Plant Species Origin and Biodiversity in Grazed Grasslands of British Columbia's Southern Interior

Don Gayton M.Sc, P.Ag.

Ecosystem Management Specialist, FORREX (Forest Research Extension Partnership)
PO Box 1013, Nelson, BC V1L 6A5, < don.gayton@forrex.org >, phone: 250-354-6244

A high percentage of endangered species in British Columbia are found on the native grasslands of the southern Interior. However, human settlement, agriculture, industry, transportation and recreation facilities have tended to concentrate in the Interior valley grasslands, leading to reductions in areal extent, as well as concerns for the condition of the remaining grasslands. Overgrazing by wild and domestic ungulates, weed invasion, and forest ingrowth/encroachment as a result of fire suppression, all pose threats to ecological integrity of Interior grassland plant communities. In an attempt to monitor this integrity, the author surveyed herbaceous vegetation cover on seventeen native grassland sites in southeastern British Columbia, to determine proportions of native vs. non-native plant species. All sites were on grazed Crown rangeland, and found within the Ponderosa Pine and Interior Douglas-fir subzones. Individual species vegetation cover values were aggregated into native and non-native; values for non-native herbaceous species at the seventeen sites ranged from zero to 82% of total vegetation cover, with an average of 33%. Total alpha (species) biodiversity appeared not to be correlated with the ability to repel non-native invasions; sites with high native species biodiversity did not have fewer non-native species, nor vice versa. Sustaining healthy native grasslands is essential to recovery efforts for a large suite of endangered species. Total non-native cover appears to be a useful and fairly unambiguous first measure of the condition and trend of our Interior grasslands.