

Alberta Conservation Association

**Grant Eligible Conservation Fund
2003 - 2004**



Summary of Activities

&

Funding Recipient Project Results

April 1, 2003 to March 31, 2004



**Compiled by: David Fairless
Edmonton
June 2004**

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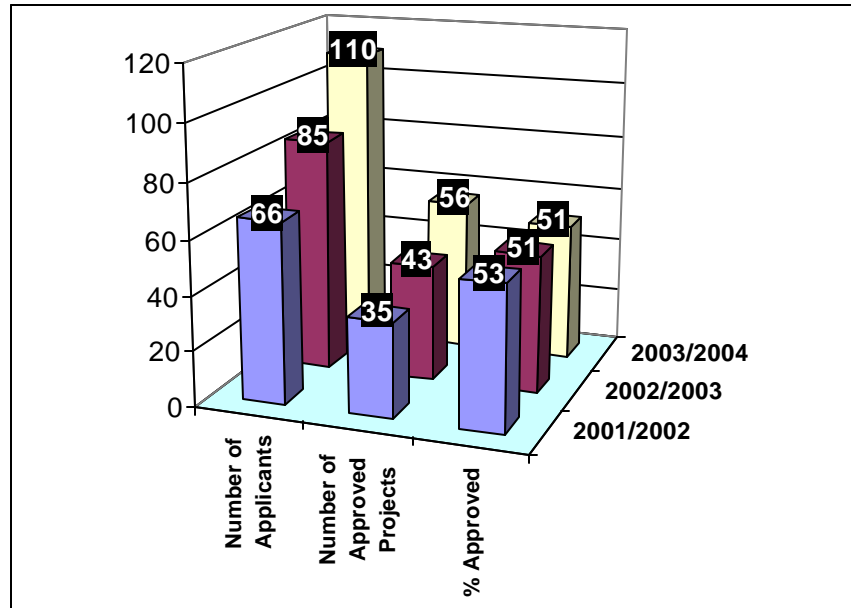
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1. Introduction:

This document summarizes the activities of the Alberta Conservation Association - Grant Eligible Conservation Fund from April 1, 2003 to March 31, 2004. In total fifty-six conservation projects were approved for funding; a synopsis of their respective objectives and project deliverables is presented in this document.

A total of 110 funding proposals were received between January 1 – 31, 2003.

- Funding Request \$3,431,936.90
- Maximum Funding available \$1, 000, 000.00



2. Funding Allocations:

A total of 56 conservation projects with a combined funding allocation of \$1,000,000.00 were approved for funding by the ACA Board of Directors on February 27, 2003.

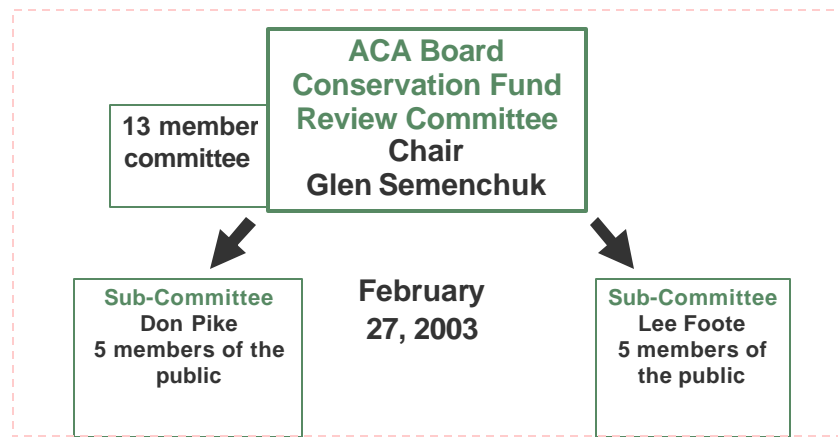
3. Purpose:

The Grant Eligible - Conservation Fund aims to aid the Alberta Conservation Association in the delivery of its mission and annual operating plan. Grants made to partners are intended to enhance and supplement ACA activities.

4. Funding Eligibility:

- Any organization or individual may apply to the Grant Eligible - Conservation Fund if they have a suitable project.
- Alberta Conservation Association and Alberta Environment, Sustainable Resource Development staff are not eligible to apply to the fund.

**Grant Eligible - Conservation Fund
Board Appointed Committee**



5. Major Funding Goals & Priorities 2003 – 2004:

Major Funding Goals & Priorities of the Conservation Fund 2003 – 2004

Grants made to partners are intended to aid in the delivery of the ACA mission and Strategic Business Plan. The following list of funding goals and priorities for the Grant Eligible Conservation Fund is derived from the Strategic Business Plan 2003-2006.

ACA Wildlife Program Priorities for 2003-2004

1. Population Inventory Data

The execution of field surveys to describe the distribution and abundance of a species to aid in the effective management of wildlife by providing accurate trend information.

2. Implementation of Management, Conservation, or Recovery Plans

Management actions taken to maintain or re-establish the abundance and distribution of a species within their natural range.

3. Collecting and Compiling Data

The collection and integration of information on the abundance and distribution of a species and/or their habitat requirements to assist in the effective management of the resource.

4. Habitat Inventory Data

The execution of field surveys to describe the diversity and abundance of physical habitats.

5. Data Management System

A systematic method involving computer hardware and software used to store, manipulate and export data.

6. Human/Wildlife Interactions

The process of identifying and often mitigating when and where humans and wildlife interact and the outcomes of those interactions.

ACA Fisheries Program Priorities for 2003-2004

1. Fish Populations, Trends and Status

Effective resource management depends on the availability of timely and accurate information regarding status and trends over time. Currently, a comprehensive process that enables biologists to determine the condition of populations does not exist for all situations and species, especially non-sport fish species. It is necessary to develop and implement such a process.

2. Sport Fish Harvest and Angling Effort

Fish harvest and fishing effort are key management parameters that can be manipulated to ensure sustainable use of fish stocks. Some sport fish in Alberta, such as walleye and pike, have new management strategies that require specific data collection and analysis. Management plans for other species need to be developed or revised. The execution and revision of management strategies depends on timely and accurate data.

3. Cumulative Effects

The total influence of all human activities on aquatic ecosystems may exceed the “sum of their parts.” In order to protect the basic elements of aquatic systems and ensure their sustainability, it is vitally important to understand the multiplicative effect of human activities on aquatic systems.

4. Fish Habitat Status and Change

The condition of fish populations must be related to the status of the habitats that support them, so that habitat and fish management occurs in a synergistic and effective manner. As with fish populations, a process needs to be developed and implemented in support of this need.

ACA Habitat Program Priorities for 2003-2004

1. Riparian Habitat

These habitats make up four percent of Alberta's land base. Yet, eighty percent of Alberta's wildlife and fish species depend on this habitat at some point in their life cycle. ACA is committed to conserving this rapidly disappearing habitat through a variety of methods.

2. Habitat Supporting Species At Risk

ACA is committed to conserving and enhancing habitats that support species whose populations are diminishing due to reduced availability of the habitat upon which they depend.

3. Critical Upland Habitat

These critical habitats could be defined as habitats that are limiting population viability, or are crucial to a particular species in a certain area or contributes a significant biological function to the ecosystem in question.

4. Habitat Supporting Recreation Opportunities

The conservation or enhancement of habitats that add value to wildlife and fish related recreational opportunities of Albertans are important for ACA.

Please note: Land Acquisition proposals are not reviewed by the Grant Eligible Conservation Fund. Direct all Land Acquisition proposals to the Habitat Acquisition Fund via the ACA Board of Directors.

Proposal Evaluation – Timeline

Action	Completion Date
Proposals/Funding Applications received at ACA head office (January 1-31)	16:30 Jan 31, 2003
Determine eligibility for funding review (based on funding eligibility requirements)	February 1, 2003
Evaluation form is generated for that specific project for the respective committee review	February 1, 2003
Copies of the proposal and evaluation form are sent to respective review committee members	February 1, 2003
Respective committee meet to formalize and endorse results of their evaluations	February 27, 2003
Applicants are notified to the status of Application by	March 1, 2003
Project agreements are signed and returned	March 11, 2003
2003/2004 Projects Begin	April 1, 2003

6. Proposal Review Process

ACA Board Appointed Proposal Review Meeting:
Wednesday February 27, 2003
Percy Page Centre Edmonton, Alberta.

- Provide rankings for the respective proposals.
- Provide funding recommendations for suitable proposals to the ACA Board.

Proposals are evaluated on their merit and content using a three tiered ranking system:

A: Top proposals, recommend funding in whole or in part.

B: Proposal contains some merit, recommend funding in whole or in part if funds available.

C: Do not recommend funding

7. Project Summary 2003 – 2004

A summary description of each of the 56 projects and the respective objectives and deliverables follows:



Please note that all files and final reports are housed at the ACA Corporate office in Edmonton, Alberta. Further information on funding opportunities and results is available on our website at:

www.ab-conservation.com

Population Survey of the Nevada Buck Moth

Project Location: Wainwright area
Identifying Code: 030 50 90 008
Funding Allocation: \$1,000.00
Proponent: Chris Schmidt

Contact Information: bjorn@ualberta.ca
Edmonton, AB

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The Nevada Buck-moth (*Hemileuca nevadensis*) is a large, colourful day-flying moth with a very localized distribution in Canada. A population was recently discovered in Alberta in the Wainwright area, where it is restricted to aspen shrubland / sand dune habitat. The goals of this project are to survey and map additional populations in the Wainwright – Dillberry region, and to obtain preliminary population size estimates by conducting transect counts at known localities. The Nevada Buck-moth is currently listed as an intermediate priority candidate for conservation status assessment by COSEWIC.

Deliverables:

Data collected as a result of this project will be incorporated into a larger project documenting the natural history and distribution of the Nevada Buck-moth in Alberta. These results will be published in the form of a scientific paper in early 2004. This data will also be made available for the generation of a conservation status report by the Committee on the Status of Endangered Wildlife in Canada, with an anticipated start date in the summer of 2003. Data will also be made available to ANHIC. Voucher specimens will be deposited in the University of Alberta - Strickland Museum.

How will you share the results of the project with others:

Results will be made public through publication in a scientific journal. Data will be shared with Alberta Fish and Wildlife, ANHIC, Biodiversity / Species Observation Database (BSOD) and the University of Alberta.

Hunters Who Care “Deer for the Foodbank Program

Project Location: East Central Alberta
Identifying Code: 030 90 90 004
Funding Allocation: \$7,500.00
Proponent: Jim Thomson

Contact Information: Alberta Hunters Who Care Association
22 Lindsay Cres.
Spruce Grove, AB T7X 3W8
JamesW_Thomson@TransAlta.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Use a renewable food source (wild deer) which is harvested and donated by hunters. This high quality meat is then distributed through the Edmonton Foodbank following a stringent handling and inspection process. Hunters donate meat. Meat processors process the meat. An inspection and handling process is followed and monitored. The Edmonton Foodbank distributes the meat to the feeding organizations in the city.

Deliverables:

About 4 thousand pounds of venison was donated by hunters to this program.

How will you share the results of the project with others:

Advertisement in the Hunting Regulations Word of mouth, TV, radio, website and newspaper articles have all been used in the past and will continue to be used.

Effects of disturbances on the behaviour and movement of pronghorn antelope in Alberta.

Project Location: Southeast Alberta
Identifying Code: 030 10 90 004
Funding Allocation: \$15,000.00
Proponent: Shannon Gavin, Master's Candidate

Contact Information: University of Calgary
Room 324, Biological Sciences Building,
2500 University Drive
Calgary, AB T2L 2J5
sdgavin@ucalgary.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

1. Do the human disturbances associated with residential (roads), agriculture (fences), or industrial (oil wellsites) development affect pronghorn habitat use?
2. Is the energy expended for daily activities altered in the presence of roads?
3. Do pronghorns show preferences for certain barrier features when crossing movement barriers?

I propose to observe animals from a vehicle a kilometre away using a high powered scope. Pronghorn locations will be mapped to analyze for non-random distribution to roads, fences, well sites, and their location on native prairie or cultivated lands. Analyses of habitat use as a function of distance from roads, fences and well sites will utilize pellet group counts and browse utilization analyses. The analysis of altered daily activities in the presence of roads will be recorded using focal animal sampling for behavioural observations. Barrier crossing preferences will be analyzed by winter track surveys along roads and recording various environmental variables associated with the crossing.

Deliverables:

Poster to be completed for January 2003
Presentation to graduate seminar March 2003
Masters of Science U of C.

How will you share the results of the project with others:

Thesis and published journal articles
Presentations at conferences.

Responses of resident bird communities to forest loss and fragmentation

Project Location: Beaverhills region (east of Edmonton, Alberta)
Identifying Code: 030 50 90 009
Funding Allocation: \$13,200.00
Proponent: Trisha Swift

Contact Information: University of Alberta
U Of A CW312 Bio Sci Bldg
Edmonton, AB T6G 2E9
tswift@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Habitat loss and fragmentation may be the largest global threats to biodiversity. However, it remains unclear what the relative impacts of habitat loss versus fragmentation are on population viability. By definition, fragmentation per se results not in less habitat, but in changes in habitat configuration (e.g. mean size, distance between, and shape of remaining habitat patches). It is also uncertain where, along a continuum of habitat loss from mild to severe, ecological integrity is compromised. Do forest species decline in proportion to the amount of forest loss, or is there a "critical threshold" in forest cover, below which populations plummet? These uncertainties make it difficult for land managers to develop ecologically sound practices. Further, monitoring programs often assess habitat degradation impacts by measuring bird abundance. However, bird abundance does not always correspond to breeding success, and thus may be a poor indicator of habitat quality. We will address these issues in the context of resident (year-round) passerines, woodpeckers, and grouse in an aspen parkland region of east-central Alberta. Resident species, by virtue of their year-round presence in landscapes, may be more susceptible to habitat loss and fragmentation than migratory species (Schmiegelow and Hannon 1999). Our objectives are as follows:

- 1) To measure the relative impact of forest amount versus forest configuration on species abundance and reproductive success (e.g. pairing success, number of fledglings).
- 2) To determine how the abundance of resident birds changes across a gradient of forest cover, and to identify critical thresholds where they exist.
- 3) To determine how reproductive success of resident birds changes across a gradient of forest cover, and to identify critical thresholds where they exist.
- 4) To determine how factors that may influence breeding success (nest predation pressure by red squirrels and breeding food (arthropod) availability) are affected by forest loss and fragmentation, and to identify critical thresholds where they exist.
- 5) To validate above models by conducting a similar study in a new region (2004).

Deliverables:

1) Classified IRS image of study area (March 2004):

This image, in a GIS platform, will show detailed forest cover in the Beaverhills region. This image will be available to project partners, if the data sharing agreement permits.

2) Report – resident bird responses to forest loss and fragmentation (March 2004):

These models will predict the relative impacts of forest loss versus fragmentation on population size, productivity, food availability, and nest predation pressure, and will include estimates of critical threshold locations. This will have applicability in land-use planning and management.

3) Ph.D. thesis (August 2005):

This will include model validation results.

4) Journal publications (August 2005):

How will you share the results of the project with others:

One or more articles will be submitted for publication. We plan to publish one or more journal articles based on this research. We have already attended one scientific conference at which our preliminary results were presented, and will continue to do so in the future. Once analyses are more complete, we will investigate the possibility of making presentations to the public, such as to the members of the Sherwood Park Fish and Game Association or the Beaverhills Stewardship program.

Genetic Diversity and Paternity Analysis of Endangered Canadian Sage-Grouse

Project Location: University of Alberta - Edmonton, Alberta
Identifying Code: 030 50 90 010
Funding Allocation: \$10,500.00
Proponent: Dr. Cynthia Paszkowski

Contact Information: University of Alberta
Edmonton, AB T6G 2E9
cindy.paszkowski@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The primary objectives of this research are to provide an assessment of the genetic diversity of the Canadian Sage-Grouse population and to determine possible genetic causes for its decline. We will use polymorphic microsatellites and nuclear genes to address the following topics over the next five years.

- 1) Determine the extent of inbreeding and relatedness between and within the different leks in Alberta and Saskatchewan. This will allow us to assess the overall genetic diversity of the population and to look at the effects of habitat fragmentation.
- 2) Compare genetic relatedness of Canadian and American populations to determine whether reintroductions with U.S. birds is a viable option.
- 3) Conduct paternity analysis to examine the genetic structure and mating hierarchy present in the Canadian leks and estimate the male effective population size.
- 4) Determine whether yearlings are hatched nearest to the lek in which they are found or if they are from neighboring territories. This will allow us to look at potential inbreeding avoidance mechanisms and how detrimental inbreeding might be to the population.
- 5) Analyze female mate choice and investigate the possibility of sperm storage.
- 6) Compare past and present genetic diversity using museum specimens to see if genetic diversity is declining.
- 7) Determine if there is sex skew in the population (a sign of inbreeding)
- 8) Determine possible genetic causes for the low chick survival and recruitment.

Deliverables

Fieldwork: Collection of Samples by C.L. Aldridge – April 2003 – August 2003
Laboratory work: DNA Extraction, P.C.R., Sequencing (Raw Data) – April 2003 – June 2004
Education: Public & Scientific talks given by K.L. Bush & C.L. Aldridge – April 2003 – March 2005
Synthesis/reporting: Paternity and Genetic Diversity Analysis - June 2004 – March 2005
Journal Publications: Preliminary Paternity findings (2003), Anophthalmia/Microphthalmia embryos (2003/2004), Final Paternity Findings (2004/2005), Genetic Diversity Findings (2004/2005)
Other: BSc. Animal Biology Honors Thesis: Paternity Analysis of South Eastern Alberta Sage Grouse (May 2003)
All reports required by the ACA (2003/2004)

How will you share the results of the project with others:

The results of this project will be shared with others through publications and talks/presentations given by Krista Bush and Cameron Aldridge

Physiological, Behavioral and Ecological Responses of Mule Deer and White-tailed Deer to Drought Conditions in East-Central Alberta

Project Location: East-Central Alberta (Kinsella-Wainwright-Vermilion)
Identifying Code: 030 10 90 006
Funding Allocation: \$25,549.00
Proponent: Dr. Robert Hudson
Contact Information: University of Alberta
Renewable Resources GSB 751, Edmonton, AB T6G 2H1
robert.hudson@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

- 1) Determine whether white-tail and mule deer (6 does of each species) differ in their physiological response to water restriction. The simplest measure is the decline of dry matter intake in response to declining water availability and water quality – measured in terms of alkalinity. We anticipate that mule deer will maintain higher dry matter intakes in response to water restriction and be willing to use water of higher alkalinity.
- 2) Determine behavioral interactions between penned mule and white-tailed deer at water supplies reduced in availability and quality. Despite their generally smaller size, we anticipate that white-tails will aggressively compete for access to water and displace mule deer where the 2 species are penned together.
- 3) Determine sympatry of home range, diet preferences and fawning habitats of free-ranging mule and white-tailed deer. Fifteen female deer of each species will be radio-collared and monitored for 2 years to determine home range and diet overlap. Intensive monitoring will examine differences in fawning habitats between deer species. We anticipate that white-tails will use habitats, particularly during and after fawning, that provide easy access to potable water.
- 4) Determine relative abundance, body condition, survival and reproductive success of white-tails and mule deer in normal and drought years. Hunter-harvested deer from the Camp Wainwright check station will be analysed for reproductive success and growth patterns during annual hunting seasons. We anticipate that white-tails will be ecologically-restrained because of their greater dependence on water and this will be reflected in population productivity.

Results from meeting these objectives will be of direct benefit to the conservation of mule and white-tailed deer in Alberta. Wildlife managers will be better able to assess current harvest limits and habitat relationships for sympatric deer and gain new insights into avenues of possible disease transmission in deer. We hope to add new insights into the changing fortunes of these 2 important species and anticipate the impacts of climate warming.

