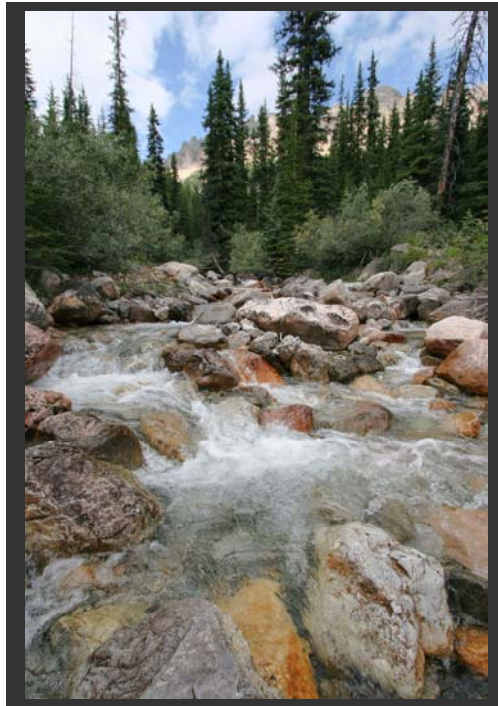


Alberta Conservation Association

**Grant Eligible Conservation Fund
2005 – 2006**



Annual Report of Activities & Synopsis of Funding Recipient Projects

**For the Period of
April 1, 2005 to March 31, 2006**

**David Fairless
Edmonton, Alberta
2006**



*The Alberta Conservation Association is a Delegated Administrative
Organization under Alberta's Wildlife Act.*

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Front Cover Photo:
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Table of Contents

Executive Summary.....	1
Introduction.....	2
Purpose.....	2
Funding Allocations.....	2
Proposal Review Process.....	2
Funding Eligibility.....	3
2002-2005 Grant Eligible Conservation Fund Project Locations.....	4
Major Funding Goals & Priorities 2005 – 2006.....	5
Synopsis of Project Activities 2005 – 2006.....	6
Appendices.....	79
Appendix A Project Submission Guidelines	
Appendix B Cooperative Project Agreement	



Executive Summary

The **Grant Eligible Conservation Fund** (GECF) 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. The aim of this document is to provide an overview of activities and results of from projects that were financially supported through the GECF April 1, 2005 to March 31,2006.

KEY PROGRAM HIGHLIGHTS: Grant Eligible Conservation Fund 2005/2006

- This year we awarded a total of \$1.2 million to 67 projects.
- 119 funding requests with a total dollar value of \$3.1 million.
- Range in project funding allocation (\$300.00 to \$60,000.00).
- GECF formally began in 2002/2003.
- 4th funding cycle in this new streamlined format.
- A wide range of projects were initiated with fare reaching benefit
- To date over \$4 million dollars provided to the conservation community.
- Since 2002 ACA's \$4 million dollar investment has leveraged over **\$24 million** in conservation work across Alberta.
- 2002 to 2006, **229 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 **\$1.2 million dollars** was available for project funding via the Grant Eligible Conservation fund during the 2005/2006 funding cycle.

This document summarizes the activities - Grant Eligible Conservation Fund from April 1, 2005 to March 31, 2006. In total sixty seven 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 **\$1.2 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 \$1.2 million to 67 projects.
- 119 funding requests with a total dollar value of \$3.1 million were received.
- Range in project funding allocation (\$300.00 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: ordinary 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.

