Research Links
A Forum for Natural, Cultural and Social Studies
VOLUME 2 - Number 2 Parks Canada, Alberta & British Columbia FALL 1994

# SOWING THE SEEDS OF THE PAST

*As it was before: Elk Island National Park is working to restore native grassland species*

*Anne Dickinson*

Good quality native grassland is a rare commodity in Elk Island National Park, though it is believed to have been once a prevalent component of the Aspen Parkland ecosystem. Due to past management practices, native grassland areas of the park have been lost to aspen encroachment (as a result of fire exclusion) and destroyed by cultivation of non-native species for hay production. Today, less than five per cent of the park area is grassland, and of that, very little is a good representation of native fescue grassland species.

Elk Island is taking some initial steps to reverse this trend. In addition to an intensive prescribed burning programme that has been underway since 1980, several new prairie restoration initiatives have been launched.

In an effort to reduce the amount of cultivated landscapes in the park, a pilot project began in the summer of 1993 to convert the lawn around Elk Island's administration building to a self-maintaining mix of native prairie grasses and wildflowers. The area, approximately one hectare in size, was seeded with 50 per cent western wheatgrass *(Agropyron smithii)*, 25 per cent slender wheatgrass *(A. trachycaulum)*, 15 per cent June grass *(Koeleria cristata)*, and 10 per cent green needle grass *(Stipa viridula)*.

This past spring, a small set of grow lights was purchased and some wildflower seedlings were propagated from seeds donated by the University of Alberta's Devonian Botanic Gardens. As of this writing (June 1994), the grasses form a thick, lush cover, and although weeds are a problem in some patches, it appears that the grasses will win in the long term. The wildflower seedlings (over 150 milk cartons full!) are now transplanted into the site, too.

Visitors to Oster Lake Group camp may notice the addition of a large fenced plot in the Oster Meadows. This is one of two plots within the park that are part of graduate student Dana Bush's MSc research project. The second plot is located at North Tawayik Lake Meadows.

Bush, who is studying under Dr. Anne Naeth at the University of Alberta, has designed 10 different combinations of native (grass and wildflower) seed mixes and is testing their ability to compete with invasive weed species. After the completion of her initial two-year study, the fencing will be removed. By that time, the seeded species should be established and able to withstand bison grazing and trampling.

The plots will continue to provide information on restoration. Future graduate students at the university will utilize the plots to test the sustainability of the various seed mixes and their ability to withstand changes in abiotic environmental factors, such as grazing and prescribed burning.

***Anne Dickinson** is a fire/vegetation specialist at Elk Island National Park. For further information, please call (403) 992-6390.*