

NTCHS 2016 Annual Meeting

Scottsbluff, NE

October 25 and 26, 2016

- Attendees
 - Present: Lenore Vasilas, Karen Vaughn, Steve Monteith, Aaron Miller, Richard Griffin,
 - Teleconference: Mike Vepraskas, Jacob, Berkowitz, Tony Jenkins, Jennifer Wollenweber, Wade Hurt, Paul Rodrigue
 - Local Participants: Dan Shurtliff, Angie Elg, Tim White
- 2015 minutes
 - No edits suggested, Aaron motioned to approve, all in favor, unanimous.
- Field Trip Discussion
 - Soils: High CaCO₃, high pH, Low chroma, few faint redox features, if any Fe concentrations even present, some Mn concentrations, organic bodies, salt crusts on some places
 - Have well data for one year; want to install IRIS tubes,
 - Sites are saturated from North Platte River water table, capillary transmission of water to surfaces.
 - Upland soils were observed, have higher chromas and also some Mn
 - Positive Alpha-alpha reactions to some soils, but no concentrations forming.
 - Mike asked whether FeS were present. Yes, we saw FeS and MnS as black stain. When H₂O₂ applied, black would disappear. Mike suggests this is a Redoximorphic feature and we should consider using this feature as a future indicator. Mike suggests that the Fe is in fact present but we only see it as an FeS black stain in its reduced form. Referenced the same phenomena we have seen in New Mexico playas where in wet playa centers where there is a plentiful source of sulfur (gypsum) we have seen entire matrix coated with FeS only to disappear when exposed to H₂O₂.
 - Mike suggests checking for Sulfur content present in matrix using 10% HCl in a Ziploc bag and then checking for H₂S odor.
 - Aaron points out that we also have organic bodies present in the matrix that can be used to identify anaerobic conditions. Also apparent in this photo is the 3 chroma conditions.
 - Lenore summarized we have hydric soils without a current indicator. We have FeS and organic bodies to work with, but it needs more work.
- Proposal from Wes Miller to adjust Vertisols Indicator Vs. Tech standard to be consistent
 - Would like to change the tech standard to 28 days from currently stated 18 days.
 - Richard Griffin and Mike Vepraskas recall that the intention was for 28 cumulative days, and that 18 days may have been a typographical error that persisted in the HSTS to this day.
 - Richard Griffin Would like to motion to change the HSTS from 18 to 28 days. Mike V. seconds. Unanimous agreement.
- Jacob Berkowitz--USACE
 - Alpha Alpha study-Jacob Berkowitz.

- Compared the liquid dye to the strips. Apparently there is very similar effectiveness in their abilities to identify reduced iron in hydric soils. It appears that the test strips have the ability to resist degradation longer under various environmental conditions.
 - However, both tools seem to degrade after about 2 weeks so that it may not be usable to detect lower levels of Ferrous Fe in field settings.
 - SSAJ article submission drafted for review.
 - Digital hydric indicator form—takes soil description and converts to indicator evaluation
 - Red Parent Material Study—publishing map of all areas known to have CCPI issues for use of Red Parent Material Indicator F21
 - Hydric Soil Tech Standard publication
- Lenore Report
 - NWCA Sampling—1100 sites, 100 additional reference sites. Lincoln processing samples for that study. NRCS did intensification with full characterization on 85 sites. Hoping to use it to check data quality. 2016 data should be available in 18 months, 2011 data available now.
 - Hydric Soil Indicators V.8 to be released soon. Waiting for release form to be signed for Munsell photos. Ready to be sent to printers, otherwise.
- Steve Monteith
 - NWCA biggest project lab has now. 1100 sites with 4 or 5 layers, Db in triplicate. Maybe done by end of 2017. 5 additional technicians hired to help. Intensification sites also submitted, should contribute to our characterization database.
 - CCPI project—still in process of running CCPI for grab samples.
 - Data on organic material soils using Vaughn-Post method.
- Aaron Miller—southwestern States
 - Procedure for handling climatic component to HSTS in floodplain soils with hydrology not tied to local rainfall. We need to develop protocol for HSTS where we have stream stage data in a format not unlike that of the WETS tables to be able to determine a normal or drier than normal year.
- Tony Jenkins
 - New England Hydric Soils Committee—
 - Red soil indicators proposed to group in 2014, would still like to see them approved. They continue to use them.
 - Mesic Spodic Indicator—still a test for us. Data is confusing.
 - Spodic—cryic test indicators proposed. Tony thinks may be way too complicated.
 - Complain that our standards are too technical for non-soil scientists
 - Tony will try to encourage them to finalize their proposal
 - Mark Stolt has data of spodic soils with very low Fe and nice E horizons.
 - KSSL proposal for sampling project to accumulate trace element data. Mercury deposition since Clean Air Act. Tribes interested in dataset. Number of hydric soils and Histosols.
- Jennifer
- Karen Vaughn—University of Wyoming Update

- FeS project—When FeS is present, the conditions were highly reduced. More S in soils = more FeS. Maybe 15% would be better for IRIS tubes, 20% could still be conservative. When 2% visible FeS on IRIS, soil is reduced with respect to S. Jacob commented on how good study was, would like to encourage more research
 - Calcareous Soils Project—Carbonatic soils, wet, no redox features. Investigation through 2017.
 - Grazing Study—
- Mike V.
 - Looking for funding to develop wetland restoration tech standard.
- Richard Griffin
 - pH questions—low organic C, pH acidic, some Na in system. Natric horizon management for pastures with invasive species. Incubation studies looking at Eh, pH, and microbial activity to influence flooding period to alleviate Na issues in pastures.
- Paul Rodriguez
 - Hydrology tools posted to web.
- Other Business
 - Replacement for Chen Liu—need another University rep on committee. Chosen by University members. Mike will volunteer to find replacement member. Richard thinks a microbial ecologist might be beneficial to committee. Mike warns against inviting members who may not be that interested in our type of work.
- Updates to website for list of members.
- Next meeting location.
 - Jennifer proposing—upper Midwest hosting. Red Parent Material discussion, lots of features to investigate. Duluth area with red till. Richard noted some Mn issues tied to Duluth area seen on NCSS field trip with potentially lots of documentation and data. Resource SS in area has list of issues.
 - Karen proposing—Calcareous soils near Jackson, WY.
 - Richard motions to hold meeting in Duluth next year, and WY in two years. Steve Monteith seconds. All in favor (unanimous). Next year in Duluth!!!
- Meeting Adjourned motion by Karen, Richard seconds. All in favor.