

**Vegetation Monitoring at Lafayette Creek
Northwest Florida Water Management District
Mitigation Site**

Fall 2024

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Lafayette Creek – Phase I Mitigation Site Qualitative and Quantitative Monitoring October 2024

INTRODUCTION

The Lafayette Creek Phase I Mitigation Site consisting of 509 acres was obtained to compensate for the loss of wetland function from the impacts associated with re-alignment of highway US 331 in Freeport. The site is located north of SR 20 and Lafayette Creek (Figure 1). Access to the site is via Hollington Road, which is located 4.5 miles east of US 331. The gate to the site is at the north end of Hollington Road. The Phase I Mitigation Project aims to restore Sandhill (SA) to areas formerly planted with sand pine plantation and Hydric Savanna (HS) to areas formerly covered by wetland shrubs (Figure 2). FNAI conducted quantitative and qualitative monitoring to document the current plant species composition and vegetation structure of these targeted communities. FNAI also implemented qualitative monitoring to document areas of slash pine plantation being restored to High Pine (HP) as well as the intact Bay Swamp (BS) and Stream Swamp (SS). FNAI biologists previously monitored the site vegetation every fall from 2012 to 2023.

METHODS

We conducted the quantitative monitoring along 300-foot long permanent transect lines previously marked during the 2012 survey. Two transects were located in Sandhill and two in Hydric Savanna (Figure 2). In 2013, metal T-posts were installed at the ends of each transect to provide permanent reference points. In 2014, the northern metal T-post in hydric savanna Transect 2 was missing. Its position was re-established and the metal T-post was replaced. In 2015 the northern metal T-post in sandhill Transect 2 was missing. Its location was reestablished using the bearing from the remaining T-post and permanently staked in 2016. As additional markers, FNAI installed one-foot sections of rebar with 3-inch-square orange caps at ground level at quadrats 20 and 40 along this transect, so the transect line could be recovered if the end stakes were lost in the future. We placed fifteen 1m x 1m quadrats spaced at 20-foot intervals along the left side of each transect line, beginning at 0 and ending at 280 feet. In each quadrat, we visually estimated 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 estimated open ground in each quadrat as the percentage of ground not obscured by plant cover. We converted 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 100 percent cover); this is reported in separate graphs.

We conducted qualitative monitoring by walking meandering transects through the two target communities plus High Pine (HP), Bay Swamp (BS), and Stream Swamp (SS) and recording all species as well as vegetation structure. FNAI botanists Kim Alexander, Kelly Anderson, Dani Davis, Allie Heiker, Amy Jenkins, Geoff Parks, and Leyla Wilson conducted the field surveys on October 16-17, 2024.

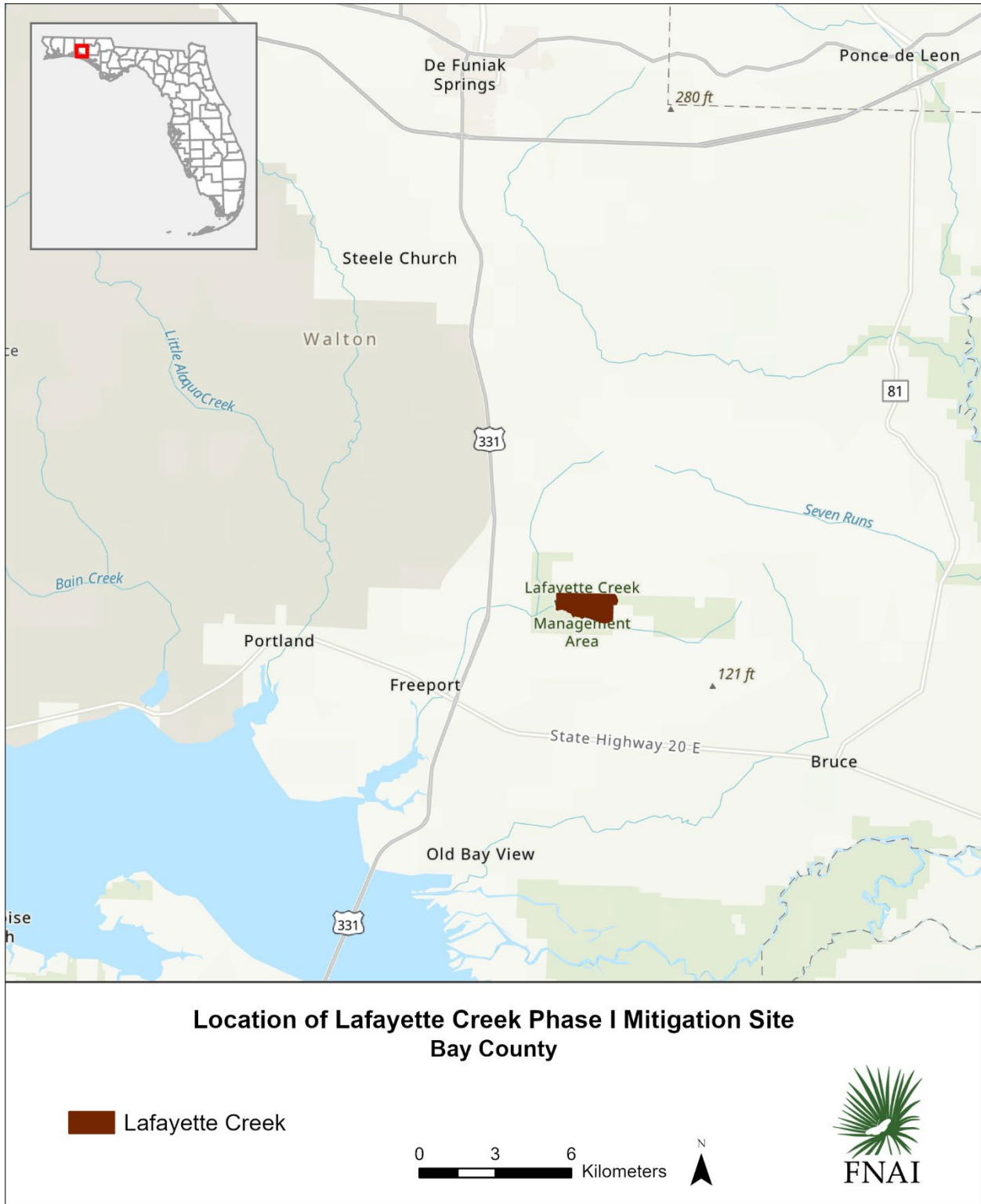


Figure 1. Location map of Lafayette Creek Phase I Mitigation Site monitored by FNAI.

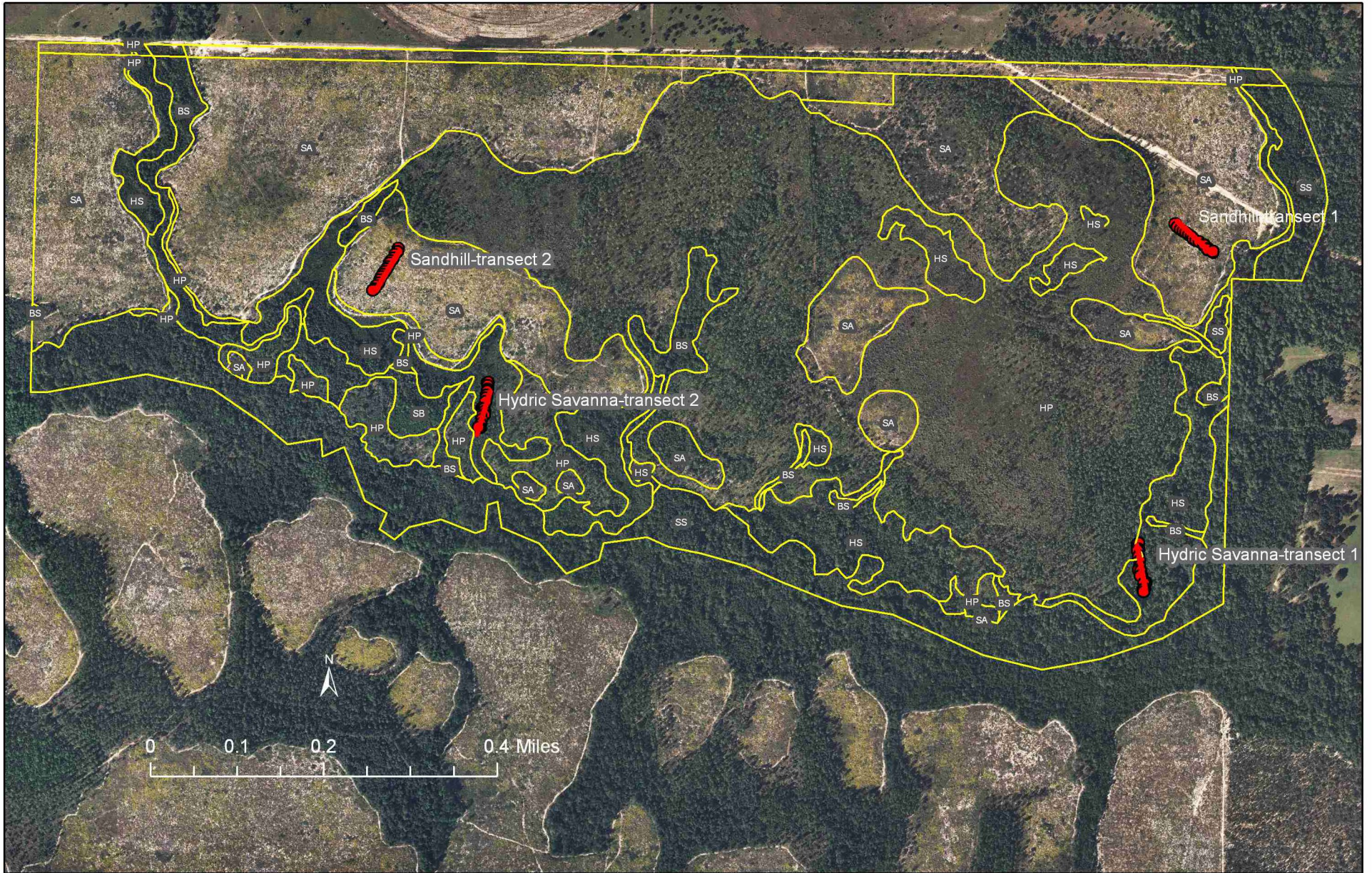


Figure 2. Location of permanent transects at Lafayette Creek – Phase I Mitigation Site. SA=Sandhill, HS=Hydric Savanna, HP=High Pine, BS=Bay Swamp, SS=Stream Swamp, SB=Shrub Bog.

