

**RARE PLANT SURVEYS AND DOCUMENTATION ON ALLIGATOR CREEK  
WILDLIFE MANAGEMENT AREA, WHEELER COUNTY, GEORGIA**

**FINAL REPORT**

Submitted to  
Georgia Department of Natural Resources, Natural Heritage Program  
In fulfillment of contract

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## INTRODUCTION

The Georgia Department of Natural Resources Wildlife Resources Division (GA DNR-WRD) is preparing a Strategic Plan for Alligator Creek Wildlife Management Area (ACWMA) in Wheeler County, Georgia. Knowledge about rare species and unique habitats for this area is limited. Although several rare plants are known from the area, detailed information about their current population levels and vigor is lacking. Based upon an initial habitat assessment, it is also believed that the potential for occurrences of other rare plants is high at ACWMA. Whereas the presence of rare species and habitats will influence the management objectives of the Strategic Plan for ACWMA, there is a need to conduct rigorous rare plant surveys there. This will involve visiting historic rare plant sites and conducting surveys in suitable habitats. Thus, the primary objectives of this project are to search for rare plants on ACWMA at historical sites and in suitable habitats, to document any such populations discovered, and to provide data on these populations and on rare habitats to GA DNR-WRD staff. Funding from the federal State Wildlife Grants program, available through the State Lands Survey grant, will be used to conduct this survey (Anonymous 2018).

## OBJECTIVES

As detailed in Anonymous (2018), following are the major objectives of this project.

1. Vascular plant surveys for plants of conservation concern and their habitats on Alligator Creek WMA will be conducted during the summer and fall of 2018.
2. Data on rare plant locations will be communicated to the NCS project administrator throughout the agreement period for incorporation into the Biotics Database and use in developing the Strategic Plan.
3. A final report will be submitted, containing site descriptions, maps, and important botanical discoveries made during the project.

## METHODS

Rare plant surveys were conducted across ACWMA in the summer and fall of 2018 (Figure 1). Locations of confirmed rare species and their habitats were reported to the NCS project administrator throughout the project period to keep staff working on the Strategic Plan up to date on important finds, this included all potential tracked plant species and others thought to be of special interest by the surveyors. The list of priority target species includes, but is not limited to, *Amorpha georgiana*, *Litsea aestivalis*, *Lindera melissifolia*, *Marshallia ramosa*, *Penstemon dissectus*, *Rhexia salicifolia*, *Rhynchospora crinipes*, *Rhynchospora culixa*, *Rhynchospora solitaria*, *Sarracenia flava*, *Sarracenia minor*, and *Sarracenia psittacina* (Krakow 2018). Global Positioning System (GPS) locations and data on each rare plant species found are provided in the final report, based upon the GA DNR-WRD Special Plant Survey Form, i.e., biology (phenology, number of individuals, population area, age structure, vigor), habitat (environmental and associated natural community), identification, threats, as well as conservation, management, or research needs.

Global Positioning System (GPS) data (latitude, longitude) were taken to locate each population or rare plant. GPS data (Datum WGS 84, equivalent to NAD 83) were taken using a Garmin GPSMAP 64s unit. These data were subsequently used to map each population with Google Earth Pro (version 7.3.2.5491,

64-bit). All GPS data provided herein are given as decimal degrees latitude/longitude. Additional data recorded in the field included date of survey, community type, lists of associated species, attributes of topography, evidence of disturbance, observations on management practices, and observations of other rare or unusual species.

PREPARATION OF VOUCHERS. In order to document populations of rare plants and associated species, voucher specimens were prepared from selected populations. All voucher specimens will be deposited in the Valdosta State University Herbarium (VSC).

**Table 1. List of rare plants observed and documented at Alligator Creek Wildlife Management Area during our 2018 survey and in 2016 and 2017; abbreviations from Krakow (2018).**

ACCEPTED TAXON NAME SYNONYM	FEDERAL STATUS	GEORGIA STATUS	GLOBAL/STATE RANK
<i>Agalinis tenella</i> Pennell	NA	NA	G4/S2?
<i>Coleataenia tenera</i> (Beyrich ex Trinius) Soreng <i>Panicum tenerum</i> Beyrich ex Trinius	NA	NA	G4/S1
<i>Elliottia racemosa</i> Muhlenberg ex Elliott	NA	T	G2G3/S2S3
<i>Helanthis tenellum</i> (Martius) Britton <i>Echinodorus tenellus</i> (Martius) Buchenau	NA	NA	G3Q/S2?
<i>Litsea aestivalis</i> (L.) Fernald	NA	R	G3?/S2
<i>Marshallia ramosa</i> Beadle & F.E. Boynton	NA	R	G2G3/S2
<i>Muscadinia rotundifolia</i> (Michaux) Small var. <i>munsoniana</i> (Simpson ex Planch.) Weakley & Gandhi <i>Vitis rotundifolia</i> Michaux var. <i>munsoniana</i> (J.H. Simpson ex Munson) M.O. Moore	NA	NA	G5T4?/S2?
<i>Penstemon dissectum</i> Elliott	NA	R	G2/S2
<i>Sarracenia flava</i> L.	NA	U	G5?/S3S4
<i>Sarracenia minor</i> Walter	NA	U	G4T4/S4

## RESULTS

Working together, Snow and Carter logged nine (9) days of field work during the 2018 survey period: 7/3, 7/13, 7/15, 7/28, 7/29, 8/4, 8/19, 9/9, and 10/8. Additionally, Snow logged 13 days working alone or with herpetologist Dirk Stephenson or Georgia Forestry Commission Community Forester Seth Hawkins. Prior to the 2018 survey period, Snow and Carter worked two partial days at ACWMA: 8/7/2016 and 5/14/2017. Field data for our 2016 and 2017 observations are also included in appendices A, B and C of this report. Fieldbook data for voucher specimens collected by Carter and Snow are provided in Appendix A. In Appendix A, the names of rare plants tracked by DNR and other taxa the PI's found to be of special interest are highlighted in yellow. Data on survey sites, including names of

observers, dates of observations, GPS coordinates, descriptions of habitats, soils, and plant communities, and lists of associated species observed are provided in Appendix B. Rare plants observed during our survey and reported here are listed in Table 1. Based upon the GA DNR-WRD Special Plant Survey Form, element occurrence data on these rare plants are included in Appendix C. Appendix D is Snow's report on *Elliottia racemosa*, including historical data, and Appendix E summarizes data on a State Champion specimen of *Nyssa biflora* located during our survey. Nomenclature generally follows Weakley (2015). GPS and other coordinates cited in this report were mapped using Google Earth Pro, and the mapped locations are available in the attached kmz file.

Following an unverified report of an occurrence of *Fothergilla gardenii* at ACWMA that was made known to us after the closing date for our survey, we made an additional trip to ACWMA on 12/2/2018 to search for this species. However, we did not find evidence of *F. gardenii* in the area it was reported, and we suspect plants of *Hamamelis virginiana* or *Styrax grandifolia*, both very common there, were the source of confusion. Despite our lack of success in detecting *F. gardenii* during this and earlier searches, there is certainly potential for its occurrence and detection at ACWMA along the overgrown ecotones of bayswamps, especially following the use of fire.

#### MANAGEMENT RECOMMENDATIONS

- Increase the use of fire in suitable habitats.
- To restore wetland ecotones, push fires into the edges of isolated wetlands, ponds, bogs, and bayswamps.
- Following control burns, survey restored ecotones for rare biota.
- Avoid use of herbicides even along roadsides where *Cyperus lecontei* occurs.
- Avoid any further site preparation methods that disturb the soil or are detrimental to native ground cover.
- Restore longleaf pine to suitable upland habitat.
- Plant longleaf pine in a ±random pattern, i.e., avoid planting in rows.
- Plant longleaf pine at densities similar to those found in natural stands.
- Negotiate with land owner adjacent to the southeastern portion of the property to purchase a suitable buffer that includes the *Elliottia racemosa* population.
- Remove hog population.
- Do not alter hydrology with plowed firebreaks around periphery of wetlands.
- Provide fire protection around Georgia State Champion *Nyssa biflora* during controlled burns.
- Area of least impact of boat launch on rare *Penstemon dissectus* and *Marshallia ramosa* to be determined only after controlled burn to better delineate extent of these two species.
- Continue to search for additional rare plant species during spring and early summer seasons of 2019, especially to determine population levels and vigor for *Penstemon dissectus* and *Marshallia ramosa* surveyed under less than favorable conditions (i.e., after anthesis) in 2018 and *Coleataenia tenera* and *Helanthisum tenellum* populations that were observed in 2016, but not seen during the 2018 survey.
- Although *Lindera melissifolia* was not found during our survey, given the proximity of well documented populations of this species in depression ponds in sandhills along the Little Ocmulgee River in Wheeler County, one or more undetected populations could be hidden in the badly

overgrown margins of ponds at ACWMA. We recommend future surveys for this and other fire-dependent species (e.g., *Fothergilla gardenii*) after these areas have been burned.

#### REFERENCES CITED

- Anonymous. 2018. Letter of Agreement: Rare Plant Surveys and Documentation on Alligator Creek WMA. Georgia Department of Natural Resources, Wildlife Resources Division, Non-Game Conservation Section, Social Circle, Georgia.
- Krakow, G. A. (ed.). 2018. Georgia rare natural elements data portal. (<http://gakrakow.github.io/>, 16 November 2018). Georgia Department of Natural Resources, Wildlife Resources Division, Social Circle, Georgia.
- Weakley, A.S. 2015. Flora of the southern and mid-Atlantic states. Working draft of 21 May 2015. ([http://www.herbarium.unc.edu/FloraArchives/WeakleyFlora\\_2015-05-29.pdf](http://www.herbarium.unc.edu/FloraArchives/WeakleyFlora_2015-05-29.pdf), 8 July 2017). University of North Carolina, North Carolina Botanical Garden, Chapel Hill, North Carolina.

**Appendix A. Fieldbook Voucher Log: 8/7/2016–10/8/2018**  
**Alligator Creek Wildlife Management Area, Wheeler County, Georgia**

**8/7/2016**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.95216N/82.66232W**

1.87 airmi NE (32.78°) of Lumber City, W of Hwy 19; Alligator Creek Tract

--degraded sandridge, Kershaw sand

with *Quercus laevis*, *Q. margaretta*, *Q. geminata*, *Pinus palustris*, *Vaccinium arboreum*, *Osmanthus americanus*, *Serenoa repens*, *Chrysoma pauciflosculosa*, *Selaginella arenicola*

**22716** [1] Chrysobalanaceae *Licania michauxii* Prance

det. R. Carter

plants forming extensive clones, common

**22717** [1] Asteraceae *Balduina angustifolia* (Pursh) B.L. Rob.

det. R. Carter

plants occasional, heads yellow

**22718** [1] Caryophyllaceae *Stipulicida setacea* Michx.

det. R. Carter

plants occasional, corolla white

**22719** [1] Orobanchaceae *Seymeria pectinata* Pursh

det. R. Carter

plants occasional, corolla yellow

**22720** [2] Cleomaceae *Polanisia tenuifolia* Torr. & A. Gray

det. R. Carter

plants locally common, viscid; flowers white

**Richard Carter** with Frankie Snow

**31.95984N/82.66833W**

2.19 airmi NE (17.35°) of Lumber City, W of Hwy 19; Alligator Creek Tract

--severely cut-over flatwoods with mechanically disturbed, seasonally moist sand along bayhead ecotone

with *Magnolia virginiana*, *Gordonia lasianthus*, *Persea palustris*, *Salix*, *Ilex coriacea*, *I. glabra*, *Myrica cerifera*

**22721** [2] Cyrillaceae *Cliftonia monophylla* (Lam.) Sarg.

det. R. Carter

shrub, 3 m tall, occasional

**22722** [5] Cyperaceae *Cyperus lecontei* Torr. ex Steud.

det. R. Carter

locally abundant

**22723** [2] Juncaceae *Juncus scirpoides* Lam.

det. R. Carter

locally common

**22724** [1] Xyridaceae *Xyris jupicai* Rich.

det. R. Carter

locally common

**22725** [1] Xyridaceae *Xyris jupicai* Rich.

det. R. Carter

locally common

**22726** [1] Onagraceae *Ludwigia suffruticosa* Walter

det. R. Carter

locally common

**22727** [1] Cyperaceae *Bulbostylis ciliatifolia* (Ell.) Fern. var. *ciliatifolia*

det. R. Carter

occasional

**22728** [1] Cyperaceae *Cyperus polystachyos* Rottb.

det. R. Carter

locally abundant

**22729** [2] Cyperaceae *Fuirena squarrosa* Michx.

det. R. Carter

occasional, cespitose

**Richard Carter** with Frankie Snow

**31.96575N/82.68407W**

2.52 airmi N (354.03°) of Lumber City, W of Hwy 19; Alligator Creek Tract

--severely cut-over flatwoods with mechanically disturbed soil, ecotone between sandridge and seasonally wet flat

with *Aristida stricta*, *Sporobolus curtissii*, *Lyonia mariana*, *Rhexia alifanus*, *R. mariana*



**22730** [1] Aquifoliaceae *Ilex glabra* (L.) A. Gray  
det. R. Carter  
shrub ca. 1 m tall, common

**22731** [1] Ericaceae *Vaccinium stamineum* L. var. *caesium* (Greene) Ward  
det. R. Carter  
shrub <1 m tall, common

**22732** [1] Xyridaceae *Xyris caroliniana* Walter  
det. R. Carter  
occasional

**22733** [1] Poaceae *Ctenium aromaticum* (Walter) A. Wood  
det. R. Carter  
occasional

**22734** [1] Juncaceae *Juncus marginatus* Rostk.  
det. R. Carter  
locally common

**22735** [3] Poaceae *Aristida tuberculosa* Nutt.  
det. R. Carter  
locally common in loose sand

**22736** [1] Hypericaceae *Hypericum gentianoides* (L.) Britt. et al.  
det. R. Carter  
common

**22737** [2] Cyperaceae *Bulbostylis warei* (Torr.) C.B. Clarke  
det. R. Carter  
plants densely cespitose, locally common

**22738** [1] Poaceae *Schizachyrium tenerum* Nees  
det. R. Carter  
common

**22739** [1] Ericaceae *Kalmia hirsuta* Walter  
det. R. Carter

low shrub, occasional

**22740** [1] Asclepiadaceae *Asclepias cinerea* Walter  
det. R. Carter  
occasional

**22741** [1] Asteraceae *Balduina uniflora* Nutt.  
det. R. Carter  
occasional, heads yellow

**Richard Carter** with Frankie Snow  
**31.9664N/82.68484W**  
2.57 airmi N (353.13°) of Lumber City, W of Hwy 19; Alligator Creek Tract  
--seasonally wet depression in severely cut-over flatwoods

**22742** [2] Cyperaceae *Rhynchospora sulcata* Gale  
det. R. Carter  
common in exsiccated depression

**22743** [1] Poaceae *Aristida palustris* (Chapm.) Vasey  
det. R. Carter  
occasional in exsiccated depression

**22744** [1] Droseraceae *Drosera intermedia* Hayne  
det. R. Carter  
occasional in exsiccated depression

**22745** [1] Xyridaceae *Xyris jupicai* Rich.  
det. R. Carter  
common along edge of depression

**22746** [1] Alismataceae *Helanthium tenellum* (Mart.) Britton [*Echinodorus tenellus* (Mart.) Buch. var. *parvulus* (Engelm.) Fassett]  
det. R. Carter  
abundant along edge of depression

**22747** [1] Lentibulariaceae *Utricularia cornuta* Michx.  
det. R. Carter  
common in exsiccated depression

**22748** [1] Lythraceae *Rotala ramosior* (L.) Koehne  
det. R. Carter  
common along edge of depression

**22749** [1] Cyperaceae *Eleocharis microcarpa* Torr.  
det. R. Carter  
occasional along edge of depression

**22750** [2] Cyperaceae *Eleocharis tricostata* Torr.  
det. R. Carter  
common along edge of depression

**22751** [2] Cyperaceae *Rhynchospora microcephala* (Britt.) Britt. ex Small  
det. R. Carter  
common in exsiccated depression

**22752** [2] Cyperaceae *Rhynchospora chalarocephala* Fern. & Gale  
det. R. Carter  
common in exsiccated depression

**22753** [2] Cyperaceae *Scleria georgiana* Core  
det. R. Carter  
common in exsiccated depression

**22754** [1] Poaceae *Coleataenia tenera* (Beyr. ex Trin.) Soreng [*Panicum tenerum* Beyr. ex Trin.]  
det. R. Carter  
common in exsiccated depression

**22755** [1] Eriocaulaceae *Syngonanthus flavidulus* (Michx.) Ruhland  
det. R. Carter  
common in exsiccated depression

**22756** [2] Poaceae *Dichantherium leucothrix* (Nash) Freckm.  
det. R. Carter  
common

**22757** [1] Droseraceae *Drosera capillaris* Poir.  
det. R. Carter  
plants common in exsiccated depression

**22758** [1] Lentibulariaceae *Utricularia juncea* Vahl

det. R. Carter

corolla yellow, plants occasional on moist peaty sand along edge of depression

**5/14/2017**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.95592N/82.66028W**

Alligator Creek WMA, 0.44 airmi WNW (299.03°) jct. Hwy GA 19 and Bells Ferry Rd (CR 95), vic. trail between Little Pond and Big Pond

--degraded pocosin on white sand

with *Pinus taeda*, *P. serotina*, *P. palustris*, *Cartrema americana*, *Persea palustris*, *Quercus virginiana*, *Q. hemisphaerica*, *Q. pumila*, *Gordonia lasianthus*, *Diospyros*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum*, *Lyonia lucida*, *L. ferruginea*, *L. mariana*, *L. ligustrina*, *Leucothoe racemosa*, *Ilex glabra*, *Serenoa repens*, *Pteridium aquilinum*

**22931** [3] Fagaceae *Castanea pumila* (L.) Mill.

det. R. Carter

shrub 4 m tall, infrequent

**22932** [4] Oleaceae *Cartrema americanum* (L.) Nesom [*Osmanthus americanus* (L.) Benth. & Hook.]

det. R. Carter

shrub 5 m tall, common

**22933** [2] Ericaceae *Vaccinium arboreum* Marshall

det. R. Carter

shrub 2 m tall, occasional

**22934** [5] Ericaceae *Gaylussacia tomentosa* (A. Gray) Pursh ex Small [*Gaylussacia frondosa* (L.) Torr. & A. Gray ex Torr. *tomentosa* A. Gray]

det. R. Carter

shrub 1-2 m tall, common

**22935** [2] Arecaceae[Palmae] *Serenoa repens* (W. Bartram) Small

det. R. Carter

common, flowers white

**22936** [2] Ericaceae *Lyonia ligustrina* (L.) DC.

det. R. Carter

shrub 0.5-2 m tall, occasional, flowers greenish white

**22937** [2] Ericaceae *Eubotrys racemosa* (L.) Nutt. [*Leucothoe racemosa* (L.) A. Gray]  
det. R. Carter  
shrub 1-2 m tall, common

**22938** [3] Ericaceae *Lyonia mariana* (L.) D. Don  
det. R. Carter  
low shrub, ca. 0.5 m tall, occasional; corolla white

**22939** [2] Ericaceae *Lyonia ferruginea* (Walt.) Nutt.  
det. R. Carter  
shrub 2 m tall, occasional

**22940** [3] Ericaceae *Lyonia lucida* (Lam.) K. Koch  
det. R. Carter  
shrub 1.5 m tall, common; corolla deep rose-red

**22941** [2] Aquifoliaceae *Ilex glabra* (L.) A. Gray  
det. R. Carter  
shrub 1.5 m tall, common; flowers white

**22942** [2] Ericaceae *Vaccinium stamineum* L. var. *caesium* (Greene) D.B. Ward  
det. R. Carter  
shrub 0.5-1 m tall, occasional; corolla white

**22943** [2] Cyperaceae *Scleria ciliata* Michx. var. *ciliata*  
det. R. Carter  
common in open disturbed sand

**22944** [1] Poaceae *Dichanthelium chamaelonche* (Trin.) Freckmann & Lelong subsp. *chamaelonche*  
det. R. Carter  
common in open disturbed sand

**22945** [1] Poaceae *Dichanthelium portoricense* (Desv. ex Ham.) B.F. Hansen & Wunderlin subsp. *patulum* (Scribn. & Merr.) Freckm. & Lelong  
det. R. Carter  
common in open disturbed sand

**Richard Carter** with Frankie Snow  
**31.95563N/82.65805W**

Alligator Creek WMA, 0.32 airmi WNW (306.87°) jct. Hwy GA 19 and Bells Ferry Rd (CR 95), Little Pond  
--isolated pondcypress-swampblackgum-myrtleholly pond  
with *Taxodium ascendens*, *Nyssa biflora*, *Ilex myrtifolia*, *Persea palustris*, *Magnolia virginiana*, *Lyonia lucida*, *Eubotrys racemosa*, *Pieris phillyreifolia*, *Woodwardia virginica*, *Rhynchospora*, *Juncus*

**22946** [2] Lauraceae *Litsea aestivalis* (L.) Fern.

det. R. Carter

shrub 1-4 m tall, infrequent

**22947** [3] Ericaceae *Pieris phillyreifolia* (Hook.) DC.

det. R. Carter

locally common, plants mostly growing around pond cypress stumps, but some climbing on living pond cypress

**22948** [2] Ericaceae *Vaccinium fuscatum* Aiton

det. R. Carter

2-3 m shrub, occasional

**22949** [1] Aquifoliaceae *Ilex myrtifolia* Walter

det. R. Carter

**22950** [3] Nyssaceae *Nyssa biflora* Walter

det. R. Carter

**7/3/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.9640N/82.66553W**

2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--severely cut-over sandridge

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Crataegus*, *Licania*, *Clinopodium coccinea*

**23172** [1] Cyperaceae *Cyperus croceus* Vahl

det. R. Carter

occasional, cespitose

**23173** [2] Poaceae *Paspalum setaceum* Michaux var. *rigidifolium* (Nash) D. Banks

det. R. Carter

occasional

**23174** [2] Ericaceae *Vaccinium stamineum* L. var. *caesium* (Greene) D.B. Ward  
det. R. Carter  
shrub, common, 2 m tall, leaves conspicuously glaucous abaxially

**23175** [3] Cyperaceae *Cyperus grayi* Torrey  
det. R. Carter  
locally common, cespitose

**23176** [1] Cyperaceae *Bulbostylis warei* (Torrey) C.B. Clarke  
det. R. Carter  
common, cespitose

**23177** [1] Commelinaceae *Commelina erecta* L. var. *angustifolia* (Michaux) Fernald  
det. R. Carter  
occasional

**23178** [1] Commelinaceae *Cuthbertia graminea* Small [*Callisia graminea* (Small) G.C. Tucker]  
det. R. Carter  
occasional, cespitose

**23179** [1] Caryophyllaceae *Stipulicida setacea* Michaux  
det. R. Carter  
common

**23180** [1] Chrysobalanaceae *Licania michauxii* Prance  
det. R. Carter  
common, clonal, forming large patches

**23181** [2] Cyperaceae *Cyperus hystricinus* Fernald  
det. R. Carter  
occasional to locally common

**23182** [3] Cyperaceae *Cyperus nashii* Britton ex Small  
det. R. Carter  
occasional to locally common

**Richard Carter** with Frankie Snow

**31.97147N/82.69894W**

2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--sandy slope ecotonal to bayswamp, herb layer sparse

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Pinus palustris*, *P. taeda*, *Cartrema americana*, *Chionanthus virginicus*, *Vaccinium arboreum*, *V. stamineum*, *Crataegus*, *Lyonia mariana*, *Clinopodium coccinea*, *Licania*, *Serenoa repens*, *Pteridium aquilinum*, *Opuntia comp*

**23183** [1] Cyperaceae *Rhynchospora grayi* Kunth

det. R. Carter

occasional

**23184** [1] Cyperaceae *Carex tenax* Chapman

det. R. Carter

occasional

**Richard Carter** with Frankie Snow

**31.9714N/82.70036W**

2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--low sandy bluff and terrace along Alligator Creek

with *Quercus nigra*, *Q. hemisphaerica*, *Pinus palustris*, *Nyssa sylvatica*, *Diospyros virginiana*, *Ilex opaca*, *Ditrysinia fruticosa*, *Cyrilla racemiflora*, *Asimina angustifolia*, *Vaccinium arboreum*, *V. elliotii*, *Serenoa repens*, *Chasmanthium laxum*

**23185** [1] Asteraceae *Helenium flexuosum* Raf.

det. R. Carter

occasional

**23186** [1] Polygalaceae *Polygala curtissii* A. Gray

det. R. Carter

infrequent, flowers purplish pink

**23187** [1] Campanulaceae *Lobelia flaccidifolia* Small

det. R. Carter

occasional, corolla blue

**23188** [1] Fabaceae *Tephrosia virginiana* (L.) Persoon

det. R. Carter

common, forming large patches

**Richard Carter** with Frankie Snow

**31.95383N/82.688W**



2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--terrace along floodplain of Little Ocmulgee River

with *Quercus laurifolia*, *Q. nigra*, *Liquidambar styraciflua*, *Nyssa biflora*, *Diospyros*, *Acer rubrum*, *Vaccinium arboreum*, *V. elliotii*, *Hypericum hypericoides*

