

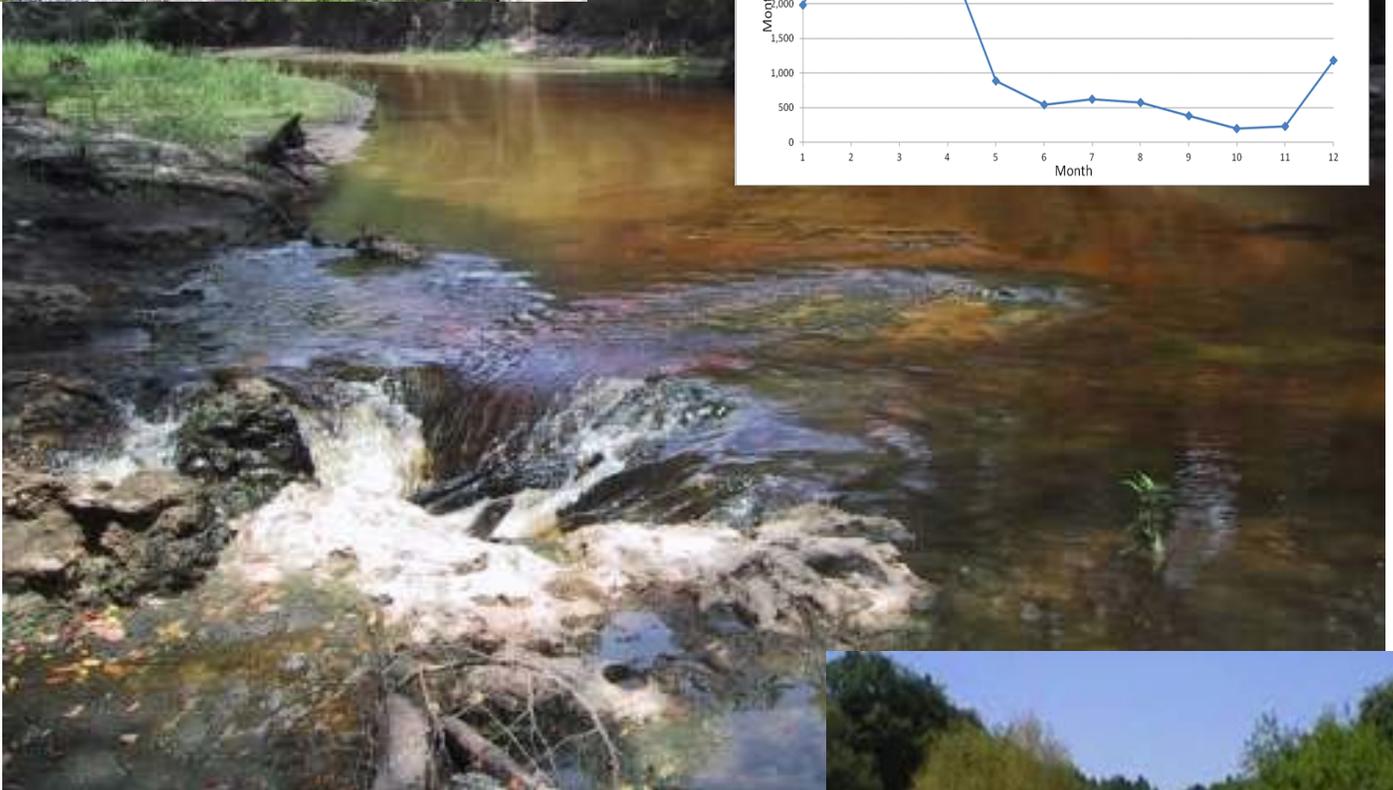
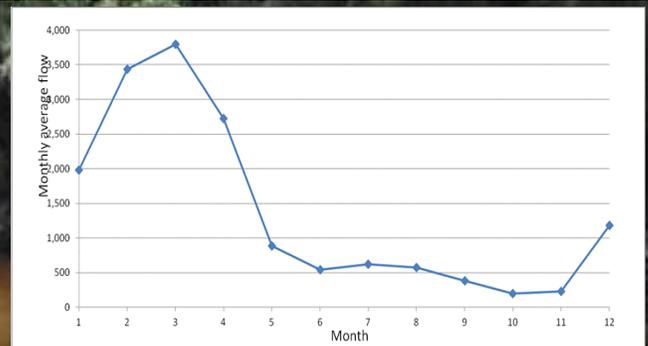