RESULTS AND DISCUSSION

We recorded 328 plant taxa in the surveyed areas of Lafayette Creek during the 2024 monitoring period (Table 1). Sampling occurred in October, resulting in many more detectable species than in the mid-November 2023 sample. We found 10 taxa new to the site 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. Species observed in target communities at Lafayette Creek – Phase I Mitigation Site, October 16-17, 2024. (bold name = new species; bold X = new observation in community; * = state-listed endangered or threatened; † = non-native invasive)

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Acalypha gracilens</i>	slender threeseed mercury		X				1
<i>Acer rubrum</i>	red maple					X	1
<i>Agalinis divaricata</i>	pineland false foxglove		X		X		2
<i>Agalinis fasciculata</i>	beach false foxglove	X	X				2
<i>Agalinis purpurea</i>	purple false foxglove				X		1
<i>Agalinis</i> sp.	false foxglove		X				1
<i>Ageratina aromatica</i>	lesser snakeroot				X		1
<i>Aletris lutea</i>	yellow colic-root		X	X			2
<i>Amsonia ciliata</i>	fringed bluestar				X		1
<i>Anchistea virginica</i>	Virginia chain fern	X				X	2
* <i>Andropogon arctatus</i>	pinewoods bluestem			X			1
<i>Andropogon campbellii</i>	deceptive bluestem				X		1
<i>Andropogon capillipes</i>	dryland white bluestem		X				1
<i>Andropogon cretaceus</i>	purple bluestem	X	X	X			3
<i>Andropogon gerardi</i>	big bluestem		X				1
<i>Andropogon glomeratus</i>	bushy bluestem			X			1
<i>Andropogon gyrans</i>	Elliott's bluestem		X	X	X		3
<i>Andropogon perangustatus</i>	narrowleaf bluestem			X			1
<i>Andropogon</i> sp.	Bluestem			X			1
<i>Andropogon ternarius</i>	splitbeard bluestem				X		1
<i>Andropogon virginicus</i>	broomsedge bluestem	X	X	X	X		4
<i>Apteria aphylla</i>	nodding nixie					X	1
<i>Aristida beyrichiana</i>	Southern wiregrass		X	X	X		3
<i>Aristida purpurascens</i>	arrowfeather threeawn		X		X		2
<i>Aristida simpliciflora</i>	Southern threeawn			X			1
<i>Arundinaria tecta</i>	small cane			X			1
<i>Asclepias obovata</i>	pineland milkweed		X				1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Balduina angustifolia</i>	coastalplain honeycomb-head		X		X		2
<i>Balduina uniflora</i>	oneflower honeycomb-head		X	X			2
<i>Baptisia lanceolata</i>	gopherweed				X		1
<i>Berlandiera pumila</i> var. <i>pumila</i>	soft greeneyes				X		1
<i>Bidens mitis</i>	smallfruit beggarticks	X		X			2
<i>Bigelovia nudata</i>	pineland rayless goldenrod			X			1
<i>Bignonia capreolata</i>	crossvine					X	1
<i>Bulbostylis ciliatifolia</i>	capillary hairsedge			X	X		2
<i>Burmannia capitata</i>	Southern bluethread			X			1
<i>Callicarpa americana</i>	American beautyberry	X	X		X		3
<i>Carex glaucescens</i>	clustered sedge	X				X	2
<i>Carphephorus pseudoliatris</i>	bristleleaf chaffhead			X			1
<i>Cartrema americanum</i>	wild olive					X	1
<i>Centella erecta</i>	spadeleaf	X		X			2
<i>Centrosema virginianum</i>	spurred butterfly pea		X				1
<i>Cephalanthus occidentalis</i>	common buttonbush					X	1
<i>Chamaecrista nictitans</i>	sensitive pea		X				1
<i>Chaptalia tomentosa</i>	pineland daisy		X				1
<i>Chasmanthium laxum</i>	slender woodoats					X	1
<i>Chrysoma pauciflosculosa</i>	woody goldenrod				X		1
<i>Chrysopsis hyssopifolia</i>	hyssopleaf goldenaster				X		1
<i>Chrysopsis lanuginosa</i>	Lynn Haven goldenaster		X	X	X		3
<i>Chrysopsis linearifolia</i>	narrowleaf goldenaster				X		1
<i>Chrysopsis mariana</i>	Maryland goldenaster		X		X		2
<i>Clethra alnifolia</i>	sweet pepperbush			X			1
<i>Clethra tomentosa</i>	downy sweet pepperbush	X		X		X	3
<i>Cliftonia monophylla</i>	black titi	X	X	X		X	4
<i>Clinopodium coccineum</i>	scarlet calamint				X		1
<i>Cnidocolus stimulosus</i>	tread softly		X		X		2
<i>Coleataenia longifolia</i> ssp. <i>longifolia</i>	long-leaved panicum			X			1
<i>Coreopsis linifolia</i>	Texas tickseed			X			1
<i>Crocanthemum carolinianum</i>	Carolina frostweed				X		1
<i>Crocanthemum rosmarinifolium</i>	rosemary frostweed				X		1
<i>Croptilon divaricatum</i>	slender scratchdaisy				X		1
<i>Crotalaria purshii</i>	Pursh's rattlebox		X				1
<i>Crotalaria rotundifolia</i>	rabbitbells				X		1
<i>Croton argyranthemus</i>	silver croton				X		1
<i>Ctenium aromaticum</i>	toothache grass	X	X	X			3
<i>Cyperus filiculmis</i>	wiry flatsedge				X		1
<i>Cyrilla racemiflora</i>	titi			X		X	2
<i>Dalea pinnata</i>	summer farewell				X		1
<i>Desmodium lineatum</i>	sand tick-trefoil		X				1
<i>Desmodium strictum</i>	pinebarren tick-trefoil		X				1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Dichanthelium aciculare</i>	needleleaf witchgrass		X		X		2
<i>Dichanthelium angustifolium</i>	narrowleaf witchgrass		X		X		2
<i>Dichanthelium ensifolium</i>	small-leaved witchgrass	X		X	X		3
<i>Dichanthelium filirumum</i>	hairy needle-leaved witchgrass				X		1
<i>Dichanthelium leucothrix</i>	rough witchgrass			X			1
<i>Dichanthelium longiligulatum</i>	long-ligule witchgrass			X			1
<i>Dichanthelium lucidum</i>	bog witchgrass					X	1
<i>Dichanthelium ovale</i> var. <i>ovale</i>	oval-flowered witchgrass		X		X		2
<i>Dichanthelium portoricense</i>	Puerto Rican witchgrass				X		1
<i>Dichanthelium scabriusculum</i>	woolly witchgrass	X		X		X	3
<i>Dichanthelium</i> sp.	witchgrass		X	X	X		3
<i>Dichanthelium strigosum</i>	roughhair witchgrass			X	X		2
<i>Dichanthelium tenue</i>	white-edged witchgrass				X		1
<i>Diodia virginiana</i>	Virginia buttonweed		X	X			2
<i>Diospyros virginiana</i>	common persimmon		X			X	2
<i>Drosera capillaris</i>	pink sundew	X		X			2
<i>Drosera tracyi</i>	dewthreads			X			1
<i>Edrastima uniflora</i>	oldenlandia	X	X	X			3
<i>Eleocharis</i> sp.	spikerush			X			1
<i>Elephantopus carolinianus</i>	Carolina elephantsfoot					X	1
<i>Elephantopus elatus</i>	tall elephantsfoot		X		X		2
<i>Elephantopus</i> sp.	elephantsfoot		X				1
<i>Endodeca serpentaria</i>	Virginia snakeroot		X				1
<i>Eragrostis elliotii</i>	Elliott's lovegrass		X		X		2
<i>Eragrostis</i> sp.	lovegrass				X		1
<i>Eragrostis spectabilis</i>	purple lovegrass				X		1
<i>Erigeron canadensis</i>	Canadian horseweed		X		X		2
<i>Erigeron vernus</i>	early whitetop fleabane			X			1
<i>Eriocaulon compressum</i>	flattened pipewort			X			1
<i>Eriocaulon decangulare</i>	tenangle pipewort	X		X		X	3
<i>Eriogonum tomentosum</i>	dogtongue wild buckwheat				X		1
<i>Eryngium yuccifolium</i>	button rattlesnakemaster		X		X		2
<i>Eubotrys racemosus</i>	swamp doghobble					X	1
<i>Eupatorium anomalum</i>	anomalous thoroughwort		X				1
<i>Eupatorium capillifolium</i>	dogfennel	X			X		2
<i>Eupatorium compositifolium</i>	yankeeweed	X	X	X	X		4
<i>Eupatorium mohrii</i>	Mohr's thoroughwort		X	X			2
<i>Eupatorium pilosum</i>	rough boneset		X	X			2
<i>Eupatorium rotundifolium</i>	roundleaf thoroughwort		X	X			2
<i>Eupatorium semiserratum</i>	smallflower thoroughwort			X	X	X	3
<i>Euphorbia curtisii</i>	Curtis' spurge				X?		1
<i>Euphorbia discoidalis</i>	summer spurge		X		X		2
<i>Euphorbia floridana</i>	greater Florida spurge				X		1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Eurybia eryngiifolia</i>	thistleleaf aster		X	X			2
<i>Euthamia caroliniana</i>	slender flattop goldenrod	X	X	X	X		4
<i>Fimbristylis puberula</i>	hairy fimbry		X				1
<i>Fuirena pumila</i>	dwarf umbrellasedge			X			1
<i>Fuirena</i> sp.	umbrellasedge			X			1
<i>Galactia minor</i>	leafy milkpea				X		1
<i>Gaylussacia dumosa</i>	dwarf huckleberry		X	X	X		3
<i>Gaylussacia mosieri</i>	woolly huckleberry	X		X		X	3
<i>Gaylussacia tomentosa</i>	blue huckleberry					X	1
<i>Gelsemium sempervirens</i>	yellow jessamine		X			X	2
<i>Geobalanus oblongifolius</i>	gopher apple		X		X		2
<i>Gymnopogon brevifolius</i>	shortleaf skeletongrass		X				1
<i>Hamamelis virginiana</i>	American witchhazel	X					1
<i>Helianthus angustifolius</i>	narrowleaf sunflower		X	X			2
<i>Helianthus radula</i>	stiff sunflower		X		X		2
<i>Hexasepalum teres</i>	poor joe		X		X		2
<i>Hibiscus aculeatus</i>	comfortroot		X		X		2
<i>Hieracium gronovii</i>	queen-devil		X				1
<i>Houstonia procumbens</i>	roundleaf bluet		X	X	X		3
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort			X			1
<i>Hypericum cistifolium</i>	roundpod St. John's wort	X		X			2
<i>Hypericum crux-andreae</i>	St. Peter's wort	X	X	X			3
<i>Hypericum fasciculatum</i>	peelbark St. John's wort	X		X		X	3
<i>Hypericum gentianoides</i>	orangegrass		X		X		2
<i>Hypericum hypericoides</i>	St. Andrew's cross		X		X	X	3
<i>Hypericum</i> sp.	St. John's wort			X			1
<i>Hypericum tetrapetalum</i>	fourpetal St. John's wort		X	X			2
<i>Ilex coriacea</i>	large gallberry	X	X	X	X	X	5
<i>Ilex glabra</i>	gallberry		X	X	X		3
<i>Ilex myrtifolia</i>	myrtle-leaved holly			X			1
<i>Ilex opaca</i>	American holly					X	1
<i>Ilex vomitoria</i>	yaupon		X	X	X	X	4
<i>Iva frutescens</i> var. <i>frutescens</i>	marshelder				X		1
<i>Juncus scirpoides</i>	needlepod rush			X			1
<i>Juncus trigonocarpus</i>	redpod rush	X		X			2
<i>Kelloggloha verrucosa</i>	warty panicgrass	X	X	X		X	4
<i>Lachnanthes caroliniana</i>	Carolina redroot			X			1
<i>Lachnocaulon anceps</i>	whitehead bogbutton		X	X			2
<i>Lachnocaulon beyrichianum</i>	Southern bogbutton				X		1
<i>Lechea sessiliflora</i>	pineland pinweed				X		1
<i>Lespedeza angustifolia</i>	narrowleaf lespedeza		X				1
<i>Lespedeza hirta</i> var. <i>curtissii</i>	hairy lespedeza				X		1
<i>Lespedeza hirta</i> var. <i>hirta</i>	hairy lespedeza		X				1