**23189** [1] Asteraceae *Erigeron strigosus* Mühlenberg var. *strigosus*

det. R. Carter

occasional, rays blue, disk yellow

**23190** [1] Asteraceae *Helenium flexuosum* Raf.

det. R. Carter

plants occasional, rays yellow, disk purplish green

**Richard Carter** with Frankie Snow

**31.95421N/82.68787W**

2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--sandy bluff and slope

with *Quercus hemisphaerica*, *Q. alba*, *Q. virginiana*, *Carya pallida*, *C. glabra*, *Magnolia virginiana*, *Ilex opaca*, *Cartrema americana*, *Chionanthus virginicus*, *Hamamelis virginiana*, *Serenoa repens*

**23191** [3] Cyperaceae *Rhynchospora megalocarpa* A. Gray

det. R. Carter

occasional, but locally abundant

**23192** [4] Symplocaceae *Symplocos tinctoria* (L.) L'Heritier

det. R. Carter

occasional, understory tree

**23193** [1] Annonaceae *Asimina parviflora* (Michx.) Dunal

det. R. Carter

shrub, occasional, 2-3 m tall

**23194** [4] Hamamelidaceae *Hamamelis virginiana* L. var. *henryae* Jenne ex C. Lane

det. R. Carter

shrub, common, 5 m tall

**23195** [2] Sapotaceae *Sideroxylon lanuginosa* Michaux subsp. *lanuginosum*

det. R. Carter

shrub, occasional, 4 m tall

**23196** [3] Juglandaceae *Carya pallida* (W.W. Ashe) Engler & Graebner  
det. R. Carter  
tree, occasional

**23197** [3] Juglandaceae *Carya glabra* (P. Miller) Sweet  
det. R. Carter  
tree, occasional

**Richard Carter** with Frankie Snow

**31.97852N/82.67683W**

2.53 NNE (19.01°) of Lumber City jct. Hwy US 23/341 and Hwy GA 19, Alligator Creek Wildlife Management Area

--cut-over blackjack oak knoll

with *Quercus marilandica*, *Diospyros virginiana*, *Prunus serotina*, *Vaccinium arboreum*, *V. stamineum*, *Tephrosia virginiana*, *Pteridium aquilinum*

**23198** [1] Asteraceae *Coreopsis delphiniifolia* Lamarck  
det. R. Carter  
occasional, heads yellow

**23199** [1] Rubiaceae *Galium pilosum* Aiton var. *punctulosum* (Michaux)  
det. R. Carter  
plants occasional, flopping over adjacent vegetation

**23200** [2] Asteraceae *Liatris squarrosa* (L.) Michaux  
det. R. Carter  
plants local, heads and bracts purple

**23201** [3] Hypericaceae *Hypericum galioides* Lamarck  
det. R. Carter  
infrequent shrub with yellow flowers, ca. 1.1 m tall, upland site seemingly very dry for *H. galioides*

**23202** [2] ~~Ruscaceae~~[Liliaceae] *Nolina georgiana* Michaux  
det. R. Carter  
plants infrequent, to rare and local

**23203** [1] Apocyanaceae[Asclepiadaceae] *Asclepias verticillata* L.  
det. R. Carter  
occasional

**23204** [1] Plantaginaceae *Plantago aristata* Michaux

common along jeep trail

**7/13/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.95296N/82.66094W**

1.96 airmi NE (33.87°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, just S of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

with ↑ *Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*; ↓ *Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

**23205** [1] Asteraceae *Krigia virginica* (L.) Willd.

det. R. Carter

occasional

**23206** [2] Poaceae *Dichanthelium ovale* (Ell.) Gould & Clark var. *ovale*

det. R. Carter

common

**23207** [4] Poaceae *Paspalum setaceum* Michx. var. *setaceum*

det. R. Carter

comon

**23208** [1] Cyperaceae *Bulbostylis coarctata* (Ell.) Fern. [*Bulbostylis ciliatifolia* (Ell.) Fern. *coarctata* (Ell.) Kral]

det. R. Carter

common, cespitose

**23209** [4] Cyperaceae *Cyperus diminutus* Carter, sp. nov.

det. R. Carter  
occasional to locally common, cespitose

**Richard Carter** with Frankie Snow

**31.95184N/82.66046W**

1.92 airmi NE (35.84°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, just S of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

with ↑ *Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*; ↓ *Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

**23210** [3] Areaceae *Serenoa repens* (Bartram) Small

det. R. Carter  
common shrub, 1 - 1.5 m tall

**23211** [5] Cyperaceae *Cyperus grayi* Torrey

det. R. Carter  
locally common, cespitose

**23212** [3] Oleaceae *Cartrema americanum* (L.) Nesom [*Osmanthus americanus* (L.) Benth. & Hooker f.]

det. R. Carter  
small tree, common

**23213** [1] Lauraceae *Persea palustris* (Raf.) Sarg.

det. R. Carter  
small tree, common

**23214** [3] Cyperaceae *Cyperus grayi* Torrey

det. R. Carter  
locally common, cespitose

**23215** [2] Cyperaceae *Rhynchospora distans* (Michx.) Vahl

det. R. Carter  
occasional to locally common

**23216** [1] Asteraceae *Erechtites hieraciifolius* (L.) Raf. ex A.P. de Candoll  
det. R. Carter  
occasional in disturbed soil

**23217** [2] Fabaceae *Galactia minor* W.H. Duncan  
det. R. Carter  
common, stems trailing, flowers purple

**23218** [2] Poaceae *Dichantherium portoricense* (Desvaux ex Hamilton) B.F. Hansen & Wunderlin subsp. *patulum* (Scribner & Merrill) Freckmann & Lelong  
det. R. Carter  
common

**Richard Carter** with Frankie Snow

**31.95111N/82.65945W**

1.91 airmi NE (38.16°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, ca. 150 m SE of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

with ↑ *Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*; ↓ *Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

**23219** [3] Ericaceae *Elliottia racemosa* Mühl. ex Elliott

det. R. Carter  
tree, generally rare, but locally common, plants to ca. 10 m tall

**Richard Carter** with Frankie Snow

**31.95184N/82.66046W**

1.92 airmi NE (35.84°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, just S of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

with ↑ *Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*; ↓ *Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

**23220** [1] Aquifoliaceae *Ilex glabra* (L.) A. Gray

det. R. Carter

common shrub, ca. 1.5 m tall

**23221** [1] Capparaceae[Cleomaceae] *Polanisia tenuifolia* Torrey & A. Gray

det. R. Carter

occasional to locally common in dry sand

**23222** [3] Pinaceae *Pinus serotina* Michx.

det. R. Carter

occasional along lower slope and in bayswamp

**23223** [1] Caryophyllaceae *Stipulicida setacea* Michx.

det. R. Carter

occasional to locally common in dry sand

**23224** [3] Styracaceae *Styrax grandifolius* Aiton

det. R. Carter

shrub, ca. 2 m tall, occasional

**Richard Carter** with Frankie Snow

**31.95085N/82.6594W**

1.90 airmi NE (38.55°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, ca. 300 m SE of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

with *Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Lyonia lucida*, *Pinus taeda*, *Diospyros virginiana*, *Ilex coriacea*, *Morella caroliniensis*, *Morella cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Balduina uniflora*,

*Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

**23225** [4] Cyrillaceae *Cyrilla racemiflora* L.  
det. R. Carter  
occasional tree along edge of bayswamp

**23226** [2] Clethraceae *Clethra alnifolia* L. var. *pubescens* Aiton [*Clethra tomentosa* Lam.]  
det. R. Carter  
shrub, common along edge of bayswamp, 1 - 2 m tall, flowers white

**23227** [4] Cyrillaceae *Cliftonia monophylla* (Lamarck) Britton ex Sargent  
det. R. Carter  
common tree along edge of bayswamp

**23228** [3] Aquifoliaceae *Ilex coriacea* (Pursh) Chapm.  
det. R. Carter  
shrub 2 - 4 m tall, along edge of bayswamp

**23229** [1] Ericaceae *Gaylussacia dumosa* (Andrews) Torrey & A. Gray  
det. R. Carter  
shrub, 2-3 dm tall, locally common in sandy flat

**Richard Carter** with Frankie Snow

**31.98082N/82.69073W**

3.61 airmi NNW (349.65°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, along S side of northern boundary line, ca. 600 m ESE of Alligator Creek near NW corner of property

--sandridge, loose white sand

with *Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*, *Cartrema*, *Crataegus*, *Toxicodendron pubescens*, *Nolina georgiana*, *Aristida beyrichiana*

**23230** [1] Cyperaceae *Carex tenax* Chapman  
det. R. Carter  
occasional, cespitose

**Richard Carter** with Frankie Snow

**31.98104N/82.69567W**

3.69 airmi NNW (345.27°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, 185 m E of Alligator, near NW corner of property

--bayswamp in seepy drain incision into sand hill, along Alligator Creek

with *Nyssa biflora*, *Gordonia lasianthus*, *Magnolia virginiana*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Persea palustris*, *Vaccinium fuscatum*, *Rhododendron viscosum*, *Arundinaria tecta*

**23231** [2] Poaceae *Arundinaria tecta* (Walter) Mühl.  
det. R. Carter  
locally common, ca. 2 m tall

**23232** [6] Ericaceae *Rhododendron viscosum* (L.) Torrey var. *serrulatum* (Small) H.E. Ahles  
det. R. Carter  
shrub ca. 4 m tall, flowers white

**Richard Carter** with Frankie Snow

**31.97245N/82.69176W**

3.06 airmi NNW (346.39°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--edge of degraded sandy scrub

with *Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*, *Cartrema*, *Crataegus*, *Aristida beyrichiana*

**23233** [2] Cyperaceae *Cyperus plukenetii* Fern.  
det. R. Carter  
infrequent

**Richard Carter** with Frankie Snow

**31.97322N/82.69204W**

3.11 airmi NNW (346.51°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandscrub

with *Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*, *Cartrema*, *Crataegus*, *Toxicodendron pubescens*, *Aristida beyrichiana*

**23234** [2] Anacardiaceae *Toxicodendron pubescens* P. Miller  
det. R. Carter  
low shrub, common, plants harvested by cutting stems at ground level

**Richard Carter** with Frankie Snow

**31.9572N/82.67223W**

1.97 airmi NNE (12.70°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seasonally wet depression in degraded, clear-cut flatwoods

with *Pinus serotina*, *Nyssa biflora*, *Gordonia lasianthus*, *Magnolia virginiana*, *Persea palustris*, *Lyonia lucida*, *Ilex glabra*, *Arundinaria tecta*, *Pteridium aquilinum*

**23235** [3] Hypericaceae *Hypericum galioides* Lam.  
det. R. Carter  
low shrub with yellow flowers, 0.5 m tall, occasional

**23236** [1] Polygalaceae *Polygala lutea* L.  
det. R. Carter



plants occasional, flowers orange, roots aromatic

**23237** [1] Cyperaceae *Rhynchospora fascicularis* (Michx.) Vahl

det. R. Carter

plants common

**23238** [1] Juncaceae *Juncus biflorus* Elliott

det. R. Carter

plants common

**Richard Carter** with Frankie Snow

**31.95802N/82.67418W**

2.00 airmi NNE (9.16°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--opening along jeep trail through bayswamp

with *Pinus serotina*, *Nyssa biflora*, *Gordonia lasianthus*, *Magnolia virginiana*, *Persea palustris*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Vaccinium fuscatum*, *Ilex coriacea*, *Lyonia lucida*, *Serenoa repens*, *Smilax laurifolia*, *S. walteri*, *Osmunda cinnamomea*, *Carex glaucescens*, *Dulichium arundinaceum*, *Rhynchospora*, *Rhexia*, *Eleocharis baldwinii*, *Xyris*

**23239** [2] Cornaceae[Nyssaceae] *Nyssa biflora* Walter [*Nyssa sylvatica* Marshall *biflora* (Walter)

Sargent]

det. R. Carter

tree, 10 m tall, with abruptly flaring base, common

**23240** [1] Ericaceae *Kalmia hirsuta* Walter

det. R. Carter

low shrub with pink flowers, occasional

**23241** [1] Eriocaulaceae *Syngonanthus flavidulus* (Michx.) Ruhl.

det. R. Carter

common, caespitose

**23242** [1] Melastomataceae *Rhexia petiolata* Walter

det. R. Carter

locally common

**23243** [3] Cyperaceae *Rhynchospora fascicularis* (Michx.) Vahl

det. R. Carter

common

**23244** [1] Cyperaceae *Rhynchospora inexpansa* (Michx.) Vahl  
det. R. Carter  
common

**23245** [1] Cyperaceae *Rhynchospora microcephala* (Britt.) Britt. ex Small  
det. R. Carter  
common

**23246** [2] Cyperaceae *Rhynchospora distans* (Michx.) Vahl  
det. R. Carter  
common

**Richard Carter** with Frankie Snow

**31.95833N/82.67536W**

2.01 airmi NNE (7.13°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--lower slope of sandridge adjacent to bayswamp

**23247** [1] Cyperaceae *Carex tenax* Chapman  
det. R. Carter  
occasional, cespitose

**7/15/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.96474N/82.6634W**

2.62 airmi NNE (21.22°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandridge ecotone along edge of pocosin bayswamp

with *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Crataegus*, *Vaccinium arboreum*, *Rhus copallinus*, *Hamamelis virginiana*, *Diospyros*, *Yucca*, *Lyonia lucida*, *Vitis*, *Pteridium aquilinum*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*

**23248** [1] Ericaceae *Vaccinium stamineum* L. var. *caesium* (Greene) D.B. Ward  
det. R. Carter  
common shrub, abaxial leaf surfaces very glaucous

**23249** [3] Ericaceae *Lyonia fruticosa* (Michaux) G.S. Torrey  
det. R. Carter  
shrub ca. 2 m tall, common

**23250** [3] Rosaceae *Crataegus lasa* Beadle var. *recurva* (Beadle) R.W. Lance  
det. R. Carter  
shrub, 1.5 - 2 m tall, locally common

**Richard Carter** with Frankie Snow

**31.96509N/82.66335W**

2.64 airmi NNE (21.09°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--edge of bayswamp

with *Gordonia lasianthus*, *Magnolia virginiana*, *Nyssa biflorus*, *Persea palustris*, *Acer rubrum*, *Cliftonia monophylla*, *Liriodendron tulipifera*, *Vaccinium corymbosum* (s.l.), *Clethra*, *Lyonia lucida*, *Toxicodendron vernix*, *Morella cerifera*, *Gaylussacia frondosa*, *Rhododendron viscosum*, *Smilax laurifolia*, *Toxicodendron radicans*, *Rubus pensylvanicus*, *Mayaca*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnomomea*, *Lorinseria areolata*, *Anchistea virginica*, *Sphagnum*

**23251** [1] Ericaceae *Rhododendron viscosum* (L.) Torrey var. *serrulatum* (Small) H.E. Ahles

det. R. Carter

shrub ca. 2 m tall, common, corolla white, viscid

**Richard Carter** with Frankie Snow

**31.96514N/82.66314W**

2.65 airmi NNE (21.32°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--small sphagnous opening in bayswamp

with *Gordonia lasianthus*, *Magnolia virginiana*, *Nyssa biflorus*, *Persea palustris*, *Acer rubrum*, *Cliftonia monophylla*, *Liriodendron tulipifera*, *Vaccinium corymbosum* (s.l.), *Clethra*, *Lyonia lucida*, *Toxicodendron vernix*, *Morella cerifera*, *Gaylussacia frondosa*, *Rhododendron viscosum*, *Smilax laurifolia*, *Toxicodendron radicans*, *Rubus pensylvanicus*, *Mayaca*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnomomea*, *Lorinseria areolata*, *Anchistea virginica*, *Sphagnum*

**23252** [5] Mayacaceae *Mayaca fluviatilis* Aublet

det. R. Carter

occasional and locally abundant, stems floating in shallow water

**23253** [1] Sphagnaceae *Sphagnum*

det. R. Carter

common in shallow water

**23254** [3] Cyperaceae *Rhynchospora leptocarpa* (Chapman ex Britton) Small

det. R. Carter

plants occasional, cespitose, stems recumbent

**23255** [1] Xyridaceae *Xyris difformis* Chapman

det. R. Carter

common

**Richard Carter** with Frankie Snow

**31.96719N/82.66367W**

2.77 airmi NNE (19.66°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandridge along pocosin bayswamp, hawthorn thicket

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*

**23256** [1] Fabaceae *Indigofera caroliniana* P. Miller

det. R. Carter

common, plants about 1.5 m tall

**Richard Carter** with Frankie Snow

**31.96828N/82.66441W**

2.83 airmi NNE (18.31°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandridge along pocosin bayswamp, hawthorn thicket

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*

**23257** [1] Convolvulaceae *Stylisma angustifolia* (Nash) House

det. R. Carter

occasional, stems prostrate, flowers white

**23258** [4] Rosaceae *Crataegus lasa* Beadle var. *colonica* (Beadle) R.W. Lance

det. R. Carter

locally abundant, thicket forming shrub, 2 - 4 m tall, with blocky bark

**Richard Carter** with Frankie Snow

**31.96858N/82.69447W**

2.84 airmi NNW (342.17°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--slope along bayhead drain through sandridge

with *Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Persea palustris*, *Myrica heterophylla*, *Ilex coriacea*, *I. opaca*, *Lyonia lucida*, *Vaccinium corymbosum*, *V. arboreum*, *Quercus hemisphaerica*, *Styrax grandifolius*, *Hamamelis virginiana*, *Serenoa repens*, *Arundinaria*, *Q. margarettae*, *Smilax laurifolius*, *Osmundastrum cinnamomeum*

**23259** [1] Ericaceae *Pieris phillyreifolia* (Hooker) A.P. de Candolle

det. R. Carter

plants locally common, hundreds of stems observed along toe of slope, low shrubby form

**Richard Carter** with Frankie Snow

**31.96871N/82.69378W**

2.84 airmi NNW (342.99°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--lower flank of sandridge

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Sideroxylon lanuginosa*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*, *Toxicodendron pubescens*, *Licania*, *Aristida stricta*, *Pteridium aquilinum*, *Aureolaria pectinata*, *Opuntia mesacantha*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*, *Stipulicida setacea*

**23260** [1] Anacardiaceae *Rhus copallinum* L. var. *copallinum*

det. R. Carter

shrub ca. 5 m tall, common

**Richard Carter** with Frankie Snow

**31.96904N/82.69141W**

2.82 airmi NNW (345.82°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--lower flank of sandridge

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Sideroxylon lanuginosa*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*, *Toxicodendron pubescens*, *Licania*, *Aristida stricta*, *Pteridium aquilinum*, *Aureolaria pectinata*, *Opuntia mesacantha*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*, *Stipulicida setacea*

**23261** [1] Pinaceae *Pinus palustris* P. Miller

det. R. Carter

tree, ca. 12 m tall, ca. 20 cm dbh; cone only

**Richard Carter** with Frankie Snow

**31.95544N/82.69133W**

1.92 airmi NNW (339.10°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--low bluff/high terrace along Little Ocmulgee River

with *Quercus laurifolia*, *Q. nigra*, *Pinus taeda*, *Diospyros*, *Liquidambar*, *Cyrilla*, *Vaccinium arboreum*, *V. elliotii*, *Serenoa repens*, *Smilax auriculata*, *Gelsemium*, *Callicarpa*, *Hypericum hypericoides*

**23262** [1] Euphorbiaceae *Ditrysinia fruticosa* (W. Bartram) Govaerts & Frodin [*Sebastiania fruticosa* (W. Bartram) Fernald]

det. R. Carter

shrub, occasional, 1.5 - 2 m tall

**23263** [3] Poaceae *Dichanthelium tenue* (Mühlenberg) Freckmann & Lelong

det. R. Carter

common

**23264** [2] Convolvulaceae *Stylisma villosa* (Nash) House

det. R. Carter

common vine

**Richard Carter** with Frankie Snow

**31.95461N/82.69106W**

1.87 airmi NNW (338.92°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--low terrace in floodplain of Little Ocmulgee River

with *Taxodium distichum*, *Nyssa ogeche*, *N. biflora*, *Acer rubrum*, *Liquidambar styraciflua*, *Ilex decidua*, *Triadica sebifera*, *Campsis radicans*, *Nekemias arborea*, *Lobelia flaccidifolia*

**23265** [3] Poaceae *Dichanthelium commutatum* (J.A. Schultes) Gould var. *commutatum*

det. R. Carter

common

**23266** [2] Poaceae *Dichanthelium dichotomum* (L.) Gould var. *dichotomum*

det. R. Carter

common

**23267** [1] Bignoniaceae *Campsis radicans* (L.) Seemann ex Bureau

det. R. Carter

occasional woody vine, corolla orange

**23268** [3] Poaceae *Dichanthelium commutatum* (J.A. Schultes) Gould var. *commutatum*

det. R. Carter

common

**23269** [3] Cornaceae[Nyssaceae] *Nyssa ogeche* Bartram ex Marshall

det. R. Carter

tree with irregular habit, ca. 8 m tall

**23270** [3] Cupressaceae[Taxodiaceae] *Taxodium distichum* (L.) L.C. Richard

det. R. Carter

large tree, common, outer bark thin strippy reddish brown

**23271** [1] Cyperaceae *Carex jorii* L.H. Bailey

det. R. Carter

plants rhizomatous, common

**7/28/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.97031N/82.69984W**

3.06 airmi NNW (337.24°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandy terrace along Alligator Creek

with *Pinus palustris*, *P. taeda*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Q. nigra*, *Liquidambar styraciflua*, *Diospyros*, *Ilex opaca*, *Cartrema*, *Vaccinium arboreum*, *V. elliotii*, *Asimina angustifolia*, *Crataegus*, *Rhus copallinus*, *Serenoa repens*, *Toxicodendron pubescens*, *Callicarpa americana*, *Hypericum hypericoides*, *Aristida beyrichiana*, *Opuntia*, *Clinopodium coccineum*, *Baptisia perfoliata*, *Bulbostylis warei*, *Eriogonum tomentosum*, *Aureolaria pectinata*, *Solidago odora*, *Eupatorium compositifolium*, *Commelina erecta*, *Dicerandra linearifolia*, *Rhynchospora grayi*, *Rhynchosia reniformis*, *Sericocarpus tortifolius*

**23272** [1] Poaceae *Dichantherium tenue* (Mühlenberg) Freckmann & Lelong

det. R. Carter

occasional

**23273** [1] Rubiaceae *Galium pilosum* Aiton var. *puncticulosum* (Michaux)

det. R. Carter

occasional

**23274** [1] Asteraceae *Vernonia angustifolia* Michaux var. *scaberrima* Torrey & A. Gray

det. R. Carter

occasional

**Richard Carter** with Frankie Snow

**31.97001N/82.69912W**

3.03 airmi NNW (337.81°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandy terrace along Alligator Creek

with *Pinus palustris*, *P. taeda*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Q. nigra*, *Liquidambar styraciflua*, *Diospyros*, *Ilex opaca*, *Cartrema*, *Vaccinium arboreum*, *V. elliotii*, *Asimina angustifolia*, *Crataegus*, *Rhus copallinus*, *Serenoa repens*, *Toxicodendron pubescens*, *Callicarpa americana*, *Hypericum hypericoides*, *Aristida beyrichiana*, *Opuntia*, *Clinopodium coccineum*, *Baptisia perfoliata*, *Bulbostylis warei*, *Eriogonum tomentosum*, *Aureolaria pectinata*, *Solidago odora*, *Eupatorium compositifolium*, *Commelina erecta*, *Dicerandra linearifolia*, *Rhynchospora grayi*, *Rhynchosia reniformis*, *Sericocarpus tortifolius*

**23275** [6] Rosaceae *Crataegus lassa* Beadle var. *lassa*

det. R. Carter

shrub 2 - 2.5 m tall, common

**23276** [3] Oleaceae *Chionanthus virginicus* L.

det. R. Carter

tree 6 m tall, occasional

**23277** [7] Rosaceae *Prunus umbellata* Elliott  
det. R. Carter  
tree 6 m tall, occasional

**Richard Carter** with Frankie Snow

**31.97254N/82.6995W**

3.20 airmi NNW (338.64°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandridge

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Cartrema*, *Vaccinium arboreum*, *Crataegus*, *Rhus copallinus*, *Serenoa repens*, *Toxicodendron pubescens*, *Aristida beyrichiana*, *Opuntia*, *Clinopodium coccineum*, *Bulbostylis warei*, *Eriogonum tomentosum*, *Aureolaria pectinata*, *Solidago odora*, *Eupatorium compositifolium*, *Commelina erecta*, *Rhynchospora grayi*

