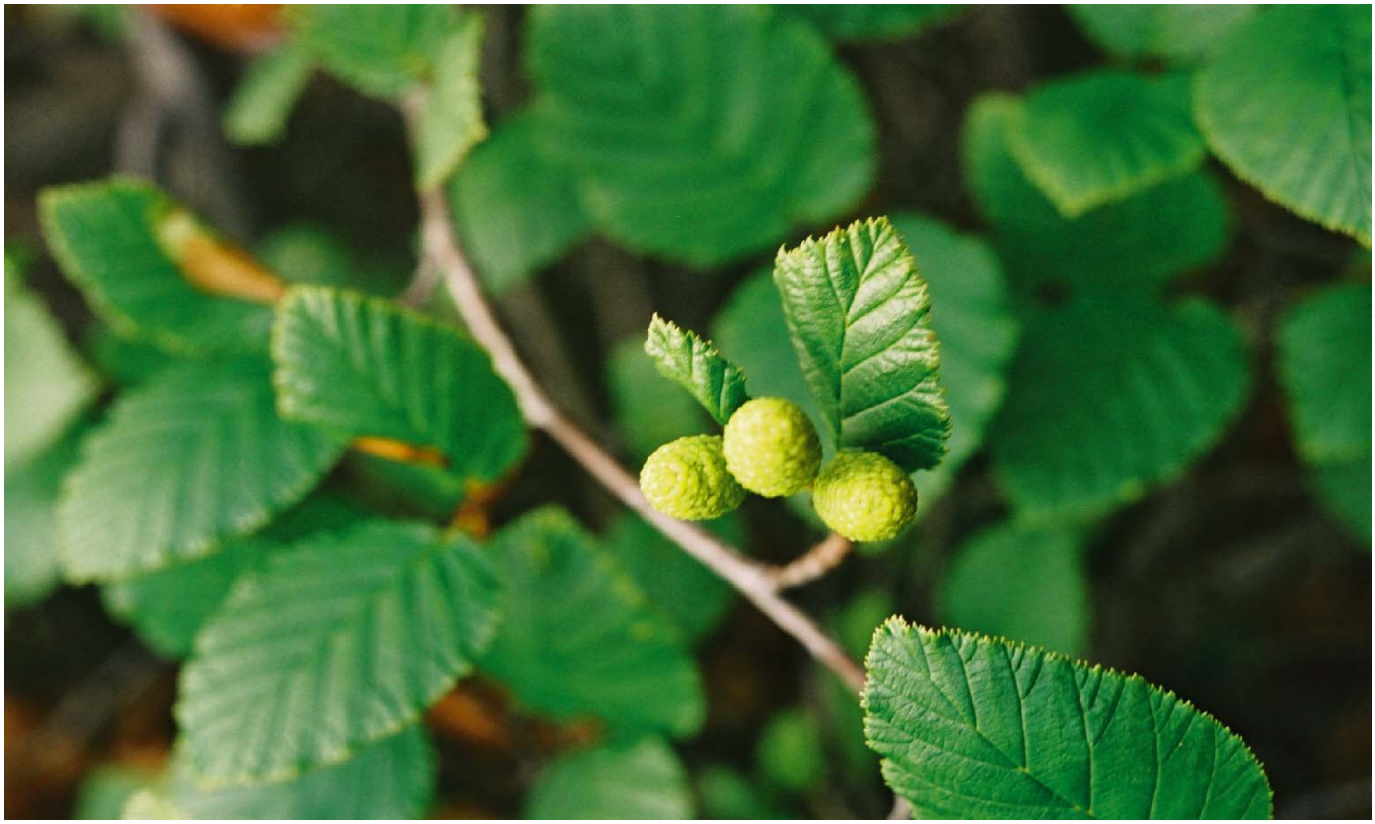
Alberta Conservation Association

Grant Eligible Conservation Fund
2004 – 2005



Annual Report of Activities
&
Funding Recipient Project Summaries

For the Period of
April 1, 2004 to March 31, 2005

Compiled by: David Fairless
Edmonton, Alberta
June 2005

Alberta Conservation Association

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Front Cover Photo Credit:
David Fairless

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Alberta Conservation Association

SUMMARY:

The **Grant Eligible - Conservation Fund** aims to aid the Alberta Conservation Association (ACA) in the delivery of its mission and Strategic Business Plan. Grants made to partners are intended to enhance and supplement ACA activities. This document outlines the activities of the *fund* and provides detailed information on the sixty-one projects that were approved for funding.

KEY PROGRAM HIGHLIGHTS
Grant Eligible Conservation Fund 2004/2005

- This year we awarded a total of **$1.1 million** to **61** projects.
- **120** funding requests with a total dollar value of **$2.9 million**.
- Range in project funding allocation **($950.00** to **$60,000.00**).
- GECF formally began in 2002/2003.
- Mean funding allocation **$17,994.76.**
- Median funding allocation **$14,750.00.**
- **3rd** funding cycle in this new streamlined format.
- A wide range of projects were initiated with far reaching benefit.
- To date over **$3 million dollars** provided to the conservation community.
- Since then 2002, **160** projects have been funded.

ACA PROJECT ADMINISTRATION CONTACT:

Alberta Conservation Association, 7th Floor, O.S. Longman Building 6909 - 116 Street Edmonton, AB T6H 4P2 Attn: **David Fairless, GECF Project Administrator**	Telephone: 780.644.6833 Facsimile: 780.422.9685 Cell: 780.974.1334 Email: david.fairless@ab-conservation.com

1. Introduction:

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 has been awarding environmental conservation grants since 1997 and is proud to have completed its 8th year of Conservation Funding. Up to **$1.1 million dollars** was available for project funding via the Grant Eligible Conservation fund during the 2004/2005 funding cycle.

This document summarizes the activities - Grant Eligible Conservation Fund from April 1, 2004 to March 31, 2005. In total sixty-one conservation projects were approved for funding; a synopsis of their respective objectives and project deliverables is also presented in this document.

2. 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.

3. Funding Allocations:

Up to **$1.1 million dollars** was available for project funding via the Grant Eligible Conservation Fund during the 2004/2005 funding cycle.

- This year we awarded a total of $1.1 million to 61 projects.
- 120 funding requests with a total dollar value of $2.9 million.
- Range in project funding allocation ($950.00 to $60,000.00).

ACA funding supports a wide variety of applicants and project types. In fact, applications are received from a diverse cross section of the population including: Albertans, community groups, conservation organizations and leading edge scientific researchers. The conservation community is responding to these funding opportunities very positively by submitting funding requests for vital conservation work. The increasing numbers (Table 1.) of applicants shows that ACA programs are becoming widely known and that the funds are contributing significantly to conservation efforts in Alberta.

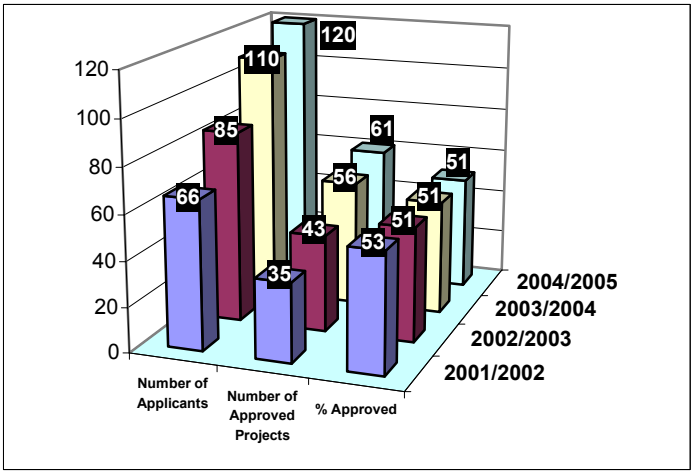


Table 1. Summary of applicants and recipients to the Grant Eligible Conservation Fund 2002 to 2005.

4. Proposal Review Process

The ACA Board of Directors appoints a Granting Committee comprised of three board members and ten citizens of Alberta, who referee and assess the grant applications based on the established funding criteria. Reviewers are tasked with:

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

ANNUAL FUNDING CYCLE DATES

Posting of the Guidelines and Application Forms on ACA's website	December 15
Window to receive completed applications	January 1-31
Proposal Review Committee Adjudication Meeting	February
Notification of Applicants as to Funding Status	March
Projects Work Occurs	April thru March

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 merit, recommend funding in whole or in part if funds available.
C: Do not recommend funding

5. Funding Eligibility:

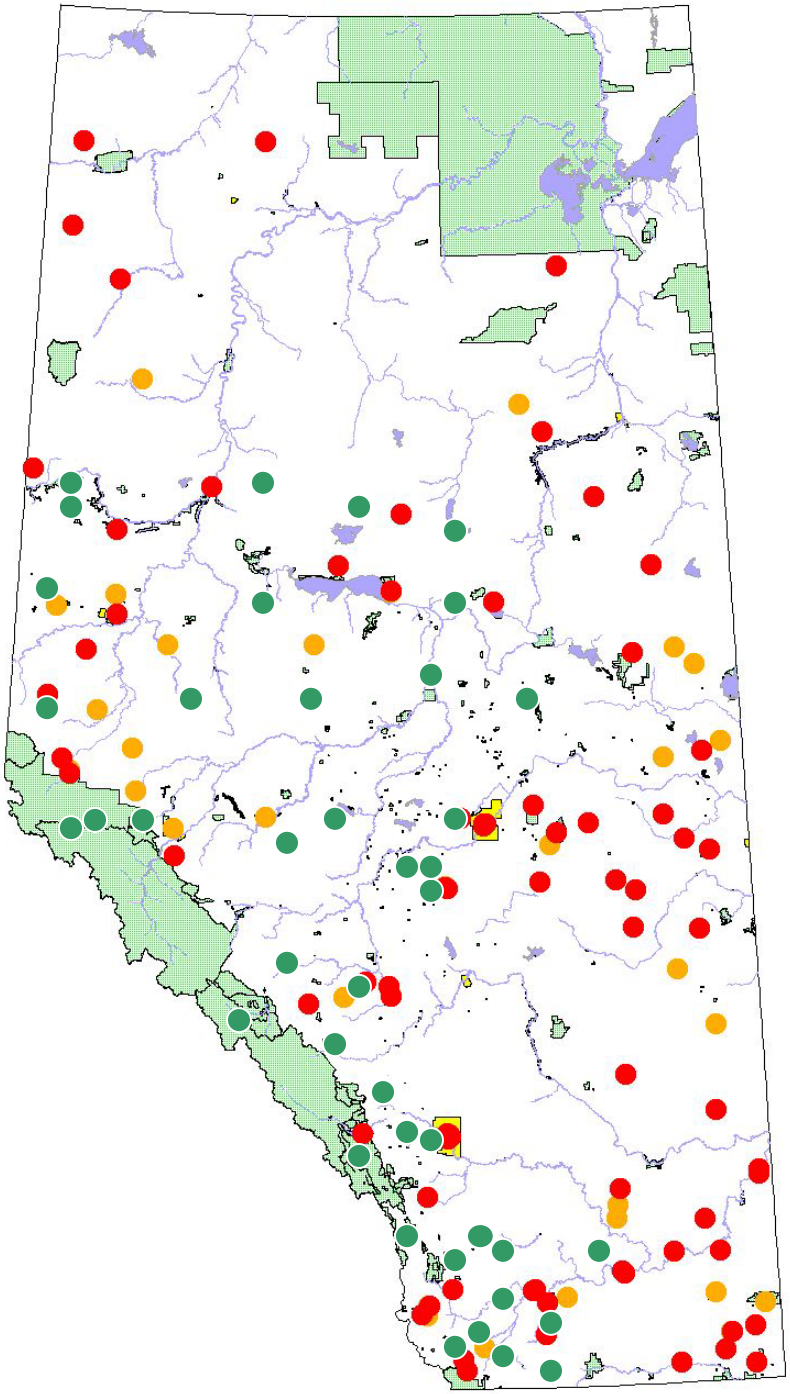
The Alberta Conservation Association (ACA) funding supports a wide variety of applicants and project types. In fact, applications are received from a diverse cross section of the population including: Albertans, community groups, conservation organizations and leading edge scientific researchers.

- Any organization or individual may apply to the Grant Eligible - Conservation Fund if they have a suitable project.
- Alberta Conservation Association and Alberta Sustainable Resource Development staff are not eligible to apply to the fund.
- Recipients of funding support from **ACA Grant in Biodiversity** Fund will not be eligible to receive funding from the Grant Eligible Conservation Fund for the same project in the same calendar year; **http://www.biology.ualberta.ca/biodiversity/**

For more information on Eligibility Guidelines see Appendix A.

6. 2002-2005 Grant Eligible Conservation Fund Project Locations

ACA's GECF projects cover a wide range of the province. Many of the projects have a provincial scope and therefore are not geographically represented on the map. In total **160 projects** have been financially supported.



2004/2005
61 projects

2003/2004
56 projects

2004/2005
43 projects

7. Major Funding Goals & Priorities 2004 – 2005:

Major Funding Goals & Priorities of the Conservation Fund 2004 – 2005
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 2004-2007.

ACA Wildlife Program Priorities for 2004-2005

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 2004-2005

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 2004-2005

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.

8. Synopsis of Project Activities 2004 – 2005

A summary description of each of the 61 project and the respective objectives and deliverables follows:

1. Local and Regional-Scale Societal Dynamics in Grizzly Bear Conservation
2. Monitoring Avian Productivity and Survivorship (MAPS) in Jasper National Park
3. Atlas of Breeding Birds of Alberta: Update Project
4. Wolverine Population Monitoring and Habitat Use in Alberta
5. Nest site studies of Peregrine and Prairie Falcons
6. Genetic Diversity and Paternity Analysis of Endangered Canadian Sage-Grouse
7. The impact of the current drought on Beaverhills Lake
8. Source/sink dynamics of American Redstarts in woodlots in an agricultural area
9. Boreal Forest Bird Monitoring
10. Landscape composition and demography of northern pintails in the southern Canadian prairies
11. Boreal Caribou Research Program
12. Operation Grassland Community
13. Physiological, Behavioral and Ecological Responses of Mule Deer and White-tailed Deer to Drought Conditions in East-Central Alberta
14. Wolf Density and Monitoring techniques in the Central East Slopes of Alberta
15. Effects of access and hunting on the behavior and demographics of black bears
16. Linking Ungulate population dynamics to fire and wolf predation: the Ya Ha Tinda Elk and Wolf Project
17. Migratory songbird response to levels of salvage logging of fire landscapes of northeastern Alberta
18. Ecology, management, and conservation of mountain goats at Caw Ridge
19. Integrated Landscape Management Program at the University of Alberta
20. Effects of landscape changes on marten fur harvests in the mixedwood boreal forests of Alberta
21. Lithium Chloride (LiCl) as a Deterrent to Licking of Road Salt by Ungulates (Bighorn Sheep)
22. Effects of multiple land use on movements and habitat use of migrating prairie rattlesnakes: Improving the certainty of wildlife management in the Grasslands Natural Region of Alberta
23. The effects of forest fragmentation on the movement behaviour and reproductive success of the Northern Saw-whet Owl
24. Alberta Raptor Monitoring Program – Data Capture and Analysis
25. Water Level Effects on Bird Species Distribution and Abundance at Beaverhill Lake
26. An evaluation of cumulative impacts on wetland associated bird communities
27. Landscape change in the Middle Sand Hills: implications for endangered kangaroo rats and other species that depend on sandy habitats
28. Fur Display Kits
29. Block Funding for Province Wide AFGA Club Projects
30. A Framework for Ecosystem-Based Development planning in the Municipal District of Foothills No.31 using Elk and Other Ungulates as Indicator Species
31. Restoring the Weed Lake Landscape
32. Stream Crossing Education Project - Industry Workshops and Field Training
33. Recreation and wildlife in the Rockies of Southwestern Alberta: Human Use and its effects on wildlife, riparian areas and regional connectivity
34. Forest Explorers Education Program
35. Re-Print of Conservation and Hunter Education Manuals
36. Instructional Techniques Workshop
37. The Living by Water Project
38. Alberta Riparian Habitat Management Program - Cows and Fish
39. Factors influencing the effectiveness of breakaway snares to capture coyotes and release deer in Alberta
40. Hunting For Tomorrow Foundation – Working Group Deliverables
41. Aquatic invertebrate biodiversity of riverine ecosystems in the South Saskatchewan Drainage Basin.
42. Citizen Science Network
43. Conservation-Hunting: Conference, Workshop, Book, Best Practices Manual
44. Conservation Lands Partnership
45. The State of The Basin Report
46. On the Brink: the endangered species of Alberta show
47. Limber pine conservation in Canada
48. Kinsmen Park Stream bank and Fish Habitat Restoration Project
49. Integrated Resource and Habitat Management on the Eastern Slopes
50. Innovation Alberta Omnimedia Project
51. Salmonid Aquarium Display
52. Tide Creek Beaver Management Project
53. Quirk Creek Native Fish Initiative
54. Two Lakes Spawning Creek Project
55. Edmonton Urban Fishing Program
56. North-central Alberta Non-game Fish Status Assessment - year two
57. Long-term monitoring study on trends and status of the species and size composition, population size, and susceptibility to angling of fish in three tributaries of the upper Sheep River drainage in south-western Alberta
58. Crayfish Range Extension and Sportfish Adaptation
59. Fish Assemblages in Lac La Biche: Interactions with Double-crested Cormorants
60. Testing rainbow sentinel trout from southern Alberta Rivers for whirling disease
61. Experiment to determine cause of small walleyes in Alberta lakes

Local and Regional-Scale Societal Dynamics in Grizzly Bear Conservation

Project Location: **Southern East slopes**
Identifying Code: 030 10 90 007
Funding Allocation: $1,000.00

Principal Investigator: Douglas Clark
Contact Information: Wilfred Laurier University
Dept. of Geography & Environmental Studies,
75 University Ave. West,
Waterloo, ON N2L 3C5 clar2207@wlu.ca (519) 747-4358

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
This project investigates the responses of rural inhabitants to grizzly bear (*Ursus arctos*) conservation policies and both the local and regional-scale dynamics of conflict surrounding the implementation of those policies.

The overall goal of this study is to provide empirical and theoretical knowledge of how local and regional-scale social and cultural context influence grizzly bear conservation efforts, with particular focus on understanding the knowledge, perceptions, and actions of people inhabiting areas affected by grizzly bear conservation policies. Specific objectives are to:

1. understand how perspectives and standpoints develop and evolve at the local and regional levels in conflicts over grizzly bear conservation policies
2. understand how roles and power dynamics develop and evolve at the local and regional levels in conflicts over grizzly bear conservation policies
3. understand the role of experiential and enculturated relationships with grizzly bears in generating responses to grizzly bear conservation policies by local people
4. understand the role of the grizzly bear conservation policy process itself in generating responses to those policies by local people
5. critically examine the role and utilization of local inhabitants in regional land-use conflicts involving grizzly bear conservation issues.

Deliverables:
This research is part of my Ph.D. dissertation, which I anticipate completing in spring 2006. Primary deliverables will include the dissertation and peer-reviewed journal publications. As well, I have specific communication objectives and deliverables, described below.

Communication of Results:
In addition to the dissertation and refereed publications arising from this work, specific communication objectives include: presentation of results to project teams and collaborative management groups/ partners; and preparation of non-technical reports, posters and other media for participating agencies, boards, communities and supporters.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=361

Monitoring Avian Productivity and Survivorship (MAPS) in Jasper National Park

Project Location: Jasper National Park
Identifying Code: 030 50 90 016
Funding Allocation: $1,000.00

Contact Information: Friends of Jasper National Park
Attn: Susan Cesco
415 Connaught Drive, P.O. Box 992
Jasper, AB T0E 1E0
friends@friendsofjasper.com (780) 852-4767

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objective of MAPS is to provide long-term population and demographic information on target songbird species at various spatial scales by providing:

1. Annual measures and longer-term trends in adult population size and post-fledging productivity from analyses of numbers and proportions of adult and young birds captured during the breeding season; and
2. Annual estimates and longer-term trends of adult survivorship, adult population size, and recruitment into the adult population from analyses of mark-recapture data on adult birds gathered at these same stations.
3. Interested residents with an opportunity to contribute to bird conservation by gaining the skills necessary to volunteer at the station.

Deliverables:
Pyramid Lake MAPS Station Annual Report (November, 2004).

The Institute for Bird Populations (2003). The Monitoring Avian Productivity and Survivorship (MAPS) Program Annual Reports, 1989-2000. NBII/MAPS Avian Demographics Query Interface. http://www.birdpop.org/nbii/Default.asp

Communication of Results:
- Pyramid Lake MAPS Station Annual Report
- A local reporter will be invited to attend a banding session and write a story about the station in our local paper.
- Website
- Quarterly newsletter to our members

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=365

Atlas of Breeding Birds of Alberta: Update Project

Project Location: **Across Alberta**
Identifying Code: 030 40 90 002
Funding Allocation: $56,250.00

Contact Information: Federation of Alberta Naturalists
Attn: Philip Penner
11759 Groat Road
Edmonton, AB T5M 3K6 philipp@fanweb.ca (780) 427-8124

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

The main objective of the Bird Atlas is to establish a scientifically valid snapshot of bird distribution and abundance for Alberta. Data for this project will be added to FAN's Natural History database. Through reciprocal data sharing agreements with the Canadian Wildlife Service, Alberta Sustainable Resource Development and industry partners, this data is readily available to government resource management agencies for use in environmental assessments, natural areas planning, and the development of endangered species and wildlife management plans. The database is also accessible to naturalists, academic researchers, non-government organizations, environmental consultants and industry.

Deliverables:

Atlas:
One of the major products of this project will be the publication of a soft-cover book or atlas. The atlas will be published in 2006. The update atlas will act as a supplement to the first Alberta atlas published in 1992 (Semenchuk 1992). The product of the Bird Atlas will be of great interest to both birding and technical audiences, containing updated distribution maps, relative abundance estimates and comprehensive analytical results relating bird distribution and abundance to habitat availabilty, and predictive models linking projected population and distribution changes with land-use practices. Relative to the first Atlas, the update Atlas will have less emphsis on general life history information, although this may be provided as a supplemental CD, and a particular emphasis will be placed on the collection and analysis of field data from remote areas of the province. This information will be a valuable tool for resource managers, conservation and assessment biologists and research sicientists and will be of interest to Alberta's naturalist community. The atlas will also increase public awareness and understanding of Alberta's bird species. 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.