Deliverables (as written in the Cooperative Project Agreement)

1. Reports and Publications

- a) Evaluation of physiological and behavioral responses of sympatric deer at restricted water supply and lowered water quality (progress and completion reports).
- b) Evaluation of home range, diet preferences and fawning habitats of radio-collared mule and white-tailed deer (progress and completion reports).
- c) Evaluation of reproductive success and growth patterns between hunter-harvested and captive mule and white-tailed deer (progress and completion reports).
- d) PhD. Thesis, Gerald Kuzyk, University of Alberta – completion 2007.

Publications in peer reviewed journals. A minimum of 4 publications will be submitted in 2007-2008

2. Presentations

- a) Presentations at scientific conferences (e.g. Alberta Conservation Association Partners in Conservation, The Wildlife Society/Alberta Chapter, International Deer Symposium).
- b) Project summaries will be presented upon request to any organization such as Local Fish and Game Associations, Environmental and Naturalist Clubs, educational institutes.

3. Recommendations

Recommendations concerning the ecology and management of deer and their habitats will be made to the Alberta Conservation Association, Alberta Sustainable Resource Development, Alberta Outfitters Association, and other conservation organizations.

How will you share the results of the project with others:

Results from this research will be shared with others by public presentations, timely submission of scientific journal articles and ongoing conference participation at such events as Partners in Conservation (hosted by the ACA) and the Alberta Chapter of the Wildlife Society.

Boreal Caribou Research Program

Project Location: Boreal caribou ranges in northwestern and northeastern Alberta
Identifying Code: 030 90 90 002
Funding Allocation: \$30,000.00
Proponent: Jack Nolan
Contact Information: Boreal Caribou Committee
PO Box 670 6620 Hwy 16
Vegreville, AB T9C
Jack_Nolan@transcanada.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The BCC is embarking on a new phase of its Strategic Plan. New general operating guidelines have been adopted for all boreal caribou ranges in northern Alberta, and the BCC is now beginning to develop specific Range Plans for each caribou range. Range Plans will fine tune the operating guidelines based on individual range conditions and detailed cumulative effects assessment.

To support Range planning and cumulative effects modeling, the BCRP will conduct four major projects in 2003-2004 requiring additional funding – Population Monitoring; Effect of Line Structure and Line Density on Predators of Caribou; Evaluation of Predator Response to Line Reclamation/Access Blocking; and Response of Caribou to Wildfire.

Population Monitoring

The research program is continuing to monitor the population trends in 7 northern ranges, including the West Side of the Athabasca River, East Side of the Athabasca River, Cold Lake Air Weapons Range, Red Earth, Caribou Mountains, and the recently added Chinchaga and Slave Lake ranges.

Effect of Line Structure and Line Density on Predators of Caribou

Wolves are found on seismic lines more often than expected by chance and also travel faster on lines than in the surrounding forest. Lines are thus postulated to increase the efficiency of wolves as predators, which may mean higher mortality rates for wolf prey in northeastern Alberta. For woodland caribou, which are threatened provincially and nationally, higher rates of mortality may result in the extirpation of local herds. Consequently, the Boreal Caribou Committee has implemented the use of "low impact seismic" lines (LIS) in and surrounding caribou range. LIS should reintegrate into the surrounding forest more quickly than conventional lines because they are narrower (i.e., 3 m or less vs 5 m or larger in peatlands, 4-5 m or less vs 5 m or larger in uplands) and are hand-cut or mulched so that the duff layer remains intact. Regrowth projections suggest that the lines should disappear from the landscape within 4-5 years. Rapid regrowth should impede wolf travel by reducing speed of movement and by physically blocking access. LIS may also be cut in a meandering fashion (avoidance cutting), which is expected to reduce wolf line-of-sight. Consequently, LIS should not provide the same foraging advantages as conventional lines. This suggests that wolf use of LIS will be low relative to conventional lines and continue to decrease as the lines regenerate. However, the usefulness of LIS as a mitigative measure has yet to be evaluated.

Relative line density may also affect wolf use of lines. Areas with a moderate number of lines are likely to be more valuable than areas with few or no lines because they offer a number of quick and easy travel routes. However, further increases in line density may mean little as there are

physiological limits to the distance wolves can travel and the number of prey that they can consume. Consequently, wolves may only ever use a certain proportion of lines in an area.

3D seismic grids can be used to test questions of predator responses to both line structure and line density, as they are relatively small areas in which seismic lines (conventional and LIS) are densely concentrated. Several 3D seismic grids and control (non-3D seismic grid) areas will form the basis for observing relative predator use of seismic lines as part of this project (see Methods below).

Evaluation of Predator Response to Line Reclamation/Access Blocking

There is growing concern in Alberta that wolves use seismic lines to gain quick and easy access into peatlands. Higher use of peatlands will likely increase wolf use of woodland caribou, which are threatened provincially and nationally. One way in which this access may be reduced is by blocking or reclaiming lines at the upland-peatland boundary. Physical barriers to movement should deter wolves from entering peatlands because they add an additional search cost to a prey species that is already hard to find. A line reclamation/blocking experiment will form the basis for testing the efficacy of deterring predator invasions into caribou habitat along anthropogenic corridors (see Methods below).

The Influence of Fire on Woodland Caribou Habitat Selection

Fire is the dominant disturbance agent in the boreal forest, shaping landscape patterns and influencing the evolution of both plant and animal species. Current theory suggests that the woodland caribou is poorly adapted to disturbance in the short-term, because of its dependence on forage associated with old-growth habitats. This research addresses the assumption that recently burned areas represent a loss of functional habitat for woodland caribou. Analysis of telemetry location data, digital forest fire maps, and caribou habitat data will be used to determine the response of caribou to fire. Fieldwork will be used to determine the causal mechanism behind caribou response to fires and test the hypothesis that forage availability results in caribou avoiding recently burned habitats. We aim to integrate the knowledge gained from this study into Cumulative Effects Assessment (CEA) to foster better management of caribou in Alberta. While CEA is often associated with measurements of human uses of the landscape, animal responses to natural perturbations are an important factor that needs to be included in CEA. This is a continuing project from last year.

Deliverables:

Range Plans (including cumulative effects assessment and modified industrial operating guidelines) will be completed for the Chinchaga and ESAR caribou ranges in 2003.

Annual BCRP Newsletter

Master's thesis and publications on the Influence of Fire on Woodland Caribou Habitat Selection will be completed in 2003.

Ph. D. dissertation and publications on the use of seismic lines by wolves and potential to block wolf movements along seismic lines into caribou habitat in northern Alberta will be completed in 2005 (including additional computer modeling of caribou/wolf encounter rates in disturbed habitat that is not part of the current proposal).

How will you share the results of the project with others:

Presentations and booth at conferences, trade shows, etc.

Presentations to senior industry and government managers

BCC Annual Meeting

Annual Newsletter

Annual Research Summary

Journal publications

Student theses and dissertation

The effect of alternative prey on coyote predation on deer

Project Location: McIntyre Ranch, Magrath, Alberta (WMU 108; Township 3, Range 22)
Identifying Code: 030 50 90 011
Funding Allocation: \$7,406.00
Proponent: Dr. Susan Lingle

Contact Information: University of Lethbridge
4401 University Drive
Lethbridge, AB T1K 3M4
susan.lingle@uleth.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

This project will determine how the abundance of alternative prey for coyotes (e.g., ground squirrels, hares) affects seasonal and annual variation in coyote predation on mule and white-tailed deer in southern Alberta.

Both mule deer and white-tails experience large regional and annual differences in survival, although trends often differ for the two species. A key to understanding this variation is to determine how the vulnerability of deer at certain times of year interacts with factors affecting predation pressure on deer. A critical factor affecting predation pressure on deer is the abundance of alternative prey—in the case of coyotes, this is typically small rodents such as hares, ground squirrels and voles.

When given a choice, coyotes capture more white-tails than mule deer in summer (Whittaker & Lindzey 1999, *Wildl. Soc. Bull.* 27, 256-262; Lingle 2000, *Can. J. Zool* 78:85-99), but they capture more mule deer than white-tails in winter (Lingle 2000). This seasonal shift in vulnerability is not dependent on the density of fawns, but is instead due to differences in behavioral responses of white-tails and mule deer. Mule deer females are more aggressive than white-tails, a strategy that is particularly effective in protecting young fawns during summer (Lingle, in prep.). By winter, white-tail fawns are large enough to outrun coyotes and their typical response of flight is effective in avoiding predation. In fact, white-tails are superior in avoiding predation by coyotes by the time they are 5 months old, shifting the balance of predation to mule deer during winter (Lingle & Pellis 2002, *Oecologia* 131:154-164).

To determine how many fawns are recruited into the adult population each year, we need to know when coyotes hunt deer. If alternative prey is rare in summer, coyotes will mostly hunt deer in summer when white-tails are most vulnerable, resulting in high annual mortality for white-tails. If alternative prey is common in summer but not in winter, coyotes will mostly hunt deer in winter when mule deer are most vulnerable, resulting in high annual mortality for mule deer.

Such a scenario seems to be occurring at the proposed study site. Coyotes mostly hunted ground squirrels, not deer, in summer during three years of research in the mid-1990's. They turned to deer once the ground squirrels were in hibernation. Despite high survival rates in summer, the predation occurring during winter resulted in extremely low annual survival of mule deer fawns (Lingle 2000). More recently (1999-2002), ground squirrel numbers appear to have declined and coyote predation on fawns has increased during the summer. White-tail fawns are currently suffering high levels of predation during summer, resulting in higher levels of annual mortality on white-tails than on mule deer.

As yet, the abundance of ground squirrels and other sources of alternative prey have not been identified to test their influence on the rate at which coyotes hunt deer. The goal of this study is to establish the relationship between alternative prey and seasonal and annual levels of predation on deer.

Deliverables:

Population Reports, January 2004 and April 2004. These reports will present data on the deer, ground squirrel and coyote populations by presenting them as GIS layers on a map and will also report tests of the relationship between the abundance of ground squirrels, coyote scat data, and fawn survival. These reports can be used to evaluate the merits of continuing this project by seeing whether the expected results are supported at this stage of the project.. I will send this report to ACA, to biologists and managers from the Department of Sustainable Resources, and to the McIntyre Ranch.

Model: how alternative prey interacts with deer vulnerability to affect predation rates on deer, April 2004: A model will be developed to examine how the abundance of alternative prey can interact with deer vulnerability to influence predation rates on deer. This tool may be of value to scientists and wildlife managers in many regions.

Journal articles (ongoing). Manuscripts will be submitted to peer-reviewed journals, including Journal of Wildlife Management, Canadian Journal of Zoology, and Ecology. See Appendix for summary of past research, including journal articles.

Presentations. Results will be presented at scientific and wildlife management conferences and also to community groups. Recent examples of these three types of presentations include oral presentations given to scientists at the International Congress of Deer Biology (Quebec City, August 2002), hunters attending the Lethbridge Fish and Game meeting (October 2002), and to wildlife managers at Alberta Chapter of The Wildlife Society (Banff, February 2003).

How will you share the results of the project with others:

Through peer-reviewed articles, through reports and through presentations to groups including scientists, wildlife managers and community groups.

Trumpeter Swan Habitat Stewardship Project

Project Location: Grande Prairie Trumpeter Swan Important Bird Area # AB 107
County of Grande Prairie, Alberta

Identifying Code: 010 20 90 005

Funding Allocation: \$15,000.00

Proponent: Reg Arbuckle

Contact Information: Ducks Unlimited Canada
9615-105 Street Grande Prairie, AB T8V 6V5
r_arbuckle@ducks.ca

Project Status: Complete

Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

As outlined in the Grande Prairie Trumpeter Swan Important Bird Area Conservation Plan (M. Hervieux, Spring 2000), the aims of the stewardship program are to maintain and conserve existing riparian and native upland habitats and educate riparian landowners, school children and the general public on the values of wetlands and riparian habitats to wildlife, native plant species, the environment and people. Only through the active participation of local landowners can these habitats be protected and conserved for present and future generations. Riparian, wetland and native habitat conservation benefits all of society in reducing long term impacts on wetlands, watersheds, water quality, wildlife and habitat. Further degradation of these critical habitats will have long-term consequences.

Deliverables:

A TSSP program staff person will be hired to continue contacting and re-contacting private landowners on Trumpeter Swan Lakes at high risk to development within the County of Grande Prairie target area.

Promote the TSSP at the Friends of Saskatoon Island Provincial Park's 5th Annual Swan Festival 26 – 27 April 2003.

Provide local print and other media with information on the TSSP.

Quarterly TSSP Project Updates - submit to ACA for website, including photos. End June and Sept.

Secure landowner agreements on riparian habitats on Trumpeter swan lakes.

2003 TSSP Final Report - January 2004.

How will you share the results of the project with others:

Through print and other media. Project reports and Partner publications/websites.

Conservation of yuccas and yucca moths at the northern edge of range

Project Location: Onefour Research Substation & Pinhorn Grazing Reserve, southeastern Alberta
Identifying Code: 010 20 90 006
Funding Allocation: \$7,163.00
Proponent: Donna Hurlburt

Contact Information: University of Alberta
CW 405 Bio Sci, Dept Biological Services
Edmonton, AB T6G 2E9
hulbudd@telusplanet.net

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Our project consists of a combination of conservation activities and field/lab experiments to understand the evolution of the yucca – yucca moth interaction in Alberta. More specifically, we will

1. Complete an inventory of yuccas and yucca moths in Alberta;
2. Assess a unique oviposition strategy as a mechanism for survival at northern edge;
3. Improve public awareness of mutualism and species at risk in grasslands to reduce human impact on habitat and collection of wild specimens for home gardens.

Deliverables:

Cash flow statements, reports and webpage to Alberta Conservation Association as outlined in the ACA Cooperative Project Agreement (31 March 2004)

Rare species occurrence reports to Environment Canada, COSEWIC, Alberta Natural Heritage Information Centre (1 September 2003)

Preparation of a journal publication manuscript on oviposition strategy with Dr John Addicott (1 February 2004)

Development of displays, signs and informative brochures (15 June 2003)

Briefings to the public, especially naturalist groups, about yuccas and yucca moths. (15 June – 31 August 2003)

How will you share the results of the project with others:

Since the proposed research is being conducted in an academic setting, results will be conveyed to the scientific community through scientific publications, lectures, job interviews and conference presentations. In addition, this project has always had strong conservation and management links and results will continue to be shared with Alberta Sustainable Resource Development, Agrifood and Agriculture Canada, COSEWIC, World Wildlife Fund, naturalist groups and local ranches through reports, public presentations, informative pamphlets and tours.

Conservation of Large Carnivores in Fragmented Landscapes: Using Habitat and Movement Models to Define Wildlife Corridors in the Rocky Mountains

Project Location: Canmore Region of the Bow Valley and Crowsnest Pass
Identifying Code: 030 10 90 001
Funding Allocation: \$21,900.00
Proponent: Dr. Mark Boyce & Cheryl Chetkiewicz, Ph.D. Candidate

Contact Information: University of Alberta
CW 405 Biological Science Bldg. U of A
Edmonton, AB T6G 2E9
boyce@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The **goal** of my research is to locate and quantify the features of wildlife corridors for grizzly bears (*Ursus arctos*) and cougars (*Puma concolor*) in the Crowsnest Pass and Canmore region of the Bow Valley.

Our primary objective is to develop resource selection function (RSF) and movement models at different spatial and temporal scales for grizzly bears and cougars to locate and characterize corridors in two fragmented landscapes: the Crowsnest Pass and the Canmore region of the Bow Valley. In collaboration with ASRD, data on individual movements will be obtained from cougars and grizzly bears equipped with Global Positioning System (GPS) collars. Landscape heterogeneity will be quantified in a Geographic Information System (GIS) using available data from remote sensing and existing digital data layers for habitat data e.g., greenness, habitat type, landscape data e.g., elevation, slope, aspect, distance to stream, and human use data e.g., road and trail densities, distance to human point features.

Our secondary objective is to use empirical data and the predictions from resource selection function (RSF) and movement models to evaluate existing corridor designations within these two landscapes. The Canmore region of the Bow Valley provides a linkage between Banff National Park (BNP) and protected areas in Kananaskis Country. Based on recommendations from corridor research conducted in BNP, guidelines and a map delineating local corridors and habitat patches were developed. Two primary wildlife corridors have been identified that structurally connect five regional habitat patches. Crowsnest Pass is considered to be an important link for carnivore populations in the United States and the Canadian Rocky Mountains and the narrowest strip of forest along the Rocky Mountains. Three corridors have been identified by ASRD based on apparent landscape connectivity, wildlife occurrences, and direct observations of wildlife. We will assume that the areas predicted by the RSF and movement models generated during my research are the most suitable areas for these species given current landscape conditions. We will compare these predictions with the currently designated corridors and address various development scenarios anticipated for each landscape. We anticipate that these results will be used to focus and prioritize local and regional habitat retention and protection efforts and identify and validate wildlife habitat and movement corridors. It may also provide empirical data for placement of structures to mitigate anticipated highway twinning in the Crowsnest Pass.

Deliverables:

- Quarterly progress reports as required by ACA (2003/2004)
- RSF and movement models for grizzly bears in both study areas (April 2004).
- Scientific publications, submitted to relevant journals such as Conservation Biology, Biological Conservation, Landscape Ecology, Ecological Modelling; combined in a Ph.D. thesis (2005).

How will you share the results of the project with others:

Results will be disseminated in reports to funding agencies and collaborators. Results will be distributed as maps and reports in paper format. Research results will be published in appropriate scientific journals. Presentations on the project will be prepared for community forums such as town council meetings, schools, and interested local groups.

Developing a habitat-based population viability model for Sage Grouse in southeastern Alberta

Project Location: Southeastern Alberta, South and East of the town of Manyberries
Identifying Code: 030 50 90 002
Funding Allocation: \$25,000.00
Proponent: Dr. Mark Boyce & Cameron L. Aldridge

Contact Information: University of Alberta
CW 405 Biological Science Bldg. U of A
Edmonton, AB T6G 2E9
boyce@ualberta.ca or aldridge@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The overall goal of this research is to relate habitat characteristics to measures of Sage-Grouse productivity, survival, and ultimately, the viability of the population. We will use resource selection functions (RSFs) to develop statistically rigorous habitat models. We then will use measured population parameters to link these habitat models to population models and conduct habitat-based population viability analyses.

Specific Objectives include:

- 1) Monitor population through lek surveys and trapping, as well as reproductive effort, reproductive success, recruitment, and survival, focusing on females and chicks.
- 2) Improve 1999 population model based on variability in these parameters.
- 3) Assess habitat use at various life history stages using RSFs (specifically nesting and brood-rearing periods).
- 4) Assess chick survival (hatch - fledge); combine overwinter survival to estimate recruitment.
- 5) Develop habitat use/probability maps to aid in habitat management for Sage-Grouse.
- 6) Develop a habitat-based population viability model for Sage-Grouse.
- 7) Develop active adaptive management strategies for Sage-Grouse i.e. We are working with landowners ACA, and ASRD to implement experimental grazing manipulations to increase residual grass and litter cover, increasing moisture retention and forb growth.
- 8) Ultimately, understand the effects of manipulations; how Sage-Grouse respond to/use them (selection of nests/brood sites within manipulations; nesting success/chick survival).

Deliverables:

We will provide the ACA with all required quarterly reports and web updates, including a detailed report at the end of each year when data has been compiled and some preliminary analyses performed. We would also be happy to give a presentation each year to share the progress of our current research with ACA personnel. Once Mr. Aldridge has successfully defended his doctorate, the ACA will be provided with a copy of his thesis, as well as any publications emanating from this research.

Expected Refereed Publications Emanating from this Research 2003 - 2006

2003 - Aldridge, C. L. and R. M. Brigham 2003. Status and distribution of Greater Sage-Grouse in Canada. Canadian Field Naturalist. In Press.

2003 - Aldridge, C. L., M. S. Boyce, and R. K. Baydack. Adaptive management of prairie grouse: how do we get there? Submitted to Wildlife Society Bulletin, December 2002

2003 - Fletcher, Q. E., C. W. Dockrill, D. J. Saher, and C. L. Aldridge. 2002. Observations of Northern Harrier attacks on Greater Sage-Grouse in southern Alberta. Submitted to Canadian Field Naturalist., January 2002.