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:

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

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

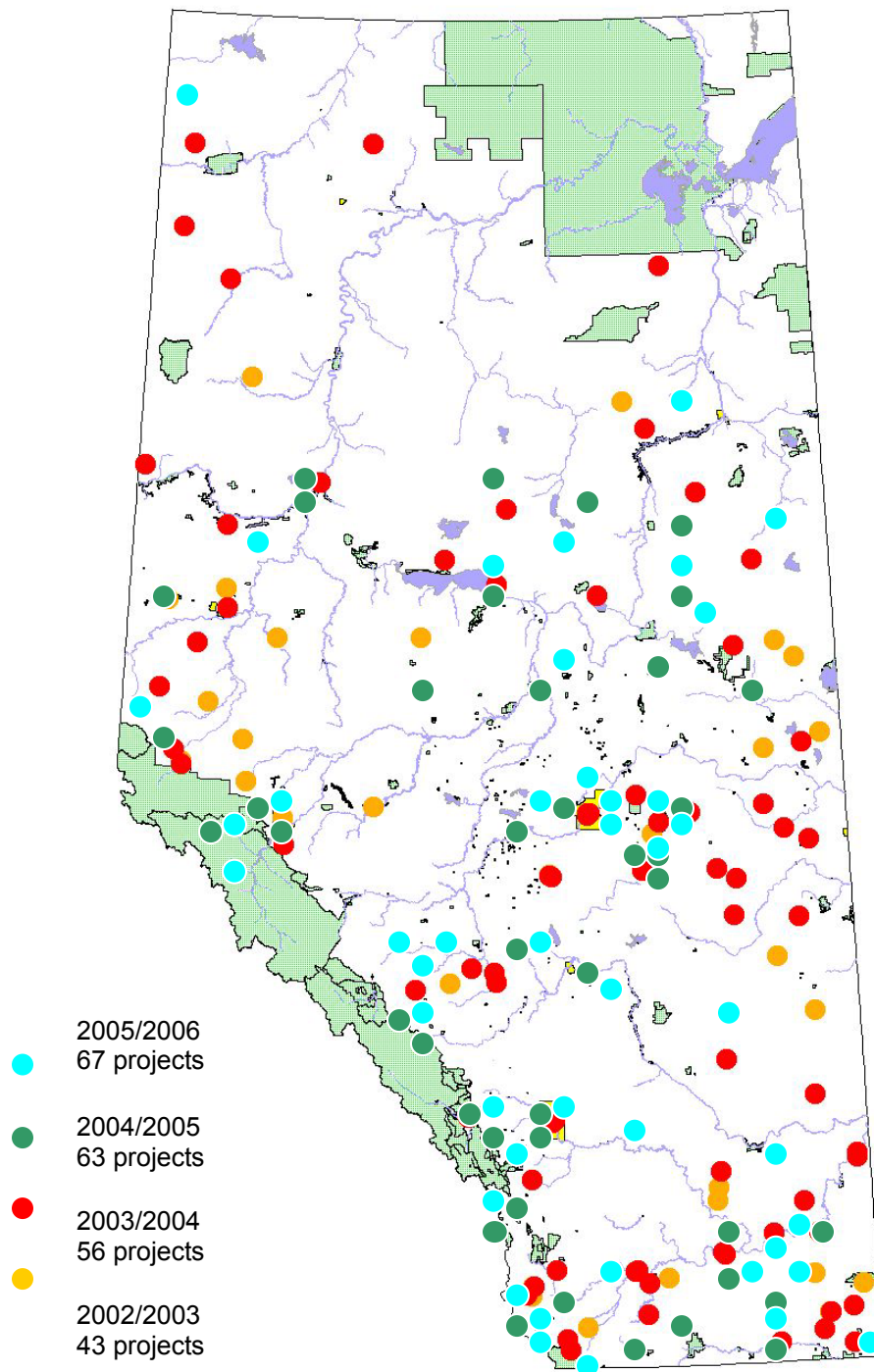
5. Funding Eligibility:

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: ordinary 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 of applicants shows that ACA programs are becoming widely known and that the funds are contributing to conservation efforts in Alberta.

- 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/>

6. 2002-2006 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.



7. Major Funding Goals & Priorities 2005 – 2006:

Major Funding Goals & Priorities of the Conservation Fund 2005 – 2006

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 2005-2008.