Natural History Database:

Data for this project will be added to FAN's Natural History database. This database contains records from the first atlas project, records from individual naturalists and records submitted through the Alberta Birdlist and Personal Birdlist Software programs and May Species Counts. Through reciprocal data sharing agreements with the Canadian Wildlife Service and Alberta Environment, this data is readily available to government resource management agencies for use in environmental assessments, natural areas planning, and the development of endangered

species and wildlife management plans. The database is also accessible to naturalists, academic researchers, non-government organizations, environmental consultants and industry.

Bird-Habitat Models:
A major thrust of the University of Alberta's Remote Areas Program is the development and validation of predictive bird-habitat models. Using data gathered from the 2001 summer field season, predictive models have been generated, which allowed for identification of parameters with high uncertainty, or where data was sparse. This information was used for direct sampling in the 2002 breeding bird field season. These models, with appropriate documentation, will be available to interested parties at no charge. In addition, the field sampling associated with this initiative will also aid in the refinement of guidelines for rigorous bird monitoring programs. These guidelines will also be made readily available to interested parties.

Peer-Reviewed Journal Articles and Graduate Theses:
The large volumes of data collected for the atlas project are readily amenable to detailed analysis. Much of the work associated the University Remote Areas Program will appear in graduate theses and peer-reviewed publications, as well as in the Update Atlas. As well, FAN hopes to involve academic researchers and graduate students in additional analyses made possible by the larger atlas data set. The results of any such studies could be highlighted in the atlas or in peer-reviewed journal articles or graduate theses. These initiatives will begin to commence when the project study period has been completed.

Alberta Birdlist and Personal Birdlist Software:
Volunteers participating on the atlas project are encouraged to submit records on paper Alberta Birdlist checklists or electronically using FAN's Personal Birdlist Software. Atlassers have become familiar with these reporting vehicles and are using them to submit records for entry into FAN's Natural History Database. The Personal Birdlist Software is made available at no cost to atlassers. It is hoped that birders will adopt this practice and continue to amass bird observational data even after the project's completion.

Communication of Results:
The final results of the Bird Atlas project will be made available through a soft-cover atlas 2005/2006. Portions of the atlas will be available on the FAN website. Data from the project is being entered into FAN's natural history 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. It is anticipated that detailed analysis of various data components will be available in peer reviewed journals or graduate student thesis.
www.fanweb.ca/

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=128

Wolverine Population Monitoring and Habitat Use in Alberta

Project Location: North East Alberta
Identifying Code: 030 50 90 012
Funding Allocation: $25,000.00

Contact Information: **Alberta Research Council**
Attn: Jason Fisher
Bag 4000
Vegreville, AB T9C 1T4
jason.fisher@arc.ab.ca (780) 632-8374

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The wolverine (*Gulo gulo*) is a reclusive and wide-ranging scavenging carnivore that has experienced considerable range reduction over the last two centuries. Although wolverine inhabit the foothills and boreal plain of Alberta, we have no information on its distribution, demography, or ecology in this Province, particularly in the boreal forest. As wolverine is suspected to be susceptible to human-based landscape alteration, bridging this data gap is a critical first step in properly managing this rare species.

This project has two main objectives:

1. To provide preliminary estimates of wolverine density and distribution, to be used in statistical power analyses for evaluation of a Provincial-level assessment of wolverine population status; and
2. To investigate wolverine response to habitat type and industrial activity in Alberta; this will provide wildlife and forest managers with information they can use for integrated land use planning.

Deliverables:

- The final report, containing all data and conclusions, will be released upon project completion, projected for the Fall of 2005.
- 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 (BSOD).

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

- Final report to all project partners and interested parties
- Journal publications for dissemination to the scientific community
- Presentations at scientific conferences in Alberta, BC, and elsewhere
- 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

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=314

Nest site studies of Peregrine and Prairie Falcons

Project Location: **Alberta's Parkland and Red Deer River**
Identifying Code: 030 50 90 017
Funding Allocation: $3,000.00

Contact Information: Dick Dekker
3819-112 A Street NW
Edmonton, AB T6J 1K4
tj_dick_dekker@hotmail.com (780) 434-5474

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
This is part of a long-range field project to monitor breeding attempts and interspecific nest site competition by Peregrine and Prairie Falcons along a section of the Red Deer River in central Alberta. Productivity, fledging dates and sex ratios of juvenile peregrines will be compared to data from Wabamun Lake, Alberta. Methods used are hands-off and non-intrusive, consisting of direct observation through binoculars and telescope from a distance that does not lead to any disturbance of the birds under study.

Regional perspectives:
The proponent has first-hand knowledge about nest site locations of Peregrines and Prairie Falcons in the study area dating back to the pre-pesticide era (1960s), and he has monitored this section of river from 1965 onwards.

As far as is known, the Red Deer peregrines (and the Wabamun pair) originate from captive-bred stock released in central Alberta.

The local succession of one falcon species to another is possibly linked to a change in the kinds and availability of falcon prey. This in turn, might be related to a subtle change in the ecology of the region due to a drying trend in the climate.

Deliverables:
Results of this study will be compiled in reports and incorporated in a paper to be submitted to a research journal.

Communication of Results:
Results of this study will be compiled in reports and incorporated in a paper to be submitted to a research journal. Also planned is an article for the Alberta Naturalist.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=331

Genetic Diversity and Paternity Analysis of Endangered Canadian Sage-Grouse

Project Location: **Southern Alberta & the University of Alberta**
Identifying Code: 030 50 90 010
Funding Allocation: $14,600.00

Contact Information: University of Alberta, Department of Biological Sciences
Attn: Dr. Cynthia Paszkowski
Edmonton, AB T6G 2E9 (780) 492-5172
cindy.paszkowski@ualberta.ca and kbush@ualberta.ca

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
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 possible genetic causes for the low chick survival and recruitment.

***Topics to be addressed during the one-year funding period**

Deliverables:
Fieldwork: Collection of Samples by C.L. Aldridge – January 2004 – March 31 2004
Laboratory work: DNA Extraction, P.C.R., Sequencing (Raw Data) – April 2004– April 2005
Education: Public & Scientific talks given by K.L. Bush & C.L. Aldridge – April 2004– April 2005
Synthesis/reporting: Paternity and Genetic Diversity Analysis - April 2004–April 2005
Journal Publications: Sex Ratio Bias Findings (2004/2005) Paternity findings (2005), Anophthalmia/Microphthalmia embryos (2005/2006), Genetic Diversity Findings (2005)
Training of professional biologists: K.L. Bush and C.L. Aldridge
Research Web Page: http://www.compusmart.ab.ca/kbush/kristabushresearchmain.htm

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

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=323

The impact of the current drought on Beaverhill Lake

Project Location: Beaverhill Lake
Identifying Code: 030 50 90 018
Funding Allocation: $1,500.00

Contact Information: Dick Dekker
3819-112 A Street NW
Edmonton, AB T6J 1K4
tj_dick_dekker@hotmail.com (780) 434-5474

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The retreat (and possibly the expansion) of the lake's waterline will be roughly measured by walking, respectively, all sections of shore on circa 30 days between early April and late October. Simultaneously, records will be kept of the timing and numbers of migrating waterbirds and some species of particular interest, such as the Peregrine Falcon.

(1) Monitor the size (and water level fluctuations) of Beaverhill Lake from spring melt to freeze-up; and
(2) (2) collect sight records of migrating waterfowl, shorebirds, and raptors.

Deliverables:
One or more publications in the Alberta Naturalist. A two-part article on the 2002-2003 lake levels and bird sightings was submitted in January 2004 (Dekker 2004).

Communication of Results:
The results of this is project will be shared with others through publications.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=335

Source/sink dynamics of American Redstarts in woodlots in an agricultural area

Project Location: Athabasca Area
Identifying Code: 030 50 90 019
Funding Allocation: $28,000.00

Contact Information: University of Alberta
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Since 1995 I have monitored the reproductive success of American Redstarts (Setophaga ruticilla) breeding in aspen forest fragments of varying sizes and degrees of isolation in an agricultural matrix (pasture, crops) near Athabasca, Alberta. American redstarts are neotropical migrant warblers that, in our study area, breed in clusters of willow and alder habitat within forest patches. Over the years some clusters were consistently sources and others consistently sinks. One of our main objectives of the research is to be able to identify high quality patches for breeding redstarts. We use redstarts as a focal species that should indicate the behaviour and performance of other open cup nesting migrant songbirds. If we can identify the characteristics of source patches, then we can inform landowners about which of their patches are of highest value for breeding birds and can make recommendations for conserving good patches and rehabilitating poorer ones.

We are attempting to answer the following questions:

1) What cues do redstarts use in choosing a territory?
2) Are these cues related to the subsequent reproductive success of redstarts in the patch?
3) Can redstarts recognize source patches during settlement in spring?
4) If redstarts settle in a sink, how do they respond?

Deliverables:
Pamphlet for woodlot owners: final version ready for landowners Sept 2004.
Journal publications: anticipate 3 papers: one on long-term population dynamics in source and sink forest patches related to habitat characteristics of patches and the landscape around them; the second on settlement patterns of redstarts in relation to sources and sinks, and the third on woodlot switching of males and females depending on their previous reproductive success and whether they were in a source or a sink. I expect these papers to be finished over the period Jan 2006 through Dec 2006.

Communication of Results:
Seminars, published papers, annual reports and we also are developing a pamphlet that we will pass around to woodlot owners that focuses on woodlot conservation.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=355

Boreal Forest Bird Monitoring

Project Location: Lesser Slave Lake Bird Observatory
Identifying Code: 030 90 90 005
Funding Allocation: $11,000.00

Contact Information: Lesser Slave Lake Bird Observatory
Amy Wotton
Box 1076
Slave Lake, AB T0G 2A0
birds@lslbo.org **(780) 849-7117**

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objectives of this project are to document population status and trends. Changes in distribution, status, productivity and survivorship serves as an early warning system for environmental problems and as an indication of general trends in biological diversity.

The Monitoring Avian Productivity and Survivorship program offers survivorship estimates on adult birds as well as productivity indices at that landscape level.

Northern Saw-whet owl monitoring was successfully launched in the fall of 2004. Efforts to catch migration owls have been successful.

The Important Bird Area Conservation Educator was responsible for education the public and giving tours of the Lesser Slave Lake Bird Observatory. With the help of Alberta Parks and Protected Areas staff, a number of programs on bird conservation were delivered to school groups and visitors.

Deliverables:
All components of the project from April-March have been addressed and completed. This includes interpretive and education programs, and data collection and submission. All field work was completed during the summer months. The report was written in the fall and submitted in January. Banding Scheudles, Visible migration counts and Daily Estimated Totals were submitted to Canadian Wildlife Service and technical reports were delivered to major supporters and funders.Final report submitted. Data submitted to CWS.

Communication of Results:
Visit the LSLBO website**:** **http://www.lslbo.org**

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=43

Landscape composition and demography of northern pintails in the southern Canadian prairies

Project Location: Southern Alberta
Identifying Code: 030 10 90 008
Funding Allocation: $15,000.00

Contact Information: Lethbridge Community College / University of Saskatchewan
Terry Kowalchuk
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Historically, pintail breeding population numbers fluctuated directly with May ponds counted on the traditional waterfowl survey area. Typically these birds responded positively to wetland conditions on the prairies and would migrate north during drought. This positive relationship between pintail and prairie wetland numbers diverged in the early 1980's. The reason for this divergence is unknown however several hypotheses exist.

The decrease in pintail numbers may be a result of a reduction in the adult breeding population, lack of recruitment into the population, or a shift in habitat use out of the traditional survey area. Breeding propensity, nest success, duckling survival, adult breeding season survival, harvest, disease and general winter survival are factors thought to affect pintails population dynamics. Understanding the role that each of these factors has on pintail populations may be needed before the population will recover.

My main objective is to evaluate pintail settling patterns, nest-site selection and breeding success (survival) in natural grassland, managed habitat including fall seeded crops (FSC) and spring seeded crop (SSC) landscapes. The prevailing view holds that pintails are strongly attracted to SSC landscapes when these areas are wet and females breeding in these areas have very low breeding success. The attraction of these areas and low breeding success may constitute an ecological trap. Several hypotheses could explain why females nest in areas of low success.

Deliverables:
An annual project summary will be prepared for all co-operators. A final report (thesis) will be completed 12-18 months after completion of the final field season. Poster(s) and oral presentation(s) of project material will occur at graduate seminar, and wildlife conferences. Attempts will be made to publish research findings in accredited journals and popular publications.

Communication of Results:
Materials will be presented to regional, provincial, national and international audiences at various conferences and through publication in accredited scientific journals and popular publications.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=360

Boreal Caribou Research Program

Project Location: Northern Alberta
Identifying Code: 030 90 90 002
Funding Allocation: $30,000.00

Contact Information: Boreal Caribou Committee
Pat Cabezas
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Edmonton, Alberta T5M2Z4
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ACA Grant Status: In Complete
Grant Summary Report: Pending results anticipated summer 2005

Project Objectives & Activities:
The BCC is continuing on a new phase of its Strategic Plan. The Industry Operating Guidelines have been adopted for all boreal caribou ranges in northern Alberta, and the BCC is now developing 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, using the latest ALCES ® software. We are also reviewing our long range research plans to identify and test new mitigative industrial practices.

To support Range planning and cumulative effects modelling, the BCRP will conduct the following major projects in 2004-2005 that require ACA funding; Population Monitoring; Evaluation of Predator Response to Access Management, and the Caribou Range Restoration Project. The Predator Inventory project (A.D.M. Latham's study) is also highlighted below for completeness in describing our program objectives, and it should be noted that the bulk of funding requested would be directed to projects other than Population Monitoring.

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. Our objective is to monitor adult survival and calf recruitment to determine if populations are increasing, decreasing, or stable.

Evaluation of Predator Response to Access Management (testing line blocking treatments)
There is growing concern in Alberta that wolves use seismic lines to gain easy access into peatlands. Greater use of peatlands will likely increase wolf predation on woodland caribou. One way in which this access may be reduced is by blocking or reclaiming lines at the upland-peatland boundary, until such time as lines are fully restored (see Caribou Range Restoration Project below). The BCC conducted a pilot study in the winter of 2002-2003 and found that wolves did respond to human presence on seismic lines, but more data is needed to determine their effectiveness of deterring predator invasions into caribou habitat. This project aims to build on the knowledge gained from the previous study, and determine whether barriers are feasible means of reducing predator travel into caribou range.

Deliverables:
Range Plans (including cumulative effects assessment and modified industrial operating guidelines) for the Chinchaga and ESAR caribou ranges are undergoing revisions, and will be

completed in 2004. Additionally, the Annual BCC Research Summary and Newsletter will be published for program partners, and a report by the Caribou Range Restoration project is anticipated in 2004 that will outline preliminary findings.

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).

Ph. D. dissertation and publications on the effects of anthropogenic disturbances on predator distribution and relative abundance in northern Alberta will be completed in 2006.

M.Sc. thesis and publications on the distribution and habitat selection in relation to changing industrial activities will be completed in 2004.

Communication of Results:
Presentations and booth at conferences, workshops,
Presentations to senior industry and government managers
BCC Annual Meeting
Quarterly Newsletter
Annual Research Summary
Journal publications
Student theses and dissertations
BCC Data Sharing Agreements
http://www.deer.rr.ualberta.ca/caribou
http://www.deer.rr.ualberta.ca/caribou/BCRP. Boreal Caribou Committee

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=28

Operation Grassland Community

Project Location: Southern Alberta
Identifying Code: 010 20 90 002
Funding Allocation: $30,000.00

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

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

- **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
- **Ongoing growth in awareness of prairie wildlife habitat needs, habitat conservation, and sustainable agricultural practices** through public awareness and education initiatives.
- **Improve and enhance quality of the land** through habitat enhancement activities with landholders.
- **Maintain and increase prairie conservation partnerships** with private landholders, public, government, non-government groups, and industry concerned with prairie conservation.

Deliverables:

1. **Promotion of Private Land Stewardship through Landholder Contact and Recruitment**
   - Renew 55 OGC memberships. (June – August 2004)
   - Obtain **25-50** new voluntary habitat stewardship agreements, protecting a minimum of 3600 new hectares (9000 acres). (April 2004 – March 2005)
   - Refer 1-2 conservation easements to Alberta Fish and Game Association's Wildlife Trust Fund, the Southern Alberta Land Trust Society (SALTS) or the Nature Conservancy of Canada (NCC). (April 2004 – March 2005)
   - Help coordinate 1-4 Environmental On-Farm Planning Workshops, impacting 10-35 farms and/or ranches (# will depend on demand). (April 2004 – March 2005)
   - Based on the success of the 2003 pilot program, continue to develop individualized Burrowing Owl Management Plans for an additional 20-25 OGC members with burrowing owl habitat (June 2004 – March 2005). These are delivered in conjunction with the overall document, entitled: "Your Land: A Natural Resource Inventory & Species Management Plan".
   - Develop 10-15 individualized Prairie Loggerhead Shrike Management Plans for OGC members in conjunction with "Your Land: A Natural Resource Inventory & Species Management Plan".
   - Conduct annual census of burrowing owl and loggerhead shrike populations and report findings in OGC newsletter. (July – September 2004).
2. **Public Awareness and Education**
   - Deliver at least two new fact sheets in Conservation Toolbox series to members, including: "The Badger, Pest or Friend?" and "Grazing Native Prairie" (completed by December 2004).
   - Provide 200-300 landholders one-on-one explanations of relevant Conservation Toolbox topics. (April 2004 – March 2005)

- Deliver approximately **30** personalized documents entitled "Your Land: A Natural Resource Inventory and Species Management Plan" (May 2004 – December 2005).
- Participate in 20 - 30 successful media opportunities throughout the year, including print articles, and TV. and radio interviews. (April 2004 – March 2005)
- Produce and deliver semi-annual newsletter to OGC members. (June/July 2004, Jan/Feb 2005)
- In partnership with Science Alberta Foundation, deliver Education Kit/Module "Burrowing Owls and Cows" 25 schools. (April 2004 – March 2005).
- Deliver **5-10** public presentations to schools, and to landholder and industry groups. (April 2004 – March 2005)
- Present 3-5 evening open-house/workshop sessions for landholders in local communities. (April 2003 – March 2004)

3. Habitat Enhancement

- Help coordinate and deliver 1-5 Environmental On-Farm Planning Workshops, impacting 30-35 farms and/or ranches. (Winter months 2004-05)
- Refer 1-2 Conservation Easements referred. (April 2004 – March 2005)

Communication of Results:
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 coordinate future prairie conservation efforts. We are active participants in both the provincial and national burrowing owl recovery teams, and the Prairie Conservation Forum.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=48

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

Project Location: **East-Central Alberta**
Identifying Code: 030 10 90 006
Funding Allocation: $25,000.00

Contact Information: University of Alberta
GSB 751
Edmonton AB T6G 2H1
gerry.Kuzyk@lakelandc.ab.ca 780-492-2111

ACA Grant Status: rescind
Grant Summary Report: **N/A**

Project Objectives & Activities:

The funding recipient was unable to receive additional external project funding. This fact coupled with change in research direction has caused this project to be cancelled.

The full funding amount was returned to ACA GECF for re-allocation in subsequent granting years.

Wolf Density and Monitoring Techniques in the Central East Slopes of Alberta

Project Location: **East Slopes**
Identifying Code: 030 10 90 009
Funding Allocation: $36,500.00

Contact Information: University of Alberta
Dr. Evelyn Merrill
CW 405, Biological Sciences Building
Edmonton, AB T6G 2E9
emerrill@ualberta.ca (780) 492.2842

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
1) Develop statistically valid estimates of wolf density and average pack size in the foothills adjacent to Banff and Jasper National Parks, and between the Red Deer and Pembina Rivers.

2) Calibrate ground snow-track surveys to be implemented by Alberta Sustainable Development for long-term monitoring of wolf population trajectories in the Rocky Mountain House/Nordegg region

As outlined in our application to the ACA Grants Eligible Fund in 2004, we proposed to utilize a sampling unit probability estimator (SUPE) to determine wolf density, average pack size, and number of packs within the mountains and foothills adjacent to Banff and Jasper National Parks, and between the Red Deer and Pembina Rivers. (Becker et al. 1998, Patterson et al. *in press)*. The SUPE method uses the probability of observing track networks in the snow (Thompson 1992) to develop population estimates, and is unique from other methods in that it can be used in extremely large study areas, does not rely on collared animals, and provides confidence intervals (Becker et al. 1998).

Necessary assumptions are described in detail by previous authors, but include the following: (1) wolf tracks are recognizable from low-flying aircraft, (2) the sampling process does not influence wolf movements, 3) fresh tracks can be readily distinguished from old tracks, tracks are not missed by observers, (5) tracks can be followed to determine all sampling blocks that contain the track segment and (6) the size of the pack associated with each track segment can be determined. The presence of radiocollared wolves within the study area allows these assumptions to be tested. The SUPE approach has been used successfully in Alaska (Becker et al. 1998) and Algonquin Provincial Park in Ontario (Patterson et al. *in press).*

Deliverables:
While we originally anticipated completion of these products by March 2005, the difficulties we encountered in implementing the SUPE survey have significantly altered our intended deliverables. We expect the following modified deliverables from this new aspect of the project will be similar to those originally described in Schedule A. Modified deliverables include:
Wolf population estimates based on radio telemetry methods and a comparison to aerial tracks counts for winter 2005 Manual and maps describing methods for conducting both aerial and ground surveys to be used by the province to monitor wolf populations in the future.

Final report to ACA on wolf survey approaches for Alberta. Articles for the ACA journal "Conservation" on counting wolves.

Communication of Results:
Scientific Journals
Presentations
Newspaper articles
Completion reports

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=302

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

Contact Information: University of Alberta
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Edmonton, AB T6G 2E9
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The main objective of this project is to evaluate the potential behavioural and demographic effects of hunting and access on black bear populations. This will be possible by addressing the following specific objectives within the time frame of the project:

1) Determine the effects of spring baited hunting on the physical condition of female bears and their reproductive rate.
2) Determine and quantify the effect of removing adult males on cub mortality from birth to age 1.

Develop habitat selection models using resource selection functions* (RSFs) to compare sex and age specific habitat use of black bears in hunted and unhunted areas. This approach, of comparing same-sex animals between study areas, is essential due to possible changes in social behavior caused by the removal of resident animals.