# SEGS

**Southeastern Geological Society**

A member of the AAPG and GCAGS

## KARST HYDROGEOLOGY OF THE UPPER SUWANNEE RIVER BASIN, ALAPAHA RIVER AREA HAMILTON COUNTY, FLORIDA

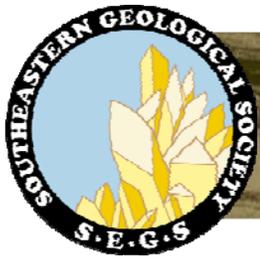


**GUIDEBOOK NO. 63**  
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Compiled by Andrew Lawn





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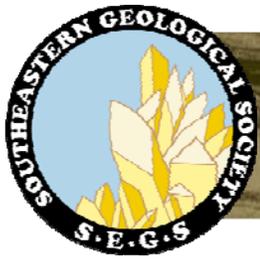


## **Acknowledgments**

The Southeastern Geological Society (SEGS) would like to acknowledge a number of individuals who contributed time and effort in planning and organizing this logistically challenging field trip. We thank Edwin McCook with the Suwannee River Water Management District for his assistance in helping gain access to a number of karst features on District land and for providing maps. We would also like to thank Craig Liney, park manager for the Suwannee River State Park who provided permission to access karst features on State Park lands. Thanks go to Clint Kromhout with the Florida Geological Survey (FGS) for agreeing to give a talk on ongoing karst mapping being conducted by the FGS and for providing maps and logistical support. The SEGS is also indebted to those members who serve on various committees that oversee the planning of field trips. We would also like to thank our corporate sponsor, HSW Engineering, for providing assistance in putting the field trip guidebook together and getting it ready to be printed. And finally we would like to thank the organizers and attendees of the 1981 SEGS field trip to this same area. That field trip was one of the most successful field trips ever organized by the SEGS and provides the current organizers with a lofty goal – to make this trip even more successful than the last.

## **Cover photo credits**

U.S. Geological Survey, Florida Fish and Wildlife Conservation Commission and Super Motors



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INTRODUCTION TO THE CODY SCARP, by Sam Upchurch

A one-page update to geomorphic terminology cited in the 1981 Guidebook #23 MATURE, AND OTHER, KARST FEATURES IN NORTH-CENTRAL FLORIDA, by Rick Copeland

HYDROGEOLOGY OF THE ALAPAHA RIVER SWALLET AND RESURGENCE SYSTEM,  
by Sam Upchurch

LOWER ALAPAHA RIVER SEDIMENTOLOGY, Excerpts from a 1988 USF Geology Program Master's Thesis and PowerPoint Slides with speaker notes, by Andy Lawn

SYNOPSIS OF THE 1981 GUIDEBOOK #23, KARST HYDROGEOLOGY AND MIOCENE GEOLOGY OF THE UPPER SUWANNEE RIVER BASIN, HAMILTON COUNTY, FLORIDA (contents are available for download on SEGS.org)

*The Field Trip Notification with plans and Stop descriptions and a map of the Spirit of Suwannee Music Park is included at the back of the guidebook.*

The following presentations were produced for the Friday evening dinner meeting:

SPRINGS RATINGS - PowerPoint Slides, by Andy Lawn, credit Ken Watson and Dean Mades

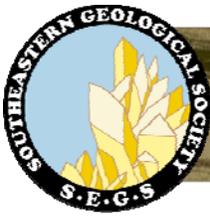
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by Sam Upchurch

MATURE, AND OTHER, KARST FEATURES IN NORTH-CENTRAL FLORIDA, by Rick Copeland

THE SINKHOLE VULNERABILITY MAPPING PROJECT (DRAFT) - PowerPoint Slides, by Clint Kromhout



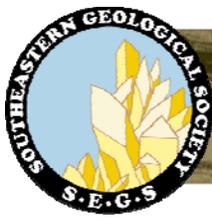
**Alapaha River/Cody Scarp Area  
SEGS Field Trip Plans for November 8, 2014**

Following our Friday afternoon/evening technical presentations (starting at 4:00) and buffet dinner in the Spirit Lodge at the Spirit of the Suwannee Music Park and Campground, we'll **meet near the Park entrance at U.S 129 at 8:30 AM** (look for SEGS signs). We will check everyone in, confirming receipt of payment and indemnification forms with everyone's cell numbers and designation of carpool drivers and groups. Please let us know by Friday if you have a high-clearance vehicle with room for some passengers; all others please have your gear packed and ready to carpool. Note that you should wear long pants and be aware of thorny plants, and poison ivy. We plan to **drive out of the Music Park at 9:30**.