ACA Wildlife Program Priorities for 2005-2006

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 2005-2006

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 2005-2006

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 2005 – 2006

A summary description for each of the 67 projects and the respective objectives and deliverables follows:

Project Title	Funding Level	Organization
Medicine Hat Fish & Game Bird Box and Waterfowl Nesting Project – Medicine Hat, Alberta	\$1,000.00	Alberta Fish & Game Association
The Black Swift in Alberta	\$1,200.00	individual
Determining Mountain Goat Distribution In Kananaskis Country – Kananaskis, Alberta	\$2,000.00	Alberta Fish & Game Association
Mountain Blue Bird Trail - Pinto Creek Area	\$2,000.00	individual
Spring Rare Butterfly Survey – SW Alberta	\$4,000.00	individual
A survey of Lepidoptera in restricted habitats in southern Alberta	\$5,000.00	individual
Alberta Raptor Monitoring Program – Data Capture and Analysis	\$7,900.00	Beaverhill Bird Observatory
Evaluating fire management scenarios for ungulate habitat potential: Ya Ha Tinda elk and wolf project	\$12,100.00	University of Alberta
Caribou response to encounters with people in Jasper National Park.	\$13,000.00	Royal Roads University, Victoria, B.C.
Boreal Forest Bird Research	\$15,000.00	Lesser Slave Lake Bird Observatory
Behavioural ecology and conservation of mountain goats in Alberta	\$15,583.00	Laval University
Identifying essential habitat for Burrowing Owls in Alberta	\$16,400.00	University of Alberta
Effects of aversive conditioning on elk distribution and fecue growth	\$18,400.00	University of Alberta
Factors affecting the habitat selection and development of northern leopard frogs	\$19,110.00	Calgary Zoo
Cumulative effects assessment of energy sector development on forest songbird breeding productivity	\$25,000.00	University of Alberta
Bobcat and long-tailed weasel use of wooded fragments in agricultural landscapes	\$25,000.00	Alberta Research Council Inc.
Alberta Wolverine Experimental Monitoring Project	\$25,000.00	Alberta Research Council Inc.
Landscape composition and demography of northern pintails in the southeren canadian praires	\$26,100.00	Lethbridge Community College
Assessing the importance of wetland productivity and upland cover characteristics to waterbird populations in the Boreal Transition Zone	\$28,000.00	University of Alberta
Source/sink dynamics of American Redstarts in woodlots in an agricultural area	\$28,642.44	University of Alberta
Cougar Predation on Wild Ungulates in a Multi-Prey, Multi-Predator System	\$30,000.00	University of Alberta
New field techniques for estimating wolf densities and predation rates in the Central East Slopes of Alberta: Models for wolf sightability and kill-site identification	\$35,538.00	University of Alberta
Wolf and coyote ecology in caribou habitat in northeastern Alberta	\$38,094.00	University of Alberta
Monitoring Important Bird Areas (MIBA)	\$41,400.00	Federation of Alberta Naturalists
Community structure and demography of waterbirds and riparian birds in Alberta's mixedwood boreal forest:	\$44,450.00	Ducks Unlimited Canada

