

**Vegetation Monitoring at Yellow River Ranch  
Northwest Florida Water Management District  
Mitigation Site**

Fall 2024

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# Yellow River Ranch

## Qualitative and Quantitative Monitoring

### November 2024

## INTRODUCTION

The Yellow River Ranch consists of 275 acres in Santa Rosa County managed by the Northwest Florida Water Management District (Figure 1). It is located just north of the Yellow River adjacent to the floodplain and mitigates current and future wetland impacts by the Florida Department of Transportation (FDOT). The NFWFMD goal is to return the Yellow River Ranch to pre-disturbance conditions in former Hydric Pine Flatwoods (HPF), Bottomland Forest, and Cypress through ditch plugging, breaching of dikes, prescribed fire, herbicide treatment, and planting of native species while preserving intact Bottomland Forest in the floodplain (Figure 2). We conducted quantitative and qualitative monitoring to document the current plant species composition and vegetation structure of Hydric Pine Flatwoods, and used belt transects to measure tree species composition and structure in restoration Bottomland Forest and Cypress areas with planted saplings. FNAI began annual monitoring in October 2018. Prior to 2018, the site vegetation was monitored by Ecological Resource Consultants, Inc. (ERC).

## METHODS

The quantitative monitoring utilized 150-foot long transect lines established by ERC and permanently marked with metal posts. Two transects were located in the Hydric Pine Flatwoods target community (Figure 2). We placed eight 1m x 1m quadrats spaced every 20 feet along the left side of each transect line, beginning at 0 and ending at 140 feet. In each quadrat, we visually estimated percent cover of each plant species including individuals rooted in 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 estimated open ground in each quadrat as the percentage of ground not obscured by plant cover up to 2 m tall. Plant cover estimates were converted to mid-point values and averaged across each transect. Relative cover (in which all plant cover and open ground is given as a proportion of 100 percent cover) was also calculated and is reported in separate pie charts.

We collected data on the success of tree plantings on 2 belt transects in Cypress and 2 in Bottomland Forest. Transect corners were previously marked with metal posts by ERC. FNAI moved Belt Transect #3 in Cypress to a new location in 2018 on the recommendation of project manager David Clayton (NFWFMD). Within each 20 by 150-foot transect, we tallied all tree species by height class. We calculated an estimate of total trees per acre by multiplying the tally by 14.28.

To conduct qualitative monitoring, we walked meandering transects through Hydric Pine Flatwoods, recording all plant species observed, as well as notes on vegetation structure. FNAI botanists Kelly Anderson and Ethan Hughes conducted all field surveys on November 5 and 7, 2024.