Deliverables:

- Results of this research will produce recommendations for the management of black bear populations.
- Yearly progress reports.
- Peer reviewed Journal articles
- Final report: Effects of industrial access and hunting on the behaviour and demographics of black bears.

Communication of Results:
http://ursus.biology.ualberta.ca/blackbears

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=136

Linking Ungulate population dynamics to fire and wolf predation: the Ya Ha Tinda Elk and Wolf Project

Project Location: **Ya Ha Tinda Ranch Alberta**
Identifying Code: 030 10 90 005
Funding Allocation: $30,380.00

Contact Information: University of Alberta
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

The overall objectives of the Ya Ha Tinda Elk and Wolf Project (YHTEWP) project are to understand factors affecting elk population dynamics of the Ya Ha Tinda (YHT hereafter) elk herd, and to provide both federal and provincial agencies with the knowledge to cooperatively manage this interagency elk herd. Our specific project objectives are:

1. Understand population dynamics of the YHT Elk herd.
2. Provide information on wolf survival, movements, distribution, and mortality.
3. Determine the factors underlying recent changes in the migrant: resident ratio at the YHT.
4. Develop maps of elk and wolf habitat quality and habitat quality across the transboundary study area using GIS's.
5. Determine how habitat modification, such as prescribed fire, logging, oil and gas exploration, and recreation, affect habitat quality for elk.
6. Determine how elk migratory corridors and movement patterns have changed since the 1980's through comparisons with a valuable historical dataset.
7. Link wildlife populations to habitat using statistical models.
8. Foster interagency wildlife habitat management to ensure conservation of habitat and wildlife in areas surrounding YHT.

Deliverables:
We are in the final year of our 4-year project studying the ecology of the Ya Ha Tinda elk herd. We have completed fieldwork for almost all components of the research, and have completed historical and population analyses of elk count data from the YHT elk herd. We have developed and published new methods to understand how predation risk influences elk, and will be applying our methods to our elk and wolf GPS data in the coming months. With fieldwork completed, we are now focusing on data analysis and preparation of final reports and publications. We anticipate final project completion in the form of a PhD dissertation and final report in fall or early winter 2005, along with additional scientific publications. Upon successful defense of the PhD, we will be organizing a project completion workshop for all project partners and the two government agencies responsible for management of the Ya Ha Tinda elk herd to review my research findings for management. Below I give additional details about project objectives completed to date.

Completion of the fieldwork component of the research.
In December 2004 we completed collection of data for the wolf component of the study. We now have >50,000 GPS locations from 16 different wolves in 5 different wolf packs overlapping with the YHT elk herd. This wolf GPS data set represents one of the largest wolf GPS datasets in North America,

and is a true accomplishment. Analyses of these data are underway following the methods outlined in our In Press OIKOS paper (see below) to understand how predation risk for elk varies over space and time for YHT elk.

In February 2005, we completed the collection of elk telemetry data for the elk component of the research. We have collected 140,000 GPS locations from 33 different migrant and resident elk over 3-years in the YHT elk herd. Analysis of these data for resource selection is underway. We are still monitoring survival of 65 radiocollared VHF elk in cooperation with Holger Spaedtke and the YHT aversive conditioning project. Finally, we are also finishing up collection of radiocollared cow-calf survival this April.

In September 2004, we completed the vegetation-monitoring component of the research. We have collected >900 elk forage biomass plots and visited 36 elk phenology plots 3-4 times each over the 3 years of the study. We are presently integrating ground vegetation data with remotely sensed MODIS satellite NDVI greenness data to investigate elk resource selection and phenological changes. Vegetation analyses are underway also on the fire and salvage logging components of the project which will be completed soon.

1. Understand population dynamics of the YHT Elk herd.
We have completed the historical analyses of population dynamics in our in prep. Wildlife Society Bulletin paper (see below) which will be submitted for publication in the next month. Analyses of contemporary population dynamics will be completed this spring/summer as the final calf survival data are collected.

2. Determine the factors underlying changes in the migrant: resident ratio at the YHT.
We have completed analyses of historical factors related to the declining M:R ratio in our Wildlife Society Bulletin paper. Historical analyses revealed that factors correlated with enhancing habitat quality of the YHT winter range were correlated with increasing resident elk populations, and that recolonizing wolves were potentially related to migrant declines. On the ranch, horse numbers were not related to declining M:R ratio, but instead hay feeding, winter range enhancement, and either wolf avoidance of the ranch due to high human use or higher wolf mortality surrounding the ranch was consistent with declining M:R ratio. However, because of problems with the historical correlative analyses, these suggestions remain to be confirmed with the contemporary demographic analyses to be completed this summer.

3. Determine how elk migratory corridors and movement patterns have changed since the 1980's through comparisons with a valuable historical dataset. Elk migration pattern changes are also summarized in our in Wildlife Society paper in preparation?. Briefly, elk migration patterns have changed dramatically since the 1970's. Fewer elk spend less time migrating into summer ranges, with fall migration dates up to 1 month earlier in the fall by 2004 than 1980. Furthermore, elk distribution has dramatically shifted during summer with the largest changes occurring in the front ranges of BNP where elk numbers declined, and the YHT ranch that saw a dramatic increase in elk numbers.

4. Provide information on wolf survival, movements, distribution, and mortality.
Wolf numbers in the YHT study area were recently summarized in our Wildlife Society Bulletin paper and results are will be available on our project website following the completion of our wolf component of the project. Moreover, the stable wolf numbers that characterized the YHTEWP duration were recently the focus of media coverage in Bow Valley newspapers (see media coverage below). Further, wolf survival rates and demography are being shared with the ongoing CESEWS wolf component led by Nate Webb and Evelyn Merrill at the University of Alberta.

5. Fostering interagency cooperation and management of the YHT elk herd
To date I have facilitated and organized the following interagency meetings:

- Dec 2005 – Historical YHT Elk Population data review workshop - University of Alberta. Biologists from Parks Canada, AB-SRD, and Dr. Luigi Morgantini reviewed my analyses of historical population dynamics.
- July 2004, 2003 – Interagency Aerial Elk Surveys – With the help of ACA funding, we coordinated summer aerial elk surveys between AB-SRD and Parks Canada.
- Jan 2004 – Montane Ecosystem Workshop, Sundre Alberta. With over 50 workshop attendees, with representatives from AB-SRD, Parks Canada, ACA, RMEF, industry, and government, this was one of the largest meetings on the YHT since the 1980's.
- June 13th, 2003 - Dogrib Fire Interagency Research Planning Meeting, AB-SRD, Parks Canada, Forestry and Lands, and Industry.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=302

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

Project Location: Conklin, AB
Identifying Code: 030 50 90 014
Funding Allocation: $24,150.00

Contact Information: Canadian Wildlife Service
Mike Norton
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ACA Grant Status: **Complete**
Grant Summary Report**:** Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Current research suggests that biological communities associated with habitats produced immediately after wildfire in the boreal forest are unique in comparison to those in older forests, or after logging. For forest managers, this presents some potential conflicts with forest harvesting: firstly, that harvesting currently does not emulate early post-fire conditions; and secondly, that salvage logging of burned forests may threaten post-fire communities and alter subsequent successional pathways. Thus, determining what levels of salvage harvesting are ecologically sustainable and which habitats in post-fire landscapes are critical for biodiversity are important questions for forest managers.

1. To study the response of migratory songbirds to different levels of salvage harvesting, with an emphasis on a large, landscape scale.
2. To use this information to examine whether restrictions on salvage logging suggested by the Alberta Fire Salvage Strategy Framework will achieve their goal of managing within "sustainable ecological principles".
3. To provide baseline inventory data on migratory songbird communities and their associated habitat within burned boreal forest landscapes.
4. To understand the effect of amount of unburned forest islands within burned forest landscapes on migratory songbird communities.

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

Communication of Results:
- Adaptive management approach to salvage logging in cooperation with Alberta-Pacific
- Information exchange / field tour event for all project partner agencies, following from successful event held in 2003
- Scientific / technical reports

- Review of provincial policy and submission of recommendations to ASRD

Following completion of second year of project
- Travelling roadshow to showcase results with agencies (ASRD, ACA), industry, and/or other interested groups
- 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)

http://www.cws-scf.ec.gc.ca/index_e.cfm or **http://www.ec.gc.ca**

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=304

Ecology, management, and conservation of mountain goats at Caw Ridge

Project Location: **Caw Ridge, near Grande Cache**
Identifying Code: 030 10 90 010
Funding Allocation: $14,911.00

Contact Information: Laval University Department of Biology
Dr. Steve D. Côté
Québec City , PQ G1K 7P4
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The Caw Ridge mountain goat study was initiated in 1987 and the study population has not been hunted since 1969. In June 2003 it included 151 individuals, of which 89 were marked. Since the beginning of the study, 316 mountain goats have been captured, marked and released. The detailed censuses of the Caw Ridge population have allowed us to assess the sightability of goats during aerial surveys. About 70% of animals on average are seen during a survey at Caw Ridge (Gonzalez-Voyer et al. 2001), which allow us to adjust aerial survey counts obtained throughout Alberta by the same figure.

This present proposal builds on the previous work by:
1) continuing to document long-term survival and reproductive rates;
2) beginning an assessment of the effects of inbreeding and individual genetic variation on survival and reproductive success of both males and females;
3) determining the mechanisms responsible for low numbers of adult males;
4) examining density-dependence as a possible limiting factor for survival and recruitment;
5) examining age-specific body mass as an indicator of density-dependence;
6) and modeling the population dynamics of hunted and unhunted herds.

Deliverables:
The Caw Ridge study is the leading research project on mountain goats in North America, as demonstrated by the number and quality of publications that have resulted from this work, by its value in training graduate students and by the frequent references to this study found in the Management Plan for mountain goats in Alberta. The value of this long-term project is becoming more and more evident, with the recent publication of our results on social behaviour and reproductive success (Côté 2000ab; Côté and Festa-Bianchet 2001abcd). The results of our work, particularly the recent M.Sc. and related publications by A. Gonzalez, provide important biological information to managers faced with the decision of whether or not to resume goat hunting in Alberta. We are currently working on the modelling of the population dynamics of hunted and unhunted mountain goat herds using Leslie matrices parameterized with the very detailed data on age-specific survival and reproductive rates from Caw Ridge. We are hoping that these models will allow us to predict the population dynamics of hunted and unhunted mountain goat herds throughout Alberta based on aerial survey data. The first draft of this paper should be ready in the fall of 2004. Y. Gendreau has recently completed his M.Sc. thesis on maternal effects on post-weaning mass, horn growth and social rank in juvenile mountain goats. A manuscript from his thesis will be submitted to the international journal *Animal Behaviour* in February 2004. We are also working on a book on the ecology and behavior of mountain goats at Caw Ridge (a draft of the first 9 chapters is written), we expect a complete draft in the fall of 2005. S. Côté has been asked to write a review paper of the Caw Ridge study for the natural sciences

magazine *Le Naturaliste Canadien*. The paper is due 15 September 2004. The preliminary results for each stated objective will also be reported in the Annual report of the Caw Ridge mountain goat study.

Communication of Results:
Copies of progress reports and reprints of articles are sent to our collaborators and to all Alberta Fish and Wildlife Division district offices where mountain goats are found, including Calgary, Blairmore, Pincher Creek, Canmore, Hinton, Grande Prairie, Rocky Mountain House, as well as Edmonton HQ. Requests for reprints or .pdf files of published papers are regularly received from scientists in many countries, and reprints are mailed or e-mailed to anyone who asks for them. The paper on helicopter harassment published by S. Côté had a major impact on mountain goat management because it quantified the effects of helicopter overflights on goat behaviour. It was widely requested by wildlife managers and has become an important source of information for management decisions relating to oil and gas exploration and other helicopter-supported activities near goat habitat. Also, results of the Caw Ridge study have been presented at conferences in Canada, the USA, Great Britain, France, Spain and Italy. We will present 2 talks on the results of this proposal at the next Wildlife Society Conference to be held in September 2004 in Calgary. Other talks will also be given at the annual meetings of the Northern Studies Centre and the Société québécoise pour l'étude biologique du Comportement. Caw Ridge results are often used during University lectures and we write a popular article on goats from Caw Ridge every other year on average.

Data collected from mountain goats and bighorn sheep at Caw Ridge during our study have also been used for a study of mountain goat pathogens (Dr. Sandy Black, Calgary Zoo), research into bighorn sheep genetic variability (Dr. John Hogg, Wildlife-Wildland Institute, Montana and Dr. Gordon Luikart, University of Montana), a reference collection of mountain goat tissue samples for forensic wildlife investigations (Alberta Natural Resources Service, Edmonton), a molecular study of the phylogeny of Caprinae (Dr. Alexandre Massemin, Muséum d'Histoire Naturelle de Paris, France) and for a study of blood parasites in mountain goats (Randy Zarnke, Alaska Fish & Game).

www.bio.ulaval.ca

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=336

Integrated Landscape Management Program at the University of Alberta

Project Location: **Alberta**
Identifying Code: 010 80 90 001
Funding Allocation: $27,000.00

Contact Information: U of A, Integrated Landscape Management Program
Phillip Lee
AU of A - CW 405 Biological Science Bldg.
Edmonton AB T6G 2E9
philipl@ualberta.ca (780) 492-5766

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
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. The ILM program has number of different projects. ACA funding is targeted to the following project.

Evaluation of cumulative effects in facilitating the invasion of non-native species into Alberta's boreal habitats and its impacts on boreal mammal and bird communities.
Industrial development in Alberta's boreal forest has raised concerns about cumulative effects on ecosystem integrity. Cumulative effects research has focused on how humans affect native species. However, the most dramatic changes to ecosystem integrity are often caused by invasion of non-native species. Information on non-native species in Alberta is very limited, despite the fact that invasion potential is high due to: 1) considerable movement of people and machinery between biomes; 2) high densities of linear features providing dispersal conduits; and 3) increasing human settlement providing focal points for establishment. This project will examine the distribution of non-native species in the boreal and determine whether these patterns are correlated with human impacts. We will also evaluate the ecological consequences of invasion by conducting mechanism-based studies on particular relationships. Specific objectives include:

a. A characterization of the relative abundance of different mammal, bird, and plant species in relationship to the amount and pattern of linear disturbances. Analysis will focus on the influx of invasive species into boreal habitats.
b. Mechanism-based studies in plant community will examine shifts in productivity related to invasion of non-native plants and insects, disturbance-regeneration patterns, inter-specific competition, and differential herbivory of invasive and native boreal species.
c. Assessment of the ecological consequences of changing predator and brood parasite communities (i.e. non-natives) on the reproductive success of forest passerines.
d. Evaluation of changes to mammalian predator-prey relationships in the boreal forest with invasion of grassland and parkland species.

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

- Annual workshop, 2nd planned for March, 2005 on Ecological Thresholds.
- 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
- Biannual newsletter
- Improvements to the ALCES for running more biologically realistic scenarios (ongoing throughout the life of the project).
- Peer-reviewed scientific articles

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

- Annual workshop, 2nd[t] planned for March, 2005 on Ecological Thresholds.
- 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
- Biannual newsletter
- Improvements to the ALCES for running more biologically realistic scenarios (ongoing throughout the life of the project).
- Peer-reviewed scientific articles

http://www.biology.ualberta.ca/faculty/stan_boutin/ilm/

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=368

Effects of landscape changes on marten fur harvests in the mixedwood boreal forests of Alberta

Project Location: **Alberta**
Identifying Code: 030 50 90 020
Funding Allocation: $12,835.00

Contact Information: University of Alberta
Dr. Mark Boyce
CW 405 Biological Science Bldg. U of A
Edmonton AB T6G 2E9
smmullen@ualberta.ca (780) 439.3248

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
American marten (*Martes americana*) are economically and ecologically important throughout the mature, mesic forests in which they occur in North America. Marten are valuable furbearers (Obbard et al. 1987) that are sought after with great success and are also considered ecological indicators (McLaren et al. 1998) of healthy forests. Declines of this charismatic mustelid in the past have been attributed to human disturbance with overtrapping and habitat loss being the most significant causes (de Vos 1952). Although harvests today are managed, few studies have examined the synergistic effects of human disturbance on marten.
Marten rely on extensive, structured, and mature forested landscapes for protection from predators, thermoregulation, food, and reproduction (Bissonette et al. 1989, Taylor & Abrey 1982, Paragi, et al. 1996, Corn & Raphael 1992). They have large home ranges for their body size, low reproductive output, and are thought to be very sensitive to habitat changes (Smith & Schaefer 2002, Archibald & Jessup 1984). Increased access created by industry and public roads/trails can escalate trapping pressure on marten and have important management implications on a landscape where habitat loss is occurring concurrently.

1. Examine the relationship between landscape changes (oil and gas exploration, timber harvests, and linear features) and changes in marten harvests

2. Determine if and how trapper behaviour influences the pattern and sustainability of marten harvests

Deliverables:

Quarterly reports/updates as requested by the ACA
Free Public Seminar at the U of A (March 2004)
Project description to post on ACA website (April 2004)
Project Website (April 2004)
Presentations to local Alberta Trappers Association chapters (ATA) (Fall 2004)
Contribution to ACA magazine (January 2005)
Final report to SRD, ATA, and National Trappers Association (NTA) (January 2006)
Articles in ATA and NTA magazine (January 2006)
Peer-reviewed publication in Journal of Wildlife Management (2006)

Communication of Results:

- Quarterly ACA GE Reports: completed July/October 2004 and January 2005
- Public seminar at U of A: completed March 2004
- Project description for ACA website: completed April 2004
- Project website: completed September 2004
  http://www.ualberta.ca/~smmullen/Home.htm
- Presentation to Edmonton and Rocky Mountain House local ATA chapters: completed February 2004 and June 2004
- Contribution to ACA Magazine: submitted Partners in Conservation poster March 2004; article to be completed when analysis is done, January 2006.
- Submission to peer-reviewed journal and final reports will be distributed January 2006
- Sherwood Park Fish & Game Association Presentation October 2004
- ACA Partners in Conservation Conference Poster January 2005[1]
- Prairie Universities Biological Symposium Poster February 2005
- Alberta Chapter of The Wildlife Society General Meeting Poster March 2005[2]
- Contribution to ATA *Alberta Trapper* magazine expected May 2005

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=357

Lithium Chloride (LiCl) as a Deterrent to Licking of Road Salt by Ungulates (Bighorn Sheep)

Project Location: **Jasper National Park**
Identifying Code: 030 10 90 011
Funding Allocation: $6,000.00

Contact Information: W. Kent Brown
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Calgary AB T3C 3G9
brownwk@telus.net (403) 240.1995

ACA Grant Status: In Complete
Grant Summary Report: Pending

Project Objectives & Activities:
The project objective is to test the effectiveness of LiCl in deterring ungulates from licking road salt. Field testing on bighorn sheep will be done in a scientifically rigorous manner, with appropriate controls to allow conclusions to be drawn.

Hypotheses to be tested are:

1. Sheep will use the road surface less when and where LiCl has been applied.
2. Sheep will lick the road surface less when and where LiCl has been applied.
3. Sheep will reduce the length of licking bouts (time spent licking without interruption) when and where LiCl has been applied.
4. Decreasing concentrations of LiCl will be required to elicit those responses as the animals develop a conditioned taste aversion to LiCl.

Deliverables:

1. Project report by 30 September 2004 for submission to ACA and Parks Canada.
2. Paper submitted by 28 November 2004 for publication in a peer-reviewed scientific journal.
3. Interpretive talk(s) in Jasper National Park in cooperation with the Jasper Interpretive Service, spring 2004.

Communication of Results:
A final report will be submitted to Parks Canada and ACA.
Information will be provided to the public through Parks Canada Interpretive Service.
Results will be submitted for publication in peer-reviewed scientific journals.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=350

Effects of multiple land use on movements and habitat use of migrating prairie rattlesnakes

Project Location: **Grasslands Natural Region of Alberta**
Identifying Code: 030 50 90 021
Funding Allocation: $16,500.00

Contact Information: University of Calgary
Dennis Jorgensen
Faculty of Environmental Design,
2500 University Drive NW
Calgary , AB T2N 1N4
djorgens@ucalgary.ca (403) 220-2475

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. To investigate how multiple land uses on the upland prairie landscape influence movement patterns and habitat use of migrating prairie rattlesnakes.
2. To compile a database of geospatial data on land cover, landform, soils, vegetation and land uses from digitally classified remotely sensed images for GIS analysis of rattlesnake movement and habitat use.
3. To determine the relative probability of use of habitat types and to assess habitat use in proportion to availability suggesting selection response (selection/avoidance) in available habitats.
4. To identify "critical rattlesnake habitat" (sensu SARA) and provide empirical data that will guide resource managers in developing future land use guidelines for more effective management and protection of critical upland habitat in the Grasslands Natural Region.

Deliverables:

- A database of geospatial data on land cover, landform, soils, vegetation and land uses will be compiled for the study areas from digitally classified remotely sensed images.
- Capture/observational data will be supplied to the province for inclusion in the biodiversity/species observation database (BSOD) after each field season.
- A poster presentation will be made at the 2005 annual meeting of the Alberta Chapter of the Wildlife Society.
- Masters degree thesis will be completed and defended by spring 2006.
- A manuscript on the migrations of a northern population of prairies rattlesnakes will be submitted to The Journal of Herpetology by spring 2006.
- A manuscript on the effects of increasing habitat loss and fragmentation on the habitat use of prairie rattlesnakes in Southeastern Alberta will be submitted to The Canadian Field-Naturalist by summer 2006.

Communication of Results:

Progress will be reported in a poster presentation at the 2005 annual meeting of the Alberta Chapter of the Wildlife Society. A Masters degree thesis will be completed by spring 2006 and made available through the University of Calgary. A manuscript on the migrations of a northern population of prairies rattlesnakes will be submitted to The Journal of Herpetology by spring 2006. A second manuscript on the effects of increasing habitat loss and fragmentation on movements

and habitat use of migrating prairie rattlesnakes in Southeastern Alberta will be submitted to The Canadian Field-Naturalist by summer 2006.
Because this project was sanctioned and supported in part by Fish and Wildlife in Medicine Hat data will be shared with biologists in that office to contribute to future land use management and planning.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=346

The effects of forest fragmentation on the movement behaviour and reproductive success of the Northern Saw-whet Owl

Project Location: **Alberta**
Identifying Code: 030 50 90 022
Funding Allocation: $6,875.00

Contact Information: University of Alberta
Heather Hinam
Biological Science
Edmonton, AB T6G 2E9
hhinam@ualberta.ca (780) 492-1282

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The forest-dependent Northern Saw-whet Owl provides an excellent opportunity for examining how fragmentation affects movement because their large home ranges encompass multiple habitat patches, forcing movement within many habitat configurations. By using an established system of nest boxes located in the aspen parkland, north and east of Edmonton, I can examine the effects of forest fragmentation on individual owls on a regional scale, with a greater degree of replication of detailed, measurable and highly quantitative behavioural data than previously provided in the literature.