**23278** [4] Pinaceae *Pinus palustris* L. Miller  
det. R. Carter  
tree ca. 12 m tall, ca. 20 cm dbh, occasional

**23279** [1] Euphorbiaceae *Euphorbia exserta* (Small) Coker  
det. R. Carter  
infrequent

**Richard Carter** with Frankie Snow

**31.96469N/82.69298W**

2.56 airmi NNW (342.15°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--disturbed sandy opening on sandridge

**23280** [2] Selaginellaceae *Bryodesma arenicola* (Underwood) Soják subsp. *riddellii* (Van Eseltine) Škoda [*Selaginella arenicola* Underwood subsp. *riddellii* (Van Eseltine) R.M. Tryon]  
det. R. Carter  
locally common, forming mats in bare, loose sand

**23281** [2] Selaginellaceae *Bryodesma arenicola* (Underwood) Soják subsp. *riddellii* (Van Eseltine) Škoda [*Selaginella arenicola* Underwood subsp. *riddellii* (Van Eseltine) R.M. Tryon]  
det. R. Carter  
locally common, forming mats in bare, loose sand

**Richard Carter** with Frankie Snow

**31.96286N/82.69528W**

2.49 airmi NNW (338.32°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--mesic sandy terrace along Little Ocmulgee River



with *Pinus taeda*, *Liquidambar styraciflua*, *Diospyros virginiana*, *Nyssa biflora*, *Acer rubrum*, *Ilex opaca*, *Vaccinium arboreum*, *Hypericum hypericoides*, *Chasmanthium*, *Lobelia flaccidifolia*

**23282** [2] Poaceae *Dichanthelium comutatum* (J.A. Schultes) Gould var. *commutatum*  
det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.96374N/82.69515W**

2.54 airmi NNW (338.98°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--upper edge of seep along wooded, west-facing slope

**23283** [3] Ericaceae *Pieris phillyreifolia* (Hooker) A.P. de Candolle  
det. R. Carter  
locally common

**23284** [4] Ericaceae *Rhododendron canescens* (Michaux) Sweet  
det. R. Carter  
shrub ca. 4 m tall, occasional

**Richard Carter** with Frankie Snow

**31.96401N/82.69534W**

2.56 airmi NNW (338.89°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seep with spring run near base of wooded, west-facing slope

with *Magnolia virginiana*, *Ilex coriacea*, *Symplocos tinctoria*, *Cliftonia monophylla*, *Nyssa biflora*, *Vaccinium elliotii*, *Lyonia lucida*, *Smilax laurifolia*, *Lorinseria areolata*, *Mitchella repens*, *Pallavicinia lyellii*

**23285** [1] Burmanniaceae *Apteria aphylla* (Nuttall) Barnhart ex Small  
det. R. Carter  
locally common

**23286** [2] Poaceae *Dichanthelium dichotomum* (L.) Gould var. *dichotomum*  
det. R. Carter  
occasional

**7/29/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.96507N/82.69554W**

2.63 airmi NNW (339.24°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seepy west-facing slope along edge of sandridge and floodplain of Little Ocmulgee River

with *Magnolia grandiflora*, *Quercus hemisphaerica*, *Liquidambar styraciflua*, *Vaccinium fuscatum*, *Asimina parviflora*, *Lyonia lucida*, *Pieris phillyreifolia*, *Chasmanthium*, *Mitchella repens*, *Osmundastrum cinnamomeum*

**23287** [1] Rubiaceae *Mitchella repens* L.

det. R. Carter

plants common, stems prostrate

**Richard Carter** with Frankie Snow

**31.96536N/82.69563W**

2.65 airmi NNW (339.28°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--brow of bluff along western edge of sand ridge along floodplain of Little Ocmulgee River

with *Quercus hemisphaerica*, *Carya glabra*, *Vaccinium arboreum*, *V. elliotii*, *Hamamelis virginiana*, *Sideroxylon lanuginosa*, *Cartrema americana*, *Ilex opaca*, *Symplocos tinctoria*, *Cornus florida*, *Serenoa repens*, *Pieris phillyreifolia*

**23288** [1] Cyperaceae *Carex floridana* Schweinitz

? -- plants sterile

det. R. Carter

plants occasional, forming patches via rhizomes

**Richard Carter** with Frankie Snow

**31.96592N/82.69604W**

2.70 airmi NNW (339.09°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seepy west-facing slope along edge of sandridge and floodplain of Little Ocmulgee River, with sandy spring run through dense sphagnum mat

with *Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Acer rubrum*, *Ilex coriacea*, *Lyonia lucida*, *Smilax laurifolia*, *Lorinseria areolata*

**23289** [1] Gentianaceae *Bartonia paniculata* (Michaux) Mühlenberg

det. R. Carter

plants rare, growing in sphagnous mat

**23290** [1] Burmanniaceae *Burmannia biflora* L.

det. R. Carter

plants rare and local, growing in sphagnous mat

**23291** [1] Orchidaceae *Platanthera clavellata* (Michaux) Luer

det. R. Carter

plants rare, growing in sphagnous mat

**Richard Carter** with Frankie Snow

**31.96139N/82.69463W**

2.38 airmi NNW (338.26°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--gum swamp in floodplain of Little Ocmulgee River

with *Nyssa biflora*, *N. aquatica*, *Acer rubrum*, *Taxodium distichum*, *Magnolia virginiana*, *Pinus taeda*, *Liquidambar styraciflua*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Lyonia lucida*, *Leucothoe axillaris*, *Itea virginica*, *Cephalanthus occidentalis*, *Ligustrum sinense*, *Hypericum galioides*, *Rubus pensilvanicus*, *Toxicodendron radicans*, *Smilax laurifolia*, *Lobelia flaccidifolia*, *Boehmeria cylindrica*, *Viola primulifolia*, *Hypericum tubulosum*, *Rhynchospora corniculata*, *Carex debilis*, *C. lonchocarpa*, *C. atlantica*, *C. jorii*, *Macrothelypteris torresiana*, *Osmunda regalis*, *Osmundastrum cinnamomeum*, *Sphagnum*, *Pallavicinia lyellii*

**23292** [2] Asteraceae *Eclipta prostrata* (L.) L.

det. R. Carter

plants occasional

**23293** [1] Asteraceae *Pluchea camphorata* (L.) A.P. de Candolle

det. R. Carter

plants pungently aromatic, common

**23294** [2] Hypericaceae *Hypericum mutilum* L. var. *mutilum*

det. R. Carter

plants common

**23295** [1] Cyperaceae *Carex lonchocarpa* Willdenow

det. R. Carter

plants common, cespitose

**23296** [3] Iteaceae *Itea virginica* L.

det. R. Carter

shrub, ca. 3 m tall, occasional

**23297** [1] Araliaceae[Apiaceae] *Hydrocotyle verticillata* Thunberg

det. R. Carter

plants occasional

--sphagnous spring run in gum swamp of floodplain of Little Ocmulgee River

with *Nyssa biflora*, *N. aquatica*, *Acer rubrum*, *Taxodium distichum*, *Magnolia virginiana*, *Pinus taeda*, *Liquidambar styraciflua*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Lyonia lucida*, *Leucothoe axillaris*, *Itea virginica*, *Cephalanthus occidentalis*, *Ligustrum sinense*, *Hypericum galioides*, *Rubus pensilvanicus*, *Toxicodendron radicans*, *Smilax laurifolia*, *Lobelia flaccidifolia*, *Boehmeria cylindrica*, *Viola primulifolia*, *Hypericum tubulosum*, *Rhynchospora corniculata*, *Carex debilis*, *C. lonchocarpa*, *C. atlantica*, *C. jorii*, *Macrothelypteris torresiana*, *Osmunda regalis*, *Osmundastrum cinnamomeum*, *Sphagnum*, *Pallavicinia lyellii*

**23298** [4] *Cyperaceae Rhynchospora leptocarpa* (Chapman ex Britton) Small

det. R. Carter

plants infrequent and locally common, >20 clumps observed; cespitose, stems recumbent

**8/4/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.96271N/82.69414W**

2.45 airmi NNW (339.67°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--western slope of sand ridge, ecotone between seep and sand ridge

with *Quercus hemisphaerica*, *Pinus taeda*, *Magnolia virginiana*, *Nyssa biflora*, *Persea palustris*, *Cliftonia monophylla*, *Cartrema americana*, *Hamamelis virginiana*, *Morella caroliniensis*, *Ilex coriacea*, *I. opaca*, *I. ambigua*, *Prunus caroliniana*, *Gaylussacia frondosa*, *Pieris phillyreifolia*

**23299** [3] *Ilex ambigua* (Michaux) Torrey

det. R. Carter

shrub, 1.5 - 2 m, infrequent

**23300** [1] *Vaccinium virgatum* Aiton

det. R. Carter

shrub, ca. 2 m tall, occasional

**23301** [3] *Ilex coriacea* (Pursh) Chapman

det. R. Carter

shrub, 3 - 4 m tall, common

**23302** [2] *Morella caroliniensis* (P. Miller) Small [*Myrica heterophylla* Raf.]

det. R. Carter

shrub, ca. 2 m tall, occasional

**23303** [4] *Smilax laurifolia* L.

det. R. Carter

woody vine, common

**Richard Carter** with Frankie Snow

**31.96263N/82.69421W**

2.45 airmi NNW (339.54°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seep along western slope of sand ridge

with *Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*, *Pinckneya bracteata*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Apteris aphylla*

**23304 [1] *Pinckneya bracteata* (Bartram) Rafinesque**

det. R. Carter

shrub, 1.5 m tall, infrequent to rare

**Richard Carter** with Frankie Snow

**31.96218N/82.69391W**

2.41 airmi NNW (339.67°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seep and sandy spring run along western slope of sand ridge

with *Magnolia virginiana*, *Nyssa biflora*, *Gordonia lasianthus*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*, *Vaccinium*, *Pinckneya bracteata*, *Smilax laurifolia*, *Leucothoe axillaris*, *Pieris phillyreifolia*, *Osmundastrum cinnamomeum*

**23305 [2] *Vaccinium fuscatum* Aiton**

det. R. Carter

shrub, 3.5 m tall, common

**Richard Carter** with Frankie Snow

**31.96197N/82.6931W**

2.38 airmi NNW (340.61°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--xeric sand ridge

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Smilax auriculata*, *Clinopodium coccineum*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

**23306 [4] *Persea borbonia* (L.) Sprengel**

det. R. Carter

shrub, 2 m tall, occasional

**Richard Carter** with Frankie Snow

**31.96257N/82.69212W**

2.41 airmi NNW (342.22°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--xeric sand ridge with open areas of loose white sand

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Styrax grandifolius*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Chrysoma pauciflosculosa*, *Toxicodendron pubescens*, *Licania michauxii*, *Smilax auriculata*, *Clinopodium coccineum*, *Eriogonum tomentosum*, *Eupatorium compositifolium*, *Paronychia herniarioides*, *Galactia minor*, *Cnidioscolus*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

**23307 [1] *Galactia minor* Duncan**

det. R. Carter

prostrate vine, common

**23308** [1] *Eriogonum tomentosum* Michaux

det. R. Carter

common

**Richard Carter** with Frankie Snow

**31.9627N/82.69156W**

2.40 airmi NNW (343.03°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--xeric sand ridge with open areas of loose white sand

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Styrax grandifolius*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Chrysoma pauciflosculosa*, *Toxicodendron pubescens*, *Licania michauxii*, *Smilax auriculata*, *Clinopodium coccineum*, *Eriogonum tomentosum*, *Eupatorium compositifolium*, *Paronychia herniarioides*, *Galactia minor*, *Cnidioscolus*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

**23309** [1] *Vaccinium tenellum* Aiton

det. R. Carter

shrub, ca. 1 m tall, local

**Richard Carter** with Frankie Snow

**31.95665N/82.69144W**

2.01 airmi NNW (339.74°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--stream terrace, disturbed, heavily cut-over

with *Quercus alba*, *Q. hemisphaerica*, *Q. laurifolia*, *Q. nigra*, *Q. lyrata*, *Nyssa*, *Carya glabra*, *Pinus taeda*, *Liquidambar styraciflua*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. elliotii*, *Rhus copallinum*, *Hypericum hypericoides*, *Callicarpa americana*

**23310** [3] *Pycnanthemum muticum* (Michaux) Persoon

det. R. Carter

locally abundant, leaves aromatic

**Richard Carter** with Frankie Snow

**31.95761N/82.69177W**

2.08 airmi NNW (339.89°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--hammock along sandy rise adjacent to stream terrace

with *Magnolia grandiflora*, *Quercus alba*, *Q. nigra*, *Q. hemisphaerica*, *Pinus taeda*, *Liquidambar styraciflua*, *Diospyros virginiana*, *Nyssa*, *Cyrilla*, *Ilex opaca*, *Symplocos tinctoria*, *Rhus copallinum*, *Persea palustris*, *Morella cerifera*, *Persea borbonia*, *P. palustris*, *Hamamelis virginiana*, *Vaccinium arboreum*, *V. elliotii*, *V. stamineum*, *V. fuscatum*, *Asimina parviflora*, *Lyonia lucida*, *Pieris phillyreifolia*, *Pteridium aquilinum*

**23311** [2] *Magnolia grandiflora* L.

det. R. Carter  
large tree, occasional

**Richard Carter** with Frankie Snow

**31.9578N/82.69301W**

2.11 airmi NNW (338.16°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--stream terrace, open degraded site along jeep trail

with *Quercus nigra*, *Acer rubrum*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Hypericum hypericoides*, *Euthamia*, *Polypremum procumbens*, *Eupatorium capillifolium*, *Mecardonia*

**23312** [2] *Mecardonia acuminata* (Walter) Small var. *acuminata*

det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.95821N/82.69322W**

2.14 airmi NNW (338.14°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--open site with dense sphagnum mat along spring run, along disturbed forest edge, between titi swamp at base of sand ridge and floodplain of Little Ocmulgee River

with *Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Pinus taeda*, *Quercus laurifolia*, *Persea palustris*, *Ilex coriacea*, *I. myrtifolia*, *Vaccinium fuscatum*, *Smilax laurifolia*, *Vitis rotundifolia*, *Gelsemium*, *Lyonia lucida*, *Hypericum galioides*, *Rubus pensilvanicus*, *Erianthus giganteus*, *Chasmanthium*, *Rhexia mariana*, *R. virginica*, *Carex glaucescens*, *Rhynchospora leptocarpa*, *Woodwardia areolata*, *Sphagnum*

**23313** [3] *Rhynchospora leptocarpa* (Chapman ex Britton) Small

det. R. Carter  
plants infrequent, plant cespitose, stems recumbent

**23314** [1] *Rhexia nashii* Small

det. R. Carter  
plants locally common

**23315** [1] *Carex glaucescens* Elliott

det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.95916N/82.69409W**

2.22 airmi NNW (337.54°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--open site dominated by sphagnum along spring run along disturbed forest edge, between titi swamp at base of sand ridge and floodplain of Little Ocmulgee River

with *Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Pinus taeda*, *Quercus laurifolia*, *Persea palustris*, *Ilex coriacea*, *I. myrtifolia*, *Vaccinium fuscatum*, *Smilax laurifolia*, *Vitis rotundifolia*, *Gelsemium*, *Lyonia lucida*, *Hypericum galioides*, *Rubus pensilvanicus*, *Erianthus giganteus*, *Chasmanthium*, *Rhexia mariana*, *R. virginica*, *Carex glaucescens*, *Rhynchospora leptocarpa*, *Woodwardia areolata*, *Burmannia biflora*, *Platanthera cristata*, *Sphagnum*

**23316 [1] *Platanthera cristata* (Michaux) Lindley**

det. R. Carter

rare, flowers orangish yellow

**23317 [1] *Chasmanthium laxum* (L.) Yates**

det. R. Carter

common

**Richard Carter** with Frankie Snow

**31.95746N/82.69253W**

2.08 airmi NNW (338.64°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--stream terrace, open area along jeep trail

**23318 [1] *Polygala curtissii* A. Gray**

det. R. Carter

occasional and local

**23319 [1] *Liatris elegantula* (Greene) K. Schumann**

det. R. Carter

occasional and local

**23320 [1] *Lechea minor* L.**

det. R. Carter

locally common

**23321 [1] *Scleria triglomerata* Michaux**

det. R. Carter

occasional

**23322 [2] *Croton michauxii* G.L. Webster [*Crotonopsis linearis* Michaux]**

det. R. Carter

locally common

**Richard Carter** with Frankie Snow

**31.95469N/82.68838W**



1.82 airmi NNW (343.57°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area  
--edge of disturbed hammock along base of sand ridge

**23323** [5] *Aralia spinosa* L.

det. R. Carter

tree, ca. 7 m tall, occasional, flowers white and fragrant and loaded with a variety of pollinators

**Richard Carter** with Frankie Snow

**31.95461N/82.68655W**

1.79 airmi NNW (346.80°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--edge of disturbed hammock along base of sand ridge

**23324** [2] *Euphorbia pubentissima* Michaux

det. R. Carter

occasional

**8/19/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.97059N/82.6682W**

2.92 airmi NNE (13.21°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--heavily cut-over flatwoods over dark gray sandy loam

with *Quercus nigra*, *Q. incana*, *Q. hemisphaerica*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Cartrema americana*, *Serenoa repens*, *Rhus copallinum*, *Ilex glabra*, *Crataegus*, *Morella cerifera*, *Vaccinium arboreum*, *V. stamineum caesium*, *Toxicodendron pubescens*, *Rubus cuneifolius*, *Smilax auriculata*, *Vitis rotundifolia munsoniana*, *Eupatorium compositifolium*, *Euthamia*, *Polygonella*, *Fimbristylis puberula*, *Trichostema dichotoma*, *Polypremum procumbens*, *Solidago odora*, *Cyperus retrorsus*, *Paronychia*, *Rhexia mariana*, *Indigofera caroliniana*, *Coleataenia anceps*, *Chamaecrista nictitans*, *Chrysopsis*, *Penstemon australis*, *Asclepias verticillata*

**23325** [5] Vitaceae *Muscadinia rotundifolia* (Michaux) Small var. *munsoniana* (J.H. Simpson ex Planchon) Weakley & Gandhi

det. R. Carter

occasional vine

**23326** [1] Asteraceae *Eupatorium hyssopifolium* L.

det. R. Carter

plants common, heads white

**23327** [2] Myricaceae *Morella cerifera* (L.) Small [*Myrica cerifera* L.]

det. R. Carter

shrub 2.5 m tall, common

**23328** [2] Poaceae *Paspalum floridanum* Michaux  
det. R. Carter  
plants occasional

**23329** [2] Poaceae *Dichantherium arenicoloides* (Ashe) LeBlond [*Panicum arenicoloides* Ashe]  
det. R. Carter  
plants common

**23330** [2] Poaceae *Dichantherium ovale* (Elliott) Gould & Clark var. *addisonii* (Nash) Gould & Clark  
det. R. Carter  
plants common

**23331** [3] Cyperaceae *Fimbristylis puberula* (Michaux) Vahl var. *puberula*  
det. R. Carter  
plants local and infrequent

**23332** [1] Poaceae *Paspalum setaceum* Michaux var. *setaceum*  
det. R. Carter  
plants common

**23333** [4] Cyperaceae *Rhynchospora globularis* (Chapman) Small var. *globularis*  
det. R. Carter  
plants occasional

**23334** [1] Cyperaceae *Cyperus retrorsus* Chapman  
det. R. Carter  
plants occasional

**23335** [1] Cyperaceae *Bulbostylis ciliatifolia* (Elliott) Fernald  
det. R. Carter  
plants common

**23336** [1] Poaceae *Dichantherium acuminatum* (Swartz) Gould & Clark var. *lindheimeri* (Nash) Gould & Clark  
det. R. Carter  
plants common

**23337** [4] Lamiaceae *Trichostema dichotomum* L.

det. R. Carter

plants common, corolla blue

**23338** [1] Hypericaceae *Hypericum hypericoides* (L.) Crantz

det. R. Carter

low shrub, occasional

**23339** [1] Hypericaceae *Hypericum gentianoides* (L.) Britton

det. R. Carter

plants common

**23340** [1] Tetrachondraceae *Polypremum procumbens* L.

det. R. Carter

plants common

**23341** [1] Plantaginaceae *Sophranathe hispida* Bentham ex Lindley [*Gratiola hispida* (Bentham ex Lindley) Pollard]

det. R. Carter

plants occasional

**23342** [3] Melastomataceae *Rhexia mariana* L. var. *exalbida* Michaux

det. R. Carter

plants locally common

**Richard Carter** with Frankie Snow

**31.97018N/82.668W**

2.89 airmi NNE (13.54°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--heavily cut-over flatwoods over dark gray sandy loam, edge of common gallberry flat with *Quercus nigra*, *Q. incana*, *Q. hemisphaerica*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Cartrema americana*, *Serenoa repens*, *Rhus copallinum*, *Ilex glabra*, *Crataegus*, *Morella cerifera*, *Vaccinium arboreum*, *V. stamineum caesium*, *Toxicodendron pubescens*, *Rubus cuneifolius*, *Smilax auriculata*, *Vitis rotundifolia munsoniana*, *Eupatorium compositifolium*, *Euthamia*, *Polygonella*, *Fimbristylis puberula*, *Trichostema dichotoma*, *Polypremum procumbens*, *Solidago odora*, *Cyperus retrorsus*, *Paronychia*, *Rhexia mariana*, *Indigofera caroliniana*, *Coleataenia anceps*, *Chamaecrista nictitans*, *Chrysopsis*, *Penstemon australis*, *Asclepias verticillata*

**23343** [2] Cyperaceae *Eleocharis melanocarpa* Torrey

det. R. Carter

plants local and rare, cespitose, arching stem tips rooting in contact with soil

**Richard Carter** with Frankie Snow

**31.96972N/82.67391W**

2.80 airmi NNE (6.82°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--cut-over sand ridge, loose pale sand

with *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Pinus palustris*, *Ilex vomitoria*, *Aristida beyrichiana*, *Eriogonum tomentosum*, *Tephrosia virginiana*, *Bulbostylis warei*, *Cyperus hystricinus*, *Liatris elegans*, *Vernonia angustifolia scaberrima*, *Opuntia*, *Centrosema*, *Froelichia*, *Aureolaria pectinata*

**23344** [1] Poaceae *Aristida beyrichiana* Trinius & Ruprecht

det. R. Carter

plants common, densely cespitose

**23345** [1] Caryophyllaceae *Paronychia herniarioides* (Michaux) Nuttall

det. R. Carter

plants common

**23346** [1] Caryophyllaceae *Paronychia americana* (Nuttall) Fenzl ex Walpers

det. R. Carter

plants common

**23347** [2] Asteraceae *Hieracium gronovii* L.

det. R. Carter

plants occasional

**23348** [1] Asteraceae *Vernonia angustifolia* Michaux var. *scaberrima* (Nuttall) A. Gray

det. R. Carter

plants occasional, heads purple

**23349** [1] Apocynaceae[Asclepiadaceae] *Asclepias verticillata* L.

det. R. Carter

plants occasional

**23350** [1] Cyperaceae *Bulbostylis warei* (Torrey) C.B. Clarke

det. R. Carter

plants common, densely cespitose

**Richard Carter** with Frankie Snow

**31.96023N/82.66703W**

2.25 airmi NNE (19.07°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--cut-over edge of pocosin

with *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Nyssa biflora*, *Ilex coriacea*, *I. glabra*, *Persea palustris*, *Eubotrys racemosus*, *Morella cerifera*, *Gaylussacia frondosa*, *Lyonia fruticosa*, *Lyonia lucida*, *L. mariana*, *Aronia arbutifolia*, *Vaccinium myrsinites*, *V. corymbosum*, *Serenoa repens*, *Smilax laurifolia*, *Andropogon glaucopsis*, *Rhexia petiolata*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnamomeum*, *Pteridium aquilinum*

**23351** [1] Ericaceae *Vaccinium corymbosum* L.

Although this plant is out of range for *V. corymbosum* (fide Weakley 2015), it is identified as such, because its twig and leaf pubescence is whitish (not dingy brownish or dark as in *V. fuscatum*), and its young twigs and bud scales are reddish (not brownish green to black as in *V. fuscatum*).

det. R. Carter

shrub 1.75 m tall, common

**23352** [2] Ericaceae *Lyonia ligustrina* (L.) A.P. de Candolle var. *ligustrina*

det. R. Carter

shrub ca. 1 m tall, locally common, stems cut off at ground level

**23353** [5] Lauraceae *Persea palustris* (Rafinesque) Sargent

det. R. Carter

shrub ca. 4 m tall, common

**23354** [3] Ericaceae *Lyonia fruticosa* (Michaux) G.S. Torrey

det. R. Carter

shrub ca. 2 m tall, common

**Richard Carter** with Frankie Snow

**31.95988N/82.66701W**

2.23 airmi NNE (19.31°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--wetter opening in cut-over edge of pocosin, with a greater component of xyrids and beakrushes with *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Nyssa biflora*, *Ilex coriacea*, *I. glabra*, *Persea palustris*, *Eubotrys racemosus*, *Morella cerifera*, *Gaylussacia frondosa*, *Lyonia fruticosa*, *Lyonia lucida*, *L. mariana*, *Aronia arbutifolia*, *Vaccinium myrsinites*, *V. corymbosum*, *Serenoa repens*, *Smilax laurifolia*, *Andropogon glaucopsis*, *Rhexia petiolata*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnamomeum*, *Pteridium aquilinum*

