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The Coastal Plainer

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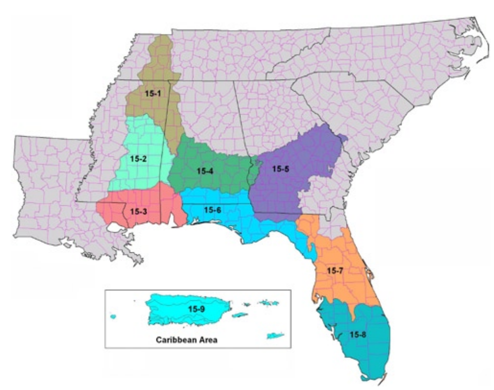
Message from the MO–Leader's Desk

By Charles Love, MO–15 Team Leader



Again, greetings everyone!

I would like to highlight a few of our accomplishments for the MO–15 region in fiscal year 2010.

I am happy to inform you that we can see the light at the end of the tunnel for completing the initial soil survey mapping in the region. We have about 200,000 acres left for the initial mapping by December 2011. I would like to thank the state soil scientists, field soil scientists, and support team members for all their hard work in ensuring we achieve our goal.

As many of you know, we have been given the task to collect data for the U.S. Rapid Carbon Assessment across the region to support our agency's mission. We are asking the carbon collection coordinator and state soil scientists to work with our NRCS line officers to get our field offices and cooperators involved in the logistics, field soil sampling, and soil sample processing. This is a great opportunity for our soil scientists to provide training to field office staff (soil conservationists, technicians, and others). It is an even greater opportunity to get our land grant universities, state cooperators, and other cooperators involved in a national project. This project is a top priority for the agency, and any help we receive to meet our September 2011 deadline will be appreciated.

This year, we had great demand for historical-replica soil surveys on the Soils Division Website. I want to thank Aaron Achen and Sarah Walker for their hard work in producing 55 replicas, which supported 8 states in the region. This is a valuable product that is provided to our citizens online.

Scott Anderson, MO–15 soil data quality specialist, was recently selected to be the MO–15 senior regional soil scientist. Scott will serve as our expert leader for all technical phases of soil survey, including

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soil classification, identification, update mapping, update maintenance, map unit design, production, interpretations, MLRA coordination, digitizing, database quality, publication, and SSURGO development. He has many years of experience with the MLRA soil survey concept, including his efforts in the New England states prior to coming to Southeast in the mid-nineties. Scott will work closely with the leaders and technical teams of all nine MLRA soil survey offices. He will help establish project plans and support execution of those plans to meet national standards and business requirements.

NRCS is expanding its previous efforts involving range sites in the West to provide ecological site descriptions for all of the United States. NRCS will fund new positions to collect vegetation data for the descriptions. Ecological site descriptions in non-range areas have traditionally focused on pastureland and forestland.

I am glad to inform you that Michelle Clendenin, ecological site inventory specialist, will be assisting us with our efforts to produce ecological site descriptions. Ms. Clendenin is on the MO–14 staff at Raleigh, North Carolina, and will serve MO–14, –15, and –16. This area stretches from Virginia to eastern Texas and southern Missouri. Prior to becoming ecological site inventory specialist, Ms. Clendenin served as biologist in the Arkansas state office. She has also served as a biologist with the U.S. Fish and Wildlife Service in Alabama, California, and Colorado. She is a graduate of the University of Arkansas at Little Rock and Stephen F. Austin University. We want to welcome Ms. Clendenin to the Southeast region, and we look forward to working with her and Roy Vick, MO–14 leader, in this effort.

Finally, I want to express my excitement about our recruitment, retention, and mentoring activities across the region. Traveling around the region this summer, I found it great to see all the new faces, including students in the Student Career Employment Program (SCEP) and the Student Temporary Employment Program (STEP) and new hires (soil scientists, conservationists, and others). As a seasoned soil scientist, I was excited by how these young individuals were challenging us to share our professional knowledge of soil science. Their good questions and discussion sessions at cooperator’s work planning conferences, field reviews, et cetera were energizing. The dialogue showed how the new people processed every word regarding soil science and cooperative soil survey activities. These individuals actively participated not only at work planning conferences and field reviews but with special studies, other soil survey activities, and the use of new technologies. They did a great job.

As always, thank you for your support! ■

—Charles

Student Trainee-Soil Science Intern

By Lawrence McGhee, Soil Survey Leader, MLRA Soil Survey Office 15–4

Darnae Hopkins is a student trainee-soil science intern working with Lawrence McGhee and the staff of MLRA Soil Survey Office 15–4 at Auburn, Alabama. She is a junior Soil Science Scholar at Alabama A&M University and is majoring in Environmental Science—Soils. Her expected graduation date is December 2011. Darnae is from Shorter, Alabama, located in Macon County.

