Sharp Tail Grouse
Photo by Alberta Conservation Association

MULTISAR

Using Grassland Vegetation Inventory Data

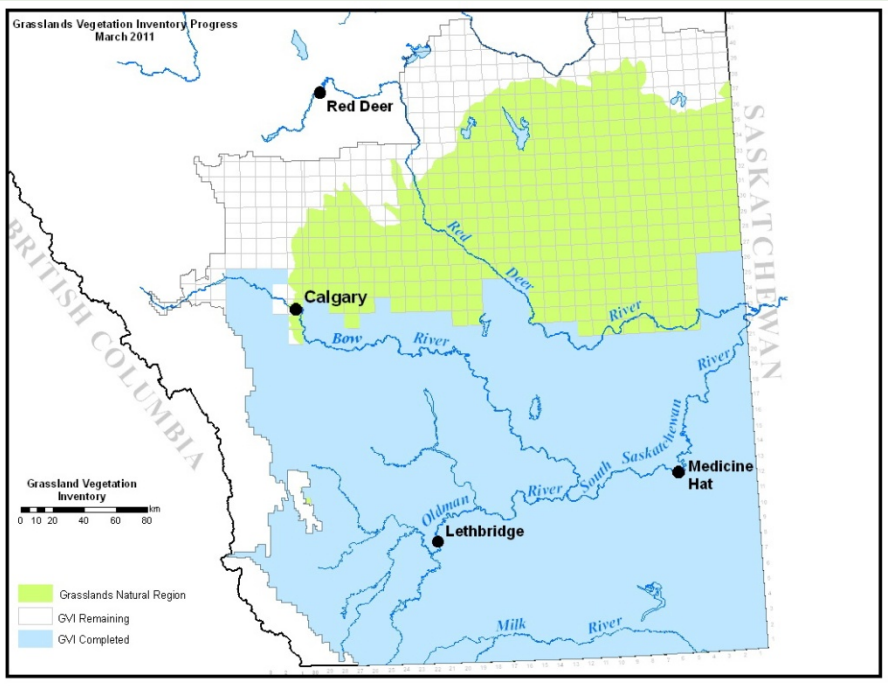
MULTI-SPECIES POINT COUNT SURVEYS

Alberta Conservation Association
Conserving Alberta's Wild Side

PRAIRIE CONSERVATION FORUM

Government of Alberta

WHAT IS THE GRASSLAND VEGETATION INVENTORY (GVI)?

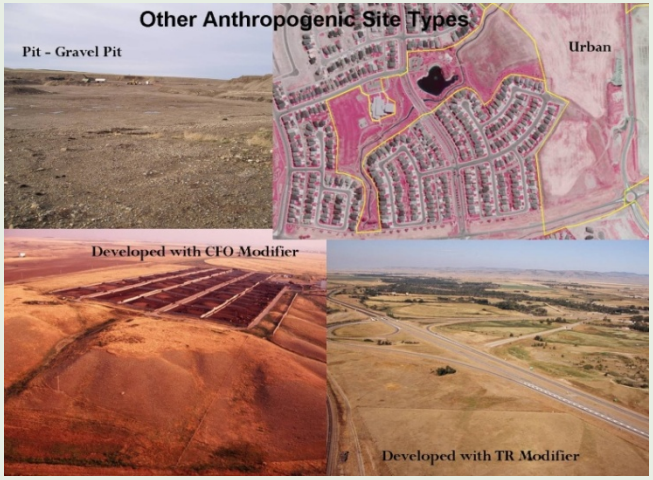


GVI progress to January 2011

- The GVI represents the Government of Alberta's comprehensive biophysical, anthropogenic and land-use inventory of the province's grassland natural region.
- Information for the GVI project will be collected for the entire area regardless of jurisdiction including the foothills grasslands (water bodies, native or natural areas, and agricultural, urban and other anthropogenic areas).

WHAT IS THE GRASSLAND VEGETATION INVENTORY (GVI)?

Site Type Examples



- GVI data are captured as polygons, lines, and points in a geodatabase that provides information on a number of different landscape features
- These landscape features or “Site Types” can also be though of as different habitat types

WHAT IS MULTISAR?

