

SUPPLEMENT TO A THEME STUDY OF
NATURAL GRASSLAND IN WESTERN CANADA (1973)

K.G.A. Hamilton, Biosystematics Research Center, Agriculture Canada, Ottawa, Ontario. K1A 0C6.

Collectors searching for grassland sites using Coupland's text may encounter difficulties because the maps contain little information that would orient you to adjacent towns and roads. I have attempted to plot these areas on road maps, with the following recommendations for road access to them. When in doubt, topographical maps at 1:50,000 scale should be consulted.

British Columbia. No maps at all were provided by Coupland, and the following are based on his verbal descriptions:

1. The site NE of Kamloops is apparently the same one discussed in Grassland Ecology & Classification (reviewed in issue no. 3 of this newsletter). Access by local roads only.
2. White and Long Lakes are ca. 16 km due north of Jesmond, the headwaters of Canoe Creek which flows along the Chasm-Gang Ranch road.
3. Becher's Prairie is ca. 20 km south of Riske Creek, along the dirt road that branches off Hwy. 20 at that town.

Alberta. Two types of prairie are recognized by Coupland, the "fescue" prairie on the foothills of the Rockies and on the Cypress Hills, and the "mixed" prairie of the rest of Alberta and Saskatchewan. Most of the Alberta prairies are actually "shortgrass" prairies, which are dominated by Bouteloua (Grama grass).

1. Foothills fescue prairie is crossed by the following highways: 6, from Chief Mountain to Twin Butte; unnumbered, from Pincher Creek to Beaver Mines; 22, from 25 km N Lundbreck to its junction with the 520; 533, from 20 km SW Nanton to within 5 km of its junction with 22; 785, from 20 km W Fort Macleod (at Head-Bashed-In Park) for about 8 km.
2. Milk River Ridge fescue prairie, an outlying foothills grassland, can be crossed on Hwy. 501 from Milk River to within 20 km of Del Bonita.
3. Cypress Hills fescue prairie can be found on local roads along the northern side of the Park.
4. Manyberries Range is traversed by Hwy. 41 from 10 km S Cypress Hills Pr. Pk. almost to the American border.
5. Milk River Badlands are crossed by Hwy. 880, with the grasslands extending ca. 6 km either side of the river.
6. Shortgrass prairie still occupies most of the area between Medicine Hat to Gleichen, north to Hwy. 9. Transects can be made on the following highways: 524, from 8 km W Redcliff to 7 km W Hays; 864 and 879, from ca. 8 km N of Hwy. 3; 36, from 15 km N Taber to 5 km S Brooks; all of 544 and 557; 561, from Hussar to 7 km N Gem; 565, from Pollockville eastward; 848, past Sieu Lake; 876, from Sunnynook to Tilley; 884, from junction with 565 to Ralston except for stretch from Red Deer River to Jenner; 886, and 41, where they cross Sounding Creek, ca. 20 km N. Hwy. 9; past Little Fish Lake; last 15 km of unnumbered dirt road from Lethbridge to Stand Off (through Blood Indian Reserve).

7. Big Valley mixed grass prairie extends from 5 km S Stettler to Rumsey, and is traversed by Hwy. 56 and about 10 km of Hwys. 585, 589 and 594 from their junctions with Hwy. 56.

8. Mixed grass prairie sites are scattered from Grassy Lake to Wainwright, and Minsella. Hwy. 41 crosses these on the Wainwright C.F.B., at the junction with Hwy. 600, and from Monitor S for 15 km as well as the shortgrass sites mentioned previously.

Saskatchewan. Most sites are mixed prairie or salt flats around lakes.

1. Cypress Hills fescue prairie is crossed by Hwy. 21 for 15 km N of the American border and for 25 km from just N of the Frenchman River to 6 km N of the Park. Both Hwys. 271 and 615 pass through this prairie for 15 km from Fort Walsh.

2. Webb and Great Sand Hills can be crossed by any road north of Hwy. 1 between Piapot and Beverley except Hwy. 632 (N from Gull Lake) and the adjacent road just before Carmichael. The longest transect is the unnumbered road from Tompkins to Lancer, which is almost entirely within the sandhills. The oblique section of Hwy. 332, and the road N from Webb which meets it, both pass through the Webb Sand Hills.

3. Saskatchewan badlands can be reached from Hwy. 18, that passed through the Wise Creek prairie from Climax to Canuck and from Orkney to Val Marie, through Wood Mtn. Range briefly (6 km) on its oblique section ca. 20 km NE Val Marie, through Big Muddy Badlands 10-16 km W Hwy. 6, and through Coalfields from Estevan to 5 km E Outram. Hwys. 9, 139 and 47 cross Coalfields in the Souris River valley, and Hwy. 34 crosses Big Muddy Badlands from 12 km S Bengough to 12 km N Big Beaver. Wood Mtn. can be approached on several unmarked roads, the shortest being one heading S from 7 km S Val Marie that enters the rangeland after ca. 13 km. Both ends of the forking road south of Mankota also enter the rangeland near their ends. Rockglen natural area can be entered by a road that runs south from Rockglen.