Some of the work experiences she has gained this summer include: making soil descriptions and landscape observations, participating in field tours, scanning soil survey publication materials for digital display, and entering access data for evaluation of existing soil surveys. She has been a great asset to the MLRA office during her training period. ■

Recruitment
&
Mentoring
2010

Soil Climate Analysis Network (SCAN) in Alabama

By Sylvia A Long, Soil Scientist, MLRA Soil Survey Office 15–4

Having access to “real-time” soil climate information solidifies opportunities for providing the best assessments and planning options to ensure that private and federal lands benefit from conservation and restoration and are made more resilient to climate change.

The Soil Climate Analysis Network (SCAN) is a robust geodata gateway and platform. It is capable of remotely integrating current data and variations for use in assessments and planning. SCAN uses meteor-burst telemetry to obtain “real-time” data from remote sites. The network includes numerous sites in the continental U.S. and Puerto Rico. There are currently 21 “real-time” SCAN sites in Alabama. The SCAN system is designed to collect comprehensive information regarding soil moisture and soil climate. The information is useful for improving crop production, developing forecasts and prediction models, supporting activities of the soil survey program, managing irrigation and other water uses, and managing other natural resource uses by farmers, environmental professionals, and agricultural professionals. The data in the system is generated primarily for agricultural areas in the United States. SCAN focuses on monitoring soil temperature and moisture at five depths. It also measures soil-water levels, air temperature, relative humidity, solar radiation, wind, precipitation, and barometric pressure.

What began in 1991 as a pilot project for measuring soil moisture and soil temperature has developed into a long-term national network. NRCS can use SCAN data to assist in making sound decisions regarding drought monitoring, soil classification, engineering applications, global circulation models, soil moisture accounting and risk assessment, predictions of changes in soil moisture and temperature, predictions of shifts in irrigation requirements, and water resource management. Also, SCAN data is useful in predicting shifts in wetlands, changes in runoff relative to flooding and flood-control engineering, variations in long-term sustainability of cropping systems, and changes in watershed health.

Regarding data acquisition, each station is equipped with processing sensors and instruments to automatically record and upload captured data at regulated intervals. Starting in 2003, SCAN sites in Alabama were constructed with the following standard configuration:

Installation of pyranometer at the SCAN site in Montgomery County, Alabama.

A. Cumulative daily precipitation is measured in "hourly" files from a storage-type gage/tipping bucket sensor.

B. Current air temperature and the previous hour's maximum, minimum, and average temperatures are recorded from a shielded thermistor.

C. Soil moisture and soil temperature are collected at depths of 2, 4, 8, 20, and 40 inches below the surface. Soil moisture is collected (as percent water by volume) using a device that measures dielectric constant, and soil temperature is collected and recorded by an encapsulated thermistor.

D. Current relative humidity and the previous hour's maximum and minimum relative humidity are recorded by a thin-film capacitance-type sensor that is raised 6 feet above the soil surface.

E. Wind speed and wind direction are collected by a propeller-type anemometer. The instrument is raised 10 feet above the surface, and hourly maximum and average values are computed from continuous measurements.

F. Solar radiation is measured as hourly average readings of total incoming solar energy. A pyranometer sensor that is raised 10 feet above the soil surface collects the data.

G. Barometric pressure is recorded hourly from a silicon capacitive pressure sensor.

SCAN meteor-burst communications transmit data logs to Stoneville, Mississippi; Tifton, Missouri; Mt. Gilead, Ohio; and the Alabama A&M University Mesonet at Huntsville. The transmitted data is managed in two separate stages. First, an assigned computer automatically validates the received data value against limits and flags any outlier values. Statisticians examine the outliers and make corrections as necessary. Second, all parameters are graphed and compared to ensure that sensors are producing data within an acceptable range.

For each SCAN site, current and historic data, information about the soil pedon, and a picture of the site can be accessed at http://www.wcc.nrcs.usda.gov/. ■

Encapsulated thermistors installed at 2", 4", and 8" below the surface. Additional encapsulated thermistors are installed at depths of 20" and 40" (not shown).

Spatial Evaluation Workshop in Florida

By Joe Norris, GIS Specialist, MO–15

A Spatial Evaluation Workshop was held in Gainesville, Florida, on July 26, 2010. The intent of the workshop was to be a preliminary brainstorming session and open discussion regarding the many challenges and issues facing the soil survey program. The soils staff in Florida, having finished the initial soil survey for the state, has started evaluating the digital, spatial soil data. The evaluation is a step in the development of long- and short-term project plans. The plans are being developed under the MLRA-based concept for soil survey maintenance and update and will start in 2011.