Research Objectives and Hypotheses: With this study, I will examine how forest fragmentation affects the behaviour and nesting success, and, ultimately, lifetime reproductive success, of Northern Saw-whet Owls by addressing the following specific objectives:

1) Compare foraging efficiency, provisioning rates and home range size of owls across varying degrees of habitat fragmentation. I hypothesize that increased forest fragmentation will impede foraging movements by provisioning males and, thus, decrease their foraging efficiency. More specifically, I predict that with increasing fragmentation: a) the distances between successive perches will increase; b) males will forage further from the nest and maintain larger home ranges; c) males will spend more time at a each hunting perch; d) males will provision young less often; and e) males will bring larger prey back to the nest.

2) Compare across varying degrees of forest fragmentation differences in nestling growth rates, nestling condition and adult reproductive success. I hypothesize that the impediment to parental foraging caused by increased habitat fragmentation will negatively affect reproductive success and nestling condition. Again, with increased habitat fragmentation, I predict that a) nests will produce and fledge fewer young; b) nestlings will exhibit slower growth rates and reach a lower asymptotic mass prior to fledging; and c) fledgling body condition, measured by mass and white blood cell ratios will decline.

3) Compare the post-fledging movements and timing of dispersal of young owls across a range of forest fragmentation. I hypothesize that increased fragmentation will impede juvenile movements and increase physiological stress, due to increased predation risk and travel costs. Once more, as fragmentation increases, I predict that: a) juveniles will leave the natal forest patch later in relation to fledging date and move across the surrounding landscape more slowly; b) juveniles will move shorter distances away from the natal forest patch; and c) juveniles will show a relative

increase in physiological stress, manifested by higher mass loss since fledging and higher white blood cell ratios.

Deliverables:
This project will result in a Ph.D. thesis and at least three articles to be published in major ecological journals. I expect to complete the thesis by May 2007, with the papers submitted before that date. I have also allowed access to the owls to a professional wildlife filmmaker over the last two field seasons, which has resulted in the production of two documentaries. The first: Owls of the Northern Edge was completed in May 2002. The second is yet unnamed and slated for completion December 2004.

Results from this project will also be presented at national or international symposia, the dates and locations of which are yet to be determined.

Communication of Results:
Results from this project will be shared through the production of the thesis and through at least three articles published in major ecological journals. They will also be disseminated at a minimum one major conference. I have also and will continue to share my results and knowledge with the general public through talks and workshops at public schools, nature centers and society meetings.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=340

Alberta Raptor Monitoring Program – Data Capture and Analysis

Project Location: **Beaverhill Bird Observatory**
Identifying Code: 030 50 90 023
Funding Allocation: **$9,900.00**

Contact Information: Beaverhill Bird Observatory
Lisa P Priestley
Box 1418
Edmonton, AB T5J 2N5
lisa@beaverhillbirds.com (780) 619-9261

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
A volunteer raptor nest card program was initiated in 1988 by the Alberta government, for raptor banders and researchers to collect information on nest locations of birds of prey. Data was entered into the provincial Biodiversity Species Observation Database (AB SRD/ACA). The program was not maintained after the mid-90's, however some raptor banders continued to fill out nest cards. All the data is stored in binders with Alberta Sustainable Resource Development and Beaverhill Bird Observatory. These long-term datasets need to be compiled and entered into a database. Further this new data can be added to data already in the database and can be analyzed for habitat use, productivity and phenology (timing of nesting) by various raptor species.

The Alberta Nocturnal Owl Survey (ANOS) has been running since 1998. This project's objectives are to determine distribution and abundance of nocturnal owls in Alberta, and to monitor trends in populations over time. ANOS is a call playback survey conducted along randomly set routes along roads throughout Alberta. Stations are set 1.6 km apart and 10 stations are set per route (Takats *et al*. 2000). Volunteers are provided CD's or tapes of calls, and a standard survey method is used to conduct surveys. In 2002, the program expanded and became a full time province-wide initiative. There were 62 routes surveyed in 2003, with more than 100 routes anticipated for 2004.

The objectives of this Data Capture and Analysis project is to:

1) Enter backlogged raptor nest card data from 1995-2003 (including new cards for 2004) into the provincial Biodiversity Species Observation Database and national Project Nestwatch (Bird Studies Canada),
2) analyze phenology, year to year productivity, and habitat data for species that have enough records to make some conclusions,
3) establish a full time volunteer-based raptor nest card program, where members of the public can report raptor nests, and participate in banding,
4) produce an information pamphlet on raptor nests and the monitoring program and how the public can get involved,
5) conduct educational presentations on birds of prey and their importance in the environment,
6) enter 2002-2004 Alberta Nocturnal Owl Survey data into BSOD.

Deliverables:
Brochure on Raptor Nests
3 Owl Files newsletters
Final reports for nestcard project and nocturnal owl survey

A report on the phenology of raptors (with nestcards available) for management purposes
Minimum of 5 publications in natural history journals/peer-reviewed journals

Communication of Results:
The media will be contacted to come and visit some nest sites to show how we collect the information. Pamphlets will be made available at birding stores, parks, and nature centers throughout Alberta, and the nest card will be available for download off the BBO website. Articles will also be written in the natural history newsletters and journals across the prairie provinces. Public presentations will include information on how raptors are good indicators of the health of the environment, and their importance to functioning ecosystems. The public will also benefit by learning more about birds of prey, their adaptations, and habitat needs. Raptors are charismatic and many people are attracted to them (similar to humans they are high on the food chain, and people are fascinated by their unique adaptations for hunting ie. sharps eyes, talons, speed, etc.).

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=338

Water Level Effects on Bird Species Distribution and Abundance at Beaverhill Lake

Project Location: **Beaverhill Bird Observatory**
Identifying Code: 030 50 90 024
Funding Allocation: $6,850.00

Contact Information: Beaverhill Bird Observatory
Bryn Spence
Box 1418 Edmonton, AB T5J 2N5
brynspe@netscape.net (780) 619-9261

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
A grassland/parkland bird study was conducted in 1995 at Beaverhill Lake Natural Area. The goal of this project is to resurvey the same area to determine if and how bird species and habitat has changed with changing water levels. Further, Migration Monitoring has been conducted in a standardized way for 10 years. The objectives of this project are to:

1) compare changes in habitat along a grid where declining water levels have altered the habitat
2) compare bird species, diversity, and abundance in an area where habitat has changed due to changing water levels
3) write up habitat associations of species that are common in the area (Sharp-tailed, LeConte's Savannah, and Clay-colored Sparrows).
4) Compare capture rates for common species in each of 13 mist nets used for Migration Monitoring at Beaverhill Lake to determine whether rates have changed due to habitat changes.

These results can be used to determine how other similar habitats in the parkland ecoregion will be affected by the lower water levels due to the low precipitation experienced over the past 5-10 years. Further, if changes in habitat are shown to affect the capture rates of birds in mist nets, this may directly affect our ability to use Migration Monitoring to detect population changes of songbirds.

Deliverables:
A final report will be written outlining the results of this project. The results will also be presented to the Canadian Migration Monitoring Network (network of stations across Canada that conduct migration monitoring in a standardized comparable way).

Communication of Results:
Final report distributed to ACA, DU, CWS, Canadian Migration Monitoring Network, and available on the BBO website. Articles in the Beaverhill Bird Observatory newsletter and in Alberta Naturalist. Presentation at the Wildlife Chapter conference in the fall. Data will be submitted to the Biodiversity Species Observation Database.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=146

An evaluation of cumulative impacts on wetland associated bird communities

Project Location: **Boreal Forest of Alberta**
Identifying Code: 030 50 90 025
Funding Allocation: $20,210.00

Contact Information: Ducks Unlimited Canada – Western Boreal Program
Julienne Morissette
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Edmonton, AB T5S 2R5
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ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Riparian areas and the forest surrounding wetlands are assumed to be among the most biologically diverse areas of the boreal forest. Wetlands comprise over one third of the Western Boreal Forest landscape and depending on the definition, riparian habitat makes up at least 5% of the terrestrial land-base. Despite the presumed ecological importance of riparian areas, little empirical data has been collected in Alberta to assess the relative importance of these areas as biodiversity hotspots. Although legislation exists to buffer riparian areas from the effects of forestry and to a lesser extent energy sector development, pressure is increasing to allow harvesting in riparian buffers under the premise of emulating natural disturbance regimes. At the same time, there are few operating rules to prevent agricultural development or urban expansion in and around boreal wetlands. Given the potential importance of boreal wetlands to various species, particularly birds, it is important that we understand how the cumulative effects of different human activities might be affecting these systems.

While birds only represent a small part of the boreal forest's biological diversity, the fact that they are easy to measure, resonate with public values, respond to human impacts at multiple scales, dynamic enough to respond to change quickly, and sufficiently predictable to separate natural variation from human actions makes them good indicators. The ultimate goal of our research is to use these types of data to make recommendations on which species of birds or combination of species should be used as indicators in monitoring boreal forest change.

Objectives:

- Although there has been little industrial development directly around most boreal wetlands, there has been a dramatic increase in forestry and energy sector development in the surrounding landscape. We will assess whether increased industrial activity by forestry and energy sector development at a landscape scale results in reduced numbers of sensitive passerines, shorebirds, and waterfowl species in riparian habitat and wetland basins.

- In contrast to industrial development, agricultural conversion has dramatically changed the landscape matrix around boreal wetlands. Three key questions we will address are: 1) How much of the surrounding forest can be removed before boreal forest species disappear from these wetlands and aspen parkland or prairie species begin to dominate; 2) At what spatial scale does agricultural conversion affect the extinction threshold for boreal species; and 3) Are these changes caused by landscape level processes related to the matrix composition or are there direct changes to wetlands at a local scale due to differences in productivity, altered nutrient flows, or differences in water quality?

- Boreal forest upland birds have received increased attention over the past 10 years thus a comprehensive dataset on their general distribution is available. However, baseline inventories of wetland-associated species are in their infancy. We will provide these data. Given the expanse of our study region, we will be able to provide valuable information on the distribution of these bird communities over a broad geographic scope.

Deliverables:

1. Data for one of Alberta's most poorly understood bird communities. This data will also help build an under-represented component (riparian areas) of Alberta's Breeding Bird Atlas.

2. Reports and recommendations for management will be submitted to the ACA and to project partners and funders.

3. We foresee three journal articles being submitted to peer-reviewed journals: 1) Thresholds responses by boreal birds to agricultural conversion; 2) Integrating multiple taxa as a means of developing effective biological indicators; and 3) Cumulative effects of industrial activity on wetland associated birds in the boreal forest.

4. Acknowledgement of funding sources at all public presentations.

Communication of Results:

1. All bird records will be shared with the Federation of Alberta Naturalists to contribute to the Alberta Bird Atlas project.
2. Results will be made public through the Sustainable Forest Management Network's (SFMN) website as well as through Environment Canada's web-based Science & Environment Bulletin.
3. Findings will be presented at the Canadian Wildlife Service Seminar Series
4. Publication in a peer-reviewed journal will be sought to make the data accessible to other policy-makers and forest managers.
5. Results will be presented to at least one major conference (Society for Canadian Ornithologists, Wildlife Society Meetings or a major boreal forest conference).

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=342

Landscape change in the Middle Sand Hills: implications for endangered kangaroo rats and other species that depend on sandy habitats

Project Location: **South Eastern Alberta**
Identifying Code: 030 50 90 026
Funding Allocation: $34,000.00

Contact Information: University of Calgary - Dept of Geography
Darren Bender
2500 University Drive NW
Calgary, AB T2N 1N4
dbender@ucalgary.ca 403 220-6398

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Our primary objective is to document and examine the relationships between long-term patterns of landscape change and the current distribution and abundance of Ord's kangaroo rats and sandy habitats in the Middle Sand Hills. We will address the following questions:

1. How have the amounts of natural and anthropogenic habitats (i.e., human created features such as roads, trails, fireguards, cultivated fields) changed over time?
2. Where do kangaroo rats occur in 2004, and how does this compare to previous years?
3. What proportion of the population occupies anthropogenic habitats?
4. Are there correlations between landscape changes and the current/recent distribution and abundance of kangaroo rats?
5. To what extent is the diet of kangaroo rats affected by invasion of non-native plant seeds, particularly in anthropogenic habitats?

Deliverables:
1. Web page summary due upon signing of the Cooperative Project Agreement;
2. Launch of project web site on or before 15 May 2004;
3. Quarterly update for ACA on or before 1 July 2004;
4. Quarterly update for ACA on or before 1 October 2004;
5. Quarterly update for ACA on or before 1 January 2005;
6. Final report for ACA on or before 15 March 2005;
7. Reprints of scientific publications in refereed journals (anticipated in 2005 and 2006).

Communication of Results:
1. The written final report that will be provided to ACA and the other project partners, as well as the Ord's kangaroo rat Recovery Team;
2. Publications of our findings in refereed journal articles;
3. Project web site that will include details of field work, photos, multimedia, and research findings;
4. Public presentations at local conservation-related symposia and at the Provincial Museum of Alberta.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=354

Fur Display Kits

Project Location: **Alberta**
Identifying Code: 030 40 90 009
Funding Allocation: $13,000.00

Contact Information: Alberta Trappers Association
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Westlock , AB T7P 2K1
info@albertatrappers.com 780-349-6626

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

Develop 10 fur display kits (tanned fur) representing a variety of furbearers common to Alberta. Also to include representative cleaned skulls of the primary furbearer families in Alberta , specifically the dog, cat, weasel and rodent family

Deliverables:

1) Gather good quality furs from Trappers
2) Have these furs tanned
3) Gather skulls and have cleaned
4) Assemble into portable kits

Communication of Results:
To gather materials and compile 10 fur kits. In addition each kit will have four cleaned skulls representing the four main families of furbearers in Alberta. Four of these kits will be on permanent loan to the Regional Fish and Wildlife offices in Alberta. The other Six kits will be distributed as follows. Two to remain at our main office for distribution on an event related need. Four distributed to the following ATA locals for their presentations i.e. Calgary, Rocky Mtn. House, Valleyview and Fort McMurray.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=353

Block Funding for Province Wide AFGA Club Projects

Project Location: **Alberta**
Identifying Code: 010 30 90 002
Funding Allocation: $8,100.00

Contact Information: Alberta Fish & Game Association
Yves Ouellette
239 Cresthaven Place, SW
Calgary AB T3B 5W4
afga-yves@shaw.ca 403-663-9708

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

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

- Benefit Alberta Fish and Wildlife by maintaining, enhancing or protecting their habitat.
- Generate more volunteer interest, activity and knowledge of habitat enhancement projects.
- Promote the co-operative efforts of the ACA and AFGA within communities throughout Alberta.
- Increase the number and size of the habitat projects done by AFGA clubs and volunteers each year.

To date, Alberta Fish & Game Association clubs have participated in a variety of initiatives using the Block Fund. Some of these projects include the construction, placement and maintenance of over 2000 nesting structures for waterfowl and songbirds, ungulate forage enhancements, offsite watering projects and fencing projects constructed to protect water bodies and newly planted seedlings. Since funding requests come from AFGA clubs across the province and for different amounts of money, the list of potential projects completed each year varies. Between six and twelve different projects have been completed each year, for the past four years, with funds from this project.

Deliverables:

- Increased the number of habitat projects that were completed by AFGA clubs and volunteers last year. Seven projects were completed because of this Block Fund in the last year.
- Generated more volunteer interest, activity and knowledge towards habitat projects in Alberta. More than 172 volunteers were involved with seven different projects because of this Block Fund.
- Increased the number of habitat projects that were developed and co-ordinated by AFGA Facilitators last year. AFGA Habitat Staff facilitated seven projects with five different clubs in 2004-05.
- Increased the number of nesting structures, hand cuts, and recognition signs that were completed in 2004-05. 632 bird nesting structures were constructed, one mile of fence repaired, an aeration project completed and an eleven acre food plot was planted with funds from the 2004-05 Block Fund Project.
- Promoted the co-operative efforts of the ACA and the AFGA within communities throughout Alberta. The ACA and AFGA were promoted in five different communities through this project fund.

The Block Funding for Province-Wide AFGA Club Project included the following projects, expenses and in-kind contributions in 2004-05:

• Spedden F&G Bird Box Project (materials)	$320.41
- 150 + Bird Boxes	
- In-Kind Contributions (50 volunteers total (35 children))	
- 50x6hr = 300 hrs x $10.00/hr volunteer hours	*$3000.00*
• Medicine Hat F&G Goose Nests & Duck Boxes Project	$800.00
- 25 goose nests and 50 blue bird boxes	
- In-Kind Contributions (12 volunteers + extra costs)	
- 135 hr x $10/hr volunteer hrs & mileage $276.90	*$2789.81*
• Onoway F&G Bird Box Project (materials)	$590.00
- 142 Bird Boxes Built	
- In-Kind Contributions (8 volunteers total)	
- 8x10hr = 80hr x $10/hr volunteer hours, materials ($30.95)	*$830.95*
• Stony Plain F&G Blue Bird Box & Tree Swallow Project	$800.00
- Assembled 265 bird boxes	
- In-Kind Contributions (64 volunteers (55 kids))	
- 210 hr x $10.00/hr volunteer hours	*$2100.00*
• Stony Plain F&G Fencing Project (materials, labor)	$1000.00
- 1 mile of riparian area fencing repair	
- In-Kind Contributions (12 volunteers, mileage)	
- 12x8hr x $10/hr volunteer hrs, 250 km x $0.35/km	$1047.50
• Onoway F&G Salter's Lake Aeration Project (aerator)	$3000.00
- One aerated pond in Onoway, AB	
- In-Kind Contributions (22 volunteers)	
- Additional materials$7981.79, 310hrs x $10/hr volunteer	*$11081.79*
• Sarcee F&G Corn Food Plot Project	$1589.59
- 11 acre Corn Food Plot	
- In-Kind Contributions (4 volunteers)	
- 35 hr x $10.00/hr volunteer labor, extra costs$894.43	*$1244.43*
Total In-Kind Contributions	$22,094.48
Total ACA Funding =	$8,100.00
Total Expenses for Projects =	$30,194.48

Communication of Results:
Projects of this nature are communicated to AFGA members and the public at the Annual AFGA Convention, club and zone meetings, Sportsmen Shows and through written articles in the Outdoor Edge Magazine, Alberta Outdoorsmen and the AFGA Club Bulletin.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=85

A Framework for Ecosystem-Based Development planning in the Municipal District of Foothills No.31

Project Location: **Municipal District of Foothills No.31**
Identifying Code: 010 80 90 007
Funding Allocation: $12,000.00

Contact Information: Faculty of Environmental Design, University of Calgary
Kalina Tamara Noel
Building, 2500 University Drive NW
Calgary AB T2L 2J5
ktnoel@ucalgary.ca (403) 220-2475

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. To develop empirical habitat probability models for elk, moose and deer, using pellet density as an index, and to map relative habitat selection probability within the study area in the MD Foothills based on the empirical models.
2. To evaluate the influence of specific land use types and anthropogenic disturbance sources on ungulate habitat selection.
3. To provide recommendations for land use planning that would maintain the ecological function and amenity values in the MD Foothills. Recommendations will also consider the nature of existing and potential conflicts between wild ungulates and people in the MD.

Deliverables:

- A Master's Degree Project thesis
- Presentation of results at the 2004 Wildlife Society Annual Conference in Calgary, Alberta
- Journal submission: Society and Natural Resources
- Report to the MD Foothills and Alberta SRD providing recommendations on the use of habitat models in MD eco-regional planning
- Completion report to the ACA

Communication of Results:

- presentation of a framework for ecological land use planning to the Municipal District of Foothills;
- presentation of results to the Alberta Chapter of the Safari Club International which builds on their initiative advocating for wildlife conservation and for maintaining opportunities for hunting;
- the data bases and models resulting from the project will be available for use in future research and education projects at the graduate and undergraduate levels at the University of Calgary;
- data and models will be available to the MD and

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=344

Restoring the Weed Lake Landscape

Project Location: **Weed Lake near Calgary, AB**
Identifying Code: 010 30 90 004
Funding Allocation: $50,000.00

Contact Information: Ducks Unlimited Canada
Jay Bartsch
Box 818,
Brooks, AB T1R1B7
j_bartsch@ducks.ca 403-362-3833

ACA Grant Status: Pending
Grant Summary Report: Pending

Project Objectives & Activities:
The Ducks Unlimited Vision of Southern Alberta is "a mosaic of natural, restored and managed landscapes capable of perpetually sustaining populations of wildlife." The restoration of the Weed Lake Landscape presents DUC with a unique partnership opportunity to contribute to our vision through restoring an important drained wetland and securing and enhancing the surrounding uplands. The wetland and the surrounding uplands have been severely degraded by past agricultural practices, and are presently threatened by urban expansion.

The 1488acre Weed Lake basin is currently drained. When fully restored, the Weed Lake Landscape will once again be a wildlife oasis just outside of the City of Calgary. Since Weed Lake is close to Calgary, the lake restoration has significant education and wildlife viewing values. Due to the close proximity to Calgary, the Weed Lake Landscape is under high threat from urban expansion. The Weed Lake project is immediately north of the rapidly expanding Hamlet of Langdon. Langdon is currently facing a wastewater disposal problem. The quality of Langdon's treated wastewater is excellent. The rest of the water needed to fill Weed Lake will come from water licensed by Alberta Environment from the Bow River, brought to the Lake through The Western Irrigation District system. Solving the problem of finding a place to put Langdon's wastewater and to naturally polishing that wastewater, as well as restoring an important wetland complex, has given the project considerable positive media attention. The Premier, the MLAs in the area, the MD of Rocky View, the Western Irrigation District, the Hamlet of Langdon and the County of Wheatland all strongly support this restoration project.