We'll **meet near the Suwannee Music Park and Campground entrance at U.S 129 at 8:30 AM** (look for SEGS signs). We will check everyone in, confirming receipt of payment and indemnification forms with everyone's cell numbers and designation of carpool drivers and groups. Please let us know by Friday if you have a high-clearance vehicle with room for some passengers; all others please have your gear packed and ready to carpool. Note that you should wear long pants and be aware of thorny plants, and poison ivy. We plan to **drive out of the Music Park at 9:30**.

**Stop #1 - Law Sink; 9:30 to 10:30**

We'll head north (left) on U.S. 129 into Jasper then turn west onto U.S. 41. We'll slowly cross the bridge over the Alapaha River for a quick view of the dry riverbed, then proceed to a right turn marked with an SEGS sign into Zellwin farms property along the edge of row crops to **Law Sink**, a very large ponor/sink that's hidden behind dense overgrowth and great live oaks. We'll drive past huge center-pivot, 3-phase powered irrigation guns and other big farming equipment until we hear water falling into this 80 ft deep sink. Your SEGS reconnaissance crew cleared a path into the woods to a precipice for viewing the falls. Due to uncertain footing beneath



heavy vegetation, we must use caution, staying in the cleared areas. We won't be rappelling the cliffs; we'll have other opportunities for close encounters with waterfalls.

Discussion leaders: Ron Ceryak and Rick Copeland

**Stop #2 - Jennings Bluff Cemetery and River Vista, 10:30 to 11:30**

We'll go back to U.S. 41, south (left) and immediately turn left onto NW 72nd Place toward **Jennings Bluff Cemetery** where headstones date from the 1700s, and enjoy very nice river vistas. We'll also see a spring that early settlers harnessed by installation of piping and likely blasting of overburden to funnel the flow.

Discussion leaders: Tom Scott and Ron Ceryak

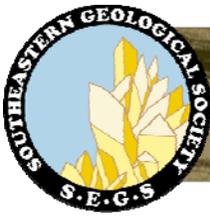
**Stops #3 - Alapaha River and #4 - Dead River Ponor/Sink, about 11:30 to 2:00, including lunch**

We'll backtrack a few hundred yards to a northward turn at a dirt road into SRWMD gated property. We'll drive in (see SRWMD New Access Map to Dead River) toward the river and stop where we'll have a couple hundred feet walk to the **Alapaha River** at the head of the Dead River's distributary. We'll observe silicified oyster beds and have an opportunity to collect river rock and quartz gravel (please leave oyster beds intact). You will choose to either hike back through the woods or down the Dead River or riverbank (about a 20 minute hike) to the ponor/sink. We'll all meet at the end of the distributary - the **Dead River Ponor/Sink** to relax and enjoy our box lunches.

Discussion leaders: Tom Scott, Sam Upchurch and Andy Lawn

**Stop #5 - Alapaha River Rise Confluence with the Suwannee, about 2:00 to 3:30**

After lunch, we'll head back south on Hwy 41 to a right on South Hwy 6 then a left onto CR 249 south and park under the river bridge at Gibson Park where restrooms are available. We'll hike up the Suwannee River bank to the **Alapaha River Rise confluence with the Suwannee**. The Rise is a First Magnitude spring; its water is tannic and believed to be a resurgence of the Alapaha River. We'll observe echinoids in Suwannee limestone along the river bank. We have



mailed requests for access to the owner of the Rise headwater, but have not to-date received a response.