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<i>Leucothoe axillaris</i>	coastal doghobble					X	1
<i>Liatris elegans</i>	pinkscale gayfeather		X		X		2
<i>Liatris gracilis</i>	slender gayfeather				X		1
<i>Liatris resinosa</i>	dense gayfeather		X	X			2
<i>Liatris secunda</i>	Piedmont gayfeather				X		1
<i>Liatris</i> sp.	blazing star				X		1
<i>Liatris tenuifolia</i>	shortleaf gayfeather				X		1
<i>Lilium catesbyi</i>	pine lily			X			1
<i>Lobelia brevifolia</i>	shortleaf lobelia		X	X			2
<i>Lobelia</i> sp.	lobelia			X			1
<i>Lophiola aurea</i>	golden crest			X			1
<i>Lorinseria areolata</i>	netted chain fern	X				X	2
<i>Ludwigia linifolia</i>	Southeastern primrosewillow			X			1
<i>Ludwigia maritima</i>	seaside primrosewillow		X				1
<i>Ludwigia</i> sp.	primrosewillow		X				1
<i>Ludwigia virgata</i>	savannah primrosewillow		X				1
<i>Lupinus</i> sp.	lupine				X		1
<i>Lycopodiella alopecuroides</i>	foxtail club-moss		X	X			2
<i>Lycopus rubellus</i>	taperleaf waterhorehound	X					1
<i>Lyonia lucida</i>	fetterbush	X				X	2
<i>Magnolia grandiflora</i>	Southern magnolia		X	X			2
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	X	X	X		X	4
<i>Mimosa microphylla</i>	sensitive briar				X		1
<i>Mitchella repens</i>	partridgeberry					X	1
<i>Mitreola sessilifolia</i>	swamp hornpod		X				1
<i>Morella caroliniensis</i>	evergreen bayberry	X		X		X	3
<i>Morella inodora</i>	odorless bayberry	X					1
<i>Morella pumila</i>	dwarf bayberry		X				1
<i>Muhlenbergia expansa</i>	cutover muhly		X				1
<i>Muscadinia rotundifolia</i>	muscadine	X	X	X	X	X	5
<i>Nyssa biflora</i>	swamp tupelo	X		X		X	2
<i>Nyssa sylvatica</i>	blackgum					X	1
<i>Oenothera simulans</i>	Southern beeblossom				X		1
<i>Opuntia mesacantha</i> ssp. <i>lata</i>	pricklypear		X	X	X		3
<i>Osmunda spectabilis</i>	royal fern	X		X		X	3
<i>Osmundastrum cinnamomeum</i>	cinnamon fern	X	X	X		X	4
<i>Palhinhaea cernua</i>	nodding club-moss	X					1
<i>Panicum virgatum</i>	switchgrass		X	X	X		3
<i>Paronychia patula</i>	pineland nailwort				X		1
<i>Paspalum conjugatum</i>	sour paspalum				X		1
<i>Paspalum setaceum</i>	thin paspalum				X		1
<i>Paspalum</i> sp.	crowgrass				X		1
<i>Passiflora incarnata</i>	purple passion-flower		X				1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Pedimelum canescens</i>	buckroot				X		1
<i>Peltandra sagittifolia</i>	spoon-flower			X			1
<i>Pinus clausa</i>	sand pine				X		1
<i>Pinus elliotii</i>	slash pine	X	X	X		X	4
<i>Pinus palustris</i>	longleaf pine		X	X	X		3
<i>Pinus serotina</i>	pond pine			X			1
<i>Pinus taeda</i>	loblolly pine					X	1
<i>Pityopsis aspera</i> var. <i>adenolepis</i>	pineland silkgrass		X		X		2
<i>Pityopsis graminifolia</i>	narrowleaf silkgrass				X		1
<i>Pityopsis nervosa</i>	silkgrass				X		1
<i>Pluchea baccharis</i>	rosy camphorweed			X			1
<i>Polygala incarnata</i>	procession flower		X		X		2
<i>Polygala nana</i>	candyroot		X		X		2
<i>Polygala polygama</i>	racemed milkwort				X		1
<i>Polygala</i> sp.	milkwort			X			1
<i>Polygonella gracilis</i>	tall jointweed				X		1
<i>Pseudocyclopodia caroliniana</i>	slender club-moss			X			1
<i>Pteridium pseudocaudatum</i>	tailed bracken		X	X	X	X	4
<i>Pterocaulon pycnostachyum</i>	blackroot			X	X		2
<i>Quercus elliotii</i>	runner oak		X				1
<i>Quercus geminata</i>	sand live oak		X	X	X		3
<i>Quercus hemisphaerica</i>	laurel oak				X		1
<i>Quercus incana</i>	bluejack oak				X		1
<i>Quercus laevis</i>	turkey oak				X		1
<i>Quercus margaretae</i>	sand post oak				X		1
<i>Quercus minima</i>	dwarf live oak				X		1
<i>Quercus myrtifolia</i>	myrtle oak				X		1
<i>Quercus nigra</i>	water oak		X	X	X	X	4
<i>Rhexia alifanus</i>	savannah meadowbeauty		X	X			2
<i>Rhexia mariana</i> var. <i>mariana</i>	pale meadowbeauty		X				1
<i>Rhexia petiolata</i>	fringed meadowbeauty	X		X			2
<i>Rhexia</i> sp.	meadowbeauty		X	X			2
<i>Rhododendron serrulatum</i>	swamp azalea	X					1
<i>Rhododendron</i> sp.	azalea					X	1
<i>Rhus copallinum</i> var. <i>copallinum</i>	winged sumac	X	X	X	X		4
<i>Rhynchosia cytisoides</i>	royal snoutbean				X		1
<i>Rhynchosia michauxii</i>	Michaux's snoutbean				X		1
<i>Rhynchosia reniformis</i>	dollarleaf				X		1
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge			X			1
<i>Rhynchospora chalarocephala</i>	loosehead beaksedge			X			1
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	X	X	X			3
<i>Rhynchospora ciliaris</i>	fringed beaksedge	X		X			2
<i>Rhynchospora gracilentia</i>	slender beaksedge			X			1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Rhynchospora grayi</i>	Gray's beaksedge		X		X		2
<i>Rhynchospora leptocarpa</i>	brownish beaksedge					X	1
<i>Rhynchospora megalocarpa</i>	sandyfield beaksedge					X	1
<i>Rhynchospora nitens</i>	shortbeak beaksedge	X					1
<i>Rhynchospora plumosa</i>	plumed beaksedge		X	X			2
<i>Rhynchospora</i> sp.	beaksedge			X			1
<i>Rubus cuneifolius</i>	sand blackberry				X		1
<i>Rubus pensilvanicus</i>	sawtooth blackberry	X	X	X			3
<i>Rubus trivialis</i>	Southern dewberry			X			1
<i>Sabatia brevifolia</i>	shortleaf rosegentian		X	X			2
<i>Sabatia macrophylla</i>	largeleaf rosegentian			X			1
<i>Salvia azurea</i> var. <i>azurea</i>	azure blue sage		X				1
* <i>Sarracenia leucophylla</i>	white-top pitcherplant			X			1
* <i>Sarracenia psittacina</i>	parrot pitcherplant			X			1
* <i>Sarracenia rosea</i>	Gulf purple pitcherplant			X			1
<i>Schizachyrium hirtiflorum</i>	crimson bluestem				X		1
<i>Schizachyrium stoloniferum</i>	creeping little bluestem		X		X		2
<i>Schizachyrium tenerum</i>	slender bluestem		X		X		2
<i>Schoenoplectus etuberculatus</i>	Canby's bulrush					X	1
<i>Scleria ciliata</i>	fringed nutrush		X	X			2
<i>Scleria ciliata</i> var. <i>ciliata</i>	hairy nutrush			X			1
<i>Scleria reticularis</i>	netted nutrush			X			1
<i>Scleria</i> sp.	nutrush				X		1
<i>Scleria triglomerata</i>	whip nutrush					X	1
<i>Serenoa repens</i>	saw palmetto	X	X	X	X	X	5
<i>Sericocarpus tortifolius</i>	whitetop aster		X	X	X		3
<i>Seymeria cassioides</i>	yaupon blacksenna		X	X	X		3
<i>Seymeria pectinata</i>	Piedmont blacksenna			X	X		2
<i>Smilax auriculata</i>	earleaf greenbriar		X		X		2
<i>Smilax bona-nox</i>	saw greenbriar				X	X	2
<i>Smilax glauca</i>	cat greenbriar	X	X	X	X	X	5
<i>Smilax laurifolia</i>	laurel greenbriar	X	X	X		X	4
<i>Smilax pumila</i>	sarsaparilla vine		X	X			2
<i>Solidago fistulosa</i>	pinebarren goldenrod	X	X	X			3
<i>Solidago odora</i>	sweet goldenrod		X	X	X		3
<i>Solidago</i> sp.	goldenrod			X			1
<i>Sorghastrum nutans</i>	yellow indiagrass		X				1
<i>Sorghastrum secundum</i>	lopsided indiagrass				X		1
<i>Sphagnum</i> sp.	sphagnum moss	X		X		X	3
<i>Sporobolus junceus</i>	pinewoods dropseed		X		X		2
<i>Stenanthium</i> sp.	featherbells			X			1
<i>Stillingia sylvatica</i>	queen's delight		X				1
<i>Stylisha patens</i>	coastalplain dawnflower				X		1

