>	smooth bluestem	X					1
<i>Andropogon virginicus</i> var. <i>virginicus</i>	broomsedge bluestem	X		X	X	X	4
<i>Apteria aphylla</i>	nodding nixie					X	1
<i>Aristida palustris</i>	longleaf threeawn	X			X		2
<i>Aronia arbutifolia</i>	red chokeberry	X					1
<i>Baccharis halimifolia</i>	groundsel tree	X					1
<i>Bidens alba</i> var. <i>radiata</i>	beggarticks			X	X		2
<i>Bidens mitis</i>	smallfruit beggarticks	X		X	X	X	4
<i>Bigelovia nudata</i>	pineland rayless goldenrod				X		1
<i>Callicarpa americana</i>	American beautyberry	X		X			2
<i>Carex elliotii</i>	Elliott's sedge	X	X				2
<i>Carex glaucescens</i>	clustered sedge	X			X	X	3
<i>Carex</i> sp.	sedge		X	X			2
<i>Cartrema americanum</i>	wild olive					X	1
<i>Centella erecta</i>	spadeleaf	X		X			2
<i>Cephalanthus occidentalis</i>	common buttonbush	X		X		X	3
<i>Chasmanthium laxum</i>	slender woodoats			X			1
<i>Clethra alnifolia</i>	sweet pepperbush			X			1
<i>Cliftonia monophylla</i>	black titi	X	X	X	X	X	5

Scientific Name	Common Name	Hydric Pine Savanna T1	Titi Swamp T2	Bay Swamp T3	Hydric Pine Flatwoods T4	Wetland Forested Mixed T5	Grand Total
<i>Cyrilla racemiflora</i>	titi			X			1
<i>Dichantheium ensifolium</i>	small-leaved witchgrass	X					1
<i>Dichantheium leucothrix</i>	rough witchgrass				X		1
<i>Dichantheium longiligulatum</i>	long-ligule witchgrass	X					1
<i>Dichantheium scabriusculum</i>	woolly witchgrass	X		X	X	X	4
<i>Drosera capillaris</i>	pink sundew	X					1
<i>Eriocaulon compressum</i>	flattened pipewort	X					1
<i>Eriocaulon decangulare</i> var. <i>decangulare</i>	common ten-angled pipewort	X		X	X	X	4
<i>Eupatorium anomalum</i>	anomalous thoroughwort	X					1
<i>Eupatorium capillifolium</i>	dogfennel			X			1
<i>Eupatorium perfoliatum</i>	common boneset			X			1
<i>Eupatorium semiserratum</i>	smallflower thoroughwort	X		X		X	3
<i>Euthamia caroliniana</i>	slender flattop goldenrod	X		X	X		3
<i>Fuirena breviseta</i>	saltmarsh umbrellasedge			X			1
<i>Gaylussacia mosieri</i>	woolly huckleberry	X	X	X	X	X	5
<i>Gelsemium rankinii</i>	swamp jessamine	X		X			2
<i>Gelsemium sempervirens</i>	yellow jessamine	X			X	X	3
<i>Gordonia lasianthus</i>	loblolly bay				X		1
<i>Habenaria</i> sp.	false rein orchid	X					1
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	X			X	X	3
<i>Hypericum cistifolium</i>	roundpod St. John's wort	X		X			2
<i>Hypericum crux-andreae</i>	St. Peter's wort	X					1
<i>Hypericum</i> sp.	St. John's wort			X			1
<i>Hyptis alata</i>	clustered bushmint	X					1
<i>Ilex cassine</i>	dahoon	X					1
<i>Ilex coriacea</i>	large gallberry	X	X	X	X	X	5
<i>Ilex glabra</i>	gallberry	X			X		2
<i>Ilex myrtifolia</i>	myrtle-leaved holly	X			X	X	3
<i>Ilex vomitoria</i>	yaupon			X			1
<i>Kelochloa verrucosa</i>	warty panicgrass	X					1
<i>Lachnanthes caroliniana</i>	Carolina redroot	X			X	X	3
<i>Lachnocaulon anceps</i>	whitehead bogbutton	X					1
<i>Ligustrum japonicum</i>	Japanese privet			X			1
† <i>Ligustrum sinense</i>	Chinese privet	X		X		X	3
<i>Liriodendron tulipifera</i> var. <i>tulipifera</i>	tuliptree			X			1
<i>Lorinseria areolata</i>	netted chain fern	X		X	X	X	4
<i>Ludwigia pilosa</i>	hairy primrosewillow	X			X	X	3
<i>Lycopodiella alopecuroides</i>	foxtail club-moss	X				X	2
<i>Lycopodiella appressa</i>	Southern club-moss	X					1
<i>Lycopus rubellus</i>	taperleaf waterhorehound	X		X			2
† <i>Lygodium japonicum</i>	Japanese climbing fern			X			1
<i>Lyonia lucida</i>	fetterbush	X	X	X	X	X	5