Presenters Joe Gardinski, Dwain Daniels, Tom D'Avello, and Rick Robbins provided training in the use of ArcGIS Spatial Analyst, Light and Distance Ranging (LiDAR), High Resolution Digital Elevation Data (HRDED), the ArcGIS SIE extension, basic GIS processing, data tables, and geospatial data management. The student's high level of interest was apparent as measured by the participation and the questions raised during the training. The meeting was very successful according to the feedback form completed by the participants at the end of the workshop. The greater part of the participants agreed that there was good exchange of ideas and that it was a good idea to continue with future sessions.

Special thanks go to Tom Weber, Florida state soil scientist, and Charles Love, Alabama state soil scientist and MO–15 leader, for supporting this effort to improve the participant's GIS skills, awareness of new technology, quality of work, and productivity. Tom Weber made a real effort to encourage the participants to improve the existing digital soil survey data sets as opportunities arise during future soil survey projects. ■

Afternoon training session at the spatial evaluation workshop in Floirda.

soiLPhone

By Aaron Achen, Editor, MO–15

The spring 2009 issue of "The Coastal Plainer" included an article entitled "Delivering Soil Survey Information in the 21st Century." The article began thus:

"Consider this scenario:

'Sally the real estate agent walks out into a proposed development area. She opens her GPS-enabled cell phone and calls a toll-free number. The screen on the phone gives a list of options. With a few key strokes she determines that the soil where she is standing is in a map unit that is severely limited as a site for buildings with basements. She is given the contact information for the nearest NRCS soil scientist and a link to more information.'

The scenario is fictitious; it is not, however, unimaginable. The basic GPS technology exists, and the soils data is available."

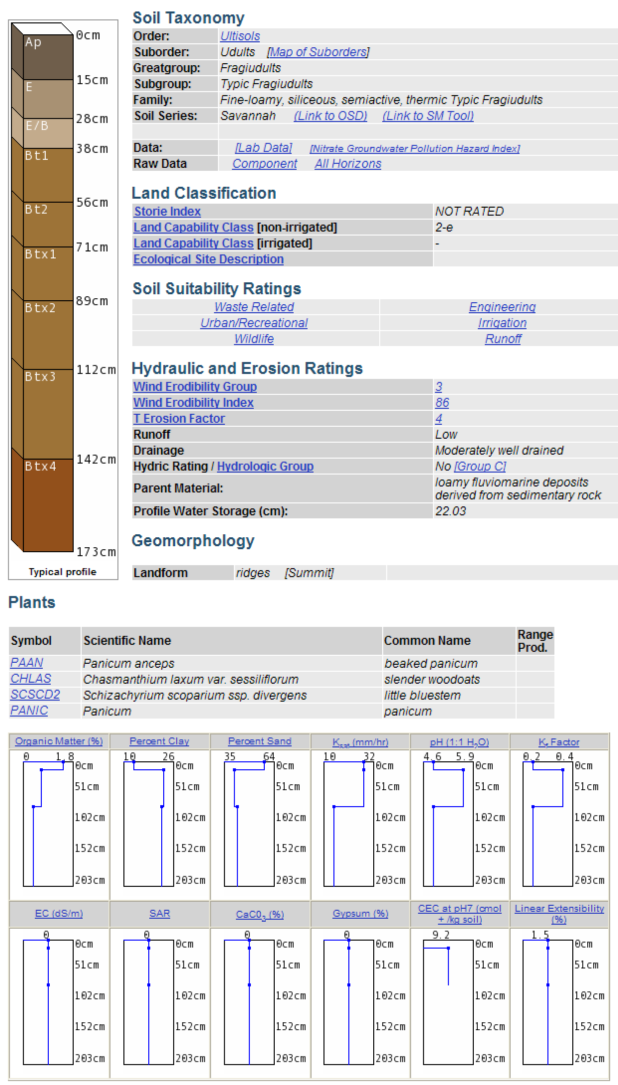
The scenario was fictitious, but the capability is now available. The Soil Resource Laboratory at the University of California, Davis, has written a smart phone application much like that described above. The application is called SoilWeb. Push a button on your phone, and you get soils information for the spot where you are standing. How cool is that?

The information is drawn from SSURGO and the official series descriptions. It includes landscape position, taxonomic classification, a sketch of the soil profile, series name, official series description, diagrams showing chemical and physical properties at various depths, land classifications, and interpretations. The application also provides links to a variety of sources, including the PLANTS database and the National Soil Survey Handbook.

