Illinois Soil Classifiers Association Newsletter

Winter-February 2009

Upcoming Events:

Inside this issue:

Message from the President

Hello to all!

I'd like to spend part of this column thanking all of the people who have given time, often behind the scenes, serving in a variety of capacities within ISCA. As my term as President comes to a close I can definitely say that I've been impressed by the amount of work that the members of the various committees have done to help the society. Thanks to all of you, and keep up the good work!

Also, a special thanks to those of you who helped to develop ISCA's multi-year plan. It certainly helped the council make decisions regarding what priorities to pursue over this past year.

Following the multi-year plan, the council decided to schedule a hydric soils course in the Chicago area this winter. As we began planning for this course, we were unsure of how much demand there would be for this kind of training, and so scheduled one course with a target audience of approximately 50 people. After being bowled over by the interest in the course, we added a second day for the course and added capacity for an additional 10 people each day. As a result, we are now planning on instructing about 120 people in this training. This is great exposure for soil science and for the ISCA. So thanks again for those who worked on the multi-year plan, and thanks for all who have volunteered to help teach the courses.

Scott Wegman, President
573-541-7645
scott.wegman@aecom.com

Illinois State Soil T-Shirts Still Available

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Long Sleeve -- $14

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E-mail : torflagr@geneseo.net

ISCA Membership News

New Member—Jenwei Tsai

My name is Jenwei Tsai, and I am a first year Master's student at the University of Illinois in the Department of Natural Resources and Environmental Sciences. I am currently working with Dr. Mark David and Dr. Robert Darmody studying long-term changes in forest soils in Maine Spodosols and Illinois Alfisols and Mollisols.

I would like to thank the ISCA for sponsoring numerous soil judging competitions. I have been involved with the U of I soil judging team since my undergrad years and it is through theses experiences that I have found my passion in studying soil science.

I am currently teaching a lab in Introduction to Soil Science for Dr. Darmody. I have a new found appreciation for teachers. I plan on collecting samples in Allerton and in Maine this summer to further my thesis research. In the fall, I'll be helping out with the U of I Soil Judging Team.

Photo: Taken by Dr. D. at a peat bog in Treehaven, WI during the 2008 ASA Region III soil judging contest.

TRADING POST

This spot is reserved for members who would like to buy, sell, trade, or announce an item, event, or activity in our newsletter. Please limit your classified ad to 25 words or less. Email your ad to the newsletter at zach.weber@il.usda.gov

- ISCA ball caps available for $9 (includes S&H).
  Contact Steve Elmer at torflagr@geneseo.net
- Drummer T-Shirts available in 2 colors (see front cover).
  Short sleeve - $12 Long sleeve - $14

Treasurer's Report

January 6, 2009

Treasurer's Report for Jan. 1, 2008 - December 31,2008

Balance in Account - 01/01/08	$ 14282.47

Income:

Annual Meeting	$ 495.00
Dues	1840.00
Certification Fees	1015.00
Interest	52.76
Central States FSW	300.00
State Soil Shirts	42.00
Drummer Soil Tubes	25.00
Fall Meeting	1414.00
	$ 5183.76

Expenses:

Administration	$ 154.71
OWPI Booth	500.00
Internet	192.00
Fall Meeting	861.35
Annual Meeting - 2008	1401.66
Annual Meeting - 2009	250.00
Central States FSW	3357.39
Soil Survey Horizons	1558.00
Awards	250.00
	$ 8525.11

Ending Bank Balance - 12/31/08	$10941.12

Submitted by:

Charles J. Frazee, CPSC
Treasurer

Peoria Onsite Wastewater Treatment Conference 2009

Sponsored by the Illinois Association of Local Environmental Health Administrators

The central Illinois IALEHA Conference was held in Peoria, Illinois on Jan. 15 and 16, 2009. This conference tends to focus on septic health officials and administrators. Some septic contractors are always included in the list of participants also. Reports say that approximately 120 folks attended this year's event on a very cold couple of days!

Roger Windhorn, representing ISCA, was a presenter at this session. He talked on general soils information, soil properties affecting leach field operation, and a little about how to "interpret" the soils information that may occur on a typical Soil Evaluation form.

The overall program was interesting and diverse and included speakers from different backgrounds and expertise. Chad Moorman, Program Manager for the Illinois Department of Public Health, gave a good update on what is current with the "revised" Code and what might be some changes to look for when draft copies are available.

These are good discussion sessions for all those involved in the public health issue of onsite waste disposal. If possible, I encourage all ISCA folks to attend one of these in the future if you are at all interested in conducting soil evaluations!

Submitted by Roger Windhorn

ISCA Exhibits at 6th Annual OWPI Conference

ISCA had a booth at the 6th Annual Onsite Wastewater Professionals of Illinois (OWPI) Conference in Collinsville, Illinois at the Gateway Conference Center on January 26 & 27, 2009. We had a display with information about the state soil with other pictures of various landscapes, sampling methods and structure types, as well as the texture triangle. We had a computer to access the ISCA website and had soil core samples of different drainage types for hands-on. We had new ISCA brochures to hand out as well as some business cards from some of the consultants. There were approximately 150 - 200 people in attendance at the conference; made up of mostly regulators and contractors. The attendance was down from years past and there weren't as many "vendors" as in the past. The economic downturn was certainly noticable here. We had quite a few people come to our booth. Most of those who came inspected the soil cores and had questions about "seasonal high groundwater". Most were not aware of our website, so that was good information to give out, along with our brochures.

Those who helped man the display were:Jerry Berning, Chuck Frazee, and Doug Gaines

Submitted by Doug Gaines

2009 Illinois Soil Classifiers Association 34th Annual Meeting

The 34th Annual Meeting of the Illinois Soil Classifiers Association will be held March 21, 2009 at the Route 66 Hotel and Conference Center located at 625 E. Saint Joseph St. in Springfield. The day will begin at 10:00 a.m. with a Business Seminar presented by Kevin Lust, Director of the Small Business Development Center. Advance registration is requested for the Business Seminar. (See the article below for more information about the seminar.) The meeting will begin with a luncheon at 12:30 p.m. followed by the ISCA business meeting. The Business Seminar and Annual Meeting will be on the first floor of the conference center in the room adjacent to the hotel restaurant. Please send your check and registration before March 5, 2009. See the registration form on page 9.

Directions: The Route 66 Hotel and Conference Center is located on the south side of Springfield on Business 55, 1.1 miles north of I-55 / I-72. From the north, east, or south take exit 92A onto Business 55. From the west take exit 97 onto Business 55. Please see map on page 7.

Kevin Lust to Present a Business Seminar at the ISCA Annual Meeting

ISCA is honored to have Kevin Lust present a special business seminar for our members at the 2009 Annual Meeting. Kevin will discuss the pitfalls and tips on establishing and maintaining a small business, including issues on taxes, insurance, and marketing, as well as other topics. This is an excellent opportunity for all soil classifiers and especially for those who are already self-employed and for those who may consider private consulting in the future.

As a professional speaker and trainer since 1990, Kevin Lust has delivered over 1,800 presentations in 16 countries on four continents. He is the Founder and President of Lust Development Group, Inc., an organization dedicated to helping people live their lives more effectively, and General Partner of Smith-Miner Productions, a publishing firm specializing in unique resources that make people's lives easier. Prior to that, he began his career in the banking industry, starting as a teller in college, and eventually serving in roles as Credit Analyst, Commercial Lender, and, finally, as Director of Personnel & Training for a major regional bank holding company. He holds a Bachelor of Arts degree in Business Administration from Illinois Wesleyan University and is a graduate of the National School of Human Resources of the American Bankers' Association at the University of Colorado.

Kevin has been named a Certified Speaking Professional, the highest earned designation of the National Speakers Association. Worldwide, less than nine percent of the more than 5000 members of the International Federation of Professional Speakers hold that designation. Kevin is the Senior Instructor for Roger Dawson's Power Negotiating Institute and recently was named the Director of the Illinois Small Business Development Center at Lincoln Land Community College in Springfield.

ISCA is offering this seminar as one of the many benefits of membership in the association. The only requirement to attend the seminar is that each person pre-register so that we can make preparations accordingly. The two-hour seminar is on March 21st beginning at 10:00 AM at the Route 66 Inn and Conference Center in Springfield, IL. The seminar will precede the 2009 Annual Meeting and luncheon. Please indicate on your Annual Meeting registration form (page 9) if you plan to attend the seminar. There is no limit to the number who can attend, so take advantage of this opportunity to gain insights of running a small business from an excellent business professional.

Submitted by Mark Bramstedt

2009 Candidate Biographies

During last year's Annual Meeting held March 8, 2008, the ISCA membership voted and approved a by-law change regarding the process of nominating and electing officers. The nominating committee has completed selecting a slate of officers for 2009 to be voted on at the ISCA Annual Meeting (March 21, 2009). Only one candidate for each office is needed. However, the new process also allows for open nominations from the ISCA membership. No nominations were received from the ISCA Membership during the open nomination period.

The Nomination Committee presents the following slate of officers for nomination: Present Elect - Jennifer Wollenweber; Vice-President - Mark Bramstedt; and Secretary - Steve Elmer.

President Elect

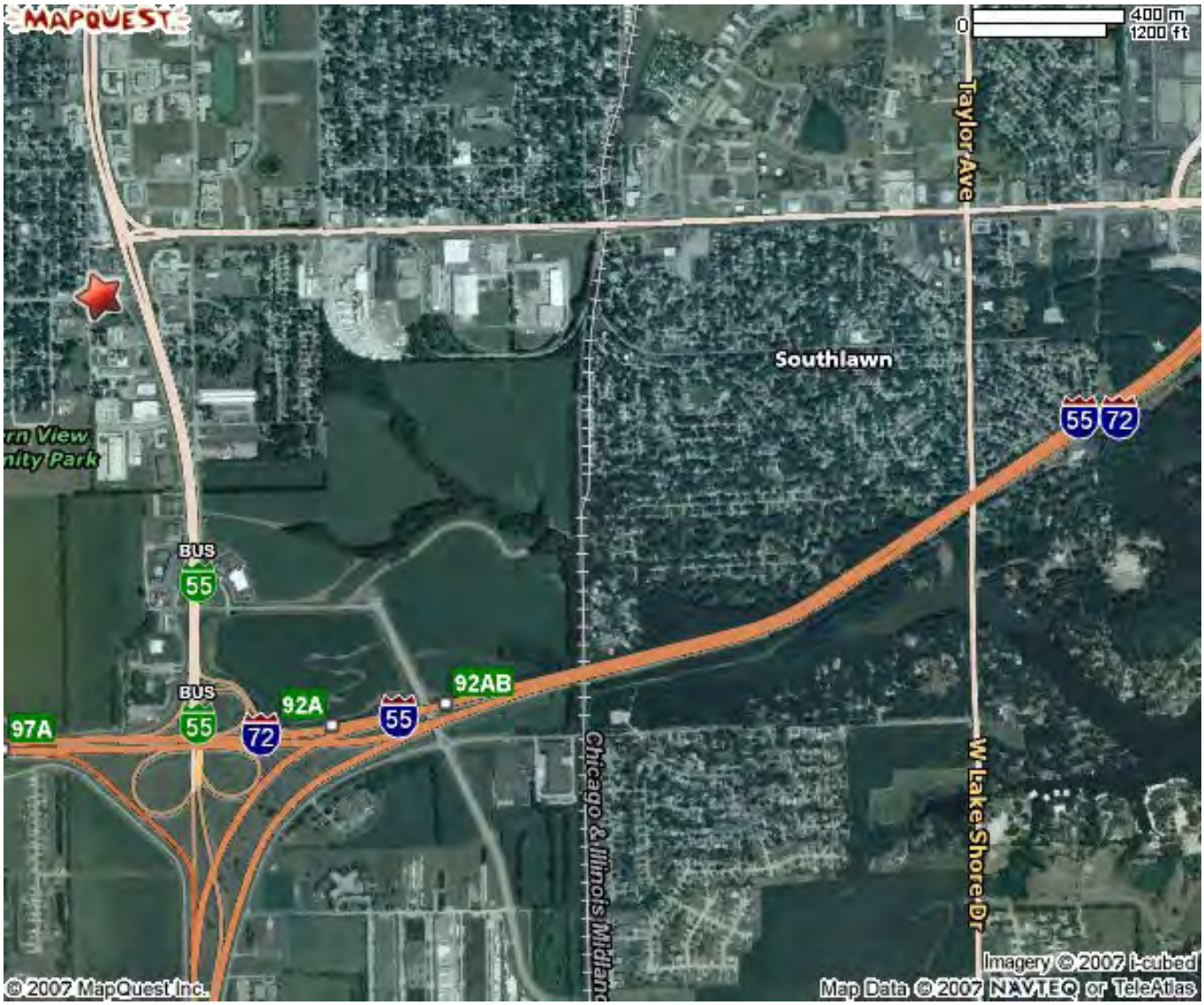
Jennifer Wollenweber
Jennifer earned a B.S. in biology and a M.S. in Geography with an emphasis in soils from Northern Illinois University. Jennifer joined ISCA as student member after attending an ISCA Fall Tour, then became an associate member, and is currently a full member working towards certification. She has been actively involved in ISCA by serving on the PR&E committee for the last two years. She has over 4 ½ years of experience as a soil scientist and wetland delineator with V3 Companies. She also taught Earth Science at Waubonsee Community College and enjoys teaching others about soils and natural resources. Jennifer lives in Yorkville with her husband, two girls, and assortment of animals.

Vice President

Mark Bramstedt
Mark graduated from the University of Montana with a BS degree in forestry with special emphasis on soils. He has been a soil scientist with SCS/NRCS for many years, and currently is the Area Resource Soil Scientist for NRCS Administrative Area 3. His duty station and home is located in Watseka, Illinois. He has been an active member of ISCA since 1978, serving on several committees, certification board, and two separate terms as ISCA president. He holds certification by both ISCA and ARCPACS.

Secretary

Steve Elmer
Steve received his B.S. degree from UW-Stevens Point in 1969. After serving as the survey leader in Connecticut, he came to Illinois in 1977 to serve as survey leader for the Henry County soil survey. He also was the survey leader for Mercer and Warren Counties, as well the MLRA Soil Survey Project Leader in Rock Falls. Steve holds certification with both ISCA and ARCPACS and has served on various ISCA committees and boards. Steve retired from NRCS in 2006 and is now engaged in private consultant work.



Route 66 Hotel and Conference Center Driving Directions for Annual Meeting

The hotel is located on the south side of Springfield on Business 55, 1.1 mile north of Interstate 55 - 72. From north, east, or south take exit 92A onto Business 55. From west take exit 97B onto Business 55. Hotel is on the west side at 2nd stoplight.

2009 Bent Auger Award

It is again time to select a new winner of the prestigious Bent Auger Award. As its name suggests, this award is given each year to an individual or group of individuals who displays "excellence" in the field. Qualifying events/situations are numerous and unrestricted. Stories do not have to be true, but are preferably based on partial truth. If you know anyone who is deserving of this award for 2009, **please bring his/her nomination to the annual meeting** in Springfield on March 21.

Competition can be fierce, so make sure your story is well prepared and fully exaggerated. This award has been held by many of the leaders and founders of the ISCA. It is a great honor and looks good on any resume. Good luck!

www.illinoissoils.org

The Illinois Soil Classifiers Association is an organization promoting the wise use of the soil resource. ISCA is made up of professional soil classifiers in public service, private industry, and education and includes students and others interested in preserving soil. A soil classifier maps, describes and interprets soils according to a national system of soil classification. ISCA was established in 1975 and is affiliated with the American Registry of Certified Professionals in Agronomy, Crops, and Soils.

ISCA Newsletter Staff
683 Castle Drive
Charleston, IL 61920

Phone: 217-345-6767
Fax: 217-345-7307
Email: zach.weber@il.usda.gov

Submissions

This is **YOUR** newsletter. If you wish to submit material, here are some preferences.

- Send information by the last week of the month before the newsletter is scheduled to be published.
- Digital copy in Microsoft Word
- Use as little formatting (indents, bullets, charts) as possible. This increases the work to get it into Publisher.

Publication Schedule

- Winter (February)
- Spring (May)
- Summer (August)
- Fall (November)

ISCA

Days Gone By...

Can you identyify the ISCA member from this 1975 newspaper article?

Answer will be published in the Spring newsletter.

Clip courtesty of NRCS District Conservationist in Bay County Michigan, Gracie Moreno.

6-D THE BAY CITY TIMES WEDNESDAY, MAY 7, 197

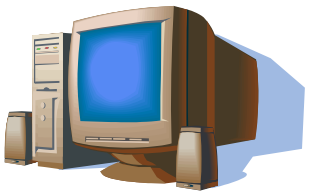
SOIL SAMPLING — This team of soil scientists will be traveling the length and breadth of Bay County during the next three and a half years, sampling and mapping soils throughout the county. So don't be surprised if you see a man with an auger in the middle of a field. Currently working in Monitor and Williams townships, the

Answer to last newsletter's "Days Gone By…":

Roger Windhorn, standing
Pete Weikle, kneeling
McLean County Soil Survey

www.illinoissoils.org

New, exciting links have been added to the "announcements" page on our website. Be sure to bookmark this page. Its an excellent resource to keep you informed on the latest soils issues.
Better yet… make it your home page!



2009 ISCA 34th Annual Meeting Registration

Make checks payable to: Illinois Soil Classifiers Association

NAME: _____ Number attending _____

Cost is $15.00 / person. Total $ _____

_____I will be attending the Business Seminar. (membership benefit, no additional fee)

_____I will NOT be attending the Business Seminar.

Send to: Charles J. Frazee
65 Gaffney Rd
Divernon, IL 62530

.....Cut.....Cut.....

