

Aucilla Sinks Magnolia Chapter FNPS
September 2013 Field Trip

Scott Davis led the Magnolia Chapter's September field trip on a balmy late summer day in North Florida, with a good turnout of folks hiking and botanizing in the wonderland of natural diversity called the Aucilla Sinks. Solution holes and disappearing river boils formed in Suwannee limestone of Oligocene age (23-34 million ybp) on the boundary of Jefferson and Taylor Counties. The site is in the Aucilla Wildlife Management Area southwest of Tallahassee, up Powell Hammock Road off US Hwy 98 just east of the Aucilla River. There, Scott Davis trekked us into two fascinating spots in a land which swallowed up a river. The forest contained a multi-strata canopy of evergreen and deciduous shrubs, subcanopy and canopy trees. Dr. Loran Anderson made plant identification in the bewildering blend of greenery seem easy. Lunchtime found the group on the banks of the Aucilla River a short drive north of the sinks area. In this scenic setting, Dr. A. added the cupgrass, a grass in the *Eriochloa* genus, to our plant vocabulary.

Aucilla sinks formed in Suwannee limestone of Oligocene age (23-34 million ybp); sinks, springs and other karst features also extend offshore for [many] miles in a shallow limestone platform known as the West Florida shelf off the Big Bend coast. Several underwater prehistoric Indian sites have been found on this shelf which was exposed when paleoindians first reached Florida ca 13,000 ybp and sea level had not yet reached its current level following the melting of the Wisconsin glacier.

The Aucilla River disappears underground a little north of the road to Goose Pasture and re-surfaces many times until it finally resumes continuous surface flow just north of US98 at a large sinkhole called Nuttall Rise. Its underground route is marked by a series of sinkholes known as the Aucilla sinks – as well as limestone channels or karst collapse features where the limestone roof overlying the underground channel through the limestone has collapsed and the river is exposed to the surface for short stretches – two of which are known as HalfMile Rise and Little River.

Many archaeological sites and large Pleistocene megafauna fossil discoveries are associated with the Aucilla and Wacissa Rivers. A Columbian mammoth (*Mammuthus columbi*) found in the Aucilla River in 1968 and dated to 16,000 ybp is on display at the Florida Museum of Natural History at UF. Mammoths went extinct in North America by 11,000 ybp. A Pleistocene-age buffalo (*Bison antiquus*) with a projectile point in its skull was found in the Wacissa River bed and dated to 11,000 ybp (site is called the Ryan-Harley site so I presume it was found by the Means brothers [Bruce's sons]). [summarized from Roadside Geology of Florida by Bryan, Scott and Means 2008, pages 162-168]. The Wacissa is also noted for an abundance of aquatic rodent fossils including capybara and giant beaver [from Florida's Fossils by R.C. Brown 1988].

Visit the Florida Trail Association website for more information on the sinks trail:
<http://apalachee.floridatrail.org/wp-content/uploads/2006/08/6-14-11-AUCILLA-RIVER-AND-SINKS-FNST-HANDOUT.doc>

Site 1: Aucilla Sinks Trailhead at Goose Pasture Rd. Mesic Flatwood/Mesic Hammock
-83 55.4' 30 12.1'

A short hike off the Goose Pasture Rd. trailhead lead us north past several mostly dry sinks in a mixed pine and temperate hardwood forest on the way to the Aucilla Sink, where the river disappears underground. Another trail south of the trailhead led by several long sinks, karst windows to the underworld, holding ferns and wetland species such as large bald cypress and several river birch. Slash pine, water and laurel oak and hackberry appeared to be the canopy dominants with a subcanopy of wild olive, American holly, American hornbeam, hop hornbeam, sparkleberry and hawthorns and a shrub layer of saw palmetto, arrowwood and Walter's viburnums, gum bumelia, staggerbush, Elliott's and other blueberries and switchcane.

Here's a plant Dr. Ann Johnson put together several years ago when she was working on a nearby natural community in the Aucilla area. Several of the Aucilla Sinks species have been added.

canopy

MAGNOLIA VIRGINIANA
QUERCUS LAURIFOLIA
ACER RUBRUM
LIQUIDAMBAR STYRACIFLUA
FRAXINUS PENNSYLVANICA
NYSSA BIFLORA
TAXODIUM DISTICHUM
QUERCUS VIRGINIANA
ULMUS AMERICANA
CELTIS LAEVIATA
QUERCUS MICHAUXII
QUERCUS NIGRA
QUERCUS SHUMARDII
MAGNOLIA GRANDIFLORA
QUERCUS NIGRA
SABAL PALMETTO
DIOSPYROS VIRGINIANA
LIRIODENDRON TULIPIFERA
PERSEA BORBONIA, PALUSTRIS
PINUS TAEDA, GLABRA, ELLIOTTI
FRAXINUS PROFUNDA
MORUS RUBRA
ACER SACCHARUM SPP FLORIDANUM
CARYA GLABRA
GLEDITSIA TRIACANTHOS
TILIA AMERICANA
CATALPA BIGNONIOIDES (naturalized from
planting?)
PINUS GLABRA
QUERCUS ALBA
ULMUS ALATA
PRUNUS SEROTINA

subcanopy

ULMUS ALATA
CHIONANTHUS VIRGINICUS
CARPINUS CAROLINIANA
SABAL PALMETTO
FRAXINUS PENNSYLVANICA
ACER RUBRUM
LIQUIDAMBAR STYRACIFLUA
QUERUS LAURIFOLIA
PERSEA PALUSTRIS
ULMUS AMERICANA
MAGNOLIA GRANDIFLORA
QUERCUS MICHAUXII
MAGNOLIA VIRGINIANA