Status of Reintroduced Swift Foxes in Canada and Montana	\$49,591.00	Calgary Zoo
Atlas of Breeding Birds of Alberta: Update Project	\$56,250.00	Federation of Alberta Naturalists
Spedden Fish & Game Birdhouse Project	\$300.00	Alberta Fish & Game Association
Onoway Fish & Game Birdhouse Project – Onoway, Alberta	\$600.00	Alberta Fish & Game Association
Importance of Fungi in Alberta	\$1,000.00	Edmonton Mycological Society
Big Hill Creek Habitat Enhancement and Interpretive Sign Project Cochrane, Alberta	\$1,700.00	Cochrane Branches and Banks Environmental Foundation
Educational Kiosk at Beaverhill Lake Natural Area	\$1,800.00	Beaverhill Bird Observatory (BBO)
Riparian Edge Rehabilitation: Pilot Project - St. Albert, Alberta	\$2,000.00	Big Lake Environment Support Society
Rare Plant Surveys, Castle Wilderness	\$2,000.00	Alberta Wilderness Association
Open Space Toolkit for Alberta	\$5,000.00	Chinook Institute for Community Stewardship
Taber Fish & Game Riparian Fencing Project	\$5,000.00	Alberta Fish & Game Association
Innovation Alberta Omnimedia Project	\$7,000.00	Porcupine Stone Productions
Recreational Access Workshop	\$7,180.00	Alberta Off Highway Vehicle Association (AOHVA)
This Box is for you! An Educational Program about Alberta's Cavity Nesting Species	\$7,600.00	Beaverhill Bird Observatory (BBO)
Aquatic invertebrate community structure and abiotic drivers in the South Saskatchewan Drainage Basin, Alberta.	\$10,500.00	University of Calgary
Fish, Fur & Feathers: Fish and Wildlife Conservation in Alberta, 1905 - 2005	\$12,000.00	Alberta Fish and Wildlife Historical Society
Retaining Native Rangeland in the Aspen Parkland Through the Establishment of Beneficial Livestock Management Practices	\$13,800.00	University of Alberta
Rocky Mountain Repeat Photography Project	\$15,000.00	University of Victoria
Pond Scum, Inc. ~ the Watershed Conservation Program	\$16,000.00	Evergreen Theatre Society
Recreation and wildlife in the Rockies of Southwestern Alberta: Human Use and its effects on wildlife, riparian areas and regional connectivity	\$18,850.00	The Miistakis Institute for the Rockies
Implementation of Beneficial Management Practices	\$20,000.00	Mountain View County and Little Red Deer River Watershed Initiative c/o Mountain View County
Limber pine conservation in Canada	\$20,000.00	Natural Resources Canada, Canadian Forest Service
Alberta Wilderness Watch	\$20,000.00	Alberta Wilderness Association
Re-print of Conservation and Hunter Education manuals	\$23,000.00	Alberta Hunter Education Instructors' Association
Partners in Habitat Development	\$25,000.00	Partners in Habitat Development
Operation Grassland Community	\$29,820.00	Alberta Fish & Game Association
The Living by Water Project	\$30,000.00	Federation of Alberta Naturlists
Criteria, indicators, and three-dimensional corridors for managing biodiversity in urban and regional river valleys	\$35,000.00	University of Alberta
Conservation Lands Partnership	\$40,000.00	Alberta Fish & Game Association
Cows and Fish: Managing Riparian Areas Through Community Collaboration	\$50,000.00	Alberta Riparian Habitat Management Society - Cows and Fish
Hunting For Tomorrow Foundation – Working Group Deliverables	\$60,000.00	Hunting For Tomorrow Foundation
Tide Creek Beaver Management – Tide Creek, Alberta	\$1,850.00	Alberta Fish & Game Association
Northern Alberta Non-game Fish Status Assessment – Year 3	\$29,225.00	The Provincial Museum of Alberta
North Raven River & Clear Creek Beaver Management Program	\$3,000.00	Central Alberta Chapter of Trout Unlimited Canada
Ironside Pond Aeration Project	\$10,500.00	Central Alberta Chapter of Trout Unlimited Canada
The Economic Benefits of Recreational Fishing on the Bow River: Canmore to Bassano	\$4,000.00	University of Calgary

Edmonton Urban Fishing Program	\$5,100.00	City of Edmonton – Community Services Dept
Assessing effects of sportfish-stocking and aeration on communities in small Boreal Foothills lakes	\$25,900.00	University of Alberta
Hardisty Creek Restoration Project (HCRP)	\$10,000.00	West Athabasca Watershed Bioregional Society
Quirk Creek Native Fish Initiative	\$12,800.00	Trout Unlimited Canada
Late Fall Fisheries Investigation in Diversion Canals of Southern Alberta	\$5,300.00	Trout Unlimited Canada
Alberta Landuse Mapping and Simulation Project	\$20,000.00	Forem Technologies Ltd.
SUM	\$1,193,583.44	67 Projects

