



ILLINOIS SOIL CLASSIFIERS ASSOCIATION

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newsletter@illinoissoils.org

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Message from the President

I would like to thank everyone for their support and continued membership as we embark on the 50th anniversary of ISCA! It is a pleasure to serve as President again, especially during such an honorable anniversary.

During my last term in 2020, the world was at a standstill as we faced a challenge unlike one we had experienced before. Thankfully, the Country rose to the challenge and found new ways to connect and continue business "as usual". I am glad it is over, but also grateful for the progress and growth that came from that experience. In 2025, I once again find myself facing a unique and challenging situation, thankfully at a smaller scale, but unlike one ISCA has faced before. While it is not a global pandemic, it does seem to carry the weight of the world behind it.

The ISCA has been around for 50 years, and rarely, if ever, has operated with a political-like mindset. However, as many of you are aware, we are being presented with the opportunity to stretch those muscles. The Aquasols Proposal currently underway is gaining momentum, and without more input and inquiry from those who will be affected, we fear it will continue to move along with little to no change based on the current feedback. Without more review the repercussions could be great. In short, the proposal will re-classify any soils with indication of water in the upper 30 cm to an Aquasol, resulting in millions of acres of Illinois soils being re-classified from Mollisols and Alfisols to Aquasols. The Proposal will begin a 120-day testing period in the next few months and is expected to be published in the June 2026 version of Soil Taxonomy. While ISCA will continue to keep members informed, I encourage you to participate, provide feedback to the authors, and stay up to date in the conversation in any way you can. (continued on next page)

In Illinois, Mollisols and Alfisols carry a significant connection to the natural history and deep-seated knowledge with the ecological past. Many of us recognize the unique and important meaning behind the term Mollisol and carry with it great honor for our prairie state. I personally take great pride in the history connected to Illinois' soils and feel a strong need to preserve the knowledge, history, and connection to what those terms signify. I feel this proposal requires more work and attention, and if not challenged, will be a great loss to the soils of Illinois.

The history of Soil Taxonomy should not be overlooked, and the founding principles seem to have become muddled and lost in the Aquasols proposal. As far back as 1941, Dr. Charles Kellogg recognized "Each soil has had its own history. Like a river, a mountain, a forest, or any natural thing, its present condition is due to the influences of many things and events of the past."

Illinois Soil Classifiers Association is a collection of members who have and continue to practice soil classification within our state, as employees of USDA NRCS, but also as private consultants and public representatives. We collectively have more than 50 years of expertise behind us, and I feel we can successfully make our voices heard and contribute to the conversation in a constructive manner. Your support and membership are greatly appreciated and will help to contribute to another fifty years of progress and greatness in the practice of Soil Science in Illinois.

Thank you!

Alicia

2025 ISCA Members List: www.illinoissoils.org/member-resources/members

2025 Executive Council

President- Alicia Metzger

Vice President - Eric Brevik

Secretary - Liz Miernicki

Treasurer - Bob Tegeler

President-Elect - Mary Beth Falsey

Past President - Brandon Mueller

Committee Chairs

Constitution & ByLaws - Dalton Williamson

Ethics, Certification & Membership - Josh Litwiller

Nominations - Brandon Mueller

Public Relations & Education- Josh Elmer

Finance - Eric Brevik

Newsletter - Mark Bramstedt

Certification Board

Chair - Josh Litwiller '27

Galen Litwiller '27

Jerry Berning '26

Josh Elmer '26

Ken Anderson '28

Doug Gaines '28

Ad hoc Committee Chairs

Technical Advisory Committee - Brad Cate

Historian - Bill Kreznor

IDPH State Advisory Commission - Don Fehrenbacher

Webmaster - Mark Bramstedt

2025 Honorary Members

submitted by Mark Bramstedt

ISCA Charter Members were approved unanimously at the 2025 Annual Meeting for Honorary Member status. This group includes ALL of the original charter members of ISCA, some posthumously and others who have moved out of state or who no longer practice soil classifying, even if they are no longer a current member of ISCA. Without their collective desire for competency and sound scientific practices, their focus on learning & professional development, their diligence in keeping the Association pertinent, and the character of the members to prioritize a Code of Ethics for the Association, ISCA would not be the organization that it is today. It was their collective wisdom that crafted a Constitution and ByLaws that carries on today, with checks & balances, with a continuity of the Executive Council with officers serving overlapping terms, with officers serving concurrently as chair of the most important committees and by crafting a process for amendments to the Association, allowing for change over time.