- Multiple Species at Risk (MULTISAR)
- The MULTISAR conservation program is a cooperative initiative between the Alberta Conservation Association (ACA), Alberta Sustainable Resource Development (ASRD), and the Prairie Conservation Forum (PCF)
- MULTISAR collaborates with landholders to maintain and enhance species at risk habitat in Alberta's Grassland Natural Region
- MULTISAR utilizes cost-effective tools to help conserve species at risk

Website
www.multisar.ca

Funding Partners

Canada
The Government of Canada
Habitat Stewardship Program
for Species at Risk

Canadian Natural
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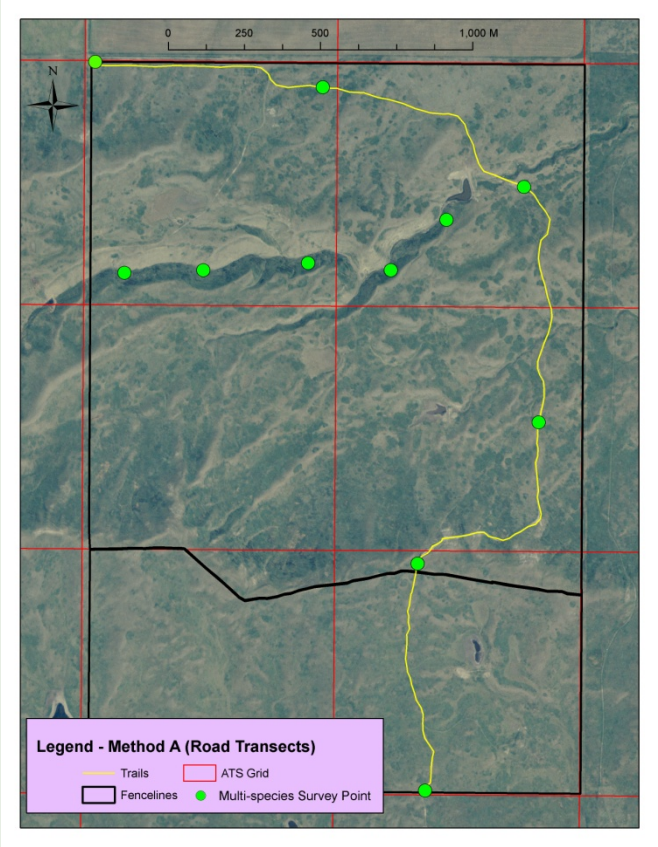
ALTALINK

BACKGROUND

Multi-species Point Count Surveys

- Multi-species Point Count Surveys are a tool being used by MULTISAR to identify species presence on the landscape
- This methodology has evolved over time to more accurately reflect the landscape and the species present
- We originally completed surveys along trails and riparian corridors, then switched to a 400m grid system across the landscape
- The current method utilizes point counts within GVI polygons which allows better coverage across the landscape and improves data for correlations

ROAD & RIPARIAN TRANSECTS

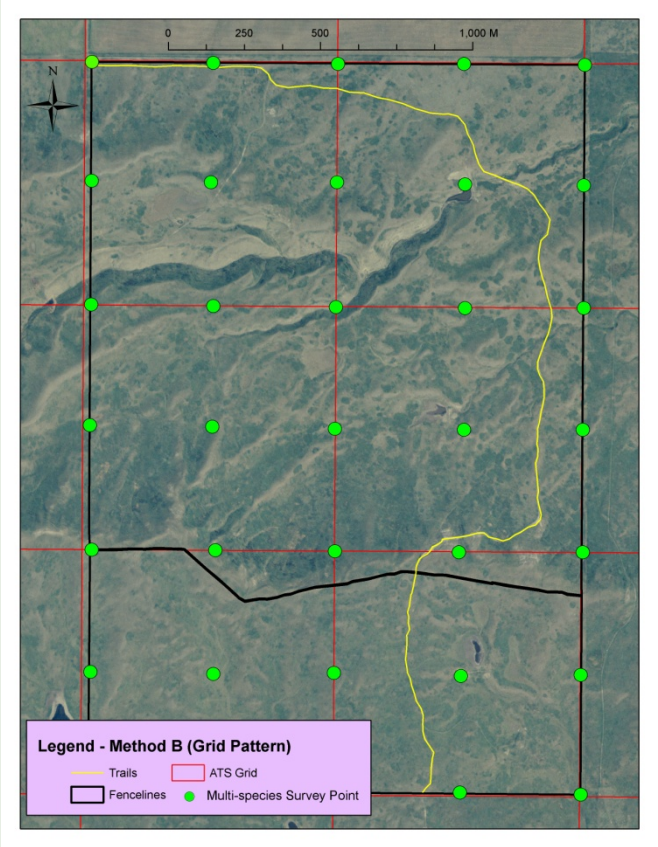


- Transects were traveled by vehicle or on foot with stops every 800 m
- Listen for birds and visually scan the landscape within a 400 m radius circle for 5 minutes and record all observations (Saunders 2001)
- Observations of non-avian species were also documented

Limitations

- Poor coverage
- Vehicle use disturbed species
- Data collected not correlated to habitat type