A summary of each of the Project Activities follows:

Medicine Hat Fish & Game Bird Box and Waterfowl Nesting Project Medicine Hat, Alberta

Project Location:	Medicine Hat
Identifying Code:	010 10 90 103
Funding Allocation:	\$1,000.00
Principal Investigator:	Alberta Fish & Game Association
Contact Information:	Alberta Fish & Game Association 6924-104 Street Edmonton, AB T6H 2L7
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

The objective of this project is to:

- Replace and provide nesting boxes for a variety of songbirds and elevated nesting structures for waterfowl in the Medicine Hat area.
- Increase community and public awareness of wildlife and their habitat requirements.
- Promote and increase volunteer participation in habitat projects in the community.
- Promote the co-operative efforts and goals/priorities of the ACA and AFGA.

Activities:

The Medicine Hat Fish & Game club, will buy the materials needed for the two projects. Volunteers will cut the wood, construct, paint and install the nesting boxes in needed areas around Medicine Hat. Some will replace old nesting structures that have deteriorated over the years. The waterfowl nests consist of old washing machine drums that are fitted with mounts and elevated on steel rods above the ground around wetlands. These waterfowl nesting structures are sought after by geese and utilized on a yearly basis. Owls have also been observed nesting in these tubs.

State how this project meets the goals/priorities of the ACA Strategic Business Plan 2005-2008:

This project meets the goals/priorities of the ACA 2005-08 Strategic Business Plan by:

- Implementing cost-effective strategies such as encouraging volunteer involvement to address fish and wildlife habitat needs in Alberta.
- Enhancing opportunities for the enjoyment of wildlife resources by hunters, anglers and the public at large.
- Enhancing the condition of priority riparian habitats in Alberta by providing nesting structures for waterfowl.

Deliverables:

The Medicine Hat Fish & Game Association will build and install approximately 100 birdhouses and 40 waterfowl nesting structures

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=424

The Black Swift in Alberta

Project Location:	Johnston Canyon, Banff National Park
Identifying Code:	030 50 90 101
Funding Allocation:	\$1,200.00
Principal Investigator:	Jason Rogers
Contact Information:	hawkowl@hotmail.com (403) 762-8918
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

The goal of this project is to expand on what is known of the Black Swift—an Audubon WatchList species and species of “undetermined” status in Alberta—and its migration, breeding biology, and status in Alberta. Extensive literature research, personal communications, and field work have already been completed. The aim of field work during the 2005 breeding season will be to fill in gaps about what is known about the breeding biology of the Black Swift in Johnston Canyon. I will determine the status of five Black Swifts nests that were active in the canyon during the summer of 2004, attempt to find additional active nests, and make behavioral observations at all active nests on several occasions each week from June to August. The month of September will be spent collecting Black Swift migration data from birdwatchers and compiling a report of about 2000 words length. I will attempt to have the report published in a journal.

Deliverables:

A report of about 2000 words will be produced and submitted to a journal for publication.

The ACA will be acknowledged in the report as having contributed funding to the project. How will you share the results of the project with others: As I intend to publish the report in a journal, the results of the project will be received by a large audience.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=420



Al MacKeigan

Determining Mountain Goat Distribution In Kananaskis Country Kananaskis, Alberta

Project Location: Kananaskis Country
Identifying Code: 030 10 90 101
Funding Allocation: \$2,000.00

Principal Investigator: Alberta Fish & Game Association
Contact Information: Alberta Fish & Game Association
6924-104 Street
Edmonton Alberta T6H 2L7

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

Project Objectives & Activities:

The objective of this project is to count goat, numbers in four mountain WMU's to assist in better management of these big-game species. This would be done through aerial surveys done in winter, and ground surveys done in summer. The Alberta Sustainable Resource Development (SRD) wildlife biologist responsible for the area was contacted and has agreed to assist and conduct the aerial surveys in order to keep them consistent with past aerial surveys done by SRD. Approximately 25 hours of flying time is required to cover WMU's 404-406-408 and 410. AFGA volunteers would assist in aerial surveys, as well as conduct ground surveys during the summer, also planned and coordinated with SRD staff input. The ground surveys will assist in pinpointing habitat blocks suitable for finding goats, sheep and elk by working with the wildlife biologist. This project will be organized every two to three years in order to provide up to date stats on big game numbers in these zones. SRD will keep the data collected from the surveys to assist them in the management of these three important big game species. There is specifically a lack of goat population information in these areas due to the shortfall of funds to do aerial surveys.

Even though money is allocated to SRD every year to do aerial surveys, these WMU's have been given a low priority and haven't been surveyed since the mid-1990's. Fish & Game clubs in the Calgary area would like to assist in collecting more current records of these zones and will raise the remainder of the needed funds to make this project a reality.

Deliverables: (Approximately 25 hours of helicopter time will be hired to fly WMU's 404-406-408 and 410 to count sheep, goat and elk. Wildlife numbers will be recorded and data kept by the SRD Wildlife Biologist responsible for those areas. Fish and Game volunteers, under SRD guidance, will conduct ground surveys during the summer. The data will be collected and provided to SRD. This data will become invaluable in the long-term management of these big-game species in these WMU's.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=444

Mountain Blue Bird Trail - Pinto Creek Area

Project Location:	Mountain Blue Bird Trail - Pinto Creek Area
Identifying Code:	030 50 90 102
Funding Allocation:	\$2,000.00
Principal Investigator:	MelBulford
Contact Information:	PO Box 94 Bezanson, Alberta T0H 0G0
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

To increase the numbers of bluebirds along Pinto Creek.

Deliverables:

Twenty five blue bird boxer will be added to the 75 existing bring the total to around 100 nest boxes.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=421



Spring Rare Butterfly Survey – SW Alberta

Project Location:	SW Alberta
Identifying Code:	030 50 90 103
Funding Allocation:	\$4,000.00
Principal Investigator:	Norbert Kondla
Contact Information:	PO Box 244 Genelle, British Columbia V0G 1G0 colias@shaw.ca (250) 693-2344
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

1. Determine if the provincially rare butterflies Sheridan's Hairstreak (*Callophrys sheridanii*), Western Azure (*Celastrina echo*) and Moss's Elfin (*Deciduphagus mossii*) are in fact as rare as suggested by available information or if they are more widely distributed. Present status is thought to be strongly influenced by their early flight season and lack of searches during that time. Opportunistic sampling of *Polygonia oreas* (S2 status rank) will also be undertaken
2. Document the exact locations, approximate abundance of the butterfly and major habitat attributes if any occupied sites are found.

Note: The hairstreak, azure and elfin are ranked as S1 (Critically Imperilled) by the Alberta Natural Heritage Information Centre. They are also identified as priority species of conservation concern in Alberta Species at Risk Report No. 80. The most cost effective way to assist in the conservation and recovery of endangered species is to increase the supply of known sites through field inventory.

Activities/Methodology:

1. Review file information and maps.
2. Use existing road networks to access habitats that appear suitable for the butterflies at lower elevations.
3. Walk irregular transects through candidate habitat patches to see if the species are present.
4. Photographs of occupied sites will be taken and notes made of salient habitat attributes. GPS coordinates will be recorded for both occupied and unoccupied sites.
5. Analyze collected data and write a professional report.

Deliverables:

A standard technical report of the field activities and results will be prepared. Project results will be reported through the provincial government Species At Risk report series. A journal article may be prepared, dependent on the results of the work.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=405

A survey of Lepidoptera in Restricted Habitats in Southern Alberta

Project Location: Southern Alberta
Identifying Code: 030 50 90 104
Funding Allocation: \$5,000.00

Principal Investigator: Gary Anweiler
Contact Information: gganweiler@hotmail.com

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

Project Objectives:

To survey moth populations found in special limited habitats in southern Alberta, in particular sand dune and badlands habitats. Preliminary investigations have shown that numerous species of moths and other rarely observed insects are restricted to these arid habitats, many of which have only recently been added to the Alberta faunal lists. More intensive and extensive surveys in these habitats are expected to show that many of these species are more common and widespread than the current data indicates, while others are in fact truly rare and local species.

