

## **UNIVERSITY OF ALBERTA – MSc Opportunity**

**Project Title:** *Assessing long-term vegetation dynamics in Mixedgrass Prairie.*

**Project Lead:** Dr. Edward Bork, Professor and Mattheis Chair, Rangeland Ecology & Management, Dept. of Agricultural, Food & Nutritional Science, University of Alberta, Edmonton, Alberta, Canada.

**Timelines:** Preferred start date of Sept. 1, 2025 (or earlier). Position will remain open until filled.

**Project Description:** We are seeking an MSc student to work on a collaborative project examining long-term changes in Mixedgrass Prairie vegetation, including plant community compositional dynamics and forage yield. Field work will take place in the summer/fall of 2026 and 2027 at the Onefour Research Station, situated in SE Alberta. The Onefour Station contains long-term forage yield plots and plant community pantograph plots dating back to the early 1900's. Repeat sampling will be used to continue the evaluation of ongoing effects of grazing and environmental change on grassland dynamics. Expected primary outcomes of the work include:

- The relocation and resampling of long-term pantograph plots first established in the 1920's by Agriculture Canada documenting the detailed community composition of northern Mixedgrass Prairie.
- An evaluation of demographic changes in the abundance of different plant species between early pantograph sampling and contemporary sampling, including of exotic and native plant species.
- The collation and analysis of long-term (80 yr +) continuous data on grassland biomass to evaluate ongoing changes in grassland forage production and grazing potential, together with the determination of factors altering these changes over time (See *Smoliak 1986*, J. Range Manage., for the last formal reporting of these data).

**Position Requirements:** Applicants should meet the following criteria:

- Have a strong academic background and interest in conducting advanced studies in grassland ecology and production dynamics, together with prior experience collecting plant community data in the field.
- Candidates should have a minimum GPA  $\geq 3.3$  in their last 2 years of study.
- Possess excellent communication skills, both verbal and written, as well as the ability to develop and undertake innovative scientific approaches, and have strong plant identification skills.
- Demonstrate a willingness to network with other collaborators, including federal and provincial agencies, other researchers, as well as primary producers currently utilizing the land base.
- Exhibit strong organizational skills, problem-solving ability, and willingness to work in a remote and demanding field setting for an extended period of time.
- Have a willingness to engage in novel data analysis, critical thinking, and comprehensive thesis development.
- Possess a valid, graduated (non-probationary) drivers' license with no restrictions. Experience driving on gravel roads, pulling trailers, and use of a side-by-side is an asset.

**Annual Stipend:** Research Assistantship: \$25,000 for MSc (Cdn)

**How to Apply:** Interested candidates should send a copy of transcripts, CV, and a statement of research experience and interests (2 page limit), with the names of three references, to: **Dr. Edward Bork** ([Edward.bork@ualberta.ca](mailto:Edward.bork@ualberta.ca)), Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada.

**Website:** <https://rri.ualberta.ca/about-us/our-facilities/onefour-research-station>