2009 ISCA BALLOT FOR OFFICERS

Voting privileges are for Full Members, Associate Members, and Honorary Members (Vote for one in each office by placing a check or an X next to the candidate's name)

President-Elect

Jennifer Wollenweber _____

Nominations from ISCA Membership None Submitted

Vice President

Mark Bramstedt _____

Nominations from ISCA Membership None Submitted

Secretary

Steve Elmer _____

Nominations from ISCA Membership None Submitted

Return the ballot in a sealed envelop marked "ballot" to Steve Elmer, ISCA Secretary before the start of the 2009 ISCA Annual Meeting. You may also mail the ballot to Steve Elmer, 27560 Ebenezer Road, Geneseo, IL 61254. Please mark "ballot" on the outside of the envelope to ensure that the ballot remains sealed before it is counted at the Annual Meeting. In order to be counted, mailed ballots must be received before March 21, 2009.

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683 Castle Drive
Charleston, IL 61920

Visit the ISCA website to see the color version of this newsletter

www.illinoissoils.org/news

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Change of Address Form

Name:_____

Address:_____

City, State, Zip:_____

Phone:_____

E-Mail:_____

***Mail to: Steve Elmer, ISCA Secretary, 27892 Ebenezer Road, Geneseo, IL 61254**

Illinois Soil Classifiers Association Newsletter

Spring-May 2009

Upcoming Events:

Inside this issue:

Message from the President

Greetings from the plush desk of the ISCA Presidents office! Congratulations to our 2009 Officers: Mark Bramstedt (Vice President), Steve Elmer (Secretary), Chuck Frazee (Treasurer), Jennifer Wollenweber (President Elect), and Scott Wegman (Past President).

Soils seem to be getting more coverage than ever in recent years as evidenced by:

- "Dig it" the new exhibit at the Smithsonian Natural History Museum
- "Dirt! The Movie", shown at the 2009 Sundance Film Festival
- "Underground Adventure" at the Field Museum
- "Our Good Earth", the theme of the September 2008 issue of National Geographic.

It might take a few beverages to figure out why this interest is happening now, but the bottom line is that "soils are in the news". We have an organization that can foster that interest and promote the discipline of soil science.

Planning is in the early stages for a Fall Tour in the west-central Illinois area. The "Dig it" exhibit will be going on the road in 2010 and ISCA will be working on bringing this exhibit to Illinois. We will try to increase the roles of our student membership and make a concerted effort at outreach. The Farm Progress show is back in Decatur this year and ISCA will have a booth, and maybe a pit. The Newsletter comes out four times a year through the hard work of our newsletter committee. It would be nice to see a few more general articles on soils in each issue. I'll be taking this up with the Council in a couple weeks. If you get a call to assist from a Council or Committee member, do yourself and ISCA proud and pitch in.

I look forward to an interesting and productive year with ISCA.

Tom D'Avello
217-353-6637
tom.davello@il.usda.gov

Illinois State Soil T-Shirts Still Available

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The Miami Profile

Mark Baldwin

The name Miami was first used in soils classification in Montgomery County, Ohio, in 1900, and was applied to all the soils of that area except the non-arable bottom land called "Meadow". It included arable recent alluvium or first bottom soils; soils of the second bottom, derived from stratified gravels; and soils on the uplands, both well drained and poorly drained, derived from unassorted glacial drift. From this we deduce that about the only definition of the Miami series was its origin in the "weathering and modification of glacial drift", both ice laid and water laid, well drained and poorly drained.

The year 1902 was a period of expansion and conquest for the Miami. From the place of its origin on the banks of the Big Miami, it consolidated its position in Ohio and planted outposts in New York, Kentucky, Indiana, Michigan, Illinois, Wisconsin, Iowa, Arkansas, Kansas and North Dakota. In 1903 it was mapped in areas in Minnesota, Nebraska, and South Dakota, and in 1904, 22% of an entire state, Rhode Island, was mapped as Miami. In 1905 the Miami took a long leap to the Puget Sound region in northwestern Washington.

In Bureau of Soils Bulletin No. 55 published in 1909, the Miami series is described as "characterized by the light color of the surface soil, by derivation from glacial material, and by being timbered either now or originally".

In Bureau of Soils Bulletin No. 78, 1911, special attention was given to the revision and definition of the Miami series, and it was restricted to "weathered glacial till", composed largely of granite, limestone, and shale material, with light-colored surface soils". An appended list of changes in correlation in previously published areas contained 160 changes. All the Miami black clay loam, which was a dark colored, poorly drained soil in most places, was changed to other series. Soils derived from alluvium were excluded from Miami. The fine sands and sands were largely eliminated on the basis of their siliceous parent material. At the same time the Miami soils of New York, Rhode Island and other eastern areas were changed to other series.

Bulletin No. 96, in 1912, placed the Miami series as derived from thick glacial drift, ice-laid and composed of mixed granite, sandstone, shale, and limestone material with boulder clay substratum. The soils are described as "brown, light brown or grayish, and are underlain by yellowish and brown heavier textured subsoils. Mottlings of brown and light gray are present in the subsoil in many places, particularly in the case of the clay loam member". This definition itself roughly fixed the limits of the Miami, but actual mapping and correlation restricted it still more, and it has been mapped since 1913

only in southeastern Wisconsin, southern Michigan, northern and central Indiana, and western Ohio, and in a smaller isolated areas in southeastern Minnesota. This 1912 definition, in not more specifically describing surface soil and subsoil colors, left the way open for further controversy and revision, and in only three or four years, another split was made which separated the soils of the region with gray surface and highly mottled subsoils from the Miami. It is evident that in all this squeezing in and elimination we were gradually getting at something which might be defined as a soil unit in such terms that the definition would be useful in soil classification and soil mapping, and the outcome has been that the name Miami is applied to the well drained, normally developed soils in a region where the major soil forming factors are as follows: The average annual precipitation is 30 to 40 inches quite equally distributed throughout the year, and the average relative humidity is comparatively high. The ground is covered with snow 30 to 60 days each year. On the average 2/5 of the days each year are cloudy. Winters are moderately severe, the summers short and hot. The original vegetation was a mature hardwood forest consisting of sugar maple, black walnut, white oak, shag bark hickory, beech, tulip poplar, and other species. There was underbrush in places but in general the forest floor was fairly clear on the well drained uplands. The topography was largely constructional except along major drainage ways and there are vast areas of originally poorly drained land where the normal Miami profile did not develop. The surface geological formation is a calcareous, unassorted, medium to heavy textured glacial drift.

The following profile is specific in detail and, in the case of the analyses, describes one definite profile in central Indiana. But we have sufficient data, both field and laboratory to know that it typifies the Miami as we know it now.

The surface leaf litter, consisting of a loose accumulation of dried leaves and other undecomposed plant remains is only moderately abundant, and it is doubtful if, under primeval conditions, it ever attained a thickness of more than 4 or 5 inches except where drifted. The leaf mold, consisting of the somewhat packed and matted disintegrated and partially decomposed leaves and other plant remains, is thin, most observations recording thicknesses of only one eighth to one fourth inch.

Beneath this covering of organic matter the mineral soil profile begins. In the Miami the texture profile is well developed and clearly defined. Taking the silt loam from central Indiana as typical, we find that to a depth of some twelve inches, the soil is a silt loam, from 12 to about 35 inches a clay loam, below that a loam in texture. These texture horizons may be taken as the primary horizons of the soil profile and designated A B C. The following table of mechanical analyses indicates the texture profile in terms of percentage of each textural constituent in the various horizons:

Miami Silt Loam, Hancock County, Indiana

Sample No.	284018	284019	284020	284021	284022	284023	284024
Depths	0 to 2"	2 to 5"	5 to 12"	12 to 16"	16 to 32"	32 to 36"	36 + in.
Horizon	A_1	A_2	A_3	B_1	B_2	B_3	C
Fine gravel 2. - 1 mm.	1.3	1.9	.7	.7	.9	1.2	2.6
Coarse sand 1. - 5 mm.	4.4	2.7	2.8	2.8	3.4	3.1	5.2
Medium sand .5 - .25 mm.	2.4	2.4	2.8	2.9	2.7	2.8	3.2
Fine sand .25- .1 mm.	12.7	14.1	15.2	14.0	15.3	15.7	17.8
Very fine sand .1 -.05 mm.	11.2	13.9	12.2	13.4	14.6	16.8	17.8
Silt .05-.005 mm.	51.7	47.9	50.4	40.9	34.5	33.4	37.2
Clay .005- 0 mm.	16.6	17.5	16.5	26.3	28.6	27.6	16.4

The A and B horizons together constitute the true soil, the C is the somewhat altered parent material, which is a medium to heavy textured glacial drift.

Each primary horizon of the texture profile has other characteristics which further subdivide it. The surface 2 inches of the mineral soil is very dark grayish brown in color, rich in organic matter, and when gently shaken out, falls into small soft roundish particles 1/6 to 1/8 inch in diameter which cling to the plant roots. These particles are easily crushed when either moist or dry, and the whole mass is friable. There is a tendency to an irregular horizontal laminated or platy structure. Worm casts and worm holes, plant roots and plant rootlets are very numerous. Downward through the A horizon the dark color gradually fades out, the platy structure or breakage becomes more pronounced until the B horizon is approached, and the finer grained structure less pronounced. There is decreasing evidence of worm work, and fewer plant roots and rootlets, but darker irregular channels through the mass are probably filled-in worm holes.

With the change in the texture from the A to B horizon there is a change in structure. The material of this horizon breaks into irregular lumps ranging from 1/4 inch to 1 inch across, in general smaller at the top of the horizon and becoming larger downward. These small blocks, fairly soft when moist and yielding into a plastic mass with moderate pressure, are so hard when dry that they cannot be crushed by ordinary direct pressure of thumb and finger. Within this texture horizon B there are variations in color. The upper 4 or 5 inches is light brown to yellow brown on the faces of the structure blocks with grayish coatings in places. The interiors of the little blocks are more yellowish and a powdered mass of the material drys to a light brownish yellow. There is a gradual transition to browner colors downward, at least to duller browns on the outside of the blocks, with more yellow in the interiors. A characteristic feature is a thin gel-like coating on the surface of the blocks, especially evident when they are moist. The lower 4 to 6 inches of the B horizon is marked by a very dark brown to black coatings on the structure blocks. Little pores and irregular tubes about the diameter of a small needle, are common features of the B horizon, being especially marked in the upper B. Plant roots and rootlets not only follow the breakage planes, but penetrate the blocks. The root channels, especially of dead roots, are encased by darker colored material.

The C horizon is calcareous glacial drift of the late Wisconsin age. The upper 5 to 10 feet is light grayish yellow in color, firm and quite hard when dry but not extremely compact like some of the glacial drift farther east. It tends, upon exposure in banks, to develop irregular joint planes which separate the mass into angular blocks. Small stones and pebbles scattered through the mass consist of limestone, dolomite, scattering shale, sandstone and granite, and other igneous and metamorphic rocks.

The following table of chemical analyses indicates the chemical composition of the Miami silt loam. They are based upon samples taken by natural horizons and analyzed in the Bureau of Soils Laboratory.

Miami Silt Loam, Hancock County, Indiana

Sample No.	284018	284019	284020	284022	284023	284024
Depth	0 to 2"	2 to 5"	5 to 12"	16 to 32"	32 to 36"	36 + in.
Horizon	A_1	A_2	A_3	B_2	B_3	C
SiO_2	71.82	77.08	77.35	69.52	65.64	47.93
TiO_2	0.57	0.65	0.65	0.65	0.60	0.39
Fe_2O_3	2.91	3.08	3.22	5.92	5.60	3.34
Al_2O_3	9.06	9.50	10.09	14.06	14.73	8.56
MnO	.127	0.144	0.119	0.077	0.133	0.069
CaO	0.81	0.63	0.53	0.70	1.57	13.59
MgO	0.62	0.64	0.62	1.20	1.97	6.05
K_2O	2.02	2.03	2.19	2.38	2.64	1.93
Na_2O	1.06	1.02	1.16	0.97	1.39	0.85
P_2O_5	0.13	0.10	0.08	0.09	0.12	0.09
SO_3	0.13	0.07	0.06	0.05	0.05	0.05
Ignition loss	11.09	5.00	3.98	4.33	5.61	17.33
Total	100.35	99.94	100.05	99.95	100.05	100.18
N	0.334	0.153	0.104	0.053	0.069	0.029
CO_2 from Carbonates	None	None	None	None	None	15.00
pH	5.78	5.07	5.10	5.16	7.21	8.21

Note: Horizon B_1 (12 to 16 in.) was omitted from the chemical analysis.

Silica averages 75% in the A, about 67% in the B, and 48% in the upper C horizon.

Al_2O_3 and Fe_2O_3 are relatively concentrated in the B horizon, where the clay fraction is the largest. CaO and MgO together running about 2% or less in the A and B horizons, jump to nearly 20% in the C. The CO_2 from carbonates, absent from the A and B, is 15% in the C.

Manganese is interesting because of its rise in the lower B, a rather characteristic feature of the Miami and associated soils, and which may account for the darker color of that part of the profile.

The distribution of organic matter in the soil section is indicated by the nitrogen content of the various horizons.

Hydrogen ion concentration indicated by pH value is shown for the Miami profile. The figures were obtained with the potentiometer using a hydrogen electrode. Many field tests with Soiltex indicate the same general reaction profile for the Miami.

Soil Science Society of America Journal 1927 B8: 28-34. Submitted by Chris Cochran

Job Announcement—Soil Scientist Position

MWRD Chicago - Soil Scientist I
($66,564.42 to $101, 402.60)

The **Metropolitan Water Reclamation District of Greater Chicago** is seeking applicants for its SOIL SCIENTIST I position. The Soil Scientist I supervises and participates in the work of technical and clerical staff in environmental monitoring and biosolids marketing and demonstration programs at the District's land reclamation sites.

Supervises conduct of greenhouse, field research and monitoring projects to ensure that workplans are properly executed. Supervises technicians and laboratory assistants in preparation of samples for analysis and conduct of the analyses, and determines that standard operating procedures are followed and analyses are in control.

Generates reports communicating results of laboratory analyses to Soil Scientist II and Soil Scientist III.

Requirements:
Must have a Masters Degree in Soil Science or Agronomy.

Interested parties should contact the District's

Employee Services Office
Metropolitan Water Reclamation District
100 E. Erie Street, First Floor
Chicago, IL 60611
312 751 5174
jobs@mwrd.org
www.mwrd.org

ISCA Wetland Training Sessions

ISCA hosted three sessions of training this spring titled "Using the Midwest Interim Regional Supplement for Wetland Delineation." The sessions were intended to update private consultants who conduct wetland determinations and delineations on the recently released supplement to the 1987 US Army Corps of Engineers Wetlands Delineation Manual (http://el.erdc.usace.army.mil/elpubs/pdf/trel08-27.pdf). Presentations from the Corps of Engineers and ISCA soil classifiers highlighted the changes in the procedure in conducting wetland identification. A significant portion of the training focused on basic soil properties and the hydric soil field indicators. During the afternoon, participants evaluated about a dozen soil cores collected from various Illinois locations in order to determine which indicators were present. In addition, a few cores that lacked hydric indicators were used to illustrate the importance of evaluating the soil cores deeper than the surface horizon.

Two of the sessions were held in northern Illinois, in which over 110 participants attended. One session was held at the DuPage County government complex in Wheaton on February 26 and the other at the Kane County government complex in Geneva on February 27. A third session was held near Mahomet on April 7 with 28 registered attendees. Attendees came from several states besides Illinois, including Wisconsin, Indiana, Iowa, Missouri, Ohio, Michigan, Kentucky, and Florida! Most of the attendees were not soil classifiers and had limited knowledge and training on using hydric soil identification. These courses were determined to be very successful by the comments we received after each session. The hands-on activity with the soil cores was by far the most appreciated portion of the training.

Many ISCA members were involved in planning and presenting the materials and making the training sessions successful. There were so many ISCA members involved in the sessions that it would be possible to inadvertently omit a name, if the names were listed. Much thanks goes to all of those who helped gather soil cores, make classroom arrangements, print and organize material, give presentations, and help with the hands-on activities. This is a great success story for ISCA!

Submitted by Jennifer Wollenweber

ISCA Annual Meeting a Success

The 34th Annual Meeting of the ISCA was held on March 21, at the Route 66 Inn and Conference Center in Springfield. Prior to the meeting, 23 ISCA members attended a morning seminar with guest speaker Kevin Lust, CSP. Mr. Lust is a public speaker, with a background in banking. He spoke on the subject of "Practical Ideas for Small Businesses".

Registration was held during the morning, and the annual meeting commenced at noon with an invocation by Gerald Berning. Lunch followed. President Scott Wegman presided over the Annual Meeting following lunch. Secretary Steve Elmer read the minutes from the 3-8-08 33rd Annual Meeting, Treasurer Chuck Frazee presented his report of income and expenses for 2008, and committee reports were distributed. Mark Bramstedt presented The Burton W. Ray Scholarship Award. Recipient Andrea Rasmussen of NIU was not present. Her advisor, Michael Konen, accepted the award in her absence. The prestigious Bent Auger award was presented to Ken Gotsch. Drawings were held for a variety of door prizes provided by Bog Tegeler. Past President Ken Gotsch announced the election results: President-Elect - Jennifer Wollenweber; Vice-President - Mark Bramstedt; Secretary - Steve Elmer. Scott Wegman thanked the executive council and committee members and chairs for their efforts of the past year. Tom D'Avello was not in attendance, so the gavel was accepted by Vice-President Mark Bramstedt. Bramstedt then read prepared closing comments by President D'Avello and another educational annual meeting was adjourned.

Thanks to all those who attended.

Scott Weisbrook, Bill Kreznor, and Michael Konen solving the problems of the world.

Micheal Konen accepts Burton Ray Scholarship Award, for Andrea Rasmussen, from Mark Bramstedt.

Frank Heisner and Steve Elmer relax while Scott Wegman is hard at work.

Scott Wegman presents Bent Auger Award to Ken Gotsch. Congratulations Ken!

Ken Gotsch, Wiley Scott, Lester Bushue, and Dana Grantham talk soil.

Guest speaker Kevin Lust gives a small business seminar.

Charles Frazee, John Pearse, and Bruce Putnam share stories before the meeting,, mmm hmmm.