The many unique partnerships formed for this project provide both financial and political benefits for all parties. Once the flood plain of Weed Lake has been secured and restored, Alberta Environment will lift their moratorium on expansion of the Hamlet of Langdon. The MD of Rocky View will then increase their tax roll at Langdon. The Western Irrigation District water users will benefit by improved irrigation water quality in the Weed Lake Drain below Weed Lake. Long term modelling has shown that Weed Lake can maintain its wildlife wetland values and improve water quality for irrigation over the life of the project. Wildlife will once again have the sanctuary of this important wetland complex within a high priority pintail landscape. The restoration of the Weed Lake Landscape is an example of a win-win project.(Clearly state the specific objectives or hypothesis(es) to be tested.)

Deliverables:
Construction of the physical water control intrastructure will be completed.

Communication of Results:
Once Weed Lake is again flooded, we hope to develop a Wetland School Education Program for the area much like the one we have developed for Frank Lake. Last year, over 3000 Calgary school students attended our Wetland Education field trips to Frank Lake. Weed Lake is closer to Calgary then Frank Lake so we expect to have even larger numbers coming to Weed Lake. The General Public who are interested in Wildlife Viewing, have visited Frank Lake in large numbers throughout the year. We believe that Weed Lake will get even higher use than Frank Lake.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=362

Rationale for Delay: To March 31, 2006
The pump house built at Weed Lake will not be complete before March 31st. In fact we will not get any of the construction in Weed Lake done before March 31st. High water levels in the lake bottom this fall have made it to costly and to difficult to build anything in the lake bottom this winter. We are now ditching some drains in the lake bottom to de-water the lake so that construct of the dykes, control structures, and pump house can take place this year.

To further complicate the issue the construction of all the dykes, control structures and pump station will now be done by the MD of Rocky View instead of Ducks Unlimited. Ducks Unlimited commitment to the Weed Lake is $2 million. We have spent $2 million dollars now so under the MOU we have with the MD any further cost in completing the restoration of the Lake will be picked up by the MD and government. The project will be completed sometime this year because the MD and Langdon must have the Lake functional to receive treated water from Langdon. Alberta Environment requires the MD to do the construction and make the Lake functional in order to get a license for their treated water. All the land and licensing issues within the Lake have been resolved. All that remains is the construction in the lake bottom.

Stream Crossing Education Project - Industry Workshops and Field Training

Project Location: **Peace River**
Identifying Code: 090 40 90 002
Funding Allocation: $10,000.00

Contact Information: Boreal Forest Research Centre
Bag 3500H.A. George Building, Fairview College
Hugh Seaton
Peace River, AB T8S 1V9
hseaton@nait.ab.ca 780.618.2624

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
This project builds upon the recent Alberta Conservation Association's (ACA) stream crossing inventories. The project will inform industry of "best practices" in installation and maintenance of crossings.

The project goal is to protect fish habitat through improved stream crossings practices. The project objectives are to:

- Increase industry stakeholders' awareness of stream crossing regulations, standards and practices.
- Identify "best practices" in permanent and non-permanent stream crossings.
- Improve access management practices through education of industry and contractors who work in the field.

Deliverables:
Stream Crossing Workshop

- The Stream Crossing Seminar was held on November 9, 2004 in Peace River at the Travellers Motor Hotel. The seminar was held downstairs in the Ballroom with the lunch served in the Peace and River rooms.
- The speakers that presented highlighted the regulations and best practices for permanent and non permanent stream crossings.

Guest Speakers

- ***Stream Crossing Inventories***
  - John Tchir, Biologist, Alberta Conservation Association
- ***Regulatory Overviews***
  - Dave Evans, Fish Habitat Biologist, Department of Fisheries and Oceans Canada
  - Larry Kuchmak, Approvals Coordinator, Alberta Environment
  - Ralph Woods, Land Management Forester, Alberta Sustainable Resource Development
- ***Effects of Stream Crossings on Fish and Fish Habitat***
  - Rich McCleary, Fisheries Biologist, Foothills Model Forest

- ***Best Management Practices for Stream Crossings***
    - Alan Thomson, President, Mountain Station Consultants Inc.

Seminar Participation
There were 150 people originally registered, with an actual number of 145 that attended with 59 companies represented.

Advertising and Media

- Seven hundred brochures were mailed out to forestry and oil & gas companies, contractors, municipal governments, and federal and provincial regulatory agencies for the seminar.
- Media Releases were sent out to Edmonton Journal, Calgary Herald, and all northern newspapers.
- Eight radio advertisements were released on both local radio stations (CKYL-AM and KIX-FM) for the week prior to the seminar.

Seminar Manual and Video

- The stream crossing report has been completed and has been mailed out to all participants, presenters, sponsors, and partners. It will also be available for other interested parties at a reasonable cost.

- The video web streaming has been coded and set up on our website with a counter to determine how many people access the casts.

- A final meeting was held to review the project and whether the workshop met its objectives.

Communication of Results:
Seminar Participation
There were 150 people originally registered, with an actual number of 145 that attended with 59 companies represented.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=316

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

Project Location: **SW Alberta**
Identifying Code: 010 80 90 004
Funding Allocation: $11,460.00

Contact Information: The Miistakis Institute for the Rockies
Danah Duke
c/o Environmental Design 2500 University Dr. NW
Calgary, AB T2N 1N4
danah@rockies.ca (403) 220-8968

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The Livingstone Range in South-western Alberta is an area of public lands where a wide range of "unmanaged" recreational activities is available. This area is also an important link between protected areas for wildlife. There are special draws in the area for off highway vehicle users, random campers, anglers, and many other types of recreational users. These activities all have the potential to impact wildlife use of the area, especially in sensitive riparian, sub alpine and alpine areas. Summer 2003 was an important pilot season for collecting preliminary data on human and wildlife use of the area. We are adding to the information available on the amount, location and types of recreational use in these sensitive environments. The experience of other agencies in developing access management plans for areas such as the Ghost/Waiprous have highlighted the need for detailed and valid data. Summer 2004 will be an important season to build on this data and refine our understanding of the interaction between human and wildlife use in this region. This research will contribute to the understanding of cumulative effects of human use on wildlife and can be used for local and regional planning and management. Our objectives include the following:

1. Conduct a user profile analysis including demographics, place of origin, place values and attitudes towards management of recreational user groups.
2. Determine intensity and temporal patterns of trail use. This will involve the use of remote trail counters.
3. Analyze the differences between day-use visitors (primarily anglers) and campers.
4. Determine wildlife use of trails. Remote cameras will identify wildlife use of trails.
5. Determine the relationships between wildlife use of trails and human use of trails. This project will also work in close collaboration with ongoing regional wildlife monitoring studies.

Deliverables:
Short term deliverables will include a progress report including reporting and analysis of data collected in the 2004 field season highlighting the relationships between human use of the area and wildlife.
An analysis of sociological data will be used to create a set of recommendations for managers of the area to mitigate effects of recreation on wildlife and conserve the quality of recreational experiences in the area. This will be in the form of a Masters Degree Project with the faculty of

Environmental Design, University of Calgary, and will also be delivered to local and regional managers with Alberta Sustainable Resource Development.
This analysis of sociological data may also be used to submit an article in the scientific literature comparing different types of users groups and their attitudes towards management, and/or the characteristics and attitudes of recreational users of the Livingstone area compared with other similar areas in Alberta. This type of analysis of recreational users of Alberta's wild lands is grossly lacking in the peer-reviewed literature.

Communication of Results:
The final reports will be downloadable from the Miistakis web page and distributed in hard copy upon request.
www.rockies.ca

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=295

Forest Explorers Education Program

Project Location: **Peace River**
Identifying Code: 010 80 90 013
Funding Allocation: **$6,500.00**

Contact Information: Boreal Forest Research Centre
Bag 3500H.A. George Building, Fairview College
Hugh Seaton
Peace River, AB T8S 1V9
hseaton@nait.ab.ca (780) 618.2624

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

Problems:
- Northern Alberta experiences shortages of natural resources professionals.
- Biology, forestry, and conservation education programs in western Canada are facing declining enrolments.
- High school budgets are also tightening which limits the ability of schools to ladder students into careers in resource management.

- Solutions:
- Resource management and conservation requires a steady flow of competent, trained individuals into the workforce. The challenge of educators and industry is to inspire young people to consider training and careers natural resource management.
- Having a resource that enriches high school studies, or promotes enrolment in a forestry program is a valuable asset.

This is where the **Forest Explorers Education Program** steps in. The Centre has integrated five educational initiatives into a single program to promote careers in natural resource management. We are encouraging a laddering of high school students into post secondary training, and, ultimately, into resource management careers.

Deliverables:

Research Show – the next event is fall of 2005.

Summer Student Jobs:
- 4-6 high school students placed in a researcher/mentoring position for the summer of 2004.
- 2 positions with researchers at University of Alberta's EMEND site at Sulphur Lake.
- 2 positions with Alberta Sustainable Resource Development, Peace River office.
- 1 position with Alberta Conservation Association.

Mentoring:
- 2-4 in class researcher presentations to schools in northwest Alberta.
- School and public presentation on "Boreal Birds."

Boreal Forest Education Award:

- $12,000 in grants to 6 -10 school projects
- 120 to 200 students plan and implement habitat and resource management projects.
- 2-3 campus tours.

Scholarships:

- Administer $1,000 Mackenzie Forest Education Society – two scholarships.
- Administer $11,000 Manning Diversified / K P Wood Ltd. – 15 scholarships

Communication of Results:

- Alberta Conservation Association would become 20% of our Forest Explorers Education Program.
- This is a strategic education program in northern Alberta. The ACA will be recognized by industry and government partners.
- ACA grant funds is a bridge for ACA partnership in the research coordination of the Boreal Forest Research Centre.
- As a major sponsor, the ACA will be recognized in media releases, website, newsletters.
- We will label high school projects "ACA sponsored" when students carry out habitat, fish, and wildlife projects.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=316

Re-Print of Conservation and Hunter Education Manuals

Project Location: **Alberta**
Identifying Code: 010 80 90 006
Funding Allocation: $24,000.00

Contact Information: Conservation Education WISE Foundation
Robert Gruszecki
911 Sylvester Cres. SW
Calgary , AB T2W 0R8
robert_gruszecki@ezpost.com (403) 252-8474

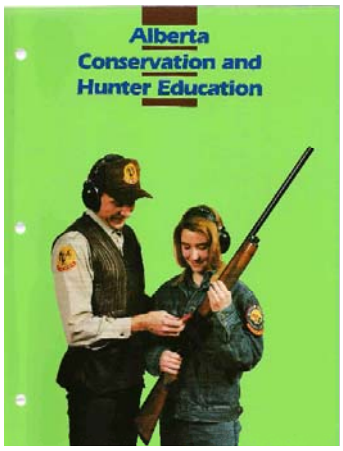
ACA Grant Status: **Complete**
Grant Summary Report**:** Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The primary objective is to provide the Conservation and Hunter Education program to Albertans who are interested in becoming hunters or becoming better hunters. Many students enroll in this course because they find the subject matter attractive. The program is presented throughout the province by Volunteer Instructors who are trained and certified by the Alberta Hunter Education Instructors' Association (A.H.E.I.A.).

Deliverables:
A copy of the manual was forwarded to ACA as part of the reporting process for previous funding. Over 15,000 copies have been printed.

Communication of Results:
This manual will be provided as part of the curriculum to every registrant of a Conservation and Hunter Education program.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=297



Instructional Techniques Workshop

Project Location: **Alberta**
Identifying Code: 010 80 90 008
Funding Allocation: $13,520.00

Contact Information: Conservation Education WISE Foundation
Robert Gruszecki
911 Sylvester Cres. SW
Calgary , AB T2W 0R8
robert_gruszecki@ezpost.com (403) 252-8474

ACA Grant Status: **Complete**
Grant Summary Report**:** Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. To improve and develop professional program delivery skills of new instructors
2. To provide information on and access to materials and expertise available within Conservation Education to all new instructors
3. To instill confidence through a practical workshop in all new instructors
4. To provide certification and liability insurance protection to instructors delivering program components when they perform to a set standard
5. To train all new instructors on details of policies and procedures regarding Conservation Education Program delivery

Deliverables:

- **This is a 20 hour workshop targeted at the general public, instructors / teachers. This adult training session is available once each quarter in 2004.**
- Instructional Techniques Workshops are scheduled quarterly and are advertised on the Alberta
- Hunter Education Instructors' Association's website, as well as its quarterly magazine publication.
- Potential instructors inquire at all Conservation Education points of contact and are counselled to attend an Instructional Techniques Workshop upon completion of a short interview with Conservation Education Administration.
- The expected number of people reached is 200 new instructors annually.
- Each student receives a selection of course materials, which also has the ACA profile printed in it.

Communication of Results:

1. Recognition and acknowledgement in all printed material, including the Conservation Education magazine, press releases, news & information articles. Approximately 3000 magazines are distributed on a quarterly basis.
2. Recognition and acknowledgment in all public presentations. These are generally done on Power Point or slide format and reach an estimated annual audience of 50,000 people.
3. Recognition, acknowledgement and link to the Alberta Hunter Education Instructors' Association website. Activity on this website is very active with approximately 20,000 visitors annually.
4. Information on the partners and funding support is included in all registration packages distributed.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=372

The Living by Water Project

Project Location: **Alberta**
Identifying Code: 010 20 90 004
Funding Allocation: $20,000.00

Contact Information: Federation of Alberta Naturlists
Kimberley Dacyk
11759 Groat Road
Edmonton, AB T5M 3K6
shorelines@fanweb.ca (780) 427-8127

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Overview: *The Living by Water Project* focuses on the relationship between natural shorelines and shoreline communities by ensuring that permanent or seasonal residents have the knowledge and tools necessary to understand their effect on fisheries, habitat or wildlife resources and water quality in their communities. *LbyW* has been operating within the province of Alberta since 2001 under the Federation of Alberta Naturalists, educating shoreline residents about their responsibilities in maintaining healthy shorelines. All Albertans have a vested interest in healthy water bodies, whether they use water as part of industry, recreation, or sustenance. "Water is a shared resource - our lives literally depend on it in every way, and therefore we all have to take responsibility for protecting and preserving it," said Minister of Environment Lorne Taylor. Part of protecting the water is recognizing the impact of land-based activities on shoreline health, water quality, and fish and wildlife habitat. *LbyW* focuses on shoreline communities and the role that both waterfront citizens and citizens at large can play in improving the quality and quantity of wildlife and fisheries habitat, and water quality in their communities.

***LbyW* is the only initiative aimed specifically at providing public awareness, education and tools to shoreline property owners and their communities.** In addition to shoreline awareness presentations, *LbyW* offers the following programs:

- **The Shoreline Action Challenge** encourages residents to make a "pledge" or written commitment to protect, restore, or enhance a portion of 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 Workshop-in-a-box Program** is designed to provide shoreline groups with the materials and resources they need to deliver a presentation and/or workshop about water related topics to their community. The Program is intended to facilitate hands-on learning, and to motivate residents to protect and enhance their shorelines through good stewardship practices. Modules include: healthy shorelines, septic systems, shoreline erosion, shoreline recreation, and water quality;

The Homesite Assessment Program involves homesite visits by trained volunteer advisors. The volunteer advisors in cooperation with post-secondary students work with the citizen to identify actions to improve environmental-friendliness of the home and/or property. The assessment addresses: 1) buffer zones; 2) built structures; 3) yard; 4) house; and 5) boating. It is based on a "no-blame" premise and emphasizes individual responsibility for improvement. As identified by FAN's focus surveys, the assessment process is invited as an opportunity to learn about the right choices that could protect the shoreline. For those who see their lifestyle as already shoreline

friendly, the assessment is viewed as confirmation of their actions or quite simply a "report card" of their property and their management choices.

Deliverables:

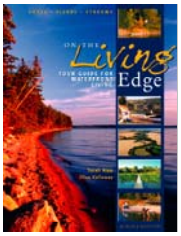
- 150 Homesite Assessments conducted
- Three new training sessions for the Homesite Assessment Program
- Three refresher training sessions for volunteers trained last year (Lac Ste. Anne, and Gull Lake)
- Number of community groups interested in, or committed to, piloting Workshop-in-a-box modules in 2004-2005
- Number of participants in Workshop-in-a-box workshops
- 15 Workshops/presentations (including the number of shoreline residents participating in workshops)
- 1000 "On the Living Edge – Your Guide to Waterfront Living" book sold across Alberta

Communication of Results:
FAN will monitor activities and effectiveness of community programs via evaluation forms and follow-up interviews with participating groups in each community such as an end-of-season volunteer conference with the volunteers and community organizations that participated in the Homesite Assessment Program. During this conference, participants will review summer activities, discuss successes and challenges and will formulate a strategic plan for the winter months and the following year. The information that is gathered will be used to improve and evolve the programs, which subsequently will be carried forward into community programs. FAN will document feedback about the program and provide recommendations for other capacity building community based programs. Results will be conveyed in FAN's featured publication Alberta Naturalists circulated among a variety of organizations including government, non-profit and private individuals.

In addition, *LbyW* ensures a living legacy by capitalizing on a bit of common wisdom, namely, the power of leading by example. Community members are more likely to follow the example of shoreline-friendly stewardship when it comes from within the community, as happens with *Living by Water*. The local residents who embrace *LbyW* become *de facto* community leaders in stewardship. As curious neighbours follow the good example, they too begin the process of reversing the trend of shoreline degradation at their own properties. The result is improved riparian habitat and water quality, and the ongoing enjoyment of future generations.

Finally, to ensure the legacy of improved shoreline health, *LbyW* programs, specifically the homesite assessment program, will continue over a period of summers on a given lake. As part of the legacy, new evaluations will be conducted; and previously assessed properties will be revisited so that a database documenting change can be created.
http://www.fanweb.ca/

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=254



Alberta Riparian Habitat Management Program - Cows and Fish

Project Location: **Alberta**
Identifying Code: 090 20 90 006
Funding Allocation: $60,000.00

Contact Information: Alberta Riparian Habitat Management Program - Cows and Fish
Norine Ambrose
320, 6715-8th Street N.E
Calgary, AB T2E 7H7
nambrose@telusplanet.net (403) 381-5538

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
To accomplish our mission and support the goals and priorities of ACA, we used the following operational 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:
- **210 Presentations, field days, tours**
- **Approximately 6,550 people spoken to**
- **Over 40 field days on riparian and range health**
- **192 Riparian health inventories involving 112 landowners**
- In the past three months, we have:
- **Spoken to 865 people**, including **202** producers
- Provided **25 presentations**
- In 2004, Cows and Fish evaluated:
- **192 assessment and inventory sites**, for a total of 1,298 since 1997;
- **42 different riparian systems** (eg. different streams, rivers, lakes and wetlands) with 6
- community-based groups and 4 other groups/organisations;
- **112+ landowners** participated in riparian health assessments on their land, for a total of over 750 since 1997

Awareness and Education
Information to rural landowners, producers, resource managers, and the public, with an **annualaudience of 3,000** through **110 presentations and workshops**. **Result**: over 6,550 people spoken to, with 210 activities.

We have engaged with landowners, cottagers, youth, resource professionals and others with captivating imagery and messages, providing riparian, range, and grazing awareness and management information at presentations, field days, tours and other activities totaling **210 Activities**, involving **over 6,550 people**!
We have spoken in **over 134 presentations**, to **more than 4,660 people**, with **at least 1,100 agricultural producers** receiving information as part of those presentations.
We have held at least **37 riparian health field days**, demonstrating what to look for in healthy riparian areas, how to assess riparian health, and what linkages current health has for management decisions. Approximately **760 people** have attended our riparian health field days, with more than 350 of those being agricultural producers.

Hands-on field days:
9 range health field days, with **165 attending**, and 126 of those being producers
2 plant identification workshops hosting **55 people**, 20 being agricultural landowners.
Youth activities:
Cows, Fish, Cattledogs and Kids! game 20 times, with over **1,200 youth** and 50 adults
Cows, Fish, Cattledogs and Kids! game 6 times, with over **78 youth** delivered by an interpretive program within the City of Calgary
3 presentations to junior and senior high school students on riparian form and function and riparian management

Communication of Results:
www.cowsandfish.org

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=62

Factors influencing the effectiveness 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

Contact Information: Alberta Research Council
Larry Roy
Bag 4000
Vegreville, AB T9C 1T4
larry@arc.ab.ca (780) 632-8250

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. Evaluate in the field the effect of entanglement/cushioning on the effectiveness of the 90 lb Hopkins S hook breakaway device to release deer.
2. Evaluate the effect of a spring enhanced snare lock on the effectiveness of the 90 lb Hopkins S hook breakaway device to release deer.
3. Develop if needed a less than 90 lb breakaway device.
4. Evaluate in the field the effectiveness of a less than 90 lb Hopkins S hook breakaway device to retain coyotes.
5. Provide management recommendations for breakaway devices for coyote snaring guidelines.

Deliverables:
Final Report due March 15, 2005.
Publication submitted to Wildlife Society Bulletin by June 30, 2005. (incorporates the results from 2003-04).

Communication of Results:
Final Report downloadable on ARC website.
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.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=313

Hunting For Tomorrow Foundation – Working Group Deliverables

Project Location: **Alberta**
Identifying Code: 030 40 90 006
Funding Allocation: $50,000.00

Contact Information: Hunting For Tomorrow Foundation
Kelly Semple
87, 4003 – 98th Street
Edmonton, AB T6E 6M8
ksemple@huntingfortomorrow.com (780) 462-2444

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
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 foster and increase public understanding, involvement and support of hunting. To ensure 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:

1. The HFTF office continues to gain ongoing exposure as a result of the collaborative efforts of our coalition of partners. Approximately 151 people visited the Centre for HFTF related services and 383 calls were fielded.
2. General ongoing office activities including: photocopying, phone, faxing, mailing, general correspondence, etc.

Governance:
Regular communication with Board Chairman Gruszecki, Communications Working Group Chairman Kublik, and other Board members as required.

Communication – Internal & External:

The Executive Director participated in a documentary feature about women in non-traditional roles. Some filming for this documentary took place at the Outdoor Women's Seminar in August, 2004 at Alford Lake and the crew joined the Executive Director at her home on October 10-12 to obtain some hunting/field hunting footage.