The application is free. Versions are available for iPhone and the Android OS. The application and detailed information are available from UC Davis (http://casoilresource.lawr.ucdavis.edu/drupal/node/902). Information regarding the application is also available in volume 74 number 5 (September–October 2010) of the Soil Science Society of America Journal (https://www.soils.org/publications/sssaj).

If you would like to see the application but don't have the appropriate phone, you can try the web-based versions. The web-based versions use Google maps or Google Earth instead of GPS.

Plans for future releases of the application include a map interface, queries based on specified coordinates, and documentation about soil survey terminology. Now, if we could just get a version that works with Blackberry... ■



Component-level information delivered by SoilWeb. The profile diagram is generated from data in the official series description. The colors are produced by converting Munsell notations, which are indicators of hue, value, and chroma, to RGB colors (red, green, and blue), which are used onscreen.

Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

Component Name	Geomorphic Position	Area Fraction	Component Type	Horizon Data
Soil Type 1 **Savannah**	ridges / Summit	80%	Major Soil Type	YES
Soil Type 2 **Mashulaville**	depressions / Toeslope	1%	Inclusion	YES

*Note: links to horizon data marked with an * are approximate.*

Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

Map Unit Name:	*Savannah fine sandy loam, 2 to 5 percent slopes*
Map Unit Type:	*Consociation*
Map Unit Symbol:	*52*
Map Unit Acres:	*23259 acres total in survey area*
Raw Map Unit Data	
Raw Component Data (All Components)	

Map Unit Aggregated Data

Generalized soils information within this map unit.

Farmland Class:	*All areas are prime farmland*
Available Water Storage (0-100cm):	*11.64 cm*
Max Flood Freq:	*None*
Drainage Class (Dominant Condition):	*Moderately well drained*
Drainage Class (Wettest Component):	*Moderately well drained*
Hydric Conditions:	*Partially hydric*
Min Water Table Depth:	*64cm*
Min Bedrock Depth:	*n/a*
Raw Aggregated Map Unit Data	

Map Unit Notes

Miscellaneous notes recorded by NRCS staff about this map unit.

FOR	*WOODLAND SUITABILITY GROUP-2o7. Soils in this group are well drained with a loamy surface layer and a loamy or clayey subsoil. These soils occur primarily on uplands with slopes ranging from 0 to 15 percent. The site class is high and is 90 for loblolly pine and 100 for yellow-poplar. These soils are suitable for growing either pines or hardwoods. There are no significant management problems associated with these soils. Species suitable to plant are loblolly pine, slash pine, sweetgum, yellow-poplar, black walnut, and sycamore.*
CAP	*CAPABILITY UNIT IIe-19 These deep, moderately well drained and somewhat poorly drained, gently sloping soils (0 to 5 percent slopes) are on uplands and stream terraces. They have loamy surface layers and subsoils. A compact and brittle layer in the subsoil restricts root growth of most annual plants and perches water mostly during winter and early spring months. Where tilled, plow pans form and restrict root growth. These soils are well to moderately well suited to row crops, small grains, hay crops, and pasture. The erosion hazard is slight to moderate. Conservation practices are needed to help control erosion and reduce runoff. These soils can be used for cultivated row crops each year if a good system of conservation practices is established and maintained.*

Associated Point Data

Links to any NSSL point data within this map unit.

Map-unit-level information delivered by SoilWeb. The data is from the SSURGO data set.

Trip Report for Water Conservation Area 3A

This trip to Water Conservation Area 3A (WCA–3A) in Florida was conducted July 12th to 16th, 2010. The purpose of the trip was to conduct fieldwork required in support of the Cooperative Ecosystem Studies Unit (CESU) phase 3 agreement between the University of Florida and the Florida NRCS.

Objectives

The main objective was to finalize field documentation for sampling and describing of random sites to provide data for predictive soil modeling. Site information and data included:

- Thickness and type of organic material;
- Presence, type, and thickness of marine sediments;
- Type of bedrock and depth to bedrock;
- Geomorphic positions (including subaqueous);
- Ecological communities;
- Series and taxonomic placement;
- Depth of surface water;
- Current water table depth;
- Presence and thickness of periphyton or marl;
- Bulk density; and
- Various chemical soil properties.