Dale Calsyn, Bob Tegeler, John Ford, and Gerald Berning anticipate another thrilling annual meeting.

TRADING POST

This spot is reserved for members who would like to buy, sell, trade, or announce an item, event, or activity in our newsletter. Please limit your classified ad to 25 words or less. Email your ad to the newsletter at zach.weber@il.usda.gov

- ISCA ball caps available for $9 (includes S&H).
  Contact Steve Elmer at torflagr@geneseo.net
- Drummer T-Shirts available in 2 colors (see front cover).
  Short sleeve - $12 Long sleeve - $14

2009 Illinois Cooperative Soil Survey Annual Planning Conference

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
2118 West Park Court
Champaign, IL 61821
Phone: 217/353-6600
Fax: 217/353-6676

April 27, 2009

Dear Illinois Soil Survey Cooperators and Supporters:

The 2009 Illinois Cooperative Soil Survey Annual Planning Conference will be held on Thursday, May 21, 2009, at the NRCS State Office, 2118 West Park Court, Champaign, Illinois. The purpose of the Conference is to bring our cooperators and other soil survey supporters up-to-date on soil survey activities in the state.

The USDA Natural Resources Conservation Service will be hosting the Conference this year. We will convene at 9:30 am. We will complete our "typical" business by 12 noon. After lunch, we will reconvene (for those that are interested) for presentations by our soil survey staff. A tentative agenda is attached.

We will be looking for input from the group on soil survey related issues that need to be addressed this next year. **Please RSVP to Jean McConkey by May 18, 2009 at 217/353-6635.**

Sincerely,

WILLIAM J. GRADLE
State Conservationist

Attachment

cc:
Micheal Golden, Director, Soil Survey Division, NHQ, NRCS, Washington, D.C.
Karl W. Hipple, Acting Director, National Soil Survey Center, Lincoln, Nebraska
MW State Conservationists/State Soil Scientists
Leadership Team
MLRA Project Leaders
Resource Soil Scientists
State Office Soils Staff

2009 ILLINOIS COOPERATIVE SOIL SURVEY
WORK PLANNING CONFERENCE

Thursday, May 21, 2009

USDSA-NRCS State Office
2118 West Park Court
Champaign, Illinois
Agenda

- Convene 9:30 am
- Opening Remarks — Bill Gradle, NRCS State Conservationist
- Status Reports by Cooperators
  - Natural Resources Conservation Service
  - Illinois Department of Agriculture
  - Illinois State Geological Survey
  - Illinois Department of Transportation
  - Association of Illinois Soil and Water Conservation Districts
  - University of Illinois
  - UI Cooperative Extension Service
  - United States Forest Service
  - Illinois Soil Classifiers Association
- Other Reports
-
-
- Discussion
- Adjourn 11:30 AM
- Reconvene 12:30 PM

Cook County/Chicago Soil Survey	Calsyn/Steglich
2009 National Cooperative Soil Survey Conference	Windhorn/Teater
California Soil Survey Detail	Steglich
California Soil Survey Detail	Francen
Georgia Soil Survey Detail	Ashpole
General Soil Map project	D'Avello
LIDAR Enhanced Soil Survey	Baumgartner/Teater
Morgan Pond/Bean Ridge Soil-landscape project	Indorante, et al
Darmstedt project	Weber
Alluvial Soils project	Fehrenbacher
Mine Soil project	Indorante, et al
Sodium Affected Soils study	Tegler/Indorante

- Adjourn 2:30 PM

VAPSS 2009 Spring Technical Session

May 28 and 29, 2009 – Fauquier County and Washington DC

Soil-Landscape Relations in the Culpeper Basin
and
Tour of *Dig It, The Secrets of Soil* exhibit at Smithsonian Natural History Museum

0.6 CEUs

Thursday, May 28, 2009 – Culpeper Basin Landscapes, Soils & Interpretations
Leaders: Danny Hatch, Dave Stewart and Jim Sawyer

This all day field trip will explore the complex spatial relationships of soil landscapes in the Culpeper Triassic Basin. Soils within the basin can change dramatically over very short distances due to the effects of intrusive igneous dikes that cut through Triassic sediments with associated cataclastic and thermally altered contact zones. The field trip will focus on a catena of soils in the Culpeper Triassic Basin that will include intrusive dikes of igneous derived soils with expansive clays to thermal shales juxtaposed with more typical sedimentary residuum (including highly to weakly developed soils). Soils within the Triassic basins have historically posed difficulties in interpretations due to (1) short-range variability, (2) presence of expansive soils, and (3) vagaries of interpreting soil drainage regimes via redox features in red parent materials.

The trip will also visit a 8000 GPD mass drainfield (Microfast™ pretreatment followed by drip irrigation) that Dave Stewart will discuss at the Fauquier Industrial Park.

There is a hotel block reserved at the **Best Western Fall Church Inn.** See the lodging page. Also attached is a map, a schedule page and a registration page

Logistics: The field trip will depart from the VDOT commuter parking lot on Rt. 28 east of intersection of Rt. 17 & Rt. 28 and west of Manassas (map attached). The site is close by (within 1 mile) of the commuter lot (Warrenton-Fauquier Airport & Fauquier Co. Industrial Park). The group will carpool from the parking lot. Bring your own lunch.

Friday, May 29, 2009 -- Tour of Dig It, The Secrets of Soil
Leader: Pat Megonigal, Smithsonian Env. Res. Center

The group will depart from the meeting hotel at 6:30 am and travel by Metro (subway) to the Smithsonian Natural History Museum on the Mall in downtown Washington D.C. The tour will be led by Dr. Pat Megonigal of the Smithsonian Environmental Research Center in Edgewater MD, who was the lead soil scientist in charge of setting up the exhibit. Pat is one of our nation's leading soil biogeochemists and will give the group a great "behind the scenes" tour of the exhibit. If you're lucky, you'll find at least one VAPSS member pictured in the exhibit somewhere! The tour will end at 12:00 pm; many lunch opportunities are nearby.

For more information go to: http://forces.si.edu/soils/

Spring Technical Session

May 28th Soil-Landscape Relations in the Culpeper Basin
and
May 29th Tour of *Dig It, The Secrets of Soil* exhibit at Smithsonian Natural History Museum

May 28, 2009

Location: Fauquier Airport

Sessions lead by Danny Hatch, Dave Stewart and Jim Sawyer

9:00am Meet at VDOT commuter parking lot on Rt. 28

9:30 Field Session I

10:30-10:45 Break

10:45 continue Field Session I

12:00pm Lunch

1:00 Field Session II

3:00-3:15 Break

3:15 continue Field Session II

5:00 End of Field Session II.

Travel to hotel

7:00 Business Meeting (Meeting room 2nd floor of the Best Western Fall Church Inn)

May 29, 2009

Location: Dig it! See the Smithsonian National Soils Exhibit, Dig it! The Secrets of Soils

6:30am Leave hotel

8:30 Meet Pat Magonigal for a behind the scenes tour of the exhibit.

12:00pm Lunch

1:00 Adjourn

Lodging Information:

VAPSS has a block of 20 rooms for Wednesday night, May 27th and Thursday night, May 28th at the **Best Western Fall Church Inn**, phone is 703.532.9000.

There are both smoking and non-smoking rooms available. Each person must make his/her own reservation and pay for his/her own room. The block is under "**VAPSS**". The block will not be held past May 25th.

The room rates are set up as follows: Single, $95; Double, $100; Triple, $105; and Quadruple, $110 per night. **You must specify your room size choice when you reserve your room**, so please make your room mate decisions before calling to reserve a room.

Check in after 3pm, check out is noon. Beware of the $1 safe deposit box charge on your bill.

Best Western Fall Church Inn website for further information and directions:
http://www.bestwesternvirginia.com/hotels/best-western-falls-church-inn/

Meeting place is a VDOT commuter parking lot on Rt. 28 east of intersection of Rt. 17 & Rt. 28 and west of Manassas (see map). The site is close by (within 1 mile) of the commuter lot (Warrenton-Fauquier Airport & Fauquier Co. Industrial Park).

Registration Form

VAPSS and Virginia Tech

May 28 and 29, 2009

Soil-Landscape Relations in the Culpeper Basin
And
Tour of *Dig It, The Secrets of Soil* exhibit at Smithsonian Natural History Museum
0.6 CEUs

PLEASE PRINT CLEARLY OR TYPE:

Name _____ **Work Phone** _____

Firm/Org. _____ **Fax** _____

Address _____ **E-mail:** _____

City _____ **State** _____ **Zip** _____

Amount enclosed $ 75^{00}

Registration and payment must be made prior to the meeting – *no exceptions*. **Deadline is May 22, 2009.**

Contact Sue Brown (540.231.5741; Fax: -7630; suebrown@vt.edu) for credit card payments
(Mastercard or Visa only)

No cancellations/refunds after May 22nd. All cancellations are subject to a $25 processing fee.

Make checks payable to VAPSS

Mail check with registration form to:

Sue Brown
VAPSS
Virginia Tech/CSES
238 Smyth Hall - 0404
Blacksburg VA 24061

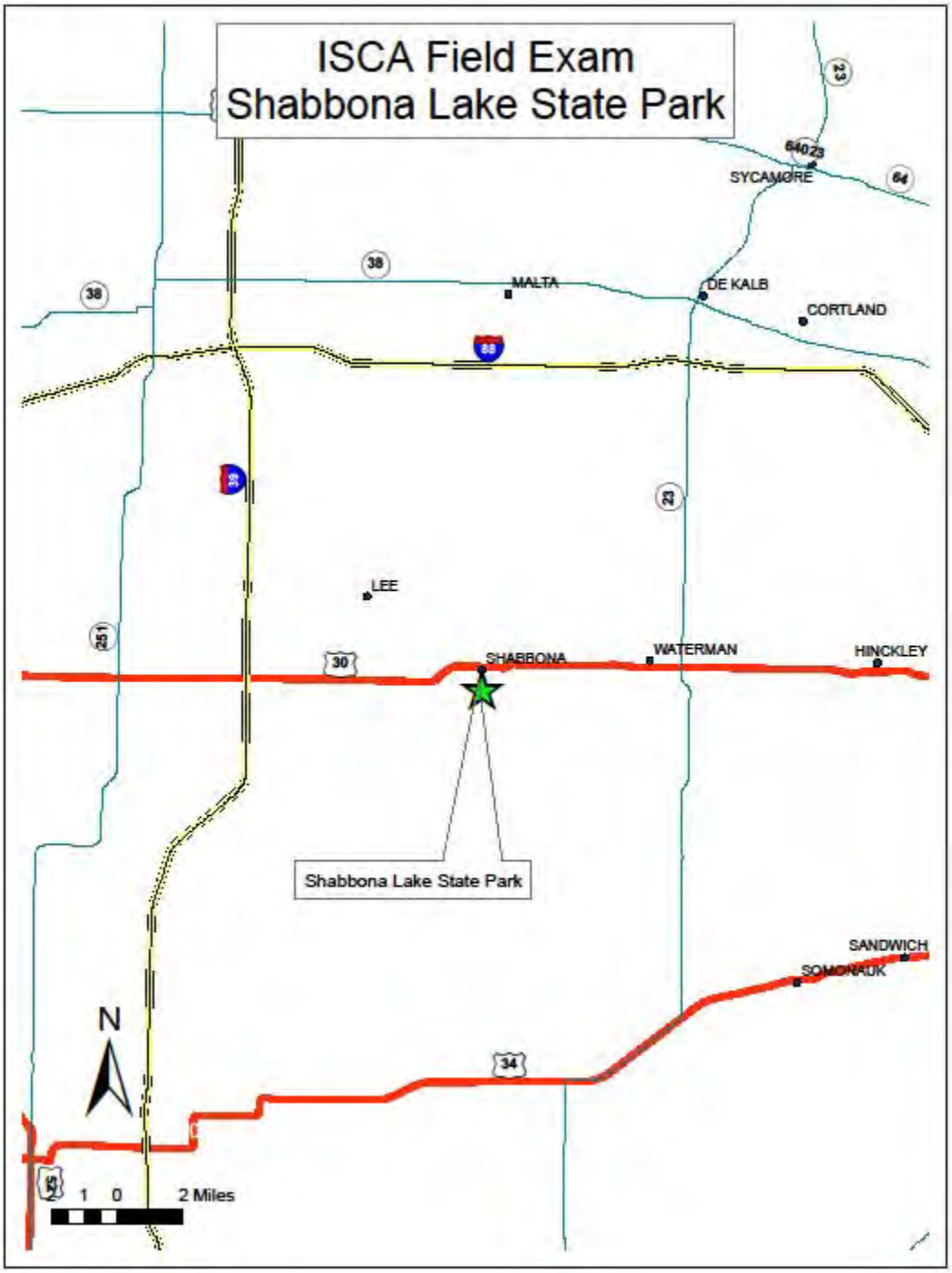
ISCA and NRCS to Co-sponsor a Skills Test for Soil Classifiers and Soil Scientists

ISCA and NRCS are offering an opportunity for testing one's field skills as a soil classifier. The opportunity will be in June in northern Illinois (DeKalb Co.). The purpose of this exam is to test and fine-tune the skills and abilities of Illinois soil scientists and soil classifiers in identifying soil properties in the field. This exam will be an opportunity for each soil classifier to evaluate his or her skills in identifying color, texture, structure, limiting layers, and other basic soil properties. Often times, soil classifiers work alone in the field and do not have a way of comparing their field evaluation with other soil classifiers. The Field Exam will provide an opportunity for discussion of some of the basic issues in field identification and interpretation of soils. The field exam will use the approved "Key for Determining Sewage Loading Rates" (from the Illinois Department of Public Health, Private Sewage Disposal Licensing Act and Code http://www.ilga.gov/commission/jcar/admincode/077/07700905ZZ9996amR.html) and procedures and nomenclature from the USDA Soil Survey Manual http://soils.usda.gov/technical/manual/ and the USDA-NRCS Field Book for Describing and Sampling Soils http://soils.usda.gov/technical/fieldbook/ . Copies of the "Key for Determining Sewage Loading Rates" will be available. All those attending are encouraged to bring their soil description gear. Suggested items to bring include: Munsell color book, water bottle, tape measure, HCl acid bottle, 100 foot tape or measuring wheel, compass, knife, pencils, clipboard, textural triangle and any field guide or other reference material. There will be some extra field gear available for you to use if you do not have a specific item. You do not need a soil probe or shovel. The field exam will be considered an "open book" exam, so any reference material may be used. This is a voluntary exam and the results of the exam will not be kept as any official record of the individual member. The exam is not required for certified soil classifiers however, participation is strongly encouraged for all practicing soil classifiers and we encourage the attendance of all members. The field exam will qualify for continuing education units. Here are the details of the June 22 exam day:

Date: Monday, June 22, 2009
Time: Open session, 3:30 PM – 6:30 PM.
Where: Shabbona Lake State Park, near the town of Shabbona in DeKalb County. Enter the park from the north and park at the turn-out at the first intersection inside the park. (see maps on next 2 pages)
Cost: None – one of the many benefits of being an ISCA member.
All ISCA members and soil classifiers are encouraged to attend. All NRCS soil scientists are welcome to attend (with supervisor approval, of course).
This exercise will be out-of-doors, so it is somewhat weather dependent. In past years, the field exam was washed out by heavy rains. We are making plans to still host this event in case of rain.

Registration Deadline: June 15, 2009. Advanced registration is requested.
Register by contacting:
Mark Bramstedt (e-mail preferred) mark.bramstedt@il.usda.gov
320 E. Locust
Watseka, IL 60970
815-351-7845 Call this number on exam day, in case of inclement weather.

Soil classifiers test their skills at 2006 Field Exam


ISCA Field Exam
Shabbona Lake State Park
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WATERMAN
HINCKLEY
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Preserve Road
Soil Pit
Shabbona Rd
Parking
ISCA Field Exam
Shabbona Lake State Park
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www.illinoissoils.org

ISCA Newsletter Staff
683 Castle Drive
Charleston, IL 61920

Phone: 217-345-6767
Fax: 217-345-7307
Email: zach.weber@il.usda.gov

Submissions

This is **YOUR** newsletter. If you wish to submit material, here are some preferences.

- Send information by the last week of the month before the newsletter is scheduled to be published.
- Digital copy in Microsoft Word
- Use as little formatting (indents, bullets, charts) as possible. This increases the work to get it into Publisher.

Publication Schedule

- Winter (February)
- Spring (May)
- Summer (August)
- Fall (November)

ISCA

The Illinois Soil Classifiers Association is an organization promoting the wise use of the soil resource. ISCA is made up of professional soil classifiers in public service, private industry, and education and includes students and others interested in preserving soil. A soil classifier maps, describes and interprets soils according to a national system of soil classification. ISCA was established in 1975 and is affiliated with the American Registry of Certified Professionals in Agronomy, Crops, and Soils.

Days Gone By...

Can you identyify this ISCA member? Hint: This picture was taken a LONG time ago!

Answer to last newsletter's "Days Gone By…":

Left to right: ISCA member Bob McLeese, Marty Wissmueller, and Glenn A. Weesies.

Note from the Secretary

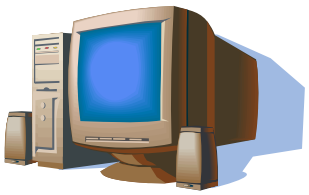
ISCA officially updates membership records twice annually (spring and fall). Interim changes that occur are being published in the newsletter, for your information. Here is a membership contact update for your records:

Ted McCannon's correct home city, zip, and phone number are Big Rock, IL 60511-9387 630-566-3032.

Please continue to inform me, any member of the Executive Council, or Newsletter Chairman Zach Weber of any membership contact information updates. For in-house and member dues tracking, this also includes updates to membership type, email addresses, and whether certified or not. If you need any of the above information updated, we appreciate your help in keeping our member contact information as current as possible. Thank you! Steve Elmer

www.illinoissoils.org

New, exciting links have been added to the "announcements" page on our website. Be sure to bookmark this page. Its an excellent resource to keep you informed on the latest soils issues.
Better yet… make it your home page!