GRID TRANSECTS

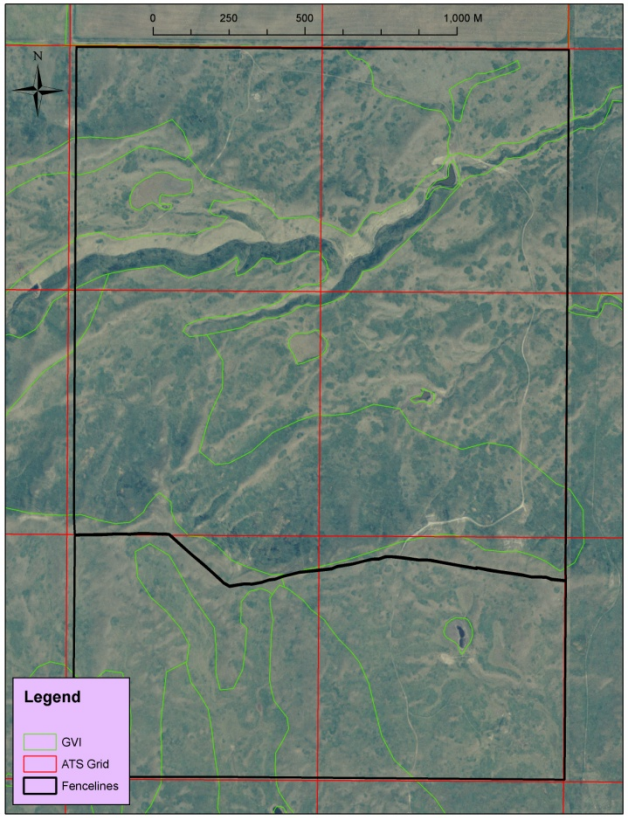


- Transects were walked by surveyors, with stops every 400 m
- All birds, mammals and herptiles seen or heard within 200 m radius were recorded
- Improved coverage over the original method

Limitations

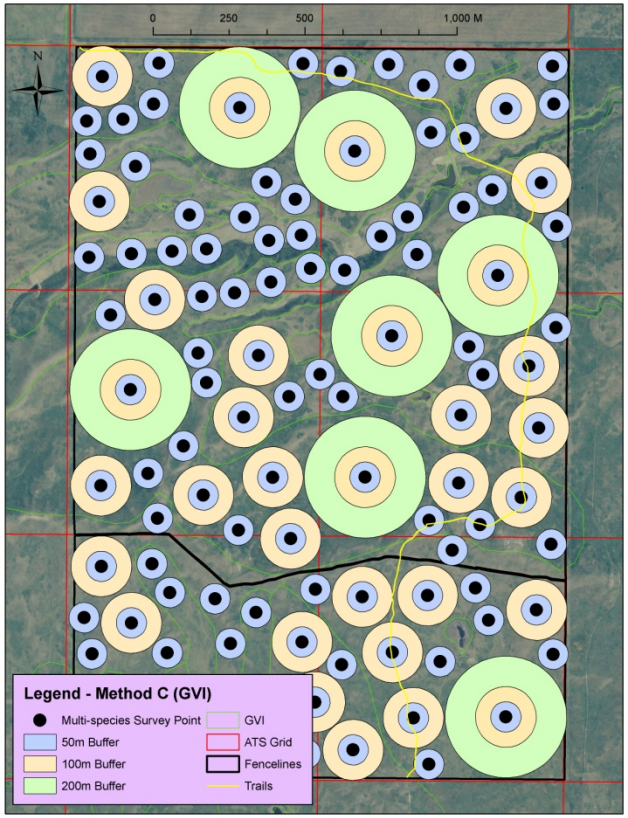
- Habitat types potentially missed
- Several points fell on fence lines
- Direct comparison of habitat types and species presence was limited

GVI STRATIFIED SURVEYS



- Prior to completing any field work, survey locations are established using ArcGIS
- Survey area is stratified using the polygons from GVI
- Survey units are additionally delineated by fence lines, pastures and naturally occurring boundaries/barriers

GVI STRATIFIED SURVEYS



- Survey points of 50 m, 100 m and 200 m buffers are placed within all GVI polygons ensuring approximately 50% coverage across the landscape

Improvements:

- Better coverage
- GVI polygons allow for stratification of survey units and better represent “potential” habitat for individual species.

CONCLUSIONS

Sharp-tailed Grouse photo by Alberta Conservation Association

Sprague's Pipit photo by Gordon Court

- GVI has enhanced the value of the data collected by linking it to specific habitat types
- Correlations can be made between habitat types and species presence
- Enables beneficial management practices and recommendations to landowners to be refined
- Allows for greater probability to enhance habitat for species at risk

REFERENCES

- Saunders, E. J. 2001. Population estimate and habitat associations of the long-billed curlew (*Numenius americanus*) in Alberta. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 25, Edmonton, AB.