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
<i>Stylisma</i> sp.	dawnflower				X		1
<i>Styrax grandifolius</i>	bigleaf snowbell					X	1
<i>Symphotrichum adnatum</i>	scaleleaf aster		X				1
<i>Symphotrichum concolor</i> var. <i>concolor</i>	Eastern silver aster		X				1
<i>Symphotrichum concolor</i> var. <i>devestitum</i>	Gulf Coast silver aster				X		1
<i>Symphotrichum dumosum</i> var. <i>dumosum</i>	long-stalked aster	X	X		X		3
<i>Symphotrichum dumosum</i> var. <i>gracilipes</i>	long-stalked aster				X		1
<i>Syngonanthus flavidulus</i>	yellow hatpins			X			1
<i>Tamala palustris</i>	swamp bay		X			X	2
<i>Taxodium ascendens</i>	pond cypress					X	1
<i>Tephrosia chrysophylla</i>	scurf hoary-pea				X		1
<i>Tephrosia florida</i>	Florida hoary-pea				X		1
<i>Tephrosia spicata</i>	spiked hoary-pea		X				1
<i>Tephrosia virginiana</i>	goat's rue		X		X		2
<i>Tiedemannia filiformis</i> ssp. <i>filiformis</i>	water cowbane			X			1
<i>Toxicodendron radicans</i> var. <i>radicans</i>	Eastern poison ivy	X	X				2
<i>Tragia smallii</i>	Small's noseburn		X		X		2
<i>Tragia urens</i>	wavyleaf noseburn		X		X		2
<i>Trichostema dichotomum</i>	forked bluecurls				X		1
<i>Trichostema setaceum</i>	narrowleaf bluecurls		X				1
<i>Trilisa odoratissima</i>	vanillaleaf		X			X	2
<i>Triplasis americana</i>	perennial sandgrass				X		1
<i>Utricularia juncea</i>	Southern bladderwort			X			1
<i>Utricularia</i> sp.	bladderwort			X			1
<i>Vaccinium arboreum</i>	sparkleberry		X		X		2
<i>Vaccinium elliotii</i>	Elliott's blueberry		X		X	X	3
<i>Vaccinium fuscatum</i>	hairy highbush blueberry					X	1
<i>Vaccinium myrsinites</i>	shiny blueberry		X	X	X		3
<i>Vernonia angustifolia</i> var. <i>mohrii</i>	tall ironweed		X				1
<i>Viburnum nudum</i>	possumhaw					X	1
<i>Viola palmata</i> var. <i>palmata</i>	early blue violet		X				1
<i>Viola primulifolia</i>	primroseleaf violet		X	X			2
<i>Viola</i> sp.	violet					X	1
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	X		X			2
<i>Xyris baldwiniana</i>	Baldwin's yellow-eyed grass			X			1
<i>Xyris brevifolia</i>	shortleaf yellow-eyed grass			X			1
<i>Xyris caroliniana</i>	Carolina yellow-eyed grass	X	X	X	X	X	5
<i>Xyris elliotii</i>	Elliott's yellow-eyed grass	X		X			2
<i>Xyris fimbriata</i>	fringed yellow-eyed grass	X		X			2
<i>Xyris flabelliformis</i>	savannah 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
<i>Yucca filamentosa</i>	Adam's needle		X		X		2

Scientific Name	Common Name	Bay Swamp	High Pine	Hydric Savanna	Sandhill	Stream Swamp	Grand Total
Total number of taxa: 328		58	141	142	140	61	542

Sandhill

Qualitative sampling. The sandhill natural community has been degraded by past silviculture activities but retains many characteristic species. There was much exposed, bare sand. The diverse but somewhat sparse groundcover was dominated by wiregrass, with Lynn Haven goldenaster and woody goldenrod also frequent. Scattered shrubs included saw palmetto, yaupon, and gallberry. Planted longleaf pines were frequent but nicely spaced, ranging from 1 to 20 feet tall, and a few mature sand pines were mixed in the canopy layer. The subcanopy comprised scattered taller turkey oaks and a few large sand live oaks. The state-listed threatened pineland hoary-pea (*Tephrosia mohrii*), known from both the eastern and far northwestern sections of sandhill, was not recorded this year, but is likely still present. We identified Gulf Coast silver aster, a variety of silver aster tracked by FNAI, in sandhill this year. Pocket gopher mounds were common throughout the area. We found 140 plant taxa in this community (Table 1).