4. The Missouri Couteau is represented by a chain of grassland areas extending from Weyburn to Elrose. The Radville grasslands are traversed by Hwy. 28 for 12 km N of the town, and by Hwy. 705 for a similar distance E of Hwy. 28. Yellow Grass prairie is crossed by Hwy. 39 for 6 km SE Yellow Grass, and by Hwy. 6 for 9 km beginning 15 km S Corinne. There is a grassland S of Hwy. 334 at Avonlea, and the Dirt Hills are transected by Hwy. 334 for 12 km N Dahinda, by Hwy. 623 from 10-20 km S of Truax, and by the zigzag portion of an unnumbered road from Avonlea to Cardross. The Old Wives Lake grassland is traversed by Hwy. 363 from Tewedale (7 km W Corderre) to its northward bend at the end of the lake, a distance of 40 km. Caplin Lake grasslands extend for 25 km along Hwy. 1, from Ernfold to Secretan (13 km W Parkbeg), and along the southern 10 km of Hwy. 19. Hwy. 644 runs through the tip of this range 7 km N Morse and continues through Riverhurst Prairie to its junction with Hwy. 42. Elbow sandhills are accessed from Hwy. 19 from Qu'Appelle Dam to Elbow, and from Hwy. 45 for 6 km S of Hwy. 44, and the road to Dunblane. The large Matador Prairie can be crossed only on Hwy. 342 for 26 km E Kyle.

5. The Qu'Appelle Valley has small grasslands and marshes along its length, notably where it is crossed by Hwys. 2, 642, 10, 247, 9, 637, 8, and 600.

6. The shortgrass prairie along the Alberta border is now almost completely planted with crops and forage grasses, but marginal patches can be found along Hwy. 321 from Brustall to the border, along the course of the South Saskatchewan where it is crossed or paralleled by Hwys. 649, 628, and unnumbered roads northwards from Prelate and Lancer,

for 14 km W Mantario on Hwy. 44, for ca. 12 km E or SE on unnumbered roads from Loverna, and for 16 km E Compeer, Alta. on Hwy. 51.

7. The Lakes prairies around the upper reaches of Last Mtn. Lake, Peter Lake, Katawagan Lake and Big Quill Lakes are crossed by Hwys. 6 and 16 from ca. 15 km in any direction from Dafoe, and by numerous unmarked roads, notably those extending W from Hatfield and Govan and the route from Nokomis to Jasmin that passes near the smaller lakes.

8. Moose Mtn. grasslands are crossed by Hwy. 605 for 15 km N Kisbey and by Hwy. 9 through the parks.

9. Grasslands near Saskatoon extend along the South Saskatchewan from Furdale, just beyond the City's SW border, to 14 km due E Swanson (access by Hwy. 60 and local roads), and along Hwy. 11 from Blackstrap Lake to the SE edge of the city.

10. Northern grasslands of the aspen parkland zone border lakes and rivers from Prince Alberta to the Alberta border. Hwy. 40 from Marsden to Baldwinton and Hwy. 675 from Hwy. 40 to Hwy. 787 (as well as the road to Artland and the Reflex Lakes) cross Manito Lake grasslands. Hwy. 16 from Delmas to Hwy. 21 passes through (along?) Paynton prairie. Hwy. 4 from 10 km S Battleford to Red Pheasant (8 km N Cando) and the unmarked road through Baljennie that joins Hwy. 376 near the river both traverse Red Pheasant grasslands. Hwy. 11 passes through prairie from Duck Lake to 6 km NE Rosthern. Sturgeon River Natural Area (partly outside Prince Albert National Park) has no road access.

Manitoba. None of the Manitoban prairie sites are large, nor are these located precisely enough by Coupland for directions to be given at this time. One good site neglected in Coupland's work is the racetrack prairie located on Hwy. 16, 7 km E Woodside, which is known for its endemic tiger beetles. Other promising sites occur along Hwy. 6 near Lake Manitoba.

BECHER'S PRAIRIE BURN

G.G.E. Scudder, Department of Zoology, University of British Columbia, Vancouver, B.C. V6T 2A9

The District Manager of the Williams Lake Forest District, in British Columbia, has informed me that a major part of Becher's Prairie will be subjected to a spring burn in order to remove accumulated litter on Stipa sites, remove encroaching tree seedlings on grassland, and improve downward trend in range condition through competition from Tragapogon. If this burn is done early enough in the spring, we do not believe it will have dramatic effects on the grassland fauna. However, we hope to be able to sample the area immediately before and after the burn, with follow-up sampling thereafter.

Miocene and Pliocene Vegetation Patterns of the Northern Rocky Mountains. E.B. Leopold and M.F. Denton (University of Washington).

Fifteen floras of mid and late Miocene age (ca 15-5 m yr BP) demonstrate two distinct vegetation provinces in the northern Rockies. West of the Rocky Mt. crest were mixed conifer forests with a great diversity of evergreen and deciduous woody dicots (from 9 to 23 genera). Species show close relationships with those of summer-wet areas in E. Asia, W. and E. US in nearly equal proportions, and suggest equable climates of