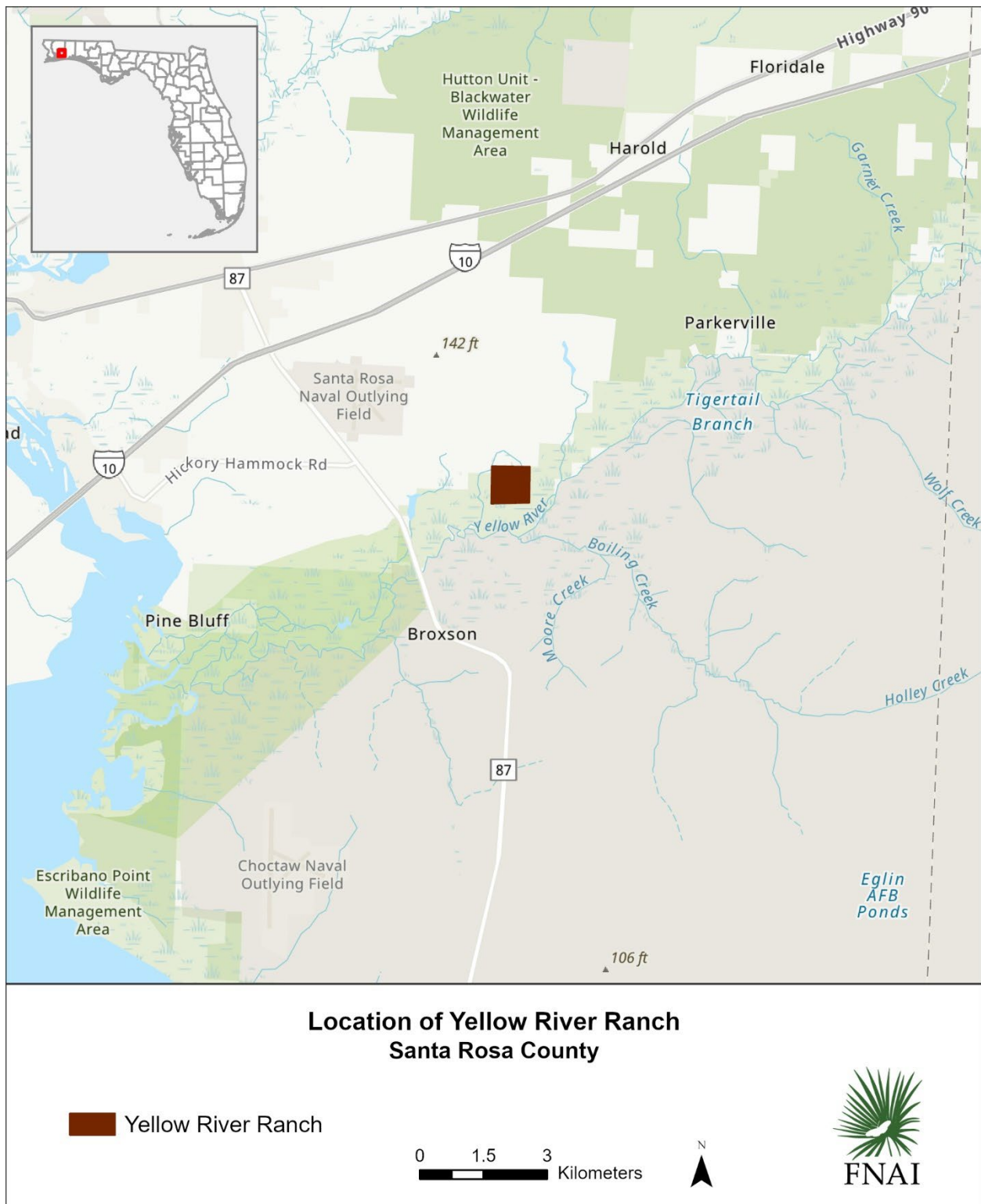


Figure 1. Location map of Yellow River Ranch mitigation site monitored by FNAI.

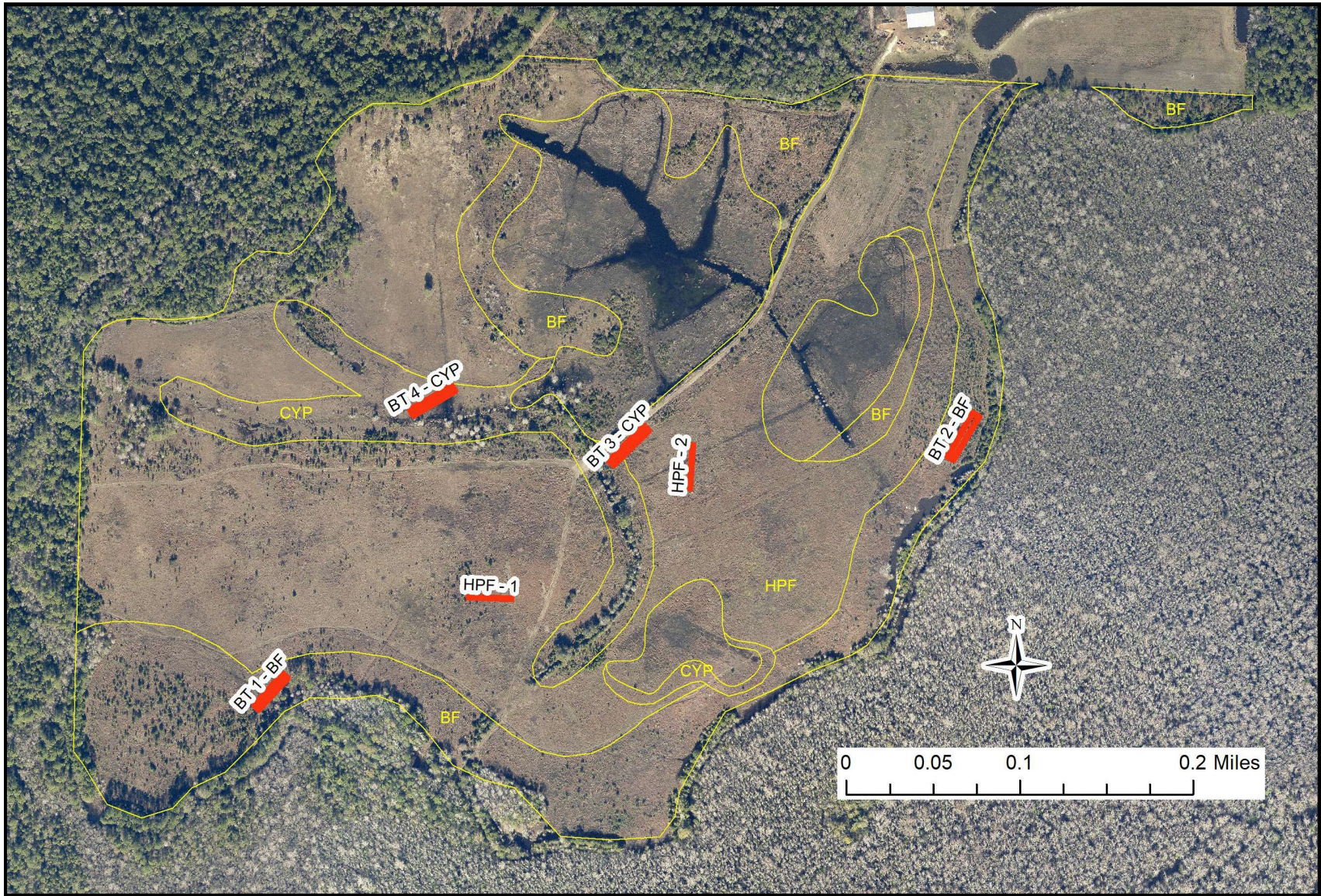


Figure 2. Location of permanent transects at Yellow River Ranch. HPF=Hydric Pine Flatwoods, CYP=Cypress, BF=Bottomland Forest, BT=Belt Transect.