**23355** [1] Cyperaceae *Rhynchospora distans* (Michaux) Vahl

det. R. Carter

plants locally common

**23356** [1] Eriocaulaceae *Syngonanthus flavidulus* (Michaux) Ruhland

det. R. Carter

plants locally common, caespitose

**23357** [3] Xyridaceae *Xyris fimbriata* Elliott  
det. R. Carter  
plants common

**23358** [2] Xyridaceae *Xyris platylepis* Chapman  
det. R. Carter  
plants common

**23359** [1] Xyridaceae *Xyris jupicai* Richard  
det. R. Carter  
plants common

**23360** [3] Xyridaceae *Xyris jupicai* Richard  
det. R. Carter  
plants common

**23361** [1] Xyridaceae *Xyris fimbriata* Elliott  
plant depauperate  
det. R. Carter  
plants common

**Richard Carter** with Frankie Snow

**31.95905N/82.66692W**

2.17 airmi NNE (19.93°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--cut-over flatwoods scrub adjacent to pocosin

with *Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Q. laevis*, *Carya tomentosa*, *Diospyros virginiana*, *Pinus palustris*, *P. serotina*, *Persea palustris*, *Rhus copallinum*, *Vaccinium arboreum*, *V. myrsinites*, *Cartrema americana*, *Chionanthus virginicus*, *Ilex glabra*, *Sassafras albidum*, *Serenoa repens*, *Pteridium aquilinum*

**23362** [4] Juglandaceae *Carya tomentosa* (Lamarck) Nuttall  
det. R. Carter  
stump sprout

**Richard Carter** with Frankie Snow

**31.96159N/82.66728W**

2.33 airmi NNE (17.99°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--jeep trail along ecotone between cut-over pocosin and flatwoods, moist sand

with *Cliftonia monophylla*, *Cyrilla racemiflora*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Persea palustris*, *Ilex glabra*, *Lyonia lucida*, *L. fruticosa*, *Morella caroliniensis*, *Serenoa repens*, *Vaccinium*

*myrsinites, Hypericum cistifolium, H. galioides, Pteridium aquilinum, Polygala lutea, Sabatia brevifolia, Syngonanthus flavidulus, Centella, Drosera, Rhynchospora inexpansa*

**23363** [1] Ericaceae *Kalmia hirsuta* Walter  
det. R. Carter  
plants occasional

**23364** [1] Gentianaceae *Sabatia brevifolia* Raf.  
det. R. Carter  
plants locally common, corolla white

**23365** [1] Poaceae *Aristida spiciformis* Elliott  
det. R. Carter  
plants locally common

**23366** [2] Juncaceae *Juncus scirpoidea* Lamarck var. *compositus* R.M. Harper  
det. R. Carter  
plants common

**23367** [1] Hypoxidaceae *Hypoxis juncea* J.E. Smith  
det. R. Carter  
plants locally common, flowers yellow

**Richard Carter** with Frankie Snow

**31.96172N/82.66726W**

2.34 airmi NNE (17.94°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--cut-over flatwoods scrub adjacent to pocosin, over grayish-white sand

with *Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Ilex glabra*, *Serenoa repens*, *Lyonia fruticosa*, *L. mariana*, *L. lucida*, *Vaccinium myrsinites*, *V. stamineum*, *Diospyros virginiana*, *Aristida beyrichiana*, *Xyris caroliniana*, *Bulbostylis warei*, *Andropogon glaucopsis*, *Pteridium aquilinum*, *Sericocarpus tortifolius*

**23368** [12] Cyperaceae *Cyperus diminutus* R. Carter, sp. nov.

det. R. Carter  
plants occasional

**23369** [2] Poaceae *Paspalum setaceum* Michaux var. *longepedunculatum* (LeConte) Alph. Wood  
det. R. Carter  
plants occasional

**Richard Carter** with Frankie Snow

**31.95906N/82.66258W**

2.27 airmi NE (25.95°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--degraded mesic flatwoods, over sandy substrate, along north side of access road with *Quercus nigra*, *Q. hemisphaerica*, *Q. elliotii*, *Persea palustris*, *Sassafras albidum*, *Pinus taeda*, *Liquidambar styraciflua*, *Nyssa sylvatica*, *Chionanthus virginicus*, *Cartrema americana*, *Hamamelis virginiana*, *Symplocos tinctoria*, *Vaccinium arboreum*, *V. myrsinites*, *Morella cerifera*, *Ilex glabra*, *I. opaca*, *I. decidua*, *I. vomitoria*, *Castanea pumila*, *Viburnum obovatum*, *Crataegus*, *Lyonia mariana*, *Callicarpa americana*, *Serenoa repens*, *Smilax pumila*, *Muscadinia rotundifolia munsoniana*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Solidago odora*, *Tephrosia virginiana*, *Eupatorium compositifolium*, *Anthaenania villosa*

**23370** [5] Vitaceae *Muscadinia rotundifolia* (Michaux) Small var. *munsoniana* (J.H. Simpson ex Planchon) Weakley & Gandhi

det. R. Carter  
occasional vine

**23371** [1] Adoxaceae *Viburnum obovatum* Walter

habitat atypical  
det. R. Carter  
shrub ca. 4 m tall, rare

**23372** [2] Fagaceae *Quercus elliotii* Wilbur

anomalous  
det. R. Carter  
shrub 4 m tall

**23373** [3] Fagaceae *Quercus elliotii* Wilbur [*Quercus pumila* Walter]

det. R. Carter  
shrub 2.25 m tall, occasional

**23374** [5] Aquifoliaceae *Ilex decidua* Walter var. *decidua*

det. R. Carter  
shrub 3.5 m tall, locally common

**23375** [2] Poaceae *Anthaenania villosa* (Michaux) Palisot de Beauvois

det. R. Carter  
plants locally common in sandy right-of-way along edge of cut-over flatwoods

**Richard Carter** with Frankie Snow

**31.95708N/82.66079W**

2.21 airmi NE (29.95°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--blackwater cypress-gum pond "Big Pond"



with *Taxodium ascendens*, *Nyssa biflora*, *Gordonia lasianthus*, *Persea palustris*, *Ilex myrtifolia*, *Lyonia lucida*, *Eubotrys racemosa*, *Morella cerifera*, *Litsea aestivalis*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Woodwardia virginica*, *Rhynchospora cephalantha*, *Carex glaucescens*, *C. striata*, *Dulichium arundinaceum*, *Ludwigia pilosa*, *Xyris fimbriata*, *Juncus repens*, *Utricularia purpurea*, *Proserpinaca pectinata*, *Rhexia nashii*

**23376** [5] Cyperaceae *Dulichium arundinaceum* (L.) Britton var. *arundinaceum*  
det. R. Carter  
plants common

**Richard Carter** with Frankie Snow

**31.95694N/82.66014W**

2.22 airmi NE (30.93°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--blackwater cypress gum "Big Pond"

with *Taxodium ascendens*, *Nyssa biflora*, *Gordonia lasianthus*, *Persea palustris*, *Ilex myrtifolia*, *Lyonia lucida*, *Eubotrys racemosa*, *Morella cerifera*, *Litsea aestivalis*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Woodwardia virginica*, *Rhynchospora cephalantha*, *Carex glaucescens*, *C. striata*, *Dulichium arundinaceum*, *Ludwigia pilosa*, *Xyris fimbriata*, *Juncus repens*, *Utricularia purpurea*, *Proserpinaca pectinata*, *Rhexia nashii*

**23377** [1] Lauraceae *Litsea aestivalis* (L.) Fernald

det. R. Carter  
shrub 2 m tall, occasional

**9/9/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.95516N/82.67562W**

1.79 airmi NNE (7.36°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--edge of bayswamp drain

with *Gordonia lasianthus*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Magnolia virginiana*, *Nyssa biflora*, *Pinus serotina*, *Persea palustris*, *Acer rubrum*, *Vaccinium*, *Ilex coriacea*, *Lyonia lucida*, *Leucothoe axillaris*, *Pieris phillyreifolia*, *Smilax laurifolia*

**23384** [2] Ericaceae *Vaccinium fuscatum* Aiton

Note: twig and leaf pubescence white, suggesting *V. corymbosum*, fide Weakley 2015.

det. R. Carter  
shrub 3 m tall, common

**Richard Carter** with Frankie Snow

**31.95503N/82.6791W**

1.77 airmi N (0.86°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--ecotone along lower slope of sand ridge and bayswamp drain, ±loose sandy soil

with *Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Carya glabra*, *Pinus taeda*, *P. palustris*, *Diospyros virginiana*, *Vaccinium arboreum*, *Hamamelis virginiana*, *Ilex opaca*, *Cartrema americana*, *Asimina parviflora*, *Serenoa repens*, *Clinopodium coccineum*, *Opuntia*, *Bignonia capreolata*, *Aristida beyrichianum*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Areolaria pectinata*, *Hypericum gentianoides*, *Stipulicida setacea*, *Carex tenax*, *Bulbostylis capillaris*

**23385** [6] Cyperaceae *Cyperus grayi* Torrey  
det. R. Carter  
locally common along jeep trail, cespitose

**23386** [1] Poaceae *Triplasis americana* Palisot de Beauvois  
det. R. Carter  
occasional along jeep trail

**Richard Carter** with Frankie Snow

**31.95456N/82.67949W**

1.73 airmi N (0.13°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--opening in turkey oak/longleaf pine scrub, with loose sand

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Carya glabra*, *Sideroxylon lanuginosum*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*

**23387** [1] Poaceae *Sporobolus junceus* (Palisot de Beauvois) Kunth  
det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.95395N/82.6799W**

1.69 airmi N (359.32°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--opening in turkey oak/longleaf pine scrub, with loose sand

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Carya glabra*, *Sideroxylon lanuginosum*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*

**23388** [4] Cactaceae *Opuntia mesacantha* Raf. subsp. *mesacantha*  
det. R. Carter  
plants to 0.5 m tall, common

**Richard Carter** with Frankie Snow

**31.95482N/82.6806W**

1.75 airmi N (358.00°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--ecotone along lower slope of sand ridge and bayswamp drain, ±loose sandy soil

with *Nyssa biflora*, *Magnolia virginiana*, *Gordonia lasianthus*, *Persea palustris*, *Amelanchier arborea*, *Cartrema americana*, *Ilex coriacea*, *Vaccinium*, *Lyonia lucida*, *Leucothoe axillaris*, *Smilax laurifolia*, *Osmundastrum cinnamomeum*

**23389** [2] Ericaceae *Pieris phillyreifolia* (Hooker) A.P. de Candolle

det. R. Carter

slender shrub to ca. 0.5 m tall, locally common along ecotone

**Richard Carter** with Frankie Snow

**31.95281N/82.68243W**

1.62 airmi NNW (354.03°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--±flat, sandy upland along lower portion of sandridge and more mesic woods of bluff along small blackwater drain

with *Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Carya glabra*, *Pinus taeda*, *P. palustris*, *Symplocos tinctoria*, *Vaccinium arboreum*, *Hamamelis virginiana*, *Ilex opaca*, *Cartrema americana*, *Serenoa repens*

**23390** [1] Caryophyllaceae *Paronychia americana* (Nuttall) Fenzl ex Walpers

det. R. Carter

stems prostrate on loose sand, flowers white, plants occasional

**23391** [1] Poaceae *Dichanthelium commutatum* (J.A. Schultes) Gould var. *commutatum*

det. R. Carter

plant occasional

**23392** [1] Poaceae *Dichanthelium portoricense* (Desvaux ex Hamilton) B.F. Hansen & Wunderlin subsp. *portoricense*

det. R. Carter

plants occasional

**23393** [1] Poaceae *Dichanthelium ovale* (Elliott) Gould & Clark var. *ovale*

det. R. Carter

plants occasional

**23394** [1] Poaceae *Aristida purpurascens* Poirlet

det. R. Carter

plants occasional

**Richard Carter** with Frankie Snow

**31.95273N/82.6834W**

1.62 airmi NNW (352.03°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandy bluff along sand ridge and small blackwater drain

with *Magnolia grandiflora*, *Pinus glabra*, *Quercus hemisphaerica*, *Carya glabra*, *Amelanchier arborea*, *Vaccinium arboreum*, *V. elliotii*, *Hamamelis virginiana*, *Cartrema americana*, *Ostrya virginiana*, *Persea borbonia*, *Styrax grandifolius*, *Serenoa repens*, *Mitchella repens*

**23395** [4] Styracaceae *Styrax grandifolius* Aiton  
det. R. Carter  
shrub 4 m tall, occasional

**Richard Carter** with Frankie Snow

**31.95738N/82.67215W**

1.98 airmi NNE (12.65°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--seasonally wet flat, degraded, clear-cut flatwoods

with *Gordonia lasianthus*, *Persea palustris*, *Pinus serotina*, *Lyonia lucida*, *Ilex glabra*, *Arundinaria tecta*, *Carex glaucescens*, *Pteridium aquilinum*, *Rhexia mariana*

**23396** [1] Rubiaceae *Oldenlandia uniflora* L.

det. R. Carter

plants occasional

**23397** [1] Cyperaceae *Rhynchospora chapmanii* M.A. Curtis

det. R. Carter

plants cespitose, locally common

**23398** [1] Cyperaceae *Eleocharis baldwinii* (Torrey) Chapman

det. R. Carter

plants cespitose, locally abundant in moist sand of jeep trail

**Richard Carter** with Frankie Snow

**31.95416N/82.66693W**

1.86 airmi NNE (23.39°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--edge of bayswamp drain

with *Pinus serotina*, *Magnolia virginiana*, *Gordonia lasianthus*, *Nyssa biflora*, *Ilex coriacea*, *Vaccinium*, *Lyonia ligustrina*, *L. lucida*, *Gaylussacia frondosa*, *Eubotrys racemosa*, *Clethra alnifolia*, *Smilax laurifolia*, *Osmundastrum cinnamomeum*

**23399** [5] Lauraceae *Persea palustris* (Raf.) Sargent

det. R. Carter

shrub 2 m tall, common, leaves aromatic

**Richard Carter** with Frankie Snow

**31.95383N/82.66612W**

1.86 airmi NNE (25.01°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--ecotone along base of sandridge and edge of pocosin

with *Quercus laevis*, *Q. margarettae*, *Serenoa repens*, *Lyonia lucida*

**23400** [2] Myricaceae *Morella pumila* (Michaux) Small

det. R. Carter

low shrub, <1 m tall, locally common, leaves aromatic

**23401** [1] Asteraceae *Balduina angustifolia* (Pursh) B.L. Robinson  
det. R. Carter  
plants locally abundant, heads yellow

**23402** [9] Cyperaceae *Cyperus diminutus* R. Carter, sp. nov.  
det. R. Carter  
plants locally common, cespitose

**Richard Carter** with Frankie Snow  
**31.95374N/82.66374W**

1.92 airmi NNE (28.87°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area  
--turkey oak/longleaf pine scrub, with loose white sand  
with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

**23403** [5] Asteraceae *Chrysoma pauciflosculosa* (Michaux) Greene  
det. R. Carter  
low shrub, to about 1 m tall, profusely branching above into a broad, ±flat-topped crown, stems brittle, heads yellow, ±viscid, plants locally abundant and making a strikingly beautiful display

**Richard Carter** with Frankie Snow  
**31.95334N/82.66408W**

1.88 airmi NNE (28.74°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area  
--turkey oak/longleaf pine scrub, with loose white sand  
with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

**23404** [1] Polygonaceae *Polygonum pinicola* T.M. Schuster & Reveal [*Polygonella gracilis* (Nuttall) Meisner]  
det. R. Carter  
plants common, ♀

**23404a** [1] Polygonaceae *Polygonum pinicola* T.M. Schuster & Reveal [*Polygonella gracilis* (Nuttall) Meisner]  
det. R. Carter  
plants common, ♂

**23405** [1] Polygonaceae *Polygonum polygamum* Ventenat var. *croomii* (Chapman) T.M. Schuster & Reveal [*Polygonella polygama* (Vent.) Engelm. & A. Gray *croomii* (Chapman) Fernald]  
det. R. Carter

plants common, locally abundant in patches, flowers red

**Richard Carter** with Frankie Snow

**31.9536N/82.6658W**

1.85 airmi NNE (25.74°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--turkey oak/longleaf pine scrub, with loose white sand

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

**23406** [3] Poaceae *Aristida condensata* Chapman

det. R. Carter

plant occasional

**Richard Carter** with Frankie Snow

**31.95365N/82.66691W**

1.83 airmi NNE (23.87°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--turkey oak/longleaf pine scrub, with loose white sand

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

**23407** [1] Asteraceae *Liatris tenuifolia* Nuttall

det. R. Carter

plant occasional, heads purple

**23408** [3] Lamiaceae *Clinopodium coccineum* (Nuttall ex Hooker) Kuntze

det. R. Carter

plants common to locally abundant, ca. 1 m tall, profusely branched, corolla brilliant red

**Richard Carter** with Frankie Snow

**31.9540N/82.6678W**

1.83 airmi NNE (22.07°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--turkey oak/longleaf pine scrub, with loose white sand, lower slope of sandridge

with *Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

**23409** [4] Cyperaceae *Cyperus nashii* Britton ex Small

det. R. Carter

plants occasional to locally common, cespitose

**23410** [6] Cyperaceae *Cyperus grayi* Torrey

det. R. Carter

plants locally common, cespitose

**23411** [2] Cyperaceae *Bulbostylis coarctata* (Elliott) Fernald  
det. R. Carter  
plants occasional, cespitose

**23412** [4] Cactaceae *Opuntia mesacantha* Raf. subsp. *mesacantha*  
det. R. Carter

**23413** [4] Cactaceae *Opuntia mesacantha* Raf. subsp. *mesacantha*  
det. R. Carter

**Richard Carter** with Frankie Snow

**31.95285N/82.66079W**

1.96 airmi NE (34.18°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--ecotone along base of sandridge and edge of bayswamp, sandy soil

**23414** [3] Oleaceae *Cartrema americanum* (L.) Nesom [*Osmanthus americanus* (L.) Bentham & Hooker f.]

det. R. Carter

shrub 4 m tall, common

**23415** [16] Cyperaceae *Cyperus grayi* Torrey

det. R. Carter

plants common, cespitose, stems mostly reclining

**10/8/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.96152N/82.66374W**

2.40 airmi NNE (22.57°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--remnant oak-hickory ridge

with *Carya tomentosa*, *Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Nyssa sylvatica*, *Prunus serotina*, *Persea palustris*, *Rhus copallinum*, *Cartrema*, *Crataegus lasa*, *Vaccinium arboreum*, *V. stamineum*, *Ilex opaca*, *I. decidua*, *Viburnum obovatum*, *Chionanthus virginicus*, *Persea palustris*, *Serenoa repens*, *Ilex glabra*, *Asimina angustifolia*, *Morella pumila*, *Callicarpa americana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Opuntia mesacantha*, *Aureolaria pectinata*, *Aristida beyrichiana*, *Solidago odora*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Sericocarpus tortifolius*, *Aristolochia serpentaria*, *Cyperus plukenetii*, *Gymnopogon*, *Dichanthelium aciculare*, *Paronychia americana*

**23438** [4] Juglandaceae *Carya tomentosa* (Lam.) Nuttall  
det. R. Carter  
tree ca. 12 m tall, locally common

**Richard Carter** with Frankie Snow  
**31.96192N/82.66398W**

2.42 airmi NNE (22.03°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--remnant oak-hickory ridge

with *Carya tomentosa*, *Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Nyssa sylvatica*, *Prunus serotina*, *Persea palustris*, *Rhus copallinum*, *Cartrema*, *Crataegus lassa*, *Vaccinium arboreum*, *V. stamineum*, *Ilex opaca*, *I. decidua*, *Viburnum obovatum*, *Chionanthus virginicus*, *Persea palustris*, *Serenoa repens*, *Ilex glabra*, *Asimina angustifolia*, *Morella pumila*, *Callicarpa americana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Opuntia mesacantha*, *Aureolaria pectinata*, *Aristida beyrichiana*, *Solidago odora*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Sericocarpus tortifolius*, *Aristolochia serpentaria*, *Cyperus plukenetii*, *Gymnopogon*, *Dichantherium aciculare*, *Paronychia americana*

**23439** [2] Fagaceae *Quercus margarettae* W.W. Ashe ex Small  
det. R. Carter  
tree ca. 15 m tall, ca. 25 cm dbh, locally common

**23440** [1] Poaceae *Schizachyrium scoparium* (Michx.) Nash var. *stoloniferum* (Nash) J. Wipff  
det. R. Carter  
common

**23441** [1] Asteraceae *Liatris elegans* (Walter) Michx. var. *kralii* Mayfield  
det. R. Carter  
occasional

**23442** [1] Poaceae *Digitaria villosa* (Walter) Persoon  
det. R. Carter  
locally common

**23443** [1] Asteraceae *Solidago odora* Aiton  
det. R. Carter  
occasional

**23444** [1] Iridaceae *Iris verna* L. var. *verna*  
det. R. Carter  
infrequent and local



**23445** [2] Asteraceae *Pityopsis adenolepis* (Fernald) Semple  
det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.96171N/82.66312W**

2.43 airmi NNE (23.23°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area  
--degraded flatwoods and roadside, sandy soil

**23446** [1] Orobanchaceae *Agalinis fasciculata* (Elliott) Raf.  
det. R. Carter  
common

**23447** [1] Asteraceae *Euthamia caroliniana* (L.) Greene ex Porter & Britton  
det. R. Carter  
common

**23448** [2] Poaceae *Aristida purpurascens* Poiret  
det. R. Carter  
common

**23449** [2] Poaceae *Aristida longispica* Poiret  
det. R. Carter  
common

**23450** [1] Lamiaceae *Salvia azurea* Michx. ex Lam. var. *azurea*  
det. R. Carter  
occasional

**23451** [2] Poaceae *Andropogon virginicus* L. var. *virginicus*  
det. R. Carter  
common

**Richard Carter** with Frankie Snow

**31.97193N/82.67819W**

2.94 airmi N (1.51°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area  
--degraded sand ridge

with *Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Vaccinium arboreum*, *V. stamineum*, *Cartrema*, *Crataegus lassa*, *Ilex decidua*, *Diospyros*, *Serenoa repens*, *Smilax auriculata*, *Aristida beyrichiana*, *Eupatorium compositifolium*

**23452** [1] Asteraceae *Chrysopsis gossypina* (Michaux) Elliott  
det. R. Carter  
occasional, locally abundant

**23453** [2] Lamiaceae *Dicerandra linearifolia* (Elliott) Benth var. *linearifolia*? -- Note: corolla tubes mostly exerted well beyond calyx; *Dicerandra* species 1 under study by Huck (fide Weakley 2015)  
det. R. Carter  
occasional, locally abundant, aromatic

**Richard Carter** with Frankie Snow

**31.97859N/82.67688W**

3.40 airmi N (2.60°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--blackjack knoll

with *Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lasa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Eupatorium compositifolium*, *Berlandiera pumila*, *Aureolaria pectinata*, *Sericocarpus tortifolius*, *Symphyotrichum concolor*, *Amsonia ciliata*, *Chrysopsis gossypina*, *Liatris elegans*, *Schizachyrium scoparium*, *Gymnopogon*

**23454** [5] Fagaceae *Quercus marilandica* Muenchhausen var. *marilandica*  
det. R. Carter  
tree ca. 10 m tall, ca. 15 cm dbh, infrequent and local

**23455** [1] Orobanchaceae *Agalinis plukenetii* (Elliott) Raf.  
det. R. Carter  
occasional

**23456** [1] Asteraceae *Symphyotrichum dumosum* (L.) Nesom var. *dumosum*  
det. R. Carter  
common

**23457** [1] Asteraceae *Symphyotrichum concolor* (L.) Nesom var. *concolor*  
det. R. Carter  
occasional

**23458** [1] Myricaceae *Morella cerifera* (L.) Small [*Myrica cerifera* L.]  
det. R. Carter  
shrub 2 m tall, common, leaves aromatic

**23459** [2] Asteraceae *Liatris patens* Nesom & Kral  
det. R. Carter  
infrequent and local

**23460** [3] Orobanchaceae *Aureolaria pectinata* (Nuttall) Pennell  
det. R. Carter  
common, foliage viscid, flowers yellow

**23461** [1] Poaceae *Gymnopogon ambiguus* (Michaux) Britton, Sterns, & Poggenburg  
det. R. Carter  
occasional

**23462** [2] Gelsemiaceae[Loganiaceae] *Gelsemium sempervirens* (L.) St. Hilaire  
det. R. Carter  
twining vine, common

**23463** [1] Asteraceae *Sericocarpus tortifolius* (Michaux) Nees  
det. R. Carter  
occasional

**23464** [2] Poaceae *Andropogon ternarius* Michaux  
det. R. Carter  
common

**Richard Carter** with Frankie Snow

**31.97906N/82.67594W**

3.40 airmi N (2.60°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--lower slope of blackjack knoll, ecotonal to bayswamp  
with *Pinus glabra*, *Juniperus virginiana*