ISCA Newsletter
683 Castle Drive
Charleston, IL 61920

Visit the ISCA website to see the color version of this newsletter

www.illinoissoils.org/news

.....Cut.....Cut.....

Change of Address Form

Name:_____

Address:_____

City, State, Zip:_____

Phone:_____

E-Mail:_____

***Mail to: Steve Elmer, ISCA Secretary, 27892 Ebenezer Road, Geneseo, IL 61254**

Illinois Soil Classifiers Association Newsletter

Summer-August 2009

Upcoming Events:

Inside this issue:

Message from the President

Message from the President.

Its summer, the AC has only been on a couple times to dehumidify the air, and everything seems to be going pretty well. I heard from a friend back home that was happy to be able to "smell fresh cut grass". He had recently gone through enough mental stress to be overjoyed at the prospect of getting on his mower and being able to cut the grass. He was recuperating from a cataclysmic event through the most mundane of tasks. That situation brought to mind the debate between the Uniformitarians and the Catastrophists, which Leon Follmer aptly summarized with this statement "just because it happened a long time ago, doesn't mean it took a long time to happen". Some of the most enjoyable times in our profession are when we try to piece the puzzle together related to how and when soils formed in a region. That brings to mind the fall soils tour. Jim Hornickel and his committee have been working many months to put together the soils tour this fall in Menard and Mason Counties. The tour will be October 23, and details are included in this newsletter. This will be a chance for the Uniformitarians and Catastrophists amongst us to square off and debate soils in a unique landscape. By the way, enjoy your mundane tasks, the big events in our life are just there to serve as markers while we do our daily routines.

Tom D'Avello
217-353-6637
tom.davello@il.usda.gov

NOTICE

New ISCA apparel available. Check out the ordering information and deadline on pages 22 and 23.

DON'T MISS OUT!!

ISCA Membership News

In Memoriam

Duray A. Potter, 75, died Tuesday, June 8, 2009 in Chicago.

He was born August 14, 1933 in Palatine, Illinois. He married Barbara Reed on August 28, 1954 in Wauconda, Illinois.

He graduated from Rose-Hulman Institute of Technology in Terre Haute, Indiana with a B.S. in Civil Engineering. He served in the U.S. Army Corps of Engineers as a First Lieutenant. He was employed for several years with the Illinois Department of Transportation and with Baxter & Woodman, an engineering firm headquartered in Crystal Lake, Illinois. He spent most of his professional career as a self-employed civil engineer specializing in onsite wastewater treatment and land use planning.

Duray was passionate about public health and safety throughout his career. He held a long-time appointment to the McHenry County Board of Health Hearing Committee, and the McHenry County Sewage Technical Review Committee. In the mid 1980s, after working for over 20 years in wastewater treatment and designing septic systems, he had arrived at the opinion that the current regulations needed to be changed. And, as was his way with most everything he thought needed fixing, he was developing ideas on precisely what needed to be done. He approached the McHenry County Department of Health with his ideas, and soon formally began working with them and members of the County Board Health and Agriculture Committee. Early on, he recognized the importance of soils in wastewater treatment, and began forming ideas on how soils information could be used to replace percolation testing for siting and sizing septic systems. He enlisted the aid of Don Fehrenbacher who was the NRCS Area Soil Scientist. Duray and Don quickly formed an amiable relationship based on mutual respect and admiration. They went on to develop and field test methods that led to changes in regulations that were formally adopted by the McHenry County Department of Health in early 1988. These regulations have become the model imitated throughout Illinois by many county health departments, and even by the Illinois Department of Public Health.

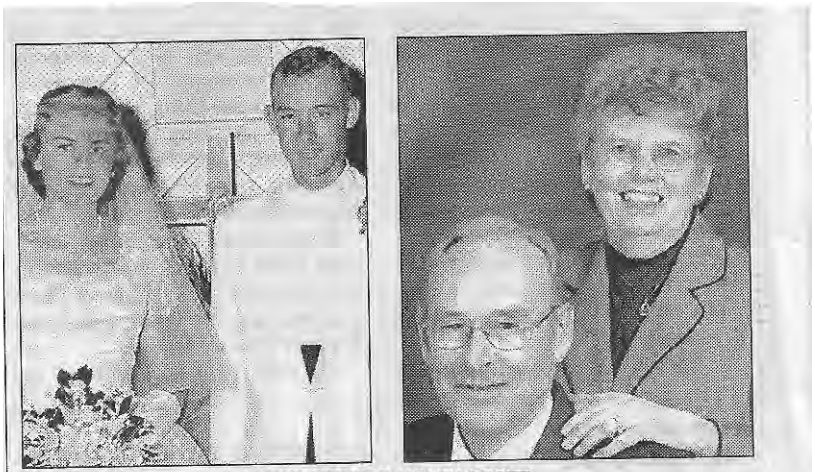
Duray was one of a distinguished panel who was recruited to speak at the first-ever ISCA-sponsored short course: "Soil Evaluation for On-Site Wastewater Disposal" held on September 22-23, 1989 in Crystal Lake. In addition to providing important technical information at this conference, he spoke of the opportunities for those skilled in characterizing soils and interpreting their properties that he rightly predicted would result from regulatory changes. Those of us who had the pleasure of knowing and working with him admired his integrity and often brutal honesty regarding professional conduct. He always insisted that his business associates be honest, reliable, and knowledgeable. He sought professional practitioners who would not cut corners and jeopardize the success of the new program he had worked so hard to create.

Duray was an avid golfer and also enjoyed fishing and horse racing. He is survived by his wife Barbara: a son, Robert; a daughter, Susan; and several grandchildren and great-grandchildren. A memorial service was held June 14 at his favorite hang-out: Crystal Woods Golf Club in Woodstock, Illinois.

Submitted by William Kreznor

Photo taken on September 22, 1989 at the ISCA short course in Crystal Lake. Potter was discussing how soils information is used in siting and sizing septic systems.

Scott's Celebrate 50 Years of Wedding Bliss



CAROLYN AND WILEY SCOTT

Scott

Wiley and Carolyn Scott of Mahomet will celebrate their 50th wedding anniversary with an open house from 2 to 4 p.m. Aug. 1 at the Mahomet United Methodist Church, 1302 S. Mahomet Road. The open house is being hosted by the couple's children. Family and friends are welcome. The Scotts ask for no gifts.

Wiley Scott and the former Carolyn Temme were married Aug. 1, 1959, at the Zion Methodist Church in Leslie, Mo.

They have two daughters, Cindy (Tim) Reynolds of Altona, and Diana (Scott) Frisbie of Iowa City, Iowa, and six grandchildren.

Mr. Scott retired in 1994 from the USDA Soil Conservation Service and currently works part time as a soil consultant. Mrs. Scott taught home economics and first grade before becoming a full-time homemaker.

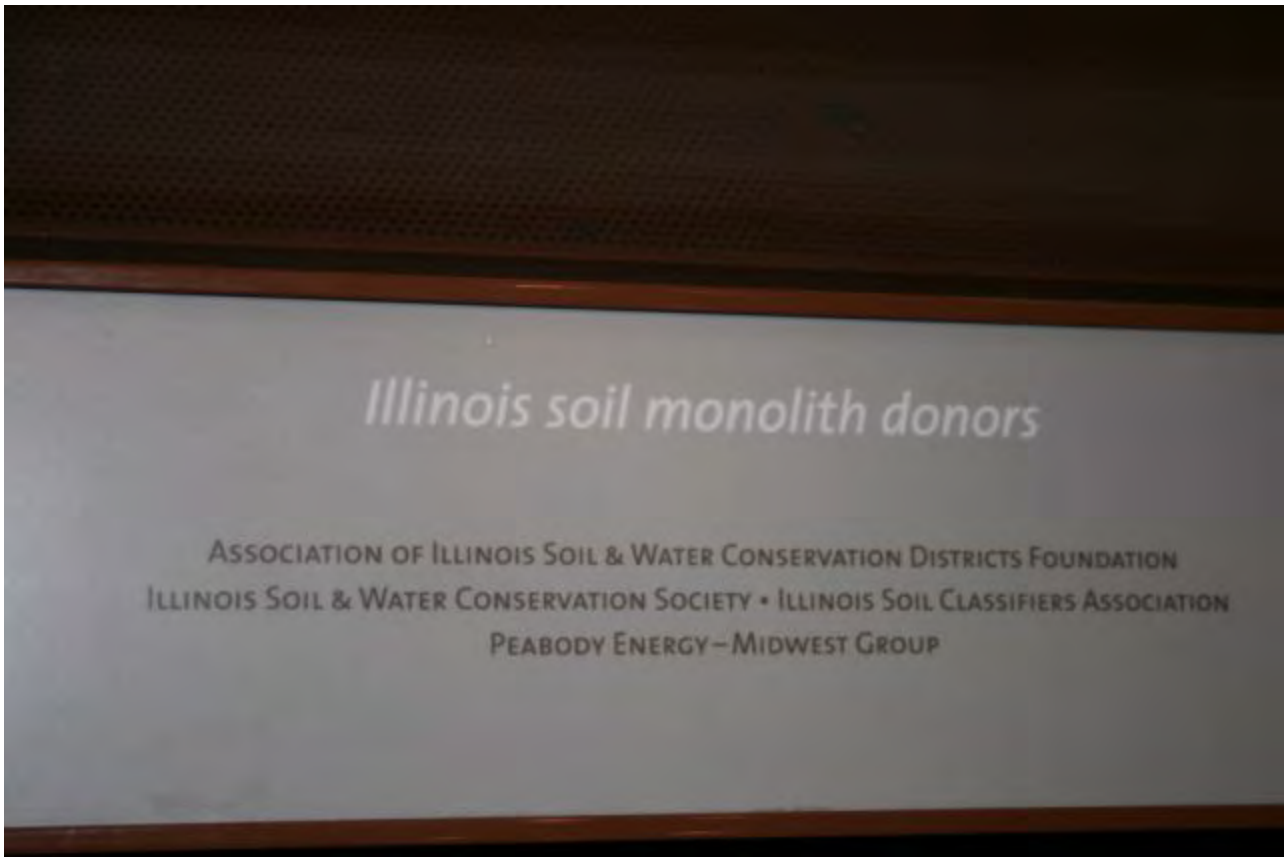
The Scotts have lived in Mahomet for 34 years. Before that, they lived in Springfield and Marion, as well as in California, Maryland and Missouri.

Submitted by Chris Cochran from the News Gazette

Drummer in the Smithsonian

ISCA member Mark Bramstedt recently visited the Smithsonian and was gracious enough to send photos to be included in the newsletter.


Illinois
Arizona
South Dakota
Oregon
Puerto Rico
California
Idaho
Vermont


Illinois soil monolith donors
Association of Illinois Soil & Water Conservation Districts Foundation
Illinois Soil & Water Conservation Society • Illinois Soil Classifiers Association
Peabody Energy–Midwest Group

Roger Windhorn Receives Soil Scientist Achievement Award

Roger Windhorn was the recipient of the Soil Scientist Achievement award from the 2009 National Cooperative Soil Survey (NCSS). "Roger", aka Bill Teater, accepted the award at the 2009 NCSS National Conference in Las Cruces, New Mexico on Roger's behalf. The 2009 Illinois Cooperative Soil Survey Annual Planning Conference (ICSSAPC) was held at the IL NRCS State Office on May 21, 2009. Roger officially received his award from STC Bill Gradle.

Roger incognito receives his award at the NCSS National Conference.

Roger officially receives his award from STC Bill Gradle at the ICSSAPC.

Attendees of the 2009 ICSSAPC.

ISCA in the Field (Museum)

ISCA member Jericho Winter recently volunteered to be the Scientist at the Field in the Underground Adventure at the Chicago Field Museum of Natural History. This will be Jericho's last opportunity to volunteer for a while since she is starting a position mapping soils for NRCS in the state of Oregon. Hopefully, she will find her way back to Illinois.

NRCS and ISCA have been sending volunteers to the Museum since 1999 when Don Fehrenbacher and Mark Bramstedt assisted the museum in the development of the Underground Adventure. The UA is a predecessor to the Smithsonian's Dig It! The Secrets of Soil exhibit. Other ISCA members who have or will be volunteering at the Field Museum in 2009 are Kristine Ashpole, Alison Steglich, Bruce Houghtby, Jesse Kurylo, and Jennifer Wollenweber. If you haven't volunteered or haven't volunteered recently at the Field and you would like to help out, or if you would like to visit the UA and the Field, send an e-mail to mark.bramstedt@il.usda.gov.

Submitted by Mark Bramstedt


Digging around...
Digging around...
Soil doe
Water
NRC


Digging around...
Water

ISCA Fall Soils Tour

When – 8:00 AM Friday, October 23rd, 2009

Where- River Bank Lodge, 522 S. 6th St., Petersburg, Illinois (see map)

What- Several soil pits and bank cuts that will show soils that have formed in outwash, eolian sands, glacial till and loess in the Hill Prairie area of Menard and Mason counties. A number of presenters will talk about soil and soil-related areas of interest.

Registration- Pre-Registration is required by October 16, 2009. Registration for guests and non-members will be $15 per person payable at check-in Friday morning. There is no charge for ISCA members. We will need a count of guests and non-members when you register. The registration fee will include pre-tour bagels and lunch. Water will be provided along the tour route. See registration form and instructions below.

Lunch- Lunch will consist of pizza and drinks.

Tentative schedule- 8:30 AM to 4:00 PM
Lodging Information: You are responsible for making your own lodging arrangements. A block of 15 rooms of various sizes has been reserved at the River Bank Lodge. You must call the Lodge at 217-632-0202 if you need a room – **do not make a reservation by email.** When you call to make your reservation, please use the code word "soil classifiers". Be sure to make your reservations as early as possible due to the limited number of rooms available. To see what the Lodge has to offer go to:
http://www.riverbanklodge.com
Note: Don't forget to bring your insect spray for ticks.

ISCA Fall Soils Tour Pre-Registration

Name: _____
Phone number: _____
ISCA Member: Yes No (circle)
Number of Guests: _____

Registration may be completed by mail, fax or e-mail.

Register by mail: Fill out the above registration and send to the following address:
Jim Hornickel
104 Cornell Dr.
Normal, Illinois 61761

Register by E-mail: Send an e-mail including all information in the above registration sheet to:
Jim_hornickel@msn.com

Register by fax: Send a fax including all information in the above registration sheet to:
309-862-3297

How to Find

RiverBank Lodge

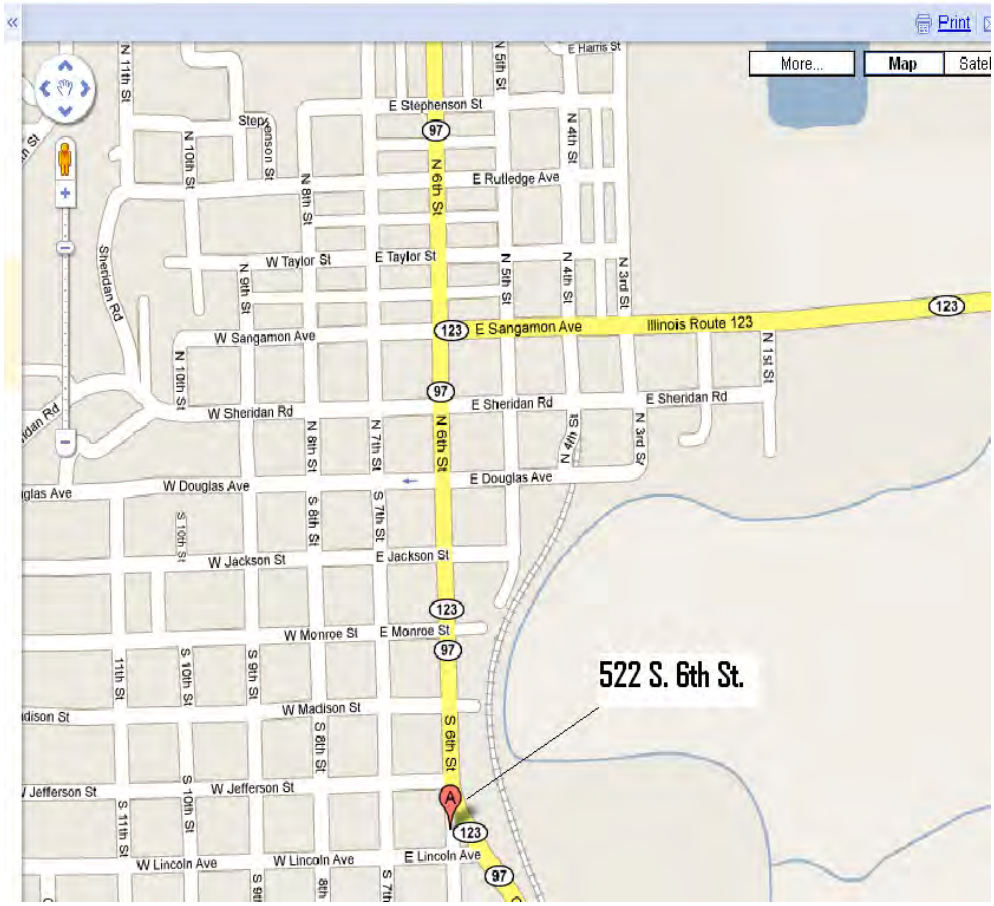
Vacation Illinois ~ Springfield Illinois Tourism

*Printable Directions

From Abraham Lincoln Capitol Airport (SPI)
Take Route 29 North to Rt123 West towards Petersburg. Once in Petersburg, stay on Rt123 as it turns South. RiverBank Lodge is on the left just past the Subway and Dairy Queen.

From Chicago
Take I-55 South, then take the Williamsville / Petersburg exit for Route 123 past the entrance to Athens. Turn left to remain on Route 123 and travel into Petersburg. Once in Petersburg turn left onto 6th Street, which is also Route 97 & Route 123. RiverBank Lodge is on the left just past the Subway and across from Dairy Queen.