## RESULTS AND DISCUSSION

We recorded a total of 112 plant taxa during the Fall 2024 monitoring in Hydric Pine Flatwoods at Yellow River Ranch (Table 1). Eight new taxa were recorded during the 2024 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. This is a change from the previous FNAI monitoring reports, which followed Wunderlin, R. P., B.F. Hansen, A.R. Franck, and F.B. Essig. 2017. Atlas of Florida Plants (<http://florida.plantatlas.usf.edu/>), Institute for Systematic Botany, University of South Florida, Tampa.

Table 1. Plant species observed in Hydric Pine Flatwoods at Yellow River Ranch Mitigation Site on November 5 and 7, 2024. (bold name = new species; \* = state-listed endangered or threatened; † = non-native invasive)

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Agalinis fasciculata</i>	beach false foxglove
<i>Agalinis</i> sp.	false foxglove
<i>Anchistea virginica</i>	Virginia chain fern
<i>Andropogon cretaceus</i>	purple bluestem
<i>Andropogon glomeratus</i>	bushy bluestem
<b><i>Andropogon hirsutior</i></b>	<b>hairy bluestem</b>
<i>Andropogon</i> sp.	bluestem
<i>Andropogon virginicus</i>	broomsedge bluestem
<i>Anthenantia rufa</i>	purple silkyscale
<i>Aristida beyrichiana</i>	Southern wiregrass
<i>Axonopus furcatus</i>	big carpetgrass
<i>Baccharis halimifolia</i>	groundsel tree
<i>Bidens mitis</i>	smallfruit beggarticks
<i>Carex glaucescens</i>	clustered sedge
<i>Centella erecta</i>	spadeleaf
<i>Cephalanthus occidentalis</i>	common buttonbush
<i>Chamaecyparis thyoides</i>	Atlantic white cedar
<i>Cliftonia monophylla</i>	black titi
<i>Coleataenia anceps</i>	beaked panicum
<i>Coleataenia longifolia</i>	ciliate redtop panicum
<i>Cuphea carthagenensis</i>	Colombian waxweed
<i>Cyrilla racemiflora</i>	titi
<i>Dichantherium acuminatum</i> var. <i>acuminatum</i>	tapered witchgrass
<i>Dichantherium ensifolium</i>	small-leaved witchgrass
<i>Dichantherium leucothrix</i>	rough witchgrass
<i>Dichantherium scabriusculum</i>	woolly witchgrass

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Scientific Name	Common Name
<i>Dichanthelium</i> sp.	witchgrass
<i>Diodia virginiana</i>	Virginia buttonweed
<i>Edrastima uniflora</i>	oldenlandia
<i>Emblica urinaria</i>	chamber bitter
<i>Eragrostis elliotii</i>	Elliott's lovegrass
<i>Eragrostis</i> sp.	lovegrass
<i>Erianthus giganteus</i>	sugarcane plumegrass
<i>Eriocaulon decangulare</i>	tenangle pipewort
<i>Eupatorium anomalum</i>	anomalous thoroughwort
<i>Eupatorium capillifolium</i>	dogfennel
<i>Eupatorium semiserratum</i>	smallflower thoroughwort
<i>Eupatorium serotinum</i>	lateflowering thoroughwort
<i>Eupatorium</i> sp.	thoroughwort
<i>Euthamia caroliniana</i>	slender flattop goldenrod
<i>Euthamia scabra</i>	Gulf Coast goldenrod
<i>Gelsemium sempervirens</i>	yellow jessamine
<i>Helianthus angustifolius</i>	narrowleaf sunflower
<i>Hydrocotyle umbellata</i>	manyflower marshpennywort
<i>Hypericum cistifolium</i>	roundpod St. John's wort
<i>Hypericum crux-andreae</i>	St. Peter's wort
<i>Hypericum hypericoides</i>	St. Andrew's cross
<i>Hypericum nitidum</i>	Carolina St. John's wort
<i>Hyptis alata</i>	clustered bushmint
<i>Ilex coriacea</i>	large gallberry
<i>Ilex glabra</i>	gallberry
<i>Ilex myrtifolia</i>	myrtle-leaved holly
<i>Ilex opaca</i>	American holly
<i>Ilex verticillata</i>	common winterberry
<i>Ilex vomitoria</i>	yaupon
<i>Kelochloa verrucosa</i>	warty panicgrass
<i>Lachnanthes caroliniana</i>	Carolina redroot
<i>Lobelia brevifolia</i>	shortleaf lobelia
<i>Lorinseria areolata</i>	netted chain fern
<i>Ludwigia pilosa</i>	hairy primrosewillow
<i>Lycopodiella alopecuroides</i>	foxtail club-moss
<i>Lycopus rubellus</i>	taperleaf waterhorehound
<i>Lycopus</i> sp.	waterhorehound
† <i>Lygodium japonicum</i>	Japanese climbing fern
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay
<i>Morella cerifera</i>	Southern bayberry
moss	moss
<i>Nyssa biflora</i>	swamp tupelo
<i>Paspalum notatum</i>	bahiagrass