Personnel

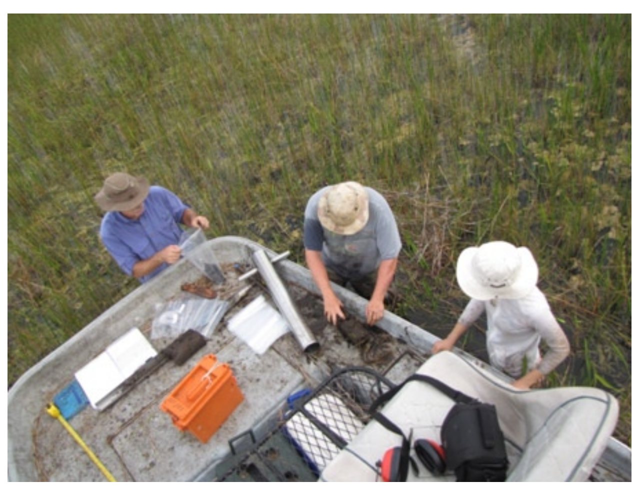
NRCS: Howard Yamataki (SSO Leader, Ft. Myers, FL), Rick Robbins (Soils Specialist, Gainesville, FL), Martin Figueroa (Soil Scientist, Ft. Myers, FL), and Greg Brannon (Soil Data Quality Specialist, Auburn, AL). University of Florida: Jongsung Kim and Matt Norton.

Findings

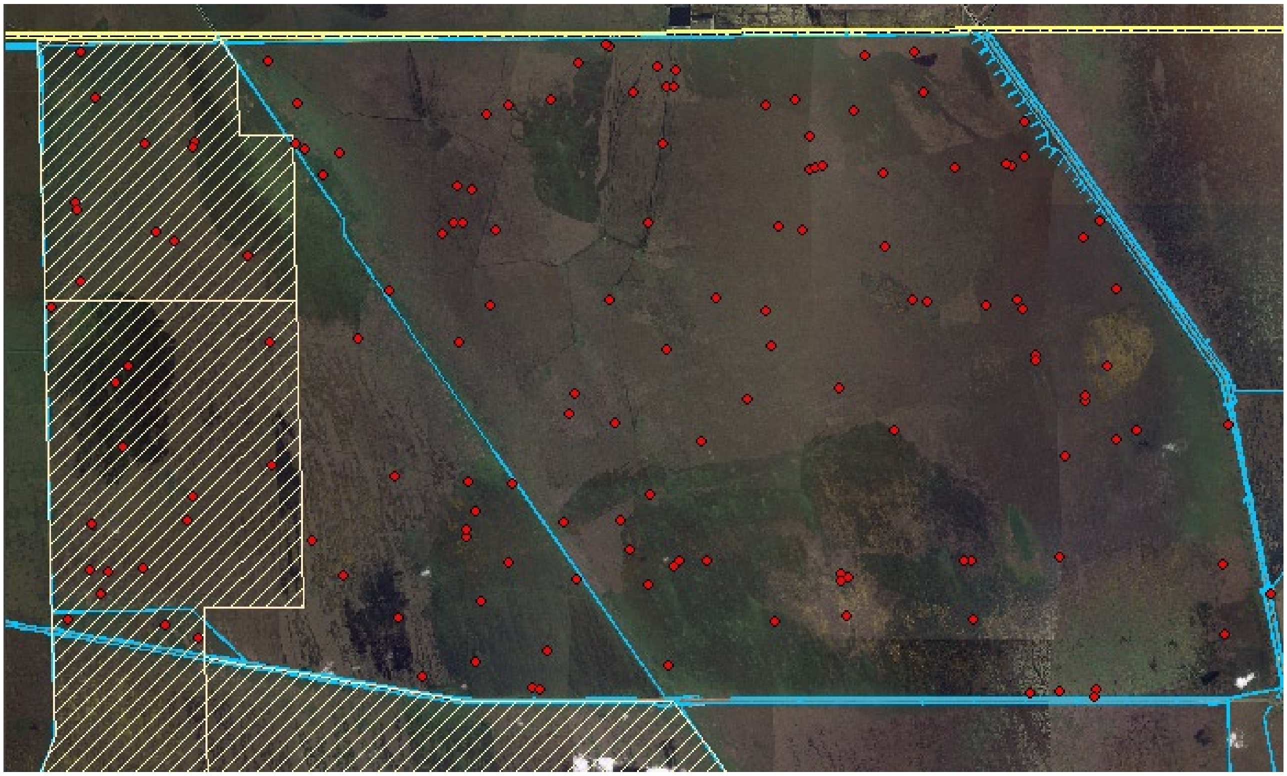
Conditions: Weather conditions were adequate for conducting the sampling and describing procedures. Temperatures were in the low 90s, the sky was partly cloudy, and wind speeds were less than 20 miles per hour. Rainfall was a factor on only one day. Water levels within WCA–3A were fairly low due to the time of year (near the beginning of the rainy season) and the control of the water levels by the South Florida Water Management District (SFWMD). The low water levels limited the fieldwork to the southern and western portions of WCA–3A.