2003 - Population viability analyses for sage-grouse: using lek breeding habitat to assess the persistence of sage-grouse in Alberta.

2004 - Continued spot lighting at Sage-Grouse leks: does it affect the attendance of birds?

2005 - Winter habitat use by Sage-Grouse.

2005 - Insects: a dietary choice by Sage-Grouse?

2005 - Population viability model for Sage-Grouse in Canada: a habitat perspective.

2006 - Demographic extinction models for Sage-Grouse.

2006 - Recruitment: is it the answer to Sage-Grouse population declines?

2006 - Management guidelines for Sage-Grouse in Canada.

How will you share the results of the project with others:

Mr. Aldridge has presented various aspects of our research on Sage-Grouse at sixteen scientific conferences, and has been actively sharing his research with naturalists and the public. He currently has six manuscripts on various aspects of this research accepted or published in scientific journals (with two others submitted for publication), five edited publications, and six non referred publications. The scientific community, naturalists and public have perceived this research well. We publicly acknowledge the Alberta Conservation Association at all of these talks and in all publications. Our work will form the bases for future management of Sage-Grouse in Alberta.

Operation Grassland Community

Project Location: Throughout the prairie region of Alberta
Identifying Code: 010 20 90 002
Funding Allocation: \$37,500.00
Proponent: Kerry Grisley & Don H. Meredith

Contact Information: Alberta Fish & Game Association
6924- 104 Street
Edmonton, AB T6H 2L7
don@donmeredith.ca or kerry@afga.org

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

1. **Long-term protection of wildlife habitat in the grassland region** through promotion of private land stewardship and landholder contact and recruitment and through on-the-ground habitat management initiatives.
2. **Ongoing growth in awareness of prairie wildlife habitat needs, habitat conservation, and sustainable agricultural practices** through public awareness and education initiatives.
3. **Improve and enhance quality of the land** through habitat enhancement activities with landholders.
4. **Maintain and increase prairie conservation partnerships** with private landholders, public, government, non-government groups, and industry concerned with prairie conservation.

1. Promotion of Private Land Stewardship through Landholder Contact and Recruitment

- o Renewal of 16 OGC memberships. (June – August 2003)
- o 60-90 new voluntary habitat stewardship agreements obtained (potential membership list currently includes known breeding locations of Loggerhead Shrike (43 sites), Ferruginous Hawk (28 sites), Long-billed Curlew (>200 sites), and Sprague's Pipit (>500 sites)). (April 2003 – March 2004)
- o A minimum of 9,000 new acres protected under voluntary agreements. (April 2003 – March 2004)
- o 1-2 conservation easements referred to SALTS and NCC (impacting additional 160 to 1500 acres). (April 2003 – March 2004)
- o 1-4 Environmental On-Farm Planning Workshops, impacting 10-35 farms and/or ranches (# will depend on demand). (April 2003 – March 2004)
- o Seek voluntary participation from 30 OGC members and deliver site and species specific management plans to participants (exercise will be accompanied by document "Your Land: A Natural Resource Inventory and Species Management Plan.). Landholders contacted have had Burrowing owls nesting on their lands within the last 5 years. (May 2003 – Sept 2003)
- o 2-4 ranchers referred to Native Prairie Stewardship Program for Range Management Planning. (April 2003 – March 2004)
- o Annual census of Burrowing Owl populations. (July-September 2003).

2. Public Awareness and Education

- o 2 new fact sheets for Conservation Toolbox, including: Species at Risk Act, and Maintaining Native Range for Native Wildlife. (completed by December 2003).
- o 300-500 landholders receiving one-on-one explanation of relevant Conservation Toolbox topics. (April 2003 – March 2004)

- Approximately 30 personalized documents entitled “Your Land: A Natural Resource Inventory and Species Management Plan” (number will depend on voluntary participation of landholders). May 2003 – December 2003).
- 30 - 50 successful media opportunities throughout the year, including print articles, and TV. and radio interviews. (April 2003 – March 2004)
- Production of a biannual newsletter to OGC members with info on species at risk, and sustainable practices. (June/July 2003, Jan/Feb 2004)
- Delivery of Education Kit/Module “Burrowing Owls and Cows”. Impact: 1,000's of children. (April 2003 – March 2004).
- 130-160 public presentations to schools, and to landholder and industry groups. (April 2003 – March 2004)
- 5-10 evening open-house/workshop sessions for landholders in local communities. (April 2003 – March 2004)

3. Habitat Enhancement

- 1-4 Environmental On-Farm Planning Workshops, impacting 30-35 farms and/or ranches. (Winter months 2003-04)
- 1-2 Conservation Easements referred. (April 2003 – March 2004)

How will you share the results of the project with others:

Education and Awareness initiatives make up a significant portion of OGC activities. Through these activities, we are able to continually update our progress to a broad audience. We will also participate in annual conferences to share our success stories with other groups, as well as to find common ground in future prairie conservation efforts.

Effects of introduced trout on the demography, life history, and behaviour of long-toed salamanders (*Ambystoma macrodactylum*)

Project Location: Southern Alberta
Identifying Code: 030 50 90 003
Funding Allocation: \$4,358.00
Proponent: Cam Goater

Contact Information: University of Lethbridge
Department of Biological Sciences, University of Lethbridge
Lethbridge, AB T1 K 3M4
goatcp@uleth.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

There are three main aims of this project in 2003:

1. To characterize habitat/occurrence associations for LTS in Southern Alberta. Multivariate analyses will be used to determine whether variation in LTS occurrence is associated with variation in selected habitat characteristics, including the presence of trout, within a total of 50 ponds in the Waterton and Castle River drainages. Twenty-eight lakes/ponds were visited in 2002; this proposal requests support to re-visit these sites and to sample the remaining ponds.
2. To determine the effects of fish predation and cannibalism on larval LTS life history characteristics. The follow-up to last year's pond experiment will evaluate the singular and interactive roles of predation (by trout) and intraspecific cannibalism in a 2 X 2 Predator (trout and no trout) X Density (20 larvae, and 40 larvae) factorial experiment. Growth rate, survival and time to metamorphosis will be evaluated for LTS reared from eggs within the same set of 16 experimental ponds used in last years' study.
3. To evaluate the effect of predators on the behaviour of larval LTS. Larval LTS will be video-monitored in the presence and absence of trout, minnows, and fish-conditioned water to determine the effects of predators on activity and the use of refugia. Both responses have been shown to have direct links to LTS growth and reproduction.

Deliverables:

- o Relative effects of two introduced fishes on the growth and survival of long-toed salamanders (*Ambystoma macrodactylum*). Submitted to *Copeia* (Journal of the American Society of Ichthyologists and Herpetologists), January, 2003.
- o Alberta Species at Risk Series Report (summarizing results of 2002 field season), Alberta Sustainable Resource Development. March, 2003.
- o Other journal publications summarizing results will be submitted to journals such as Conservation Biology, Journal of Herpetology and Journal of Wildlife Management as results become available
- o M.Sc. Thesis (Kimberly Pearson), University of Lethbridge. August, 2004

How will you share the results of the project with others:

- Paper presentations at scientific conferences (e.g. Partners in Conservation, Alberta Chapter of The Wildlife Society, Canadian Amphibian and Reptile Conservation Network)
- Presentations to the public and other interested organizations
- Publications in peer-reviewed journals (e.g. a paper describing results of 2002 experimental pond work was submitted to Copeia Jan. 20, 2003)
- Summaries of the results of our work will be submitted to other publications such as Croaks and Trills (Alberta Amphibian Monitoring Program newsletter), The Dipnet (Canadian Amphibian and Reptile Conservation Network newsletter) and Research Links (Parks Canada Science Forum)
- Providing information to the Media regarding the project. For example, an article summarizing the project was published in The Boundary (Newspaper of the Waterton-Glacier International Peace Park) in August, 2002

Boreal Wolverine Population Status and Ecology in Alberta

Project Location: Boreal Forest of Alberta
Identifying Code: 030 50 90 012
Funding Allocation: \$25,000.00
Proponent: Jason Fisher

Contact Information: Alberta Research Council
Bag 4000
Vegreville, AB T9C 1T4
jason.fisher@arc.ab.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

This project has three main objectives:

(1) To continue to evaluate and calibrate several different long-term large-scale methods for population monitoring, that will provide data on population trends that can be used in an adaptive management strategy;

(2) To assess wolverine demography and population status in boreal Alberta, as a basis for future management;

(3) To investigate wolverine response to habitat type and industrial activity in the boreal forest; this will provide wildlife and forest managers with information they can use for integrated land use planning.

Deliverables:

- Concurrent with the project, annual status reports will be released March 31st to all stakeholders, with information on progress and current findings.
- The final report, containing all data and conclusions, will be released upon project completion, projected for the Fall of 2005.
- Several journal publications will result from this project, so information can be widely distributed to the scientific community.
- Foremost, information will be made available to ASRD Wildlife Data Management personnel for use in further monitoring efforts.

How will you share the results of the project with others:

Results and conclusions from this project will be made widely available in the form of:

- Annual progress reports to all project partners
- Final report to all project partners and interested parties
- Journal publications for dissemination to the scientific community
- Presentations at scientific conferences
- Data provided to Wildlife Division
- Where possible, public outreach activities will be conducted to promote wolverine conservation in Alberta
- Ongoing work with fur trappers will be conducted to promote wolverine conservation

Boreal Forest Landbird and IBA Species Monitoring Project

Project Location: Lesser Slave Lake
Identifying Code: 030 90 90 005
Funding Allocation: \$11,000.00
Proponent: Frank Fraser

Contact Information: Lesser Slave Lake Bird Observatory (LSLBO)
P.O. Box 1076 Slave Lake, AB T0G 2A0
birds@lslbo.org

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Our monitoring goals are to document population status and trends for passage landbird migrants and Lesser Slave Lake Region IBA species, i.e. Tundra Swan and Western Grebe. Our research increases knowledge and understanding of factors affecting landbird populations and their habitats throughout the breeding and non-breeding parts of their life history. The LSLBO data helps identify populations of concern, causes of this concern, and actions required to remove the concern. Changes in distribution, status, productivity and survivorship serve as an "early-warning system" for environmental problems and as an indication of general trends in biological diversity.

Declines in populations, detected through monitoring, focus research on causation and the development of conservation initiatives. We are committed to the Canadian Landbird Monitoring Strategy, which is designed to meet the needs of Canada's *National Framework for the Conservation of Species at Risk* for periodic reporting on the status of landbird species.

Deliverables:

Data will be evaluated according to a standard set of criteria developed in consultation with the Canadian Wildlife Service and Bird Studies Canada. This evaluation is based upon the station's ability to monitor adequate samples of each bird species, over an adequate sampling period. As part of the evaluation process, the species themselves are individually prioritized (against nationally approved criteria) in terms of our "need" to monitor them and changes in distribution, status, productivity and survivorship serve as an "early-warning system" for environmental problems and as an indication of general trends in biological diversity. Data analysis is done by Bird Studies Canada, and available on their website and in hard copy for all Canadian Migration Monitoring Network stations across Canada.

A comprehensive technical report will be published and available in late March 2004.

How will you share the results of the project with others:

A 2003 Monitoring Report from this ongoing project will be forwarded to government agencies and conservation organizations. The station will summarize information from the 2003 season in its newsletter, *The Warbler*, for LSLBO members.

So that the results are available to the widest possible audience, they will be posted on our website, www.lslbo.org, and Bird Studies Canada's website, www.bsc-eoc.org. Because the results will be widely disseminated, public and private land managers will have access to information that they need to adjust land management practices. The Observatory's data is important for an integrated ecosystem land management approach to conserve habitats for viable populations of native birds. Members of the public will also have an opportunity to learn first-hand about bird population studies.

Implications of habitat loss and fragmentation for boreal forest birds

Project Location: Calling Lake
Identifying Code: 030 50 90 013
Funding Allocation: \$36,450.00
Proponent: Dr. Fiona Schmiegelow

Contact Information: University of Alberta
751 General Services Building, Dept. of Renewable Resources
Edmonton, AB T6G 2H1
Fiona.Schmiegelow@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The 'Calling Lake Fragmentation Study' was initiated in 1991, in response to the anticipated onset of broad-scale forest harvesting in Alberta, and associated changes in the amount and distribution of older forest habitats with the boreal mixedwood forest (Schmiegelow and Hannon 1993). The study has focussed on the effects of habitat loss and fragmentation on the boreal bird community, by employing an experimental approach that in 1993/94 created patches of older forest embedded in a matrix of recent cuts. The response of the bird community has been measured continuously over the intervening period, and initial responses have been analysed and published (Schmiegelow et al. 1997, Schmiegelow and Hannon 1999, Hannon and Schmiegelow 2002). Short- to mid-term results from the Calling Lake Fragmentation Experiment (2-5 years after harvest) indicated the abundance of some sensitive species (old-forest specialists) had declined by 40-50% in both isolated and connected fragments.

2003 marks the ten-year milestone for the Calling Lake Experiment. This is significant, in that under the operating guidelines for multi-pass harvest in Alberta, adjacent areas to those previously harvested become eligible for harvest after 10 years. Thus, it is important to understand the dynamics of bird community response over this time period, in order to project the potential outcome of such harvesting strategies. The primary objective of this proposal is to re-sample all the study sites at Calling Lake, including the experimental fragments and controls, the harvested areas surrounding the fragments, and adjacent areas representative of other habitat types. A comprehensive analysis of data will then be undertaken to evaluate changes in community composition and structure, measure individual species response in abundance, habitat use and productivity, and to model anticipated population trajectories over time.

Deliverables:

Data on population trends and community dynamics will be analysed in fall/winter 2003/04. A 10-year synopsis of results will be provided in report form by March 2004, and components will be subsequently converted into manuscript format for submission to peer-reviewed journals. Bird population data will be available immediately for use in status assessments, and by request for other purposes. Bird-habitat models will be updated and be available by March 2004. All data will be archived with appropriate ACA and/or government sources.

How will you share the results of the project with others:

The results of this research will be shared through project presentations to government, industry and other land managers, through public forums (e.g., naturalist groups), and at academic conferences. The results will also be published in reports for immediate circulation and in peer-reviewed scientific journals.

Opportunities For Birders (OFB)

Project Location: Alberta
Identifying Code: 030 50 90 015
Funding Allocation: \$10,000.00
Proponent: George Newton

Contact Information: FAN
11759 Groat Road
Edmonton, AB T5M 3K6
georgen@fanweb.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The primary and overarching objective is:

1. To provide an easily-accessible, one-window source that at once integrates and promotes all the opportunities in Alberta for birders to appreciate, monitor and/or conserve Alberta's wild birds.

Objectives that extend or complement the primary objective include:

2. To strike a FAN Bird Committee, charged with overseeing the implementation of OFB and assisting in the selection of monitoring and conservation priorities. Note: based on the interest shown of government, agency, and academic partners in this project, this committee is already up and running.

3. To collate and publicize the opportunities in Alberta for birders of all levels to experience, appreciate and learn more about the Province's avifauna.

4. To collate and publicize the opportunities for birders to participate in a full range of wild bird surveys.

5. To identify the priorities for surveying and monitoring wild birds and their habitats, and encouraging citizen scientists to work on those priorities.

6. To increase both the number of volunteer citizen scientists engaged in the monitoring of wild birds and the number of data records submitted.

7. To enhance the skill levels and efficacy of citizen scientists in the monitoring of birds and their habitats, thereby contributing to their ability to participate, while adding value to the data collected and submitted.

8. To identify and publicize the opportunities for volunteers to engage in the conservation of wild birds, and their habitats, including particular sites identified as crucial to the birds' breeding success, or during their migration.

9. To craft additional data-sharing agreements with the Partners and encourage both public and agency use of FAN's Natural History Database. (Agreements are presently in place with Alberta Fish and Wildlife and Environment Canada.)

10. To establish *Opportunities for Birders* as an essential FAN and Partners program—one that runs in perpetuity and is up-dated yearly (or as required).

Deliverables:

Among other values, benefits and spin-offs, *Opportunities for Birders* will deliver:

- Hosted on the FAN website, a web section dedicated to *Opportunities for Birders*, listing the current, up-to-date opportunities, in three track-able streams: Appreciation, Monitoring, and Conservation.
- Printed hard copies of an *Opportunities for Birders Directory*, published early in the new year, summarizing the major opportunities in each of the three streams.
- An expanded Natural History Database (more records) and an enhanced FAN Data Management System—providing user-friendly access and a greater range of possible queries. Note: the NHDB is fully available to ACA scientists and field personnel.
- A brief report providing a comprehensive picture of the bird monitoring situation in Alberta, supplemented by a listing of the emerging priorities for monitoring, the survey principals, and information on how to get involved (who to contact, when, etc.).
- A timely workshop for citizen scientists showcasing and facilitating participation in Alberta's bird survey opportunities.
- An up-to-date slide or Power Point presentation summarizing the three opportunity streams, and detailing things like progress, priorities, next steps, etc.
- A self-contained Beginners Bird Identification kit.
- A summary of Alberta Bird Identification Challenges, and, where practicable, materials and/or seminars targeted at reducing the challenges.

How will you share the results of the project with others:

A birder's opportunities for appreciation, monitoring, and conservation will be accessible on the FAN Website, 24 hours a day, 7 days a week. Additionally, each year in late winter, an OFB Directory will be published and distributed to birders, bird clubs, conservation organizations, and partnering agencies and government departments. An annual Monitoring report will be distributed to the same audiences. OFB seminars, workshops, and presentations will share results to date. All will be kept current and up-dated as fresh opportunities manifest themselves.

Monitoring Important Bird Areas (MIBA)

Project Location: Alberta
Identifying Code: 030 50 90 005
Funding Allocation: \$24,974.00
Proponent: George Newton

Contact Information: FAN
11759 Groat Road
Edmonton, AB T5M 3K6
georgen@fanweb.ca

Project Status: Complete - Ongoing
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:
The primary objective is:

1. To ensure that each of Alberta's 48 Important Bird Areas is receiving monitoring commensurate with the species for which the IBA was identified.

Objectives that complement or extend the primary objective include:

2. To identify and prioritize those IBA sites that are not receiving, or have not recently received, the necessary monitoring, and then, over the next two field seasons, to conduct the monitoring required at those sites.

3. Resources permitting, to add value to the monitoring being conducted at those priority IBAs by surveying each site for any other breeding or migrating species 'known' to be noteworthy at that site.

4. To collate the results of the monitoring toward (a) identifying IBA sites in need of better or more regular monitoring; (b) identifying sites where the IBA-qualifying birds appear to have fallen below their IBA-qualifying thresholds; and/or (c) identifying any apparent indicators of trouble, or potential trouble.

5. To summarize the results of the above objectives and communicate them to the bird conservation community, management agencies and other researchers.

6. To 'institutionalize' regular and appropriate monitoring all Alberta IBAs.

Deliverables:

- A list of all 48 Alberta IBAs summarizing the monitoring each receives and prioritized based on the monitoring need and/or urgency at each site. A preliminary look suggests that between 20 – 30 sites could be due for monitoring. However, assuming that some of the key wetland sites in the Prairie Pothole biome are regularly monitored by DUC biologists, the lower range—that is, around 20—is more likely.
- The appropriate field surveying of those 20 – 30 sites scheduled for monitoring, with a focus on the IBA-qualifying species; with resulting data deposited in the FAN Natural History Database (NHDB) (which is automatically shared with the provincial wildlife database, BSOD) and the Bird Studies Canada (BSC) database.

- At select IBAs, field surveys that extend the bird monitoring to include other species deemed noteworthy at each site; with resulting data deposited in the appropriate databases. (These sites will be selected in concert with the IBA Advisory Committee.)
- A printed report summarizing each field season's results, and identifying the priority sites for monitoring in subsequent seasons. Copies of the report will be distributed to the government agencies and associations responsible for monitoring and conserving Alberta birds.
- A synopsis of the summarizing report posted on the FAN Website, at a dedicated website section.
- Ultimately, a scientifically-sound 'institutionalized' monitoring regime, including an up-to-date and easily accessible schedule for monitoring Alberta's 48 IBAs.