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Scientific Name	Common Name
<i>Persicaria punctata</i>	dotted smartweed
<i>Pinus elliotii</i>	slash pine
<i>Pinus</i> sp.	pine
<i>Pluchea baccharis</i>	rosy camphorweed
<i>Pluchea</i> sp.	camphorweed
<i>Polypremum procumbens</i>	rustweed
<i>Quercus laurifolia</i>	swamp laurel oak
<b><i>Quercus hemisphaerica</i></b>	<b>laurel oak</b>
<i>Rhexia</i> sp.	meadowbeauty
<i>Rhexia virginica</i>	handsome harry
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge
<i>Rhynchospora chalarocephala</i>	loosehead beaksedge
<i>Rhynchospora elliotii</i>	Elliott's beaksedge
<i>Rhynchospora fascicularis</i>	fascicled beaksedge
<b><i>Rhynchospora inexpansa</i></b>	<b>nodding beaksedge</b>
<i>Rhynchospora inundata</i>	narrowfruit horned beaksedge
<i>Rhynchospora microcarpa</i>	Southern beaksedge
<i>Rhynchospora</i> sp.	beaksedge
<i>Rubus cuneifolius</i>	sand blackberry
<i>Rubus pensilvanicus</i>	sawtooth blackberry
<i>Scirpus cyperinus</i>	woolgrass
<i>Scleria ciliata</i>	fringed nutrush
<i>Scoparia dulcis</i>	licoriceweed
<b><i>Smilax glauca</i></b>	<b>cat greenbriar</b>
† <i>Solanum viarum</i>	<b>tropical soda apple</b>
<i>Solidago fistulosa</i>	pinebarren goldenrod
<i>Solidago</i> sp.	goldenrod
<b><i>Spiranthes cernua</i></b>	<b>nodding ladiestresses</b>
<b><i>Styrax americanus</i> var. <i>pulverulentus</i></b>	<b>downy American snowbell</b>
<i>Swida foemina</i>	swamp dogwood
<b><i>Symphotrichum bahamense</i></b>	<b>Bahaman aster</b>
<i>Symphotrichum dumosum</i>	rice button aster
<i>Tamala palustris</i>	swamp bay
<i>Taxodium ascendens</i>	pond cypress
<i>Taxodium distichum</i>	bald cypress
<i>Toxicodendron radicans</i> var. <i>radicans</i>	Eastern poison ivy
† <i>Triadica sebifera</i>	Chinese tallow tree
<i>Vaccinium elliotii</i>	Elliott's blueberry
<i>Viola lanceolata</i>	bog white violet
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass
<i>Xyris fimbriata</i>	fringed yellow-eyed grass
<i>Xyris platylepis</i>	tall yellow-eyed grass

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Scientific Name	Common Name
Total number of taxa: 112	

## Hydric Pine Flatwoods

**Qualitative sampling.** We accessed the Hydric Pine Flatwoods in the vicinity of Transect 2 and near Belt Transect 2 to create a species list (Figure 2). This area had a very sparse canopy of young slash pines around 30 feet high. Shrubs have been growing quickly, and the site has not been burned recently. Common species included sawtooth blackberry, groundsel tree, southern bayberry, myrtle holly, gallberry, young slash pine, Atlantic white cedar, and swamp tupelo. The ground layer was mostly herbaceous and weedy with rice button aster, woolly witchgrass, Carolina redroot, beaksedges, and broomsedge bluestem. Wiregrass was present, but very sparse and concentrated in the western area. The non-native invasive Chinese tallow tree and Japanese climbing fern, observed in prior site visits, are still present. One additional invasive species, tropical soda apple, was seen for the first time in 2024. Chinese privet has been found in the past, but we did not record it this year. We observed a total of 112 species in this community in 2024 (Table 1).

**Quantitative sampling.** The western Transect 1 (Figure 3, Table 2) had a total of 48 species with 51% open ground. Atlantic white cedar, southern bayberry, slash pine, and sawtooth blackberry contributed the most cover. Woody species made up about 39% average cover per quadrat, similar to last year. Vegetation along the the transect was similar to last year.

The eastern Transect 2 (Figure 4, Table 3) had a total of 33 species with 18% open ground. Woolly witchgrass, southern bayberry, and sugarcane plume grass contributed the most cover. Woody species made up about 18% average cover per quadrat, a small decrease compared to last year. Overall diversity was lower compared to 2023, despite an earlier survey date. Woolly witchgrass continues to increase, from 3% (in 2021) to 14% (in 2022) to 33% (in 2023) to 42% this year.