From St Louis
Take I-55 North, then take the Williamsville / Petersburg exit for Route 123 past the entrance to Athens. Turn left to remain on Route 123 and travel into Petersburg. Once in Petersburg turn left onto 6th Street, which is also Route 97 & Route 123. RiverBank Lodge is on the left just past the Subway and across from Dairy Queen.



ISCA Field Exam at Shabbonna State Park

ISCA hosted a soils field test on June 22, 2009 at Shabbona State Park in Shabbona during the hottest portion of the summer (so far). The field test is not a requirement, but it is an excellent opportunity for professionals to collaborate with one another. Three soil pits were evaluated, and participants were given a set of questions for each station. Much discussion regarding the Illinois Septic Code took place.

Participants were able to test their fingers and soil texturing skills on several representative Illinois samples. Each participant's percentages were entered into a program to evaluate how accurate the individual was to the laboratory data for each of the samples. Congratulations to Mike Konen for receiving the highest overall score!

Despite the excessive heat and humidity, a good time was had by all.

Submitted by Jennifer Wollenweber

2009 Central States Forest Soils Conference

Greetings!

The Indiana Planning Committee would like to invite you to the 2009 Central States Forest Soils Conference!

This event will be held October 13, 14, 15, 2009 in Santa Claus, Indiana.

Join us and explore how landowners are returning land back to forestry using Federal programs and the Carbon Sequestration market. Learn how forests and forest soils 'change' as the landscape is converted from Hardwoods to pine and back again. And finally, explore the methods used to encourage Oak regeneration and the Best Management Practices that help protect the soil.

Early registration for the Forest Soils Conference is $75 – after September 18th registration is $95

I have attached the registration form for the conference. Feel free to distribute the registration form to any persons or groups you think might be interested. Let us know if you have any questions.

We hope to see you in October!

Rick

Rick Neilson
Soil Scientist
Technology Staff
6013 Lakeside Blvd.
Indianapolis, IN 46278
317-290-3200x375
rick.neilson@in.usda.gov

29th ANNUAL CENTRAL STATES FOREST SOILS WORKSHOP
October 13-15, 2009
Santa Claus, Indiana

Location

Santa Claus is located 140 miles south of Indianapolis, IN and 65 miles west of Louisville, KY off I-65. (see map on registration form)

Yellow-Poplar (Tulip-tree), *Liriodendron tulipifera*. Indiana's State Tree

Lodging

The host hotel for the workshop will be at Santa's Lodge www.santaslodge.com at Santa Claus, Indiana. Rates will be $49-59 per room or $99 for a 4 person suite.

Santa's Lodge
91 W. Christmas Blvd.
State Road 162
Santa Claus, IN 47579

Camping

Camping is available at:

- Lake Rudolph Campground
  (812) 937-4458 (877) 478-3657
  www.lakerudolph.com
- Lincoln State Park
  (812) 937-4710
  www.in.gov/dnr/parklake/6709.htm

Tentative Program Includes

- Oak Regeneration
- Forest Best Management Practices
- Timber Stand Improvement
- Demonstration farm on private land
- Pine Harvest and soil chemical property changes
- Industry Tour
- Water movement in a Watershed
- Soils on Mississippian Sandstone and Shale, featuring fragipan soils
- Carbon sequestration & tree planting
- Fabulous Hoosier cooking and hospitality

For Additional Information

Contact: Gary Struben or Ken Collins, USDA-NRCS, 6013 Lakeside Bldv., Indianapolis, Indiana 46278-2933, 317-290-3200, Extensions 373 and 356 respectively. Or e-mail at:
Gary.Struben@in.usda.gov
Kenneth.Collins@in.usda.gov

Sponsors

- Hoosier Chapter-Soil and Water Conservation Society
- Indiana Association of Professional Soil Classifiers
- Indiana Department of Natural Resources Division of Forestry
- Indiana Society of American Foresters
- Purdue University Department of Forestry and Natural Resources
- USDA-U.S. Forest Service
- USDA-Natural Resources Conservation Service-Indiana

29th Annual Central States Forest Soils Workshop

Registration

October 13-15, 2009
Santa Claus, Indiana

Tuesday, Oct. 13:
Registration/Displays, 5:00 p.m.
Evening Program, 7:00 p.m.
Social Hour, 9:00 p.m.

Wednesday, Oct. 14
Field Trip Departs, 7:30 a.m.
Happy Hour, 5:00 p.m.
Banquet @ St. Meinrad, 6:00 p.m.
Bus Returns to Hotel, 9:00 p.m.

Thursday, Oct. 15
Field Trip departs, 7:30 a.m.
Bus returns to hotel, 12:00 noon

Times listed are Central Daylight Time.

Workshop Hotel
Santa's Lodge
91 W. Christmas Blvd.
Santa Claus, IN 47579
(812) 937-1902

Special Group Rate
$49 or 59/night plus tax.
Includes hot breakfast!

Name _____

Guests _____

Address _____

City _____

State _____ Zip Code _____

Phone _____

Email _____

Representing _____

Special Needs _____

Diet Needs _____

Pre-Registration before Sept. 18, 2009
If more than 1 attach list with above contact information.
Regular registration:
$75 each X (number) _____ Total $_____
Student registration:
$40 each X (number) _____ Total $_____
Late Registration after Sept. 18, 2009
Regular registration:
$95 each X (number) _____ Total $_____
Student registration:
$50 each X (number) _____ Total $_____
Banquet only for spouses or guests
$10.00 each X (number) _____ Total $_____

Total Enclosed $_____

Make checks payable to:
Indiana Society of Professional Soil Classifiers.
Payment must be enclosed to receive pre-registration discount.

Send To: Kenneth Collins, State Forester
NRCS
6013 Lakeside Boulevard
Indianapolis, IN 46229

Evaluation of the Darmstadt Series in Illinois

By Zach Weber, NRCS Soil Scientist
Charleston Soil Survey Office

Background Information and Justification:

The Darmstadt series was established in MLRA 114, St. Clair County, IL in 1975. It "consists of very deep, somewhat poorly drained, very slowly permeable soils formed in loess, or in loess and the underlying silty pedisediment on till plains... The loess is late Wisconsinan Peoria Silt and the underlying silty material is early Wisconsinan Roxana Silt... These soils contain a concentration of exchangeable sodium in the subsoil. Loess thickness typically is greater than 60 inches, but in some pedons, is as thin as 45 inches" (Soil Survey Staff, 2009).

Since its establishment, Darmstadt has been mapped throughout much of MLRA 113. Review of pedon descriptions during the Marion County soil survey update showed that most of the soils mapped Darmstadt are actually variants because they formed in less than 45, and often as little as 20 inches, of loess. Further review revealed the same for most of MLRA 113 (see Review of Pedon Descriptions below).

These soils do not fit the concept of the Darmstadt series and will interpret differently than Darmstadt. A new series is needed to differentiate these soils and maintain the concept that was established for the Darmstadt series.

The ISGS map below shows the loess thickness in Illinois (fig. 1). Loess is more than 20 feet thick in parts of St. Clair County, but tapers off to 0 to 5 feet thick for most of MLRA 113 (fig.1 and 2).

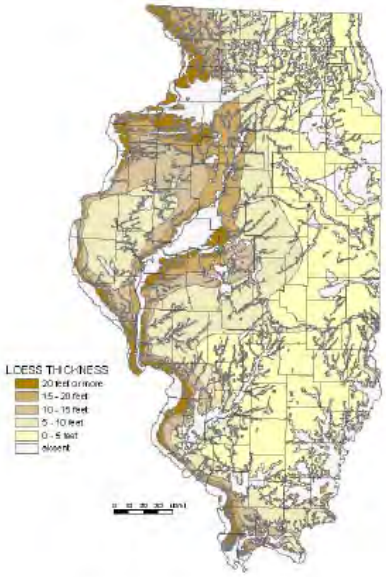


Figure 1. Loess thickness in Illinois. (ISGS, 2009)

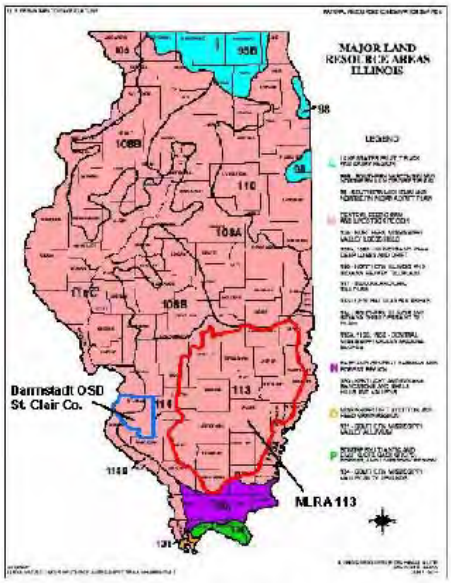


Figure 2. Location of MLRA 113 in relation to Darmstadt type location.

Review of Pedon Descriptions

As discussed in the "Background Information," the thin-loess Darmstadt "variant" was discovered during the update to the Marion County Soil Survey. Further review of Darmstadt pedon descriptions available in the Charleston Soil Survey office revealed many more of the "variant" pedons. Mapunits are listed by county below.

The values listed beside each mapunit symbol are the number of Darmstadt pedons out of the total described, that have a loess thickness (<7% sand) less than 45 inches. These are outside the range for the series. (for example: 620A 2/9 – this means 2 out of 9 Darmstadt pedons in mapunit 620A had a loess cap thinner than 45 inches)

Clay County

912A	7/9

Crawford County

620A	1/1

Cumberland County

620A	2/9
889A	2/6

Fayette County

620A	4/8
620B	3/5

Jasper County

620A	5/6
620B2	2/2

Marion County

620A	4/5
620B2	10/10
912A	4/4
912B	1/1

Shelby County

620A	1/6
620B2	0/2
916	0/2

Totals

A slopes	30/56
B slopes	4/6
B2 mapunits	12/14
All mapunits	46/76

To summarize, 30 of the 56 Darmstadt pedons on A slopes have thinner loess than the series allows. Four out of 6 pedons on B slopes, and 12 out of 14 pedons on eroded B slopes are outside the range.

According to the National Soil Survey Handbook, "New series with an extent of over 20,000 acres require ten pedon descriptions. The number and distribution of pedon descriptions must be adequate to classify, differentiate and develop range of characteristics. Larger acreage units require more pedons descriptions to assure reasonable spatial representation across its extent." (U.S. Department of Agriculture, 2007)

Darmstadt Series Extent

The Soil Series Classification Database was used to find the extent of mapping for the Darmstadt Series (fig. 3). Darmstadt has been mapped in 19 counties across southern Illinois, from the Mississippi to the Wabash River.

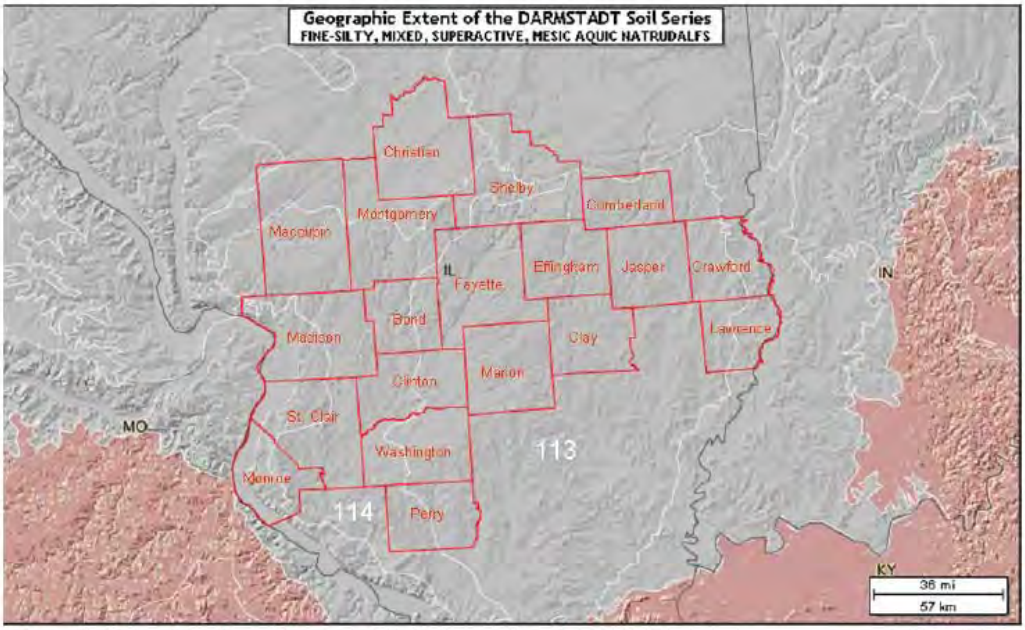


Figure 3. Counties where Darmstadt soils are mapped.

Methodology:

GIS software was used to produce a map of all Darmstadt mapunits in these counties. The map was used to plan transect routes across multiple map units. It was originally proposed to evaluate the Darmstadt mapunits within MLRA 113, where the thinner loess is likely to occur. To determine the line where Darmstadt ends and the thinner loess "variant" begins however, the transects really need to extend west into MLRA 114, where the loess thickens. Therefore, the transects will be set up to sample Darmstadt in all counties that it is mapped.

Because abundant pedon descriptions already exist to support a new series, the focus will not be on a large number of detailed descriptions but on a large number of transect stops. Thickness of the Peoria Silt will be the primary focus. Recorded transect data will also include landform position, landform shape, percent slope, and depth to pH >7.5. Coordinates will be logged at each transect stop. Pedon descriptions will be made for a representative pedon within each transect.

Data from these transects will be used to determine the extent of the "variant" Darmstadt and to identify a typical pedon for a new soil series. A soil pit will be dug at that site and sampled for characterization data. The soil description and lab data will be evaluated and used to develop a new soil series.

Project Objectives:

- Evaluate map units of Darmstadt across Illinois.
- Determine the extent of the "thinner-loess" Darmstadt variants.
- Locate a typical pedon, run characterization data, develop a new soil series for these variants.

Project Deliverables:

The extent of the Darmstadt "variants" will be determined. A new soil series will more accurately represent these variant soils in MLRA 113. The concept for the Darmstadt Series will be maintained. Soil maps, as well as interpretations, will be more accurate.

References

Illinois State Geological Survey. [Online] Available: http://www.isgs.uiuc.edu/sections/quat/loessthick-map.shtml [Accessed 4 August 2009].

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Series Classification Database [Online WWW]. Available URL: "http://soils.usda.gov/soils/technical/classification/scfile/index.html" [Accessed 4 August 2009]. USDA-NRCS, Lincoln, NE.

U.S. Department of Agriculture, Natural Resources Conservation Service, 2007. National Soil Survey Handbook, title 430-VI. [Online] Available: http://soils.usda.gov/technical/handbook/ .

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Soil Properties Analysis in a Loess-Covered Landscape:
An Example of a Major Land Resource Area (MLRA) Cooperative Study

By Erik A. Gerhard, Soil Scientist
Carbondale MLRA Office

Guidelines for A MLRA Cooperative Study

Past cooperative studies have been completed with specific goals (e.g. determining particle size for classification or obtaining lab data for a specific interpretation). There has not been an emphasis focused on looking at the landscape and the relationship of the soils to that landscape. The benefits of a landscape based study are that you gain an understanding of how soils compare across the landscape and are able to apply this to a broader area. Relationships between parent material, slope position and soil development are an example of information gained. As we move into the next phase of soil survey and the management of soil survey by Major Land Resource Area (MLRA) there is justification to complete landscape studies on a MLRA basis. Certain criteria are needed for a MLRA based study. The following criteria listed are meant to be used as guidelines for individuals to start the cost/benefit analysis process of a regional landscape study:

1) The study should be conducted on a representative landscape of the MLRA so that the information gained can be applied to a greater area and not just the location of the study.
2) It should focus on soils and soil landscapes that are lacking in data and conceptual understanding of the soil processes occurring there.
3) The study should have tangible goals to benefit end users in the form of practical use and interpretations of the data.
4) It should be located on a site that will be available for many years so the initial research and subsequent studies may be generated and continued.
5) The study should be one that the data collected may be used by related disciplines such as pedology, geomorphology, stratigraphy, hydrology, ecology and agronomy generating multiple publications and presentations in various professional journals and meetings. Other federal and state agencies and universities should be encouraged to participate within the study.
6) Results of the study should be summarized and published in state and MLRA Soil Survey Newsletters, National Cooperative Soil Survey Newsletters, or professional publications like Soil Survey Horizons. Oral or poster presentations of results could be made at state, MLRA, National Cooperative Soil Survey Meetings, or National meetings (e.g. Soil Science Society of America).

The above criteria should be used to develop a regional based study that will bring the greatest return of investment of time and money.

A Midwest Example of a Cooperative Study:

"Soil-Landscape Investigations of MLRA 115B/120 Loess and Loess Veneer Benchmark Catenas"

The Loess Veneer/Loess-Covered Landscape study conducted in southern Illinois was initiated in 2002. The sites are located in Union County on private land enrolled in the Conservation Reserve Program (CRP) and land located within the Shawnee National Forest in Alexander County owned by the United States Forest Service. Both locations are small watershed areas that have deep loess soils with fragic characteristics (soil brittleness) and alluvial/colluvial soils at the outlet of the watershed. One facet of the study is comparing the cultivated private land referred to as Morgan Pond (fig. 1) against the forested ground on the national forest referred to as Bean Ridge (fig. 2).

Figure 1.

Figure 2.

Multiple core descriptions were done at each location to help determine the representative locations for the two transects per site. Soil pits were dug at each location along the two transects. Detailed pit descriptions and sampling for laboratory analysis were conducted for each pit location. The descriptions were completed by individuals of the Carbondale MLRA Office, the Resource Soil Scientist for the area, an individual from the National Soil Survey Center (NSSC) in Lincoln, Nebraska and a professor from Purdue University. The soil analysis was performed by the NSSC Laboratory.