Scientific Name	Common Name	Hydric Pine Savanna T1	Titi Swamp T2	Bay Swamp T3	Hydric Pine Flatwoods T4	Wetland Forested Mixed T5	Grand Total
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	X	X	X	X	X	5
<i>Mikania scandens</i>	climbing hempvine	X		X			2
<i>Mitchella repens</i>	partridgeberry	X		X	X	X	4
<i>Morella caroliniensis</i>	evergreen bayberry		X	X	X	X	4
<i>Morella cerifera</i>	Southern bayberry	X		X	X	X	4
<i>Morella inodora</i>	odorless bayberry	X	X			X	3
<i>Muscadinia rotundifolia</i>	muscadine	X	X	X	X		4
<i>Nyssa biflora</i>	swamp tupelo	X	X	X	X	X	5
<i>Osmunda spectabilis</i>	royal fern			X			1
<i>Osmundastrum cinnamomeum</i>	cinnamon fern			X			1
<i>Panicum virgatum</i>	switchgrass	X					1
<i>Pinus elliotii</i>	slash pine	X	X	X	X	X	5
<i>Pleopeltis michauxiana</i>	resurrection fern		X				1
<i>Pluchea foetida</i>	stinking camphorweed	X					1
<i>Pluchea</i> sp.	camphorweed	X		X			2
<i>Proserpinaca pectinata</i>	combleaf mermaidweed	X			X		2
<i>Quercus laurifolia</i>	swamp laurel oak			X			1
<i>Rhexia petiolata</i>	fringed meadowbeauty	X					1
<i>Rhexia virginica</i>	handsome harry	X					1
<i>Rhynchospora careyana</i>	Cary's horned beaksedge	X					1
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	X			X	X	3
<i>Rhynchospora chalarocephala</i>	loosehead beaksedge	X		X		X	3
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	X			X		2
<i>Rhynchospora fascicularis</i>	fascicled beaksedge				X		1
<i>Rhynchospora gracilentata</i>	slender beaksedge	X			X	X	3
<i>Rubus pensilvanicus</i>	sawtooth blackberry	X		X	X		3
<i>Rubus trivialis</i>	Southern dewberry			X			1
<i>Sacciolepis striata</i>	American cupscale	X					1
<i>Scleria ciliata</i>	fringed nutrush	X					1
<i>Scleria triglomerata</i>	whip nutrush			X		X	2
<i>Smilax glauca</i>	cat greenbriar	X		X	X		3
<i>Smilax laurifolia</i>	laurel greenbriar	X	X	X	X	X	5
<i>Sphagnum</i> sp.	sphagnum moss	X	X	X	X	X	5
<i>Tamala palustris</i>	swamp bay	X	X	X	X	X	5
<i>Thelypteris palustris</i> var. <i>pubescens</i>	marsh fern	X					1
<i>Toxicodendron radicans</i> var. <i>radicans</i>	Eastern poison ivy			X	X		2
<i>Toxicodendron vernix</i>	poison sumac			X			1
† <i>Triadica sebifera</i>	Chinese tallow tree	X		X			2
<i>Vaccinium elliotii</i>	Elliott's blueberry	X			X		2
<i>Vaccinium fuscatum</i>	hairy highbush blueberry	X	X	X	X	X	5
<i>Viburnum nudum</i>	possumhaw	X	X				2
<i>Viola primulifolia</i>	primroseleaf violet	X		X	X		3

