

North Central Soil Survey Conference
Committee 1: Taxonomy and Research Needs
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Members present: Bennie Clark, Bob Engel, T. E. Fenton, Howard Gundlach, C.J. Heidt, Jon Hempel, David Hopkins, Tom Nueunfeldt, Mickey Ransom, Thomas Reinsch, Neil Smeck, Gary Struben.

This committee will identify, document, prioritize, and address the critical research issues in the North Central Region. Members will build on the recommendations from the 2000 North Central Region and 2001 National NCSS meetings:

Charge 1 - Review past reports & Identify research needs

Review the 2001 report of the NCSS Research Agenda Standing Committee (chaired by Curtis Monger, New Mexico State University and Rebecca Burt, NRCS, NCSS, Lincoln, NE). Which recommendations should we implement in the North Central Region? How can this be done? What are the priorities?

Also review and update the 2000 report of the NCRSSC Research Needs Committee. Are there additional issues or opportunities?

Charge 2 - Identify opportunities for funding and partnering

Identify new possibilities for partnering on priority research needs in the North Central Region. How can we strengthen existing partnerships? How can new projects be funded?

Charge 3 - Taxonomic issues

Review proposals to amend soil taxonomy and make recommendations (Craig Ditzler, NSSC has 17 pending proposals now). Coordinate recommendations with other regional soil taxonomy committees. What taxonomic issues remain unresolved in the North Central Region? How can they be addressed? Who should be involved? What are the priorities?

Charge 4 - Technical leadership and excellence

How can the technical leadership and excellence of the NCSS in conducting research be maintained and strengthened?

Committee Action:

Charges 1, 2, and 4.

Committee Actions:

I. The committee recommends that we direct research in the direction agreed to at the National NCSS Conference.

"How does water move through soil at the landscape scale?"

1. Surface water pollution
2. Subsurface (ground water) pollution
3. Water limitations to natural vegetation
4. Wetlands
5. Urban water flow
6. Hydro-geomorphic mapping of watersheds"

II. We recommend adding the following to the list of sub-topics:

7. Standards used in measuring
8. "Epi" and "Endo" saturation
9. Stratigraphy of parent materials

III. We strongly encourage those doing research to distribute the results and have the knowledge gained incorporated into the NCSS operating procedures.

Charge 3. - Taxonomic issues.

We reviewed the make-up and function of the committee. We want to be more active in the future. To help facilitate this end we recommend the committee be a standing committee. (It is named "NCSS Standards" at the national level).

We recommend that the membership include the three NCR-3 Soil Taxonomy Committee members and three members from the general membership.

Reviews of the Soil Taxonomy proposals now out for review were received before the meeting. A brief summary is given in the table below.

PROPOSED CHANGES TO SOIL TAXONOMY	ACCEPT AS IS	ACCEPT WITH REVISION (explain)	RETURN TO ORIGINATOR (explain)	REJECT	COMMENTS
1 Subaquic subgroups (NE)			*		* Testing needed for fresh H2O Great group?

2 Umbric and humic Udepts (S)	* 1		
3 Fragipan and fragic properties (MW)	*		
4a Add subgroups to Ustalfs, Udolls and Ustalfs(MW)	* 2		
4b Texture and thickness of Pachic subgroups (MW)	* 2		
4c Torrertic, vertic and aridic Dystrudepts	* 1		
4d Ustertic and xerertic Natrigids (MW)	1		*
5 Color criteria for aquic Hapludolls (MW)		1	*
6a Mollic Oxyaquic Hapludalfs (MW)	* 1		
6b Spodic subgroups			*
6c Fluventic Hapludolls	*		1?
6d Fluventic Endoaquepts			* 1?
6e Lamellic Oxyaquic Haplorthods		*	
7a Lamellic Haplorthods (MW)		*	
7b Aquic Arenic and Arenic Oxyaquic Glossudalfs	* *		
7c Arenic Oxyaquic Hapludalfs	* *		
8 Eutrocryepts (W)	* *		
9 Oxyaquic Torripsamments (W)	1	*	
10a Calcic and Calcic Pacic Argicryolls (W)	* *		
10b Vitrandic	*		

Calcicryolls

10c Calcic *

Duricryolls

10d Calcic Pachic *

Haplocryolls

10e Eutric Oxyaquic *

and Oxyaquic

Duricryands

10f Eutric and Eutric *

Pachic Fulvicryands

10g Oxyaquic *

Haplocryands

10h Oxyaquic *

Placudands

10i Eutric Oxyaquic *

and Oxyaquic

Durudands

10j Oxyaquic *

Fulvudands

10k Oxyaquic *

Hapludands

10l Oxyaquic *

Udivitrands

10m Andic *

Oxyaquic

Dystrudepts

10n Andic Oxyaquic *

and Oxyaquic

Vitrantic

Haploxerepts

10o Andic *

Haploxerolls

11 Dystric *

Xerorthents and

Dystric

Xeropsamments (W)

12a Add strongly *

contrast particle-size

classes, (W)

12b Add *

diatomaceous

mineralogy

13 Add Sulfaquerts

*

(NHQ)

14 Add spodic subgroups to Andisols (NSSC)			*
15 Clarify resistant and weatherable minerals (NSSC)	1	*	
16 Changes in key to mineralogy classes (NSSC)	* 1		
17 Change sequence of anthraquic to aquic and oxyaquic subgroups (NSSC)	*		
18 Clarify mollic epipedon thickness (NSSC)	2		*

* The consciences of the three students and instructor Advanced Soil Genesis and Classification

