Alberta Conservation Association
2011/12 Project Summary Report

Project Name: *Ruffed Grouse Recreational Access*

Wildlife Program Manager: Doug Manzer

Project Leader: Robb Stavne

Primary ACA staff on project:

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Partnerships

Alberta Fish and Game Association
Weberville Community Model Forest

Key Findings

- Enhanced edge habitat on more than 10 km of trail to improve habitat for ruffed grouse and to encourage a more traditional and family-friendly style of upland bird hunting.
- Since 2010, improved trail access for hunters and habitat for ruffed grouse at seven ACA Conservation Sites within a one-hour drive of Peace River, Alberta.

Introduction

Alberta Conservation Association (ACA) has a strong history of securing and protecting habitat to benefit wildlife and the recreating public. Although ACA Conservation Sites in the northern regions of the province have typically been managed for big game, there is growing interest in providing recreational opportunities for small game.

Ruffed grouse (*Bonasa umbellus*) are highly sought by upland bird hunters and offer an exceptional experience to share with family members and a dog. In a 2007 hunter harvest survey, approximately 8,030 hunters bagged more than 54,000 ruffed grouse in the Boreal Forest Region of Alberta (Alberta Sustainable Resource Development 2007). Energy exploration and fragmentation of the boreal forest have increased the network of roads, which are then available to hunters to explore these back roads and scan ditches for grouse. Although road-style hunting is popular, it is not necessarily the type and ethic of hunting that many seek. In an effort to increase traditional and family-friendly upland bird hunting opportunities, we enhanced trails and created habitat features thought to be attractive to ruffed grouse.

Methods

We selected five ACA Conservation Sites within 35 km of each other (Figure 1) and within a one-hour driving distance of Peace River where drumming grouse had been detected in spring. We improved edge habitat along grown-in trails on these sites. Site selection criteria also included consideration of 1) pre-existing trails or cutlines, 2) potential length of enhancement, 3) habitat suitability, 4) seral stage of adjacent vegetation communities, and 5) proximity to other enhancement sites. We enhanced edge habitat in spring by removing fallen or standing dead logs along grown-in trails and mowing heavy under-growth sections. We made grit (natural fine screenings) readily available for grouse by placing small piles intermittently along the trail edge.

Figure 1. Enhancement Site Focus Area showing 2010 and 2011 enhanced sites within the 35 km (radius) focus area.

Figure 2. Three Creeks West Conservation Site showing trail enhancement and grit piles.

We (two observers and a trained dog) counted ruffed grouse on or near enhanced trail sections and compared these to counts along non-enhanced trails. We surveyed each site once during the hunting season (September and October) within the last four hours of legal-hunting time.

Results

We completed enhancement activities on five additional sites in 2011 bringing the total number of enhanced sites to seven. Trails are approximately 1.5 m wide and range between 1 km to 3 km in length.

We spent similar effort sampling ruffed grouse on enhanced (12.72 km, 358 minutes) and non-enhanced (10.46 km, 349 minutes) trails. In 2010, we observed trends towards increased use of enhanced trails by grouse (0.89 grouse per linear kilometer), relative to non-enhanced trails (0.47 grouse per linear kilometre) (Figure 3). However, in 2011, we counted an average of 0.47 grouse per linear kilometre near enhanced trails, compared to 0.48 grouse per linear kilometre along non-enhanced trails (Figure 3). Although we failed to detect a difference between numbers of grouse on enhanced and non-enhanced trails in 2011, we suspect this is primarily due to suppressed grouse numbers throughout the region contributing to low sample size.