An electro-magnetic (EM) induction survey and a geomorphological map (fig. 3) were completed for the area. In addition to the information already collected on site, a water table study has been started at the Morgan Pond location. The study utilizes pressure transducers to measure hydrologic flow above, within, and below the brittle layer in the soil and along the topo-sequence. Instruments have been installed at Morgan Pond with equipment on order to finish that location and begin the Bean Ridge site.

Figure 3.

A similar study has been established in Indiana by the NRCS Soil Scientists and faculty members from Purdue University. An additional location is being sought in Kentucky. Identification of site locations were conducted during the summer of 2009 by Kentucky NRCS Soil Scientists and members of the University of Kentucky. The multistate locations were chosen to represent the loess thinning sequence across the region. The title of the multi state, multi MLRA study is: "Soil-Landscape Investigations of MLRA 115B/120 Loess and Loess Veneer Benchmark Catenas"

During the spring of 2009 a consortium of individuals involved in the study from Universities in Indiana, Kentucky, Missouri, NRCS personnel from Illinois, Indiana, Kentucky and representatives from the NSSC in Lincoln, Nebraska came to Carbondale for a progress review of the study and to discuss the future of these sites and forth coming studies located on them. Future and on going MLRA studies in other regions of the country were discussed. Terms such as "benchmark catena" and "benchmark landscape" were used to describe some of the studies. The topic of communicating MLRA study findings to technical and non-technical users was discussed. The revitalization of landscape block diagrams and soil profile diagrams with new GIS technologies such as the 3-D imagining software to enhance the traditional diagrams was noted. The incorporation of digital photographs of actual soil pits and soil landscapes into GIS layers to communicate findings also was suggested. There have been 4 written publications and 3 poster presentations generated from the study in sites in Union County, Illinois. The bibliographical information at the end of this article provides the references to the publications for review of the findings.

Summary

Soil Survey is now managed by the MLRA structure and studies need to be conducted at this scale. The planning process is critical to the outcome of the studies. Soil Survey will benefit by identifying concerns and interests of our users and cooperators. Studying representative soil landscapes and the relationship of the soils on the landscape will provide the greatest return of information. By graphically displaying this information (e.g. block diagrams with soil profile sketches) the soil landscape concepts can be conveyed to individuals. Soil Survey should produce data and conceptual knowledge that is beneficial and useful to the public, government agencies and universities.

Publications

Wilson, M.A., R. Burt, S.J. Indorante, A.B. Jenkins, J.V. Chiaretti, M.G. Ulmer, J.M. Scheyer. 2008. Geochemistry in the modern soil survey program. Environmental Monitoring and Assessment. 139:151-171.

D'Avello, T.P., S.J. Indorante, J.D. Bathgate, B.C. Fitch, W.M. McCauley, D.R. Williams, and M.A. Wilson. 2008. Application of SoLIM for a high-intensity soil survey: a southern Illinois example. Soil Survey Horizons 49:3-5.

S.J. Indorante, J.A. Doolittle, H.S. Lin, M.A. Wilson, and B.D. Lee. High intensity soil survey and hydropedological functional units. 2009. Soil Survey Horizons (In Press)

M.A. Wilson, S.J. Indorante, B.D. Lee, L. Follmer, D.R. Williams, B.C. Fitch, W.M. McCauley, J.D. Bathgate, D.A. Grimley, K. Kleinschmidt. 2009. Location and expression of fragic soil properties in a loess-covered landscape, Southern Illinois, USA. Geoderma (In Press)

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Geochemistry in soil survey and soil-landscape analysis. 2006. M.A. Wilson, R. Burt, S.J. Indorante, A.B. Jenkins, and J.V. Chiaretti., 18th World Congress of Soil Science July 9-15, 2006 - Philadelphia, Pennsylvania, USA (poster)

Landscape evolution and soil pedogenesis in an MLRA benchmark catena. 2006. M.A. Wilson, S.J. Indorante, L.R. Follmer, D.R. Williams, B.C. Fitch, K. Kleinschmidt, J.D. Bathgate, W.M. McCauley, and R. Burt. American Society of Agronomy Annual Meeting. Indianapolis, IN (poster)

For more information concerning this study please contact:

USDA-NRCS
Carbondale MLRA Soil Survey Project Office
148 E. Pleasant Hill Road
Suite 105, Box #2
Carbondale, IL 62903
Office: 618-453-5574
Fax: 618-453-5578

Photographs used in this article were taken by Jon Bathgate.

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SE Illinois – Zach Weber, 8048 North 1150th St., Newton, 618-783-2999, zwweber@hotmail.com
SW Illinois – Sam Indorante, 708 Solitude Dr., DuQuoin, 618-542-2829, sjindorante@gmail.com
East Central Illinois – Bob McLeese, 1076 Bucks Pond Rd, Monticello, 217-841-3812, r.mcleese@yahoo.com
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A.S. Draper, 1899

Logo for left chest area and quote for the back of the T-shirt. The quote may not be in the exact font or arranged as shown above.

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Please enter the quantity, color and total price for each item. Complete the form and mail with a check payable to "Illinois Soil Classifiers Association" to Mark Bramstedt, 320 E. Locust, Watseka, IL 60970. You may also email the form to mbramstedt@sbcglobal.net and snail mail the check to the address above. *Items are offered at our cost with no profit to ISCA or any member.* ORDERS MUST BE RECEIVED BY **AUGUST 31**

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Ladies Low Profile LC830	http://www.portauthorityclothing.com/servlet/portAuthority?cat=Port-Collection&style=LC830		one size		$14.05	
Medium Profile i3010	http://www.capamerica.com/store.aspx?panel=3&productid=28&categoryid=3		one size		$14.00	
Camo i2030	http://www.capamerica.com/store.aspx?panel=3&productid=54&categoryid=5		one size		$17.60	
High Profile GL-155	http://catalogs.outdoorcap.com/outdoorcap.nsf/WebProducts/D6653E0D78AF32BA06256A0600795FEC		one size		$8.75	
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Bucket Hat 16-201	http://www.ottocap.com/style.php?style_id=16-201		S/M		$14.00	
Explorer Hat BH-600	http://catalogs.outdoorcap.com/outdoorcap.nsf/WebProducts/609639507FD242E686256BDC00660188		one size		$24.90	
Polo K500	http://www.portauthorityclothing.com/servlet/portAuthority?cat=Port-Collection&style=K500				$19.95	
Ladies Polo L500	http://www.portauthorityclothing.com/servlet/portAuthority?cat=Port-Collection&style=L500				$19.95	
T-shirt PC61	http://www.portauthorityclothing.com/servlet/portAuthority?cat=Port-Collection&style=PC61				$12.50	
Ladies T-shirt LPC61	No website. See PC61 for details. Ladies sizes include XS-2XL, Plus 1X, Plus 2X. Available colors: light blue, lime, athletic heather, pale pink, white, dark chocolate brown, sangria, aquatic blue, daffodil yellow, black, ultramarine blue, dandy pink, red, lemon yellow, royal, orange, navy				$12.50	

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The Illinois Soil Classifiers Association is an organization promoting the wise use of the soil resource. ISCA is made up of professional soil classifiers in public service, private industry, and education and includes students and others interested in preserving soil. A soil classifier maps, describes and interprets soils according to a national system of soil classification. ISCA was established in 1975 and is affiliated with the American Registry of Certified Professionals in Agronomy, Crops, and Soils.

Days Gone By...

Can you identify the ISCA members in the 1987 newspaper article? The answer will be published in the Fall newsletter.

Answer to last newsletter's "Days Gone By…": John Doll

Submissions

This is **YOUR** newsletter. If you wish to submit material, here are some preferences.

- Send information by the last week of the month before the newsletter is scheduled to be published.
- Digital copy in Microsoft Word
- Use as little formatting (indents, bullets, charts) as possible. This increases the work to get it into Publisher.

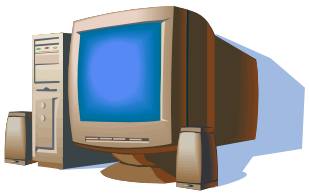
Publication Schedule

- Winter (February)
- Spring (May)
- Summer (August)
- Fall (November)

ISCA Newsletter Committee is looking for pictures of it's members, past or present, to include in future newsletters. Submissions can be sent electronically or hard copy to the staff address, see above and left. Please include a narrative for the caption! If hard copies are sent please indicate if they are to be returned otherwise photographs will be retained in an archive photos file.

www.illinoissoils.org

New, exciting links have been added to the "announcements" page on our website. Be sure to bookmark this page. Its an excellent resource to keep you informed on the latest soils issues.
Better yet… make it your home page!



ISCA

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683 Castle Drive
Charleston, IL 61920

Visit the ISCA website to see the color version of this newsletter

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.....Cut.....Cut.....

Change of Address Form

Name:_____

Address:_____

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Phone:_____

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***Mail to: Steve Elmer, ISCA Secretary, 27892 Ebenezer Road, Geneseo, IL 61254**

Illinois Soil Classifiers Association Newsletter

Fall-November 2009

Upcoming Events:

ISCA Annual Meeting	March, 2010

Inside this issue:

Message from the President

It seems like it was just the other day that Zach hit me up for the last "Message from the President". I would like to commend Jim Hornickel and the members of the Public Relations and Education Committee for their work in putting together an interesting tour in Menard and Cass counties. The weather made scheduling a problem right up to lunch time the day of the tour. Fortunately we were still able to see 3 sites, all rather unique to Illinois, and in some cases the world. The scheduling was a perfect example of being flexible and having multiple backup plans.

Please keep your thoughts and prayers for Grant Holliman and his family in mind. Grant was a soil scientist with NRCS in Aurora and suddenly passed away October 31. He was in the process of becoming a member of ISCA.

Being soil scientists, we have been privileged to be able to study, investigate and interpret a unique resource. It is heartening to look at the membership list of ISCA and see the large list continue to grow. Since the next message won't hit the stands until 2010,
I would like to extend wishes to everyone for a Happy New year.

Tom D'Avello
217-353-6637
tom.davello@il.usda.gov

NOTICE

New ISCA apparel is still available. Check out the ordering information and deadline on page 20.

DON'T MISS OUT!!

ISCA Membership News

Obituary – L. Grant Holliman

L. Grant Holliman, age 57, passed away suddenly on Saturday, October 31, 2009 at his home in Joliet, IL. Services were held at the Woodlawn Funeral Home in Joliet on November 4, 2009.

He is survived by his wife, Kaye; mother, Rowena Peeler; and sisters Linda Hellmann and La'nora Eddleman.

Grant received his bachelor and master degrees in Plant and Soil Science from Southern Illinois University. He began is career with the USDA, Natural Resources Conservation Service as a cartography assistant at the Carbondale MLRA office. In 1999, he moved to the Naperville MLRA office as a soil scientist. He worked on numerous county soil survey update projects in northeastern Illinois. Most recently he was involved with the Cook County initial soil survey.

Grant enjoyed the outdoors and helping his fellow man. He spent much of his time volunteering at his church, MorningStar Missions, and the Green Earth Institute.

Submitted by Dale Calsyn

Tom D'Avello Moves On

Many have come and gone through the years. More than 400 soil scientists have been involved with the soil survey effort in Illinois since its beginning in 1902. Each and every one has left their "mark." The latest to "come and go" is Tom D'Avello. And what a "mark" he has left!

Tom has accepted a position on the staff at NRCS's National Geospatial Development Center in Morgantown, West Virginia. The move puts Tom and his wife, Mary Ann, closer to family, and it will allow him the opportunity to perform professionally on the national stage. While we hate to see him leave, we couldn't be happier for him and this opportunity. We know he will make us proud!!

Tom spent the first part of his career as a field soil scientist in Ohio after earning his Bachelor's of Science degree from Ohio State University in 1982. He earned a Master of Science in Soil Science and Remote Sensing from Michigan Technological University in 1988. We hired him as our State GIS Specialist for Illinois in 1990. He has served in that capacity for nearly two decades, but has maintained the position title of Soil Scientist for all those years. As the GIS Specialist on the State Soil Scientist's Staff, Tom was given the charge to incorporate GIS and related technologies into the way we do business in soil survey. His accomplishments in that regard have been outstanding.

A few of the special projects Tom has provided leadership for include:

⇒ Database for transect data
⇒ Newton a/d PC transect form with real-time GPS mapping

- ⇒ U of I/NSSL Soil Samples Georeference Project (3300 pedons)
- ⇒ SoilView, Illinois' Soil Survey on CD-ROM (71 counties)
- ⇒ Soil recompilation project testing different methodologies
- ⇒ Bathmaster. Illinois' bathemetric –GPS mapping technique
- ⇒ Transect form for use with Palm Pilot
- ⇒ Mean annual soil temperature model for Southern 7 Soil Survey Project
- ⇒ OrthoMapper, 41 counties "recompiled" saving 15 staff years of work!!
- ⇒ SoLIM "artificial intelligence" technology
- ⇒ LIDAR with Springfield MLRA Soil Survey staff
- ⇒ General Soil Map from SSURGO

He has also authored/co-authored the following articles:

- ⇒ D'Avello et al. (2008). **Application of SoLIM for a high intensity soil survey: A southern Illinois example.** *Soil Survey Horizons. 3-5.*
- ⇒ D'Avello & Windhorn. (1998). Bathmaster: **An automated system for bathymetric mapping.** *Geo Info Systems. 16-18.*
- ⇒ D'Avello & McLeese. (1998). **Why are those lines placed where they are?** *Soil Survey Horizons. 119-136.*
- ⇒ D'Avello & McLeese. (1997). **SoilView: A soil survey report for today's technology**. *Illinois GIS and Map Notes. 23-26.*
- ⇒ Zwicker, D'Avello & Misek. (1993). **GRASS-GIS in a soil conservation service field office.** *Illinois GIS and Map Notes. 37-39.*
- ⇒ MacLean, D'Avello & Shetron. (1993). **The use of variability diagrams in a GIS to improve the interpretation of digital soil maps.** *Photogrammetric Engineering & Remote Sending. 54:61-70.*
- ⇒ Hilton, D'Avello & Joselyn. (1992). **Introduction to geographic information systems in Illinois.** *Illinois GIS and Map Notes. 2-6.*
- ⇒ Joselyn & D'Avello. (1992). **Integrating Natural Resource Information: The power of geographic information systems.** *Illinois GIS and Map Notes. 17-20.*
- ⇒ D'Avello, Shetron & MacLean. (1990). **Interpretive variability of four soil map units for forest management.** *Journal of Soil and Water Conservation. 497-499.*
- ⇒ D'Avello. (1988). **Using portable data recorders for soil investigations.** *Soil Survey Horizons. 54-56.*

Tom is one of our "creative geniuses" in soil survey, and he has helped keep the Illinois Cooperative Soil Survey on the "cutting edge." He was named the National Cooperative Soil Survey Soil Scientist of the Year in 2001 for his innovative and creative work.

We are very fortunate that Tom D'Avello's career path brought him to Illinois. We would not be the premier soil survey we are today without his "mark"!

Best wishes to you and yours!!

Submitted by Bob McLeese

Bob Darmody Named ASA Fellow

As stated in the October 2009 *CSA News*, Robert Darmody was elected as an ASA Fellow. "Members of the Societies nominate worthy colleagues based on their professional achievements and meritorious service. Up to 0.3% of a Society's active and emeritous members may be elected Fellow."

Congratulations Bob!

Submitted by Bill Kreznor

Winter in Oregon - Jericho Winter That Is

As a recent graduate of the M.S. in Geography program at Northern Illinois University, I was excited to have been offered a 6 month term position as a soil scientist for Oregon NRCS. I have been assisting soil survey here at the order 3 scale (1:24,000) for several counties in central Oregon that have never been mapped before. I began my term this past summer out of Redmond, OR near the eastern foothills of the Cascade Mountain Range.

So far I have learned a great deal about the mapping process and have been introduced to completely different soils than what I was comfortable with in the Midwest. Most of the soils in central Oregon have had some sort of influence from the state's volcanic past. Many formed in basalts and rhyolites while others formed in welded tuffs. Many soils in the region require an ashy textural modifier, and it is not uncommon to be able to see the layer of ash that was deposited from the Mt. Mazama eruption that created the Crater Lake caldera ~7,000 years ago. The majority of soils that I have been exposed to while mapping here have been of the Mollisol or Aridisol orders in the rangeland, or Andisols in the forested areas. In addition to new and interesting soils, I have been fortunate enough to see elk, pronghorn antelope, sage grouse, (currently under consideration to be listed as an endangered species) horned toads, and plenty of deer while on the job. Fortunately, I have not had any run-ins with rattlesnakes or mountain lions!

During the field season I was able to hike in remote areas in unique terrains with beautiful views. One of the most stunning landscapes I was fortunate enough to work near was the Painted Hills Unit of the John Day Fossil Beds National Monument in Wheeler County. On an average day of mapping, we would hike with a Montana Sharpshooter and an auger and carry a GPS along with the rest of our gear to take notes with. During the summer months, the days are hot, sunny and dry with most days spent in the field. In some cases we were able to get high enough in elevation that we were into the frigid temperature regime. As fall cools things down, we have seen some rain and snow, and more and more, our days are spent compiling our data in the office.

When I'm not in the field or office working on soil survey, I have been exploring the scenic areas of central Oregon. My favorite adventure thus far was hiking the South Sister, of the Three Sisters peaks, reaching the summit at 10,358 ft. back in early September. Ski season is also about to start and it will be my first time ever skiing in the mountains. Wish me luck!

Submitted by Jericho Winter

Describing my first Andisol along a road cut on some forested private land.

More pictures from Jericho in Oregon

The John Day River in Wheeler Co. Oregon with the Painted Hills badlands in the background. Photo taken near the John Day Fossil Beds National Monument, Painted Hills Unit.

One of my first days on the job! Located on a private ranch in Wheeler Co., OR.