Quantitative sampling. The eastern Transect 1 (Figure 3, Table 2) is located on an east-facing slope. It had a total of 43 species with 42% average open ground cover. Species cover was about two thirds herbaceous. Wiregrass had the highest cover of all species on the transect, with saw palmetto and sand live oak also contributing significant cover. Woody species made up around 19% average cover per quadrat. Species diversity and overall vegetation composition along the transect was very similar to that measured in 2023. Fruticose lichens were observed in one quadrat.

The western Transect 2 (Table 3, Figure 4) is situated near the top of a ridge. It had a total of 36 species with 41% average open ground cover. Dominant species were almost entirely herbaceous. Wiregrass was the dominant species by far and cover was increased compared to last year. Woody species made up around 5% average cover per quadrat. Species diversity was slightly higher than last year; this may be attributable to the earlier survey date. Vegetation composition along the transect was very similar to that measured in 2023. Fruticose lichens were observed in one quadrat.

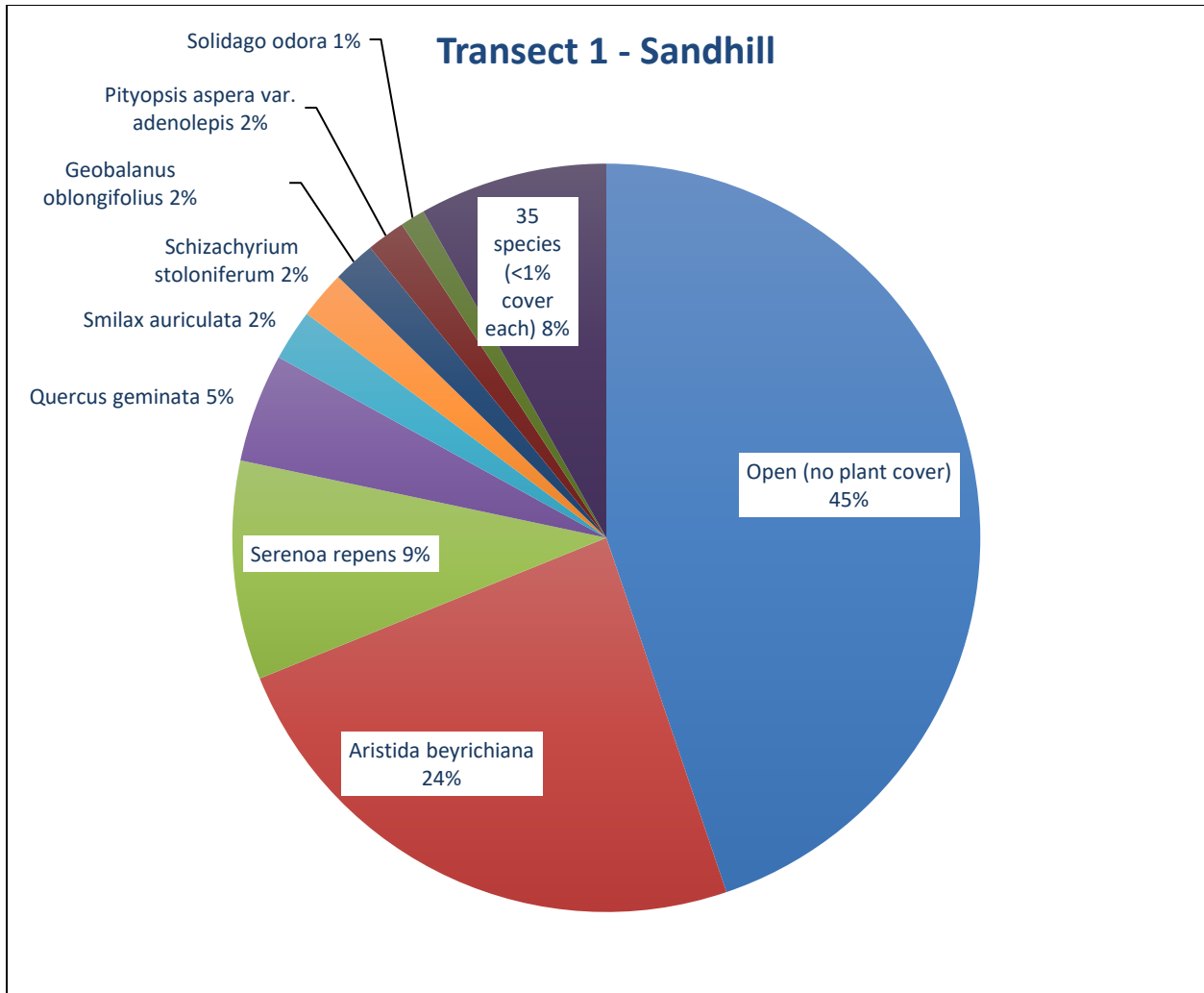


Figure 3. Percent relative cover of plant species in Sandhill Transect 1.

Table 2. Percent cover of plant species in Sandhill Transect 1 sampled on October 17, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Agalinis divaricata</i>	pineland false foxglove	0.07
<i>Andropogon gyrans</i>	Elliott's bluestem	0.23
<i>Andropogon virginicus</i>	broomsedge bluestem	0.13
<i>Aristida beyrichiana</i>	Southern wiregrass	22.57
<i>Balduina angustifolia</i>	coastalplain honeycomb-head	0.03
<i>Bulbostylis ciliatifolia</i>	capillary hairsedge	0.17
<i>Chrysoma pauciflosculosa</i>	woody goldenrod	0.23
<i>Chrysopsis lanuginosa</i>	Lynn Haven goldenaster	0.23
<i>Dichanthelium aciculare</i>	needleleaf witchgrass	0.80
<i>Dichanthelium filirumum</i>	hairy needle-leaved witchgrass	0.63
<i>Dichanthelium sp.</i>	witchgrass	0.43
<i>Eragrostis elliotii</i>	Elliott's lovegrass	0.20

Scientific name	Common name	Average percent cover per quadrat
<i>Eriogonum tomentosum</i>	dogtongue wild buckwheat	0.03
<i>Eupatorium compositifolium</i>	yankeeweed	0.13
<i>Euphorbia discoidalis</i>	summer spurge	0.07
<i>Geobalanus oblongifolius</i>	gopher apple	1.73
<i>Houstonia procumbens</i>	roundleaf bluet	0.10
<i>Hypericum gentianoides</i>	orangegrass	0.40
<i>Ilex vomitoria</i>	yaupon	0.23
<i>Lechea sessiliflora</i>	pineland pinweed	0.20
<i>Liatris secunda</i>	Piedmont gayfeather	0.13
<i>Liatris</i> sp.	gayfeather	0.07
<i>Liatris tenuifolia</i>	shortleaf gayfeather	0.03
<i>Mimosa microphylla</i>	sensitive brier	0.17
<i>Panicum virgatum</i>	switchgrass	0.17
<i>Paspalum setaceum</i>	thin paspalum	0.03
<i>Paspalum</i> sp.	paspalum	0.07
<i>Pinus palustris</i>	longleaf pine	0.10
<i>Pityopsis aspera</i> var. <i>adenolepis</i>	pineland silkgrass	1.57
<i>Polygonella gracilis</i>	tall jointweed	0.10
<i>Quercus geminata</i>	sand live oak	4.40
<i>Quercus hemisphaerica</i>	laurel oak	0.10
<i>Quercus minima</i>	dwarf live oak	0.73
<i>Rhus copallinum</i> var. <i>copallinum</i>	winged sumac	0.67
<i>Rubus cuneifolius</i>	sand blackberry	0.10
<i>Schizachyrium hirtiflorum</i>	crimson bluestem	0.10
<i>Schizachyrium stoloniferum</i>	creeping little bluestem	1.93
<i>Schizachyrium tenerum</i>	slender bluestem	0.67
<i>Scleria</i> sp.	nutrush	0.03
<i>Serenoa repens</i>	saw palmetto	8.87
<i>Smilax auriculata</i>	earleaf greenbrier	2.07
<i>Solidago odora</i>	sweet goldenrod	1.00
<i>Stylisma patens</i>	coastalplain dawnflower	0.03
Open (no plant cover)		42.00