Site accessibility: The low water levels and thick vegetation restricted accessibility to a number of sites, mostly in the northeastern part of WCA–3A. We were able to obtain site data and pedon data at a number of the preselected sites. We were also limited on data collection because a number of points were located in the Miccosukee Indian Reservation. Three points were collected within the reservation before we became aware of the reservation's boundaries.

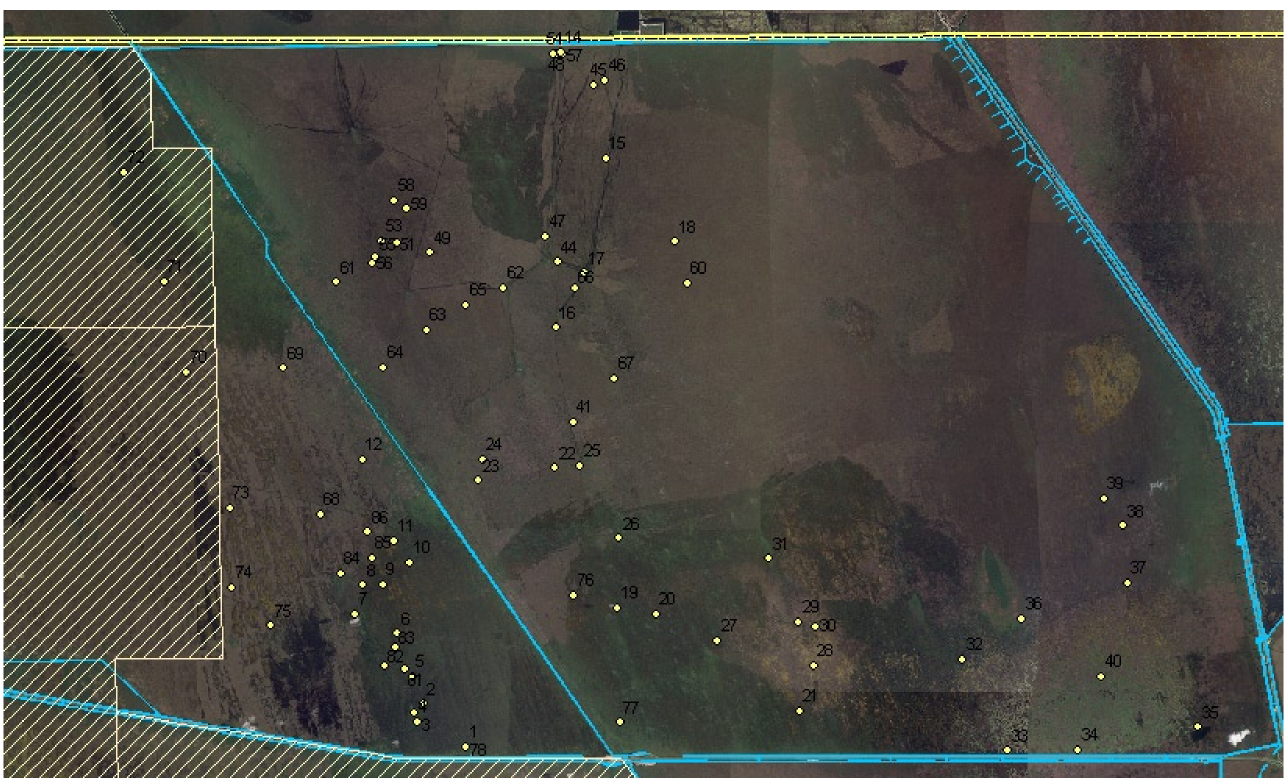
Landscape/landform: The typical landform setting was a pattern of "Ridge and Slough" with scattered "Tree Islands" of various sizes. The larger tree islands are commonly used as established hunting and fishing camps. The tree islands encountered during the trip appeared to be 2 to 4 feet (at highest point) above the ridge-and-slough landforms. The overall landscape was very consistent until we approached the Miccosukee lands, where the landscape became slightly undulating. The vegetation began supporting isolated stands of wax myrtle. The soils began having a thinner organic layer, more mineral substrata, and shallower depth to bedrock.



Sampling the Dania series for laboratory analysis.



Data collection points that were preselected by the University of Florida for Water Conservation Area 3A (north). The area outlined in crosshatching is in the Miccosukee Indian Reservation.



Spatial distribution of data points collected the week of July 12 to 16th, 2010.