How will you share the results of the project with others:

The results of the monitoring will be published in a Monitoring IBAs Report and be distributed to key players—our partner organizations, government agencies, conservation associations, and FAN clubs. The same material, in an abbreviated form, will appear on the FAN website, which is easily accessed around the clock.

Integrated Landscape Management Program at the University of Alberta

Project Location: Alberta
Identifying Code: 010 80 90 001
Funding Allocation: \$48,000.00
Proponent: Phillip Lee

Contact Information: U of A, Integrated Landscape Management Program
CW 405 Biological Science Bldg. U of A
Edmonton, AB T6G 2E9
philipl@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The Integrated Landscape Management program studies the local and landscape effects of natural and industrial disturbance on plant, mammal, and bird communities. The information gathered is used to design methods of minimizing the size, duration, and extent of future human disturbances. Specifically, the ILM program focuses on three areas of applied research:

1. Best management practices
2. Threshold levels of disturbance
3. Aggregation strategies of multiple industrial activities

The program examines the cumulative effects of industrial practices and strategies by integrating them over local and landscape-levels. These integrated packages, i.e. management scenarios, are evaluated for their effects on biota and habitat over northeastern Alberta. ALCES, a cumulative effects simulation program, is the primary tool for taking current biota and industrial activities, applying different management scenarios to these parameters, and extrapolating their effects into the future. ACA funding is targeted for five projects within the program this year:

Deliverables:

1. Evaluation of cumulative effects on ungulate populations through Alberta's historical aerial survey and hunter effort data. Completion date: March 31, 2004.
2. Evaluation and review of wildlife population survey techniques and data management from North American jurisdictions. Completion date: March 31, 2004.
3. Evaluation of cumulative effects in facilitating invasion of grassland species into Alberta's boreal habitats and its impacts on boreal mammal and bird communities. Completion date: March 31, 2005/06.
4. Identification and threat assessment of critical forested habitats and the characterization of spatial scales of anthropogenic disturbance in boreal Alberta. Completion date: March 31, 2004.
5. Impacts of compressor station noise levels on mammal and bird communities in the boreal forest. Completion date: March 31, 2005.

All projects within the ILM program are expected to produce or contribute to these products:

- o Oral presentations (ongoing throughout the life of the project)
- o Discussion of results in Committee by Project Managers – Alberta Forest Biodiversity Monitoring Program, Alberta Chamber of Resources - Integrated Landscape Management Group, Alberta-Pacific Forest Management Task Force, Legacy 1 Co-Leader of Sustainable Forest Management Network of Center of Excellence, Alberta Environmental Protection

Committee, Wildlife Society Special Service Committee, Alberta Chamber of Resources Integrated Landscape Management Steering Committee, Alberta Boreal Caribou Research Committee

- Stakeholder newsletter with distribution to government and industry stakeholders and public
- Contributions to the Best Practices Manual for Industrial Stakeholders (draft by mid-term, i.e. 3rd year, of program)
- Improvements to the ALCES for running more biologically realistic scenarios (ongoing throughout the life of the project).
- Peer-reviewed scientific article (2003)
- Popular press articles

How will you share the results of the project with others:

- Oral presentations (ongoing throughout the life of the project)
- Discussion of results in Committee by Project Managers – Alberta Forest Biodiversity Monitoring Program, Alberta Chamber of Resources - Integrated Landscape Management Group, Alberta-Pacific Forest Management Task Force, Legacy 1 Co-Leader of Sustainable Forest Management Network of Center of Excellence, Alberta Environmental Protection Committee, Wildlife Society Special Service Committee, Alberta Chamber of Resources Integrated Landscape Management Steering Committee, Alberta Boreal Caribou Research Committee
- Stakeholder newsletter with distribution to government and industry stakeholders and public
- Contributions to the Best Practices Manual for Industrial Stakeholders (draft by mid-term, i.e. 3rd year, of program)
- Improvements to the ALCES for running more biologically realistic scenarios (ongoing throughout the life of the project).
- Peer-reviewed scientific article (2003)
- Popular press articles

Ya Ha Tinda Elk and Wolf Project

Project Location: Ya Ha Tinda west of Sundre, Alberta
Identifying Code: 030 10 90 005
Funding Allocation: \$11,950.00
Proponent: Mark Hebblewhite

Contact Information: University of Alberta
Department of Biological Sciences
Edmonton, AB T6G 2H1
mark.hebblewhite@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The overall objectives of this project are to understand factors affecting elk population dynamics of the Ya Ha Tinda elk herd, and to provide both federal and provincial agencies with the knowledge to cooperatively manage this interagency elk herd.

The specific elk research objectives of this project are to:

- 1) Understand population dynamics of the Ya Ha Tinda Elk herd.** Through monitoring adult female elk survival and population productivity data, we will estimate population trends for resident and migrant elk in this elk herd. Further, we will conduct time-series analysis of existing population count data, linking elk population growth to factors such as climate, harvest data, and predation. This knowledge, combined with cause specific mortality, will provide critical information on important limiting factors for this elk population.
- 2) Provide agencies information on wolf survival, movements, distribution, and mortality** – recent interest in regional wolf management is hampered by a lack of rigorous information on wolf populations in provincial lands adjacent to National Parks. Our research will help address management questions regarding gene flow and wolf population dynamics of wolves in these important transboundary areas.
- 3) Determine the factors underlying recent changes in the migrant:resident ratio at the Ya Ha Tinda, and understand implications for overall carrying capacity and productivity of the elk herd.** Closely related to objective 1, this broad goal will provide managers with the knowledge of what mechanisms are changing elk population dynamics at the ranch. Specifically, we will address this goal through objectives 3-7 below:
- 4) Develop maps of elk and wolf habitat quality and probability of occurrence across the transboundary study area using GIS's.** Using resource selection functions (RSF, see methods¹) and regional Geographic Information System (GIS) layers of digital elevation models, human use, vegetation classifications (i.e. ELC, AVI), and other geographic variables, we will develop RSF's for two important indicator wildlife species, wolves and both migrant and resident elk.
- 5) Determine how habitat modification, such as prescribed fire, logging, oil and gas exploration, and recreation, affect habitat quality for elk.** We will assess the effects of prescribed fire, post-fire logging, and forestry on ungulate habitat quality and quantity using forage biomass sampling. These data will be used to develop models of ungulate forage quality and abundance that will be used in spatial analyses.
- 6) Determine how elk migratory corridors and movement patterns have changed since the 1980's through comparisons with a valuable historical dataset².** We will develop RSF's from elk research conducted in the 1970's to compare to present elk movement corridors to identify and evaluate changes in migratory behavior associated with habitat loss, change, and alienation.

- 7) **Link wildlife populations to habitat.** Presently, rigorous links between habitat and wildlife populations are difficult to make¹. We will use Cox-proportional hazards survival models³, where survival is a function of the same habitat variables used in RSF modelling, to link elk survival directly to habitat. The effects of future management actions can then be evaluated using these tools, for example, the regional forest management strategy proposed for Mountain Pine Bark Beetle Management.
- 8) **Foster interagency wildlife habitat management to ensure conservation of habitat and wildlife in areas surrounding Ya Ha Tinda.** Through our research board of funding agency partners and conservation groups, we will work to develop a cooperative, interagency wildlife management board during and after completion of this research that promotes interagency cooperative management of wildlife in the region into the future.

Deliverables:

- o Delivery of a PhD dissertation on the transboundary ecology and management of the Ya Ha Tinda Elk population. This thesis will contain 3-5 sections dealing with Habitat, Elk population dynamics, Elk survival as a function of wolf predation and forage quality, and Wolf population dynamics and predator-prey dynamics. We expect 2-4 scientific publications to come directly from this research, and have a strong previous publication record in graduate research, and expect several collaborative papers published on regional elk and wolf dynamics in cooperation with ongoing projects in the area (CESES, BNP research).
- o Delivery of statistical time-series models to evaluate factors affecting the long-term population dynamics of the Ya Ha Tinda elk herd¹².
- o Delivery of resource selection functions showing maps of high quality elk (migrant and resident) and wolf habitat in the study area.
- o Delivery of statistical survival models linking elk survival to wolf predation and elk forage factors.
- o An evaluation of the differing effects of habitat enhancement projects (i.e. the Bighorn Cutblocks), post-fire logging, post-cutting fire, and fire on elk habitat quality.
- o We have already given presentations at 2 scientific conferences on our research at Ya Ha Tinda, and we expect to give 2-3 scientific presentations/year in the next 2-3 years.
- o In addition to scientific communication, we have given public talks to over 1000 people in the last year including the RMEF annual fundraising banquet, Sundre Fish and Game association, Sherwood Park Fish and Game Association, Banff National Park Research update series, high schools, and local tourism boards.
- o Our research has also been featured in several recent media and magazine articles (Alberta Magazine, Calgary Herald, Sundre Roundup, Rocky Mountain Outlook and we will continue to seek out and acknowledge funders in such media communications.
- o We have already completed our first annual progress report (available on-line on our website below) and executive summary, and will provide annual updates in a similar fashion through years 2 and 3 of the project to all funding partners. Furthermore, we anticipate final report completion Dec 2005, in addition to a completed PhD thesis.

How will you share the results of the project with others:

Results of our project will be shared through public and scientific presentations, media interviews and magazine articles, journal publications, annual progress reports and executive summaries, and through the annual Banff National Park / Central Rockies Ecosystem Interagency Liason Group (CREILG) annual science workshop management meetings hosted in coordination with Banff National Park. Furthermore, we will facilitate interagency cooperation through research funders meetings where we meet with all funding partners to discuss our research and management implications.

Migratory songbird response to levels of salvage logging of fire landscapes of northeastern Alberta

Project Location: Northeastern Alberta
Identifying Code: 030 50 90 014
Funding Allocation: \$25,300.00
Proponent: Dr. S. Song

Contact Information: Canadian Wildlife Service
Rm. 200, 4999 – 98 Ave
Edmonton, AB T6B 2X3
samantha.song@ec.gc.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

1. To test whether restrictions on salvage logging suggested by the Alberta Fire Salvage Strategy Framework will achieve their goal of managing within “sustainable ecological principles”, by studying the response of migratory songbirds to different levels of salvage harvesting.
2. To provide baseline inventory data on migratory songbird communities and their associated habitat within burned, conifer-dominated boreal forest landscapes.
3. To understand the effect of amount of unburned forest islands within burned forest landscapes on migratory songbird communities.
4. To understand the response of migratory songbirds to burned, riparian forests and compare songbird communities between burned, riparian and burned, upland forests.

Although the existing project focuses specifically on migratory songbirds, it will be complementary to other studies occurring within the area, including studies on the effect of salvage harvesting on woodpeckers and resident species, small mammals, vascular and non-vascular plants and vegetation structure, conducted by the University of Alberta and the Alberta Research Council.

Deliverables:

1. Report to partners that documents management implications of level of salvage harvesting for songbird communities, and provides baseline information on role of riparian burned forests and role of unburned forest islands to migratory songbird communities. March 2004
2. Publication of in peer-reviewed journals. March 2005 and into 2005.
3. Seminar, conference, and workshop presentations as appropriate to communicate project results to partners, forest managers and Canadians.
4. Review of ASRD's Alberta Fire Salvage Strategy Framework and recommendations for Best Management Practices for salvage logging.

How will you share the results of the project with others:

- o Adaptive management approach to salvage logging in cooperation with Alberta Pacific
- o Scientific / technical reports
- o Review of provincial policy and submission of recommendations to ASRD

Following completion of second year of project

- o Travelling roadshow to showcase results with agencies (ASRD, ACA) and other interested groups
- o Possible symposium with other researchers on entire House River Fire project at local conference (e.g. Partners in Conservation, Alberta Chapter of the Wildlife Society).

Atlas of Breeding Birds of Alberta: Update Project

Project Location: Alberta
Identifying Code: 030 40 90 002
Funding Allocation: \$56,250.00
Proponent: Philip Penner

Contact Information: FAN
11759 Groat Road
Edmonton, AB T5M 3K6
philipp@fanweb.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Based on the success of the first atlas project, FAN is undertaking an Update Atlas Project. Atlassing commenced in the 2001 breeding season and will continue through to the 2005 breeding season. Data analysis and review will be conducted over this period, and final data analysis and review, and the publication of the update atlas will occur sometime after 2005. The update atlas project will place a strong emphasis on collecting data from more remote areas of the province that were under surveyed during the first atlas project, and on obtaining breeding evidence for rarer species and species with limited distributions in the province. Collaboration with university researchers will aid in refining sampling methods and developing appropriate analytical techniques that optimize the information gained from this initiative. In particular, the atlas project is collaborating with Dr. Fiona Schmiegelow of the University of Alberta, to develop, refine and test bird-environment models in the boreal forest, and to identify appropriate methods for surveying breeding birds in northern Alberta.

The update atlas will be geared towards a birding and technical audience and will contain updated distribution maps, relative abundance estimates, comprehensive analytical results relating bird distribution and abundance to habitat availability, and predictive models linking projected population and distribution changes with land-use practices. Relative to the first atlas, the update atlas will have less emphasis on general life history information. The data collected from this project, when compared to data from the first atlas project, other historical information, breeding bird survey data, and information obtained from projects such as FAN's Alberta Birdlist and Personal Birdlist software, will provide valuable insight into recent and projected changes in bird distribution and abundance in the province. This information will be of interest to Alberta's naturalist community and will be a valuable tool for resource managers, conservation and assessment biologists and research scientists. The project will also increase public awareness and understanding of Alberta's wildlife.

The objectives of the atlas project are:

- To involve the community in a conservation project while increasing public awareness and understanding of Alberta's natural history;
- To gain current data on the distribution and relative abundance of Alberta's breeding bird species;
- To conduct data analysis to determine recent changes and patterns in the distribution and abundance of breeding birds species in Alberta;
- To provide baseline data for research, wildlife management plans, and environmental impact assessments.

Deliverables:

The major products that will be produced from the Update Atlas Project include:

- A soft-covered atlas, detailing the results of the project and discussing bird population trends in the province over the last 15-years. A section on the applications of atlas data to real-world conservation issues, in particular outlining the development and testing of predictive habitat-based models, will set this publication apart from other atlas projects, and broaden the appeal of the final publication. All or part of the atlas may be available on the web. The atlas will probably be produced in 2006.
- All data collected from the first atlas project, the updated Breeding Bird Atlas, and other FAN projects will be entered into an electronic database and will be available for use by naturalists, government agencies, non-government organizations, researchers, environmental consultants, industry, and the general public. Volunteers participating on the atlas project will be encouraged to submit records on paper Alberta Birdlist checklists or electronically using FAN's Personal Birdlist Software. It is hoped that atlasers will become familiar with these reporting vehicles and will use them to submit records for entry into FAN's Natural History Database throughout the year and after the completion of the Atlas Project. It would be a great legacy of the project if birders adopted this practice and continued to amass bird observational data. Atlas data will be available on an on-going basis over the life of the project and beyond. Portions of the database can currently be accessed from FAN's website (www.fanweb.ca).
- Through a collaboration with Dr. Fiona Schmiegelow of the University of Alberta, the atlas project will be develop, test and refine bird-habitat association models for the boreal forest. Some of these models will be available as early as 2005.
- The program led by Dr. Schmiegelow will also test bird censusing methods in the boreal forest aiding in the refinement of guidelines for rigorous bird monitoring programs. These guidelines will probably be available by 2005.
- The large volumes of data collected for the atlas project are readily amenable to detailed analysis, which could appear in graduate theses and peer-reviewed publications. Such publications probably wouldn't be available until after 2005.

How will you share the results of the project with others:

The final results of the atlas product will be made available through a soft-cover atlas. All or portions of the atlas may be available on the web. Data from the project is being entered into FAN's database and has been available on an on-going basis to interested parties. Bird-habitat models will also be available to interested parties in published reports or in electronic form, possibly over the internet. Sampling guidelines will be available in report form. Detailed analysis of the data may be available in peer reviewed journals or graduate student theses.

Effects of access and hunting on the behavior and demographics of black bears

Project Location: NE Alberta
Identifying Code: 030 10 90 003
Funding Allocation: \$30,000.00
Proponent: Dr. Mark Boyce & Sophie Czetwertynski

Contact Information: University of Alberta
CW 405 Biological Science Bldg.
Edmonton, AB T6G 2E9
boyce@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The main objective of this project is to evaluate the potential behavioral and demographic effects of hunting and access on black bear populations.

Alberta hosts a sizable population of black bears (*Ursus americanus*) estimated at 40,000 animals, of which 3,000 are harvested yearly by resident and non-resident hunters. This project will focus specifically on how hunting affects black bear habitat selection, nutritional condition of females, reproductive rate, and cub mortality.

Current information on black bear responses to hunting is insufficient to conclude whether it affects bear behavior, and whether the removal of adult males is beneficial or detrimental to female reproduction and cub survival. Adult males are known to kill cubs and their removal may reduce cub mortality, which ranges from 25-40% in the first year. Alternatively however, adult male bears may protect their offspring by excluding subadult males from their home range. If this were the case, then removal of adult males would result in an increased number of immigrant males that may be more likely to kill cubs so that they may sire their own. Furthermore, females may choose to avoid these males forcing them into marginal habitats that may consequently reduce their nutritional condition and reproductive rates.

The combination of behavioural and demographic data obtained from this project will be essential to develop long-term ecologically sustainable management strategies for black bear populations.

Deliverables:

Results of this research will produce recommendations for black bear management.

How will you share the results of the project with others:

The information will be published.

Instream Structures in Clear Creek

Project Location: Clear Creek, Alberta
Identifying Code: 090 50 90 001
Funding Allocation: \$4,823.00
Proponent: Don Andersen
Contact Information: Central Alberta Chapter of Trout Unlimited
5616 54A Ave.
Rocky Mountain House, AB T4T 1H6
dmanders@telusplanet.net

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:
The Chapter proposed to install woody debris [black spruce root wads] into the creek to provide habitat for fish.

Deliverables:
Placement of woody debris [root wads]

How will you share the results of the project with others:
Clear Creek is crossed by the Arbutus Road. Access for fishing opportunity exists for all Albertans

Tide Creek Beaver Management Project

Project Location: Tide Creek
Identifying Code: 090 20 90 001
Funding Allocation: \$2,070.00
Proponent: Yves Ouellette

Contact Information: Alberta Fish & Game Association
61 Quigley Drive
Cochrane, AB T4C 1J3
afga-yves@shaw.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The objective of this project is to limit the number of beaver and dams in the portion of Tide Creek that runs through the Pigeon Lake Wildlife Trust Fund Property. These control measures are designed to minimize obstructions to spawning walleye and pike, and maximize the fisheries value of this creek. Specific objectives include:

- Managing beaver numbers and removal of dams by hiring a trapper.
- Supervision of the site and spawning beds through regular volunteer visits.
- Increased walleye and pike accessibility to spawning habitat.
- Minimizing flooding of the Tide Creek Property.
- Creating better fishing opportunities within Pigeon Lake.
- Promoting awareness of AFGA and ACA partnerships that improve fish and wildlife habitat.
- Maintaining a sustainable fishery in Pigeon Lake.
- Increasing the awareness of fish habitat requirements.

Deliverables:

- Enhance and maintain access for walleye and pike from Pigeon Lake to spawning beds in Tide Creek.
- Maintain or enhance the populations of walleye and pike in Pigeon Lake.
- Maintain a clear channel so walleye and pike fry can return successfully to Pigeon Lake from Tide Creek.
- Reduce flooding on lands adjacent to Tide Creek.
- Maintain beaver populations and beaver dams at a sustainable level.
- Assist AFGA in managing the Pigeon Lake WTF Property, by maintaining spawning habitat for pike and walleye as well as upland habitat for other wildlife species.
- Promote the goals and initiatives of the ACA and AFGA

How will you share the results of the project with others:

Projects of this nature are communicated to AFGA members and the public at the Annual AFGA Conference, and through written articles in the Outdoor Edge Magazine and AFGA Monthly Bulletin.