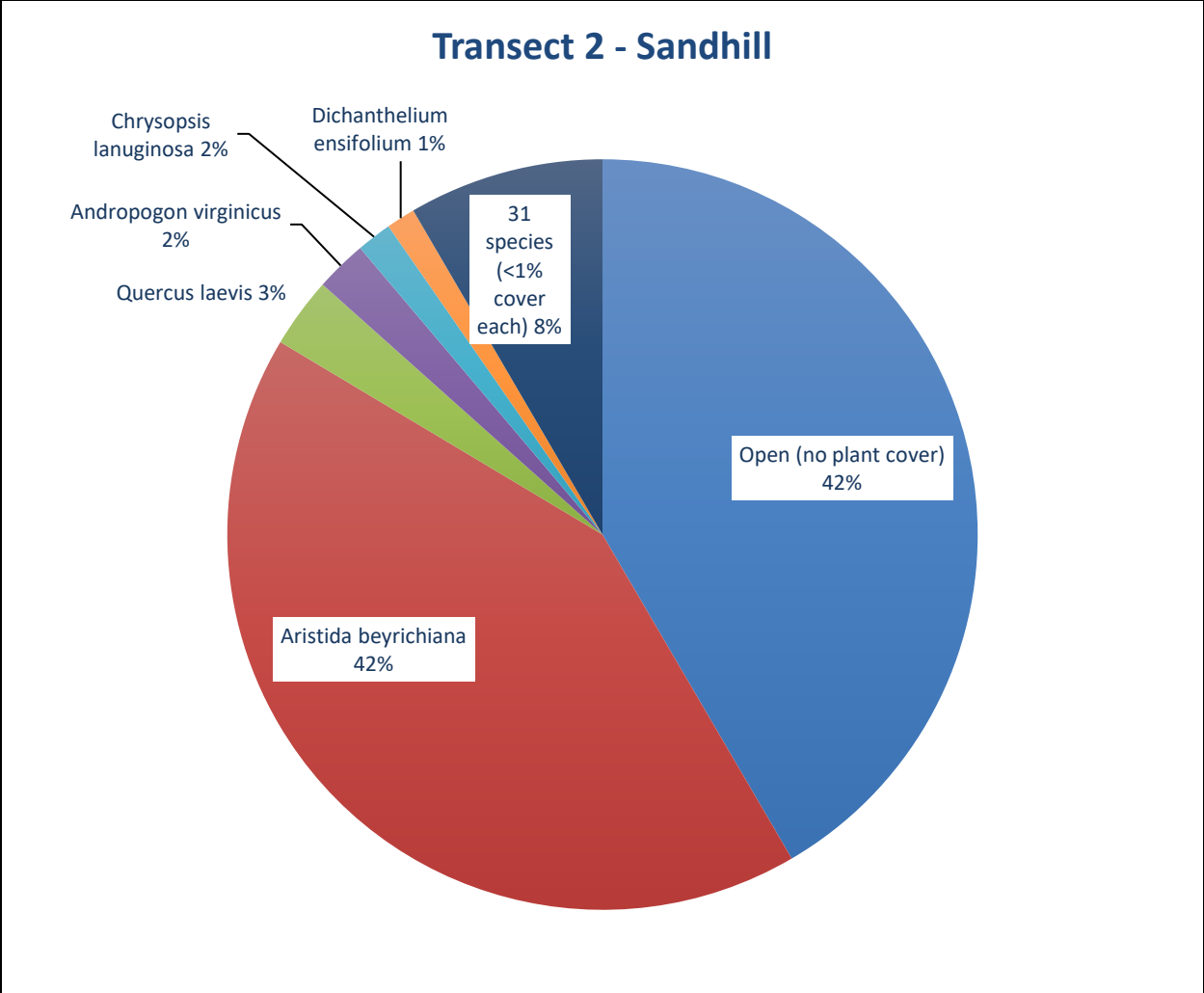


Figure 4. Percent relative cover of plant species in Sandhill Transect 2.

Table 3. Percent cover of plant species in Sandhill Transect 2 sampled on October 16, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Andropogon gyrans</i>	Elliott's bluestem	0.47
<i>Andropogon virginicus</i>	broomsedge bluestem	2.20
<i>Aristida beyrichiana</i>	Southern wiregrass	41.57
<i>Aristida purpurascens</i>	arrowfeather threeawn	0.10
<i>Balduina angustifolia</i>	coastalplain honeycomb-head	0.27
<i>Bulbostylis ciliatifolia</i>	capillary hairsedge	0.17
<i>Chrysoma pauciflosculosa</i>	woody goldenrod	0.67
<i>Chrysopsis lanuginosa</i>	Lynn Haven goldenaster	1.50
<i>Cnidocolus stimulosus</i>	tread softly	0.03
<i>Croton argyranthemus</i>	silver croton	0.23
<i>Dalea pinnata</i>	summer farewell	0.23
<i>Dichanthelium aciculare</i>	needleleaf witchgrass	0.40
<i>Dichanthelium angustifolium</i>	narrowleaf witchgrass	0.03

Scientific name	Common name	Average percent cover per quadrat
<i>Dichanthelium ensifolium</i>	small-leaved witchgrass	1.23
<i>Dichanthelium portoricense</i>	Puerto Rican witchgrass	0.10
<i>Dichanthelium strigosum</i>	roughhair witchgrass	0.87
<i>Dichanthelium tenue</i>	white-edged witchgrass	0.03
<i>Erigeron canadensis</i>	Canadian horseweed	0.03
<i>Eriogonum tomentosum</i>	dogtongue wild buckwheat	0.17
<i>Eupatorium capillifolium</i>	dogfennel	0.10
<i>Galactia minor</i>	leafy milkpea	0.47
<i>Geobalanus oblongifolius</i>	gopher apple	0.23
<i>Hypericum gentianoides</i>	orangegrass	0.67
<i>Lechea sessiliflora</i>	pineland pinweed	0.20
<i>Liatris gracilis</i>	slender gayfeather	0.03
<i>Liatris secunda</i>	Piedmont gayfeather	0.30
<i>Mimosa microphylla</i>	sensitive brier	0.23
<i>Pinus palustris</i>	longleaf pine	0.50
<i>Polygonella gracilis</i>	tall jointweed	0.13
<i>Quercus laevis</i>	turkey oak	3.00
<i>Rhynchosia cytisoides</i>	royal snoutbean	0.10
<i>Rubus cuneifolius</i>	sand blackberry	0.13
<i>Schizachyrium stoloniferum</i>	creeping little bluestem	0.73
<i>Smilax auriculata</i>	earleaf greenbrier	0.57
<i>Solidago odora</i>	sweet goldenrod	0.03
<i>Tephrosia chrysophylla</i>	scurf hoary-pea	0.10
Open (no plant cover)		41.17

Hydric Savanna

Qualitative sampling. The restoration of the fire-suppressed hydric savanna was begun in 2010 by mowing down the dense shrubs with a Gyro-Trac machine. Follow-up prescribed burning further reduced the shrub strata. As a result, much of the ground was bare or sparsely vegetated and there was some disturbance by vehicle tracks in the two sampling periods prior to 2014. Fires and hog rooting have created continual shifts in the herbaceous vegetation, primarily in the lowest, wettest portions of the community. Herb cover was often dense with a wide variety of herbs observed colonizing the area. Beaksedges and warty panicum dominated in the wetter sections and wiregrass in the drier parts, although purple bluestem remained a dominant in the driest areas in the vicinity of Transect 2. Scattered shrubs included black titi, large gallberry, sweet pepperbush, and gallberry. Some portions had a young canopy of slash pine, while many were treeless. We found three state-listed species of pitcherplants, as well as the state-listed threatened pinewoods bluestem, all of which have been detected in prior surveys. The ground was saturated to inundated in the lowest areas during the 2024 sampling, and localized but extensive hog digging was noted on hillside seeps. We identified 142 plant taxa in this community (Table 1).

Quantitative sampling. The eastern Transect 1 (Table 4, Figure 5) is on a south-facing slope and had a total of 68 species with 8% average open ground cover. Herbaceous species made up most of the transect cover, and wiregrass cover was similar to the 2023 sample. The southern end of the transect

has been heavily damaged from hog rooting in the past, but herb cover is increasing on the formerly disturbed soil. Woody species made up around 3% average cover per quadrat, unchanged from last year. Species diversity was higher than last year; this may be attributable to the earlier survey date. Cover of woolly witchgrass increased, but otherwise vegetation composition and cover were similar to the 2023 sample.

The western Transect 2 (Table 5, Figure 6) is also on a south facing slope. It had a total of 67 species with 23% average open ground cover. The drier north end had abundant purple bluestem and wiregrass and was shaded by pond pine, while the wetter and more open south end was more disturbed from hog rooting and largely dominated by beaksedges. Wiregrass cover is increased from last year. Woody species made up around 10% average cover per quadrat, an increase from last year driven by multiple species but mostly yaupon and cat greenbrier. Species diversity was higher than last year; this may be attributable to the earlier survey date. Otherwise, vegetation composition and cover were similar to the 2023 sample.