FRAXINUS CAROLINIANA
CERCIS CANADENSIS
ILEX OPACA
QUERCUS NIGRA
TAXODIUM DISTICHUM
ULMUS ALATA
ACER NEGUNDO
CATALPA BIGNONIOIDES (naturalized from
planting?)
GLEDITSIA TRIACANTHOS
GORDONIA LASIANTHUS
MORUS RUBRA
PINUS GLABRA
ACER SACCHARUM SPP FLORIDANUM
CELTIS LAEVIGATA
CORNUS FOEMINA
DIOSPYROS AMERICANA
FRAXINUS AMERICANA (?)
FRAXINUS PROFUNDA
HALESIA SP.
ILEX CASSINE
NYSSA SYLVATICA
QUERCUS SHUMARDII
FRAXINUS CAROLINIANA
ILEX MYRTIFOLIA
OSMANTHUS AMERICANUS
MALUS ANGUSTIFOLIA
BETULA NIGRA
tall shrub /sapling
MYRICA CERIFERA
CORNUS FOEMINA
PERSEA PALUSTRIS
ILEX CASSINE
SABAL PALMETTO
VIBURNUM OBOVATUM
VIBURNUM DENTATUM
CEPHALANTHUS OCCIDENTALIS
TAXODIUM DISTICHUM
ULMUS AMERICANA
ILEX OPACA
ITEA VIRGINICA
CRATAEGUS SPATHULATA(?)
CRATAEGUS UNIFLORA (?)
DIOSPYROS AMERICANA
GLEDITSIA TRIACANTHOS
HALESIA SP.
HAMAMELIS VIRGINIANA
QUERCUS LAURIFOLIA
SALIX CAROLINIANA
SYMPLOCOS TINCTORIA
CLETHRA ALNIFOLIA

ILEX VOMITORIA
LYONIA LUCIDA
LYONIA FERRUGINEA
ARALIA SPINOSA
short shrub
SABAL MINOR
AESCULUS PAVIA
ARUNDINARIA GIGANTEA
RAPIDOPHYLLUM HYSTRIX
PERSEA PALUSTRIS
LYONIA LUCIDA, FERRUGINIA
SABAL PALMETTO
HYPERICUM CF. HYPERICOIDES fr
TAXODIUM DISTICHUM
CALLICARPA AMERICANA
CLETHRA ALNIFOLIA
DIOSPYROS AMERICANA
GLEDITSIA TRIACANTHOS
BACCHARIS HALIMIFOLIA
BUMELIA LANUGINOSA
CEPHALANTHUS OCCIDENTALIS
CRATAEGUS MARSHALLI
EUONYMUS AMERICANA
FRAXINUS PENNSYLVANICA
ILEX OPACA
ILEX VOMITORIA
ITEA VIRGINICA
LIQUIDAMBAR STYRACIFLUA
MAGNOLIA GRANDIFLORA
QUERCUS LAURIFOLIA
SERENOA REPENS
SEBASTIANA FRUTICOSA
AMORPHA FRUTICOSA
herbaceous layer
RHYNCHOSPORA MILIACEA
SAURURUS CERNUUS
DRYOPTERIS LUDOVICIANA
CAREX SP
CAREX LEPTALEA
CHASMANTHIUM SP
JUSTICIA OVATA
PELTANDRA VIRGINICA
RUDBECKIA LACINIATA
CORN' GRASS (= Scirpus lineatus??)-NO
TOXICODENDRON RADICANS
BOEHMERIA CYLINDRICA
MITCHELLA REPENS
PANICUM SP
THELYPTERIS PALUSTRIS
WOODWARDIA AUREOLATA

OPLISMENUS SETARIUS
THELYPTERIS OVATA
ARISAEMA TRUPHYLLUM
CAREX LEPTALEA
CHASMANTHIUM NITIDUM
CRINUM AMERICANUM
HYDROCOTYLE SP.
IRIS SP.
OSMUNDA CINNAMOMEA
OSMUNDA REGALIS
RUELLIA CAROLINIENSIS
SCLERIA TRIGLOMERATA
ACER BARBATUM (seedlings)
AMPELOPSIS ARBOREA
ASPLENIUM PLATYNEURON
CARPINUS CAROLINIANA (seedlings)
CAREX CRUS-CORVI (?)
CAREX GIGANTEA (LUPULINA??)
COMMELINA VIRGINICA
ELYTRARIA CAROLINIENSIS
HYMENOCALLIS SP.
HYPTIS ALATA
JUNCUS SP
JUNCUS CORIACEUS
OSMUNDA REGALIS
PANICUM RIGIDULUM
PLATANThERA FLAVA
PELTANDRA VIRGINICA
QUERCUS LAURIFOLIA (seedlings)
SENECIO GLABELLUS
STACHYS FLORIDANA
THELYPTERIS KUNTHII
VERBESINA VIRGINICA
WOODARDIA VIRGINICA
TOXICODENDRON RADICANS
ARUNDINARIA GIGANTEA
ERIOCHLOA MICHAUXII
MELOTHRIA PENDULA
PASPALUM SP.
PHYSALIS SP.
vines
DECUMARIA BARBARA
VITIS SP
PARTHENOCISSUS QUINQUEFOLIA
TOXICODENDRON RADICANS
VITIS MUNSONIANA
AMPELOPSIS ARBOREA
CAMPSIS RADICANS
COCCULUS CAROLINUS
DIOSCOREA FLORIDANA

SMILAX LAURIFOLIA
BERCHEMIA SCANDENS
BIGNONIA CAPREOLATA
SMILAX SP
SMILAX BON-NOX
MATELEA/GONOCARPA SP.
WISTERIA FRUTESCENS
epiphytes
PLEOPELTIS POLYPODIOIDES
EPIDENDRON CONOPSEUM
TILLANDSIA USNEOIDES