**23465** [2] Cupressaceae *Juniperus virginiana* L. var. *silicicola* (Small) E. Murray  
det. R. Carter  
tree ca. 10 m tall, infrequent

**23466** [1] Asteraceae *Chrysopsis mariana* (L.) Elliott  
det. R. Carter  
occasional

**Richard Carter** with Frankie Snow

**31.97857N/82.67545W**

3.40 airmi N (3.99°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--bayswamp drain

with *Liriodendron tulipifera*, *Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Persea palustris*, *Lyonia lucida*, *Morella cerifera*, *M. caroliniensis*, *Vaccinium fuscatum*, *Ilex coriacea*, *Arundinaria tecta*, *Rubus pensilvanicus*, *Hypericum galioides*, *Osmundastrum cinnamomeum*, *Bartonia*

**23467** [1] Magnoliaceae *Magnolia virginiana* L. var. *australis* Sargent

det. R. Carter

tree ca. 10 m tall, locally common, leaves aromatic

Richard Carter with Frankie Snow

**31.98034N/82.67963W**

3.51 airmi N (359.86°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--degraded sand ridge

with *Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lasa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Eupatorium compositifolium*, *Berlandiera pumila*, *Aureolaria pectinata*, *Sericocarpus tortifolius*, *Symphytotrichum concolor*, *Amsonia ciliata*, *Chrysopsis gossypina*, *Liatris elegans*, *Schizachyrium scoparium*, *Gymnopogon*

**23468** [1] Orobanchaceae *Agalinis tenella* Pennell

det. R. Carter

occasional, locally common

**23469** [1] Asteraceae *Pseudognaphalium obtusifolium* (L.) Hilliard & Burt

det. R. Carter

occasional, redolent of fenugreek

Richard Carter with Frankie Snow

**31.97157N/82.67996W**

2.91 airmi N (359.45°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--degraded sand ridge

**23470** [1] Poaceae *Sorghastrum secundum* (Elliott) Nash

det. R. Carter

common, locally abundant, aerial stems arching over and inflorescences lop-sided

**23471** [2] Poaceae *Aristida beyrichiana* Trin. & Rupr.

det. R. Carter

common, cespitose

**23472** [5] Aquifoliaceae *Ilex decidua* Walter var. *decidua*

det. R. Carter

shrub ca. 5 m tall, occasional, fruits red

**Richard Carter** with Frankie Snow

**31.94865N/82.66008W**

1.74 airmi NE (40.44°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandy flat along base of sand ridge

with *Pinus palustris*, *Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Cartrema americanum*, *Sassafras albidum*, *Persea borbonia*, *Nyssa sylvatica*, *Magnolia grandiflora*, *Prunus serotina*, *Symplocos tinctoria*, *Ilex opaca*, *I. glabra*, *Chionanthus virginicus*, *Lyonia ferruginea*, *L. mariana*, *Castanea pumila*, *Vaccinium arboreum*, *Serenoa repens*, *Morella pumila*, *Smilax auriculata*, *Opuntia mesacantha*, *Polygonum pinicola*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Liatris patens*, *L. tenuifolia*, *Cyperus diminutus*

**23473** [3] Fagaceae *Castanea pumila* (L.) P. Miller

det. R. Carter

small tree, ca. 5 m tall, occasional

**Richard Carter** with Frankie Snow

**31.94704N/82.66203W**

1.58 airmi NE (39.88°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--sandy flat along base of sand ridge

with *Pinus palustris*, *Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Cartrema americanum*, *Sassafras albidum*, *Persea borbonia*, *Nyssa sylvatica*, *Magnolia grandiflora*, *Prunus serotina*, *Symplocos tinctoria*, *Ilex opaca*, *I. glabra*, *Chionanthus virginicus*, *Lyonia ferruginea*, *L. mariana*, *Castanea pumila*, *Vaccinium arboreum*, *Serenoa repens*, *Morella pumila*, *Smilax auriculata*, *Opuntia mesacantha*, *Polygonum pinicola*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Liatris patens*, *L. tenuifolia*, *Cyperus diminutus*

**23474** [1] Asteraceae *Solidago kralii* Semple

det. R. Carter

infrequent and local, heads yellow

**23475** [2] Lauraceae *Persea palustris* (Raf.) Sargent

det. R. Carter

tree ca. 6 m tall, common, leaves aromatic

**Richard Carter** with Frankie Snow

**31.94645N/82.66132W**

1.58 airmi NE (42.01°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--margin of isolated ±circular pond

with *Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Pinus elliottii*, *Lyonia lucida*, *Eubotrys racemosa*, *Clethra alnifolia*, *Ilex myrtifolia*, *Hypericum myrtifolium*, *Smilax laurifolia*, *Anchistea virginica*, *Rhynchospora cephalantha*, *Dulichium arundinaceum*, *Carex striata*, *Xyris fimbriata*, *Panicum verrucosum*, *Sphagnum*

**23476** [5] Cornaceae[Nyssaceae] *Nyssa biflora* Walter  
det. R. Carter  
tree ca. 10 m tall, common, trunk abruptly tapered from base, bottle-shaped

**23477** [2] Lauraceae *Persea palustris* (Raf. ) Sargent  
det. R. Carter  
tree ca. 6 m tall, common, leaves aromatic

**23478** [1] Ericaceae *Vaccinium fuscatum* Aiton  
Twig pubescence suggestive of *V. corymbosum*  
det. R. Carter  
shrub ca. 3 m tall, common

**23479** [4] Santalaceae[Viscaceae] *Phoradendron leucarpum* (Raf.) Reveal & M.C. Johnston subsp. *leucarpum*  
det. R. Carter  
hemiparasite on swamp black gum, common

**Richard Carter** with Frankie Snow

**31.94614N/82.66049W**

1.60 airmi NE (43.80°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--margin of isolated ±circular pond

with *Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Pinus elliottii*, *Lyonia lucida*, *Eubotrys racemosa*, *Clethra alnifolia*, *Ilex myrtifolia*, *Hypericum myrtifolium*, *Smilax laurifolia*, *Anchistea virginica*, *Rhynchospora cephalantha*, *Dulichium arundinaceum*, *Carex striata*, *Xyris fimbriata*, *Panicum verrucosum*, *Sphagnum*

**23480** [2] Poaceae *Coleataenia rigidula* (Bosc ex Nees) LeBlond subsp. *rigidula*  
det. R. Carter  
occasional

**23481** [1] Smilacaceae *Smilax laurifolia* L.  
det. R. Carter  
woody vine, common

**Richard Carter** with Frankie Snow

**31.94669N/82.66087W**

1.61 airmi NE (42.31°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

--margin of isolated ±circular pond

with *Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Pinus elliottii*, *Lyonia lucida*, *Eubotrys racemosa*, *Clethra alnifolia*, *Ilex myrtifolia*, *Hypericum myrtifolium*, *Smilax laurifolia*, *Anchistea virginica*, *Rhynchospora cephalantha*, *Dulichium arundinaceum*, *Carex striata*, *Xyris fimbriata*, *Panicum verrucosum*, *Sphagnum*

**23482** [1] Xyridaceae *Xyris jupicai* L.C. Richard

det. R. Carter

common along exsiccated pond margin

**23483** [1] Lentibulariaceae *Utricularia biflora* Lam.

det. R. Carter

stranded in shallow water along exsiccated pond margin, corolla yellow

**11/23/2018**

**Richard Carter** with Frankie Snow

**U.S.A. Georgia: Wheeler County**

**31.97951N/82.68175W**

2.47 airmi NW (318.29°) jct. of Hwy GA 19 and Bells Ferry Rd, Alligator Creek Wildlife Management Area

--degraded sand ridge

with *Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Crataegus*, *Serenoa repens*, *Smilax auriculata*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Dicerandra*, *Solidago odora*, *Eupatorium compositifolium*, *Andropogon ternarius*, *A. gyrans*, *Schizachyrium scoparium*, *Dichantheium aciculare*

**23580** [1] Orobanchaceae *Agalinis tenella* Pennell

det. R. Carter

occasional, locally common in small opening, soil ±disturbed

**23581** [1] Caryophyllaceae *Paronychia americana* (Nuttall) Fenzl ex Walpers

det. R. Carter

occasional, stems prostrate

**Richard Carter** with Frankie Snow

**31.95637N/82.65298W**

0.24 mi N of jct. Hwy GA 19 and Bells Ferry Rd, along the E side of Hwy GA 19, Alligator Creek Wildlife Management Area

--seep along backslope of ditch and adjacent hydric flatwoods

**23582** [3] Lycopodiaceae *Lycopodiella appressa* (Chapman) Cranfill [*Lycopodium appressum* (Chapman) Lloyd & Underwood]

det. R. Carter  
locally common

**23583** [3] Lycopodiaceae *Pseudolycopodiella caroliniana* (L.) Holub [*Lycopodium carolinianum* L.]  
det. R. Carter  
locally common

**23584** [3] Lycopodiaceae *Lycopodiella alopecuroides* (L.) Cranfill [*Lycopodium alopecuroides* L.]  
det. R. Carter  
locally common, runners conspicuously arching upward and rooting irregularly

**12/2/2018**

**Richard Carter** with Frankie Snow, Sharon M. Carter

**U.S.A. Georgia: Wheeler County**

**31.95252N/82.66056W**

1.94 airmi NW (34.67°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, just S of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

--ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

**23588** [3] Hamamelidaceae *Hamamelis virginiana* L.  
det. R. Carter  
common understory shrub, ca. 4 m tall, petals yellowish green



**Appendix B. Soils, Habitats, and Plant Communities  
Alligator Creek Wildlife Management Area, Wheeler County, Georgia**

**2016-08-07**

WPT 138      31.95216198    -82.66232103

KdC: Kershaw sand, 2 – 8% slopes

degraded sandridge

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Pinus palustris*, *Vaccinium arboreum*, *Cartrema americana*,  
*Serenoa repens*, *Chrysoma pauciflosculosa*, *Selaginella arenicola*

Vouchers: 22716 – 22720

WPT 140      31.95983503    -82.66833597

Mn: Mascotte sand

severely cut-over flatwoods with mechanically disturbed, seasonally moist sand along bayhead ecotone

*Magnolia virginiana*, *Gordonia lasianthus*, *Persea palustris*, *Salix*, *Ilex coriacea*, *I. glabra*, *Myrica cerifera*

*Cyperus lecontei* [22722]

Vouchers: 22721 – 22729

WPT 141      31.96574503    -82.68406997

Mn: Mascotte sand [Oh – Ocilla loamy sand, 0 to 2 percent slopes, and KdC – Kershaw sand, 0 to 8% slopes, in close proximity]

severely cut-over flatwoods with mechanically disturbed soil, ecotone between sand ridge and seasonally wet flat

*Aristida beyrichiana*, *Sporobolus curtissii*, *Lyonia mariana*, *Rhexia alifanus*, *R. mariana*

Vouchers: 22730 – 22741

\_\_\_\_ 31.9664      -82.68484

Pl: Pelham loamy sand

seasonally wet depression in severely cut-over flatwoods

*Helanthium tenellum* [*Echinodorus tenellus*] [22746]

Rhynchospora sulcata [22742]

Rhynchospora microcephala [22751]

Coleataenia tenera [Panicum tenerum] [22754]

Vouchers: 22742 – 22758

**2017-05-14**

WPT 189      31.95562698    -82.65804903

Pl: Pelham loamy sand

Disturbed pond margin

Taxodium ascendens, Nyssa biflora, Ilex myrtifolia, Persea palustris, Litsea aestivalis, Lyonia lucida, Eubotrys racemosa, Anchistea virginica

Vouchers: 22946 – 22950

WPT 190      31.95592202    -82.66027903

Mn: Mascotte sand

Sandy pocosin between Big Pond and Little Pond

Quercus hemisphaerica, Diospyros virginiana, Gordonia lasianthus, Pinus serotina, Ilex opaca, Cartrema americana, Persea palustris, Serenoa repens, Pinus serotina, Vaccinium myrsinites, Pteridium aquilinum, Morella cerifera

Vouchers: 22931 – 22945

**2018-07-03**

WPT 294      31.96400402    -82.66553298

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Sand ridge

Quercus laevis, Q. margarettae, Q. incana, Q. hemisphaerica, Crataegus, Licania

Vouchers: 23172 – 23182

WPT 296      31.97147297    -82.69893402

KdC: Kershaw sand, 2 – 8% slopes

Sandy slope, ecotonal to bayswamp, on a point near confluence of Alligator Creek and Little Ocmulgee River

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Pinus palustris*, *P. taeda*, *Cartrema americanus*, *Chionanthus virginicus*, *Vaccinium arboreum*, *V. stamineum*, *Lyonia mariana*, *Clinopodium coccineum*, *Toxicodendron pubescens*, *Licania michauxii*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Opuntia compressa*, *Stipulicida setacea*, *Commelina erecta*, *Eriogonum tomentosum*, *Stylisma patens*

Vouchers: 23183 – 23184

WPT 297      31.971737      -82.69924399

Same general site and community type as preceding (296)

KdC: Kershaw sand, 2 – 8% slopes,

*Krameria lanceolata* – locally abundant, ca. 40 plants, all sterile

No vouchers taken

WPT 298      31.97140298      -82.70035802

WPT 299      31.970802      -82.70004697

Vicinity of proposed canoe launch, near confluence of Alligator Creek and Little Ocmulgee River

Obs: Osier and Bibb soils

*Quercus nigra*, *Q. hemisphaerica*, *Liquidambar styraciflua*, *Nyssa sylvatica*, *Pinus palustris*, *Ilex opaca*, *Vaccinium arboreum*, *Diospyros virginiana*, *Cyrilla racemiflora*, *Serenoa repens*, *Asimina angustifolia*, *Dytrisenia*, *Chasmanthium laxum*

**Marshallia ramosa** – 2 plants observed, fruiting

**Penstemon dissectus** – 50 plants observed

Vouchers: 23185 – 23188

WPT 300      31.95383099      -82.68799899

Obs: Osier and Bibb soils

Terrace along floodplain of Little Ocmulgee River

*Quercus laurifolia*, *Q. nigra*, *Liquidambar styraciflua*, *Nyssa biflora*, *Acer rubrum*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. elliotii*, *Hypericum hypericoides*

Vouchers: 23189 – 23190

WPT 301      31.95421304   -82.68787301

WPT 302      31.95396996   -82.68766698

KdC: Kershaw sand, 2 – 8% slopes,

Sandy slope above terrace

*Quercus alba*, *Q. hemisphaerica*, *Magnolia grandiflora*, *Carya glabra*, *C. pallida*, *Cartrema*, *Chionanthus*, *Hamamelis virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. elliotii*, *Sideroxylon lanuginosa*, *Asimina parviflora*, *Serenoa repens*,

WPT 303      31.97852299   -82.67683002

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Blackjack knoll

*Quercus marilandica*, *Diospyros*, *Prunus serotina*, *Vaccinium arboreum*, *V. stamineum*, *Tephrosia virginiana*, *Pteridium aquilinum*

Vouchers: 23198 – 23204

### **2018-07-13**

WPT 305      31.95296003   -82.66094103

*Elliottia racemosa*: northernmost plant

Vouchers: 23205 – 23209

WPT 306      31.95184398   -82.66046201

*Elliottia racemosa*: cluster of 6 large (for *Elliottia*) trees [DBH to 7.5 in] [2 in flower] + 41 stump sprouts, sprouts sterile, sprouts mostly along bulldozer line

Vouchers: 23210 – 23224

WPT 307      31.951114      -82.65945702

*Elliottia racemosa*: tree about 20 ft tall, mostly past flowering, bare inflorescence axes visible, evidence of no fruits

Vouchers: none

WPT 308      31.95085198   -82.65939902

*Elliottia racemosa*: southernmost station, 65 sprouts counted along bulldozer line, sterile

Vouchers: 23225 – 23229

WPT 305 – 308

Transition between KdC and PI

KdC: Kershaw sand, 2 – 8% slopes

PI: Pelham loamy sand

Ecotone along lower slope of sandridge and bayswamp, with an admixture of upland [↑] and wetland [↓] species

↑*Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*

↓*Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*

*Elliottia racemosa* (summary 305 – 308):

Frankie Snow previously flagged 40 + 26 + 2 = 68 all larger plants

Additionally, we counted 116 sprouts, working from south to north along bulldozer line.

WPT 309      31.95241202   -82.66097398

KdC: Kershaw sand, 2 – 8% slopes

Xeric sand ridge

*Elliottia racemosa*: 3 large plants, all flowering

WPT 310      31.98081904   -82.69073602

Sand ridge

KdC: Kershaw sand, 2 – 8% slopes

Sandridge, loose white sand

*Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*,  
*Cartrema*, *Crataegus*, *Toxicodendron pubescens*, *Nolina georgiana*, *Aristida beyrichiana*

Voucher: 23230

WPT 311      31.98103999   -82.69566902

Mapped along edge of large area of KdC, but more likely PI

KdC: Kershaw sand, 2 – 8% slopes

PI: Pelham loamy sand

Bayswamp in seepy drain incision into sand hill, along Alligator Creek

*Nyssa biflora*, *Gordonia lasianthus*, *Magnolia virginiana*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Persea palustris*, *Vaccinium fuscatum*, *Rhododendron viscosum*, *Arundinaria tecta*

Vouchers: 23231 – 23232

WPT 312      31.97244602   -82.69175501

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Edge of degraded sandy scrub

*Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*,  
*Cartrema*, *Crataegus*, *Aristida beyrichiana*

Voucher: 23233

\_\_\_\_\_ 31.973216, -82.692038

KdC: Kershaw sand, 2 – 8% slopes (near boundary with LTC: Lakeland and Troup soils, 0 – 8 % slopes)

Sandscrub

*Pinus palustris*, *Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Vaccinium arboreum*,  
*Cartrema*, *Crataegus*, *Toxicodendron pubescens*, *Aristida beyrichiana*

Voucher: 23234

WPT 313      31.95720504   -82.67222702

Mn: Mascotte sand

Seasonally wet depression in degraded, clear-cut flatwoods

*Gordonia lasianthus*, *Persea palustris*, *Pinus serotina*, *Lyonia lucida*, *Ilex glabra*, *Arundinaria tecta*, *Carex glaucescens*, *Pteridium aquilinum*, *Rhexia mariana*

Vouchers: 23235 – 23238

WPT 314      31.95802404   -82.67418

Pl: Pelham loamy sand

Opening along jeep trail through bayswamp

*Pinus serotina*, *Nyssa biflora*, *Gordonia lasianthus*, *Magnolia virginiana*, *Persea palustris*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Vaccinium fuscatum*, *Ilex coriacea*, *Lyonia lucida*, *Serenoa repens*, *Smilax laurifolia*, *S. walteri*, *Osmunda cinnamomea*, *Carex glaucescens*, *Dulichium arundinaceum*, *Rhynchospora*, *Rhexia*, *Eleocharis baldwinii*, *Xyris*

Vouchers: 23239 – 23246

\_\_\_\_\_ 31.958329, -82.675356

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Lower slope of sandridge adjacent to bayswamp

Voucher: 23247

**2018-07-15**

WPT 315      31.96474498   -82.66340104

LTC: Lakeland and Troup soils, 0 – 8 % slopes (adjacent to Pl)

Flank of sand ridge along gordonia swamp

*Quercus laevis*, *Q. incana*, *Q. margarettae*, *Q. hemisphaerica*, *Crataegus*, *Vaccinium arboreum*, *Rhus copallinus*, *Hamamelis virginiana*, *Diospyros*, *Yucca*, *Lyonia lucida*, *Vitis*, *Pteridium aquilinum*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*

Vouchers: 23248 – 23250

WPT 316        31.96509099    -82.66334203

Pl: Pelham loamy sand

Edge of pocosin bay swamp

*Gordonia lasianthus*, *Magnolia virginiana*, *Nyssa biflorus*, *Persea palustris*, *Acer rubrum*, *Cliftonia monophylla*, *Liriodendron tulipifera*, *Vaccinium corymbosum* (s.l.), *Clethra*, *Lyonia lucida*, *Toxicodendron vernix*, *Morella cerifera*, *Gaylussacia frondosa*, *Rhododendron viscosum*, *Smilax laurifolia*, *Toxicodendron radicans*, *Rubus pensylvanicus*, *Mayaca*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnomomea*, *Lorinseria areolata*, *Anchistea virginica*, *Sphagnum*

Voucher: 23251

WPT 317        31.96513499    -82.66313902

Pl: Pelham loamy sand

Pocosin bay swamp

Associates the same as for WPT 316

Vouchers: 23252 – 23255

WPT 318        31.96719099    -82.66366499

LTC: Lakeland and Troup soils, 0 – 8 % slopes (adjacent to Pl)

Sand ridge

Voucher: 23256

WPT 319        31.96828499    -82.66441399

LTC: Lakeland and Troup soils, 0 – 8 % slopes (adjacent to Pl)

Sand ridge, hawthorn thicket

Voucher: 23257 – 23258



WPT 321      31.96858004   -82.69446898

Pl: Pelham loamy sand

Slope along bayhead drain through sand ridge

*Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Persea palustris*, *Myrica heterophylla*, *Ilex coriacea*, *I. opaca*, *Lyonia lucida*, *Vaccinium corymbosum*, *V. arboreum*, *Quercus hemisphaerica*, *Styrax grandifolius*, *Hamamelis virginiana*, *Serenoa repens*, *Arundinaria*, *Q. margarettae*, *Smilax laurifolius*, *Osmundastrum cinnamomeum*

Voucher: 23259

WPT 322      31.96871297   -82.69377898

KdC: Kershaw sand, 2 – 8% slopes

Lower flank of sand ridge

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Sideroxylon lanuginosa*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*, *Toxicodendron pubescens*, *Licania*, *Aristida stricta*, *Pteridium aquilinum*, *Aureolaria pectinata*, *Opuntia mesacantha*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*, *Stipulicida setacea*

Voucher: 23260

WPT 323      31.96904297   -82.69141302

KdC: Kershaw sand, 2 – 8% slopes

Lower flank of sand ridge

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Sideroxylon lanuginosa*, *Cartrema*, *Crataegus*, *Vaccinium arboreum*, *V. stamineum caesium*, *Rhus copallinus*, *Serenoa repens*, *Yucca*, *Toxicodendron pubescens*, *Licania*, *Aristida stricta*, *Pteridium aquilinum*, *Aureolaria pectinata*, *Opuntia mesacantha*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Clinopodium coccineum*, *Dicerandra linearifolia*, *Stipulicida setacea*

Voucher: 23261

WPT 324      31.95544501   -82.69133298

Obs: Osier and Bibb soils

Low bluff/high terrace, along Little Ocmulgee River, sandy loam

*Quercus laurifolia*, *Q. nigra*, *Pinus taeda*, *Diospyros*, *Liquidambar*, *Cyrilla*, *Vaccinium arboreum*, *V. elliotii*, *Serenoa repens*, *Smilax auriculata*, *Gelsemium*, *Callicarpa*, *Hypericum hypericoides*

Vouchers: 23262 – 23264

WPT 325        31.95461302    -82.69105696

Obs: Osier and Bibb soils

Low terrace in floodplain of Little Ocmulgee River

*Taxodium distichum*, *Nyssa ogeche*, *N. biflora*, *Acer rubrum*, *Liquidambar styraciflua*, *Ilex decidua*, *Triadica sebifera*, *Campsis radicans*, *Nekemias arborea*, *Lobelia flaccidifolia*

Vouchers: 23265 – 23271

#### **2018-07-28**

WPT 326        31.97030897    -82.69984002

Obs: Osier and Bibb soils

Sandy terrace along Alligator Creek

*Pinus palustris*, *P. taeda*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Q. nigra*, *Liquidambar styraciflua*, *Diospyros*, *Ilex opaca*, *Cartrema*, *Vaccinium arboreum*, *V. elliotii*, *Asimina angustifolia*, *Crataegus*, *Rhus copallinus*, *Serenoa repens*, *Toxicodendron pubescens*, *Callicarpa americana*, *Hypericum hypericoides*, *Aristida beyrichiana*, *Opuntia*, *Clinopodium coccineum*, *Baptisia perfoliata*, *Bulbostylis warei*, *Eriogonum tomentosum*, *Aureolaria pectinata*, *Solidago odora*, *Eupatorium compositifolium*, *Commelina erecta*, *Dicerandra linearifolia*, *Rhynchospora grayi*, *Rhynchosia reniformis*, *Sericocarpus tortifolius*

Vouchers: 23272 – 23274

WPT 327        31.97001401    -82.69912496

Obs: Osier and Bibb soils

Sandy terrace along Alligator Creek

Associates the same as for WPT 326

Vouchers: 23275 – 23277

WPT 328        31.97253998    -82.69950198

KdC: Kershaw sand, 2 to 8 % slopes

Xeric sand ridge

*Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*,  
*Crataegus*, *Toxicodendron pubescens*, *Licania michauxii*, *Clinopodium coccineum*, *Rhynchospora*  
*megalocarpa*