- In the summer, 2004, Ryk Visscher donated a goose and duck hunt to the Edmonton Sun to auction during their charity fundraiser. The donation was offered on behalf of the Hunting For Tomorrow Foundation and Ryk Visscher's Hunting Adventures. The purchaser of the hunt, Doug Quan and his two sons, David and Willy, participated in the hunt on Monday, October 11th. Duane Hicks and Jim Visscher also donated their time to assist with spotting, set up and calling. The Hunting For Tomorrow Foundation Executive Director and the film crew joined the hunt, which was a great time. All hunters were successful shooting birds and it was a wonderful opportunity to spend a morning in the field. Special thanks to Ryk Visscher for this donation. A small gift package including Youth Hunter Kits was sent to the Quans after the hunt.

- The Executive Director assisted with the delivery of the October Conservation and Hunter Education program, by delivering the "Role of the Hunter" and the "Hunting Ethics" sessions on October 19th, 2004. There were approximately 35 students in attendance.

- The Executive Director delivered a presentation to Strathcona Christian Academy Grade 10 students on October 26, 2004. There were approximately 22 students in attendance.

- The Executive Director participated at the **People, Wildlife and Hunting: An Emerging Conservation Paradigm** conference in Edmonton, Alberta from October 21-23, 2004. There were approximately 100 people in attendance. The conference included representatives from NWT, Yukon, British Columbia, Alberta, Newfoundland, various States, the United Kingdom, Australia and Africa. This international conference was focused primarily on the North American Northwest and Arctic, to examine ways in which conservation-hunting programs link people and wildlife in ways that foster successful conservation outcomes. The conference was designed to contribute to the goal of producing a conservation-hunting best practices manual, following a session on this topic at the 3rd International Wildlife Management Congress in Christchurch, New Zealand last December.

- The Executive Director attended the Annual General Meeting and banquet of the **Alberta Professional Outfitters Society on December 10 – 12, 2004** in Edmonton.

- The Executive Director attended the **Alberta Fish & Game Association Annual Christmas Open House on December 15, 2004** in Edmonton.

- The Executive Director attended the **Alberta Hunter Education Instructors' Association Annual Christmas Open House on December 16, 2004** in Calgary.

- The Executive Director met with **Alberta Fish & Game Association** Vice President, Randy Collins and Executive Director Martin Sharren on December 3, 2004 to discuss areas of opportunity for AFGA and HFTF to work together. This was a very productive meeting.

Media Features:

a. Various articles were submitted to the Alberta Bowhunters Association, Alberta Hunting Education Instructors Association. Alberta Game Warden, The Outdoor Edge, Rural Crime Watch and the SCI Northern Chapter newsletters / magazines.

b. The Alberta Outdoorsman continues to include the HFTF Calendar of Events as a regular feature in their monthly magazine.

c. The Executive Director participated in a series of interviews with Michael Short – Let's Go Outdoors. The program airs on 1060 CKMX in Calgary, Saturday mornings at 9:00 a.m. and on 1260 CFRN the Team in Edmonton, Sunday mornings at 10:00 a.m.

d. The Executive Director participated in an interview with Christopher Spencer from the Edmonton Journal regarding hunting. The article will be published on November 4, 2004.

e. The Executive Director responded to a "Women's Program Research" survey from Lyndsay Conrad, EcoTourism and Outdoor leadership student at Mount Royal College.

f. The Executive Director participated in an interview with Patricia Robertson a freelance journalist on November 26, 2004. The article is a feature for the Western Standard on the women's anti gun registration lobby. The questions were very rationale and it was an interesting approach regarding the links between gun control, hunting and the female perspective on these issues.

g. The Executive Director participated in a Large Carnivore Study – Public Perceptions from a master's candidate at the Center for Environmental Studies, Brown University. He is conducting research into how the public in the United States and Canada perceive large carnivores, specifically wolves, bear, and cougars. The study will also examine how the public perceives Nature.

h. The Executive Director participated in another interview with freelance journalist, Patricia Robertson. The article is a feature for the Western Standard on women and big game hunting.

Working Group Activities:

Hunter Participation and Opportunities Working Group:

Youth Hunter Kits:
Distribution of the Youth Hunter Kits remains active. To date, we have distributed over 1979 kits (152 kits were distributed during the last quarter). The database to track the recipients and maintain ongoing communication is up to date with all names and addresses entered.

The "Outdoor Youth Club" has been launched – with the first event taking place on December 31, 2004. Approximately 18 youth and parents attended. This youth group (ages 14 to 18+) will meet monthly and do different activities such as going fishing for the day, shooting at a range, attend different education seminars. The idea behind it is to get the next generation involved with the Edmonton Centre for Education now! They will be encouraged to become AHEIA Youth Instructors, attend such things as the sportsman show to encourage other young people to get involved, etc. The database from the "Adventure of a Lifetime" and youth hunter kit recipients was used to promote this concept and get young people involved. This is another excellent example of the complimentary delivery between AHEIA and HFTF.

Female Hunter Kits:
To date, we have distributed 269 Female Hunter Kits (12 kits were distributed in the last quarter). A database to track the recipients and maintain ongoing communication is up to date with all names and addresses entered.

Mentorship Programs:
The purpose of this program is to:

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

The project was coordinated as an archery youth and/or first-time hunter program that provides for a controlled and safe program to maximize the harvest of deer, moose or elk (depending on the actual site). The program involves matching "Mentors" with the program participants. A list of Mentors is provided to the interested participants (youth or first-time hunter), along with a calendar indicating which dates the mentors are available. The participant is then responsible for contacting the Mentor directly to coordinate their hunting activity.

The 2004 Mentorship programs concluded and all final reports of activities have been submitted.

- The **Epcor** program formally commenced on September 13, 2004. At the **Epcor** program there were 14 Mentors and 16 Participants involved in 13 hunting and scouting days. No deer were harvested during this season.
- The **4 Wing Cold Lake** program commenced on September 13, 2004. At the **4 Wing Cold Lake** program there were 13 Mentors and 12 Participants involved in 12 hunting and scouting days. One whitetail deer was harvested on September 22, 2004. A second whitetail deer was harvested on October 12, 2004.
- The **Edmonton Airports** program formally commenced on September 13, 2004. At the **Edmonton Airports** program there were 8 Mentors and 18 Participants involved in 25 hunting and scouting days. One whitetail deer was harvested on November 27, 2004.

Lifetime Hunting Licenses:

The Executive Director met with Assistant Deputy Minister Ken Ambrock, Ron Millson and Sylvia Birkholz on December 20, 2004 to discuss lifetime hunting licenses. At the conclusion of this meeting, it was agreed that some additional research was necessary including some specific data on Alberta hunters, as well as some comparative data for 5 key jurisdictions in the United States that have implemented this program over both a short and long term period.

Multi Stakeholder Regulations Review Meeting:

On **Tuesday, December 14, 2004** the Hunting For Tomorrow Foundation hosted the 3rd Annual Multi Stakeholder Regulations Review meeting. The objective of this meeting was to hold valuable discussions on areas of common interest through a displayed thinking session. Recognizing that various groups will always have a position on various topics that they will not agree upon, these issues were eliminated from the discussion. The focus was on general concepts where there was agreement and then further develop those ideas to move them forward to Fish and Wildlife.

The meeting commenced with a brief synopsis of hunting activities for 2004, which is very encouraging with hunter numbers having increased by over 2,800!

- Very close to 100,000 wildlife certificates were sold in 2004. Of this number, approximately 87,000 are resident hunters, 2890 are non-resident Canadians and 9700 are non-resident aliens.
- Of the **2,800 new licenses**, they represent an increase of:
    - 2127 resident hunters
    - 213 – non-resident Canadians
    - 425 – non resident aliens
- 13% were new hunters (someone that hadn't purchased a Wildlife certificate since 1993 or not at all)
- On average 12% of the hunting population drops in and out of the system annually.
- Black bear, elk, whitetail, mule deer and waterfowl license sales all increased.

- Alberta sold 11,000 more deer licenses than last year – this is the highest number of deer licenses sold in the past 7 years.
- 85,000 whitetail deer (antlered and antlerless) licenses were sold – this is the highest amount of activity in this area since 1979.
- There were sales of over 557,000 different activities! We have not seen this kind of activity since 1985 through 1987. In comparison, this number was 534,000 in 2003 and 540,000 in 2002.
- 66 youth partner licenses were used for a variety of species including non-trophy sheep and antlered mule deer (24).
- Antelope numbers were down slightly (quotas were down slightly as well).
- Bowhunting permits decreased by approximately 300.
- Total Draw applicants for 2004 increased to 208,000 compared to 196,000 in 2003.
- Overall the performance of the licensing system was positive and the percentage of problems associated with licensing was low.

Many other provinces are looking at Alberta as an example of an excellent licensing system for hunting and fishing. We are indeed fortunate to live in a province where wildlife populations are healthy and this provides for abundant hunting opportunities.

The second part of the meeting provided for an update regarding the status and progress of the 2003 items that were recommended to Government.

The remainder of the meeting focused on developing a list of items that had unanimous support from the stakeholder groups in attendance. In total, 26 items received unanimous support. (The report from this meeting is detailed in a separate document and will be distributed once the draft document has been approved.)

Hunters Who Care Program:

The objective to expand the Hunters Who Care program for 2005 will be launched at a first meeting to be held on January 13th. Representatives from Alberta Fish and Game Association, Alberta Hunter Education Instructors' Association and the Alberta Professional Outfitters Society have been invited to attend this meeting.

Communications Working Group:

1. Communications Working Group meeting:

The Communications Working Group continues to implement the following programs:

- **Media Monitoring and Letters to the Editor** – ongoing commitment to monitor newspapers and respond with factual information. Also, the development of pro-active messages that could be submitted as "Letters to the editor" was also discussed.
- **Fact Sheet**
  - Fact Sheet # 17 – "What's Bugging Our Wildlife" – completed
  - Grizzly Bear Hunting – Internal Information Document Only – completed
- **Website Review and Assign Monthly Task Master** – The following individuals were assigned as the monthly Task Master:
  - **October – Eric Moland**
  - **November – Don Meredith**
  - **December – Jim Hinter**
  - **January – Ryk Visscher**
  - **February – Des Nolan**
- **Youth Hunter Kits** – new ideas for contents

- **Female Hunter Kits** – new ideas for contents
    - **Retailers Coupon** – The recently completed "Hunting Bucks" coupon was reviewed (the 2004 retailers include Sherwood Park Archery Lanes and Jim Bow's Archery.)
- **Hunt Master Manual** – Content Discussion
- **Synopsis of Activities** – a copy of this document was circulated to everyone for comments
- **Food Bank Program** – various ideas to expand the participation and public awareness about this program were reviewed.

The HFTF Fact Sheets Display Units are displayed at:

- Alberta Conservation Association – October 2, 2002
- Alberta Fish & Game Association – Edmonton Office
- Alberta Professional Outfitters Society – Edmonton Office
- Alford Lake Conservation Centre For Excellence
- Calgary Conservation Centre For Excellence
- Calgary Gun Club
- Edmonton Conservation Centre For Excellence
- Pipestone Creek Archery Sporting Goods
- Sherwood Park Archery Lanes Inc.
- Wholesale Sports - Edmonton – October 2, 2002
- Russell Sports – Calgary – June, 2004
- Wholesale Sports in Calgary – June, 2004
- The Tackle Shack in Grande Prairie – December, 2002
- Ram River Sports in Rocky Mountain House - January, 2003
- Pincher Creek – January, 2003
- Phoenix Range – Edmonton - January, 2003
- Wholesale Sports – Lethbridge – January, 2003
- Information Centre – Fish and Wildlife, Great West Life Building – Edmonton –
- Trophy Book Archery – Spruce Grove – January, 2003
- Sports First – Slave Lake – February, 2003
- Sportsmen Den – Red Deer – March, 2003
- High Level Sports and Leisure Store – High Level – March, 2003
- Alberta Trappers Association – Westlock – June, 2003
- Sabre Sports – Sherwood Park – July, 2003
- The Outdoorsman Gun Shop – Medicine Hat – June, 2004
- Leduc Fish and Game Association – Leduc – August, 2003
- Visitor Information Centre – Medicine Hat – September, 2003
- National Firearms Association - Edmonton – September, 2003
- Epcor Genesee Power Plant – April, 2004
- Brooks, Clays and Feathers Club – October, 2004

Distributed 17 information items via e-mail to the HFTF electronic mailing list. There are now 1322 members on this distribution list. Information distributed included October Calendar of Events, the Foodbank Program and a request for support from hunters for the annual survey information. The November Calendar of Events, Willmore Wilderness Foundation, ACA Partners In Conservation Conference, Wild game Food bank Program question, Strathcona Range shooting range lease and a general firearms information article. The December Calendar of Events, Animal antics update, Hunters Who Care – Pack The House program, Woodlot Extension Employment Opportunity, Anti Hunter's Financial Resources, 3rd Annual Banquet and Wise Awards What's Happening Around the World.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=228

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

Project Location: **South Saskatchewan Drainage Basin**
Identifying Code: 030 50 90 007
Funding Allocation: $12,000.00

Contact Information: University of Calgary
HeatherPowell
BI 257 2500 University Dr. NW
Calgary, AB T2N 1N4
hmpowell@ucalgary.ca (403) 220-3123

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objectives of this research project are to 1) determine the aquatic invertebrate diversity and 2) define their associated habitats in rivers of the South Saskatchewan Drainage Basin. This project will compare changes in invertebrate community structure in relation to physical and chemical habitat and disturbances such as impoundment structures (dams and weirs). Stream invertebrates are a vital component of food webs as many fish species are dependent on them, in whole or part, as a food source. Additionally, invertebrate population structure can be used as a resource tool to determine the impact of land management practices, such as damming, releases of waste water effluents, and agricultural practices. This project is part of my Ph.D. research, which investigates the patterns of community structure and associated habitat variables, which drive community structure at different spatial scales. Results from this project will also be used as baseline information for use in other research initiatives and for management of Alberta's riverine resources.

Deliverables:
Report to ACA – Winter 2006
Poster presenting project and results - Winter 2006
Dissertation – 2008
Journal publications – 2008-2009

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

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=315

Citizen Science Network

Project Location: **Alberta**
Identifying Code: 010 80 90 009
Funding Allocation: $20,000.00

Contact Information: Federation of Alberta Naturalists
George Newton
11759 Groat Road
Edmonton, AB T5M 3K6
georgen@fanweb.ca (780) 422-5582

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The **Important Bird Areas** Program has been operating in Alberta since the spring of 1999. As the lead partner in Alberta, FAN continues to work on the Program's three main goals—to identify, monitor and conserve IBAs:

- • **Identifying IBAs** continues: based on recent monitoring (2003), it appears that Cold Lake has sufficient nesting Western Grebe to qualify as a *globally significant* Important Bird Area—currently it has no IBA status (additionally, Biome IBA sites still need to be identified for Alberta). To ensure the evaluation of potential IBAs continues—a process involving Birds Studies Canada (BSC) principals and various Alberta conservation agency principals—it is important that FAN maintain an IBA presence in Alberta.
    - **Objective one:** Ensure the evaluation of IBA sites in Alberta continues, until all Alberta IBAs have been identified.

- • **Monitoring IBAs** received support last year from ACA. Thanks to this support, the initial steps of determining which of Alberta's 48 IBAs require greater monitoring attention are underway. For this project to be of true value it must continue into the future. Monitoring, by its nature, is for the longer term. Therefore it will require regular periodic attention, specifically: to identify, each season, which IBA sites require monitoring; to recruit and direct volunteer field monitors; and to ensure that the data collected makes it into the relevant databases (FAN, BSC, Canadian Wildlife Service, and others). FAN staff time required. This is a *new* Citizen Science opportunity for Albertans.
    - **Objective two:** Ensure the monitoring of Alberta's 48 IBA sites is sufficient and continues in perpetuity.

- • **Conservating IBAs** continues, primarily in the hands of each site's local IBA stewardship group. However, not all Alberta IBA sites have local stewards, and some sites (the Lakeland IBA, and the Ewing and Erskine Lakes IBA) are currently having conservation plans written for them. Some IBAs, despite having conservation plans in place, are experiencing or are threatened with habitat decline. Additionally, select IBA sites—those with active stewardship groups and conservation plans in hand—require continued support. For example, a comprehensive Alberta IBA brochure is being prepared. The continuing identification of local site champions, the writing and publishing of conservation plans, support in defense of threatened sites, and the provision of continued support all require FAN coordination and input.
    - **Objective three:** Continue to provide effective support to the local IBA stakeholders in the conservation of their respective sites.

- • **Opportunities for Birders** (OFB) is a FAN project that received seed money from ACA last year. The goal of OFB is to inform Alberta naturalists—via a "one window approach"—of the bulk of bird monitoring opportunities in the Province, thereby contributing to Citizen Science and, ultimately, to wild bird conservation. The ACA support allowed FAN to launch a pilot of this extensive outreach project. To be truly comprehensive and effective this project requires further development, and maintenance over the longer term. Further development will include strengthening partnerships with the key bird research and conservation agencies (including the Canadian Wildlife Service, Alberta's Sustainable Resource Development, ACA, and others), gathering their more rigorous monitoring opportunities (i.e., survey protocols requiring more skilled volunteers), and publishing 500 hard-copy OFB Directories. Keeping OFB current will require regular periodic maintenance (essentially, each winter, collecting the 'new' opportunities and refreshing them on the OFB web page). Staff time required.
    - **Objective four:** Continue OFB into year two by developing our partnerships with the relevant agencies, collecting 'new' volunteer opportunities, and ensuring easy and efficacious access to OFB web page.

- • **Nurture Your Inner Naturalist** is a new project for FAN, one which nicely complements *Opportunities for Birders*. In essence, the idea is to grow Alberta's naturalist community by providing a range of educational opportunities; in turn the growing numbers and enhanced skills of Alberta naturalists will contribute to the Province's many worthy Citizen Science projects. Ultimately, the birds, and other species will benefit. The first project under this educational umbrella, now in its initial stages of development, is ***Birds-in-a-Box***. FAN is piloting this project with support from the Edmonton Natural History Club. The kit is self-contained and includes the basic materials intended to help beginning birders (field guides, binoculars, CD with Alberta bird photos, checklists, etc). FAN intends to loan the *Birds-in-a-Box* kit, and provide instructors, to any interested 'conservation' party in the Province (FAN clubs, non-affiliated naturalist groups, Fish & Game clubs, land stewardship groups, etc). Pending pilot success, FAN will market this opportunity across the Province and develop kits in sufficient numbers to meet the demand. Additionally, plans are afoot to develop kits and workshops catering to more advanced birders. The proper development of a program and materials to support the growth of naturalists in Alberta requires staff time.
    - **Objective five:** Continue to build partnerships toward the development, marketing and circulation of educational materials for 'young' naturalists. (The formation of Young Naturalist groups is currently being piloted in conjunction with the Red Deer River Naturalists.)

- • A **Citizen Science Resource Center** is a concept under development. It is integral to both the *Opportunities for Birders* project and the *Nurture Your Inner Naturalist* project. The Provincial Museum of Alberta (PMA) supports this idea in principle and talks are underway with FAN to make it happen. The idea is to provide an open public space, well-resourced, where naturalists and any would-be naturalists could learn about Alberta's natural heritage and contribute to its understanding, appreciation and protection. The PMA has agreed to looking at such a dedicated space in its present "renewal" plan.
    - Objective six: **Continue talks with the PMA and other likely partners toward ensuring the development of plans for and a feasibility study of a *Citizen Science Resource Center.***

Deliverables:

Deliverables related to Identifying IBAs

- New nominations for Alberta IBAs
- New Alberta IBAs

Deliverables related to Monitoring IBAs

- Prioritized list of IBA sites for monitoring
- Roster of volunteer monitors; where possible assigned to targeted IBAs
- Report detailing the status of monitoring at Alberta IBAs

Deliverables related to Conserving IBAs:

- Two new IBA conservation plans, published and distributed
- An Alberta IBA brochure, summarizing the status of IBAs in Alberta
- Identification of 'new' local IBA stewards at select IBAs

Deliverables related to Opportunities for Birders:

- Fuller listing of volunteer opportunities for birders/naturalists
- Stronger partnerships and wider participation in the project
- Up-to-date OFB web page on the FAN web site; easily accessible
- Publication and distribution of a hard copy OFB Directory
- Five workshops introducing Citizen Science and various CS opportunities

Deliverables related to Nurture Your Inner Naturalist:

- Strong conservation and research agency backing for the project
- Donated or purchased Birds-in-a-Box materials (binoculars, field guides, etc)
- A master CD of images of Alberta's birds (Introductory Set); copies of the same
- One pilot Birds-in-a-Box set
- Marketing of Birds-in-a-Box and loan-out requests filled
- Additional Birds-in-a-Box kit, commensurate with demands for it
- Five seminar/workshops catering to more advanced birders
  (e.g., Gulls at a Glance; Empidonax Flycatchers; Fall Warblers)

Deliverables related to the Citizen Science Resource Centre (CSRC):

- A formal proposal for the running of a CSRC
- Partner buy-in for the proposal
- A feasibility identifying the pros and cons and any opportunities
- A scaled-down pilot running out of the FAN office

Communication of Results:
Results will be shared via the FAN website, the OFB Directory, and the Monitoring IBAs report. Additionally, whenever FAN hosts related meetings and workshops, the results of the Citizen Science Network will be shared.
http://www.fanweb.ca/

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=27

Conservation-Hunting: Conference, Workshop, Book, Best Practices Manual

Project Location: **Edmonton, Alberta**
Identifying Code: 010 80 90 010
Funding Allocation: $13,000.00

Contact Information: U of A , Canadian Circumpolar Institute
Dr. Milton Freeman
8625 - 112 Street, Suite 308 Campus Tower
Edmonton, AB T6G 0H1
Milton.Freeman@ualberta.ca (780) 492-4682

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. Organize a world-class conference to introduce the trophy big-game conservation-hunting concept to wildlife managers, other key stakeholders, and the wider public.
2. Examine the opportunities for increasing economic, social and cultural benefits in rural communities through recreational hunting operations.
3. Identify and seek solutions to implementation barriers (e.g., legal, social, economic).
4. After reviewing examples of regional and international big game conservation-hunting programs, identify best practices that offer the potential to improve the planning and implementation of trophy big game hunting in Alberta (and neighbouring jurisdictions) that enhance wildlife conservation management strategies.
5. Produce an analysis of principles for establishing and promoting conservation-hunting programs that optimise local and regional conservation, economic and socio-cultural benefits (applied and how-to approach).