Discussion leaders: Harley Means and Dave DeWitt

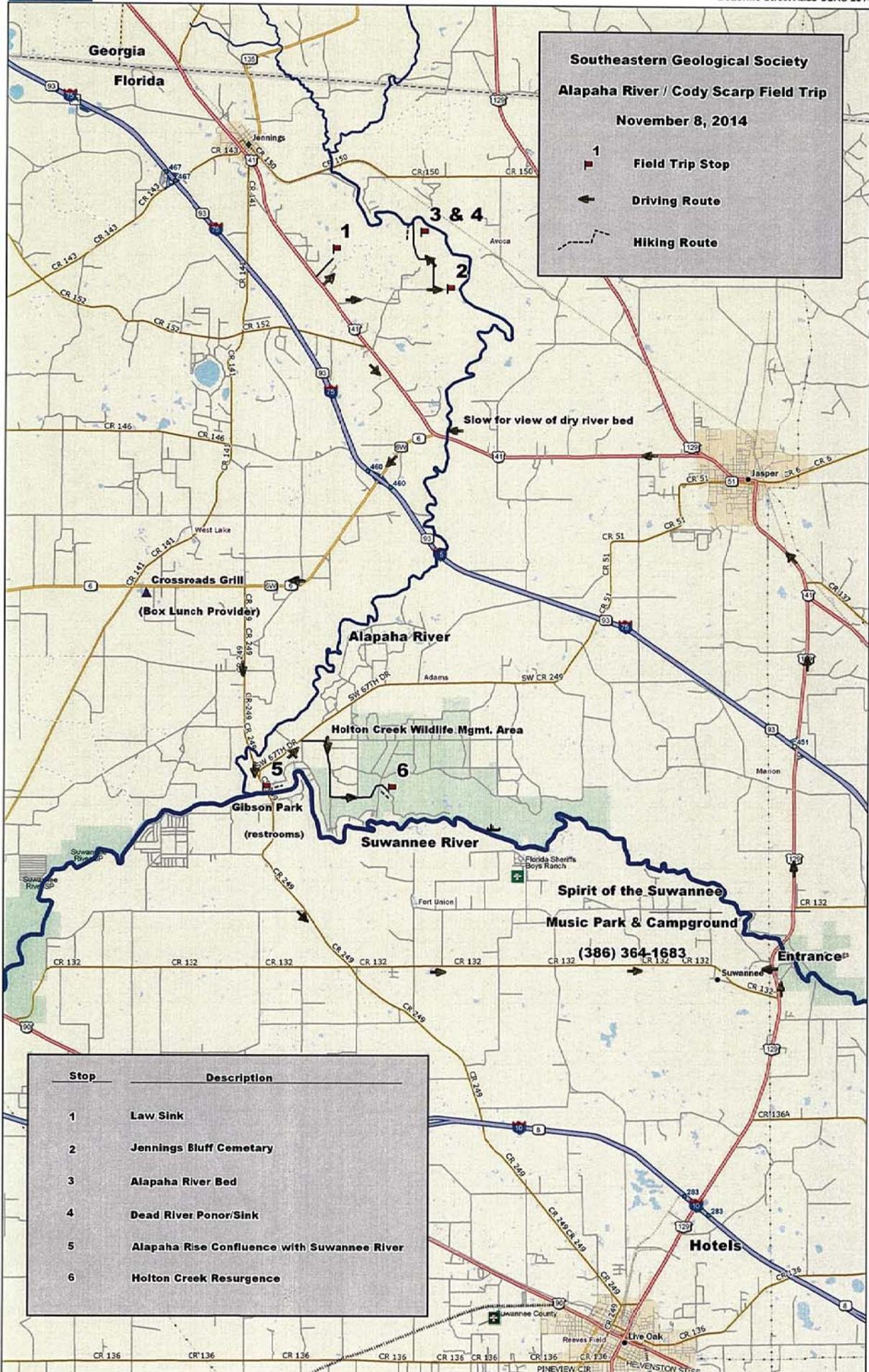
**Stop #6 - Holton Creek, about 3:30 to 4:30**

We'll drive back north a few hundred feet and head east on SW 67th Drive to an entrance of the **Holton Creek** Wildlife Management Area. On our drive through the area to Holton Creek we'll see numerous karst depression features. We'll drive to the Creek and walk up to the head, which is another resurgence similar to the Rise, and view a beautiful Champion cypress. The tree is thought to possibly be the oldest cypress in Florida since we lost the 3500+ year old "Senator" in Longwood two years ago due to human-caused fire.

Discussion leaders: Sam Upchurch and Wink Winkler

**Return to the Music Park for buffet dinner around 6:00 and Band at 7:00**

After leaving the Holton Creek area we'll go back west on SW 67th Drive to CR 249 south (left) to CR 132 east (left) to US 129 north (left) to our Music Park entrance. We'll have time to relax and clean up before dinner at 6:00 and enjoy our Irish Band Kanapaha at 7:00.



**Southeastern Geological Society**  
**Alapaha River / Cody Scarp Field Trip**  
**November 8, 2014**

1 **Field Trip Stop**  
 ← **Driving Route**  
 - - - **Hiking Route**

Stop	Description
1	Law Sink
2	Jennings Bluff Cemetary
3	Alapaha River Bed
4	Dead River Ponor/Sink
5	Alapaha Rise Confluence with Suwannee River
6	Holton Creek Resurgence