Vouchers: 23278 – 23279

WPT 329        31.97529503    -82.6966

KdC: Kershaw sand, 2 to 8 % slopes

Xeric sand ridge

Associates the same as for WPT 328

*Krameria lanceolata*: 10 plants, sterile

Vouchers: none

WPT 330        31.974628        -82.69668499

KdC: Kershaw sand, 2 to 8 % slopes

Xeric sand ridge

Associates the same as for WPT 328

*Krameria lanceolata*: 20 plants, sterile

Vouchers: none

WPT 331        31.96148098    -82.69138302

KdC: Kershaw sand, 2 to 8 % slopes (along boundary with PI)

±flat, sandy terrace, mixed pine-hardwood forest

*Pinus taeda*, *Quercus hemisphaerica*, *Q. margarettae*, *Serenoa repens*, *Cartrema americana*, *Ilex glabra*,  
*Vaccinium arboreum*, *Lyonia lucida*, *Pteridium aquilinum*

*Pieris phillyreifolia* – ca. 50 stems

Vouchers: none

WPT 332        31.96469201    -82.692977

KdC Kershaw sand, 2 to 8 % slopes / PoD Paola sand, cool variant, 5 to 12 percent slopes (on boundary)

Open disturbed site on sand ridge

Selaginella, Stipulicida setacea

Vouchers: 23280 – 23281

WPT 333      31.963008      -82.69502998

PoD: Paola sand, cool variant, 5 to 12 percent slopes (along boundary with Obs)

Mesic slope along river

Quercus hemisphaerica, Q. alba, Pinus taeda, Nyssa sylvatica, Liquidambar styraciflua, Diospyros virginiana, Ilex opaca, Vaccinium arboreum, V. elliotii, Hamamelis virginiana, Symplocos tinctoria, Cartrema americana, Styrax grandifolia, Asimina parviflora, Pieris phillyreifolia, Serenoa repens, Vitis rotundifolia, Smilax pumila, Chasmanthium laxum

Pieris phillyreifolia: ca. 100 stems, sterile, 0-5% slope

WPT 334      31.96285704      -82.695278

Obs: Osier and Bibb soils

Terrace along Little Ocmulgee River, mesic

Pinus taeda, Liquidambar styraciflua, Diospyros virginiana, Nyssa, Acer rubrum, Ilex opaca, Vaccinium arboreum, V. elliotii, Hypericum hypericoides, Chasmanthium, Lobelia flaccidifolia

Voucher: 23282

WPT 335      31.96311898      -82.69509704

Continued from 333, same soils, habitat, community, and associates

Vouchers: none

WPT 336      31.96352097      -82.69525403

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Hammock, flat

Magnolia grandiflora, Pinus glabra, Persea palustris, Lyonia lucida, Pieris phillyreifolia, Mitchella repens

Pieris phillyreifolia: 10 stems

Vouchers: none

WPT 337      31.96376304    -82.69530902

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Seepy spring, base of bluff

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Ilex coriacea*, *I. opaca*, *Symplocos tinctoria*, *Lyonia lucida*, *Vaccinium elliotii*, *Smilax laurifolia*, *Osmunda regalis*, *Apteria aphylla*

Vouchers: none

WPT 338      31.96383001    -82.695335

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Seepy spring, base of bluff

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Ilex coriacea*, *I. opaca*, *Symplocos tinctoria*, *Lyonia lucida*, *Vaccinium elliotii*, *Smilax laurifolia*, *Osmunda regalis*, *Apteria aphylla*

*Apteria aphylla*: 25-30 stems, flowering/fruitlet, slope 0 to 45o

WPT 339      31.96374401    -82.69514901

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Upper rim of seep

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Ilex coriacea*, *I. opaca*, *Symplocos tinctoria*, *Rhododendron canescens*, *Lyonia lucida*, *Vaccinium elliotii*, *Smilax laurifolia*, *Pieris phillyreifolia*

*Pieris phillyreifolia*: ca. 100 stems, 5-10% slope

Vouchers: 23283 – 23284

WPT 340      31.963929      -82.695162

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Seep

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Ilex coriacea*, *I. opaca*, *Symplocos tinctoria*, *Viburnum nudum*, *Lyonia lucida*, *Vaccinium elliotii*, *Smilax laurifolia*, *Apteria aphylla*, *Sphagnum*

*Apteria aphylla*: 85 stems, flowering/fruitlet, 5-10% slope

WPT 341      31.96400997   -82.69534003

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Seep

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Ilex coriacea*, *I. opaca*, *Symplocos tinctoria*, *Viburnum nudum*, *Lyonia lucida*, *Vaccinium elliotii*, *Smilax laurifolia*, *Lorinseria areolata*, *Mitchella repens*, *Dichantherium*, *Apteria aphylla*, *Pallavicinia lyellii*

*Apteria aphylla*: 167 stems, flowering/fruitlet, slope 5% to 45o

Vouchers: 23285 – 23286

**2018-07-29**

WPT 342      31.96507498   -82.69554203

PoD: Paola sand, cool variant, 5 – 12% slopes

Seepy west-facing slope along edge of sandridge and floodplain of Little Ocmulgee River

*Magnolia grandiflora*, *Quercus hemisphaerica*, *Liquidambar styraciflua*, *Vaccinium fuscatum*, *Asimina parviflora*, *Lyonia lucida*, *Pieris phillyreifolia*, *Chasmanthium*, *Mitchella repens*, *Osmundastrum cinnamomeum*

*Pieris phillyreifolia* upslope along brow of bluff

Voucher: 23287

WPT 343      31.96535703   -82.69562996

PoD: Paola sand, cool variant, 5 – 12% slopes

Brow of bluff along western edge of sand ridge along floodplain of Little Ocmulgee River

*Quercus hemisphaerica*, *Carya glabra*, *Vaccinium arboreum*, *V. elliotii*, *Hamamelis virginiana*, *Sideroxylon lanuginosa*, *Cartrema americana*, *Ilex opaca*, *Symplocos tinctoria*, *Cornus florida*, *Serenoa repens*, *Pieris phillyreifolia*

*Pieris phillyreifolia*: locally common

Voucher: 23288

WPT 344      31.966028      -82.69597999

PoD: Paola sand, cool variant, 5 – 12% slopes

Seepy west-facing along edge of sandridge and floodplain of Little Ocmulgee River slope, with two sandy spring runs

*Nyssa biflora*, *Pinus taeda*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Ilex coriacea*, *Persea palustris*, *Leucothoe axillaris*, *Lyonia lucida*, *Smilax laurifolia*, *Lorinseria areolata*

Apteris aphylla: 52 plants, flowering/fruitlet; 5-10% slope

WPT 345      31.96591702      -82.69603799

PoD: Paola sand, cool variant, 5 – 12% slopes

Seepy west-facing slope along edge of sandridge and floodplain of Little Ocmulgee River, with sandy spring run through dense sphagnum mat

*Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Acer rubrum*, *Ilex coriacea*, *Lyonia lucida*, *Smilax laurifolia*, *Lorinseria areolata*

Apteris aphylla: 17 plants, flowering/fruitlet; 0-5% slope

*Bartonia paniculata*: 10 plants, in sphagnum mat

*Burmannia biflora*: ca. 20 plants, mostly in sphagnum mat

Vouchers: 23289 – 23291

WPT 346      31.966345      -82.69615299

PoD: Paola sand, cool variant, 5 – 12% slopes (very close to KdC, Obs)

Seepy west-facing slope along edge of sandridge and floodplain of Little Ocmulgee River

Apteris aphylla: 7 plants, flowering/fruitlet; 0-5% slope; great potential for more plants under very dense thicket of *Ilex coriacea* and *Lyonia lucida*

WPT 347      31.96636696      -82.69625902

PoD: Paola sand, cool variant, 5 – 12% slopes (very close to KdC, Obs)

Lower west-facing slope of bluff along Little Ocmulgee River

*Pinus taeda*, *Liquidambar styraciflua*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*

*Pieris phillyreifolia*: ca. 30 stems, mostly sterile; 0-5% slope

WPT 348      31.967956      -82.69681902

On border between KdC and Obs, 170 m NNW of PoD unit

“River Bend” spring seep: great potential for *Apteria aphylla*, but vegetation too thick to penetrate

WPT 349      31.96139398      -82.694631

Obs: Osier and Bibb soils

Gum swamp in floodplain of Little Ocmulgee River

*Nyssa biflora*, *N. aquatica*, *Acer rubrum*, *Taxodium distichum*, *Magnolia virginiana*, *Pinus taeda*, *Liquidambar styraciflua*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Lyonia lucida*, *Leucothoe axillaris*, *Itea virginica*, *Cephalanthus occidentalis*, *Ligustrum sinense*, *Hypericum galioides*, *Rubus pensilvanicus*, *Toxicodendron radicans*, *Smilax laurifolia*, *Lobelia flaccidifolia*, *Boehmeria cylindrica*, *Viola primulifolia*, *Hypericum tubulosum*, *Rhynchospora corniculata*, *Carex debilis*, *C. lonchocarpa*, *C. atlantica*, *C. jorii*, *Macrothelypteris torresiana*, *Osmunda regalis*, *Osmundastrum cinnamomeum*, *Sphagnum*, *Pallavicinia lyellii*

Vouchers: 23292 – 23298

#### **2018-08-04**

WPT 352      31.96270801      -82.69413798

PoD: Paola sand, cool variant, 5 to 12 percent slopes (adjacent to Obs)

Ecotone between seep and sand ridge

*Quercus hemisphaerica*, *Pinus taeda*, *Magnolia virginiana*, *Nyssa biflora*, *Persea palustris*, *Cliftonia monophylla*, *Cartrema americana*, *Hamamelis virginiana*, *Morella caroliniensis*, *Ilex coriacea*, *I. opaca*, *I. ambigua*, *Prunus caroliniana*, *Gaylussacia frondosa*, *Pieris phillyreifolia*

Vouchers: 23299 – 23303

WPT 353      31.96263299      -82.69420998

PoD: Paola sand, cool variant, 5 to 12 percent slopes (adjacent to Obs)

Seep along western slope of sand ridge

*Magnolia virginiana*, *Nyssa biflora*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*, *Pinckneya bracteata*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Apteria aphylla*

*Apteria aphylla*: 20+ stems, flowering/fruitletting



*Pinckneya bracteata*: 1 plant, sterile, 1.5 m tall

Voucher: 23304

WPT 354      31.96289602    -82.693954

PoD: Paola sand, cool variant, 5 to 12 percent slopes

Upper slope of sand ridge

*Quercus hemisphaerica*, *Carya glabra*, *Pinus taeda*, *Hamamelis virginiana*, *Ilex opaca*, *I. ambigua*, *Lyonia lucida*, *Persea palustris*, *Styrax grandifolia*, *Asimina parviflora*, *Pieris phillyreifolia*, *Sassafras albidum*, *Vaccinium arboreum*, *V. fuscatum*, *V. elliotii*, *Serenoa repens*, *Callicarpa americana*, *Bignolia capreolata*, *Vitis rotundifolia*, *Pteridium aquilinum*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella*, *Atrichum*, *Cladina*

Vouchers: none

WPT 355      31.96218498    -82.69390899

PoD: Paola sand, cool variant, 5 to 12 percent slopes (adjacent to Obs)

Seep and sandy spring run along western slope of sand ridge

*Magnolia virginiana*, *Nyssa biflora*, *Gordonia lasianthus*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*, *Vaccinium*, *Pinckneya bracteata*, *Smilax laurifolia*, *Leucothoe axillaris*, *Pieris phillyreifolia*, *Osmundastrum cinnamomeum*

*Pinckneya bracteata*: 1 plant, sterile

Voucher: 23305

WPT 356      31.96203503    -82.69388502

PoD: Paola sand, cool variant, 5 to 12 percent slopes (adjacent to Obs)

Seep and sandy spring run along western slope of sand ridge

*Magnolia virginiana*, *Nyssa biflora*, *Gordonia lasianthus*, *Cliftonia monophylla*, *Persea palustris*, *Ilex coriacea*, *Lyonia lucida*, *Vaccinium corymbosum* s.l., *Pinckneya bracteata*, *Smilax laurifolia*, *Leucothoe axillaris*, *Pieris phillyreifolia*, *Osmunda cinnamomea*

*Pinckneya bracteata*: 2 plants, sterile

*Apteris aphylla*: 8 stems, flowering/fruiting

WPT 357      31.96142499   -82.69321899

PoD: Paola sand, cool variant, 5 to 12 percent slopes (adjacent to PI)

Narrow finger of sand ridge extending into swamp

*Magnolia grandifolia*, *Quercus hemisphaerica*, *Carya glabra*, *Pinus taeda*, *Hamamelis virginiana*, *Ilex opaca*, *Castanea pumila*, *Lyonia lucida*, *Persea palustris*, *Styrax grandifolia*, *Asimina parviflora*, *Pieris phillyreifolia*, *Sassafras albidum*, *Vaccinium arboreum*, *V. elliotii*, *V. stamineum*, *Serenoa repens*, *Callicarpa americana*, *Bignonia capreolata*, *Vitis rotundifolia*, *Pteridium aquilinum*, *Rhynchospora megalocarpa*, *Cyperus diminutus*

Vouchers: none

WPT 358      31.96196504   -82.69310198

PI: Pelham loamy sand (adjacent to KdC and PoD)

Xeric sand ridge

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Smilax auriculata*, *Clinopodium coccineum*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

Voucher: 23306

WPT 359      31.96256996   -82.69212498

KdC: Kershaw sand, 2 to 8 % slopes

Xeric sand ridge with open areas of loose white sand

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Styrax grandifolius*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Chrysoma pauciflosculosa*, *Toxicodendron pubescens*, *Licania michauxii*, *Smilax auriculata*, *Clinopodium coccineum*, *Eriogonum tomentosum*, *Eupatorium compositifolium*, *Paronychia herniarioides*, *Galactia minor*, *Cnidoscolus*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

Vouchers: 23307 – 23308

WPT 360      31.96270399   -82.69156398

KdC: Kershaw sand, 2 to 8 % slopes

Xeric sand ridge with open areas of loose white sand, continued

*Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Pinus palustris*, *Persea borbonia*, *Cartrema americana*, *Hamamelis virginiana*, *Styrax grandifolius*, *Vaccinium arboreum*, *V. stamineum*, *V. stamineum caesium*, *Lyonia lucida*, *Chrysoma pauciflosculosa*, *Toxicodendron pubescens*, *Licania michauxii*, *Smilax auriculata*, *Clinopodium coccineum*, *Eriogonum tomentosum*, *Eupatorium compositifolium*, *Paronychia herniarioides*, *Galactia minor*, *Cnidoscopus*, *Opuntia*, *Rhynchospora megalocarpa*, *Cyperus diminutus*, *Selaginella arenicola*, *Ditrichum*, *Cladina*

Voucher: 23309

WPT 361      31.95664798    -82.69144404

LTC: Lakeland and Troup soils, 0 to 8% slopes

Stream terrace, disturbed, heavily cut-over

*Quercus alba*, *Q. hemisphaerica*, *Q. laurifolia*, *Q. nigra*, *Q. lyrata*, *Nyssa*, *Carya glabra*, *Pinus taeda*, *Liquidambar styraciflua*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. elliotii*, *Rhus copallinum*, *Hypericum hypericoides*, *Callicarpa americana*

Voucher: 23310

WPT 362      31.95761198    -82.69177001

LTC: Lakeland and Troup soils, 0 to 8% slopes

Hammock along sandy rise adjacent to stream terrace

*Magnolia grandiflora*, *Quercus alba*, *Q. nigra*, *Q. hemisphaerica*, *Pinus taeda*, *Liquidambar styraciflua*, *Diospyros virginiana*, *Nyssa*, *Cyrilla*, *Ilex opaca*, *Symplocos tinctoria*, *Rhus copallinum*, *Persea palustris*, *Morella cerifera*, *Persea borbonia*, *P. palustris*, *Hamamelis virginiana*, *Vaccinium arboreum*, *V. elliotii*, *V. stamineum*, *V. fuscatum*, *Asimina parviflora*, *Lyonia lucida*, *Pieris phillyreifolia*, *Pteridium aquilinum*

Voucher: 23311

WPT 363      31.95779798    -82.69301003

LTC: Lakeland and Troup soils, 0 to 8% slopes

Stream terrace, open degraded site along jeep trail

*Quercus nigra*, *Acer rubrum*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Hypericum hypericoides*, *Euthamia*, *Polypremum procumbens*, *Eupatorium capillifolium*, *E. semiserratum*, *Mecardonia*

Voucher: 23312

WPT 364      31.95821498   -82.69321698

LTC: Lakeland and Troup soils, 0 to 8% slopes (adjacent to PI)

Open site with dense sphagnum mat along spring run, along disturbed forest edge, between titi swamp at base of sand ridge and floodplain of Little Ocmulgee River

*Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Pinus taeda*, *Quercus laurifolia*, *Persea palustris*, *Ilex coriacea*, *I. myrtifolia*, *Vaccinium fuscum*, *Smilax laurifolia*, *Vitis rotundifolia*, *Gelsemium*, *Lyonia lucida*, *Hypericum galioides*, *Rubus pensilvanicus*, *Erianthus giganteus*, *Chasmanthium*, *Rhexia mariana*, *R. virginica*, *Carex glaucescens*, *Rhynchospora leptocarpa*, *Woodwardia areolata*, *Sphagnum*

*Rhynchospora leptocarpa*

Vouchers: 23313 – 23315

WPT 365      31.95916498   -82.69409498

PI: Pelham loamy sand (adjacent to Obs)

Open site dominated by sphagnum along spring run along disturbed forest edge, between titi swamp at base of sand ridge and floodplain of Little Ocmulgee River

*Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Cliftonia monophylla*, *Pinus taeda*, *Quercus laurifolia*, *Persea palustris*, *Ilex coriacea*, *I. myrtifolia*, *Vaccinium fuscum*, *Smilax laurifolia*, *Vitis rotundifolia*, *Gelsemium*, *Lyonia lucida*, *Hypericum galioides*, *Rubus pensilvanicus*, *Erianthus giganteus*, *Chasmanthium*, *Rhexia mariana*, *R. virginica*, *Carex glaucescens*, *Rhynchospora leptocarpa*, *Woodwardia areolata*, *Burmannia biflora*, *Platanthera cristata*, *Sphagnum*

*Rhynchospora leptocarpa*

*Burmannia biflora*: 20 plants, flowering

*Platanthera cristata*: 2 plants, flowering

Vouchers: 23316 – 23317

WPT 366      31.95746496   -82.69252899

LTC: Lakeland and Troup soils, 0 to 8% slopes (adjacent to Obs)

Stream terrace, open area along jeep trail

Vouchers: 23318 – 23322

WPT 367      31.95468896   -82.68837601

KdC: Kershaw sand, 2 to 8 % slopes

Edge of disturbed hammock along base of sand ridge

Voucher: 23323

WPT 368      31.95460598    -82.68654901

KdC: Kershaw sand, 2 to 8 % slopes

Edge of disturbed hammock along base of sand ridge

Voucher: 23324

WPT 369      31.97443698    -82.698154

Obs: Osier and Bibb soils (adjacent to KdC)

Edge of Alligator Creek swamp forest along base of sand ridge

Record? *Nyssa biflora*: DBH 121.55 cm, ca. 80 ft tall

**2018-08-19**

WPT 370      31.970587      -82.66819599

Oh: Ocilla loamy sand, 0 to 2 percent slopes

Heavily cut-over flatwoods over dark gray sandy loam

*Quercus nigra*, *Q. incana*, *Q. hemisphaerica*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Cartrema americana*, *Serenoa repens*, *Rhus copallinum*, *Ilex glabra*, *Crataegus*, *Morella cerifera*, *Vaccinium arboreum*, *V. stamineum caesium*, *Toxicodendron pubescens*, *Rubus cuneifolius*, *Smilax auriculata*, *Vitis rotundifolia munsoniana*, *Eupatorium compositifolium*, *Euthamia*, *Polygonella*, *Fimbristylis puberula*, *Trichostema dichotoma*, *Polypremum procumbens*, *Solidago odora*, *Cyperus retrorsus*, *Paronychia*, *Rhexia mariana*, *Indigofera caroliniana*, *Coleataenia anceps*, *Chamaecrista nictitans*, *Chrysopsis*, *Penstemon australis*, *Asclepias verticillata*

Vouchers: 23325 – 23342

WPT 371      31.97018299    -82.66800497

Oh: Ocilla loamy sand, 0 to 2 percent slopes

Heavily cut-over flatwoods over dark gray sandy loam, edge of gallberry flat

Quercus nigra, Q. incana, Q. hemisphaerica, Diospyros virginiana, Liquidambar styraciflua, Cartrema americana, Rhus copallinum, Ilex glabra, Crataegus, Morella cerifera, Vaccinium arboreum, V. stamineum caesium, Toxicodendron pubescens, Callicarpa americana, Rubus cuneifolius, Serenoa repens, Smilax auriculata, Muscadinia rotundifolia munsoniana, Eupatorium compositifolium, Euthamia, Polygonella, Fimbristylis puberula, Trichostema dichotomum, Polypremum procumbens, Solidago odora, Cyperus retrorsus, Fimbristylis puberula, Paronychia americana, Rhexia mariana, Indigofera caroliniana, Coleataenia anceps, Chamaecrista nictitans, Chrysopsis, Penstemon australis, Asclepias verticillata  
Eleocharis melanocarpa (23343)

Vouchers: 23343

WPT 372        31.96971796    -82.67391203

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Cut-over sand ridge, loose pale sand

Quercus laevis, Q. margarettae, Q. incana, Pinus palustris, Crataegus, Ilex vomitoria, Aristida beyrichiana, Eriogonum tomentosum, Opuntia, Tephrosia virginiana, Liatris elegans, L. tenuifolia, Froelichia floridana, Vernonia angustifolia scaberrima, Cyperus hystericinus, Bulbostylis warei

Vouchers: 23344 – 23350

WPT 373        31.96023099    -82.66703401

Mn: Mascotte sand

Cut-over edge of pocosin

Cliftonia monophylla, Gordonia lasianthus, Pinus serotina, Nyssa biflora, Ilex coriacea, I. glabra, Persea palustris, Eubotrys racemosus, Morella cerifera, Gaylussacia frondosa, Lyonia fruticosa, Lyonia lucida, L. mariana, Aronia arbutifolia, Vaccinium myrsinites, V. corymbosum, Serenoa repens, Smilax laurifolia, Andropogon glaucopsis, Rhexia petiolata, Xyris, Rhynchospora, Osmundastrum cinnamomeum, Pteridium aquilinum

Vouchers: 23351 – 23354

WPT 374        31.95988004    -82.66700501

Pl: Pelham loamy sand

Wetter opening in cut-over edge of pocosin, with a greater component of xyrids and beakrushes

Cliftonia monophylla, Gordonia lasianthus, Pinus serotina, Nyssa biflora, Ilex coriacea, I. glabra, Persea palustris, Eubotrys racemosus, Morella cerifera, Gaylussacia frondosa, Lyonia fruticosa, Lyonia lucida, L. mariana, Aronia arbutifolia, Vaccinium myrsinites, V. corymbosum, Serenoa repens, Smilax laurifolia,

*Andropogon glaucopsis*, *Rhexia petiolata*, *Xyris*, *Rhynchospora*, *Osmundastrum cinnamomeum*,  
*Pteridium aquilinum*

Vouchers: 23355 – 23361

WPT 375        31.95904998    -82.66692102

Mn: Mascotte sand

Cut-over flatwoods scrub adjacent to pocosin

*Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Q. laevis*, *Carya tomentosa*, *Diospyros virginiana*,  
*Pinus palustris*, *P. serotina*, *Persea palustris*, *Rhus copallinum*, *Vaccinium arboreum*, *V. myrsinites*,  
*Cartrema americana*, *Chionanthus virginicus*, *Ilex glabra*, *Sassafras albidum*, *Serenoa repens*, *Pteridium*  
*aquilinum*

Voucher: 23362

WPT 376        31.96159104    -82.667278

Mn: Mascotte sand

Jeep trail along ecotone between cut-over pocosin and flatwoods, moist sand

*Cliftonia monophylla*, *Cyrilla racemiflora*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*,  
*Persea palustris*, *Ilex glabra*, *Lyonia lucida*, *L. fruticosa*, *Morella caroliniensis*, *Serenoa repens*, *Vaccinium*  
*myrsinites*, *Hypericum cistifolium*, *H. galioides*, *Pteridium aquilinum*, *Polygala lutea*, *Sabatia brevifolia*,  
*Syngonanthus flavidulus*, *Centella*, *Drosera*, *Rhynchospora inexpansa*

Vouchers: 23363 – 23367

WPT 377        31.96171501    -82.66726401

Mn: Mascotte sand

Cut-over flatwoods scrub adjacent to pocosin, over grayish-white sand

*Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Ilex glabra*, *Serenoa repens*, *Lyonia fruticosa*, *L.*  
*mariana*, *L. lucida*, *Vaccinium myrsinites*, *V. stamineum*, *Diospyros virginiana*, *Aristida beyrichiana*, *Xyris*  
*caroliniana*, *Bulbostylis warei*, *Andropogon glaucopsis*, *Pteridium aquilinum*, *Sericocarpus tortifolius*

