

Recruiting volunteers to participate in a KSU grazing research project, August 2021

GOAL: *To learn how cattle and bison grazing affect grassland soil microbes and fertility.*

Information from all locations sampled in 2021-2023 will be compiled to gain a comprehensive understanding of the importance of grazers to the tallgrass prairie ecosystem.

Activities:

- Soil will be sampled at three to five cattle grazed locations in the Flint Hills.
- Data will be collected on soil nitrogen cycling rates, microbial community composition and diversity, pH, organic matter, total carbon & nitrogen.
- Data will be analyzed at KSU to learn whether these predictions are supported:
 - Grazing increases soil nitrogen cycling activity across the region.
 - Grazing makes soil microbial communities more similar in space across the region.

Required criteria for participation:

- Access to native, unimproved and unmowed, low-slope upland tallgrass prairie soils.
- Soils from both cattle-grazed *AND ungrazed/rested prairie* areas are need for comparison.
- Information on stocking density and timing, and fire management, is needed to interpret the data.
- Location information is needed for spatial analysis.
- As a publicly funded study, the published academic reports will be publicly available.

Steps toward participation:

- Make sure your location fits criteria above, and that you are willing and able to share the information requested.
- Contact with Lydia Zeglin (info below) via email or phone call by **July 16, 2021** at the latest. Leave your name, contact information, and stated interest in the project.
- Dr. Zeglin will follow up to answer questions about the project, confirm participation expectations, and set a day in August 2021 for the KSU soil collection team to visit.
- Data will be collected at KSU over the winter, and we will follow up with a report to participants in the spring. See an example report here: <https://tinyurl.com/fadfbyev>



For more info or to volunteer, contact Lydia Zeglin

email: lzeglin@ksu.edu; phone: 785-532-5579

This research project is funded by the National Science Foundation to LZ. The project blurb and proposal are publicly available at <http://www.zeglinlab.com/projects.html> and <https://tinyurl.com/2sya3d37>.