The North Raven River Beaver Management Project

Project Location: North Raven River
Identifying Code: 090 20 90 003
Funding Allocation: \$7,500.00
Proponent: Barry Mitchell

Contact Information: Central Chapter, Trout Unlimited Canada
6C, 5571 - 45 Street
Red Deer, AB T4N 1L2

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Remove problem beaver dams and control numbers of beavers in sensitive stream areas to allow trout in the North Raven River (Stauffer Creek) and Clear Creek migrate to and from spawning and rearing areas and to mitigate siltation caused by excessive beaver activities on these two spring-fed, non-flooding trout streams.

Deliverables:

No tangible deliverables except for two clear, clean and free-flowing creeks.

Regular reports of activities will be sent to the ACA every three months by the project coordinator. A final year-end report will also be prepared and sent to the ACA.

How will you share the results of the project with others:

Mainly through word of mouth and via bulletin boards on the internet where the subject of the North Raven Beaver Management occasionally shows up.

Calgary Urban Fishing Education Program, Fishing Rod Loaner Program

Project Location: Calgary
Identifying Code: 020 40 90 002
Funding Allocation: \$1,200.00 – no funds released
Proponent: Alex Kreis

Contact Information: Fishing Alberta
Site 6 Box 4 RR#2
Didsbury, AB T0M 0W0
alexk@fishalberta.com

Project Status: Incomplete
Deliverables: pending

Project Objectives:

The objectives of the Calgary Urban Fishing program are to increase opportunity, participation, and enjoyment in angling within the City of Calgary, thereby fostering stewardship of the aquatic environment and fisheries resources. The Calgary Urban Fishing Program seeks to break down barriers to participation in fishing which result from lack of knowledge about where and how to fish, lack of access to fishing equipment, and lack of role models within the family or community who fish. In addition to supplying equipment, the Fishing Rod Loaner Program provides information to the on the use of equipment and tackle, how and where to fish, angling regulations, aquatic ecosystems, and riparian habitat.

As a coordinator for the program, Fishing Alberta would develop a fundraising strategy, facilitate/coordinate fundraising, developing partners etc., act as Banker for the program, liase with ASRD staff as well as other partners (e.g. ACA), develop a long term plan for the program, and develop and deliver a communications, promotion, marketing strategy

Deliverables:

- 1) Delivery of the Fishing Rod Loaner Program from the Rod Lodge
- 2) The production of a report outlining the details of Fishing Rod Loaner Program activities in 2003 (see appended report).
- 3) Promotion materials (30 second video commercial, website exposure, etc.)
- 4) New partnerships and potentially expanded programs (e.g. kids camps, seminars, etc.)

How will you share the results of the project with others:

A report will be produced detailing the activities of the program in 2003. A presentation on the project will also be made at the Partners in Conservation conference next year. Details of the project will also be included on the Fishing Alberta website.

North-Central Alberta Non-game Fish Status Assessment

Project Location: NE Alberta
Identifying Code: 020 40 90 003
Funding Allocation: \$21,350.00
Proponent: Mark Steinhilber

Contact Information: Provincial Museum of Alberta
12845-102 Avenue
Edmonton, AB T5N 0M6
mark.steinhilber@gov.ab.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

This is year 2 of the Museum's directed efforts to gather information on relative abundance and distribution of non-game fishes in north-central Alberta. The objectives for the 2003 field season are to re-visit 20 of the sites surveyed in 2002, and to conduct initial (reconnaissance) surveys of 10 additional sites.

Formal species status assessments require information on the following parameters: distribution (extent of occurrence, area of occupancy, and fluctuation in either of these), rarity (number of element occurrences), population trend, population size (total provincial estimate and magnitude of fluctuation), and threats to populations and habitats in Alberta. These data are used to evaluate a species' risk of extirpation in the province. The process of assessing extirpation risk is based on criteria developed by the World Conservation Union. These criteria require data for any or all of the above parameters, except threat. Threats are often difficult to quantify and are considered only indirectly in species-at-risk assessments (although they are important in determining priorities for scheduling of population data collection and formal status assessments). The goal of this project is to acquire those data that are of primary importance in non-game fish status determinations and to contribute this information to the FMIS database.

Deliverables:

- Baseline non-game fish relative abundance, distribution, and specimen data from 30 sites throughout north-central Alberta will be gathered and compiled for incorporation into the FMIS database (December 30, 2003).
- Voucher specimens of all species collected at each site will be catalogued, preserved, and incorporated into the research collection at the Provincial Museum. These specimens are available for use by any interested users (December 30, 2003).
- The status of the project, including survey results from each locality, will be incorporated into the joint ACA/PMA website on Alberta's Fish Diversity that is currently under construction and is expected to go on-line by the middle of March 2003 (1 March 2004).

How will you share the results of the project with others:

- All data will be incorporated into Alberta Sustainable Resource Development's Fisheries Management Information System (FMIS)
- A summary of project results will be presented on ACA/PMA website
- Voucher specimens and associated data are available to all interested users including researchers, students, and the general public.

Muir Lake Project

Project Location: Muir Lake, Alberta
Identifying Code: 090 30 90 001
Funding Allocation: \$6,965.70
Proponent: Tim Daskoch

Contact Information: Edmonton Trout Fishing Club
8736-90 Ave
Edmonton, AB T6C 1P2
timdos@telusplanet.net

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Muir Lake Alberta (Tp 53-54, Rg.27, W4)

- Create a 'Walk of Fame' honouring those who have enriched angling in Alberta
- Build an education center that connects anglers, trout, and simple life forms
- Develop a trout lake with exceptional angling opportunities

Deliverables:

- A re-established trout fishery that offers exceptional angling opportunities for Alberta anglers.
- A walk of fame that celebrates the efforts of people in their contributions to Alberta sportsfishing.
- An education centre that helps people understand the ecology of a pothole lake, how trout target food as it changes through life cycles and how to angle for trout in these various conditions.
- Signage that will recognize the contributions of our partners.

How will you share the results of the project with others:

The results of the project will be shared by every angler in Alberta that ventures to Muir Lake.

Conservation of lake sturgeon (*Ascipenser fulvescens*) in the South Saskatchewan River

Project Location: South Saskatchewan River
Identifying Code: 020 10 90 003
Funding Allocation: \$31,500.00
Proponent: Dr. Fiona Schmiegelow & Roger Korth

Contact Information: University of Alberta
751 General Services Building, Dept. of Renewable Resources
Edmonton, AB T6G 2H1
Fiona.Schmiegelow@ualberta.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The status of Alberta's lake sturgeon is presently undetermined, although the species was recently reviewed by the Alberta Endangered Species Conservation Committee (ESCC). Lake sturgeon exist in two populations within the province, and while demographic data exist for the North Saskatchewan River population, there remain significant gaps in our knowledge of this species. In particular, there is a paucity of data available for the population of lake sturgeon residing in the South Saskatchewan River; where basic biological data has not been collected since 1986. Harvesting of this population continues, and amid much speculation concerning the sustainability of the current management regime. Current rates of harvest may be compromising the long-term sustainability of sturgeon by increasing the mortality rate enough to significantly reduce the spawning potential ratio. The availability of accurate and timely information is paramount in the assessment of the lake sturgeon population status in Alberta. This project will provide scientific data pertaining to population estimates, age class distributions, growth rates, condition factors, age of first maturity, spawning potential ratio, catch rates and mortality rates of the lake sturgeon in the South Saskatchewan River. All of these parameters give an indication of population health and sustainability. Analyses of these population parameters will offer insight into the long-term sustainability of the population and identify effective management strategies for conservation of this species.

The primary objectives of the project are:

- Provide key population parameters for appropriate designation of the status of lake sturgeon by the ESCC (provincial) and by COSEWIC (national).
- Build a data base referenced model to predict the population dynamics of lake sturgeon under various exploitation levels.
- Communicate lake sturgeon conservation issues to anglers, conservationists and other stakeholders.
- Publish the results of this research in a peer-reviewed scientific journal.

Deliverables:

Upon completion of this research (December 2004), all data sets will be available to relevant ACA and ASRD offices. A final project report will be provided to ACA and ASRD at this time. As well, all fin samples will be archived with ASRD, should the need arise for future genetic or demographic analysis. An interim report outlining the 2003 field season activities and progress will be available in March 2004. Interim access to associated data will be on an "as needed" basis.

All fisheries data will be forwarded to FMIS.

All incidental catch information, including forklengths and frequency of both sportfish and non-sportfish species, will be provided to ACA and ASRD to supplement existing data sets.

Presentations, involvement of the local media and publication within mainstream angling magazines will provide information to the public regarding sturgeon conservation. Upon completion of the project, resultant publications will be submitted to a peer reviewed scientific journal.

How will you share the results of the project with others:

Results of this study will be made available to the public through conference and seminar presentations, magazine articles and the involvement of the local media. Results will be made available immediately to government and management agencies and related committees. The results will also be published in a peer reviewed scientific journal.

Whirling Disease Sentinel Study (2003)

Project Location: Lethbridge
Identifying Code: 020 30 90 001
Funding Allocation: \$32,585.00
Proponent: John Derksen

Contact Information: Lethbridge Community College,
3000 College Dr. S. 3021 Cousins Bldg.
Lethbridge, AB T1K 1L6
j.derksen@lethbridgecollege.ab.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

This project will attempt to identify aquatic sites high in *T. tubifex*, the intermediate host of the whirling disease parasite. Rainbow trout eggs and sac fry will be placed at sampled sites with the highest worm densities, and therefore the greatest likely hood of transmitting the parasite if present. This project hopes to identify the sites in which Whirling Disease is most likely to present itself, if and when it occurs, and concentrate on the water bodies which would display the greatest impact (socially, economically, biologically).

Deliverables:

Final project will be finished and distributed by March 2004.

How will you share the results of the project with others:

The final report and its findings can be distributed as ACA sees fit. The findings of this study can also be presented for publication and/or at conference proceedings at the ACA's request and with consultation with the lead biologist (John Derksen).

Edmonton Urban Fishing Program

Project Location: Edmonton
Identifying Code: 020 40 90 004
Funding Allocation: \$4,880.00
Proponent: Derek Sutherland and Ian Hosler

Contact Information: City of Edmonton Community Services
PO Box 2359
Edmonton, AB T5J 2R7
Derek.Sutherland@edmonton.ca or Ian.Hosler@edmonton.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Working Philosophy Statements of the Edmonton Urban Fishing Committee:

- Wish to promote safe, responsible fishing within the city limits.
- Wish to increase interest, opportunity, participation and enjoyment of fishing within the City limits.
- Wish to utilize the resources of the various stakeholders involved to promote this ideal.
- Wish to promote increased cooperation and communication between stakeholders.
- Wish to break down barriers that may prevent the public from fishing
 - Access to Knowledge
 - Access to Equipment
 - Access to the resource
 - Access to fishing role models
 - Access to social support

Deliverables:

Shirts for volunteer recognition/event promotion (July 6)
River Day Posters (June 6)
Lures for event participants, "River Day", "Keep Fish in our Future" (July 6)
Lures and repairs to rod loaner and educational equipment sets lent to City of Edmonton and Big Sisters & Big Brothers (May 1)
Take home Lures for Day Camp & Big Sisters/Big Brothers program participants (July 6)
Paid Advertising for River Day Event (July 6)

How will you share the results of the project with others:

The heart of this project is sharing fishing with the public within the City of Edmonton, especially with children that may not otherwise have an opportunity to learn about the resource. Our promotions around the River Day event and our other educational opportunities will also be used to generally promote fishing within the City of Edmonton.

Our members from Alberta Sustainable Resource Development have been active in sharing the successes of various urban fishing programs throughout Alberta and Canada, so that we can learn from each other's experience. We will continue to be actively involved in that process.

Tide Creek Spawning Bed Evaluation

Project Location: Tide Creek, Alberta
Identifying Code: 020 80 90 001
Funding Allocation: \$13,500.00
Proponent: Roger Patton

Contact Information: Western Walleye Council; Millet Fish and Game
3938 38A Ave
Red Deer, AB T4N 2V5
rpatton@telusplanet.net

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

- Determine if Walleye are successfully laying eggs on artificial spawning beds?
- Determine if Walleye eggs are hatching out on artificial spawning beds?
- Determine if artificial spawning beds do in fact enhance Walleye populations in Alberta and share this information.

Deliverables:

- Completion date end June 2003
- Consultant Report

How will you share the results of the project with others:

- Western Walleye Council Web Page
- Copy of final report to SRD in Red Deer
- Copy of final report attached to the Pigeon Lake Advisory Committee Recommendations

Cutbank Lake Aeration

Project Location: Cutbank Lake, Alberta
Identifying Code: 090 30 90 002
Funding Allocation: \$6,000.00
Proponent: Rich Engler

Contact Information: Cutbank Lake Foundation
9442-64 Ave
Grande Prairie, AB T8W 1B5
r_engler@ducks.ca

Project Status: **Rescind funding due to environmental conditions.** Aeration and over wintering of fish was determined to be not feasible. Project did not proceed.

Project Objectives:

The objective is to maintain and enhance a high quality catch and keep fishery. Much effort and money has gone into stocking trout, power extension and aeration to this point. The lake has excellent potential to become a great fishery for local anglers and recreational users. Trout in the lake that have been stocked to this point are reaching great sizes and numbers making it a very attractive place to go fishing.

A “Harvest License” for Eastern Slopes Stream Angling: Assessing Precedents, Feasibility, Mechanisms and Public Interest

Project Location: Alberta
Identifying Code: 020 10 90 004
Funding Allocation: \$5,950.00
Proponent: Michael S. Quinn

Contact Information: Faculty of Environmental Design,
University of Calgary
2500 University Drive N.W.
Calgary , AB T2N 1N4
quinn@ucalgary.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Recent regulation changes for the Eastern Slopes (catch & release, reduced bag limits and increased minimum size limits) were designed to provide more protection for stream salmonids in general, and native species in particular. While these regulations have the potential to provide additional protection for native species, they may not succeed when anglers are unable to correctly identify their catch. Furthermore, they may be overly restrictive for anglers that are competent in fish identification and who could justifiably be allowed to harvest more exotic species without negative ecological implications, thus providing a significant recreational experience benefit. A pilot project on Quirk Creek has already demonstrated that qualified anglers can harvest far more brook trout than is allowed by the current regulations (see Stelfox et al. 2001). The purpose of this project is to examine the alternatives for an angler licensing system that would allow qualified anglers to obtain a harvest license for selected Eastern Slopes stream salmonids (e.g., a Brook Trout Bonus Licence). Anglers would have to demonstrate an ability to identify trout species in order to acquire a license. The specific objectives of this project are:

- 1) To perform a comprehensive literature and fisheries agency review for North American, Europe, Australia and New Zealand to identify and analyze precedents for dual licensing systems (catch & release only vs. regulated harvest) and angler education (esp. fish identification) program.
- 2) To identify the effectiveness, drivers and barriers in dual licensing systems and fish identification programs identified in objective 1.
- 3) To make a set of recommendations for dual licensing system alternatives for Alberta's eastern slopes.
- 4) To design a short survey instrument and recommended delivery alternatives for gauging public opinion regarding dual licensing system alternatives.

Deliverables:

A comprehensive report to Alberta Fish and Wildlife and Trout Unlimited Canada including recommendations and a model survey instrument.

How will you share the results of the project with others:

The final report will be circulated within Trout Unlimited Canada and reported in their newsletter. It will also receive significant circulation within Alberta Fish and Wildlife. Finally, the results are expected to result in a peer-reviewed publication in a relevant Fisheries Management journal.

Response of Landscape Connectivity, Spatial Movement Patterns and Habitat Interactions of Wildlife to Human Disturbance and Associated Landscape Change

Project Location: Alberta
Identifying Code: 010 80 90 002
Funding Allocation: \$1,000.00
Proponent: Barbara Lynn Schwab

Contact Information: University of Calgary
2500 University Dr. NW
Calgary , AB T2N 1N4
blschwab@telusplanet.net

Project Status: Funding was declined by the applicant.

Long-term (16-year) Effects of Hexazinone Application on Regenerating Aspen Stands

Project Location: NW Alberta
Identifying Code: 010 80 90 003
Funding Allocation: \$6,502.00
Proponent: Wayne Strong

Contact Information: University of Calgary, Faculty of Environmental Design
PF2180, 2500 University Drive N.W.
Calgary, AB T2N 1N4
strong@ucalgary.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

This study represents a unique opportunity to study the long-term effects of applying a forestry herbicide (intended to control woody plant and *Calamagrostis* composition) to post-clearcut deciduous boreal forest vegetation 16 years after treatment. Currently, no well documented data are available for such vegetation older than 6 years.

Hypothesis: Hexazinone when applied within a regenerating clearcut results in compositional and structural changes that will cause long-term vegetation developmental changes.

Objectives:

- 1). Determine plant species composition and abundance, and stand structure of three replicates at three treatment levels (0 kg/ha, 2 kg/ha, and 4 kg/ha hexazinone) each consisting of 30 plots (n = 270 plots);
- 2). Compare quantitatively the 2003 data to data collected prior to, 2 and 6 years after treatment to identify compositional and structural changes; and
- 3). Evaluate whether any identified differences might produce long-term changes in plant community development.

Deliverables:

One digital copy (pdf file) of a draft research paper will be submitted to ACA for internal administrative purposes and to fulfil administrative requirements for the grant (December 2003). This paper or a variant would be submitted to a referred journal for consideration as a publishable manuscript at about the same time. The goal will be to have the research published or at least accepted for publication before December 2006. If the manuscript is not accepted by this date, the draft research paper or a revised variant could be used by ACA for broader purposes. Limited circulation of the research results prior to publication might be possible, but this would be need to be assessed by the authors on an individual case basis. The rare data will be archived at the Northern Forestry Centre, where earlier data are also stored.

How will you share the results of the project with others:

An attempt will be made to publish the research results in a referred research journal such as the Canadian Journal of Botany or Forest Ecology and Management, which are both public accessible. If for some reason, the work can't be published in a scientific journal, a pdf file of the research will be provided to ACA.

Block Funding for Province Wide AFGA Club Projects

Project Location: Alberta
Identifying Code: 010 30 90 002
Funding Allocation: \$8,460.00
Proponent: Yves Ouellette

Contact Information: Alberta Fish & Game Association
61 Quigley Drive
Cochrane, AB T4C 1J3
afga-yves@shaw.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

To promote and increase AFGA volunteer participation in habitat projects by making some funds available throughout the year. In addition, this fund would:

- Promote initiatives that conserve, enhance and maintain fish and wildlife habitat in Alberta.
- Encourage more AFGA clubs to be involved in habitat enhancement and development projects.
- Increase the number of habitat projects that are completed by AFGA clubs each year.
- Increase the number of habitat projects that are developed and co-ordinated by AFGA Facilitators each year.
- Promote the co-operative efforts of the ACA and the AFGA within communities throughout Alberta.
- Create an awareness of wildlife habitat requirements throughout the province.
- increase co-operation and communication between clubs and participating conservation organizations.
- Increase community and public awareness in regards to fish and wildlife and their habitat requirements through Block Funding Projects.

Deliverables:

This Block Funding Project will involve many clubs in habitat projects and will ultimately:

- Increase the number of habitat projects that are completed by AFGA clubs and volunteers each year.
- Generate more volunteer interest, activity and knowledge towards habitat projects in Alberta.
- Increase the number of habitat projects that are developed and co-ordinated by AFGA Facilitators each year.
- Increase the number of nesting structures, hand cuts, and recognition signs that are completed annually.
- Promote the co-operative efforts of the ACA and the AFGA within communities throughout Alberta.

Some of these projects include the construction, placement and maintenance of over 1500 nesting structures for waterfowl and songbirds, ungulate forage enhancements, off-site watering projects and fencing projects constructed to protect water bodies and newly planted trees.