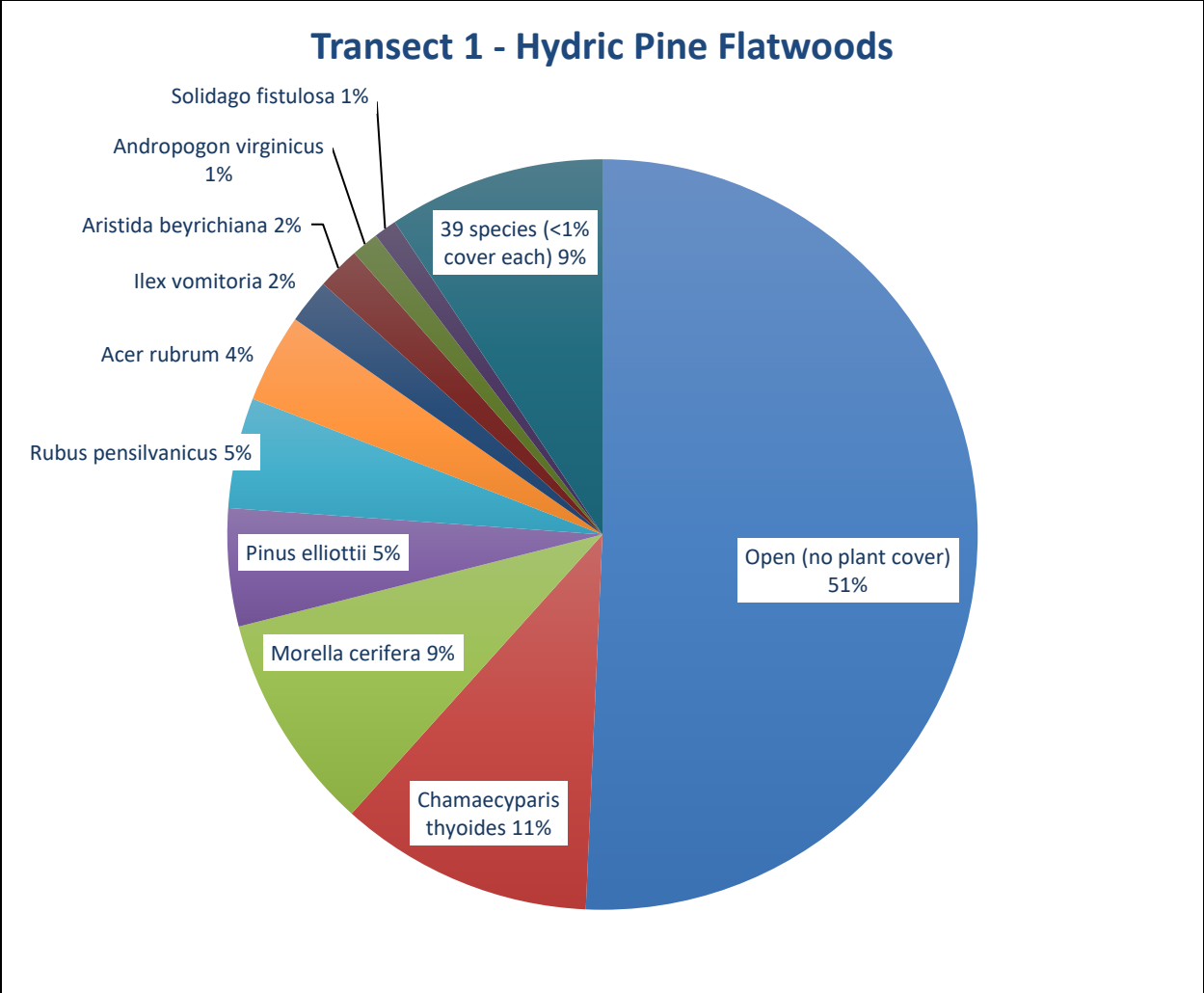


Figure 3. Percent relative cover of plant species in Hydric Pine Flatwoods Transect 1.

Table 2. Percent cover of plant species in Hydric Pine Flatwoods Transect 1 sampled on November 7, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Acer rubrum</i>	red maple	3.88
<i>Anchistea virginica</i>	Virginia chain fern	0.06
<i>Andropogon hirsutior</i>	hairy bluestem	0.06
<i>Andropogon virginicus</i>	broomsedge bluestem	1.19
<i>Aristida beyrichiana</i>	Southern wiregrass	1.88
<i>Bidens mitis</i>	smallfruit beggarticks	0.19
<i>Carex glaucescens</i>	clustered sedge	0.25
<i>Centella erecta</i>	spadeleaf	0.44
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	11.06