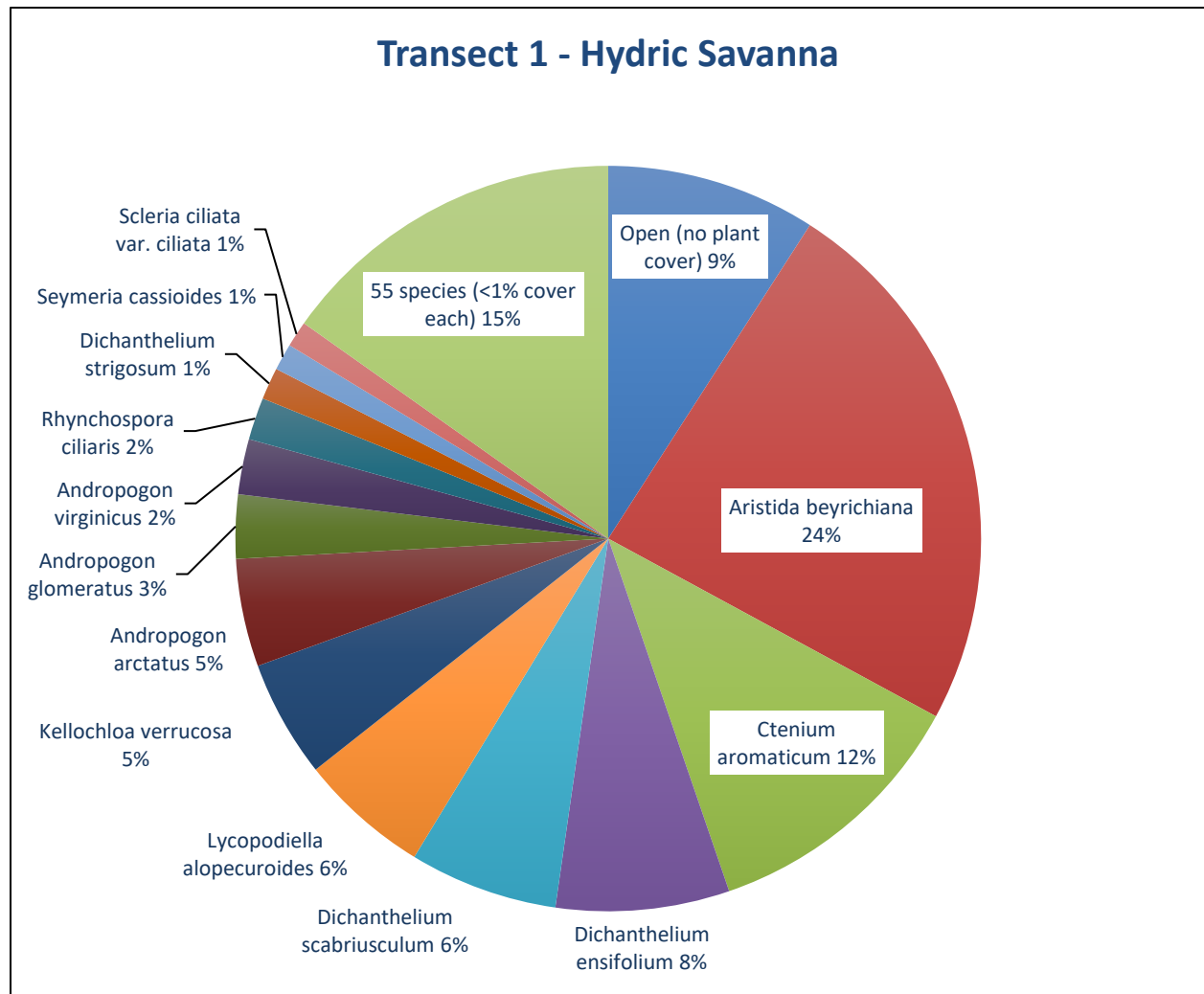


Figure 5. Percent relative cover of plant species in Hydric Savanna Transect 1.

Table 4. Percent cover of plant species in Hydric Savanna Transect 1 sampled on October 17, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Aletris lutea</i>	yellow colic-root	0.83
<i>Andropogon arctatus</i>	pinewoods bluestem	4.17
<i>Andropogon glomeratus</i>	bushy bluestem	2.47
<i>Andropogon</i> sp.	bluestem	0.07
<i>Andropogon virginicus</i>	broomsedge bluestem	2.13
<i>Aristida beyrichiana</i>	Southern wiregrass	21.20
<i>Arundinaria gigantea</i>	switchcane	0.03
<i>Bigelovia nudata</i>	pineland rayless goldenrod	0.20
<i>Burmannia capitata</i>	southern bluethread	0.13
<i>Centella erecta</i>	spadeleaf	0.47
<i>Cliftonia monophylla</i>	black titi	0.23
<i>Coreopsis linifolia</i>	Texas tickseed	0.03
<i>Ctenium aromaticum</i>	toothache grass	10.53
<i>Dichantherium ensifolium</i>	small-leaved witchgrass	6.70
<i>Dichantherium scabriusculum</i>	woolly witchgrass	5.73
<i>Dichantherium strigosum</i>	roughhair witchgrass	1.23
<i>Diodia virginiana</i>	Virginia buttonweed	0.60
<i>Drosera capillaris</i>	pink sundew	0.20
<i>Edrastima uniflora</i>	oldenlandia	0.03
<i>Erigeron vernus</i>	early whitetop fleabane	0.37
<i>Eriocaulon decangulare</i>	tenangle pipewort	0.03
<i>Eupatorium pilosum</i>	rough boneset	0.30
<i>Eupatorium rotundifolium</i>	roundleaf thoroughwort	0.23
<i>Eurybia eryngiifolia</i>	thistleleaf aster	0.03
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.23
<i>Fuirena</i> sp.	umbrellasedge	0.23
<i>Gaylussacia mosieri</i>	woolly huckleberry	0.50
<i>Helianthus angustifolius</i>	narrowleaf sunflower	0.67
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	0.40
<i>Hypericum cistifolium</i>	roundpod St. John's wort	0.03
<i>Hypericum crux-andreae</i>	St. Peter's wort	0.13
<i>Hypericum</i> sp.	St. John's wort	0.07
<i>Ilex coriacea</i>	large gallberry	0.23
<i>Ilex glabra</i>	gallberry	0.10
<i>Juncus trigonocarpus</i>	redpod rush	0.13
<i>Kelochloa verrucosa</i>	warty panicgrass	4.53
<i>Lachnocaulon anceps</i>	whitehead bogbutton	0.03
<i>Liatris resinosa</i>	dense gayfeather	0.10
<i>Lophiola aurea</i>	golden crest	0.10
<i>Lycopodiella alopecuroides</i>	foxtail club-moss	5.03
<i>Pinus palustris</i>	longleaf pine	0.10
<i>Pluchea baccharis</i>	rosy camphorweed	0.03
<i>Polygala</i> sp.	milkwort	0.03
<i>Pseudolycopodiella caroliniana</i>	slender club-moss	0.10
<i>Rhexia alifanus</i>	savannah meadowbeauty	0.07
<i>Rhexia petiolata</i>	fringed meadowbeauty	0.73

Scientific name	Common name	Average percent cover per quadrat
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	0.23
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	0.93
<i>Rhynchospora ciliaris</i>	fringed beaksedge	1.63
<i>Rhynchospora gracilentata</i>	slender beaksedge	0.80
<i>Rhynchospora plumosa</i>	plumed beaksedge	0.07
<i>Rhynchospora</i> sp.	beaksedge	0.10
<i>Rubus pensilvanicus</i>	sawtooth blackberry	0.50
<i>Rubus trivialis</i>	southern dewberry	0.23
<i>Sabatia brevifolia</i>	shortleaf rosegentian	0.03
<i>Scleria ciliata</i> var. <i>ciliata</i>	hairy nutrush	1.00
<i>Scleria reticularis</i>	netted nutrush	0.30
<i>Seymeria cassioides</i>	yaupon blacksenna	1.03
<i>Seymeria pectinata</i>	Piedmont blacksenna	0.10
<i>Smilax glauca</i>	cat greenbrier	0.53
<i>Smilax laurifolia</i>	laurel greenbrier	0.03
<i>Sphagnum</i> sp.	sphagnum moss	0.47
<i>Tiedemannia filiformis</i> ssp. <i>filiformis</i>	water cowbane	0.50
<i>Viola primulifolia</i>	primroseleaf violet	0.03
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	0.60
<i>Xyris baldwiniana</i>	Baldwin's yellow-eyed grass	0.07
<i>Xyris caroliniana</i>	Carolina yellow-eyed grass	0.10
<i>Xyris</i> sp.	yellow-eyed grass	0.07
Open (no plant cover)		8.10