In addition, the original intent of forming ISCA was for state licensure of soil classifiers. Although unacceptable with the State of Illinois, those members pursued self-certification as a way to acknowledge experience and proficiency in the profession of soil classification.

Although some of the original members may have played only a minimal role in the structure and advancement of ISCA, it was still their willingness and desire to be involved in this professional Association. It was, and is, the collective wisdom and participation of all those members that built ISCA and continues to lead and guide the Association. The nomination of all the original charter members does not diminish the accomplishments of those whom we have honored before. Those soil classifiers were specially honored as an individual for specific purposes not included in this nomination. And since this is a group nomination, it includes those members who already have achieved Honorary Membership. This nomination of charter members also does not diminish future Honorary Member nominations, who are nominated for special achievement for the Association.

Therefore, it was totally appropriate to honor all of the original charter members, with the following motion: to nominate all of the Charter Members of ISCA as Honorary Members, whose names are:

Larry Acker	Ray Herman	Walt Parks
Jerry Alexander	Steve Higgins	Jack Paschke
John Alexander	Ken Hinkley	Don Phillips
Fred Awalt	Merlin Horn	Burt Ray
Lindo J Bartelli	Ivan Jansen	Loyal Rhinebach
Jerry Berning	Linus Mike	Ed Runge
Les Bushue	Kiefer	Wiley Scott
Chris Cochran	Joe Kleiss	Earl Voss
Bill Dickerson	Albert Klingebiel	George Walker
Lewis Dungan	Emil Kubalek	Mike Walker
Don Fehrenbacher	Mark LaVan	Don Wallace
Joe Fehrenbacher	Kermit Larson	Benny Weiss
Leon Follmer	Rex Mapes	Roger Windhorn
Charles Frazee	Cliff Miles	Lionel Young
Tyrone Goddard	Henry Mount	Steve Zwicker
Dana Grantham	Chuck Nelson	
	Russ Odell	



Bill Dickerson, Jerry Berning, J Wiley Scott, Les Bushue, Don Fehrenbacher

ISCA Student Member Scholarship

submitted by Ashtyn Stufflebeam

At the 50th Annual Business Meeting at Allerton Park, **the 2nd Annual ISCA Student Member Scholarship was awarded to Chase Howell**, a student from Southern Illinois University. The Public Relations and Education Committee proposed this scholarship to the council in early 2023. The first scholarship was awarded last year; however, a new scholarship application form has been implemented since then. This year, we had several student members apply for the scholarship. Although all applicants were terrific candidates, after much discussion, the ISCA Executive Council selected Chase. Below is a list of all requirements an ISCA student member must meet to be eligible to receive the scholarship.

To be eligible to win the scholarship the student must:

- Be enrolled full-time in an accredited Illinois or neighboring institution
- Major in soil science or related program
(is on track to complete 15 credit hours of soil science required to be a soil scientist)
- Currently enrolled in or has already completed a minimum of 3 credit hours of soil science
- Maintain a GPA of 3.0 or higher
- Be a student member of ISCA, with dues paid
- Be present at the annual meeting to accept the scholarship

We hope to see many more students get involved with ISCA and look forward to encouraging and supporting students to pursue an education in soil science.

Here is Chase Howell's Bio:

Hello! I am Chase Howell, and I am a senior at Southern Illinois University studying Crops, Soils, and Environmental Management. I am a transfer student from Black Hawk College East where I graduated with associates degrees in agricultural business, agricultural production, and an art/agriculture transfer degree. While at Black Hawk East, I was an active member of the Soils Judging team! Also at Black Hawk, I interned at West Central FS in Wataga, IL under the locations manager and my life mentor. During this internship I applied my agricultural and soil knowledge in the agronomy field. Currently at SIU, I am the President of the Collegiate Farm Bureau and the Vice President of the Soils Judging team. Upon graduation in the spring of 2025, I plan to stay at SIU to achieve my master's degree in Plant, Soils, and Agricultural Systems with the intent of sharing my passion for soils and agriculture through teaching as a career. I am very thankful to be a part of the Illinois Soil Classifiers Association and extremely grateful for receiving the 2025 ISCA scholarship! Thank you for these amazing opportunities!



Ashtyn Stufflebeam, PR&E Chair, presenting scholarship to Chase Howell

Adventures with the EM₃₈

submitted by Mindy Siner, Area 4 Resource Soil Scientist

I received a call from the Saline County field office to investigate the soils at two barren areas located in two crop fields. The Field Office suspected oil brine damage was the cause of the barren areas and was looking for assistance in prescribing the correct treatment to stabilize the affected areas. Brine is water that contains high levels of salts that is a by-product from the oil drilling process. The salt levels in the soil in the oil brine damaged areas can become so high that vegetation cannot grow.