Deliverables:
2-day Symposium – A detailed examination of trophy hunting programs in Alberta and the NW region (from Montana through Alberta and into the Arctic). This symposium, to be held in Edmonton, will include invited keynote speakers, presentations, and break-out sessions.
1-day Expert Session – While speakers and experts (from our region, Africa, IUCN, and SCI) are in town, we will have an 8-hour facilitated workshop to put together the guiding principles for successful conservation-hunting programs and to assign book chapters and topic coverage to appropriate experts. The workshop will be held at Elk Island National Park.
1-year Book project – (see below)Deliverables: (Document anticipated products (and completion dates) from your project, including reports, videos, journal publications, structures built, promotional material, etc.)We anticipate real-time media coverage for public distribution on various news channels. Over the 12 months following the conference, two products will appear: a management best practices' brochure, and a book describing a variety of conservation-hunting programs.

Communication of Results:
Book publication;Conference proceedings (digital synopses on the web page);Expert panel at the symposium;Best practices manual.

Canadian Circumpolar Institute: http://www.ualberta.ca/~ccinst/index.html
Alberta Cooperative Conservation Research Unit: http://www.accru.rr.ualberta.ca

Conservation Lands Partnership

Project Location: **Central Alberta**
Identifying Code: 010 20 90 007
Funding Allocation: $20,000.00

Contact Information: Alberta Fish and Game Association
Andrew Schoepf
6924-104 Street
Edmonton, AB T6L 2K8
andrew@afga.org (780) 437-2342

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

- To promote participation by agricultural producers in the stewardship and enhancement of lands surrounding AFGA Conservation Properties (WTF Properties).
- To link farm-based conservation efforts with community-based conservation goals.
- To create 'conservation buffers' around locally significant habitats through voluntary conservation agreements, conservation easements, and through farm and municipal based conservation plans.
- To raise the awareness of local conservation priorities, and sustainable land management techniques within the parkland ecosystem to rural landowners, community groups and local municipalities.
- To foster cooperative action in conservation by developing new partnerships between individuals, community groups, and local governments

Deliverables:

- A database of 100 ecologically significant private land parcels surrounding 20 Wildlife Trust Fund properties for locally focused farm-based planning, and specific conservation activities.
- 10 local fish and game club presentations involving more than 100 club members in the identification of local conservation priorities and program delivery strategies.
- The completion of 25 natural resource inventories and farm conservation plans representing 8,000 acres of agricultural lands.
- The securement of 25 voluntary conservation agreements representing 4,000 acres of locally significant habitats. Final stewardship awards and presentations will be made at the annual Fish and Game Association conference in both 2005 and in 2006
- The enhancement and protection of long term ecological integrity for over 5,500 acres of formerly secured habitat on 20 Wildlife Trust Fund properties through the development of a conservation buffer involving the active stewardship of neighboring landowners. For 2004/2005 the project will focus delivery around two AFGA conservation properties.
- Support 10 program members in specific farm/habitat improvement projects by linking participants to additional resources of financial and/or technical support. Project proposals to be completed by February 2005. Actual projects to commence during the 2005 and 2006 field season pending the level of financial support awarded for individual projects.
- Increased public awareness of conservation issues and greater recognition of program partners through the development of 5 fact sheets, a web page, 6 feature articles in local print media, and program presentations made at the annual AFGA conference and at 10

local fish and game clubs. Total readership is over 20,000. Direct program exposure made to over 30,000 individuals. Public relations activities will concentrate within the first half of the 2004/2005 fiscal year.

Communication of Results:
The Conservation Lands Partnership employs a number of communications strategies ranging from brochures to fact sheets, to information mail outs, and facilitated community meetings. Printed media is designed to support key program goals in environmentally sustainable land management and habitat enhancement techniques. These include:

- A brochure introducing program services, outlining key issues in the management of lands surrounding conservation properties, and recognizing program partners.
- A series of five fact sheets to highlight key messages in conserving biodiversity on agricultural landscapes. Fact sheets will provide background information and specific land management techniques for cropping, woodland stewardship, pasture management, wetland and riparian protection, and farmstead improvements to facilitate increased wildlife viewing opportunities.
- A program specific web page to facilitate information exchange with other conservation initiatives throughout Alberta and the world, and provide a resource for landowners to access the support and services provided by the Conservation Lands Partnership and other conservation initiatives throughout the parkland region.
- Six feature articles on priority parkland conservation issues/strategies to be developed for release in community newspapers, the Outdoor Edge and the Alberta Outdoorsman.

In addition the program uses public forums, one-on-one farm visits, and direct mail to engage and educate participants. Individualized attention and multiple channels for communication has proven to be highly effective within other AFGA stewardship initiatives and further supports our interest in cooperation, and the importance of participation. Every opportunity will be utilized to recognize the financial contributions of program partners in all communications with participants and the general public.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=373

The State of The Basin Report

Project Location: **Bow River**
Identifying Code: 090 80 90 001
Funding Allocation: $10,000.00

Contact Information: Bow River Basin Council
Mark Bennett
#300Atrrium VII 340 Midway park Se
Calgary , AB T2X 1P1
mark.bennett@brbc.ab.ca (403) 254-3353

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The Bow River Basin Council's State of the Basin Report is intended to be a snapshot of current conditions in the Bow River Basin. This is the second such Report. The first was published in 1994. We intend to complete and publish similar reports periodically, in order to track changes in the basin that may impact fish, wildlife and people in the Basin.

These snapshots are not intended to identify the source of changes (if any). Once identified, particular issues may stimulate further research.

The Report will recommend courses of action aimed at making the Bow River Basin the best-managed watershed in the world.

Deliverables:
The State of the Basin Report with present information on each reach of the Bow River, including:

1. water quality – reported as total dissolved solids, total phosphorus, nitrate and nitrite, faecal coliform bacteria and benthic algae
2. water quantity – reported as a comparison of 2003 flows with long term averages
3. ecosystem - reported as a description of the riparian habitat, waterfowl, wildlife and sportfish [1]

Communication of Results:
The Alberta Conservation Association will be recognized in all our printed materials (annual report, newsletter, STOB Report) on our website, and in a slide in our educational presentations of the STOB Report throughout the Province. We will be pleased to display your logo on all of our printed materials, with the exception of the STOB Report itself.
www.brbc.ab.ca

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=343

On the Brink: the endangered species of Alberta show

Project Location: **Alberta**
Identifying Code: 010 80 90 011
Funding Allocation: $15,000.00

Contact Information: Evergreen Theatre Society
Tara Ryan
2633 Hochwald Ave. SW
Calgary, AB T3E 7K2
etheatre@evergreentheatre.com (403) 228-1384

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The goal of *"On the Brink: the endangered species of Alberta show"* will the continuation of an exisiting conservation-education tour, focusing on high-needs and rural areas in southern Alberta. This program includes an original hour-long science-theatre production, followed by teacher-lead learning activities inspired by a resource guide and web-based student work-sheets.

Secondarily, this 10-week program, will create an opportunity to evaluate the understanding of Alberta youth in regards to endangered species & spaces issues. A series of pre and post surveys will be administered to participants in order to ascertain the value of the project and judge the potential of its continuation.

With project funding, *"On the Brink"* will visit 100 schools, between April and June of 2004 with the active participation of 25,000 students, teachers and community members. To meet the needs of the most diverse publics possible, *"On the Brink"* will tour to 60% urban and 40% rural audiences. As well, the show will be presented at the Mayor's Environmental Expo and the Wild Things Festival to reach a wider community audience.

The primary goal of *"On the Brink"* will be to educate elementary students about the challenges facing *local* endangered species in Alberta. The program will focus on species identified as either threatened or endangered by COSEWIC, the Alberta Endangered Species Conservation Committee and the Alberta Species at Risk Program. Some species represented in the show are; the Swift Fox, Banff Springs Snail, Whooping Crane, Western Spider Wort, Northern Leopard Frog, Peregrine Falcon and Piping Plover.

The overall educational project will be comprised of 4 elements, all crafted to meet Alberta provincial curriculum requirements and using scientifically rigerous information as its foundation:

1) Translation of current research about endangered species and their habitat into an accessible language for elementary audiences using theatre
2) Presentation of a scientifically grounded post-show, talk-back session about local species at risk to encourage participant questions and debate
3) Provocation of participants through a bias-balanced presentation to take personal action in preservation within their local natural community
4) Creation of multiple connections to other fish & wildlife organizations whose objectives include awareness, preservation and conservation of species & spaces

Deliverables:
1) development of a teacher resource and student activity booklet (54 pages – please go to www.evergreentheatre.com to preview the existing "On the Brink" workbook.
2) creation of an innovative, hour-long educational theatre program on conservation of endangered species & spaces of Alberta.
3) preparation of 10 follow up, classroom-based web-based student activity pages (to encourage
5) production in-school pre and post surveys for teachers & students:

(1) Teachers survey. The evaluation questionnaire will include factors such as:
- usefulness of the teacher resource guide
- actions chosen by the class to address specific
- key concepts retained by their students

(2) Selected grade 5& 6 classrooms will be asked to complete two short survey forms. The first will ascertain student knowledge pre-"On the Brink" and the second given directly after viewing the show. This educational survey will endeavour to measure the objective & subjective understanding of the participating students about endangered species in Alberta.

Communication of Results:
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
6) Webpage updates throughout the touring year (April & June)
7) Evergreen Theatre Annual Report

www.evergreentheatre.com

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=294

Limber pine conservation in Canada

Project Location: **Southern Alberta**
Identifying Code: 010 80 90 012
Funding Allocation: $32,400.00

Contact Information: Natural Resources Canada, Canadian Forest Service
Dr. David W. Langor
5320 – 122 Street
Edmonton, AB T6H 3S5
dlangor@nrcan.gc.ca (780) 435-7330

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. Assess the impact and potential impact of white pine blister rust (WPBR) on the genetic diversity and population viability of limber pine (LP) in Canada.
2. Complete surveys of LP in Canada and map distribution.
3. **Complete surveys of WPBR on LP in Canada and assess overall rate of infection and mortality.**

Deliverables:

1. A map of the distribution of LP in Canada (December 2005).
2. An assessment of the distribution and impact of WPBR on LP in Canada. Published as a journal article and made available on CFS web site (spring 2005).
3. An assessment of genetic diversity in limber pine in Canada and the impact of WPBR on genetic diversity. This information will be disseminated in journal articles by March 2006.
4. Newsletter articles and web pages describing the project for dissemination by ACA, CFS and SRD (throughout life of project).
5. Training of graduate student in the area of molecular genetics and conservation.
6. Cone and seed collections throughout the range of LP in Canada for ex situ conservation of genetic diversity (fall 2004).
7. Identification of potentially resistant trees (genotypes) for future research initiatives on genetic resistant (March 2006).

Communication of Results:
CFS has a strong commitment to dissemination of information via Newsletters, Web site, lectures, posters, publications and other means. All of these media will be used to advertise this project and the partnership with ACA and other collaborators.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=363

Kinsmen Park Stream bank and Fish Habitat Restoration Project

Project Location: **Hinton**
Identifying Code: 090 80 90 002
Funding Allocation: $15,000.00

Contact Information: Foothills Model Forest
Richard McCleary
Box 6330
Hinton, AB T7V 1X6
rich.mccleary@gov.ab.ca (780) 865-8383

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objective of the project is to undertake stream bank and floodplain restoration within Kinsmen Park in the Town of Hinton. The restoration works have two purposes:

1. Education through a well-planned interpretive program that will include trails, signage and school curriculum.
2. Improvement of existing fish habitat in a stream impacted by adjacent urban developments.

The physical plans for restoration are currently being finalized by Golder Associates. The Professional Engineer and Fish Biologist team are developing detailed plans for habitat restoration. Plan development was paid for by Fisheries and Oceans Canada and has been reviewed and approved by their staff including a biologist and an engineer.

Deliverables:
Implement stream bank restoration as per the detailed plan developed by Golder Associates (final plan due Feb. 27, 2004). Restoration of fish habitat with Kinsmen Park as per plans based on funding level.

Communication of Results:
The results will be shared at conferences (2 presentations at Forest Land – Fish Conference) as well as on the FMF website.

Linking with all interested project partner agencies, and with specific recognition of the ACA's funding support, it is hoped that the story of this community-based project will inspire and inform other grass roots endeavors.

Further, a publication of this community story, documenting the history of the creek, the restoration efforts of all stakeholders and the final outcome of rehabilitation will be one end result of the project.

To date there have been three stories in the Hinton Park Lander discussing the need for restoration activities in the Hardisty Creek Watershed.
www.fmf.ca

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=374

Integrated Resource and Habitat Management on the Eastern Slopes

Project Location: **East Slopes**
Identifying Code: 010 20 90 008
Funding Allocation: $14,750.00

Contact Information: University of Lethbridge
Dr. James Byrne
401 University Dr. W
Lethbridge, AB T1J 2K7
byrne@uleth.ca 403-329-2002

ACA Grant Status: **In Complete**
Grant Summary Report: pending

Project Objectives & Activities:
Objective 1: Spatial Data Inventory and Geographic Information System (GIS)To accurately characterize the Pekisko region watersheds, a base-mapping project will be undertaken with state-of-the-art GIS and Remote sensing tools. All digital map layers currently available for the Pekisko region will be acquired and analyzed to quantify the regions' assets and resources. The map and data sources will be assessed in terms of accuracy, and in terms of the required scale for this project. In the first year of this project we anticipate that new data acquisition will be minimal, and this inventory will be based primarily on existing data archives from a multitude of resources, some of which are currently held at the Universities of Lethbridge and Alberta. However, the evaluation of these map sources will require some ground-based validation in the region, as well as consultation with each participating rancher.Data sources that will be sought after for the base mapping project will include:

1. Topography (i.e. creation of digital elevation model for eastern slopes)
2. Hydrology (e.g. national watershed delineation boundaries, detailed stream and rivers boundaries, provincial sub-basin boundaries)
3. Legal land description for each ranch in the watersheds
4. Landuse: remote sensing airphoto's and satellite imagery, such as LANDSAT (e.g. land-use, grasslands vigour mapping, sensitivity analysis)
5. Soils, using government sources (AGRASID
6. Water Quantity and Quality data (i.e. hydrology station data for rivers, private quality data from wells located on each ranch)
7. Climate data – precipitation for the region over the past 30-50 years and trend analysis, including climate change scenarios
8. Coal bed methane development locations (Note: if this source is not accessible by the public then locations will be mapped using GPS)Essentially, this application outlines a base mapping project that will define the limitations of existing data sources for the region and identify data gaps. Hence, our goal is to determine what is required for the future in order to be able to create a comprehensive integrated watershed management plan in the Pekisko region.

Objective 2: Preliminary Watershed Status Report
Once the watershed has been characterized and water resources have been quantified, then a sensitivity analysis will be drafted for the Pekisko group. The limitations of this report will be premised on the quality and availability of the digital map sources. These limitations will be identified for the group in year one of the project, and a plan for the future acquisition strategies

will be drafted. It is anticipated that data acquisition will be required in future years to complete a comprehensive integrated watershed management strategy.In summary, the 2005 report should answer the following questions for the Pekisko Group:·
Where does our water come from? ·
What is the extent of the watershed in which we reside?·
How does the water flow and to where?·
Who are the water users downstream of our region?·
Are there water quantity or quality issues?·
What are the expected trends in water availability?·
To what extent do current land-use practices and development impacting the aquatic ecosystem and the riparian habitat?·
How is the current coal bed methane development affecting our land? ·
Are there sensitivity issues with this development and its proximity to water sources?

Deliverables:
How will you share the results of the project with others
Refereed papers
Geospatial Database (including all map layers)·
Report – status of the Pekisko group watershed, potential source protection program
Web-based maps & reports will be available to each rancher who participated in the project

Communication of Results:
Refereed papers.
Web page information
.Final report - downloadable from the Pekisko website. ·
All geospatial data layers will be available to ACA and others legitimate users on request.

www.pekisko.ca

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=364

Innovation Alberta Omnimedia Project

Project Location: **Alberta**
Identifying Code: 030 40 90 005
Funding Allocation: $7,000.00

Contact Information: Porcupine Stone Productions
Cheryl Croucher
8552 - 79 Avenue
Edmonton, AB T6C 0R4
cheryl@innovationalberta.com (780) 465-0791

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
To research and produce a minimum of ten audio interviews profiling 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. Alberta Conservation Association will continue to 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:
* ACA highlighted as a “Featured Theme” on the IA website
* inclusion of ACA research findings in Innovation Anthology items which will be posted on the IA website.
* produced programs posted to IA website and aired on CKUA Radio
* written transcripts posted to IA website
* web links between IA website and ACA and other appropriate sites
* mention of ACA as sponsor on all 40 programs and on the IA website
* use of ACA logo or name on IA website
* animated promo on IA website
* Inclusion of ACA related news and event promos in the Innovation Alberta Online e-newsletter

Communication of Results:
website marketed provincially and globally through Innovation Alberta Online Newsletter and other means·
programs posted regularly on IA website and aired on CKUA radio·
audio and written material available for downloading from webInnovation Alberta is an award winning program,
http://www.innovationalberta.com

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=236

Salmonid Aquarium Display

Project Location: **Lethbridge Community College**
Identifying Code: 020 40 90 005
Funding Allocation: $950.00

Contact Information: Lethbridge Community College
John Derksen
3000 College Dr. S.
3021 Cousins Bldg.
Lethbridge, AB T1K 1L6
j.derksen@lethbridgecollege.ab.ca 1-800-572-0103

ACA Grant Status: **researcher returned funding**
Grant Summary Report: N/A

Project Objectives & Activities:
Lethbridge Community College and the Centre of Applied Arts and Science has received a generous donation of a 750 gallon aquarium complete with pumps and plumbing. We are in the process of reconstructing the aquarium in its planned location for all to see and appreciate – Cousins Bldg. Student Study and Lunch Room (a.k.a. The Fish Bowl). The aquarium was a salt water display complete with coral, but our intent is to turn it into a freshwater aquarium for the presentation and observation of coldwater salmonid species, namely species present in Alberta. The students in environmental sciences learn fish i.d. from pictures, preserved, and mounted specimens, but the full appreciation of seeing fish swimming in a tank would be a much better learning tool. The aquarium is however not restricted to Environmental students, the tanks location is such that all passing the main hall can see it. The main restriction to us completing this goal is the purchase of a water chilling unit. The aquarium is going to be reconstructed in the next few months by students in the Fish & Wildlife Tech. program, but without a chilling unit it will never house coldwater species. The fish species for the tank will be acquired over time, starting this spring.

Deliverables:
N/A

Communication of Results:
N/A

Project Information on the ACA Website:
N/A

Tide Creek Beaver Management Project

Project Location: **Tide Creek - Pigeon Lake**
Identifying Code: 090 20 90 001
Funding Allocation: $2,885.00

Contact Information: Alberta Fish & Game Association
Yves uellette
239 Cresthaven Place, SW
Calgary, AB T3B 5W4
afga-yves@shaw.ca 403-663-9708

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objectives of this project is to keep the portion of Tide Creek that runs through the Pigeon Lake Wildlife Trust Fund Property, free of obstructions so walleye and pike can spawn in the channel. Beavers and their dams are removed from Tide Creek in spring to provide a clear path for walleye and pike to utilize natural and artificial spawning beds in that stretch of the creek. Specific objectives include:

- Managing beaver numbers and removal of dams by hiring a trapper.
- Supervision of the creek through regular volunteer visits.
- Increased walleye and pike accessibility to spawning habitat.
- Minimizing flooding of the Tide Creek Property.
- Promoting awareness of AFGA and ACA partnerships that improve fisheries.
- Increasing the awareness of fish habitat requirements.
- Maintaining or increasing fishing opportunities in Pigeon Lake.

Deliverables:

- Provide access for spawning walleye and pike from Pigeon Lake to Tide Creek spawning beds.
- 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.
- Manage 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.

Communication of Results:
This project will be communicated to the public and AFGA members at the Annual AFGA Conference as well as written submissions in the Outdoor Edge and AFGA Monthly Bulletin.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=68

Quirk Creek Native Fish Initiative

Project Location: **Quirk Creek**
Identifying Code: 020 10 90 005
Funding Allocation: $13,500.00

Contact Information: Trout Unlimited Canada
Brian Meagher
1130 – 12 St SW
Calgary, AB T3C 1A7
bmeagher@tucanada.org (403) 209-5185

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The number Brook trout (*Salvelinus fontinalis*) captured in Alberta's Eastern Slopes has risen dramatically since their introduction to the Elbow River in the 1940's. This increase has been at the expense of native species including bull trout (*Salvelinus confluentus*) and cutthroat trout (*Oncorhynchus clarki*). Fish populations in Quirk Creek have been overtaken and controlled by the younger spawning, smaller growing, and less-catchable non-native brook trout species. Brook trout numbers in Quirk Creek increased from 23% of the population in 1978, to a high of 92% in 1995 and 94% in 1996. The goal of this initiative is to attempt to use species identification, angler education and fishing pressure as a management technique. In the future, results collected from this work may be utilized to shape fishing regulations in other areas, by developing angler competency requirements to properly identify species for selective harvest.

To facilitate recovery of the native cutthroat and bull trout population in Quirk Creek, a brook trout suppression project utilizing anglers was initiated on the upper (5 km) reach in 1998 and on the lower (5km) reach in 2000. This project has evolved over the years as anglers are increasingly becoming aware of the importance of fish identification. Identification quizzes effectively emphasize the difference between native and non-native fish. An educated public is more aware of problems that some of our native fish face as a result of the introduction of non-native fish. This project is examining if the combination of education and liberal brook trout harvest limits will aid in the recovery of native trout species in Alberta.

Work completed in 2004 also included a secondary project entitled the Natural Drift Fence Project. This initiative focused on specific sections of the creek being blocked of to cattle and off highway vehicles (OHV's) by use of barriers. Habitat degradation has been observed in many locations along Quirk Creek. Stabilization of banks and erosion reduction were used to reduce sedimentation, minimizing siltation of spawning beds. Re-establishment and protection of riparian zones reduces the cumulative effects of cattle grazing, and the likelihood of OHV's fording the creek. Disturbances cause key changes, disruption and/or elimination of spawning and over-wintering habitat for native fish species (i.e., the bull and cutthroat trout). The goal of this study was to utilize deadfall and stumps to build impeding devices, eliminating or reducing damages along Quirk Creek and its riparian habitat.