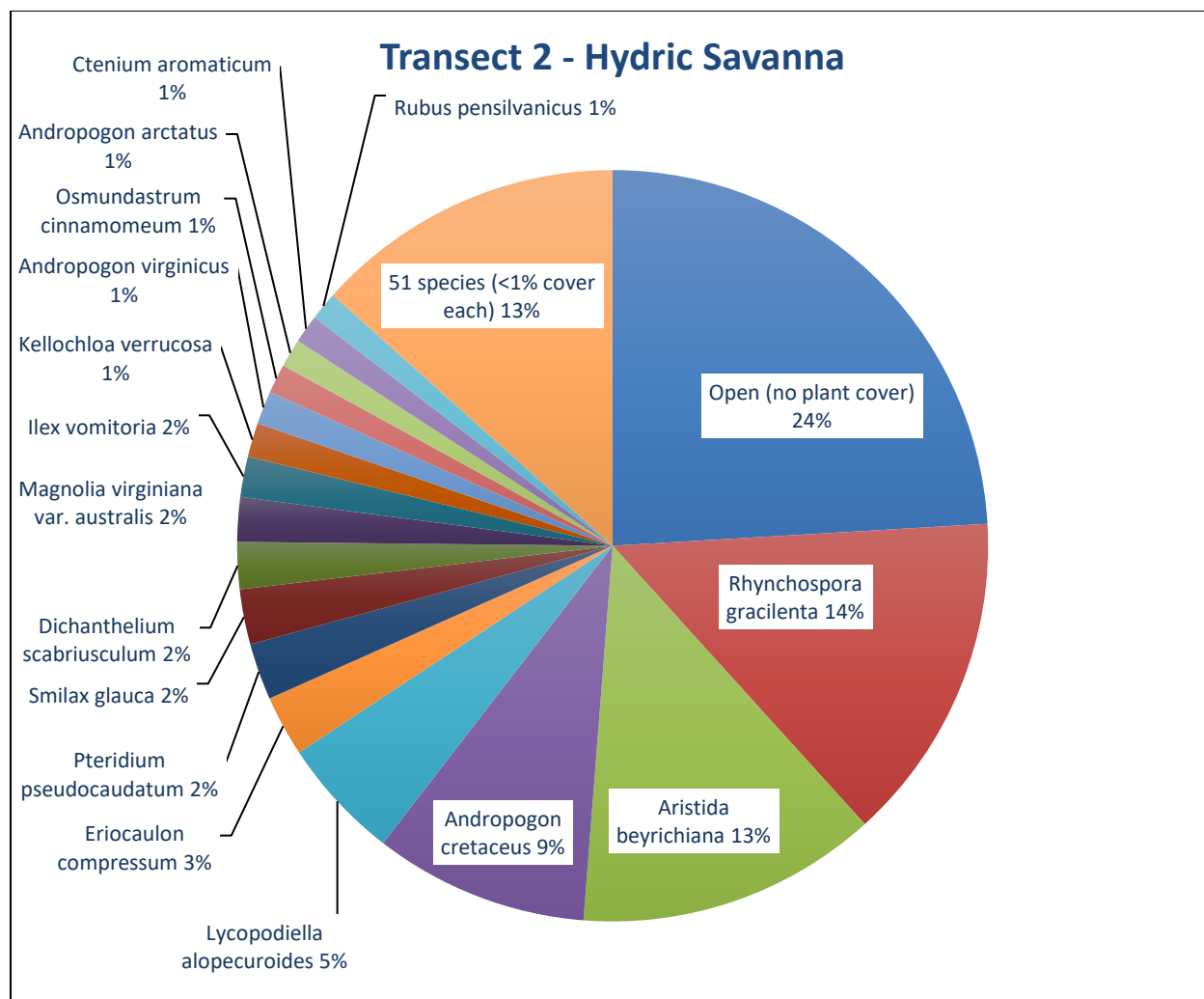


Figure 6. Percent relative cover of plant species in Hydric Savanna Transect 2.

Table 5. Percent cover of plant species in Hydric Savanna Transect 2 sampled on October 17, 2024.

Scientific name	Common name	Average percent cover per quadrat
<i>Andropogon arctatus</i>	pinewoods bluestem	1.17
<i>Andropogon cretaceus</i>	purple bluestem	8.83
<i>Andropogon glomeratus</i>	bushy bluestem	0.57
<i>Andropogon virginicus</i>	broomsedge bluestem	1.37
<i>Aristida beyrichiana</i>	Southern wiregrass	12.40
<i>Bidens mitis</i>	smallfruit beggarticks	0.10
<i>Bulbostylis ciliatifolia</i>	capillary hairsedge	0.03
<i>Burmannia capitata</i>	southern bluethread	0.03
<i>Centella erecta</i>	spadeleaf	0.60
<i>Chrysopsis lanuginosa</i>	Lynn Haven goldenaster	0.03
<i>Clethra alnifolia</i>	sweet pepperbush	0.57
<i>Coleataenia longifolia</i>	ciliate redtop panicum	0.03
<i>Ctenium aromaticum</i>	toothache grass	1.17

Scientific name	Common name	Average percent cover per quadrat
<i>Dichanthelium ensifolium</i>	small-leaved witchgrass	0.47
<i>Dichanthelium leucothrix</i>	rough witchgrass	0.23
<i>Dichanthelium scabriusculum</i>	woolly witchgrass	1.93
<i>Dichanthelium</i> sp.	witchgrass	0.17
<i>Dichanthelium strigosum</i>	roughhair witchgrass	0.97
<i>Drosera capillaris</i>	pink sundew	0.20
<i>Edrastima uniflora</i>	oldenlandia	0.07
<i>Eriocaulon compressum</i>	flattened pipewort	2.50
<i>Eriocaulon decangulare</i>	tenangle pipewort	0.10
<i>Eupatorium compositifolium</i>	yankeeweed	0.23
<i>Eupatorium mohrii</i>	Mohr's thoroughwort	0.03
<i>Eupatorium pilosum</i>	rough boneset	0.13
<i>Euthamia caroliniana</i>	slender flattop goldenrod	0.37
<i>Fuirena pumila</i>	dwarf umbrellasedge	0.03
<i>Gaylussacia mosieri</i>	woolly huckleberry	0.13
<i>Hypericum crux-andreae</i>	St. Peter's wort	0.30
<i>Hypericum fasciculatum</i>	peelbark St. John's wort	0.33
<i>Ilex coriacea</i>	large gallberry	0.03
<i>Ilex glabra</i>	gallberry	0.03
<i>Ilex vomitoria</i>	yaupon	1.67
<i>Juncus trigonocarpus</i>	redpod rush	0.47
<i>Kelochloa verrucosa</i>	warty panicgrass	1.40
<i>Lobelia</i> sp.	lobelia	0.03
<i>Ludwigia linifolia</i>	southeastern primrosewillow	0.03
<i>Lycopodiella alopecuroides</i>	foxtail club-moss	5.03
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	1.83
<i>Nyssa biflora</i>	swamp tupelo	0.03
<i>Osmundastrum cinnamomeum</i>	cinnamon fern	1.20
<i>Pinus elliotii</i>	slash pine	0.60
<i>Pinus serotina</i>	pond pine	0.23
<i>Pteridium pseudocaudatum</i>	tailed bracken	2.33
<i>Rhexia alifanus</i>	savannah meadowbeauty	0.03
<i>Rhexia petiolata</i>	fringed meadowbeauty	0.37
<i>Rhexia</i> sp.	meadowbeauty	0.03
<i>Rhynchospora cephalantha</i> var. <i>cephalantha</i>	bunched beaksedge	0.63
<i>Rhynchospora chalarocephala</i>	loosehead beaksedge	0.23
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	0.90
<i>Rhynchospora gracilentia</i>	slender beaksedge	13.60
<i>Rhynchospora</i> sp.	beaksedge	0.10
<i>Rubus pensilvanicus</i>	sawtooth blackberry	1.17
<i>Scleria ciliata</i>	hairy nutrush	0.40
<i>Smilax glauca</i>	cat greenbrier	2.27
<i>Smilax laurifolia</i>	laurel greenbrier	0.93
<i>Solidago fistulosa</i>	pinebarren goldenrod	0.03
<i>Sphagnum</i> sp.	sphagnum moss	0.30
<i>Utricularia juncea</i>	southern bladderwort	0.03
<i>Viola primulifolia</i>	primroseleaf violet	0.03
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	0.50

Scientific name	Common name	Average percent cover per quadrat
<i>Xyris baldwiniana</i>	Baldwin's yellow-eyed grass	0.03
<i>Xyris brevifolia</i>	shortleaf yellow-eyed grass	0.27
<i>Xyris caroliniana</i>	Carolina yellow-eyed grass	0.03
<i>Xyris elliottii</i>	Elliott's 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)		23.03

High Pine

Qualitative sampling. Mature slash pine plantation once covered most of the area being restored to high pine, but pine thinning and prescribed fire have much improved the community from even a few years ago. The canopy was very open with a basal area of around 20 ft² per acre. Shrubs were shorter, and herbs and grasses more prevalent throughout. The low understory was either shrub dominated, usually by yaupon, or an open grassy groundlayer of wiregrass with widely scattered saw palmetto and gallberry, neither of which usually exceeded 5% cover. Nearer the ecotone with hydric savanna and in open, flat areas of the community, many other herbs were found with the wiregrass, including little bluestem, pinkscale gayfeather, narrowleaf silkgrass, sweet goldenrod, scaleleaf aster, and rough boneset. There was little bare soil, with pine litter common, and we noted minor hog rooting. The non-native invasive cogon grass has been found in prior years in high pine but was not recorded this year. We found 141 plant taxa in this community (Table 1).

Bay Swamp

Qualitative sampling. This natural community occurs as a narrow band along the small stream tributaries to Lafayette Creek. The open to dense canopy consisted of sweetbay, slash pine, and swamp tupelo. This canopy was sometimes replaced by a dense, tall layer of black titi and other shrubs. Other frequent shrubs included titi, fetterbush, dahoon holly, and large gallberry. Laurel greenbrier was a common vine. The herb stratum was relatively sparse in more shaded areas with clustered sedge and cinnamon fern seen most frequently. However, cleared areas of bay swamp along road crossings contained many more herb species that tend to be weedy. The narrow bay swamp in the vicinity of Hydric Savanna Transect 2 burned through several years ago and lost most of its canopy. Hog digging was seen particularly along the herbaceous edges. The state-endangered white-top pitcherplant is known from this community but was not seen in 2024. Peruvian primrosewillow, a FISC Category I invasive non-native plant species, has been observed near the road in earlier years, but not seen in the past two surveys. We found 58 plant taxa in this community (Table 1).

Stream Swamp

Qualitative sampling. This relatively undisturbed natural community occurs along the narrow floodplain of Lafayette Creek and its major tributary, Wolf Creek. On the west side of the site, the closed canopy was composed of mature red maple, swamp tupelo, water oak, and sweetbay. Drier areas had blackgum. The often dense shrubs consisted of coastal doghobble, yaupon holly, sweet pepperbush, titi,

black titi, and large gallberry. Sphagnum moss and cinnamon fern made up most of the sparse groundcover. The state-endangered primrose-flowered butterwort was identified in stream swamp in 2023, but this area of the swamp was not sampled in 2024. We found 61 plant taxa in this community (Table 1).