Site 1 was confirmed to be the location of an oil well that had been removed. It was relatively flat, and the soil



was mapped as Bluford silt loam (13A). The history of site 2 is mostly unknown but it was confirmed that it was not the site of an oil well. Site 2 was on a hillslope and was eroding (Photo 1).

I initially visited the field with the field office employees on a very cold day in February. The soil was frozen which could affect the readings of the EM₃₈, but not enough to discredit the data. I utilized the EM₃₈, an electromagnetic induction tool, that measures apparent conductivity (expressed as mS/m) in the soil. The conductivity readings are highly correlated to the exchangeable sodium

Photo 1: Mindy on Site 2 using the EM₃₈ on an eroded hillslope

content in the soil. The meter can be used to measure conductivity in the horizontal and vertical direction. Readings in the horizontal direction are correlated to soil properties closer to the surface while readings in the vertical direction sense soil properties to a depth of about 16 inches. I calibrated the EM₃₈ which is a challenging process due to the way the EM₃₈ must be held during calibration. The meter must be held at eye height above the ground for much of the calibration process. This can prove to be a physically demanding situation due to the weight and dimensions of the EM₃₈.

I was able to calibrate the machine and started taking readings at site 1. Data were collected in both the horizontal and vertical dimensions at various sites throughout the barren area as well in adjacent areas in the field where crops had been growing. Each sampling site was geo-referenced with GPS and the readings were recorded for analysis. We then travelled to site 2 where I again calibrated the EM₃₈. We started collecting data in the barren area and the conductivity readings were much lower than I expected on an obvious barren area. We re-calibrated the EM₃₈ and the readings still didn't make sense. I then pulled out the trusty Truog soil pH kit and evaluated the soil pH at the barren area. The soil pH ranged from 7 to 8 throughout the area, so I knew the area was likely affected by sodium. Since the EM₃₈ was not cooperating, I decided to try again

on a different day and bring two EM38s to compare the conductivity readings and help prescribe the necessary treatment to revegetate the barren areas.

The second time I went to the field with two EM38 (Area 4 and MLRA machines) and Dr. Sam Indorante (ACES employee, retired MLRA soil scientist, and my mentor). The weather was much warmer than the first field day but it was quite windy. We visited site 2 first as it was the more challenging of the two sites. Due to my difficulty holding up the EM38 for the time required for calibration, handyman Ron Ziehm crafted me a EM38 calibrating assistance device (*Photo 2*), so we put it to the test. We successfully calibrated both EM38 using the assistance device. The meters must be spaced apart as the electromagnetic fields of each device can affect the readings of the EM38. On the first site, the meters were fairly close in their results as they were generally within 5-7 mS/m from each other. The Area 4 meter had higher readings in both the horizontal and vertical direction. The average conductivity readings for the two meters was



Photo 2: Calibration assistance device in use.



Photo 3: Mindy collecting conductivity readings in adjacent non-affected cropland.

approximately 65 mS/m at the points of highest conductivity in the barren area. The readings were higher in the vertical position than in the horizontal position at site 2 meaning that the conductivity was greater deeper in the soil profile. Data was collected in both the affected areas as well as in adjacent cropland (*Photo 3*).

At site 1 is where things got interesting. The Area 4 meter continued to have higher readings in both directions than did the MLRA meter, but the range was much greater. At the points with the highest conductivity readings, the difference between the Area 4 and MLRA EM38 was around 100 mS/m. The readings at site 1 were higher in the horizontal position than in the vertical position meaning the sodium was greater near the soil surface. The MLRA meter read 93 mS/m and the Area 4 meter read 195 mS/m in the horizontal position. This phenomenon was repeated at several points with high conductivity. When we took readings away from the “hot spot”, the results between the two meters became more consistent like at site 1 where the difference in the readings ranged from 5-7 mS/m.

Dr. Sam and I discussed the options and we felt that these sites could be revegetated by following the recently updated Saline and Sodic Soil Management standard (CPS 610). We suggested that the landowner pull soil samples in the affected areas to analyze for EC, pH, CE, SAR, and ion concentrations of sodium, calcium, magnesium and sulfate-sulfur per the 610 standard. Due to the inconsistencies of the EM38 results but also knowing there is a salinity problem at both sites, we conservatively suggested to the field office that Jose Tall Wheatgrass be used to revegetate these barren areas. Jose Tall Wheatgrass can tolerate apparent conductivity readings of up to 425mS/m.