Evaluation of Soils in Low Energy Floodplains of the Equality and Cahokia Formations in MLRAs 113, 114, and 115A

Background and Justification

There is ongoing debate on the correct classification of certain soils that formed on broad, low energy floodplains within the Equality and associated Cahokia Formations. These particular soils have traditionally been mapped as young Fluvents or Inceptisols, lacking significant development. However, remarks found in some of the Official Series Descriptions (OSD) indicate that these soils may actually be much older than originally thought, at least from a weathering perspective, and should have their classifications evaluated during MLRA updates. Very little characterization data is available for these soils and much of the data that is available is incomplete. Geographically associated soils to evaluate at this time include the Bonnie, Banlic, Belknap, Racoon, and Sharon series. The Bonnie series was established in Washington County, Illinois in 1927; the Banlic series was established in Saline County, Illinois in 1975; the Belknap series was established in Johnson County, Illinois in 1942; the Racoon series was established in Clinton County, Illinois in 1931, and the Sharon series was established in Washington County, Illinois in 1927 (Soil Survey Staff, 2009).

In addition to the correct classification is the debate of acid alluvium being the parent material for many of these soils. The current consensus is that the source of the acid alluvium is from the acid upland soils immediately adjacent to the floodplain and that the soils are located on a geomorphically active floodplain. However, very limited information on the acid alluvium topic suggests that the alluvium may not be acid in nature. Most of the available information suggests that to have the development of acid alluvium there needs to be an influence from anthropogenic activities, large areas of exposed bedrock containing pyrite and sulfur, or organic soils. Since these soils typically lack this influence it suggests there is a strong possibility that they were not formed in acid alluvium but have become acid due to weathering and are on a very stable, low energy floodplain, with very little sediment being deposited or eroded.

Flood events on low energy flood plains are neither erosional or depositional. The water rises and falls with virtually no current at all. The result is a very stable flood plain that is sediment starved. A large amount of water, due to flooding and precipitation, enters the soil profile and weathers the soil much quicker than one would originally suspect by landscape position alone. This differs from the long held belief that all flood plains are active geomorphic surfaces, meaning aggradation and degradation occur contemporaneously, adding fresh alluvium in one place and eroding the surface in an adjacent area. Soils forming on these surfaces are quite young, never having the time to form strong horizonation before they were either buried under fresh alluvium or eroded. Consequently, Entisols and Inceptisols were the only classifications contemplated.

When examining the methodology used at the time these areas were being mapped it easy to discern why soil scientists believed these soils were young flood plain soils with an A/C profile. Field soil scientists were only required to probe to 60 inches (152 cm) when mapping soils and most soils were described from a ¾ inch diameter core. When and where available, 3 inch diameter cores were obtained using truck mounted probes. Backhoes were generally unavailable and therefore soils were very rarely described from a pit. The soils were very uniform in texture from the surface down to 60 inches and most do flood frequently. However, as discussed previously, the flooding that occurs on these soils is not what most people envision as a traditional flood event.

Project Objectives

Evaluate the taxonomic classification of alluvial soils that occur in low energy flood plains of the Equality Formation and associated Cahokia Formation. Obtain characterization data which will aid in determining the proper classification for correlating these soils.

Bonnie Series Extent

The Bonnie series is widely mapped over Illinois, Indiana, Kentucky, and Ohio with over 340,000 acres correlated (fig. 1). Currently, the Bonnie series is mapped in 10 MLRAs; 111, 113, 114, 115, 120, 122, 124, 125, 131, 134. The central concept of the Bonnie series was established in MLRA 113 (fig. 2) with the soils being traditionally mapped within the Equality and associated Cahokia Formations (fig. 3).

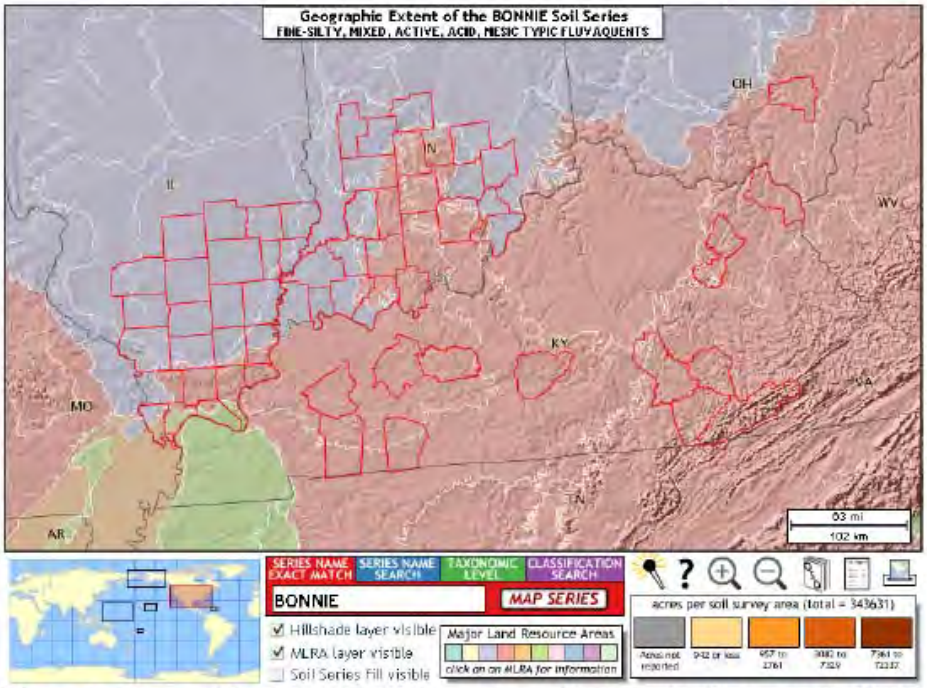


Figure 1. Geographic Extent Map by County and MLRA (Soil Survey Staff, 2009).

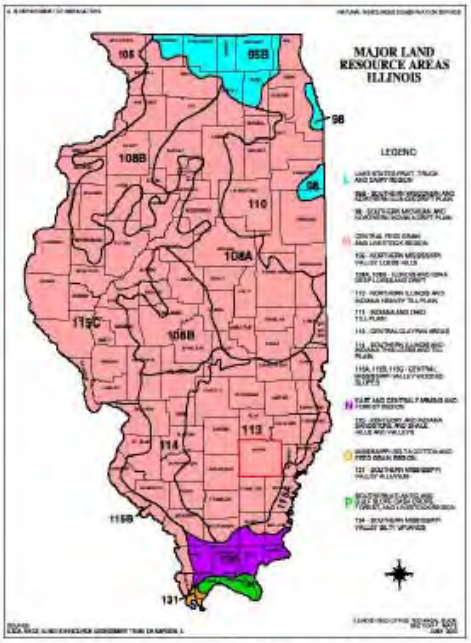


Figure 2. Location of Wayne County within MLRA 113 (Illinois Resource Assessment Team, 2009)

Figure 3. Location of Wayne County in relation to geological formations

Completed Work

Review of Bonnie soil series pedon descriptions during the Wayne County soil survey update brought to attention the fact that most of the pedons did not fit the Bonnie series due to evidence of soil structure being present. This again sparked the debate of the correct classification for soils found in low energy floodplains.

A pit was dug and described at the Bonnie OSD site in the fall of 2007. Complete characterization was ran on the samples including, but not limited to, particle size distribution, SAR or ESP, extractable bases and acidity, and organic carbon. Lab results from the OSD site support the suspicion of the advanced degree of weathering, which would indicate the soil is not an Entisol, although there is not total agreement that the available data is sufficient to support the concept of this soil being an Alfisol.

During investigation of the soil pit, the presence of "clay cups" was found on the entire exposed pit face from about 23 to 76 inches below the soil surface (fig. 4). They increase in size as depth increases. Most agree the formation of the "clay cups" and "glossic" appearance is related to bioturbation, most likely crawfish. Iron and manganese masses accumulated directly above the cups (fig. 5 & 6). Preliminary investigations of the typical pedons in a few of the neighboring counties, with a three inch core, revealed the

presence of the "clay cups" as well. The presence of "clay cups" had not been documented in any of the corresponding Bonnie pedon descriptions.

Figure 4—"Glossic" looking soil above clay cup

Figure 5—Exposed clay cup

Figure 6—Iron and manganese masses accumulating above the clay cups

Methodology

The original project plan is to study the Bonnie, Banlic, Belknap, Racoon, and Sharon soil series. A pit is to be dug at each OSD site and described in detail. Full characterization will be ran on the samples through the National Soil Survey Laboratory (NSSL). We will be requesting complete characterization, including particle size analysis, cation exchange capacity, extractable bases, base saturation, pH, SAR or exchangeable sodium, organic carbon, WRD, Cole, mineralogy, SO^4, and bulk density on these samples.

In addition to the pits at the OSD sites, ten (ten hole) transects will be conducted in each of the mapping units across all MLRAs involved. One transect will include the typical pedon in each county the soil is mapped. A truck mounted probe will be utilized where possible. Each soil boring will be photographed and described. Data from the transects will be evaluated and a representative site in each soil will be selected for characterization. A pit will be dug to a minimum depth of 2 meters in each representative soil. Each soil will be described, photographed, sampled, and characterized.

Since the distribution of Bonnie soils is so extensive, an attempt will be made to collaborate with neighboring states concerning the Bonnie series portion of this study since the findings in Illinois may not be reflective in other areas. Assistance with transecting, digging pits, and writing descriptions will be requested.

Project Deliverables

The taxonomic classification of alluvial soils in the Equality Formation will be determined. Correctly classifying the soils will allow more accurate interpretations. If deemed necessary, new soil series will be established to represent the soils mapped within these geological formations while maintaining the concepts and integrity of the original soil series mapped outside the boundaries of these geological formations.

Completion of this project will result in a better understanding of soil development of alluvial soils on low energy flood plains. Soil interpretations, such as saturated hydraulic conductivity, soil stability with regard to erosion and deposition, as well as soil chemistry and mineralogy will be improved. Of the series being studied, the Belknap series is an Illinois Benchmark soil. Complete characterization data will be available for users.

References

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Series Classification Database [Online WWW]. Available URL: "http://soils.usda.gov/technical/classification/osd/index.html" [Accessed 5 August 2009]. USDA-NRCS, Lincoln, NE.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Series Classification Database [Online WWW]. Available URL: "http://www.cei.psu.edu/soiltool/semtool.html?seriesname=BONNIE" [Accessed 5 August 2009]. USDA-NRCS, Lincoln, NE.

Illinois Resource Assessment Team, Champaign, IL, Natural Resources Conservation Service, United States Department of Agriculture. Illinois Field Office Technical Guide [Online WWW]. Available URL: "http://efotg.nrcs.usda.gov/references/public/IL/ACF678.pdf" [Accessed 5 August 2009]. USDA-NRCS, Champaign, IL

Soil-Landscape Investigations of Major Land Resource Area (MLRA) 115B/120 Loess and Loess Veneer Benchmark Catenas: Soil water flow study with the Amoozemeter to calculate K-sat

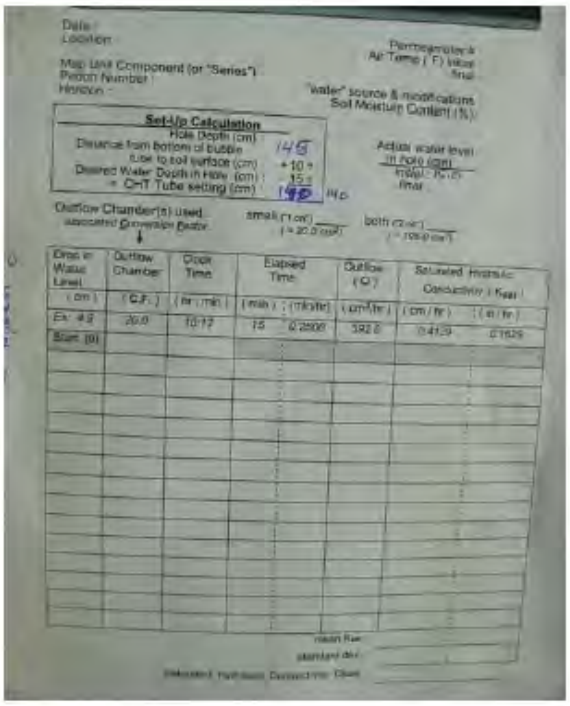
By Erik A. Gerhard
Carbondale MLRA Office

Research Soil Scientists Philip Schoeneberger and Mike Wilson from the National Soil Survey Laboratory in Lincoln, NE, Tom D'vello from the Illinois NRCS State Office, Matt McCauley MLRA Project Leader Owensboro, KY assisted the members of the Carbondale MLRA Sam Indorante, Dwayne Williams, Bryan Fitch, Troy Fehrenbacher, Zach Weber and Erik Gerhard in collecting dynamic soil properties at an ongoing MLRA study site in Union County earlier this fall.

The Amoozemeter is a constant head permeameter used to measure water out flow into the soil. The Amoozemeter was used to determine soil permeability and saturated hydraulic conductivity. The original design of the machine by soils professor Dr. Amoozegar at North Carolina State University was intended for soil septic field investigations in the state. Boreholes are augured to the soil layer depth to be investigated. The machine is adjusted to establish the correct water head for the depth of the hole. The machine is then turned on. Water is moved into the hole and eventually into the soil until it is saturated. Readings are taken at various time intervals depending on the amount of water flow out of the machine. Once the volume of water moving into the soil during a given time period approaches a constant rate the process is complete. The water out flow data collected is processed to calculate saturated hydraulic conductivity (K-sat) by the use of various mathematical algorithms.

Saturated hydraulic conductivity or soil permeability is used in many soil interpretations. Permeability relates to water holding capacity for plant growth, nutrient management and erosion control. It is a key factor in dealing with engineering soil properties for constructing ponds, dams, levees and waste holding facilities. All of which play role in the control of water quality issues.

Philip Schoenberger drove from Lincoln, NE September 21st and brought 15 Amoozemeters. Mike Wilson flew in October 3rd to assist finishing the study and returning the Amoozemetes to the Lincoln laboratory. Tom D'vello, Matt McCauley, Troy Fehrenbacher and Zach Weber assisted a few days each over the course of the 10 day study. Their assistance was greatly appreciated by the Carbondale staff that was there for the duration of the study.



The data collected will add another layer to the information already recorded for this location. Each time another data layer is collected it provides the opportunity to step back and look at the soil-landscape relationship. The point data collected should to be integrated into the soil-landscape relationship so it can then be used in similar geomorphic settings throughout the MLRA and similar settings in other MLRAs.

The benefit of this type of study is it provides hard data for populating the national soils data base and ground truthing of the data that is in the data base. It also provides new soil scientists with field experience. It offers a chance for them to see the great variability that can occur in soils with in very short distances. The study allows for the opportunity to exchange ideas between soil scientists in the field where it should take place. This is becoming less common place and the loss of valuable tacit knowledge is at risk. Soil Survey is a field science and the fundamentals need to be explained and learned in field settings.

The Carbondale MLRA staff greatly appreciates the efforts of the individuals involved with the study and their supervisors for allowing them time to assist us in the field.

TRADING POST

This spot is reserved for members who would like to buy, sell, trade, or announce an item, event, or activity in our newsletter. Please limit your classified ad to 25 words or less. Email your ad to the newsletter at zach.weber@il.usda.gov

For Sale: Truck, and Matching Trailer-Mounted Hydraulic Soil Coring Rig (sold together or separately). Diamond in the rough 1950 Chevy 1/2 ton, 5-window pickup, road-worthy -- new motor, new tires, new alternator (12 v), new mirrors, new brakes--including new emer. cables, new shocks. Four extra complete grills and other extras (orig. shop manual, dash stuff, etc.) go with this diamond-in-the-rough fixer-upper. Body almost dingless, but definitely needs sand-blasting, paint, and usual attention-to-restoration detail. Giddings rig has new high horsepower engine, mounted on ¾ ton 50 Chevy bed modified into trailer. Includes Kelly bars and various sized slotted Shelby tubes, plus other extras. Pictures of both available upon request. Price: $8,000 truck; $5,000 Giddings rig (price negotiable if purchased together). 217-356-7437 (home); 217-290-4839 (cell); dljohns@uiuc.edu.

Soils Investigation in Russia and Northwest Illinois

Kenneth R. Olson

From August 7 to 20, 2009, Professor Alexander Gennadiyev and Ph. D. candidates Andrey Zhidkin and Maxim Markelov from Faculty of Geography at Moscow State University (Moscow, Russia) visited NRES. They participated in field soil sampling in the Spoon River, Apple River and Mississippi River watersheds located in NW Illinois and eastern Iowa. Maxim and Andrey (Photo 1) toured the Mississippi Palisades State Park with a view of Mississippi River valley. Professor Ken Olson served as host and assisted in the collection more than 650 USA soil samples for laboratory testing (including determining cesium-137, fly ash, and soil organic carbon content). Photo 2 shows Maxim hammering in a soil probe into dry soil and being held by Andrey on a prairie grass covered sand dune along the Mississippi River near Albany, IL. Their thesis research work is part of an ongoing joint US and Russia study to measure the impacts of potential land use (cropland, prairie or grasslands, pasture, and forest) changes as a result climate change. The effects of the potential land use change on soil erosion and sedimentation, soil organic carbon storage and potential greenhouse gas emissions near the boundary of the mesic-frigid temperature regimes in both Russia and the USA are being measured. This two year research project is funded jointly by the Multidisciplinary Climate Change Competition of Russian Foundation for Basic Research and the Cooperative Grants Program of the US Civilian Research and Development Foundation.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Dr. Kenneth Olson visited the Faculty of Geography at MSU (Photo 3), from July 11 to 23, 2009, and was shown the Russian soil monolith collection by Dr. Alexander Gennadiyev (Photo 4). Professor Valentin Golosov (MSU) then took Dr. Olson and a team of MSU scientists and graduate students by car to the Tula region (Russia) which is located 150 miles south of Moscow. This area had received large amounts of Cesium-137 in 1976 as a result of the Chernobyl explosion in Ukraine which sent radiation into the atmosphere. A radioactive hot spot, approximately 100 square miles in size, was created in Tula region as a result of a rain storm bring down the radioactive particles which had been carried 500 miles from the site of the Chernobyl explosion by winds in the atmosphere. Cesium-137 has a 23-year half life so radiation levels are now substantially reduced by decay and as a result of some mixing in the soil. The Tula area provided a great opportunity to document recent soil erosion rates using residual cesium-137 content. These soils were sampled by with MSU graduate students Vladimir Kachinskii


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and Andrey Zhidkin with the assistance of Dr. Olson (Photo 5). To Dr. Olson's surprise (Photo 6) the mature 150-year old managed forest had rather deep soils on the flat summit. These soils would classify as Mollisols (formed under grass) using Soil Taxonomy with both high levels of soil organic carbon to a 0.9 meter depth and high base saturation. Apparently, the Tula area is in an ustic moisture regime with a frigid climate than may have contributed to the soil organic carbon and calcium carbonate retention.