Deliverables:
A call for volunteer angler participants was made early in the spring. Interested parties wrote the mandatory fish identification quiz specifically created for Quirk Creek, created by D. Baayens and J. Stelfox. A total of 36 individuals successfully completed and passed the test in 2004, these individuals were then permitted to participate in the supervised outings. Some individuals were

also qualified to perform unsupervised outings; that is, they had caught at least 20 brook trout while attending a minimum of five supervised outings over the course of the multiyear study. A total of eight supervised trips were carried out (the poor weather in late August limited the number of trips that were successfully performed), and there were seven trips of the unsupervised nature. Anglers accrued a total of 202 hours of fishing on the creek in 2004, combining for a total of 532 trout collected. The focus for the future is to concentrate the supervised outings on the upper limits of the creek, to allow those on unsupervised outings to exclusively utilize the lower limits of the creek.

Communication of Results:
http://www.tucanada.org/alberta/index.htm

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=392

Two Lakes Spawning Creek Project

Project Location: **Two Lakes Alberta**
Identifying Code: 090 50 90 002
Funding Allocation: $2,700.00

Contact Information: Peace Country Flyfishers Association
Jim Epp
9401- 77 Ave
Grande Prairie, AB T8V 4V8
jim@menziesprinters.com (780) 532-8730

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
To create a substantially improved fish spawning habitat for Rainbow and Cutthroat Trout. To do this requires the stabilization of riverbanks and the creation of specific spawning areas. This requires the detailed mapping of the creek running into Two Lakes, the reduction of erosion of banks with riprap installation and the addition of gravel beds for spawning.
Deliverables:
Preliminary report at the end of June on current works in progress each year
On site video/Photographs of completed project by September 30th each year

Communication of Results:
Written report

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=367

Edmonton Urban Fishing Program

Project Location: **Edmonton**
Identifying Code: 020 40 90 004
Funding Allocation: $5,280.00

Contact Information: City of Edmonton – Community Services Dept
Derek Sutherland
Victoria Park Office – P.O. Box 2359
Edmonton, AB T5J 2R7
Derek.Sutherland@edmonton.ca (780) 496-2950

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

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:
T-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)

Communication of Results:
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.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=366

North-central Alberta Non-game Fish Status Assessment - year two

Project Location: **Edmonton**
Identifying Code: 020 40 90 003
Funding Allocation: $20,000.00

Contact Information: Provincial Museum of Alberta
Mark Steinhilber
12845-102 Avenue
Edmonton, AB T5N OM6
mark.steinhilber@gov.ab.ca (780) 453-9189

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
This is year three 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 2004 field season are to re-visit 20 of the sites surveyed in 2002 and/or 2003, including all 15 sites that have already been surveyed twice, and to conduct initial reconnaissance surveys of 10 additional sites in the Lac La Biche area.

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. 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 making it available for use by resource managers to monitor aquatic ecosystem health.

Deliverables:
- Baseline non-game fish relative abundance and specimen data from 30 sites throughout north-central Alberta will be gathered and compiled for incorporation into the FMIS database (March 2005).
- 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 and associated data are available for use by any interested users (March 2005).
- 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 (summer 2004 and upgraded regularly).
- 2004 survey data will be incorporated into a final project report (March 2005).

Communication of Results:

- All data will be incorporated into the Alberta Sustainable Resource Development's Fisheries Management Information System (FMIS)
- A summary of project results will be presented on the *Alberta's Fish Diversity* website
- Voucher specimens and associated data are available to all interested users including researchers, students, and the general public.
- All specimen data will soon be available via the Provincial Museum's web portal to the research collections.
- Selected data from this project has been incorporated into the Fish Conservation display in the Provincial Museum's Wild Alberta exhibit.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=250

Long-term monitoring study on trends and status of the species and size composition, population size, and susceptibility to angling of fish in three tributaries of the upper Sheep River drainage in south-western Alberta

Project Location: Southwestern Alberta
Identifying Code: 020 10 90 006
Funding Allocation: $14,275.58

Contact Information: Department of Environmental Sciences, Lakeland College
Dr. Vytenis Gotceitas
5707 – 47 Ave. W.,
Vermilion, AB T9X 1K5
vee.gotceitas@lakelandc.ab.ca (780) 853 - 8735

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
The objectives of this project are to establish a long-term data set examining the trends and status of: (a) the species and size composition of the fish communities, (b) the susceptibility of these fish to angling, and (c) an annual population estimate of the fish in Gorge, Ware and Junction Creek. . Based on data collected on species composition in these creeks during the first two years of this study, the emphasis of the data collection will be to monitor the populations of rainbow, cutthroat, bull and brook trout, and mountain whitefish, found in these creeks.

I have chosen to conduct my work in the upper drainage of the Sheep River because I have access to the University of Calgary's R. B. Miller Biological Station from which to conduct my work, and, having worked in this location before (i.e. while doing my M.Sc. at the University of Alberta), I am well acquainted with the area. I specifically chose Ware, Gorge and Junction Creeks for this project because, while geographically close to one another, they differ in ways which may influence the fish populations present in each. Ware Creek appears to flow into the Sheep River without any major barriers along its length which would prevent movement of fish in to the creek from the Sheep River and vice versa. The Sheep River, therefore, may provide a 'reservoir' of fish to Ware Creek, while Ware Creek may provide spawning and rearing habitat for fish from the Sheep River. Gorge Creek has a series of falls located fairly close to its confluence with the Sheep River which appear to present a barrier to upstream movement by fish from the Sheep River. As a result, the fish present in Gorge Creek may be a somewhat isolated population as far as recruitment from the Sheep River is concerned. Both Ware and Gorge Creek are currently open to angling. Given the suggested difference in supply of fish to Ware versus Gorge Creek from the Sheep River, angling pressure may affect these two systems differently such that management decisions may have to take these differences into account in order to preserve the resource and ensure continued angling opportunities. Finally, Junction Creek is located upstream of a major, natural, fish barrier on the Sheep River (i.e. Sheep River Falls) and has a long history of fish stocking attempts. The most recent is a stocking with cutthroat trout in 2000. At this time, Junction Creek is closed to angling. Therefore, work on Junction Creek provides the additional opportunity to examine both the success of such stocking programs and fish population dynamics on an unexploited system over a long-term period of time.

Deliverables:
All data collected will be available to the ACA following its collection and analysis. It is my hope that the long-term nature of the data set will ultimately provide sufficient and suitable data for publications in scientific journals, presentations at appropriate meetings, and information useful to fisheries managers and of interest to the general public.

Communication of Results:
The data collected will be available to the ACA, and other interest groups, upon request. Once sufficient data has been collected to allow for meaningful conclusions to be drawn, attempts will be made to publish the results (e.g. in scientific journals) and present the results at appropriate meetings and conferences.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=349

Crayfish Range Extension and Sportfish Adaptation

Project Location: **North Saskatchewan River**
Identifying Code: 020 10 90 007
Funding Allocation: $10,000.00

Contact Information: Golder and Associates
Mark Dunnigan,
#300 10525 – 170 Street,
Edmonton, AB T5P 4W2
mark_dunnigan@golder.com (780) 483-3499

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Preliminary studies were conducted to identify the distribution and ecological effects of crayfish in the NSR. This information can be used to assist fisheries biologists in developing management strategies for crayfish and sportfish populations. Our objectives included the following:

1) Determine the distribution and abundance of crayfish within Alberta, with emphasis on the NSR watershed.
2) Examine the effects of crayfish (i.e., as a predator) on benthic macroinvertebrate communities within the NSR.
3) Evaluate potential influences of crayfish (i.e., as a food source) on fish populations (walleye as the primary target species).

Deliverables:

- Field reconnaissance to determine range extension of crayfish in the North Saskatchewan River was completed.
- Sportfish sampling to assess diets and condition factors of populations between study sites was completed.
- Benthic invertebrate sampling at upstream and downstream reference sites was carried out.
- Analysis of benthic samples completed by U of A in April 2005.

Communication of Results:
Reports and publications

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=376

Fish Assemblages in Lac La Biche: Interactions with Double-crested Cormorants

Project Location: **Lac La Biche**
Identifying Code: 020 10 90 008
Funding Allocation: $11,400.00

Contact Information: University of Alberta
Cynthia Paszkowski
CW 405 Biological Science Bldg.
Edmonton, AB T6G 2E9
cindy.paszkowski@ualberta.ca (780) 492.5172

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Piscivory is a dominant process in structuring the fish assemblages of many lakes and consequently shapes the entire food web of lakes via 'top down' effects. Knowledge of the direct and indirect effects of apex predators, both piscivorous sportsfishes and fish-eating birds, is essential to managing fisheries and water quality, conserving bird populations, and maintaining or restoring the recreational vaule of large Alberta lakes. Given the lack of data on cormorant diet and foraging patterns in the province, it is impossible to correctly assess their effects on lake, reservoir, and river systems. Significant data gaps in fish species assemblage structure, population abundances and distributions in lakes such as La Biche also impede our understanding of these systems. Consequently, our ability to predict the outcome of management actions such as fish stocking, reduction in cormorant reproductive output, or changes in nutrient loading is severely limited. In 2003, Alberta Sustainable Resource Development (SRD) oiled eggs in 2843 nests on 3 cormorant colonies in the Lac La Biche region as part of a long-term strategy to control the bird's numbers and improve local fisheries (McGregor, pers. comm.). The need for and effectiveness of this program are problematic since virtually no baseline information exist on cormorant ecology and behaviour in Alberta and knowledge of the stucture, density, and habitat-use of fish populations exploited by the birds ranges from fair (for sport fishes) to nonexistent (non-sport species). An essential question is: "Are breeding and non-breeding cormorants that feed on Lac La Biche selective in the fish consumed, or do they simply capture the species present in habitats that offer good foraging conditions in terms of depth, structure, or water clarity?"

We intend to document interactions between cormorants and fishes in Lac La Biche as part of a broader project examining historical change, current limnology and trophic interactions in the lake that is being headed by Dr. Dave Schindler (Biological Sciences, University of Alberta). The central goal of our study is to document littoral and pelagic fish assemblages in Lac La Biche in conjunction with an assessment of cormorant diet and foraging patterns. Declines in abundance of walleye, and to a lesser degree northern pike, in lakes throughout Alberta are thought to have contributed to increases in other fish species such as yellow perch, minnows, sculpins, and sticklebacks (Sullivan, 2003). As a reflection of a potentially high abundance of these latter species in Lac La Biche and the opportunistic nature of cormorant foraging, we expect the diet of cormorants to be dominated by these small bodied fishes. Furthermore, we will assess the trophic position of cormorants and establish the basic food web structure of Lac La Biche including the trophic position of key fish species such as walleye, yellow perch, and whitefishes.

The ultimate goal of this research is to facilitate informed and scientifically sound decisions regarding management of fisheries and piscivorous waterbirds on large Alberta lakes.

Deliverables:
Report on DCCO diet to ABSRD in collaboration with S.Earle, Spring 2004.
Field report to Province on 2004 fisheries data.
Presentation at LLB Stakeholders meetings June and October 2004.
Presentation to Canadian Conference for Fisheries Research (CCFR) Jan 2005

Communication of Results:
Published journal articles.
Presentations at conferences and stakeholder meetings in Lac La Biche
Data sharing with the Province of Alberta, Sustainable Resource Development.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=356

Testing rainbow sentinel trout from southern Alberta Rivers for whirling disease

Project Location: **southern Alberta Rivers**
Identifying Code: 020 30 90 001
Funding Allocation: $21,999.00

Contact Information: Lethbridge Community College
John Derksen
3000 College Dr. S.
3021 Cousins Bldg.
Lethbridge, AB T1K 1L6
j.derksen@lethbridgecollege.ab.ca 1-800-572-0103

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

1. To conduct testing of sentinel fish (already exposed) for the presence of *Myxobolous cerebralis* in Alberta waters.
2. To establish Standard Laboratory PCR Operating Procedures (SOP) in Alberta for the detection of *Myxobolous cerebralis* from fishes

Deliverables:

Comprehensive testing for whirling disease will be established within Alberta borders. Validated PCR protocols and test results will be established for sampling whirling disease in the province. These assays will provide highly useful diagnostic techniques essential for the aquaculture industry.

The key deliverables will be:

1. presentation of results of testing from the respective sentinel fish (Mar. 2005).
2. a standardized PCR based technique to detect and confirm the presence of *Myxobolous cerebralis* from fish tissue (tested and validated) (Dec. 2005).
3. a laboratory facility in Alberta that is set up for molecular detection and confirmation of *Myxobolous cerebralis* in fishes (Jan 2005).

Communication of Results:

Through publication or a printed report. The report will also be posted on ACE's web page.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=288

Experiment to determine cause of small walleyes in Alberta lakes

Project Location: **Alberta**
Identifying Code: 020 10 90 009
Funding Allocation: $29,500.00

Contact Information: University of Alberta
Stephen Spencer
CW 405 Biological Science Bldg.
Edmonton, AB T6G 2E9
scs5@ualberta.ca (780) 975-9674 or (780) 962-7848

ACA Grant Status: **Complete**
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:
Previous studies have demonstrated that overfishing collapsed most of Alberta's walleye populations. In the late 1990's, a restrictive, minimum-size regulation was employed to assist in the recovery of these collapsed populations. Some fisheries have responded well to this regulation with angler catch rates of walleyes improving dramatically. However, there are very few large walleye being caught at these recovering fisheries, such as Smoke and Iosegun Lakes. Anglers are concerned that the increased walleye numbers are causing stunted walleyes, presumably due to increased competition for food and habitat and thus reduced growth. Alternatively, continued high angling pressure coupled with increased walleye catch rates, could be resulting in continued high mortality. These concerns raise the question on the sustainability of current walleye regulations. An adaptive management experiment was deemed necessary to determine why there are no large fish in Smoke and Iosegun Lakes and to provide information for further refinement of walleye management.

Overall Objective: collect the necessary information to develop sustainable walleye regulations.
Hypothesis 1. Overpopulation of walleyes has resulted in slower growth and therefore, smaller walleyes
Hypothesis 2. Overharvest and the minimum size regulation is preventing walleyes from becoming large
Progress to date: Edson ACA and Fish and Wildlife have collected considerable information on Smoke and Iosegun Lake facilitating this study. Additionally, I have changed management regulations (effective April 2004) to determine the cause of small walleyes. The size limit has been decreased at Iosegun Lake to reduce density and increased at Smoke Lake to reduce angler harvest. Walleyes have been transferred from both Smoke and Iosegun Lakes to Mayatan Lake to determine if either walleye stock grows differentially.

Management Implications: 1 Results of this study will be provincial in scope, as stunting of walleyes as a result of minimum length regulations, is a concern to both fishery managers and anglers. This stunting concern is being reviewed for the next Provincial Walleye Management Plan and thus the outcomes of this project are provincially important. 2. Results will also assist the local management of these 2 lakes and if this experiment shows a positive response we'd like to expand this to more lakes.

Deliverables:
Information to refine Alberta's Walleye Management -2006, Journal publications on study outcomes -2006, PhD thesis 2006, Presentations to interested groups -ongoing, Posters at Smoke and Iosegun Lakes to explain study –summers 2004, 2005.

Communication of Results:
Study results are viewed to be important in forming Alberta's next walleye management plan. Outcomes will be part of S. Spencer's PhD thesis and journal articles that incorporate the information from this study. This project will be communicated to groups interested in fish and fishing. I would also like to write a article for the ACA newsletter, explaining adaptive management in the context of improving Alberta's sport fisheries.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=347

Appendix A

Alberta Conservation Association

Grant Eligible - Conservation Fund

Project Submission Guidelines For Funding in 2004 - 2005

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.

ACA is a Delegated Administrative Organization incorporated under the Societies Act of Alberta. The Alberta Government 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.

The ACA has been awarding environmental conservation grants since 1997 and is proud to enter into its 8th year of Conservation Funding. Up to **$1 million dollars** will be available for project funding via the Grant Eligible Conservation fund during the 2004/2005 funding cycle.

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 2004 – 2005**

Section D: **Grant Application Screening & Decision Process**

Alberta Conservation Association®

Funded by Alberta Anglers, Hunters, and Other Conservationists

Section A: About This Grant: 2004-2005

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 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, 2004 for funding consideration in the 2004/2005 fiscal year. Applications received after **16:30** on **January 31, 2004** 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 Strategic Business Plan 2004-2007;
- 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 of the organization or for the funding of administrative staff;
- Emergency funds or deficit financing;
- Travel to conferences and seminars, 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 ACA Habitat Securement Fund).

Important Granting Information:

- Successful applicants will normally be expected to follow the ACA Cooperative Project Agreement;
- Recipients of funding support from **ACA Grant in Biodiversity** Fund will not be eligible to receive funding from the Grant Eligible Conservation Fund for the same project in the same calendar year; http://www.biology.ualberta.ca/biodiversity/
- Payment of grants is normally made in three payments or entirely;
- Project activities must occur between April 1, 2004 and March 31, 2005;
- 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 may remain the property of the ACA upon project completion.

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 Priorities of the Conservation Fund 2004 – 2005

Grants made to partners are intended to aid the ACA in the delivery of our mission and Strategic Business Plan and should demonstrate value to local to wildlife, fish populations and/or the habitat on which they depend. The following list of funding priorities for the Grant Eligible Conservation Fund is derived from our Strategic Business Plan 2004-2007. The Strategic Business Plan 2004-2007 is available on-line at: www.ab-conservation.com

Major Funding Priorities

ACA Wildlife Program Priorities for 2004-2005

Population Assessment and Status Determination
The execution of surveys to describe the distribution and abundance of a species to aid in the effective management of wildlife by providing accurate trend information. This involves the collection and compilation of data on game and non-game species. Inventories that capture information on priority management issues will be the major focus of this program.

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.

Habitat Inventory Information
The condition of wildlife populations must be related to the status of the habitats that support them, so that habitat and wildlife management occurs in a synergistic and effective manner.

Compilation, Archival and Management of Information
A systematic method of archiving and managing the information obtained from ACA wildlife programs. As well as having a system in place to facilitate the retrieval of the information to support the management of the resource.

Human / Wildlife Interactions
The process of identifying and often mitigating when and where humans and wildlife interact and the harmful outcomes of those interactions.

ACA Fisheries Program Priorities for 2004-2005

Fish Populations, Trends & 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 and make effective comparisons with the past does not exist for all situations and species, especially non-sport fishes. It is necessary to develop and implement such a process.

Sport fish harvest & angling effort
Anglers have a primary effect on the sport fish populations they target. 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. Fisheries biologists require information to support the monitoring of sport fisheries and for the development and execution of management strategies aimed at achieving desired objectives.

ACA Fisheries Program Priorities for 2004-2005 continued…

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.

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 2004-2005

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 Managing Director.

Riparian Habitat
These habitats make up four percent of Alberta's land base. Yet, 80% of Alberta's fish and wildlife 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.

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.

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

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.

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 three board members and **ten citizens of Alberta**, who referee and assess the grant applications based on the established funding criteria. The Grant Eligible Conservation Fund is administered by an ACA employee.

Applicants will be notified of status of their submission by March 15, 2004. Successful grant applicants will normally be expected to follow the ACA Cooperative Project Agreement.

Appendix B

Alberta Conservation Association

Grant Eligible - Conservation Fund

April 1, 2004 to March 31, 2005

Cooperative Project Agreement

Between

ALBERTA CONSERVATION ASSOCIATION

-and-

RECIPIENT

(Name, Address & other contact information)

Project Title:
Project Code: **000-00-00-000**
Maximum Funding:
Effective Date:

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

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 2004-2005 fiscal year (April 1 to March 31) to support this project. Payments are contingent upon receipt of appropriate invoice. 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 all 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, 2005) 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 capital 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. In special cases assets may remain the property of the recipient. Assets purchased with ACA funds are to be returned to the ACA Contact upon completion of the project. **Capital Assets are items>$500.00 that can be reused on other projects.**

D. REPORTING REQUIREMENTS- refer to **Schedule C** for a more detail

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

1. **A final project report is required on or before March 15, 2005.** Included in this report should be a detailed description of activities, objectives, deliverables/achievements and an accounting of how ACA funds were expended including receipts, if applicable. **(See Schedule C)**

2. **Quarterly updates on activities related to the project will be required on or before: (See Schedule C)**

   - **July 1, 2004**
   - **October 1, 2004**
   - **January 1, 2005**

3. **Web Page Summary:** A one-page project summary (max. 250 words) and at least one image (print, slide or jpeg scan at 75 dpi) must be submitted to the ACA Contact along with this agreement. **(See Schedule C)**

4. **Any other reports** or deliverables generated as a result of your project 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 15% 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. ACKNOWLEDGEMENT OF ACA

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 provide a copy of the ACA logo in an electronic format at your request.

Preferred Acknowledgement text:

This project is financially supported by the Alberta Conservation Association.

F. EXTERNAL FUNDS HELD BY ACA

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
David Fairless		
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 2004 - 2005

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 2004-2005 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. Please ensure you submit a project description for uploading to our website.

Payment Two:
$0.00 will be paid upon receipt of a quarterly report on or before October 1, 2005.

Final Payment:
The remaining **$0.00**, which represents 15% of the total grant, will be forwarded to you following the receipt of the final report on or before March 15, 2005 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

Reporting Requirements

Final Project Report
Submission Date: on or before March 15, 2005

Included in this report should be a detailed description of:
- Activities,
- Objectives,
- Deliverables / achievements
- Accounting of how ACA funds were expended including receipts, if applicable.

Quarterly Update Reports
Submission Dates:

- **July 1, 2004**
- **October 1, 2004**
- **January 1, 2005**

Please ensure that your quarterly update report includes, but is not limited to, the following information:
- Project Title & Project Code;
- Update Current Status and Recent Activities of the Project;
- Financial Highlights and Disclosure of ACA funding expenditures for the quarter;
- List any Reports or Deliverables that are Currently Available;
- Outlook for Next Quarter;
- Any other key points you would like to mention.

Please send electronic copies where possible.

Web Page Summary (maximum 250 words) www.ab-conservation.com
Contingent upon initial payment
- Project Title
- 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 one photographs where possible (print, slide or jpeg at 75 dpi) preferably in a digital PC format.

Other Reports
Any other reports or deliverables generated as a result of your project specified in the project proposal (Schedule A).