I learned several important lessons on this adventure. First, make sure to check the batteries in your equipment BEFORE you get to the field. Second and equally as important, make sure to calibrate your equipment regularly so it is ready when you need it. That may include sending it in to the manufacturer periodically to have them check it as well. Also, don't be afraid to ask for help or advice from the experts in tough situations. I am fortunate to have Dr. Sam and Matt McCauley (both retired MLRA soil scientists) available to discuss sodium affected soils and salinity concerns. They are truly the experts on oil brine damage and sodium affected soils in our area. Finally, when things get tough in the field, like holding up the EM38 for calibration, you may have to get creative to come up with a work-around.

I am hopeful that these two sites will be able to be successfully revegetated and solve the resource concern for the landowners. I can't wait to write a success story on these sites! Aren't soils fascinating!

Also, for those that would like further reading on oil brine damage, check out the article that was published in Soil Survey Horizons titled [Evaluation of Oil-Brine Damaged Areas for Productivity Using Electromagnetic Induction Techniques](#) written by W.M. McCauley, J.A. Doolittle, S. J. Indorante.

Bent Auger Award Winner - Liz Miernicki



Liz Miernicki is the 2025 Bent Auger Award Winner for her “distinguished” field work! Liz was nominated by Scott Wiesbrook, for getting the student soil judging van stuck in a muddy ditch and also, when soaked to the bone from a passing storm, got her foot stuck in the mud. In trying to get free, she fell over and was completely covered in the mud.

The contest for the Bent Auger was close and Liz just edged out Brandon Mueller, who was nominated for doing some major “drilling” to a parked car behind his drill rig!



ISCA presents: Hydric Soils for Wetland Delineation Course

When: June 5 & 6, 2025

This 2-Day Hydric Soil Course will include hands-on field application and indoor presentations, including:

- Introduction to hydric soil identification
- Formation of hydric soil features
- Landscapes and water flow related to hydric soils
- Disturbed and manipulated hydric soils
- Panel discussion of common issues with soil descriptions
- Identifying hydric soil indicators in the field

Cost: \$450, register at: <https://www.illinoissoils.org/hydricsoils/>

Classroom Location: 500 W. Winchester Rd. in Libertyville, IL
Field Locations: nearby forest preserves

Register before May 30!
(must have 25 registered participants for course to be held)

CEUs - earn 10 continuing education units or professional development hours

ISCA Instructors:

Alicia Metzger, Mary Beth Falsey, Clayton Heffter, Ken Anderson, Mark Bramstedt

Co-Sponsor: Lake County Stormwater Management Commission (SMC) Questions about content? Contact Webmaster@illinoissoils.org Questions about logistics? Contact Bill at wsantelik@lakecountyil.gov



“A Drummer Musing”-Lyrics by William Kreznor

(Sung to the melody of the Illinois State Song “By Thy Rivers Gently Flowing” by Archibald Johnson)

Verse 1

On Illinois landscapes nearly level, our State Soil, Drummer soil.
 A prairie pedon all can revel, our State Soil, Drummer soil.
 A Mollisol we all adore.
 Among soils it’s at the fore,
 and prime farmland to the core.
 Our State Soil, Drummer soil.
 So productive, say no more! Drummer soil.

Verse 2

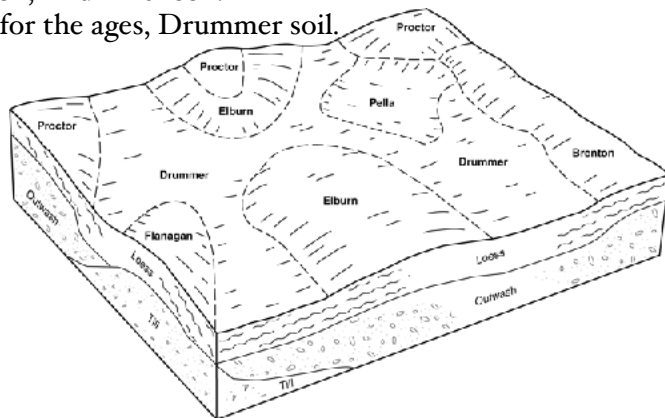
Endoaquolls, subgroup Typic, our State Soil, Drummer soil.
 Its extent is quite prolific, our State Soil, Drummer soil.
 The A horizon ebony,
 gray depleted B and C,
 in the fine-silty family.
 Our State Soil, Drummer soil.
 Low erodibility, Drummer soil.