Vouchers: 23368 – 23369

WPT 378        31.95905702    -82.66258498

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Degraded mesic flatwoods, over sandy substrate, along north side of access road

*Quercus nigra*, *Q. hemisphaerica*, *Q. elliotii*, *Persea palustris*, *Sassafras albidum*, *Pinus taeda*,  
*Liquidambar styraciflua*, *Nyssa sylvatica*, *Chionanthus virginicus*, *Crataegus americana*, *Hamamelis*  
*virginiana*, *Symplocos tinctoria*, *Vaccinium arboreum*, *V. myrsinites*, *Morella cerifera*, *Ilex glabra*, *I.*  
*opaca*, *I. decidua*, *I. vomitoria*, *Castanea pumila*, *Viburnum obovatum*, *Crataegus*, *Lyonia mariana*,  
*Callicarpa americana*, *Serenoa repens*, *Smilax pumila*, *Muscadinia rotundifolia munsoniana*, *Aristida*  
*beyrichiana*, *Pteridium aquilinum*, *Solidago odora*, *Tephrosia virginiana*, *Eupatorium compositifolium*,  
*Anthraenantia villosa*

Vouchers: 23370 – 23375

WPT 379 – 385

Pl: Pelham loamy sand

“Big Pond” – cypress-gum pond, blackwater

*Taxodium ascendens*, *Nyssa biflora*, *Gordonia lasianthus*, *Persea palustris*, *Ilex myrtifolia*, *Lyonia lucida*,  
*Eubotrys racemosa*, *Morella cerifera*, *Litsea aestivalis*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Woodwardia*  
*virginica*, *Rhynchospora cephalantha*, *Carex glaucescens*, *C. striata*, *Dulichium arundinaceum*, *Ludwigia*  
*pilosa*, *Xyris fimbriata*, *Juncus repens*, *Utricularia purpurea*, *Proserpinaca pectinata*, *Rhexia nashii*

WPT 379      31.95708099    -82.66078798

Voucher: 23376

WPT 380      31.95693397    -82.66042102

WPT 381      31.956939       -82.66013897

*Litsea aestivalis* (23377): 1 plant, 2 m tall, sterile

Voucher: 23377

WPT 382      31.95693204    -82.659929

*Litsea aestivalis*: 2 plants, 1 m tall, sterile

WPT 383      31.95702198    -82.65984301

*Litsea aestivalis*: 1 plant, 1 m tall, sterile



WPT 384      31.95715198   -82.65975902

Litsea aestivalis: 1 plant, 2 m tall, sterile; with old pink flagging tape

WPT 385      31.95705098   -82.65959297

Litsea aestivalis: 1 plant, 2 m tall, sterile

Litsea aestivalis summary: 6 plants, all sterile

**2018-09-09**

WPT 386      31.955156000331044   -82.675617998465896

KdC: Kershaw sand, 2 to 8 % slopes

Edge of bayswamp drain

Gordonia lasianthus, Cliftonia monophylla, Cyrilla racemiflora, Magnolia virginiana, Nyssa biflora, Pinus serotina, Persea palustris, Acer rubrum, Vaccinium, Ilex coriacea, Lyonia lucida, Leucothoe axillaris, Pieris phillyreifolia, Smilax laurifolia

Voucher: 23384

WPT 387      31.955265970900655   -82.679076958447695

Pl: Pelham loamy sand (KdC)

Voucher: none

WPT 388      31.955033959820867   -82.679100008681417

KdC: Kershaw sand, 2 to 8 % slopes

Ecotone along lower slope of sand ridge and bayswamp drain, ±loose sandy soil

Quercus hemisphaerica, Q. margarettae, Q. laevis, Carya glabra, Pinus taeda, P. palustris, Diospyros virginiana, Vaccinium arboreum, Hamamelis virginiana, Ilex opaca, Cartrema americana, Asimina parviflora, Serenoa repens, Clinopodium coccineum, Opuntia, Bignonia capreolata, Aristida beyrichianum, Eupatorium compositifolium, Eriogonum tomentosum, Areolaria pectinata, Hypericum gentianoides, Stipulicida setacea, Carex tenax, Bulbostylis capillaris

Vouchers: 23385 – 23386

WPT 389 – 390

KdC: Kershaw sand, 2 to 8 % slopes

Opening in turkey oak/longleaf pine scrub, with loose sand

*Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Q. hemisphaerica*, *Carya glabra*, *Sideroxylon lanuginosum*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*

389 31.954555017873645 -82.679491024464369

Voucher: 23387

WPT 390 31.953949006274343 -82.679899977520108

Voucher: 23388

WPT 391 31.954821981489658 -82.680603973567486

KdC: Kershaw sand, 2 to 8 % slopes

Ecotone along lower slope of sand ridge and bayswamp drain, ±loose sandy soil

*Nyssa biflora*, *Magnolia virginiana*, *Gordonia lasianthus*, *Persea palustris*, *Amelanchier arborea*, *Cartrema americana*, *Ilex coriacea*, *Vaccinium*, *Lyonia lucida*, *Leucothoe axillaris*, *Smilax laurifolia*, *Osmundastrum cinnamomeum*

Voucher: 23389

WPT 392 31.95280697196722 -82.682433994486928

KdC: Kershaw sand, 2 to 8 % slopes

±flat, sandy upland along lower portion of sandridge and more mesic woods of bluff along small blackwater drain

*Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Carya glabra*, *Pinus taeda*, *P. palustris*, *Symplocos tinctoria*, *Vaccinium arboreum*, *Hamamelis virginiana*, *Ilex opaca*, *Cartrema americana*, *Serenoa repens*

Vouchers: 23390 – 23394

WPT 393 31.952733965590596 -82.68340403214097

Pl: Pelham loamy sand (KdC, Obs)

Sandy bluff along sand ridge and small blackwater drain

*Magnolia grandiflora*, *Pinus glabra*, *Quercus hemisphaerica*, *Carya glabra*, *Amelanchier arborea*,  
*Vaccinium arboreum*, *V. elliotii*, *Hamamelis virginiana*, *Cartrema americana*, *Ostrya virginiana*, *Persea*  
*borbonia*, *Styrax grandifolius*, *Serenoa repens*, *Mitchella repens*

Voucher: 23395

WPT 394      31.957384999841452   -82.672154009342194

Mn: Mascotte sand

Seasonally wet flat, degraded, clear-cut flatwoods

*Gordonia lasianthus*, *Persea palustris*, *Pinus serotina*, *Lyonia lucida*, *Ilex glabra*, *Arundinaria tecta*, *Carex*  
*glaucescens*, *Pteridium aquilinum*, *Rhexia mariana*

Vouchers: 23396 – 23398

WPT 395      31.954160984605551   -82.666928982362151

Pl: Pelham loamy sand (KdC)

Edge of bayswamp drain

*Pinus serotina*, *Magnolia virginiana*, *Gordonia lasianthus*, *Nyssa biflora*, *Ilex coriacea*, *Vaccinium*, *Lyonia*  
*ligustrina*, *L. lucida*, *Gaylussacia frondosa*, *Eubotrys racemosa*, *Clethra alnifolia*, *Smilax laurifolia*,  
*Osmundastrum cinnamomeum*

Voucher: 23399

WPT 396      31.953826965764165   -82.666123984381557

KdC: Kershaw sand, 2 to 8 % slopes (Pl)

Ecotone along base of sandridge and edge of pocosin

*Quercus laevis*, *Q. margarettae*, *Serenoa repens*, *Lyonia lucida*

Vouchers: 23400 – 23402

WPT 397 – 401

WPT 397      31.953738033771515   -82.663743020966649

KdC: Kershaw sand, 2 to 8 % slopes (Pl)

Turkey oak/longleaf pine scrub, with loose sand

*Pinus palustris*, *Quercus laevis*, *Q. margarettae*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Licania michauxii*, *Aristida beyrichiana*, *Clinopodium coccineum*, *Tephrosia virginiana*

Voucher: 23403

WPT 398      31.953344000503421   -82.664080979302526

Vouchers: 23404 – 23405

WPT 399      31.95360098965466   -82.665804969146848

Vouchers: 23406

WPT 400      31.953649017959833   -82.666910039260983

KdC: Kershaw sand, 2 to 8 % slopes

Vouchers: 23407 – 23408

WPT 401      31.954002985730767   -82.667803969234228

Turkey oak/longleaf pine scrub, with loose white sand, lower slope of sandridge

Vouchers: 23409 – 23413

WPT 402 – 403

Pl: Pelham loamy sand (KdC)

Ecotone along base of sandridge and edge of bayswamp, sandy soil

WPT 402      31.95284997113049   -82.660788986831903

Vouchers: 23414 – 23415

WPT 403      31.952587030827999   -82.660739030689001

Voucher: none

### **2018-10-08**

WPT 404 – 405

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Remnant oak-hickory ridge, sandy soil

*Carya tomentosa*, *Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Nyssa sylvatica*, *Prunus serotina*, *Persea palustris*, *Rhus copallinum*, *Cartrema*, *Crataegus lassa*, *Vaccinium arboreum*, *V. stamineum*, *Ilex opaca*, *I. decidua*, *Viburnum obovatum*, *Chionanthus virginicus*, *Persea palustris*, *Serenoa repens*, *Ilex glabra*, *Asimina angustifolia*, *Morella pumila*, *Callicarpa americana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Opuntia mesacantha*, *Aureolaria pectinata*, *Aristida beyrichiana*, *Solidago odora*, *Eupatorium compositifolium*, *Eriogonum tomentosum*, *Sericocarpus tortifolius*, *Aristolochia serpentaria*, *Cyperus plukenetii*, *Gymnopogon*, *Dichantherium aciculare*, *Paronychia americana*

WPT 404      31.96151904    -82.66374101

Voucher: 23438

WPT 405      31.96191701    -82.66397604

Vouchers: 23439 – 23445

WPT 406      31.961714      -82.66312402

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Degraded flatwoods and roadside, sandy soil

Vouchers: 23446 – 23451

WPT 407      31.97192702    -82.678192

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Degraded sand ridge

*Quercus margarettae*, *Q. incana*, *Q. hemisphaerica*, *Vaccinium arboreum*, *V. stamineum*, *Cartrema*, *Crataegus lassa*, *Ilex decidua*, *Diospyros*, *Serenoa repens*, *Smilax auriculata*, *Aristida beyrichiana*, *Eupatorium compositifolium*

Vouchers: 23452 – 23453

WPT 408      31.97858702    -82.676884

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Blackjack knoll

*Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lassa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Eupatorium compositifolium*, *Berlandiera pumila*, *Aureolaria pectinata*, *Sericocarpus*

tortifolius, *Symphyotrichum concolor*, *Amsonia ciliata*, *Chrysopsis gossypina*, *Liatris elegans*,  
*Schizachyrium scoparium*, *Gymnopogon*

Vouchers: 23454 – 23464

WPT 409        31.97905599    -82.67593802

Pl: Pelham loamy sand

Lower slope of blackjack knoll, ecotonal to bayswamp

*Pinus glabra*, *Juniperus virginiana*

Vouchers: 23465 – 23466

WPT 410        31.97857001    -82.67545003

Pl: Pelham loamy sand

Bayswamp drain

*Liriodendron tulipifera*, *Nyssa biflora*, *Magnolia virginiana*, *Acer rubrum*, *Cyrilla racemiflora*, *Persea palustris*, *Lyonia lucida*, *Morella cerifera*, *M. caroliniensis*, *Vaccinium fuscatum*, *Ilex coriacea*, *Arundinaria tecta*, *Rubus pensilvanicus*, *Hypericum galioides*, *Osmundastrum cinnamomeum*, *Bartonia*

Voucher: 23467

WPT 412        31.97952798    -82.68177803

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Blackjack knoll, sandy opening

*Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lassa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Eupatorium compositifolium*, *Berlandiera pumila*, *Aureolaria pectinata*, *Sericocarpus tortifolius*, *Symphyotrichum concolor*, *Amsonia ciliata*, *Chrysopsis gossypina*, *Liatris elegans*, *Schizachyrium scoparium*, *Gymnopogon*

With *Dicerandra* and *Agalinus*

WPT 413        31.98034203    -82.67962798

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Degraded sand ridge

*Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lasa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Eupatorium compositifolium*, *Berlandiera pumila*, *Aureolaria pectinata*, *Sericocarpus tortifolius*, *Symphytotrichum concolor*, *Amsonia ciliata*, *Chrysopsis gossypina*, *Liatris elegans*, *Schizachyrium scoparium*, *Gymnopogon*

Vouchers: 23468 – 23469

WPT 414        31.97156902    -82.67995798

LTC: Lakeland and Troup soils, 0 – 8 % slopes

Degraded sand ridge

Vouchers: 23470 – 23472

WPT 415 – 416

Oh: Ocilla loamy sand, 0 to 2 percent slopes

Sandy flat along base of sand ridge

*Pinus palustris*, *Quercus hemisphaerica*, *Q. margarettae*, *Q. laevis*, *Carthagenia americana*, *Sassafras albidum*, *Persea borbonia*, *Nyssa sylvatica*, *Magnolia grandiflora*, *Prunus serotina*, *Symplocos tinctoria*, *Ilex opaca*, *I. glabra*, *Chionanthus virginicus*, *Lyonia ferruginea*, *L. mariana*, *Castanea pumila*, *Vaccinium arboreum*, *Serenoa repens*, *Morella pumila*, *Smilax auriculata*, *Opuntia mesacantha*, *Polygonum pinicola*, *Pteridium aquilinum*, *Tephrosia virginiana*, *Solidago odora*, *Liatris patens*, *L. tenuifolia*, *Cyperus diminutus*

WPT 415        31.94864603    -82.66007803

Voucher: 23473

WPT 416        31.94703997    -82.66203403

Vouchers: 23474 – 23475

WPT 417 – 420

Pl: Pelham loamy sand

Margin of isolated ±circular pond

*Nyssa biflora*, *Cliftonia monophylla*, *Cyrilla racemiflora*, *Persea palustris*, *Pinus elliottii*, *Lyonia lucida*, *Eubotrys racemosa*, *Clethra alnifolia*, *Ilex myrtifolia*, *Hypericum myrtifolium*, *Smilax laurifolia*, *Anchistea virginica*, *Rhynchospora cephalantha*, *Dulichium arundinaceum*, *Carex striata*, *Xyris fimbriata*, *Panicum verrucosum*, *Sphagnum*

WPT 417      31.94644502    -82.661323

Vouchers: 23476 – 23479

WPT 418      31.94614101    -82.66049403

Vouchers: 23480 – 23481

WPT 419      31.94669204    -82.66086501

Vouchers: 23482 – 23483

WPT 420      31.94656799    -82.66135401

### 2018-11-23

WPT 444      31.97951096    -82.68175397

LTC: Lakeland and Troup soils, 0 to 8 percent slopes

Degraded sand ridge

*Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Crataegus*, *Serenoa repens*, *Smilax auriculata*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Dicerandra*, *Solidago odora*, *Eupatorium compositifolium*, *Andropogon ternarius*, *A. gyrans*, *Schizachyrium scoparium*, *Dichanthelium aciculare*

Vouchers: 23580 – 23581

WPT 445      31.95636601    -82.65297697

Pl: Pelham loamy sand

Seep along backslope of ditch and adjacent hydric flatwoods

Vouchers: 23582 – 23584

### 2018-12-02

WPT 447      31.95252        -82.66056



Pl: Pelham loamy sand

Ecotone along lower slope of sandridge and bayswamp, with an admixture of upland and wetland species

Voucher: 23588

**Appendix C. GA DNR-WRD Special Plant Survey Form Data for Rare Plant Taxa Observed at Alligator Creek Wildlife Management Area, Wheeler County, Georgia**

Element name: *Agalinis tenella* \_01

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 8 October 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.98034203, -82.67962798

Datum (NAD 1983 preferred):

Site description: 3.51 airmi N (359.86°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

Additional GPS data: NA

Biology

Phenology: in leaf, in flower

Population size: 11-50 plants

Population area: 10–100 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): plants locally common

Evidence of reproduction: yes, sexual

Describe: plants were observed in flower

Evidence of symbiotic or parasitic relationship: ?

Describe: *Agalinis* species are hemiparasitic on oaks, and there were a variety of oaks in the immediate area.

Evidence of disease: no

Describe:

Habitat

Aspect: N

Slope: moderate (5-19°)

Light: open to partial

Topo position: midslope

Moisture regime: dry (xeric)

Soil texture: sandy, soils mapped as Lakeland and Troup soils, 0 – 8 % slopes [LTC]

Plant community: degraded sand ridge, with *Quercus marilandica*, *Q. margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Prunus serotina*, *Diospyros virginiana*, *Ilex opaca*, *Vaccinium arboreum*, *V. stamineum*, *V. myrsinites*, *Crataegus lassa*, *Rhus copallinum*, *Serenoa repens*, *Toxicodendron pubescens*, *Nolina georgiana*, *Yucca*, *Clinopodium coccineum*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium*

*aquilinum, Tephrosia virginiana, Solidago odora, Eupatorium compositifolium, Berlandiera pumila, Aureolaria pectinata, Sericocarpus tortifolius, Symphyotrichum concolor, Amsonia ciliata, Chrysopsis gossypina, Liatris elegans, Schizachyrium scoparium, Gymnopogon*

Voucher: Carter 23468 (VSC)

Element name: ***Agalinis tenella\_02***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 8 October 2018, 23 November 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.97951096, -82.68175397

Datum (NAD 1983 preferred):

Site description: 2.47 airmi NW (318.29°) jct. of Hwy GA 19 and Bells Ferry Rd, Alligator Creek Wildlife Management Area

Additional GPS data: NA

### Biology

Phenology: in leaf, in flower (10/8/2018) and in fruit (11/23/2018)

Population size: 55 plants counted

Population area: 10–100 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): plants locally common

Evidence of reproduction: yes, sexual

Describe: plants were observed in flower (10/8/2018) and in fruit (11/23/2018)

Evidence of symbiotic or parasitic relationship: ?

Describe: *Agalinis* species are hemiparasitic on oaks, and there were a variety of oaks in the immediate area.

Evidence of disease: no

Describe:

### Habitat

Aspect: W

Slope: moderate (5-19°)

Light: open to partial

Topo position: midslope

Moisture regime: dry (xeric)

Soil texture: sandy, soils mapped as Lakeland and Troup soils, 0 – 8 % slopes [LTC]

Plant community: degraded sand ridge, with *Quercus margarettae*, *Q. hemisphaerica*, *Q. laevis*, *Q. incana*, *Vaccinium arboreum*, *V. stamineum*, *Crataegus*, *Serenoa repens*, *Smilax auriculata*, *Gelsemium sempervirens*, *Aristida beyrichiana*, *Pteridium aquilinum*, *Dicerandra*, *Solidago odora*, *Eupatorium compositifolium*, *Andropogon ternarius*, *A. gyrans*, *Schizachyrium scoparium*, *Dichanthelium aciculare*

Voucher: Carter 23580 (VSC)

Element name: *Coleataenia tenera*

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 7 August 2016

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates:

Datum (NAD 1983 preferred):

Site description: 31.9664N/82.68484W; 2.57 airmi N (353.13°) of Lumber City, W of Hwy 19; Alligator Creek Tract

Additional GPS data: NA

### Biology

Phenology: in leaf, in fruit

Population size: numerous stems observed

Population area: 5–10 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Although initially observed and vouchered in 2016, plants were not observed during 2018 survey and should be sought in 2019.

Evidence of reproduction: yes, sexual

Describe: plants were observed in fruit

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: flat

Slope: flat (0°)

Light: open

Topo position: Low (terrace)

Moisture regime: saturated

Soil texture: soils mapped as Pelham loamy sand [P]

Plant community: seasonally wet depression in severely cut-over flatwoods; *Helanidium tenellum* also observed at this site

Voucher: *Carter 22754* (VSC)

Element name: *Elliottia racemosa*

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 8 July 2018; 13 July 2018; 9 September 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.95272, -82.66052

Datum (NAD 1983 preferred):

Site description: 975 feet W (238.44°) of kiosk; 1.91 airmi NE (38.16°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area, ca. 150 m SE of unpaved road to Livingston place, E flank of sandridge along W side of bayswamp

Additional GPS data recorded 7/13/2018

31.95296003, -82.66094103: *Elliottia racemosa*: northernmost plant

31.95184398, -82.66046201: *Elliottia racemosa*: cluster of 6 large (for *Elliottia*) trees [DBH to 7.5 in] [2 in flower] + 41 stump sprouts, sprouts sterile, sprouts mostly along bulldozer line

31.951114, -82.65945702: *Elliottia racemosa*: tree about 20 ft tall, mostly past flowering, bare inflorescence axes visible, evidence of no fruits

31.95085198, -82.65939902: *Elliottia racemosa*: southernmost station, 65 sprouts counted along bulldozer line, sterile

#### Biology

Phenology: in leaf, in bud, in flower

Population size: 185 individuals

Population area: 2–3 hectares [ca. 5 acres]

Age structure: ca. 38% were large, mature individuals

Vigor: feeble to normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): 69 large *elliottia* and 116 root sprouts counted (185 total individuals)

Evidence of reproduction: yes, both asexual and sexual

Describe: root sprouting associated with bulldozer damage; mature capsules observed on several individuals (9/9/2018)

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

#### Habitat

Aspect: E

Slope: steep (20-44°)

Light: open to partial

Topo position: midslope, lowslope, toeslope

Moisture regime: moist (mesic) to dry-mesic

Soil texture: sand – Kershaw sand [KdC] transitional to Pelham loamy sand [PI]

Plant community: ecotone along lower slope of sandridge and bayswamp, with an admixture of upland (↑) and wetland (↓) species; with ↑*Quercus hemisphaerica*, *Q. incana*, *Q. laevis*, *Q. margarettae*, *Pinus palustris*, *P. taeda*, *Elliottia racemosa*, *Diospyros virginiana*, *Vaccinium arboreum*, *V. myrsinites*, *V. stamineum caesium*, *Cartrema americana*, *Castanea pumila*, *Sideroxylon lanuginosa*, *Rhus copallinus*, *Styrax grandifolius*, *Pteridium aquilinum*, *Ilex opaca*, *I. glabra*, *Amelanchier*, *Hamamelis virginiana*, *Serenoa repens*, *Licania michauxii*, *Clinopodium coccineum*, *Chrysoma pauciflosculosa*, *Bignonia capreolata*, *Smilax auriculata*, *Aristida beyrichiana*, *Stipulicida setacea*, *Galactia minor*, *Opuntia*, *Cyperus nashii*, *C. grayi*, *Bulbostylis warei*, *Selaginella arenicola*, *Polanisia tenuifolia*, *Rhynchospora megalocarpa*, *Commelina erecta*, *Paronychia herniarioides*; ↓*Cyrilla racemiflora*, *Cliftonia monophylla*, *Gordonia lasianthus*, *Pinus serotina*, *Magnolia virginiana*, *Ilex coriacea*, *Clethra alnifolia*, *Lyonia lucida*, *Morella caroliniensis*, *M. cerifera*, *Pieris phillyreifolia*, *Mitchella repens*, *Persea palustris*, *Erechtites hieraciifolius*, *Smilax laurifolia*, *Gaylussacia frondosa*, *G. dumosa*, *Leucothoe racemosa*, *Vaccinium fuscatum*, *Osmundastum cinnamomeum*, *Cyperus diminutus*

Voucher taken: Carter 23219 (VSC)

Element name: ***Helanthis tenellum***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 7 August 2016

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates:

Datum (NAD 1983 preferred):

Site description: 31.9664N/82.68484W; 2.57 airmi N (353.13°) of Lumber City, W of Hwy 19; Alligator Creek Tract

Additional GPS data: NA

#### Biology

Phenology: in leaf, in fruit

Population size: numerous plants observed

Population area: 10–100 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Although initially observed and voucher in 2016, plants were not observed during 2018 survey and should be sought in 2019.

