

## MAPPING A RARE LANDSCAPE: BRITISH COLUMBIA'S PRIORITY GRASSLANDS

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*Sagebrush - Bluebunch Wheatgrass grassland ecosystem north of Kamloops.*

The University of British Columbia's (UBC) Collaborative for Advanced Landscape Planning recently released results of a public opinion survey focusing on the management, protection, and recovery of species at risk. While reading the report, I could not help but wonder how many of the respondents knew that grasslands support a disproportionate number of species at risk in this province. In fact, over 30 percent British Columbia's terrestrial species of conservation concern occur in our grasslands, but grasslands occupy less than one percent of the province.

British Columbia's grasslands are the most northern extent of the Palouse Prairie that extends downward into Oregon and Idaho. Sometimes referred to as the Sagebrush-grass Region, this area is characterized by sagebrush cover – as you might have guessed – but also with numerous types of bunchgrasses. British Columbia's grasslands are mostly found in the Fraser, Thompson, Nicola, and Okanagan valleys and occur primarily due to the rain shadow effect of the Coast and Cascades mountains. Grasslands also occur in the Peace Region in the northeast of the province.



*Source: Grasslands Conservation Council of British Columbia*

Urban expansion and development, agricultural conversion, abusive recreation, invasive plants and forest encroachment are threatening grasslands through degradation, destruction and fragmentation of associated habitats and ecosystems. The Grasslands Conservation Council of British Columbia (GCC) recognized that planners, decision makers and resource managers lacked the information and the appropriate tools to effectively manage for the conservation of British Columbia grasslands and the species that use them. Therefore, building upon the mapping of provincial grasslands completed in 2004, the GCC began a project called the Priority Grasslands Initiative to identify and delineate high-value priority grassland areas in each of the major grassland regions of British Columbia. The priority mapping process is comprised of collaborative consultations with experts (e.g., ecologists, agrologists, biologists, etc.) and Geographic Information System (GIS) analysis. Value criteria that will be evaluated include rare grassland ecosystems, species-at-risk locations and habitat, ungulate wintering range, livestock forage values and other socio-economic values, as well as threats from fragmentation and development.

More than half of the respondents (56.7 percent) of the UBC public opinion survey agreed that it is *'more useful to protect and recover the places that plants and animals depend upon to live than it is to protect and recover individual species'* (Harshaw 2008). This view is echoed in the priority mapping process. Although predictive habitat models for seven focal species at risk and species sightings information are used in the analysis, many of the priority areas will be derived from a GIS-based representation model that will be used as a surrogate to on-the-ground ecosystem mapping.

Over the next two years, the GCC, through the priority mapping process, will produce priority grassland portfolios, status reporting and strategic recommendations, including proposed actions for each major grassland region of the province. The strategic recommendations will be supported by data, maps and appropriately designed land-use planning tools. This integrated package will be extended to local, regional, provincial, federal and First Nations governments via another of the GCC's initiatives, called *Planning for Change*. Although the results will be predominantly extended towards local governments, much of the documentation will be publicly available for use by non-government organizations, such as land trusts. The GCC will soon be releasing its first set of grassland portfolios for the Thompson–Nicola and North Okanagan Regions.



*Urban development is one of the many threats to BC's grasslands.*

For some grasslands, this information will not be available soon enough. For instance, the once extensive meadow-steppe grassland of the North Okanagan, considered by some ecologists to be the only valley bottom occurrence of this community in Canada, has been reduced to a fraction of its historic range. Agricultural conversion and urban expansion alone have eliminated over 50 percent of this rare and unique grassland community. Throughout the province, thousands more hectares of grasslands are being lost to development and encroachment every year. Planners in the North Okanagan have been concerned about the state of these grasslands but have been unable to act on their concerns, as detailed information for this grasslands community, including its location and extent, does not exist or is not easily accessible.

Without tools for the planners to do their job, they may face negative public perception. Another result from the UBC public opinion survey indicated that slightly more than a third (37.8 percent) of respondents felt that current natural resource planning and management does not do a good job of *'protecting and recovering species at risk and the places that they depend upon to live'* (Harshaw 2008). With the Priority Grassland Initiative and other GCC initiatives, we hope that the public will soon have reasons to have a better perception of the work of planners and of the health of species of risk.

***The Grasslands Conservation Council of British Columbia*** is a non-profit organization that is a strategic alliance of organizations and individuals, including the ranching community, environmental organizations, government agencies and First Nations. Contact us for more information about the Priority Grasslands Initiative: [www.bcgrasslands.org](http://www.bcgrasslands.org).