Verse 3

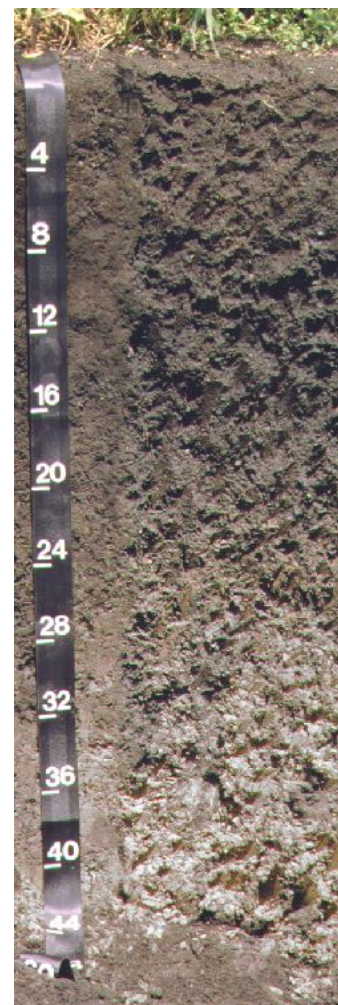
Use for homesites: start your planning, our State Soil, Drummer soil.
 Its limitations quite demanding, our State Soil, Drummer soil.
 Slab on grade? No complaining.
 Eight-foot basement? Needs some draining.
 Watch that sump pump when it’s raining.
 Our State Soil, Drummer soil.
 a wet one, there’s no feigning, Drummer soil.

Verse 4

Formed in outwash with a loess cap, our State Soil, Drummer soil.
 One-five-two writ on the soil map, our State Soil, Drummer soil.
 Our State Soil thanks to 4H-ers,
 FFA, and Vo Ag teachers.
 Like Honest Abe one for the ages.
 Our State Soil, Drummer soil.
 A soil body for the ages, Drummer soil.



Jerry Berning & Bill Kreznor rehearsing “A Drummer Musing”



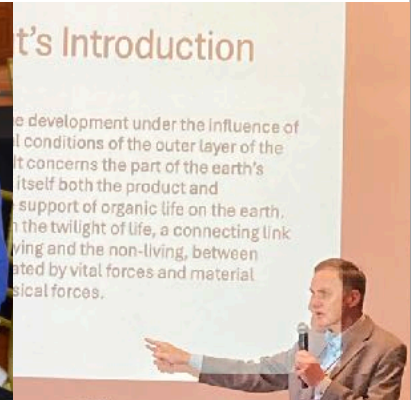
Pictures from the 50th Annual Meeting



Charter members Les Bushue (L) & Rex Mapes (R), the first president of ISCA - and guest



Burt Ray Award Winner, Gunnar Wuebben, President Brandon Mueller, & Coach Liz Miernicki





www.illinoissoils.org

This is YOUR Newsletter. If you wish to submit material, here are some guidelines:

- Email a digital copy.
- Use minimal formatting.
- Subject matter is open and includes:
 - general topics on soil science, soil research & investigations, field activities
 - soil judging
 - personal encounters with soil, geomorphology, earth sciences
 - other topics that would be of general interest to members
 - photos are appreciated
 - no political editorials
 - The committee reserves the right to publish or not and edit for grammar & length without affecting the integrity of the article

Send Newsletter submissions to:

newsletter@illinoissoils.org

Newsletter Committee

Ashtyn Stufflebeam
Mindy Siner
Mark Bramstedt

Soil Science “concerns the development under the influence of environmental conditions of the outer layer of the earth’s crust. It concerns the part of the earth’s crust which is itself both the product and indispensable support of organic life on the earth. The soil lies on the twilight of life, a connecting link between the living and the non-living, between material animated by vital forces and material subject to physical forces.”

Charles F Marbut 1949

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 on Facebook and X

For those of you who want to keep in touch with ISCA members & others interested in soils in Illinois, join our group on Facebook or X. Search Facebook for “Illinois Soil Classifiers Association” or “@ISCA_Soil” on X. Contact webmaster@illinoissoils.org to get permission if you want to post on these platforms.

ISCA at www.illinoissoils.org

Check out the “Announcements” page on our website for current activities, especially between Newsletters. It is an excellent resource to keep you informed on certification, membership, and the latest soil issues.

Newsletter Publication Schedule

- Winter (February)
- Spring (April/May)
- Summer (Aug/Sept)
- Fall (November)

