



Saskatchewan
Prairie Conservation
Action Plan

Native Prairie Speaker Series *Webinar*

How did Golden Eagles respond to a changing Northern Great Plains Ecosystem?

Wednesday May 3rd, 2023 at 12:00pm

Speaker: Dr. Joe Schmutz, Retired - University of Saskatchewan

Register Free: https://us02web.zoom.us/webinar/register/WN_WM7XAxDdRqeCiTNHyPjX0w

This presentation is FREE! Tune in from anywhere! Everyone welcome!
More Information: SK PCAP at 306.352.0472 or pcap@sasktel.net

This Webinar is Presented By:





Saskatchewan
Prairie Conservation
Action Plan

Native Prairie Speaker Series *Webinar*

Speaker:

Dr. Joe Schmutz, University of Saskatchewan

About the Speaker:

Josef K. Schmutz is a naturalist who received a M.Sc. degree from the University of Alberta, and a Ph.D. from Queen's University in Kingston, ON. Joe is retired from the University of Saskatchewan where he was a member of the Biology Department, the Centre for Studies in Agriculture, Law and the Environment, and the School of Environment and Sustainability. Joe studied prairie raptors in southern Alberta for over three decades.

Presentation Summary: How did Golden Eagles respond to a changing Northern Great Plains Ecosystem?

It is often said that predators near the top of a food chain are akin to 'canaries in a coal mine,' and are the first to reflect ecosystem change. Golden Eagles breed throughout Canada. While they have declined in eastern Canada, eagles are widespread in western Canada.

In the Mixed-grass Ecoregion of southwestern Saskatchewan, nesting pairs were able to raise an average of 1.5 young to near fledging 66% of the time during 43 years of C. Stuart Houston's study. Nesting densities and nesting success was comparable to other studies in the western United States and have not changed significantly from 1969-2007. This positive population outcome is not shown by other prairie raptors, songbirds nor some mammals.

To examine plausible ecosystem-level interactions that might help us understand the changes, I will share data on the eagles' food and habitat use. As is the case with many bird studies, Houston monitored the eagles during the nesting season. Therefore, I will extrapolate to Spring through Fall.

Two major changes that have shaped Prairie Canada were the loss of the bison in the late 1800s and settlement in the early 1900s. Some species benefitted from this change, dubbed 'following the plow,' such as grain-eating species and browsers. Others declined, such as insectivores and those involved higher up in the insect food chain.

If my suggestions of causal relationships are valid, then the eagles benefitted from ecosystem changes that began at the basic landscape level long ago. Shrubs and trees invaded previously extensive grassland changing food availability and predator-prey dynamics. If valid, how do the suggested causal relationships apply to conservation strategies today?