

Alberta Conservation Association 2007/08 Project Summary Report

Project name: Southwest Montane Elk Project

Project leaders: Darren Dorge 2007/08, Mike Jokinen 2008/09

Primary ACA staff on this project: Darren Dorge and Mike Jokinen

Partnerships:

The Southwest Alberta Montane Elk Steering Committee is a collaborative partnership formed in 2005 that seeks to evaluate how elk populations react to natural and man made disturbances.

Partners in the program include:

Alberta Sustainable Resource Development

Alberta Tourism, Parks and Recreation

Oregon State University, student

Parks Canada, Waterton Lakes National Park

Shell Canada Limited

Spray Lakes Sawmills

The University of Alberta, Dr. Mark Boyce / grad students

The University of Calgary, Dr. Marco Musiani / grad students

Key findings

- The ACA will be pursuing the development of elk survey sightability correction models as their primary component of the Southwest Alberta Montane Elk Study.
- In January 2007, a total of 48 elk were captured and fitted with GPS collars. An additional 30 elk were captured and fitted with collars during February of 2008.
- Elk GPS location data is being stored in the Blairmore ACA office, resulting in a considerable amount of interaction with partners and grad students working on various aspects of the project.

Introduction:

The Southwest Alberta Montane Elk Study is a multi-organization initiative aimed at gauging how elk (*Cervus elaphus*) populations react to both natural and man made disturbances and using this information to better manage the species and the landscape in which they live.

During fiscal year 2007, the Alberta Conservation Association (ACA) committed to conducting a scoping exercise to determine an appropriate role in the overall project, developing a proposal, and defining key study areas within the overall project area. Although a project focus was determined, much of the planned activities had to be deferred as the project leader took on a new role within the ACA.

We revised ACA's contribution to this program in 2007 to align with the need to enhance the efficiency of aerial survey techniques for elk in southwestern Alberta. In 2006, the ACA was directed to become more meaningfully involved in their delivery of delegated aerial ungulate surveys in Alberta. As part of the added responsibilities, ACA works with Alberta Sustainable Resource Development (ASRD) to review and update survey protocols to make use of the best available survey science. The Southwest Alberta Montane Elk Study provides an ideal opportunity for the ACA to contribute to this process by developing sightability correction models for elk surveys in the southwest portion of the province. This project would build on the results of Allen (2005), whose work was focused in the Central East Slopes area near Rocky Mountain House. The proposed work will take advantage of existing collared animals to revise calibration metrics produced for the Central East Slopes (Allen 2005), and go a step further by producing information specifically for bull elk.

Methods

The Southwest Alberta Montane Elk Study focuses on seven large resident and migratory elk herds: Castle/Carbondale, Crowsnest Pass, Bob Creek, Livingstone Range, Waterton Park, Porcupine Hills and the Beauvais Lake herds. The study area encompasses a large portion of southwestern Alberta including Waterton Lakes National Park, and wildlife management units (WMU's) 300 to 308 and 400 to 402. In January 2007, a total of 48 elk were captured and fitted with GPS collars. Within each herd targeted, collars were split approximately 60% female – 40% male. An additional 30 elk were captured and fitted with collars during February of 2008. Elk location information is downloaded by graduate students working on the study. Elk GPS location data are stored in the Blairmore ACA office.

Results

This year, we continued to be involved as part of the Southwest Alberta Montane Elk Study steering committee. We also established a new direction for ACA's involvement in the project. Our focus during the coming year will be the completion of a study design, approval of this design by the steering committee, and an initial series of sighting tests in early 2009.

Conclusion

The ACA's involvement in the Southwest Alberta Montane Elk Study will focus on producing sightability correction models for use in conducting aerial elk surveys in southwest Alberta.

Communications

- Southwest Alberta Montane Elk Study Website: (<http://www.montaneelk.com>)

Literature cited

Allen, J.R. 2005. Use of sightability models and resource selection functions to enhance aerial population surveys of elk (*Cervus elaphus*) in Alberta. M. Sc. Thesis, University of Alberta, Edmonton, Alberta. 69 pp.