Evidence of reproduction: yes, sexual

Describe: plants were observed in fruit

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

#### Habitat

Aspect: flat

Slope: flat (0°)

Light: open

Topo position: Low (terrace)

Moisture regime: seasonally saturated

Soil texture: soils mapped as Pelham loamy sand [P]

Plant community: edge of seasonally wet depression in severely cut-over flatwoods; *Coleataenia tenera* also observed at this site

Voucher: *Carter 22746* (VSC)



Element name: ***Litsea aestivalis\_01***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 14 May 2017

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.95563, -82.65805

Datum (NAD 1983 preferred):

Site description: Alligator Creek WMA, 0.32 airmi WNW (306.87°) jct. Hwy GA 19 and Bells Ferry Rd (CR 95), Little Pond

Additional GPS data: NA

#### Biology

Phenology: in leaf

Population size: 18 individuals counted

Population area: 0.43 hectares

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): NA

Evidence of reproduction: no

Describe:

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

#### Habitat

Aspect: flat

Slope: flat (0%)

Light: open

Topo position: low (terrace)

Moisture regime: saturated

Soil texture: soil mapped as Pelham loamy sand [PI]

Plant community: edge of litsea pond (Little Pond); with *Taxodium ascendens*, *Nyssa biflora*, *Ilex myrtifolia*, *Persea palustris*, *Litsea aestivalis*, *Lyonia lucida*, *Leucothoe racemosa*, *Anchistea virginica*

Voucher taken: Carter 22946 (VSC)

Element name: *Litsea aestivalis\_02*

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 19 Aug 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.956939, -82.66013897

Datum (NAD 1983 preferred):

Site description: 2.22 airmi NE (30.93°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

Additional GPS data: NA

31.956939 -82.66013897: 1 plant, 2 m tall, sterile (same point as preceding)

31.95693204 -82.659929: 2 plants, 1 m tall, sterile

31.95702198 -82.65984301: 1 plant, 1 m tall, sterile

31.95715198 -82.65975902: 1 plant, 2 m tall, sterile

31.95705098 -82.65959297: 1 plant, 2 m tall, sterile

### Biology

Phenology: in leaf

Population size: 6 genets (6 individual plants were counted; all plants were sterile)

Population area: ca. 1.5 hectares

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): plants scattered throughout pond, growing on bases of cypress trees in deeper water

Evidence of reproduction: no

Describe:

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: flat

Slope: flat (0%)

Light: open to partial

Topo position: low (terrace)

Moisture regime: inundated

Soil texture: soil mapped as Pelham loamy sand [PI]

Plant community: blackwater cypress gum pond "Big Pond"; with *Taxodium ascendens*, *Nyssa biflora*, *Gordonia lasianthus*, *Persea palustris*, *Ilex myrtifolia*, *Lyonia lucida*, *Eubotrys racemosa*, *Morella cerifera*, *Litsea aestivalis*, *Smilax laurifolia*, *Pieris phillyreifolia*, *Woodwardia virginica*, *Rhynchospora cephalantha*, *Carex glaucescens*, *C. striata*, *Dulichium arundinaceum*, *Ludwigia pilosa*, *Xyris fimbriata*, *Juncus repens*, *Utricularia purpurea*, *Proserpinaca pectinata*, *Rhexia nashii*

Voucher taken: Carter 23377 (VSC)

Element name: ***Marshallia ramosa***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 3 July 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.971333, -82.700334

Datum (NAD 1983 preferred):

Site description: Vicinity of proposed canoe launch, near confluence of Alligator Creek and Little Ocmulgee River; 3.14 airmi NNW (337.15°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341

Additional GPS data: NA

#### Biology

Phenology: in leaf, in fruit

Population size: 2 plants

Population area: 10–100 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Only two plants were observed; observations were made well beyond anthesis when search conditions are optimal; survey should be conducted at the optimal time to better describe this population. Earlier survey by Nature Conservancy personnel reported a larger population than we observed.

Evidence of reproduction: yes, sexual

Describe: plants were observed in fruit

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

#### Habitat

Aspect: W

Slope: moderate (5-19°)

Light: open to partial

Topo position: lowslope

Moisture regime: moist (mesic) to dry-mesic

Soil texture: soils mapped as Osier and Bibb soils, 0 to 2 percent slopes, frequently flooded [Obs]

Plant community: *Quercus nigra*, *Q. hemisphaerica*, *Liquidambar styraciflua*, *Nyssa sylvatica*, *Pinus palustris*, *Ilex opaca*, *Vaccinium arboreum*, *Diospyros virginiana*, *Cyrilla racemiflora*, *Serenoa repens*, *Asimina angustifolia*, *Dytrisenia*, *Chasmanthium laxum*

Element name: ***Muscadinia rotundifolia* var. *munsoniana*\_01**

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 19 August 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.970587, -82.66819599

Datum (NAD 1983 preferred):

Site description: 2.92 airmi NNE (13.21°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

Additional GPS data: NA

### Biology

Phenology: in leaf, in fruit

Population size: 1-10 plants

Population area: 5–10 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Because of the scandent habit, it was not possible to determine with a high degree of confidence how many individual plants were present.

Evidence of reproduction: yes, sexual

Describe: Fruits were present, with well-developed seeds.

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: ±flat

Slope: gentle (0-4°)

Light: open

Topo position: midslope?

Moisture regime: dry (xeric)

Soil texture: dark gray sandy loam, mapped as Ocilla loamy sand, 0 to 2 percent slopes [Oh]

Plant community: heavily cut-over flatwoods over dark gray sandy loam, with *Quercus nigra*, *Q. incana*, *Q. hemisphaerica*, *Diospyros virginiana*, *Liquidambar styraciflua*, *Cartrema americana*, *Serenoa repens*, *Rhus copallinum*, *Ilex glabra*, *Crataegus*, *Morella cerifera*, *Vaccinium arboreum*, *V. stamineum caesium*, *Toxicodendron pubescens*, *Rubus cuneifolius*, *Smilax auriculata*, *Vitis rotundifolia munsoniana*, *Eupatorium compositifolium*, *Euthamia*, *Polygonella*, *Fimbristylis puberula*, *Trichostema dichotoma*, *Polypreum procumbens*, *Solidago odora*, *Cyperus retrorsus*, *Paronychia*, *Rhexia mariana*, *Indigofera*

caroliniana, Coleataenia anceps, Chamaecrista nictitans, Chrysopsis, Penstemon australis, Asclepias  
verticillata

Voucher: *Carter 23325* (VSC)

Element name: ***Muscadinia rotundifolia* var. *munsoniana*\_02**

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 19 August 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.95905702, -82.66258498

Datum (NAD 1983 preferred):

Site description: 2.27 airmi NE (25.95°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341, Alligator Creek Wildlife Management Area

Additional GPS data: NA

### Biology

Phenology: in leaf, in fruit

Population size: 1-10 plants

Population area: 5–10 m<sup>2</sup>

Age structure: 100% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Because of the scandent habit, it was not possible to determine with a high degree of confidence how many individual plants were present.

Evidence of reproduction: yes, sexual

Describe: Fruits were present, with well-developed seeds.

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: ±flat

Slope: gentle (0-4°)

Light: open

Topo position: midslope?

Moisture regime: dry-mesic

Soil texture: sandy, mapped as Lakeland and Troup soils, 0 to 8 percent slopes [LTC]

Plant community: degraded mesic flatwoods, over sandy substrate, along north side of access road, with *Quercus nigra*, *Q. hemisphaerica*, *Q. elliotii*, *Persea palustris*, *Sassafras albidum*, *Pinus taeda*, *Liquidambar styraciflua*, *Nyssa sylvatica*, *Chionanthus virginicus*, *Cartrema americana*, *Hamamelis virginiana*, *Symplocos tinctoria*, *Vaccinium arboreum*, *V. myrsinites*, *Morella cerifera*, *Ilex glabra*, *I. opaca*, *I. decidua*, *I. vomitoria*, *Castanea pumila*, *Viburnum obovatum*, *Crataegus*, *Lyonia mariana*, *CalliCARPA americana*, *Serenoa repens*, *Smilax pumila*, *Muscadinia rotundifolia munsoniana*, *Aristida*

*beyrichiana*, *Pteridium aquilinum*, *Solidago odora*, *Tephrosia virginiana*, *Eupatorium compositifolium*,  
*Anthraenantia villosa*

Voucher: Carter 23370 (VSC)



Element name: ***Penstemon dissectus***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 3 July 2018

Surveyor(s): Frankie Snow, Richard Carter

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.971333, -82.700334

Datum (NAD 1983 preferred):

Site description: Vicinity of proposed canoe launch, near confluence of Alligator Creek and Little Ocmulgee River; 3.14 airmi NNW (337.15°) of Lumber City jct. Hwy GA 19 and Hwy US 23/341

Additional GPS data: NA

### Biology

Phenology: in leaf, in fruit

Population size: ca. 50 plants observed

Population area: ca. 200 m<sup>2</sup>

Age structure: 80% juvenile, 20% mature

Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Observations were made well beyond anthesis when search conditions were less than optimal; survey should be conducted during anthesis to better describe this population.

Evidence of reproduction: yes, sexual

Describe: some plants were observed in fruit

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: W

Slope: moderate (5-19°)

Light: open to partial

Topo position: lowslope

Moisture regime: moist (mesic) to dry-mesic

Soil texture: soils mapped as Osier and Bibb soils, 0 to 2 percent slopes, frequently flooded [Obs]

Plant community: *Quercus nigra*, *Q. hemisphaerica*, *Liquidambar styraciflua*, *Nyssa sylvatica*, *Pinus palustris*, *Ilex opaca*, *Vaccinium arboreum*, *Diospyros virginiana*, *Cyrilla racemiflora*, *Serenoa repens*, *Asimina angustifolia*, *Dytrisenia*, *Chasmanthium laxum*

Element name: *Sarracenia flava\_01*

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 25 Sep 2016

Surveyor(s): Frankie Snow

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.956583, -82.652948

Datum (NAD 1983 preferred):

Site description: 1897.4 feet NE (heading 51.87°) of kiosk, edge of barrow pit east side of Hwy GA 19

Additional GPS data: NA

### Biology

Phenology: in leaf

Population size: 7 plants

Population area: 5–10 m<sup>2</sup>

Age structure: 100% mature

Vigor: feeble

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Seven (7) plants were observed with 246 leaves and no flowering/fruitlet scapes.

Evidence of reproduction: no

Describe:

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: flat

Slope: flat (0%)

Light: partial

Topo position: low (terrace)

Moisture regime: saturated

Soil texture: sandy loam, soil mapped as Pelham loamy sand [PI]

Plant community: beside Hwy GA 19 in edge of cut-over Gordonia swamp; *Sarracenia minor* also present

Element name: ***Sarracenia flava\_02***  
Site name: Alligator Creek Wildlife Management Area  
Survey date(s): 25 Sep 2016  
Surveyor(s): Frankie Snow  
Quad name: Lumber City  
State: Georgia  
County: Wheeler  
GPS coordinates: 31.955390, -82.654080  
Datum (NAD 1983 preferred):  
Site description: 1289.16 feet NE (heading 59.65°) of kiosk  
Additional GPS data: NA

#### Biology

Phenology: in leaf  
Population size: 1 – 10 ramets  
Population area: 1 m<sup>2</sup>  
Age structure: senescent  
Vigor: feeble

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): within *Ilex myrtifolia* pond

Evidence of reproduction: no, senescent due to droughty conditions  
Describe: sepals persistent on flowers, petals shed

Evidence of symbiotic or parasitic relationship: no  
Describe:

Evidence of disease: no  
Describe:

#### Habitat

Aspect: flat  
Slope: flat (0%)  
Light: partial  
Topo position: channel bed  
Moisture regime: inundated, saturated  
Soil texture: soil mapped as Pelham loamy sand [PI]

Plant community: *Ilex myrtifolia* pond

Element name: ***Sarracenia minor\_01***

Site name: Alligator Creek Wildlife Management Area

Survey date(s): 25 Sep 2016

Surveyor(s): Frankie Snow

Quad name: Lumber City

State: Georgia

County: Wheeler

GPS coordinates: 31.956583, -82.652948

Datum (NAD 1983 preferred):

Site description: 1897.4 feet NE (heading 51.87°) of kiosk, edge of barrow pit east side of Hwy GA 19

Additional GPS data: NA

### Biology

Phenology: in leaf, mature fruit

Population size: 7 plants

Population area: 5–10 m<sup>2</sup>

Age structure: 100% mature

Vigor: feeble

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): Seven (7) plants were observed with 211 leaves and 48 scapes.

Evidence of reproduction: no

Describe:

Evidence of symbiotic or parasitic relationship: no

Describe:

Evidence of disease: no

Describe:

### Habitat

Aspect: flat

Slope: flat (0%)

Light: partial

Topo position: low (terrace)

Moisture regime: saturated

Soil texture: sandy loam, soil mapped as Pelham loamy sand [PI]

Plant community: beside Hwy GA 19 in edge of cut-over *Gordonia* swamp; *Sarracenia minor* also present

Element name: ***Sarracenia minor\_02***  
Site name: Alligator Creek Wildlife Management Area  
Survey date(s): 25 Sep 2016  
Surveyor(s): Frankie Snow  
Quad name: Lumber City  
State: Georgia  
County: Wheeler  
GPS coordinates: 31.955390, -82.654080  
Datum (NAD 1983 preferred):  
Site description: 1289.16 feet NE (heading 59.65°) of kiosk  
Additional GPS data: NA

#### Biology

Phenology: in leaf  
Population size: 1 – 10 ramets  
Population area: 1 m<sup>2</sup>  
Age structure: senescent  
Vigor: feeble

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): within *Ilex myrtifolia* pond

Evidence of reproduction: no, senescent due to droughty conditions  
Describe: sepals persistent on flowers, petals shed

Evidence of symbiotic or parasitic relationship: no  
Describe:

Evidence of disease: no  
Describe:

#### Habitat

Aspect: flat  
Slope: flat (0%)  
Light: partial  
Topo position: channel bed  
Moisture regime: inundated, saturated  
Soil texture: soil mapped as Pelham loamy sand [PI]

Plant community: *Ilex myrtifolia* pond

Element name: ***Sarracenia minor\_03***  
Site name: Alligator Creek Wildlife Management Area  
Survey date(s): 26 Aug 2018  
Surveyor(s): Frankie Snow  
Quad name: Lumber City  
State: Georgia  
County: Wheeler  
GPS coordinates: 31.955284, -82.658814  
Datum (NAD 1983 preferred):  
Site description: 689.26 feet NW (heading 328.45°) of kiosk  
Additional GPS data: NA

#### Biology

Phenology: immature fruit  
Population size: 51 – 100 ramets  
Population area: 10 – 100 m<sup>2</sup>  
Age structure: 20% juvenile, 80% mature  
Vigor: normal

Comments on above, general description of the character of the occurrence (e.g. stem density, dispersion in space): NA

Evidence of reproduction: yes, sexual  
Describe: sepals persistent on flowers, petals shed

Evidence of symbiotic or parasitic relationship: no  
Describe:

Evidence of disease: no  
Describe:

#### Habitat

Aspect: flat  
Slope: flat (0%)  
Light: open  
Topo position: low (terrace)  
Moisture regime: saturated  
Soil texture: muck; soil mapped as Pelham loamy sand [PI]

Plant community: NW edge of litsea pond (Little Pond)

#### **Appendix D. *Elliottia racemosa* Muhl. ex Elliott at Alligator Creek Wildlife Management Area**

As a part of the management plan at the new Alligator Creek Wildlife Management Area in Wheeler County, Georgia Department of Natural Resources requested a rare plant survey on the property. Of particular interest was to determine whether *Elliottia racemosa*, *Litsea aestivalis*, *Lindera mellissifolia*, *Sarracenia flava*, *S. minor*, and *Amorpha georgiana* might exist on the tract.

On July 8, 2018 *Elliottia racemosa* was located (Lat. 31.95272 Long -82.66052) along the ACWMA property line on an ecotonal slope of a Kershaw sand ridge that abuts a bay swamp. While a few plants are clearly on DNR property, most of the plants extend up the slope onto the adjacent landowner's tract (J D Mitchell) with four outlier plants well up on the sand ridge. A colony of 40 large plants, some 20-30 feet tall, was observed. Most had passed anthesis but a few retained racemes of flowers and some had yet to flower. Subsequent visits increased the total plant inventory to 69 large *Elliottia* plants and 116 root sprouts that resulted from bulldozer damage. On September 9, 2018 we checked the colony for potential seed production and found three plants with seed capsules on them. One, a three meter high plant, had 8 open capsules. A second *Elliottia* had 5 green and 5 brown capsules. A third plant had 7 green plus 8 brown capsules. Whether any will produce viable seed is unknown. On October 17, 2018 a visit to the *Elliottia* colony with DNR and TNC personnel revealed that during the passage of Hurricane Michael on October 10-11<sup>th</sup> several of these large *Elliottia* trees had their tops snapped off by high winds. Well before this storm event, *Elliottia* with snapped off upper portions of their main trunk was observed with sprouts vigorously growing to replace the missing upper section. The impression was that these are very old plants with one measuring 23.75" in circumference or 7.56" DBH and another measuring 20" in circumference or 6.28" DBH (Figure 2).

Thirty-four years earlier Drs. John Bozeman (GADNR) and George Rogers (GSU) surveyed this area for *Elliottia* from a helicopter. They missed the above colony but recorded the plant just off of what would become ACWMA. They noted *Elliottia* along a drainage having a beaver pond that flows into Alligator Creek near the northwest edge of the WMA. The plants were situated on the ecotone of two Lakeland and Troup sandy knolls south of the beaver pond (~Lat 31.983725 Lon -82.683905) & (~Lat 31.983102 Lon -82.682687). On June 28, 1984 Snow and Chris Trowell joined Bozeman and Rogers as they re-visited their find from the ground.

On July 22, 1984 Snow and Dr. Jim Cottingham canoed the Little Ocmulgee River and up Alligator Creek where they spotted a recent timber harvest area. Walking along a logging road they could see a few *Elliottia* shrubs in flower but these were not in the nearby area where Bozeman and Rogers had recorded *Elliottia* a month earlier. Here we located two small patches of *Elliottia* along the ecotone of a Lakeland and Troup sand ridge in a recent timbered area. (~Lat 31.983215 Lon -82.690745) & (~Lat 31.982833 Lon -82.689191) (Figure 3).

Snow's logbook records the field trip:

##### **Logbook V pages 125-126**

7-22-84 Jim Cottingham and I canoed on the Little Ocmulgee River and Alligator Creek this Sunday. We found two *Elliottia* colonies ~1/3 mile west of where Chris, Dr. Bozeman, and Dr. George Rogers and I had confirmed two colonies to exist on 6-28-84 (see page 123). We were surprised to see them blooming at this late date. Some had bloomed-out but most had yet to begin flowering. I predict that a few flowers will persist into August. We saw several instances of new spike growth. In fact, some showed new spikes with smaller secondary spikes projecting from their bases. Jim spotted the first

colony at the bottom of the slope of a large sand ridge. A logging road passes just to its west. Only 8-10 plants were found here. Timbering had ruined some of these plants. This colony was named the Logging Road Colony. The second colony was located southeast around the next point. This colony was located close to a beaver pond judging from the sound of water coming through the trees along the branch. This colony was named Beaver Pond #2. It extended along the slope of the sand ridge for about 115 paces. It contained some of the largest trees yet found. One or two appeared to be around 20-25 feet tall and 4-5 inches in diameter. Timbering equipment had destroyed some of these Elliottia. Along the ridge op Red Basil (*Calamintha coccinea*) was in bloom. Its red flowers had attracted many Ruby Throated Hummingbirds; eight were spotted. It's quite likely that this area will be plowed and set in pine seedlings by next winter which will destroy many of these rare plants...



### **Appendix E. An unusually large Swamp Blackgum, *Nyssa biflora* Walter, at ACWMA**

Saturday 28 July 2018 while searching without success for a rare plant, *Amorpha georgiana*, along the Little Ocmulgee River and Alligator Creek an unusually large *Nyssa biflora* (Figure 4) was spotted at the junction of a sand bluff and the Alligator Creek floodplain (N 31.97444 W -82.69815). An initial tape measurement of its circumference at 150.26" suggested it might qualify as a state record. The current listed state record *Nyssa biflora* "weighed-in" at 131" circumference.

Seth Hawkins, Georgia Forestry Commission Certified Arborist and in charge of the Georgia Champion Tree Program, was summoned to measure the tree. 13 November 2018, Seth and Alex Ballard arrived and I accompanied them to the tree for measurements. At 4.5 feet above the ground surface a tape measurement showed it to be 151" in circumference. Height was determined using a clinometer to be 109'. The average crown width was 65'. The overall score for the tree is 276 compared to the current listed state champion at 247 which reportedly has recently fallen over.

As part of the fire management plan, care should be exercised during controlled burns to prevent ignition at the base of this magnificent tree where woodrats (*Neotoma* sp.) have constructed a stick nest. Adding character to this old tree is a large lightning strike scar that had healed many years ago.

That area along the upper reaches of the Little Ocmulgee River drainage is known as Gum Swamp so it seems appropriate that this drainage system should harbor the state's grandest example of the species. On Alligator Creek Wildlife Management Area there exists an excellent example of gum swamp habitat.

#### LIST OF FIGURES

Figure 1. Map of Alligator Creek Wildlife Management Area (ACWMA) in Wheeler County, Georgia.

Figure 2. Large Elliottia mostly with shed flowers July 13, 2018 with root sprouts in foreground.

Figure 3. Frankie Snow with Elliottia on sandridge along Alligator Creek on July 22, 1984, near present day Alligator Creek Wildlife Management Area.

Figure 4. State champion *Nyssa biflora* with DNR and TNC personnel at its base. Note lightning scar.

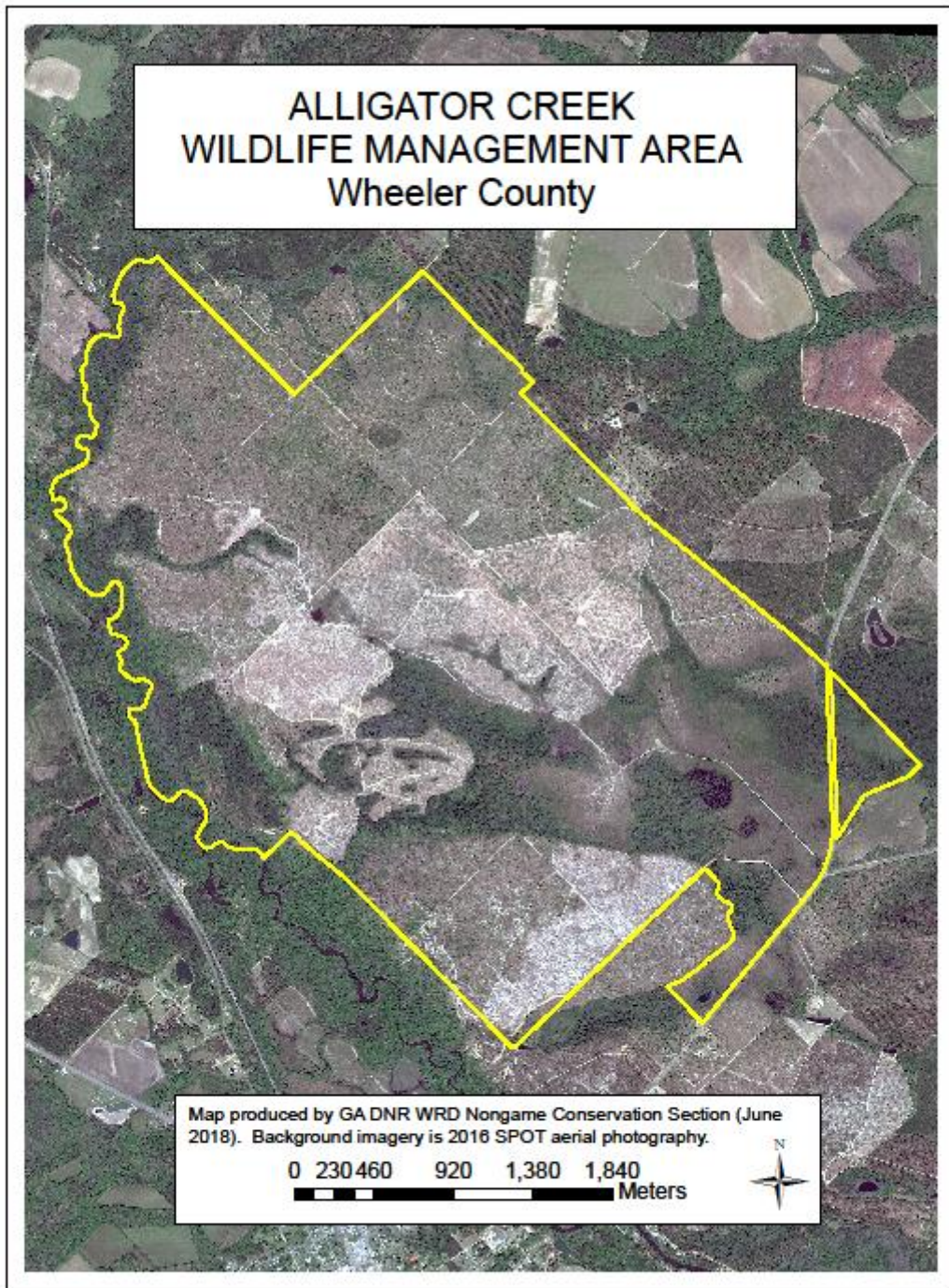


Figure 1. Map of Alligator Creek Wildlife Management Area (ACWMA) in Wheeler County, Georgia.





Figure 2. Large *Elliottia* mostly with shed flowers July 13, 2018 with root sprouts in foreground.





Figure 3. Frankie Snow with Elliottia on sandridge along Alligator Creek on July 22, 1984, near present day Alligator Creek Wildlife Management Area.





Figure 4. State champion *Nyssa biflora* with DNR and TNC personnel at its base. Note lightning scar.