Ecological communities: Typically, the ridges supported dense patches of sawgrass *(Cladium jamaicense)* surrounded by areas of very sparse growth. The areas with very sparse growth were typically elongated sloughs (north to south) dominated by spikerush *(Eleocharis* spp.) and periphyton. Periphyton is a complex mixture of algae, cyanobacteria, heterotrophic microbes, and detritus. It is attached to submerged surfaces in most aquatic ecosystems. Inclusions of sawgrass and cattail were in most of the sloughs. Invasion by common cattail *(Typha latifola)* was common in many of the southern areas.

Water levels: The level of the water above the surface of the soil (where investigated at each site) ranged from 13 to 59 centimeters. The water table was not present on the tree islands or at the most northern part of WCA–3A.

Parent materials: Parent materials within the study area consisted exclusively of highly decomposed organic material from *Cladium, Eleocharis, Typha,* and other herbaceous plants. Most of the organic materials were dominated by highly decomposed sapric materials. Some of the sites had a layer of hemic material, but none of the sites contained enough hemic material to be classified as Haplohemists. Karstic, coral limestone bedrock underlies most of the study area. Depth to bedrock ranged from 10 to over 100 centimeters within the study area.

Primary environmental variables: The primary variables from a pedologic perspective were the status of organic decomposition, depth to bedrock, and presence or absence of mineral substrata. Water level was also an important environmental variable.

Site and pedon descriptions: A total of 85 sites were visited and had attribute data collected. Of these sites, 70 were for the remote sensing project and 15 were randomly selected documentation sites. One linear transect (5 point) was completed. The pedon descriptions and transect will be entered into PEDON PC and uploaded into NASIS.

Characterization sampling: Two pedons of the Dania series were sampled for characterization by the National Soil Survey Laboratory. These pedons will be sent for full characterization analysis.

Taxonomy/series placement: The taxonomys of the soils within WCA–2A and WCA–3A are currently under review. The review is necessary to determine whether the soils are Haplosaprists or Wassosaprists. The placement of lines that differentiate the taxonomic classes and series will depend on the subaqueous-nonsubaqueous boundary, which will be determined using data from SFWMD water gauges. Most of the nonsubaqueous sites were either Euic, hyperthermic Lithic Haplosaprists or Euic, hyperthermic, shallow Lithic Haplosaprists. The series encountered were: Pahokee, Lauderhill, and Dania. Depth to bedrock ranged from 10 to more than 97 centimeters. All of the sites had bedrock within a depth of 200 centimeters. There is the possibility of several new series in the Wassosaprist great group or in the “micro” family of Lithic Haplosaprists (which are less than 20 centimeters deep over bedrock).

Action Items and Conclusions

1) For future field trips, personnel from the University of Florida should verify that the GPS waypoints have been entered into the Garmin GPS units. The absence of waypoint data hampered the first day’s work and extended the length of data collection by at least 1 day.

2) Shape files containing the waypoints should be provided to NRCS in UTM NAD 83, Zone 17 coordinate system and projection. Waypoint files were provided in Geographic Coordinate System GCS_North_American_1983_HARN, Datum: D_North_American_1983_HARN. Use of this system caused problems with the Trimble GeoXT GPS units.

3) Streamline the coordination involving agency personnel and airboats for future fieldwork. The lack of coordination, communication, and cooperation limited the effectiveness of the data collection efforts.

4) Personnel from the University of Florida should access data from the SFWMD water gauges to determine the boundaries between the Haplosaprists and Wassosaprists.

5) Personnel from the University of Florida should consider the following for the remote sensing model/digital soil survey model:

a. Delineate landforms (ridges, sloughs, flats, and tree islands);
b. Delineate ecological communities for all of WCA–2A and the northern part of WCA–3A; and
c. Access data from the SFWMD water gauges to determine the spatial extent and boundary of the subaqueous (Wassists) and nonsub-aqueous (Haplosaprists) soils.

6) The NRCS personnel should contact their Native American liaison regarding access to the Seminole and Miccosukee Indian Reservations for future fieldwork activities.

7) Provide Dr. Sabine Grunwald (University of Florida) with a dump of the pedon data from the data collection sites. The data will be provided once the digital soil maps have been generated and tested.

8) Compare the waypoint latitude/longitude data and bedrock depths against the lines delineating the 1948 bedrock depths.

9) Continue to utilize the Trimble GeoXT GPS unit for navigational and point data collection purposes.

10) Enter pedon descriptions into PEDON PC and upload them to NASIS.