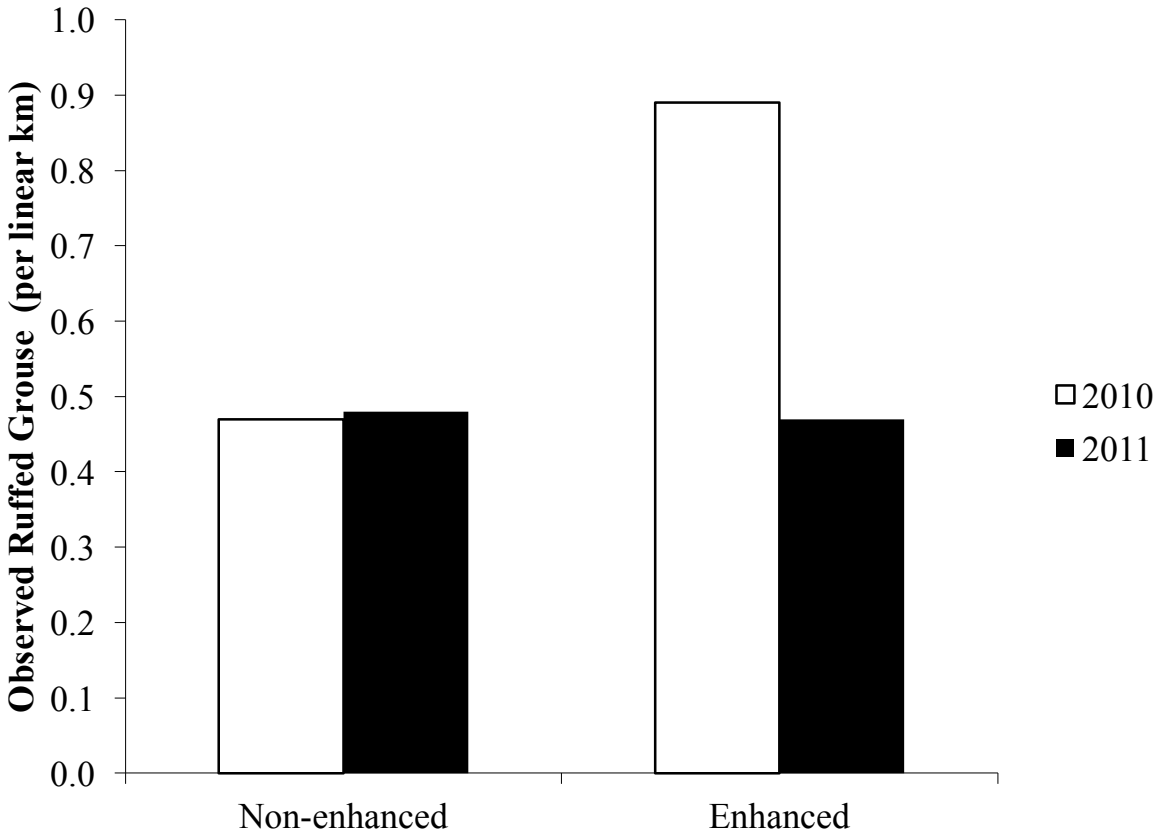

Figure 3. Mean grouse observed per linear kilometre of enhanced and non-enhanced trails at sites surveyed in 2010 and 2011.

Conclusions

Selecting sites within the 35 km focus area will aid hunters planning a full-day excursion to multiple sites. Future activities, such as small-scale disturbances (i.e., clearings or prescribed burns from 1 to 6 ha in size), adjacent to enhanced trails would create a dynamic forest ecosystem of varied succession and increase the carrying capacity for ruffed grouse. In years of relatively high grouse numbers, these trails should provide ample opportunity for hunting success.

The trails that we worked on are designed to be used by one or more hunters; ideally for first time hunters or families that want to pursue a traditional style of grouse hunting. We improved edge habitat along trails that ranged from 1 km to 3 km. Although longer trails might be attractive for walking hunters, we feel that trails longer than 3 km might also attract all-terrain vehicle use, which could degrade sites. By designing a cluster of trails within an easy driving distance to an urban centre, hunters will have several options to walk and hunt on a number of trails.

In 2010, we experimented with placing grit uniformly over the entire length of trail. Although we saw good use of this grit early in the season, we observed that accumulations of leaf litter would obscure the grit over time. In 2011, we placed grit in piles to increase its potential to last longer.

With the use of a sensor-triggered trail camera, we found that grit piles were visited by ruffed grouse and other wildlife.

Communications

- Article prepared for ACA website.
- Alberta Chapter of the Wildlife Society Conference poster presentation, March 2012.
- Article prepared for *Discover Alberta's Wild Side: Annual Guide to Outdoor Adventure* profiling this project and enhanced Conservation Sites.
- Presentation delivered to Weberville Community Model Forest.

Literature Cited

Alberta Sustainable Resource Development. 2007. Game bird harvest survey; ruffed grouse 2007. Available online: www.mywildalberta.com/Hunting/GameSpecies/documents/GamebirdHarvestSurvey_RuffedGrouse_2007.pdf

Photos:

Crew-based enhancement activities. (Photo: Cali Seater)

Mowing was used to remove heavy under-growth. (Photo: Cali Seater)

A grit pile placed on a trail to attract grouse. (Photo: Ryan Hermanutz)

Estimating grouse trail use. (Photo: Robb Stavne)