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Scientific name	Common name	Average percent cover per quadrat
<i>Cuphea carthagenensis</i>	Colombian waxweed	0.13
<i>Cyrtia racemiflora</i>	titi	0.50
<i>Dichanthelium acuminatum</i> var. <i>acuminatum</i>	tapered witchgrass	0.06
<i>Dichanthelium scabriusculum</i>	woolly witchgrass	0.56
<i>Dichanthelium</i> sp.	witchgrass	0.06
<i>Edrastima uniflora</i>	oldenlandia	0.25
<i>Eragrostis elliotii</i>	Elliott's lovegrass	0.06
<i>Eragrostis</i> sp.	lovegrass	0.19
<i>Eriocaulon decangulare</i>	tenangle pipewort	0.19
<i>Eupatorium capillifolium</i>	dogfennel	0.63
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.50
<i>Euthamia scabra</i>	Gulf Coast goldenrod	0.50
<i>Hydrocotyle umbellata</i>	manyflower marshpennywort	0.06
<i>Hypericum hypericoides</i>	St. Andrew's cross	0.19
<i>Ilex glabra</i>	gallberry	0.44
<i>Ilex vomitoria</i>	yaupon	1.94
<i>Kelochloa verrucosa</i>	warty panicgrass	0.06
<i>Lachnanthes caroliniana</i>	Carolina redroot	0.38
<i>Lobelia brevifolia</i>	shortleaf lobelia	0.06
<i>Lorinseria areolata</i>	netted chain fern	0.63
<i>Lycopus rubellus</i>	taperleaf waterhorehound	0.13
<i>Lygodium japonicum</i>	Japanese climbing fern	0.13
<i>Morella cerifera</i>	southern bayberry	9.50
moss	moss	0.06
<i>Nyssa biflora</i>	swamp tupelo	0.63
<i>Pinus elliotii</i>	slash pine	5.13
<i>Pinus</i> sp.	pine	0.06
Poaceae	grass family	0.13
<i>Quercus hemisphaerica</i>	laurel oak	0.06
<i>Rhexia</i> sp.	meadowbeauty	0.31
<i>Rhexia virginica</i>	handsome harry	0.19
<i>Rhynchospora</i> sp.	beaksedge	0.13
<i>Rubus pensilvanicus</i>	sawtooth blackberry	4.81
<i>Solidago fistulosa</i>	pinebarren goldenrod	1.00
<i>Symphotrichum dumosum</i> var. <i>dumosum</i>	long-stalked aster	0.56
<i>Tamala palustris</i>	swamp bay	0.19
<i>Toxicodendron radicans</i> var. <i>radicans</i>	eastern poison ivy	0.19
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	0.06
<i>Xyris platylepis</i>	tall yellow-eyed grass	0.19
Open (no plant cover)		51.25