How will you share the results of the project with others:

In general, projects of this nature are communicated to AFGA members and the public at the Annual AFGA Convention, club and zone talks and through written articles in the Outdoor Edge Magazine, Alberta Outdoorsmen and AFGA Monthly Bulletin.

Alberta Fish and Game Association Stewardship and Conservation Programs Delivery

Project Location: Alberta
Identifying Code: 010 60 90 001
Funding Allocation: \$60,000.00
Proponent: Brad Fenson

Contact Information: Alberta Fish & Game Association
6924-104 Street
Edmonton, AB T6H 2L7
brad@afga.org

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The AFGA Habitat Development Staff will:

- Provide technical advice and guidance to The Alberta Fish and Game Association's (AFGA) affiliate clubs with their involvement in fisheries and wildlife habitat retention, development, and enhancement programs available in Alberta.
- Work as a liaison between volunteers, SRD staff, ACA staff, and other organizations.
- Facilitate fund raising initiatives to augment funding from established sources in order to maintain current habitat programs.
- Take an active role in education and public relations as it relates to resource issues.
- Solicit volunteers and promote programs funded through the Fish and Wildlife Trust Funds administered by the ACA, like the Wildlife Management Enhancement and Fisheries Management Enhancement Program, as well as several internal AFGA programs. AFGA programs include the Landowner Recognition with Habitat Steward and Heritage Farmstead, community based habitat projects through affiliate clubs and the Wildlife Trust Fund.
- Oversee the AFGA's Wildlife Trust Fund land purchase and management program. Develop and maintain the habitat on Wildlife Trust Fund lands.
- Set long-term strategic plans for program delivery and administration.

Deliverables:

The AFGA Habitat Development Staff will provide the following deliverables:

1. Technical advice and guidance to The Alberta Fish and Game Association's (AFGA) affiliate clubs. This volunteer assistance from AFGA club members will contribute to fisheries and wildlife habitat retention, development, and enhancement programs in Alberta.
2. Generate additional dollars to augment funding from established sources. These funds will be used to develop and maintain programs.
3. Educate members and the public on issues related to our natural resources.
4. Generate over \$50,000.00 of in-kind support from volunteers towards land securement in Alberta.

Process AFGA's Wildlife Trust Fund habitat referrals; manage 30,000 acres of Wildlife Trust Fund habitat, secure up to 3,000 acres of new habitat through joint purchases and easements.

How will you share the results of the project with others:

Projects and program information is communicated to AFGA members and the public at the Annual AFGA convention, and through written articles in the Outdoor Edge Magazine, Alberta Outdoorsmen and AFGA Monthly Bulletin. Communications with clubs and members through club talks, presentations and reports. A new updated web page will serve as a great tool for sharing habitat success stories.

Wildlife is Everywhere Kits

Project Location: Alberta
Identifying Code: 030 40 90 007
Funding Allocation: \$14,000.00
Proponent: Robert Gruszecki

Contact Information: Conservation Education WISE Foundation
911 Sylvester Cres. SW
Calgary , AB T2W 0R8
robert_gruszecki@ezpost.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Four out of five Albertans live in an urban centre. This urbanization causes people to become disconnected from natural eco-systems. The Conservation Education W.I.S.E. Foundation exists to help people re-connect with nature and learn to enjoy our great outdoors in a manner that is safe, legal and responsible.

The demand for good quality information is very large and growing. W.I.S.E. owns and distribute free of charge several educational kits called "Wildlife is Everywhere Kits". This resource includes; owl kits, horns and antler kits, fur kits, tooth and claw kits and other kits that help students learn how wildlife live, secure their food and defend themselves and their young. These specimens are provided by Alberta Fish and Wildlife and are cleaned, disinfected and prepared by a taxidermist for W.I.S.E. before being included in a kit.

"Wildlife is Everywhere Kits" will be created, maintained and stored at the Calgary and Edmonton Conservation Education Centres for Excellence.

Deliverables:

Each year hundreds of wild birds and animals are killed by power lines, by being electrocuted or by being hit by vehicles. Many of these specimens are in good shape and are picked up by Alberta Fish and Wildlife. These birds and animals represent a huge opportunity for young people to be educated and informed about the characteristics of the particular species. For example, how is the golden eagle equipped to gather food, and defend itself? The "Wildlife is Everywhere" kits will provide students with a hands on study specimen enabling them to understand the creature.

Forty "Wildlife is Everywhere" kits will be developed and made available free of charge to Alberta and area schools, scout groups guides, Big Brothers and Sisters, cadets and anyone else who works with students. Group leaders will call a Centre and book the kit of their choice on appropriate dates. "Wildlife is Everywhere" kits will contribute in a real way to help meet the growing demand for good quality information about Alberta wildlife.

How will you share the results of the project with others:

"Wildlife is Everywhere Kits" will be created, maintained and stored at the Calgary and Edmonton Conservation Education Centres for Excellence.

www.aheia.com

Seasonal Staff at Alford Lake Conservation Education Centre

Project Location:
Identifying Code: 030 40 90 008
Funding Allocation: \$8,000.00
Proponent: Robert Gruszecki

Contact Information: Conservation Education WISE Foundation
911 Sylvester Cres. SW
Calgary , AB T2W 0R8
robert_gruszecki@ezpost.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:
Education has become one of the most important elements of conservation.

The Conservation Education W.I.S.E. Foundation provides seasonal staff to the Alford Lake Conservation Education Centre for Excellence. University or college students will have opportunity to work directly with several thousand Albertans who will visit the centre for the 3 day programs they have chosen.

Groups attending Alford Lake include schools, cadets, scouts, Big Brothers/Sisters, churches, fish and game groups and others. Students may be involved in Alberta fishing education; wildlife identification; map and compass; wilderness survival; cross country travel; safe, legal, responsible use of firearms and archery; and other outdoor equipment and more.

People interested in visiting the Alford lake Conservation Education Centre for Excellence should contact the manager, Ted Hansen, at 403-722-2423.

Deliverables:
Seasonal Staff

How will you share the results of the project with others:
On-Site visits

Alberta Conservation and Hunter Education Program Manual

Project Location:
Identifying Code: 010 80 90 006
Funding Allocation: \$10,000.00
Proponent: Robert Gruszecki

Contact Information: Conservation Education WISE Foundation
911 Sylvester Cres. SW
Calgary , AB T2W 0R8
robert_gruszecki@ezpost.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The Alberta Conservation and Hunter Education Program is noted as one of the finest in North America. This international award winning program is presented to Albertans by the Alberta Hunter Education Instructors' Association (A.H.E.I.A.).

The Association works with instructors to provide material and information to perpetuate and enhance their programs and through information exchange, equipment availability and continued communication, the Association endeavors to meet individual instructor needs and assist in presenting the best quality education possible.

The Conservation Program encourages Albertans to appreciate our wildlife and fisheries resource as provincial treasures to be managed for the enjoyment of future generations.

The Program is taught by dedicated volunteer instructors who have generously donated their time, knowledge and expertise to present various program elements to Alberta residents in virtually every community.

Students from every walk of life and all ages participate in Alberta Conservation and Hunter Education, Alberta Fishing Education, Outdoor Cam Programs, Outdoor Women Seminars, Outdoor Youth Seminars and Canadian Firearms Safety Courses.

Conservation Education teaches the wise use of our resources rather than preservation or no use and the entire program package is built around appreciation of our prairie, foothill and mountain countryside and all wild creatures focusing on safe, legal and responsible behaviour while enjoying our province's rural areas.

Instructors are community volunteers, trained and certified by A.H.E.I.A. as Alberta Fishing Education Program and/or Alberta Conservation and Hunter Education Instructors and are members of A.H.E.I.A. with access to great facilities, instructional equipment and materials.

Deliverables:
10,000 copies of the manual produced.

How will you share the results of the project with others:
Through course material.

Recreation and Wildlife in the Rockies of Southwestern Alberta: Human Use and its effects on wildlife, riparian areas and regional connectivity

Project Location: Southwestern Alberta
Identifying Code: 010 80 90 004
Funding Allocation: \$10,750.00
Proponent: Danah Duke

Contact Information: The Miistakis Institute for the Rockies
c/o Environmental Design 2500 University Dr. NW
Calgary , AB T2N 1N4
danah@rockies.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Landscape disturbance associated with random access recreation along the Livingstone Range in Southwestern Alberta is significant and continues to intensify with regional population growth. This region of Crown land is available for a wide array of outdoor recreation activities including: off-highway vehicle (OHV) use, equestrian use, fishing, hunting, camping, hiking, etc. The two user groups that will form the primary focus of this research are 1) OHV users and 2) fly fishers. There are some designated trails and campgrounds in the region, but the majority of activity takes place on user-created sites. The proliferation of trails and campsites has become epidemic in the past decade. Furthermore, much of this activity is concentrated along critical riparian zones and in sensitive montane, subalpine and alpine environments. Human use and associated linear disturbance is recognized as among the most significant factors limiting sensitive wildlife (especially large carnivores) in the region. Currently, little information exists that quantifies the amount, location and types of recreational human use these sensitive environments and wildlife are subject to. In addition, there are many current and proposed industrial resource extraction activities in the area that add to the cumulative effects of human use. Our objectives include the following:

1. Conduct an inventory and map all existing trails and campsites in the study area. This will include GPS mapping of all existing trails and campsites.
2. Conduct a user profile analysis. This will include conducting sociological interviews of trail and campsite users. Interviews will allow a composite of the demographics, place of origin and economic contributions of user groups.
3. Determine intensity and temporal patterns of trail use. This will involve the use of remote trail counters.
4. Determine wildlife use of trails. Remote cameras will identify wildlife use of trails. This project will also work in close collaboration with ongoing regional wildlife monitoring studies.
5. Develop a human use "layer" to be used in conjunction with spatial wildlife data in the provision of modeling and decision-support for regional management.
6. If resources permit, conduct pellet group counts and breeding bird point counts in the Livingstone riparian zone.

This proposal outlines the requirements for a pilot project to be conducted in the summer of 2003. This pilot will form the basis of a larger-scale multi-year project to commence in the spring of 2004.

Deliverables:

Deliverables include a detailed inventory of all recreation trails and random access campsites in the study area. This inventory will contribute to a comprehensive spatial layer of human use data. This data will be freely available for land managers, scientists and conservationists use in both GIS format and image format. A final report including the results from sociological interviews of trail and campsite users detailing the demographics, place of origin and economic contributions of user groups will be submitted, including preliminary results from remote wildlife cameras and trail counters will be produced. Long-term deliverables (multi-year field study) include an article submitted in the scientific literature which will include detailed analysis on recreation and wildlife use of the Livingstone Range.

How will you share the results of the project with others:

The final report will be downloadable from the Miistakis webpage and distributed in hard copy upon request. All resulting spatial layers will be available upon request.

Conservation of Medicine Hat's Natural Areas

Project Location: Medicine Hat, Alberta
Identifying Code: 010 60 90 002
Funding Allocation: \$7,700.00
Proponent: Dennis Baresco

Contact Information: Society of Grasslands Naturalists
Box 2491
Medicine Hat, AB T1A 8G8
grassnat@memlane.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Provide long term protection and conservation of wildlife and wildlife habitat, as well as enhance the stability and growth of wildlife populations, on over 5,000 acres of natural areas by developing guidelines, recommendations and management plans, and by being involved in carrying out management plans.

Deliverables:

- interim progress and information reports to the partners four times per year
- data entered into City of Medicine Hat's GIS system (ongoing as project progresses)
- final report with recommendations, guidelines, management plans, timetables, etc (Dec 31/04)

How will you share the results of the project with others:

The results will be publicized widely through press interviews/releases and public programming by the Interpretive Program. Our reports will be widely distributed to all relevant agencies and made available to other communities upon request. We will create a special section on our website for "natural areas conservation".

Who, What and Why of Beaverhill Bird Observatory - Fostering An Appreciation For The World Around Us

Project Location: Beaverhill Bird
Identifying Code: 010 90 90 002
Funding Allocation: \$10,000.00
Proponent: Bryn Spence

Contact Information: Beaverhill Bird Observatory
Box 1418
Edmonton, AB T5J 2N5
bryn@beaverhillbirds.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

To increase the general public's knowledge of the Beaverhill Bird Observatory and the flora and fauna that call the Beaverhill Lake Natural Area home. By leading weekly walks we can begin to involve people in conservation and in doing so suggest things they can do for the environment in and around their community.

The second phase of this project is to compile and design a checklist of the plants and mammals around the Natural Area. This will compliment the Bird Checklist that is already in progress (a project for which ACA support was given last year and will be completed by March 15, 2003). A checklist is an important educational tool for people to have when they visit a new place as it gives them an idea of what they might expect to see while they are hiking. Also by developing our collection of field guides at our research station we will be able to offer the public a copy of a field guide to help them to identify some of the species that they might encounter on their visit to the Natural Area. Visitors will take this knowledge with them when they visit other important wildlife areas in Alberta.

Deliverables:

- o Checklist of Common Plant Species for the Beaverhill Lake Natural Area - Mar. 15/04
- o Checklist of Common Mammal Species for the Beaverhill Lake Natural Area - Mar. 15/04
- o Beaverhill Bird Observatory Annual Report 2003 - Mar. 15/04

How will you share the results of the project with others:

Meetings, Posters, Talks, Newspaper articles, Web site, our newsletter

Evaluation of breakaway snares to capture coyotes and release deer in Alberta

Project Location: Alberta
Identifying Code: 030 90 90 006
Funding Allocation: \$10,000.00
Proponent: Larry Roy

Contact Information: Alberta Research Council
Bag 4000
Vegreville, AB T9C 1T4
larry@arc.ab.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

- Synthesise the literature on breakaway snares.
- Determine the most commonly used products used by trappers.
- Evaluate the field performance of the most commonly used products on coyotes and deer under actual field conditions.

Deliverables:

Final Report due March 31, 2004.
Publication submitted to Wildlife Society Bulletin by March 31, 2004.
Presentation at the Alberta Chapter of the Wildlife Society Annual Conference, the Alberta Trappers Association Annual Meeting and to Alberta Sustainable Resource Development Fish and Wildlife Staff.

How will you share the results of the project with others:

Presentation at the Alberta Chapter of the Wildlife Society Annual Conference and the Alberta Trappers Association Meeting.
Presentation to Alberta Sustainable Resource Development Staff.
Publication likely in the Wildlife Society Bulletin.
Availability of the report for downloading on the ARC website.

Aquatic invertebrate biodiversity of riverine ecosystems in the South Saskatchewan Drainage Basin

Project Location: Saskatchewan Drainage Basin
Identifying Code: 030 50 90 007
Funding Allocation: \$12,000.00
Proponent: Heather Powell

Contact Information: University of Calgary
2500 University Dr. NW 2500 University Dr. NW
Calgary, AB T2N 1N4
hmpowell@ucalgary.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Using GIS, I will randomly choose sampling locations throughout the South Saskatchewan Drainage Basin up- and downstream of dams. I will sample approximately 80 sites total: 20 in each of the Red Deer, Bow, and Oldman drainage basins. I will collect data on aquatic invertebrates and the associated physical (water depth, discharge, substrate size, etc.) and chemical habitat (pH, dissolved oxygen, turbidity, conductivity, etc.). I will collect aquatic invertebrates seasonally at least six times per year. Invertebrates will be sorted, identified, and enumerated at the Family level. Statistical analysis (e.g. multiple regression) will be used to identify differences in invertebrate community structure in relation to physical and chemical habitat and disturbance.

Deliverables:

Report to ACA – Winter 2004
Poster presenting project and results - Winter 2004
Dissertation – 2008
Journal publications – 2008-2009

How will you share the results of the project with others:

I will share the results of this project with peers through conference proceedings and through publication. I will share the results with the non-scientific public through environmental publications and through poster presentations at the University of Calgary.

Up the Creek: a river in your school project

Project Location: throughout Alberta
Identifying Code: 090 40 90 001
Funding Allocation: \$15,000.00
Proponent: Tara Ryan



Contact Information: Evergreen Theatre Society
#2633, Hochwald AveSW
Calgary , AB T3E 7K2
etheatre@evergreentheatre.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

In order to capitalize on the “International Year of Fresh Water”, Evergreen Theatre plans to create an innovative, 2-part riparian education program: “Up the Creek: a river in your school project”. This conservation education project includes an original hour-long science-theatre production, followed by hands-on classroom riparian research presentations. “Up the Creek” shall provide a one-of-a-kind, science education experience that will have students, teachers and community residents laughing, learning, understanding and connecting to the complex world of rivers, their inhabitants, ecology and conservation. The goal of “Up the Creek” is to introduce challenging environmental science concepts in an engaging way, one that will kindle intellectual curiosity and develop a desire for lifelong learning and action in habitat preservation. Our focus is to raise awareness of the vital importance of the diminishing river resource to 80% of the fish and wildlife populations in Alberta. The project intends to:

- 1) Translate scientifically credible riparian research into the accessible language of theatre through the creation of a 100% science-based educational theatre program.
- 2) Inspire understanding of riparian importance and curiosity in scientific research through the presentation of classroom workshops following the theatre program.
- 3) Provoke participants to make positive personal choices in watershed/river issues and take personal action in riparian habitat preservation.
- 4) Make connections to existing agency’s whose objectives include watershed, riparian and wetland conservation.
- 5) Create an investment in future generations by engaging a cross-section of Albertans through an 8-month tour of both rural and urban centres, to schools as well as communities, reaching an estimated 45,000 participants.

Deliverables:

- 1) development of a teacher resource and student activity booklet (20-30 pages – please go to www.evergreentheatre.com to preview past workbooks: Full of Hot Air or Everything Under the Sun)
- 2) creation of an innovative, hour-long educational theatre program on conservation of riparian systems
- 3) preparation of follow up classroom presentations for division I and II (this will include a slide show, scientific experiments, demonstrations of riparian science technology, insect keying, and guided discussion on conservation)
- 4) writing 10 web-based student activity pages
- 5) production of in-school teacher workshop kits for: water testing, understanding invertebrates and conservation debates

How will you share the results of the project with others:

- 1) Final Project Report with cumulative results to be distributed to stakeholders and used in Evergreen Theatre promotional material, including;
 - a) participant numbers & demographics
 - b) select participant comments
 - c) selection of photographs
 - d) recommendations for future tours
 - e) participant feedback
 - teacher and adult survey's
 - student/youth survey's
- 2) One professionally produced video of the theatre presentation to be included in the final reporting package for all project stakeholders
- 3) Publication of articles in related trade journals, newsletters (eg. CPAWS, ATA Connections, InterpScan)
- 4) Television/radio promotion opportunities; A-Channel (Big Breakfast), Global (the Morning Show), CKUA (Eco-files)
- 5) Science-theatre presentations offered at conferences/meetings/stakeholder gatherings for such organizations as ACA, Ducks Unlimited, Trout Unlimited, etc.
- 6) Webpage updates throughout the touring year (December, April & June)
- 7) Evergreen Theatre Annual Report

Hunting For Tomorrow Foundation – Working Group Deliverables

Project Location: Alberta
Identifying Code: 30 40 90 006
Funding Allocation: 45,000.00
Proponent: Kelly Semple

Contact Information: Hunting For Tomorrow Foundation
87, 4003 – 98th Street
Edmonton, AB T6E 6M8
ksemple@huntingfortomorrow.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The **Vision** for HFTF is: *“An Alberta where hunting continues to be a respected, traditional outdoor activity that remains a substantial and integral part of Alberta’s heritage, culture and environment.”*

The **Mission** for HFTF is: *To increase the level of public understanding, involvement and support of hunting and to increase opportunities for every Albertan to hunt within a management system that conserves the wildlife resource.*

HFTF has three primary **Goals** that all activities are focused towards achieving:

1. To increase the number of people participating in hunting and it's associated activities within the limits of sustainable wildlife conservation;
2. To maintain and enhance hunting opportunities and experiences in the Province such that hunters are encouraged to stay in the activity and new participants are attracted to it;
3. To increase public acceptance of hunting as a traditional outdoor activity that improves awareness of our natural environment, and serves as an important wildlife management tool.

