

**CSSS\_02: The scope of soil carbon; measuring, understanding and increasing soil carbon storage within horizons and across biomes**

**Co-Conveners:** Scott Chang<sup>1</sup>, Hida Manns<sup>2</sup>

**Co-Chairs:** Scott Change, Hida Manns

<sup>1</sup> Department of Renewable Resources, University of Alberta, Edmonton AB T6G 2E3  
[scott.chang@ales.ualberta.ca](mailto:scott.chang@ales.ualberta.ca) 780-492-6375

<sup>2</sup> Department of Geography, University of Guelph, Guelph, ON. N1G 2W1  
[hmanns@uoguelph.ca](mailto:hmanns@uoguelph.ca) 905 983-8149

**Session Description**

Soil carbon storage is a major property of the terrestrial ecosystem and yet we do not have a good handle on the methods measuring carbon storage at different scales or the mechanisms involved in increasing soil carbon storage from within horizons to across biomes. Current initiatives in spectra and remote sensing technology have potential to advance our wider-range vision and knowledge of how the scale relates to the basic physical and biological properties of soil. Soil carbon measurement and mapping is a developing field that relates to many of other fields of knowledge, such as meteorology, agriculture, forest ecology, hydrology and water quality. We welcome contributions to enhance understanding of the mechanisms and complexities of factors controlling soil carbon storage and how they change with soil type, climate condition, crop species, and ecosystem type. Modelling developments of the soil landscape, and association of carbon with other factors and indexes will round out the topic.

**Primary Affiliation:** CSSS

**Joint Session Submission:**