Scientific Name	Common Name	Hydric Pine Savanna T1	Titi Swamp T2	Bay Swamp T3	Hydric Pine Flatwoods T4	Wetland Forested Mixed T5	Grand Total
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	X			X	X	3
<i>Xyris fimbriata</i>	fringed yellow-eyed grass			X	X	X	3
<i>Xyris serotina</i>	acid swamp yellow-eyed grass	X					1
<i>Xyris</i> sp.	yellow-eyed grass		X	X	X		3
<i>Xyris stricta</i>	pineland yellow-eyed grass	X					1
Total taxa = 113		81	20	62	49	41	

Hydric Pine Savanna – PT1

Although QT1, QT4, and PT1 are identified in the ERC 2016 monitoring report as Hydric Pine Savanna, the target map given in that report indicates Hydric Pine Flatwoods. The Hydric Pine Savanna target community along PT1 had an open canopy of mature slash pines, with interspersed younger slash pines. The understory was mainly tall gallberry, sweetbay, and black titi. Herbs were sparse and mostly limited to canopy openings. We noted the non-native invasives Chinese privet and Chinese tallow tree along this transect. We observed 81 plant taxa along the Hydric Pine Savanna pedestrian transect PT1, somewhat higher than in 2024 (Table).

Titi Swamp – PT2

The Titi Swamp target community along PT2 was similar to a baygall containing canopied areas with sweetbay, swamp tupelo, and slash pine. The understory was dense and shrubby with tall black titi and large gallberry. We found no rare or non-native invasive plants and observed 20 plant taxa along the Titi Swamp pedestrian transect PT2, the same as 2024 (Table).

Bay Swamp – PT3

The Bay Swamp target community along PT3 had a mostly mature, mixed canopy of sweetbay, tuliptree, and swamp laurel oak with enormous slash pines intermixed. Tall shrubs and younger canopy species dominated the understory with large gallberry and sweetbay common. Herbs were sparse and generally limited to canopy openings or slight hummocks. The ground was covered by a thick layer of duff. We found three non-native invasive species while walking the transect – Chinese privet, Japanese climbing fern, and Chinese tallow. Two other non-native invasives seen last year, cogon grass (*Imperata cylindrica*) and Japanese honeysuckle (*Lonicera japonica*), were not found this year. The state listed commercially exploited cinnamon fern and royal fern were both found this year. We observed 62 plant taxa along the Bay Swamp pedestrian transect PT3, similar to 2024 (Table).

Hydric Pine Flatwoods – PT4

The Hydric Pine Flatwoods target community along PT4 was a dense thicket of shrubs and vines, and we were only able to access a small portion of the transect. Tall black titi and large gallberry were dominant,

with abundant laurel greenbrier laced through the shrubs. Pines were widely spaced. We found no rare or non-native invasive plants. We observed 49 plant taxa along the Hydric Pine Flatwoods pedestrian transect PT4, a significant increase from 2024 (Table).

Wetland Forested Mixed – PT5

The Wetland Forested Mixed target community along PT5 had a mature canopy of slash pine, swamp tupelo, and sweetbay. The understory was mostly open with a mix of wetland shrubs consisting of large gallberry, black titi, dahoon, bayberries, blueberries, and woolly huckleberry. Herbs were fairly diverse with several species of yellow-eyed grasses, beaksedges, and witchgrasses. We found the non-native invasive Chinese privet along this transect. Chinese tallow tree was observed in 2024 but not seen this year. We observed 41 plant taxa along the Wetland Forested Mixed pedestrian transect PT5, a small decrease from 2024 (Table).