11) Develop and implement methodology for defining map unit limits for an order 3 survey. ■

Tribal Program-Delivery Meeting

By Timothy Oakes, USDA–NRCS, Mississippi

Recently, as Chair of the Mississippi NRCS Civil Rights Committee and Special Emphasis Program Manager for the American Indian/Alaska Native program for Mississippi, I was able to attend the Southeastern American Indian Program Delivery Meeting in Florida. Also attending the meeting from Mississippi was Earth Team Volunteer Marian Woods Oakes. She exhibited a display showing work accomplished under the WHIP and EQIP programs by the Mississippi Band of Choctaw Indians and Mississippi NRCS.

The first meeting to discuss program-delivery on tribal lands was held in Choctaw, Mississippi, in November of 2000. Since that time, NRCS has consolidated from six administrative regions to three. The Southeastern American Indian Work Group assists six or more federally recognized tribes and numerous state-recognized tribal organizations. The goal of the work group is to assist tribes in the East Region with their conservation needs. Over the past few years, the work group has met the conservation challenges entrusted to us. Tribal use of most NRCS programs has seen a remarkable increase over the past decade.

This year on our way from Mississippi to Florida, we drove down U.S. Highway 80 from Selma to Montgomery. This historic route marks the Civil Rights March of 1963. The route had personal meaning to me: I grew up in Selma less than a mile from the Edmund Pettus Bridge, where the march started. I went to school at Southside High. This was the time when desegregation in the South really began. I remember National Guardsmen patrolling our school at times. When we passed the airfield in Montgomery, I remembered picking up my father from the Strategic Air Command base when he returned from Southeast Asia in 1971.

When we made it to the lands of the Seminole, we easily noticed improvements to watering facilities and other conservation practices added since our last visit in 2002. According to Edith Morigeau (tribal relations coordinator, NRCS, NHQ), federal tribes have increased their participation in NRCS programs over the last few years. Participation in the Wildlife Habitat Incentives Program (WHIP) and the Environmental Quality Incentives Program (EQIP) increased from 176 contracts in 2002 to 488 by end of 2009. The average amount per WHIP contract also increased substantially over the last few years.

This year's program-delivery meeting focused on issues from the 2008 Farm Bill. Specifically, the meeting focused on issues pertaining to American Indians and the conservation programs offered by NRCS. Participants at the meeting included personnel from the Natural Resources Conservation Service and other members of the Southeastern American Indian Work Group. The meeting was hosted by the Seminole Tribe of Florida, Incorporated. Additional sponsors were the Seminole Tribe of Florida; the Florida office of NRCS; Florida Three Rivers RC&D Council, Incorporated; and the Southeast Region's American Indian Work Group.

Other topics at the meeting included "Tribal Consultation" and "Differences between Non-Indian Civil Rights and American Indian Civil Rights." USDA has a trust responsibility to assist and serve in Indian Country. We always encourage others to learn more about working more effectively with American Indians. For more information, please contact your local USDA–NRCS tribal liaison or local USDA service center. ■

Tribal Elders' Council and NRCS SEAI Work Group.

Participants at the Southeastern American Indian Program-Delivery Meeting.

NRCS Works With Chitimacha Tribe to Plant River Cane on Reservation

By Holly Martien, NRCS State Public Affairs Specialist, Louisiana

Conservation of an ancient cultural tradition motivated the Chitimacha Tribe of Louisiana in their request for assistance from the Golden Meadow Plant Materials Center (PMC). The Chitimacha are the oldest recognized indigenous tribe in Louisiana.

The Chitimacha have used river cane *(Arundinaria gigantea)* for woven baskets and mats since the era of the Mississippi mound-building culture, a tradition dating back to the Middle Ages. The Chitimacha Tribe began working with the Natural Resources Conservation Service because the tribe's craft was threatened by a shortage of river cane populations in general and by a lack of river cane growing on the reservation.

Since 2001, the Golden Meadow PMC has been working with tribal representatives on propagation, establishment, culture, and harvest of river cane (also known as wild cane, giant cane, and giant bamboo).

On April 14, 2010, representatives of the Franklin Field Office, Golden Meadow Plant Materials Center, and Chitimacha Tribe worked together at the Golden Meadow PMC to harvest 7-year-old river cane. They excavated the roots of the cane plants in order to replant the cane on the reservation.

A representative of the tribe sorted through the harvested cane tops and recovered pieces that could be used by tribal members in basket weaving classes.

The community around the reservation joined in efforts to reestablish the cane on the reservation—a local farmer volunteered his time and equipment to plant the cane, and the local fire department brought a truck to the planting site and watered the newly planted cane. ■

River cane being harvested.

Baskets made by the Chitimacha Tribe using river cane.