Drs. Olson and Gennadiyev next traveled 350 more miles south on an overnight train to University of Belgorod (Photo 7) in Belgorod, Russia. Past trains, from 1850s to 1960s, on these very same Moscow to Yalta tracks were coal fired during those pervious 110 years and provided the primary source of fly ash needed for the soil erosion and soil carbon redistribution research. Drs. Olson and Gennadiyev then visited the University of Belgorod campus (Photo 8) and they were shown the Russian soils map by Professor Yuri Chendev. Drs. Olson and Gennadiyev and Ph. D graduate student Roman Korvach (MSU) were then driven to the proposed sampling sites, which initially appeared to fit our criteria, by Professor Chendev of the University of Belgorod. These soil sites had to be moved to a new location (Photo 9) as a result of extensive disturbance from World War II tanks, artillery, soldier dug trenches and fox holes, bomb craters, bomb fragments, and un-exploded bombs partially buried in the soil from a 1943 battle between Russia and Germany forces. The German Army which had previously captured Belgorod on its march towards Moscow from the south. Later, the German Army was driven back through the area by the Russian Army in a major battle to free Belgorod and Russian lands. This final battle took place from June to August of 1943 with the front lines located just north of the Belgorod which included our proposed soil sampling site. This battle involved more than a million German and


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Russian soldiers and 10 thousand tanks (Photo 10) and artillery with air cover. Approximately, 100,000 soldiers were killed in the battle that took place in the valley shown in Photo 11. During the last 66 years, the vegetation has started to cover these landscape scars of war including the German and Russian trenches (Photo 12) which can still be seen in the mature forests between Moscow and Belgorod. Our team found fragments of bombs and 2 unexploded cluster bombs that were apparently dropped by the German Air Force on Russian troop trenches and failed to exploded on impact with the soil. However, the pattern of circular bomb craters within feet of many of the troop trenches suggest most did explode on impact. We were able to move our proposed sampling sites a little deeper into the woods to avoid the impact of WWII battles to the Belgorod landscape.

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During the summer of 2009 a team of soil scientists and geographers (4 graduate students and 4 professors) from Moscow State University, University of Belgorod and University of Illinois were able to sample soils with depth at 5 to 6 landscape positions on each of 16 land use transects. In all, the team collected approximately 1300 soil samples for laboratory testing during the next year or two as part of our joint US and Russia research study to measure the impacts of potential land changes as a result climate change on soil erosion and sedimentation, soil organic carbon storage and potential greenhouse gas emissions.


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Region 3 Collegiate Soils Contest—2009

The 54th annual ASA Region 3 Soil Judging Contest was hosted by Purdue University on October 7-10, 2009. Sixty-four individuals from 6 Universities competed on Friday as groups and on Saturday as individuals.

The University of Illinois won the contest and Northern Illinois University placed second. This marks the first time that a team from the University of Illinois has won the overall contest since 1960. Individuals from the state of Illinois took 4 of the top 5 spots this year. They are Aaron Browning (NIU) 2nd, Allison Keever (U of I) 3rd, Jason Ackerson (U of I) 4th, and Clint Bailey (NIU) 5th.

Overall Team Scores

Place	University	Total
1	University of Illinois	3720
2	Northern Illinois	3640
3	UW-Platteveille	3624
4	Purdue	3605
5	UW-Stevens Point	3316
6	UW-River Falls	3254

Individual Scores

Place	University	Student	Total
1	Purdue	Cody Fink	1118
2	Northern Illinois	Aaron Browning	1103
3	University of Illinois	Allison Keever	1069
4	University of Illinois	Jason Ackerson	1064
5	Northern Illinois	Clint Bailey	1058

Group Judging Scores

Place	University	Total
1	Purdue	523
2	University of Illinois	522
3	UW-Platteville	513
4	UW-River Falls	480
5	Northern Illinois	463
6	UW-Stevens Point	444

Members of the University of Illinois Soil Judging team include: Allison Keever, Jason Ackerson, David Mayer, Matt Runquist, Zach Robinson, Lauren Behnke, Allison Husko, Levi Daly, Morgan Davis, Oscar Gonzalez, Christine Chung, Leo Kim, and Heather Grames. Coaches were Robert Darmody and Jenwei Tsai.

Members of the Northern Illinois University Soil Judging team include: Aaron Browning, Clint Bailey, Paul Gruca, Norman Yackle, Amber Singer, and TJ Abell. Coaches were Mike Konen and Alicia Lisowski.

The University of Illinois, Northern Illinois University, and the University of Wisconsin-Platteville will represent region 3 at the National Contest in Lubbock Texas in March.

Aaron Browning of Northern Illinois University is the winner of the Burton W. Ray scholarship award this year. The award goes to the highest scoring soil judger in the state of Illinois based on their performance in the regional contest.

Submitted by Robert Darmody (U of I) and Mike Konen (NIU)

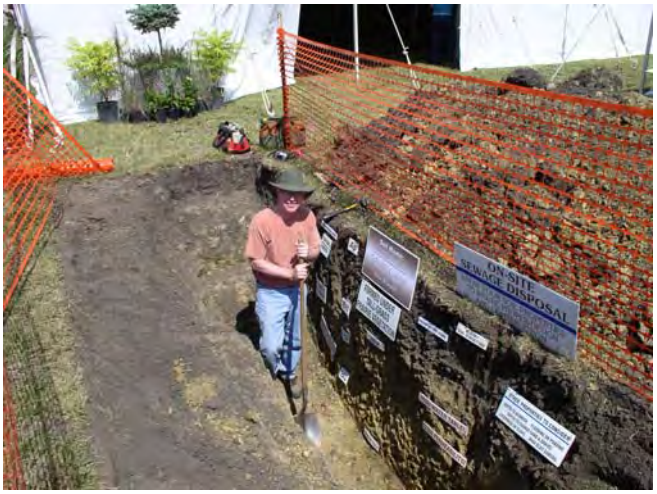
ISCA Clothing Order

The high demand for ISCA clothing has called for a second order of caps and shirts. If you would like to order caps, hats, or polo shirts go to the ISCA Announcements page on the web and click on the original Clothing Order Form http://www.illinoissoils.org/announce_files/OrderISCAwear.pdf . Only embroidered items will be ordered (no silk screened T shirts). However, there are a few remaining T shirts from the first order in various sizes (men and women sizes) and colors. If you are interested in ordering a jacket, long-sleeve T, sweatshirt (hoodie or plain) or other item to be embroidered, or if you wish to purchase a T-shirt, contact Mark Bramstedt. E-Mail your order form, requests, or questions to Mark at mbramstedt@sbcglobal.net or mail it and your check payable to ISCA to Mark at 320 E Locust St., Watseka, IL 60970. As before, if you want the items mailed to you, please include money for S & H. Otherwise, the items will be delivered to an office near you. Deadline for ordering is December 1, 2009.

ISCA gear would make a great Christmas gift! Be proud of your Association!

ISCA and NRCS Exhibit at Farm Progress Show

ISCA and NRCS worked together to promote soil science with a soil pit and exhibit at the 2009 Farm Progress Show. The show was held in Decatur, IL September 1-3. Attendance at this year's show was high. The weather was beautiful all three days, and those helping stayed busy, as interest in the soils pit was excellent.



29th Annual Central States Forest Soils Workshop

The 29th Annual Central States Forest Soils Workshop was held on October 13th to 15th, 2009 in Santa Claus, Indiana. Eighty-four people from five states attended the workshop, including four college students. Attendees represented three federal agencies, three state agencies, three universities, two county departments and many consulting foresters and soil scientists. Field visits included demonstrations on best management practices, timber stand improvement, oak regeneration, control of invasive species, mulch production, carbon sequestration and WRP tree plantings, timber sales, pine harvest, management of private forests, and examination of soils with fragipans and soils formed in interbedded shale and sandstone. The workshop also included tours of the Rickenbaugh House at Celina Lake and the St. Meinrad Archabbey. Sponsors of the workshop included NRCS, USFS, IDNR, Purdue University, Lincoln Hills RC&D Forestry Committee, Indiana Association of Professional Soil Classifiers, Hoosier Chapter of the SWCS and Indiana Society of American Foresters. Next years workshop will be held in London, Kentucky on October 12th to 14th, 2010. The workshop will return to Indiana in 2015.

Submitted by Gary Struben

Group photo taken at the Rickenbaugh House

More from the Forest Soils Workshop

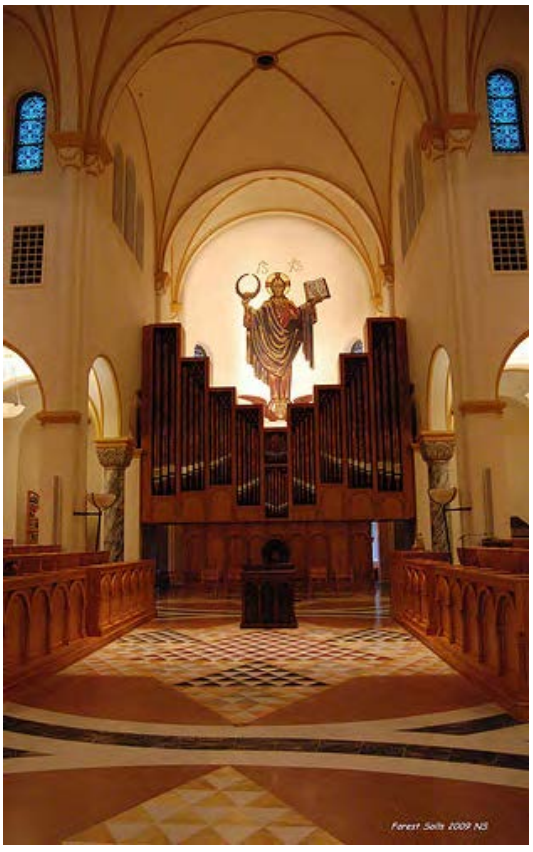
Sandstone quarry

Sandstone slabs at quarry

Santa Claus, aka, Gary Struben

Thanks to Norm Stephens for all photos from the Forest Soils Workshop!

Chainsaw carving at Bear Hollow



St. Meinrad Archabbey

Illinois Soil Classifiers Association Annual Fall Tour

This year's ISCA fall soils tour was held on Friday, October 23, 2009 with 34 individuals in attendance. The tour covered the soils of the Hill Prairie Area of western Menard County and eastern Cass County in central Illinois. Tour participants had the opportunity to see various parent materials including eolian sand, glacial till, and loess along with different landforms.

Outside tour stops for the morning part of the tour were cancelled due to the rain. The revised morning tour program was held indoors, in the conference room of the River Lodge at Petersburg.

The morning agenda consisted of four speakers who gave presentations on a variety of interesting subjects related to the hill prairie area:

- Tim Kelly, Biologist with the Illinois Department of Natural Resources, led off by giving us an idea what hill prairies are and where they occur. He mentioned that hill prairies are island-like prairie openings occurring on steep slopes that are (or were at one time) forested. The prairie vegetation usually occurs only on the slopes, not on the tops of hills. Generally, hill prairies have steep slopes, are associated with dry prevailing winds, and have well drained soils.
- Mark Jacob, District Conservationist for Mason County, gave us a very informative talk on the types and uses of irrigation used in his county. He also talked about the costs associated with setting up an irrigation system.
- Xiaodong Miao, Geologist with the Illinois State Geological Survey, gave a presentation on his ongoing study with Optically Stimulated Luminescence dating (OSL dating) in central Illinois. The age of deposition can be determined in outwash or loess materials typically from a few hundred years to 100,000 years. Data is reliable when suitable methods are used and proper checks are done. He had taken samples of loess and outwash samples last spring from 2 of the tour stops. However due to a backlog, data is not expected back until December. When data is received, he will send the data to us.
- Roger Windhorn, Soil Scientist with NRCS, presented a very informative talk regarding his experience with the Electromagnetic (EM) meter. He gave us a brief demonstration on how the EM meter is setup and how it is used in the field.

Before lunch, Mark Bramsteadt organized a soil texture contest. Jenwei Tsai and Bob McLeese tied for 1st place.

The rain stopped by late morning and gave us a chance to resume the outside activities of the tour.

The 1st stop was a large loess hill in Cass County. Jim Hornickel presented a soil core of Hamburg silt loam. The core was taken from the upper part of the hill. He reviewed a description of the core showing various horizons. Eric Golden and Stan McTaggart, Resource Specialists with the State of Illinois's Landowner Incentive Program, talked about the restoration efforts they have done on this loess hill.

The 2nd stop was a sand dune next to a permanent small wetland area in Menard County. Bob Tegeler showed a soil core of a poorly drained Orio sandy loam soil. Bob pointed out the silty and clayey layers in the profile. Bill Teater showed a soil core of Bloomfield find sand that was next to the wetland. Bill discussed the soil profile which contained lamellae and the underlying diamicton. Bob Bluett, Biologist with State of Illinois's DNR, talked about chorus frogs and mud turtles that inhabit the hill prairie's sandy wetlands. He mentioned that chorus frogs live underground most of their life.

And our 3rd and final tour stop (Menard County) was a deep road cut showing about 15 feet of loess over glacial till. A paleosol had formed in the material just above the glacial till. Leo Follmer presented a very informative talk about this site.

I want to again thank everyone for their help in making this tour an informative and educational experience. A very special thank you goes out to Eric Golden in helping me find suitable sites for the tour.

Jim Hornickel, chair
Public Relations and Education Committee

Al Stone, member
Jessica Kurylo, member
Mike Kiefer, member
Rob Rhykerd, member

More From Our Fall Tour

A big thanks goes out to Jim Hornickel and everyone else who helped make the 2009 Fall Tour an excellent one!

Tour photos by Stan McTaggart and Zach Weber

2010 ISCA Membership Dues Reminder – Non-Certified Members

This reminder is directed to all non-certified ISCA members. ISCA members who are Certified Soil Classifiers receive a separate billing from the Ethics, Certification, and Membership Committee.

You should have received your 2010 ISCA membership dues notice in the mail. If not, please detach the bottom portion of this page, fill in the blanks, and return with a check made out to ISCA for the appropriate membership amount.

Membership dues are to be mailed to me at 27892 Ebenezer Road, Geneseo, IL 61254. The deadline for payment of dues is December 31, 2009. Please also indicate on the return portion below if there is any change in your membership status this past year.

Thank you!

Steve Elmer
ISCA Secretary

2010 ISCA membership dues are to be mailed to Steve Elmer, 27892 Ebenezer Road, Geneseo, IL. 61254. Mailing deadline is December 31, 2009. Fill in your name, check the appropriate membership category, and return with a signed check for the appropriate amount. Thank you!

NAME _____

Membership Category:

Full and Associate ($25.00) _____
Student, Affiliate, Retired, & Out-of-State ($5.00) _____
Honorary Full ($0) _____

Indicate whether Membership Status has changed in past year: YES _____ NO _____

If YES, Reason for change: _____

***The ISCA 2010 dues notice was mailed to all uncertified members by Secretary Steve Elmer in October, 2009. 2010 dues are due by December 31, 2009.**

www.illinoissoils.org

The Illinois Soil Classifiers Association is an organization promoting the wise use of the soil resource. ISCA is made up of professional soil classifiers in public service, private industry, and education and includes students and others interested in preserving soil. A soil classifier maps, describes and interprets soils according to a national system of soil classification. ISCA was established in 1975 and is affiliated with the American Registry of Certified Professionals in Agronomy, Crops, and Soils.

ISCA Newsletter Staff
1502 South West Street
Olney, IL 62450

Phone: 618-392-7141 x116
Fax: 618-392-4325
Email: zach.weber@il.usda.gov

Days Gone By...

Can you identify the ISCA members in this photo taken in 1975?
The answer will be published in the Winter newsletter.

Answer to last newsletter's "Days Gone By…":

Mark Bramstedt—with hand on truck.

Submissions

This is **YOUR** newsletter. If you wish to submit material, here are some preferences.

- Send information by the last week of the month before the newsletter is scheduled to be published.
- Digital copy in Microsoft Word
- Use as little formatting (indents, bullets, charts) as possible. This increases the work to get it into Publisher.

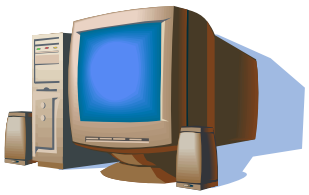
Publication Schedule

- Winter (February)
- Spring (May)
- Summer (August)
- Fall (November)

ISCA Newsletter Committee is looking for pictures of it's members, past or present, to include in future newsletters. Submissions can be sent electronically or hard copy to the staff address, see above and left. Please include a narrative for the caption! If hard copies are sent please indicate if they are to be returned otherwise photographs will be retained in an archive photos file.

www.illinoissoils.org

New, exciting links have been added to the "announcements" page on our website. Be sure to bookmark this page. Its an excellent resource to keep you informed on the latest soils issues.
Better yet… make it your home page!



ISCA

ISCA Newsletter
1502 South West St.
Olney, IL 62450

Visit the ISCA website to see the color version of this newsletter

www.illinoissoils.org/news

.....Cut.....Cut.....

Change of Address Form

Name:_____

Address:_____

City, State, Zip:_____

Phone:_____

E-Mail:_____

***Mail to: Steve Elmer, ISCA Secretary, 27892 Ebenezer Road, Geneseo, IL 61254**