In order to effectively meet these goals, HFTF has created a number of Working Groups including: (a) Communications, (b) Hunter Participation and Opportunities, (c) Hunting Heritage, (d) Fund-raising.

Deliverables:

Communications Working Group Deliverables:

Fact Sheets

HFTF has developed 11 Fact Sheets to date, including the following:

1. Hunting For Tomorrow
2. Adult First Time Hunter
3. Youth First Time Hunter
4. Spring Black Bear Hunting
5. Alberta's Hunting License System
6. The Draw System
7. Hunting With Firearms
8. Subsistence Hunting

9. Alberta's Outfitted Hunting Industry
10. About Alberta Hunters
11. Hunters Who Care

These documents are intended to inform both the hunting and non-hunting audiences about specific issues. They are written in easy to read plain language. The Fact Sheets are posted on the HFTF web site and distributed through Sportsman Shows, public presentations and through the major licensing vendors across the Province.

The following Fact Sheets are scheduled for completion in 2003:

- **Disabled Hunters – The Facts About Mobility Impaired Hunters**
- **The Benefits of Hunting – Why is Hunting Important**
- **Landowner/Hunter Relations**
- **Youth and Female Hunters – Why should you hunt?**
- **Disease Issues**
- **Hunting – A Cost Comparison**
- **Benefits of Wild Game**
- **Non-endangered Species**
- **Hunting with Archery Equipment**
- **Primitive Weapons and Hunting**

The costs to produce the Fact Sheets include the design, development, reproduction and distribution. The following is a summary of these costs.

Hunting for Tomorrow Foundation Web-site Expansion – Phase 3

www.huntingfortomorrow.com

In 2002, the Hunting For Tomorrow Foundation web site was expanded considerably. This site serves as a major information dissemination source for both the hunting and non-hunting community. During the past year, the site has had in excess of 5,500 visitors. A number of substantial improvements have been made and the Phase III enhancements are targeted for 2003. The present schematic of the HFTF web-site is as follows:

Newsletter (C-3) – Winter/Spring 2003 and Summer /Fall 2003

Design and development of two newsletters per year. The newsletters serve as an effective means of communication to all collation members, general public, government, media and other resource users. Distribution of this newsletter is done through the collation organizations, so no expenses are incurred in this regard. Additionally, the newsletter is emailed to an electronic distribution list of approximately 600 people and is posted on the HFTF web site as well.

Hunter Participation and Opportunities Working Group Deliverables:

First Time Hunter Program & Youth Mentorship Program

The Hunting For Tomorrow Foundation would like to expand and coordinate the various youth and first time hunter programs taking place throughout the Province. The most effective mentorship programs involve consistent coordination both before and during the actual hunts, as well as on-going follow-up.

- (A) Development of a comprehensive **database to coordinate the participant information and program delivery**. This will include the actual design of the database to gather information and then the inputting of all Youth Hunter data collected to date. An initial mail out to all recipients would be slated for June 2003.
- (B) Creation of a **Youth and First Time Hunter Mentorship Manual** to be distributed to various organizations to assist with the co-ordination and delivery of Mentorship programs. This manual will include guidelines and responsibilities, application forms, liability forms, participant and mentor information. Generally, it will serve as a "How To Guide". This document will be provided at no charge to any organization interested in implementing a Mentorship program.
- (C) In the fall 2002, the Hunting For Tomorrow Foundation **distributed Youth Kits** to over 550 youths. The objectives of this initiative are to:
- ? Promote and support youth hunting and extend the positive memories of the hunt by providing some unique tokens.
 - ? Create an inventory of individuals and clubs that participate in various mentorship programs.
 - ? Create an inventory of the number of youth that participate in the various mentorship programs.
 - ? Opportunity to promote other youth programs and activities, undertaken by other organizations.
- (D) **Field Mentorship Programs** – In 2002, HFTF in co-operation with the Edmonton International Airport, obtained access for hunting on land that is leased and managed by the Edmonton Airport Authority. (Wildlife on airport property is considered a potential hazard to airport and aircraft safety and over the past few years, there has been an increase in the white-tailed deer population on the airport property. This increase has prompted Edmonton Airports to address this issue by allowing a white-tailed deer harvesting program to occur in designated areas of the airport property. Their objective is to deter white-tailed deer from entering the Airport property.)

When Hunting For Tomorrow Foundation (HFTF) was contacted to determine our interest and ability to co-ordinate a harvesting program for the designated areas, we were pleased to coordinate this as a Mentorship program. The project was identified with the following objectives:

1. Provide a safe and controlled training environment for youth and first time hunters.
2. Provide a positive and organized method of access for hunters.
3. Maximize the harvest results to reduce potential hazards and safety risks on the Airport property.

- (E) **Youth Bear Camp – 2003**. HFTF is proposing to host a **Youth Spring Bear Camp** during the first week of June 2003. An outfitter has donated the use of his Spring Bear outfitting camp and several Guides are willing to donate their guiding time for one week. The trip will include a fully guided black bear hunt (1 bear per hunter) along with fishing on the Athabasca River. (Approximate value \$2500 US). The program targets 7 hunters to participate in a 6-day spring black bear hunt. Each youth will have an adult Guide accompany them on the stands. The age group of the participants will be between 12-17 years of age. The system to select the hunters includes: A random draw for one winner (1) from every student that successfully graduates from the Hunter Education program during the past year. They simply complete a form with their name and address and parent's signature, in order to enter. An

essay contest will also be available for six (6) successful candidates (1 per age group). A particular theme will be selected to focus the writing efforts.

Multi-Stakeholder Sessions

Utilizing the resources and expertise of the coalition members, HFTF would like to continue with the concept of Multi Stakeholder Workshops. In 2002, two such Workshops were held: Media Workshop and a Regulations Review Workshop.

In 2003, HFTF would like to continue with this concept and conduct Multi-stakeholder“ Workshops” to begin discussions and seek innovative solutions focused on a variety of topics including:

- ? Annual Hunting Regulations Review (Provincial and Regional)
- ? Public Outreach Messages to Non-hunting members
- ? Access and Landowner Relations
- ? “Wildlife Issues in the News” – How to respond
- ? Key Messages About Hunting – How to deliver a consistent message

How will you share the results of the project with others:

Project results and program developments are shared on an ongoing basis with the coalition members of the Hunting For Tomorrow Foundation. Additionally, the philosophy of HFTF is that all hunters have contributed to pay for the development of materials and information, therefore accessibility and availability of information is essential. Documents and reports produced through HFTF will be available via the HFTF web site, as well available by hard copy upon request.

Trout Unlimited Canada Staff Support

Project Location: Calgary
Identifying Code: 020 00 90 001
Funding Allocation: \$25,000.00
Proponent: Greg Eisler

Contact Information: Trout Unlimited Canada (Alberta Council)
P.O. Box 6270, Station D,
Calgary , AB T2P 2C8
geisler@tucanada.org

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The purpose of this proposal is to optimise the benefits of TUC fisheries-related activities in Alberta. Funds received will be used to provide support staff for the Alberta Council of TUC. In the past TUC has received funds from Fisheries Management Enhancement Program and the Fisheries Habitat Development Program for its Provincial Biologist/Manager position, which was responsible for managing the Alberta Council and TUC's Fisheries Conservation Program in Alberta. After a five-year period in which the Alberta Council operated with two staffed positions, it has now been determined that a single staff member will act in support of the Alberta Council. TUC's National Biologist will now provide direction for this position, which has become known as the Alberta Council's Project Manager. TUC will continue to provide any possible funding support for this single position and requests the balance of funding from the ACA (i.e., the equivalent of the original position).

The specific objectives of these positions are to: 1) provide professional biological advice and guidance to TUC and its affiliated chapters and members in the development, coordination, implementation and management of fishery/habitat projects and programs; 2) ensure appropriate authorizations and permits are obtained for work conducted by TUC staff and volunteers; 3) work with, train, and coordinate TUC volunteers in the planning, implementation and management of projects; 4) liase and develop and/or strengthen partnerships, with various government agencies, industry and conservation organizations in activities that promote the conservation and wise management of Alberta's coldwater resources; 5) assist TUC in the development of policy, strategy, and positions concerning various issues related to Alberta's coldwater fisheries, and their habitats; 6) represent TUC on various issues and committees; 7) supervise staff hired for TUC projects in Alberta; and 8) manage various contracts associated with TUC projects.

Deliverables:

With funding from the ACA for this position, TUC will continue to implement, and where possible, expand its conservation activities in Alberta. Examples of anticipated deliverables for 2003 include: 1) 2002 Fish Monitoring in Southern Alberta Diversion Canals (report – April 2003); 2) 2002 Howard Creek Turbidity Monitoring (report – April 2003); 3) Formalization of a Joint Venture Agreement for Cow and Fish Program with Alberta Beef Producers (formerly the AB Cattle Comm.); 4) Implementation of a Real-time Water Temperature Monitoring system at various locations in the south saskatchewan River Basin; 5) Coordination of the organization for the Forest-Fish II Conference to be held in May 2004; 6) Hosting of a workshop to launch the Native-Fish Initiative; 7) Completion of two canned slide presentations; 8) Conducting the 2003 Fish Rescue program on selected diversion canals in AB; 9) Conducting the 2003 Howard Creek Turbidity monitoring program.

How will you share the results of the project with others:

The ACA will be listed on all partner lists as it relates to programs and projects of the Alberta Council. In addition, the ACA will be featured in our Annual Report to the membership. Should the ACA wish, we will put out a broadcast to our membership concerning the ongoing support. In addition, TUC would place a press release to confirm our ongoing relationship. Finally the ACA will be listed following this year as a Lifetime Benefactor of Trout Unlimited Canada, in accordance with our new partner and donor recognition program. Any additional recognition would be accommodated after consultation.

Innovation Alberta Omnimedia Project

Project Location: Alberta
Identifying Code: 030 40 90 005
Funding Allocation: \$7,000.00
Proponent: Cheryl Croucher

Contact Information: Porcupine Stone Productions
8552 - 79 Avenue
Edmonton, AB T6C 0R4
porcston@compusmart.ab.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

To research and produce a minimum of ten audio interviews or documentaries on research in which the ACA is involved for Innovation Alberta, a program about science, research and invention. There are 40 new episodes in a program season.(CKUA will broadcast year round, with repeats to cover any breaks). The programs will be posted to *the Innovation Alberta Omnimedia Project* website and archived along with transcriptions and other material, including photographs and possibly video clips. Alberta Conservation Association will be listed as a *FEATURED THEME* on the Innovation Alberta website, and all the ACA related stories will be posted together for heightened exposure to website visitors. Through a syndication arrangement with CKUA Radio, the programs will also be broadcast on the CKUA Radio Network. Appropriate information associated with ACA research will be included in a feature called *Innovation Anthology* which is a new addition to the *Innovation Alberta Omnimedia Project* website.

Deliverables:

- o ACA highlighted as a "Featured Theme" on the IA website
- o inclusion of ACA research findings in Innovation Anthology items which will be posted on the IA website.
- o produced programs posted to IA website and aired on CKUA Radio
- o written transcripts posted to IA website
- o web links between IA website and ACA and other appropriate sites
- o mention of ACA as sponsor on all 40 programs and on the IA website
- o use of ACA logo or name on IA website
- o animated promo on IA website

How will you share the results of the project with others:

- o website marketed provincially and globally through Innovation Alberta Online Newsletter and other means
- o programs posted regularly on IA website and aired on CKUA radio
- o audio and written material available for downloading from web
- o Innovation Alberta is an award winning program, thanks to recognition from the Alberta Chamber of Resources. Media award for Excellence in Journalism

Alberta Riparian Habitat Management Program - Cows and Fish

Project Location: Alberta
Identifying Code: 090 20 90 006
Funding Allocation: \$60,000.00
Proponent: Norine Ambrose

Contact Information: Alberta Riparian Habitat Management Program - Cows and Fish
216, 6715-8th Street N.E
Calgary , AB T2E 7H7
nambrose@telusplanet.net

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

1. Deliver riparian awareness messages to a significant portion of Alberta's agricultural producers, as well as other rural landowners, the general public and resource managers.
2. Create a better understanding of range and pasture management principles, providing options for management, leading to sustainable grazing practices.
3. Increase the understanding by the agriculture sector and rural communities of the importance of riparian health and the need to improve current and future management practices.
4. Encourage landowners (eg. farmers, cottagers) to work proactively on riparian issues, building urban and rural linkages that emphasise co-operation over conflict.
5. Increase adoption rates of a community-based, landowner-driven process and tools by individuals, communities and agencies to ensure long-term commitment and involvement.
6. Foster and support a strong stewardship ethic by influencing positive, measurable shifts in attitudes about riparian values that are followed by actions that result in improved riparian health.

Deliverables:

*The strategy that allows us to achieve these objectives is the **Cows and Fish Process**.*
The key to the success of the Cows and Fish program is a clearly defined and consistently applied approach or process. The *Cows and Fish Process* is comprised of 5 interconnected elements: *awareness, team building, tool building, community-based action and monitoring*. The Process is a framework for action at a local, community level. It is an approach that enables us to productively engage with people, interact with them in a meaningful way, provide or develop alternative management options, measure current ecological status, "tune" people's eye's to monitor change and empower people to undertake change individually and as part of communities.

How will you share the results of the project with others:

We share knowledge gained to future landowners, communities, resource staff and others working on riparian issues, we publish new fact sheets and documents and incorporate new information into our presentations and other extension activities. We hold training sessions on riparian areas, riparian health, working with communities, etc, that are offered to other resource professionals, to share our experience we've learned from the work.

Wetland Development Specialist – Pearce Estate Park Interpretive Wetland

Project Location: Calgary
Identifying Code: 010 30 90 003
Funding Allocation: \$22,000.00
Proponent: Dan Jarrell

Contact Information: Sam Livingston Fish Hatchery Volunteer Society
SLFH 1440 17a Street SE
Calgary , AB T2G 4T9
danjarrell@hotmail.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

1. To provide the contracted services of a specialized biologist (Wetland Development Specialist) to complete the vegetation of constructed landscapes to establish native grassland, wetland, and riparian plant communities for the PEPIW project.
2. To assist with organizing volunteer activities and community events to help establish vegetation and wildlife habitat in PEPIW and increase awareness about habitat issues.
3. To complete and coordinate installation of interpretive trails, interpretive signs, trail head signs, way-finding signs and partner recognition signs following construction.
4. To provide assistance and recommendations for habitat development, protection and enhancement within the park.
5. To conserve, restore and protect valuable riparian habitat along the banks of the Bow River during construction in Pearce Estate Park.
6. To provide safe, stimulating and educational programs that maximize use of the site and meet City of Calgary, project partners, and the Calgary Board of Education's requirements.
7. To develop and implement interpretive and educational programs that deliver the messages of habitat protection, conservation and enhancement in a healthy urban landscape.
8. To provide research opportunities to better understand how these systems polish/treat water and are utilized by various fish and wildlife species.
9. To model different aquatic ecosystems to demonstrate important habitat conservation and protection techniques.

Deliverables:

- Vegetation of the constructed landscapes that will evolve into sustaining plant communities requiring minimal long-term maintenance.
- Expert advice to select appropriate native species to establish the vegetation communities.
- Secure funding and needed resources for 2003-04 wetland development
- Protection of valuable riparian areas during the re-naturalization of Pearce Estate Park to preserve and create new fish and wildlife habitat.
- Development of two new outdoor programs in the park that will support BHS programs with a focus on fish and wildlife habitat protection, conservation, biodiversity, aquatic ecology and environmental stewardship.
- Completion of a unique entry feature for BHS which will provide a staging area for visitors and sponsor recognition for partners, including partner plaques, logo recognition on interpretive signs.

- A major media event to officially open the PEPIW, which will feature project partners and the key message of aquatic habitat conservation and protection.

How will you share the results of the project with others:

This is a very exciting project and we continue to get requests for information about the project. Our website will be up and running this year which will feature the PEPIW project; we are publishing a brochure and other promotional materials, and editorials; media events, special events, and other marketing activities will also provide information to target audiences. In co-operation with our sustaining partners, we are planning to develop several new wetland educational programs that will have a direct curriculum link for school aged children. Current program requests exceed our ability to deliver programs. The “*Swamp Bugs and Cattails*”, , “*Ducks and Critter Soup*”, “*Trout on Tour*”, and “*FinS*” programs were delivered to more than 49,000 students last year.

We intend to be a “must visit site” through ongoing marketing with Travel Alberta, Calgary Convention and Visitors Bureau, local conservation clubs which attend the annual “Wild Thing” Special Event at the hatchery, and through word of mouth from students who attend educational programs on-site.

Boreal Forest Research Centre

Project Location: Peace River, Alberta
Identifying Code: 010 80 90 005
Funding Allocation: \$10,000.00
Proponent: Hugh Seaton

Contact Information: Boreal Forest Research Centre
H.A. George Building, Fairview College,
Bag 3500
Peace River, AB T8S
boreal@fairviewcollege.com

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

The Boreal Forest Research Centre is a consensus governed, multi-party group that advocates research, educational priorities, and the wise use of natural resources of the northwest boreal forest region.

The Boreal Forest Research Centre partners meet on a quarterly basis to establish goals and review the business plan. Fairview College administers the Centre on behalf of the partners

The Centre has five objectives that relate to natural biological resources.

Research collaboration with the forest industry

The forest industry is a large contributor of partner funding towards ACA projects in NW Alberta. The Boreal Forest Research Centre is a "think tank" for research planning and collaboration between the forest industry and the ACA.

Enhancing Habitat in Forest Management Areas

The forest industry is engaged in research and demonstration projects that have a positive impact on fish and wildlife habitat. The Boreal Forest Research Centre partners are committed to ecosystem management that conserves and enhances fish and wildlife habitat. In our program area, the forest industry sponsors about \$1 million per year in ecosystem and habitat research.

Technology transfer and training.

Research results are often not conveyed to practitioners in a systematic manner. The Boreal Forest Research Centre is a forum for researchers to convey their findings and recommendations to biologists and foresters in the NW boreal region. The Centre sponsors seminars on emerging and strategic topics and is known as a forum for future - oriented topics and prominent speakers.

Public awareness and involvement in boreal research.

There is an opportunity to increase public awareness of the world class research that is taking place in the NW Boreal Region. The Boreal Forest Research Centre connects the public and interest groups to research in the region through public participation in field tours, grand openings of research projects and related events in order to raise the profile of research activities and natural resource management.

High school student education in natural resources.

A challenge for teachers is to customize education to reflect local conditions, and to provide "hands on" learning activities. The Boreal Forest Research Centre sponsors high school

education activities, including the research show "Forest Explorers", the high school research program, "Boreal Forest Education Program", and the administration of scholarship programs. In addition, the Centre organizes mentoring between researchers and high school students.

Deliverables:

The Boreal Forest Research Centre will provide the following deliverables for 2002-03:

- o 5 - 7 technology transfer workshops.
- o the Project Management Group will receive quarterly progress reports and an annual report.
- o 2 newsletters distributed to 285 contacts.
- o Catalyst to ACA meetings with industry to promote collaborative funding for conservation research. For example, the meeting on January 29, 2003 in Manning to discuss Stream Crossing Inventory. ACA will receive two or more new forest industry funded research projects.
- o 150 visits per month to our program website.
- o Reports and proceedings will be written and circulated regarding workshops, conferences, and "Forest Explorers".
- o 1-2 public events are sponsored per year (e.g.s., information nights, tours, and grand openings).
- o 5 - 10 media stories per year.
- o the research database "clearinghouse" is established; research lists are disseminated to target groups, and research information is made readily accessible.
- o 300 + students, public, researchers, and practitioners attend "Forest Explorers". Research displays and presentations are at a suitable level for a school audience and the public.
- o 4 - 6 high school projects receive the Boreal Forest Education Award
- o \$11,000 in annual scholarship funds are provided. 80% of this amount is matched by the NADC. 80% of student return service obligations are fulfilled.
- o 15 + students per year involved in research mentoring projects.

How will you share the results of the project with others:

The newsletter is distributed to a mailing list of 285 contacts.