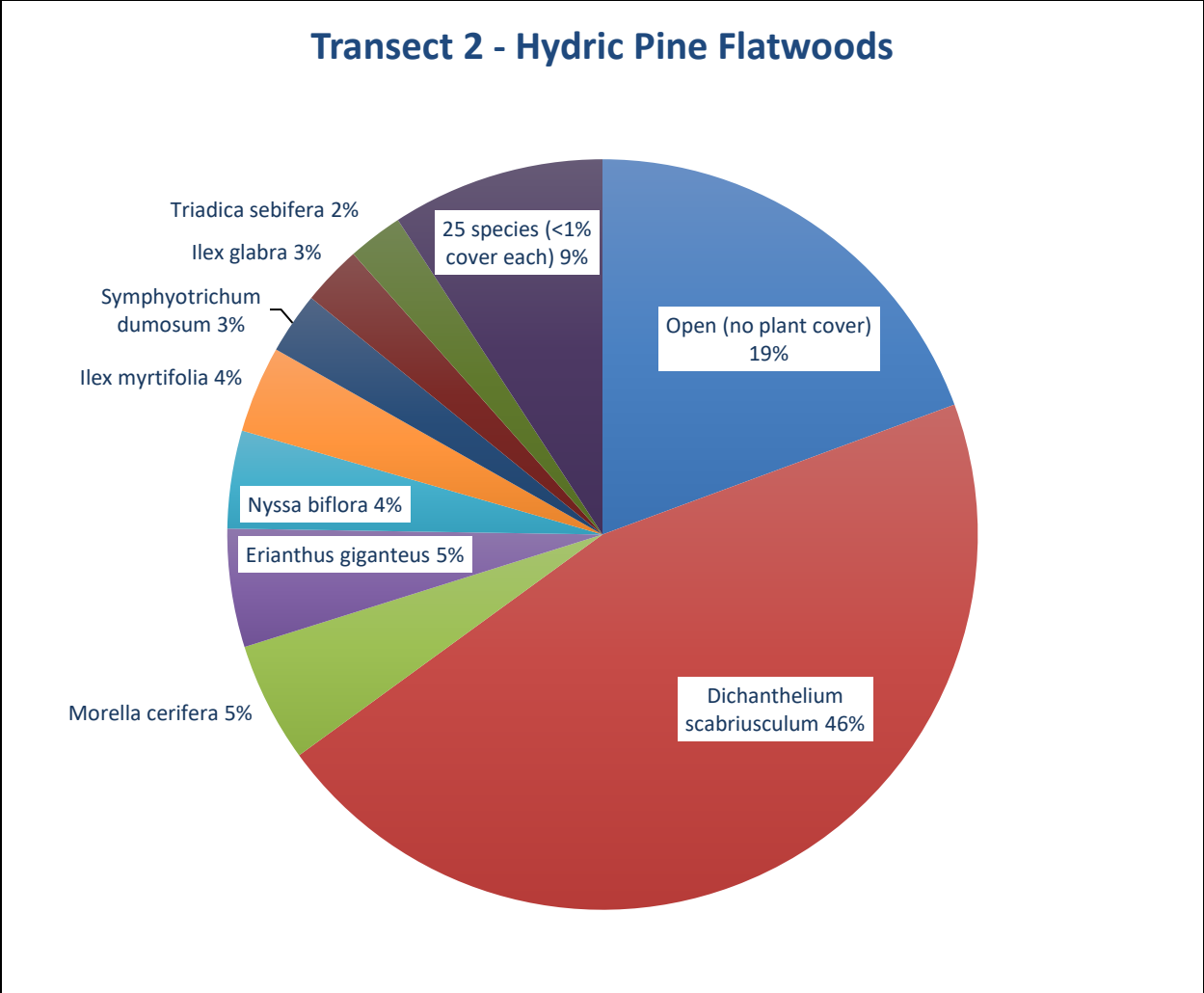


Figure 4. Percent relative cover of plant species in Hydric Pine Flatwoods Transect 2.

Table 3. Percent cover of plant species in Hydric Pine Flatwoods Transect 2 sampled on November 5, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Acer rubrum</i>	red maple	0.06
<i>Andropogon sp.</i>	bluestem	0.44
<i>Andropogon virginicus</i>	broomsedge bluestem	0.19
<i>Carex glaucescens</i>	clustered sedge	0.19
<i>Centella erecta</i>	spadeleaf	0.75
<i>Coleataenia anceps</i>	beaked panicum	0.63
<i>Dichanthelium leucothrix</i>	rough witchgrass	0.06
<i>Dichanthelium scabriusculum</i>	woolly witchgrass	41.94
<i>Eragrostis sp.</i>	lovegrass	0.19
<i>Erianthus giganteus</i>	sugarcane plumegrass	4.69

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Scientific name	Common name	Average percent cover per quadrat
<i>Eupatorium anomalum</i>	anomalous thoroughwort	0.38
<i>Eupatorium semiserratum</i>	smallflower thoroughwort	0.44
<i>Eupatorium</i> sp.	thoroughwort	0.06
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.56
<i>Hypericum hypericoides</i>	St. Andrew's cross	0.06
<i>Ilex glabra</i>	gallberry	2.38
<i>Ilex myrtifolia</i>	myrtle-leaved holly	3.44
<i>Ludwigia pilosa</i>	hairy primrosewillow	0.44
<i>Lycopus rubellus</i>	taperleaf waterhorehound	0.88
<i>Morella cerifera</i>	southern bayberry	4.75
<i>Nyssa biflora</i>	swamp tupelo	3.88
<i>Pinus elliotii</i>	slash pine	0.63
<i>Pluchea baccharis</i>	rosy camphorweed	0.06
<i>Pluchea</i> sp.	camphorweed	0.06
<i>Rhexia</i> sp.	meadowbeauty	0.06
<i>Rhexia virginica</i>	handsome harry	0.06
<i>Rhynchospora microcarpa</i>	southern beaksedge	0.19
<i>Rhynchospora</i> sp.	beaksedge	0.06
<i>Rubus pensilvanicus</i>	sawtooth blackberry	0.88
<i>Solidago fistulosa</i>	pinebarren goldenrod	0.94
<i>Solidago</i> sp.	goldenrod	0.19
<i>Symphotrichum dumosum</i>	long-stalked aster	2.44
<i>Triadica sebifera</i>	Chinese tallow tree	2.19
Open (no plant cover)		17.81

## Bottomland Forest

**Quantitative sampling.** Belt transect 1 contained a mix of mostly red maple, slash pine, and cypress, with a few additional species occurring only occasionally (Table 4). Slash pines and red maples were gaining height compared to last year. Both bald cypress and pond cypress stems were recorded in the transect, but juvenile similarities between these two types make them difficult to distinguish when young, and many taxonomists consider them to be a single species. The invasive non-native Chinese tallow tree was recorded along the transect for the first time in 2020 and was again found this year. There was an increase in the number of stems found, as stems continue to grow and additional seedlings take root.

Belt Transect 2 consisted of a mix of larger Atlantic white cedars with an abundance of small, regenerating cedars and red maples (Table 5). This transect had a dense thicket of sawtooth blackberry in 2018 that has been slowly opening up over the last several years. Five stems, mostly young, of the invasive non-native Chinese tallow tree were spotted along the transect. Overall, stems increased, mainly driven by abundant Atlantic white cedar seedlings.

