

Karl C. Ivarson Scholarship for Students in Soil Science and Related Studies

Daniel Saurette, 2019 Recipient

Daniel Saurette is a PhD student in the School of Environmental Sciences at the University of Guelph. He is pursuing graduate studies while concurrently working as a Land Resource Specialist with the Ontario Ministry of Agriculture, Food and Rural Affairs.

Soil maps are used for land use planning, to determine relative suitability of different soils for agricultural production, and as input data for various modelling exercises. Predictive digital soil mapping (PDSM) is an ensemble of tools used to apply a statistical or data driven approach to soil mapping by building relationships between environmental factors and soil properties. Daniel's PhD research is focused on development of sample design optimization procedures to reduce uncertainty in PDSM while increasing the efficiency of field programs.



Daniel is a member of the Canadian Society of Soil Science (CSSS) and is co-chair of the Pedology Committee, in which role he is leading a Working Group that is assessing the feasibility of developing an updated version of the Canadian System of Soil Classification. Daniel co-developed and delivered a PDSM workshop at the 2019 CSSS meeting in Saskatoon in July 2019. He organized and hosted pre-conference soil tours in Peterborough County and Niagara Region, Ontario, for the 2017 and 2018 CSSS annual meetings and annually leads or contributes to field demonstration events for agricultural producers. He served as Chair of the Canadian Land Resource Network (2012-13) and led the planning of their annual meetings in 2012 and 2013.

Daniel served as a Mentor in the Women in Scholarship, Engineering and Technology Program while completing his MSc at the University of Alberta and more recently has been involved in the Envirothon and AgScape programs which provide an opportunity to highlight soil science as a career to high school students.

Daniel's future career goals are to continue to refine techniques for soil mapping to support renewal of soil maps in Ontario and Canada, and be part of revolutionizing the art of soil survey and mapping.