The website is linked to the ACA website. Our website received more than 120 visits in the first three weeks of January 2003.

The Centre is a clearinghouse of information on boreal research. The website includes a publicly searchable database.

The Centre hosts 5 – 7 seminars and workshops per year.

The Centre receives 10 – 15 print media stories per year.

The Centre sponsored bi-monthly radio stories pertaining to natural resources.

The Living by Water Project

Project Location: Alberta
Identifying Code: 010 20 90 004
Funding Allocation: \$19,264.30
Proponent: Kimberley Dacyk

Contact Information: Federation of Alberta Naturlists
11759 Groat Road
Edmonton, AB T5M 3K6
shorelines@fanweb.ca

Project Status: Complete
Deliverables: Final Summary Report located in Edmonton ACA Corporate Office.

Project Objectives:

Influencing positive, measurable shifts in attitudes about riparian and watershed values and uses, which are followed by actions that result in improvement of riparian health;
Providing participants with concrete information and tools about specific actions they can implement on their own property to improve the quality of their riparian area;
Through education and increased awareness participants will choose to alter their lifestyles so that long term benefits are initiated along and within the water body including fish and wildlife habitats and water quality;
Creating an opportunity for ongoing peer support network among waterfront residents;
Encouraging partnering and community based action to work together on watershed issues; and
Encouraging the development of baseline data to help communities monitor shoreline characteristics and changes.

The following describes the components of LbyW's core programs:

Shoreline Action Challenge Program – Waterfront residents are encouraged to make a “pledge” or written commitment to protect, restore, or enhance their own property. Pledges are made via a checklist of easy actions that residents can carry out in their home, along the shoreline, and on the water to help protect and restore shorelines.

The Homesite Assessment Program – Home visits are made to interested waterfront residents by trained advisors who will work with the resident to identify changes which could be made to a home or property (back and front yard – including shoreline) to improve environment-friendliness.

The Workshop-in-a-box Program – The Workshop-in-a-box is a transportable resource kit designed to assist community groups in hosting a shoreline resident's workshop. Modules include: healthy shorelines, septic systems, shoreline erosion, shoreline recreation, and water quality;

On the Living Edge – Your Guide to Waterfront Living – This book includes tips, advice, and references to assist residents with the challenges of waterfront living.

Deliverables:

Monitoring and evaluation activities will be undertaken by the *LbyW* Provincial Coordinator, *LbyW* National Steering Committee and an independent outside organization. Examples of how we will evaluate our success include, but not limited to, the following:

- Maintaining and enhancing existing partnerships with shoreline communities, government and non-government organizations;
- Engagement of at least 3 communities in which summer students can work in cooperation;
- Selling of 500 copies of On the Living Edge.

LbyW core elements

- Number of home assessments carried out (October 2003)
- Number of shoreline action checklists completed and submitted (December 2003)
- Number of shoreline ambassador certificated issued (December 2003)
- Number of metres of shoreline represented by commitments (December 2003)
- Completion of Workshop-in-a-box adaptation for Alberta (December 2003)

How will you share the results of the project with others:

Presentations, lakeside visits, websites, and through the Living by Water book.

Appendix 1.

Funding Guidelines

Alberta Conservation Association

Grant Eligible - Conservation Fund

Project Submission Guidelines For Funding in 2003 - 2004

At the **Alberta Conservation Association (ACA)**, we believe it is our responsibility to join and support the collective effort to conserve, protect and enhance Alberta's natural biological resources. One of the ways in which we do this is to make grants to our partners. Grants made to partners are intended to enhance and supplement ACA activities.

The ACA is a Delegated Administrative Organization incorporated under the Societies Act of Alberta. The Alberta - Minister of Environment has delegated the operation of certain programs to the ACA. Powers, duties and responsibilities are as indicated in the Wildlife Act, Part 9, 97(1) and AR 143/97 Wildlife Regulation, Schedule 2.

Last year, we contributed more than **\$1 million dollars** to organizations and individuals through environmental grants and project funding. The ACA has been awarding environmental conservation grants since 1997 and is proud to enter into its 7th year of Conservation Funding.

This Project Submission Guidelines package contains information to help you apply for funding to the Alberta Conservation Association - Grant Eligible Conservation Fund.

- Section A: About This Grant**
- Section B: Eligibility**
- Section C: Major Funding Goals & Priorities 2003 – 2004**
- Section D: Grant Application Screening & Decision Process**



Section A: About This Grant: 2003-2004

Purpose:

The **Grant Eligible - Conservation Fund** aims to aid the Alberta Conservation Association in the delivery of its mission and Strategic Business Plan. Grants made to partners are intended to enhance and supplement ACA activities.

- ? Read the *Project Submission Guidelines* carefully to determine if your project is eligible for funding prior to preparing a formal submission to the Alberta Conservation Association.
- ? Download the appropriate application form based on funding request, and then submit your application by e-mailing it to the ACA. Ensure that all sections of the application are complete, clear and thorough. Attach any relevant supporting documents.

Who Can Apply:

Any organization or individual can apply if they have a suitable project. Alberta Conservation Association staff and Alberta Government Sustainable Resource Development staff are not eligible to apply to the fund.

How to Apply:

Use the appropriate application form based on your funding request, together with any appropriate supporting information.

- ? Small Grant Application Form – requests up to \$1,000.00.
- ? Large Grant Application Form – requests over \$1,000.00.

Successful applicants will normally be expected to follow the ACA Cooperative Project Agreement.

Where to Apply:

Submit completed **Grant Eligible - Conservation Fund** applications to:

Alberta Conservation Association,
P. O. Box 40027, Baker Centre Postal Outlet
Edmonton, AB
T5J 4M9.

Attention: **Grant Eligible - Conservation Fund**
Telephone: 780.422.3319
Facsimile: 780.422.6441
Email: info@ab-conservation.com

In an effort to reduce paper consumption, we appreciate your effort to provide your completed application electronically. Upon receiving your proposal, we will send you an acknowledgment receipt by e-mail or telephone, within **five** business days.

When to Apply:

The ACA will receive applications from January 1 to 31, 2003 for funding consideration in the 2003/2004 fiscal year. Applications received after **16:30** on **January 31, 2003** will not be accepted.

Section B: Funding Eligibility

Any organization or individual may apply to the **Grant Eligible - Conservation Fund** if they have a suitable project.

Note: Alberta Conservation Association and Alberta Government, Sustainable Resource Development staff are not eligible to apply to the fund.

Grants Are Available For:

- ? Projects that meet and further the ACA mission: to conserve, protect and enhance Alberta's biological natural resources;
- ? Projects that contribute to the priorities as outlined in the Annual Operating Plan 2003-2004 & Strategic Business Plan 2003-2006;
- ? Priority is given to projects that demonstrate a "self help" attitude. i.e. Partner contributions and matched funding dollars;
- ? Research (academic) projects that clearly meet ACA funding criteria and demonstrate initiatives, which are likely to have a wider relevance and further the practice of *conservation*;
- ? Consideration may be given to funding "project staff" wages to a maximum of two years. (project staff wage money must clearly demonstrate a "self help" attitude)

Grants Are Not Available For:

For a variety of considerations, support will not be provided in response to the following types of requests:

- ? Funding for regular ongoing staff salary positions;
- ? Grants are not normally offered towards profit-making activities;
- ? Grants are not normally available for ongoing administration costs or for the funding of administrative staff;
- ? Emergency funds or deficit financing;
- ? Conferences and seminars, unless part of a larger project supported by the Association;
- ? Travel costs, unless part of a larger project supported by the Association;
- ? Publication costs are not normally funded, unless part of a larger project supported by the Association;
- ? General fundraising;
- ? Land Acquisition. (Land Acquisition proposals can be submitted to the Habitat Acquisition Fund via the ACA Board of Directors.)

Important Granting Information:

- ? Payment of grants is normally made quarterly or entirely;
- ? Project activities must occur between April 1, 2003 and March 31, 2004;
- ? Grants cannot be made retrospectively, that is for works started prior to the current fiscal year April 1 to March 31;
- ? The ACA may charge an administration fee for any monies held in trust;
- ? Capital equipment purchases remain the property of the ACA upon project completion.
- ? Successful applicants will normally be expected to follow the ACA Cooperative Project Agreement.

Your information will be used only for the purpose for which it was originally collected, and it will be disclosed only on a strict "need-to-know" basis. Be assured that we manage the information contained in your submission in manner commensurate with its sensitivity.

Section C: Major Funding Goals & Priorities of the Conservation Fund 2003 – 2004

Grants made to partners are intended to aid in the delivery of the ACA mission and Strategic Business Plan. The following list of funding goals and priorities for the Grant Eligible Conservation Fund is derived from the Strategic Business Plan 2003-2006. The Strategic Business Plan 2003-2006 is available on-line at www.ab-conservation.com.

ACA Wildlife Program Priorities for 2003-2004

1. Population Inventory Data

The execution of field surveys to describe the distribution and abundance of a species to aid in the effective management of wildlife by providing accurate trend information.

2. Implementation of Management, Conservation, or Recovery Plans

Management actions taken to maintain or re-establish the abundance and distribution of a species within their natural range.

3. Collecting and Compiling Data

The collection and integration of information on the abundance and distribution of a species and/or their habitat requirements to assist in the effective management of the resource.

4. Habitat Inventory Data

The execution of field surveys to describe the diversity and abundance of physical habitats.

5. Data Management System

A systematic method involving computer hardware and software used to store, manipulate and export data.

6. Human/Wildlife Interactions

The process of identifying and often mitigating when and where humans and wildlife interact and the outcomes of those interactions.

ACA Fisheries Program Priorities for 2003-2004

1. Fish Populations, Trends and Status

Effective resource management depends on the availability of timely and accurate information regarding status and trends over time. Currently, a comprehensive process that enables biologists to determine the condition of populations does not exist for all situations and species, especially non-sport fish species. It is necessary to develop and implement such a process.

2. Sport Fish Harvest and Angling Effort

Fish harvest and fishing effort are key management parameters that can be manipulated to ensure sustainable use of fish stocks. Some sport fish in Alberta, such as walleye and pike, have new management strategies that require specific data collection and analysis. Management plans for other species need to be developed or revised. The execution and revision of management strategies depends on timely and accurate data.

3. Cumulative Effects

The total influence of all human activities on aquatic ecosystems may exceed the “sum of their parts.” In order to protect the basic elements of aquatic systems and ensure their sustainability, it is vitally important to understand the multiplicative effect of human activities on aquatic systems.

4. Fish Habitat Status and Change

The condition of fish populations must be related to the status of the habitats that support them, so that habitat and fish management occurs in a synergistic and effective manner. As with fish populations, a process needs to be developed and implemented in support of this need.

ACA Habitat Program Priorities for 2003-2004

1. Riparian Habitat

These habitats make up four percent of Alberta's land base. Yet, eighty percent of Alberta's wildlife and fish species depend on this habitat at some point in their life cycle. ACA is committed to conserving this rapidly disappearing habitat through a variety of methods.

2. Habitat Supporting Species At Risk

ACA is committed to conserving and enhancing habitats that support species whose populations are diminishing due to reduced availability of the habitat upon which they depend.

3. Critical Upland Habitat

These critical habitats could be defined as habitats that are limiting population viability, or are crucial to a particular species in a certain area or contributes a significant biological function to the ecosystem in question.

4. Habitat Supporting Recreation Opportunities

The conservation or enhancement of habitats that add value to wildlife and fish related recreational opportunities of Albertans are important for ACA.

Please note: Land Acquisition proposals are not reviewed by the Grant Eligible Conservation Fund. Direct all Land Acquisition proposals to the Habitat Acquisition Fund via the ACA Board of Directors.

Section D: Grant Application Screening & Decision Process:

The Alberta Conservation Association receives funding requests far in excess of our financial resources and often must decline funding to worthy projects and programs. This does not in any way reflect the value of the organization/individual involved.

The ACA Board of Directors appoints a Granting Committee comprised of **13** members who referee and assess the grant applications based on the established funding criteria. This committee is composed of a chairperson plus two (6-member) sub-committees including chairpersons for each committee who is also a Board Director. These two sub-committees will be orientated toward Fisheries and Wildlife projects respectively.

Applicants will be notified of status of their submission by March 14, 2003. Successful grant applicants will normally be expected to follow the ACA Cooperative Project Agreement.

Alberta Conservation Association **Grant Eligible - Conservation Fund**

April 1, 2003 to March 31, 2004

Cooperative Project Agreement

Between

ALBERTA CONSERVATION ASSOCIATION

-and-

Recipient

(Name, Address & other contact information)

Project Title:

Project Code:

000-00-00-000

Maximum Funding:

Date Created:

A. ACA PROJECT ADMINISTRATION CONTACT:

The funding recipient shall direct all questions and communications regarding this project to the GECF Project Administrator.

Alberta Conservation Association, P. O. Box 40027, Baker Centre Postal Outlet Edmonton, AB T5J 4M9 Attn: David Fairless, GECF Project Administrator	Telephone: 780.422.3319 Facsimile: 780.422.6441 Email: dfairless@ab-conservation.com
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B. FUNDING TERMS AND CONDITIONS

The Alberta Conservation Association Agrees to:

Provide a maximum contribution of **\$0.00 dollars (zero dollars and zero cents)** during the 2003-2004 fiscal year (April 1 to March 31) to support this project. Payments will be made as per Schedule B, attached.

The Grant Recipient Agrees to:

1. Conduct the project according to the plan specified in the project proposal submitted to ACA (Schedule A).
2. Obtain ACA's approval on any departures from the project proposal (Schedule A) that alter the potential for achieving the objectives and deliverables of the project.

3. Provide ACA with the reports specified in Section D.
4. Acknowledge the contributions of Alberta Conservation Association in all reports, presentations and publications resulting from the project.
5. Use these funds exclusively on direct expenses associated with this project as identified in the project proposal submitted to ACA (Schedule A).
6. Include with the final report (due on or before March 15, 2004) a financial accounting of all expenditures of these funds.
7. Assume responsibility for any expenditure of funds beyond those approved in Section B of this agreement.
8. The Successful Applicant shall perform all work in accordance with all applicable laws, regulations, rules, codes and ordinances of authorities having jurisdiction and will obtain any and all permits/licences and permissions required to carry out activities described in this agreement.
9. Applicants, and the institutions and organizations they represent or by which they are employed, assume complete responsibility for carrying out their project and for the results thereof.
10. By accepting a grant of funds, the applicant and the institution or organization release, and agree to indemnify, Alberta Conservation Association and its directors and officers from and against any liability, damages, cost and expenses arising from any injury or damage whatever, that may be suffered or incurred by an individual, firm, corporation or agency and which is caused or contributed to, directly or indirectly, by the operations of the applicant, his or her institution or organization or by use and application of the grant funds.

C. BUDGET EXPENDITURES

1. Funds provided by the ACA must be spent in accordance with the budget contained in the project proposal (Schedule A) that was submitted to, and approved by the ACA. Deviations from this budget must be discussed with, and approved by the ACA Contact.
2. All assets (items with a useful life greater than one year) purchased for your project with ACA funds are the property of the ACA, and, accordingly the ACA must be made aware of any assets purchased. Assets purchased with ACA funds are to be returned to the ACA Contact upon completion of the project.

D. REPORTING

The Funding Recipient will provide the ACA Project Administration Contact with:

1. **The final project report is required on or before March 15, 2004.** Included in this report should be a detailed accounting of how ACA funds were expended including receipts, if applicable. Please include both a hardcopy and an electronic copy and good quality photographs/images that can be included on the ACA website or on other printed material.
2. **Quarterly updates on activities related to the project will be required on or before July 1, October 1, and January 1.** These updates should follow the Web Page Project Summary Format and should include a separate accounting of the funds spent to date. Quarterly reports will be used to update your project information on the ACA website, therefore it is suggested that you send updated photographs whenever possible. Please send electronic copies where possible.
3. **Web Page Summary: A one-page project summary (max. 250 words) and at least one photograph/images (print, slide or jpeg scan at 75 dpi) must be submitted to the ACA Contact along with this agreement.** This summary is to be presented according to the Web Page Project Summary Format (Schedule C) and will be uploaded to the ACA web site.

If this is a new project and photographs/images are not yet available, please forward the photographs/images with your first quarterly report.

4. Any other reports or deliverables required, as specified in the project proposal (Schedule A).
5. At the request of the ACA Contact, you may be invited to make an oral presentation of the project.

Note: Payment of the final 25% of the project grant and future funding by ACA is contingent upon meeting all of the reporting requirements listed above. Failure to comply with these conditions may impact future funding.

E. ACKNOWLEDGEMENTS

Grant recipients are expected to acknowledge Alberta Conservation Association in all reports, presentations, publications and press releases concerning the project. Whenever possible the ACA logo should appear along with the acknowledgement. The ACA Contact will send you a copy of the ACA logo in an electronic format at your request.

F. EXTERNAL FUNDS

The ACA will receive and administer external funds for your project, if requested. Cheques must be made payable to the Alberta Conservation Association and should be accompanied by a letter from the donor specifying the amount of the donation, and the project to which funds should be directed. If external funds are expected to be administered by ACA, please list below.

G. ADDITIONAL SPECIFICATIONS

Inspection and Audit. The Alberta Conservation Association is entitled to have its authorized agents review files, documents, accounting records, the premises of the Recipient, and any other locations and assets pertinent to the Project in order to assess whether the Recipient is in compliance with this Agreement.

Termination. If the Recipient declines to continue with the project once funds have been disbursed, or has breached any of its obligations pursuant to this Agreement, the Alberta Conservation Association may pursue remedies at its discretion, including giving written notice of termination of support to the Recipient, and after 10 days may demand payment of any portion of the funds that have not either been expended, or committed to be expended at that date.

H. ACKNOWLEDGED BY APPLICANT AND SIGNATURES

The Applicant and/or Project Manager acknowledge that they have read, understand, and will comply with the terms of this agreement including the attached schedules. Failure to comply with the terms of this agreement will result in the holdback of funds and may negatively impact future funding eligibility.

_____ Applicant / Project Manager (Printed Name)	_____ Signature	_____ Date
_____ Witness (Printed Name)	_____ Signature	_____ Date
_____ Alberta Conservation Association	_____ Signature	_____ Date

SCHEDULE A

PROPONENT'S PROJECT PROPOSAL

The attached proposal, "" serves as a description of the Project.

SCHEDULE B

PAYMENT SCHEDULE

The Alberta Conservation Association will disburse the funds according to the following schedule.

Please Note:

An invoice for each scheduled payment must be submitted to the Alberta Conservation Association before payment will be processed. Please ensure that the Project Code is clearly identified on each invoice.

Project Title:
Project Code: 000-00-00-000
Maximum Funding: \$0.00

The maximum contribution of **\$0.00 (zero dollars and zero cents)** for the 2003-2004 fiscal year will be divided into payments, as follows:

Payment One:

An initial contribution of **\$0.00**, will be forwarded to you following receipt of this signed agreement by all parties and a corresponding invoice.

Payment Two:

\$0.00 will be paid upon receipt of a quarterly report on or before July 1, 2003.

Payment Three:

\$0.00 will be paid upon receipt of a quarterly report on or before October 1, 2003.

Payment Four:

\$0.00 will be paid upon receipt of a quarterly report on or before January 1, 2004.

Payment Five:

The remaining **\$0.00**, which represents 25% of the total grant, will be forwarded to you following the receipt of the final report on or before March 15, 2004 and upon approval of all other reporting requirements by the ACA Contact.

Please refer to **Section D** of the Project Agreement for details on reporting requirements.

SCHEDULE C

ACA WEB PAGE PROJECT SUMMARY FORMAT

Please submit project summaries and updates as per the following format.

- ? Project Title
- ? Short background and/or rationale for the project (maximum 200-250 words).
- ? Description of the project.
- ? Update and/or current status of the project.
- ? Project partners
- ? Lead Agency and/or Project Manager
- ? Reports available
- ? Contact Information
- ? Reciprocal Links
- ? least two photographs (print, slide or jpeg at 75 dpi) preferably in a digital PC format.