



## **Our Why:**

### *The Northern Great Plains*

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Vilicus Institute is located north of Havre, Montana, our area is characterized by low population density and expansive open spaces, evoking images of endless skies and vast grasslands.

Our area of focus is the Northern Great Plains. The Northern Great Plains are the area of grassland extending north of latitude 44° including most of Montana, Wyoming, North Dakota and South Dakota, southwestern Minnesota, and portions of Canadian provinces - including southeastern Alberta, southern Saskatchewan and southwestern Manitoba. Temperate grasslands like these are Earth's least protected and most altered biome.

The climate in the Northern Great Plains is highly variable, posing challenges for sustainable resource use. Climate change is expected to exacerbate these challenges, impacting water, land, and energy resources. Rising temperatures, fewer cool days, and increased frequency of hot days will have significant implications for agriculture, energy production, human health, streamflows, and wildfires. Transformative changes in agricultural practices and management will be necessary for long-term adaptation.

The region's agricultural sector plays a vital role in U.S. food security. Agriculture is an integral component of the economy, the history, and the culture of the Northern Great Plains. However, the conversion of grassland to monoculture cropping and the projected temperature increases pose threats to crop yields and the ecological balance. Proactive learning opportunities, collaborative partnerships, and timely knowledge transfer to producers are crucial for enhancing decision-making and building resilience.

The Northern Great Plains are a unique and fragile ecosystem, often overlooked by conservation efforts. Montana's prairies house some of the largest remaining native grasslands in the United States, but they have been severely altered, resulting in the decline of critical species within the ecosystem. Grasslands serve as critical habitat for numerous bird species. Various songbirds, such as Sprague's Pipits and Chestnut-collared Longspurs, are facing alarming population declines. The Northern Great Plains are also the migration and grazing area for Pronghorn, and American Bison. Vilicus Institute believes in a future where agricultural enterprises can exist in harmony with nature and integrate into the ecosystem alongside the native plants and animals.

Vilicus Institute's focus on this area is essential to protect its biodiversity, address climate change impacts, and promote sustainable agricultural practices for the long-term well-being of the region and its communities.

## **References and Further Reading**

[Ocean of Grass: A Conservation Assessment for the Northern Great Plains](#)

[Northern Great Plains Climate Change Fact Sheet](#)

[Climate Impacts in the Great Plains | Climate Change Impacts | US EPA](#)

[Northern Great Plains - Fourth National Climate Assessment](#)

[Fifth National Climate Assessment 25. Northern Great Plains](#)