## Cypress

**Quantitative sampling.** Belt transect 3 is located adjacent to the elevated road through the site in an area that was previously planted with native trees. Trees consisted of mainly larger swamp tupelo and pond cypress with a fair number of Atlantic white cedars and a mix of other species (Table 6). The number of stems detected decreased this year. This may be in part attributable to variation in sampling accuracy along the dense edges of the transect.

Belt Transect 4 was quite open and contained mostly young pond cypress. Swamp tupelos are continuing to grow vigorously, and five other species have stems over 6' tall (Table 7). Cypress on the transect appear to be maturing well. The overall number of stems along the transect is similar to last year. The small increase in stems may be due to the earlier sample date this year that would have increased the detectability of deciduous stems.

Table 4. Belt Transect Summary for Bottomland Forest Transect 1 (YR-BT1-630) sampled on November 7, 2024, listing the number of tree stems by species and height class.

Species	Total Number of Stems	0-1'	>1'-2'	>2'-3'	>3'-4'	>4'-5'	>5'-6'	>6'
<i>Acer rubrum</i>	265	21	27	34	35	50	16	82
<i>Cephalanthus occidentalis</i>	10		1					9
<i>Chamaecyparis thyoides</i>	18	1	4	4	2	1	2	4
<i>Fraxinus caroliniana</i>	1					1		
<i>Ilex myrtifolia</i>	3			2	1			
<i>Nyssa biflora</i>	15				1		2	12
<i>Pinus elliotii</i>	71							71
<i>Styrax americana</i>	16	16						
<i>Taxodium ascendens</i>	12							12
<i>Taxodium distichum</i>	17						1	16
<i>Triadica sebifera</i>	2					1		1
<i>Ilex verticillata</i>	0							
<b>Total Stems All Species</b>	430							
<b>Saplings/Acre</b>	6140							

Table 5. Belt Transect Summary for Bottomland Forest Transect 2 (YYR-BT2-630) sampled on November 7, 2024, listing the number of tree stems by species and height class.

Species	Total Stems	0-1'	>1'-2'	>2'-3'	>3'-4'	>4'-5'	>5'-6'	>6'
<i>Acer rubrum</i>	108	50	19	11	3	1	6	18
<i>Chamaecyparis thyoides</i>	488	430	21	7	1	1	1	27
<i>Cornus foemina</i>	1						1	
<i>Diospyros virginiana</i>	1	1						
<i>Ilex opaca</i>	4				1			3
<i>Juniperus virginiana</i>	1							1
<i>Magnolia virginiana</i>	1							1
<i>Nyssa biflora</i>	1	1						
<i>Pinus palustris</i>	1							1
<i>Pinus elliotii</i>	3	1						2
<i>Quercus laurifolia</i>	7	5						2
<i>Triadica sebifera</i>	5			3				2
<i>Taxodium ascendens</i>	0							
<i>Taxodium distichum</i>	1					1		
<i>Persea palustris</i>	0							
<i>Fraxinus caroliniana</i>	1							1
<b>Total Stems All Species</b>	623							
<b>Saplings/Acre</b>	8896							

Table 6. Belt Transect Summary for Cypress Transect 3 (YR-BT3-621) sampled on November 5, 2024, showing the number of tree stems by species and height class.

Species	Total Stems	0-1'	>1'-2'	>2'-3'	>3'-4'	>4'-5'	>5'-6'	>6'
<i>Acer rubrum</i>	109	3	10	31	16	15	4	30
<i>Chamaecyparis thyoides</i>	54	2	2		1	3	1	45
<i>Cyrilla racemiflora</i>	0							
<i>Ilex myrtifolia</i>	23				2	1		20
<i>Ilex verticillata</i>	1						1	
<i>Magnolia virginiana</i>	5							5
<i>Nyssa biflora</i>	255				1			254
<i>Pinus elliotii</i>	31				1	1		29
<i>Taxodium ascendens</i>	73							73
<i>Triadica sebifera</i>	1							1
<b>Total Stems All Species</b>	552							
<b>Saplings/Acre</b>	7883							

Table 7. Belt Transect Summary for Cypress Transect 4 (YR-BT4-621) sampled November 5, 2024, showing the number of tree stems by species and height class.

Species	Total Stems	0-1'	>1'-2'	>2'-3'	>3'-4'	>4'-5'	>5'-6'	>6'
<i>Chamaecyparis thyoides</i>	15			2	3	3		7
<i>Cyrilla racemiflora</i>	8		1		1		2	4
<i>Magnolia virginiana</i>	6						2	4
<i>Nyssa biflora</i>	51						13	38
<i>Pinus elliotii</i>	2				1			1
<i>Taxodium ascendens</i>	153			1		4	10	138
<i>Acer rubrum</i>	41		12	12	6	5	2	4
<i>Persea palustris</i>	0							
<i>Ilex myrtifolia</i>	1						1	
<i>Triadica sebifera</i>	1		1					
<b>Total Stems All Species</b>	278							
<b>Saplings/Acre</b>	3970							