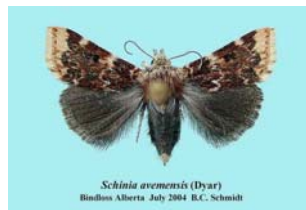
Obtaining this information at this time will add significantly to the Moth Tracking list for ANHIC, as well as to the new Annotated Checklist of Alberta Lepidoptera currently being prepared, and planned for publication in 2006.

Deliverables:

1. A summary report with a spreadsheet containing all collection data would be made available through the Website of the Alberta Lepidopterists' Guild (early 2006)
2. All voucher specimen data would be made available to the public through the Virtual Museum of the Strickland Museum of Entomology at the University of Alberta (early 2006).
3. The data would be incorporated into the new Checklist of Alberta Lepidoptera currently in progress and planned for publication in 2006.
4. The data would be incorporated into the proposed Moth Tracking List planned by ANHIC.
5. The data would be used in the planned Moths of Alberta (approx. 2010).

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=405



Alberta Raptor Monitoring Program – Data Capture and Analysis

Project Location: Beaverhill Bird Observatory
Identifying Code: 030 50 90 105
Funding Allocation: \$7,900.00

Principal Investigator: Lisa Priestley
Contact Information: Beaverhill Bird Observatory Box 1418
Edmonton, Alberta T5J 2N5
lisa@beaverhillbirds.com (780) 918-4804

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

Project Objectives:

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 were compiled in 2004 and most was entered into two databases (BSOD and Project Nestwatch). Further, some of the data was analyzed for phenology (timing of nesting) for five species (Great Horned Owl, Red-tailed Hawk, Swainson's Hawk, Barred Owl, Northern Goshawk).

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 84 routes for 2004 (163 volunteers). Over 100 routes are expected in 2005.

A Northern Saw-whet Owl migration monitoring program has been running since 2002. The aim of this program is to monitor the migration of the tiny saw-whet owl, to provide educational opportunities for the public, and to better understand the molt patterns of different aged owls.

Deliverables:

- final report on the project
- analysis of two more species for phenology of nesting, publication in journal
- educational video on the nocturnal owl survey (for school groups)
- report on results of the nocturnal owl survey to national program and one for Alberta Naturalist
- video on saw-whet migration monitoring and public involvement
- three Owl Files newsletters



Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=338

Evaluating fire management scenarios for ungulate habitat potential: Ya Ha Tinda elk and wolf project

Project Location: East Slopes - Ya Ha Tinda
Identifying Code: 030 10 90 109
Funding Allocation: \$12,100.00

Principal Investigator: Mark Hebblewhite
Contact Information: University of Alberta Department of Biological Sciences
Edmonton, Alberta T6G 2E9
mark.hebblewhite@ualberta.ca (780) 492-0083

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

Project Objectives:

- 1) Compare the effects of fires and cutblocks in coniferous stands on plant composition and habitat potential for elk.
 - a) We need to extend a preliminary analyses comparing forage biomass between fires and cutblocks presented at the ACA-PIC conference to account for additional complicating factors such as forest community differences and patch level differences between upper foothills and mountain cutblocks and burns.
 - b) We use information from this analyses to compare how cutblocks and fire affect elk habitat potential using a nutritional carrying capacity approach (Hanley and Rodgers 1989).

Deliverables:

The specific deliverables of this project entitled "Comparing effects of fires and cutblocks on ungulate habitat potential: Ya Ha Tinda elk and wolf project"

A management report and subsequent scientific publication quantifying

- Differences forest stand development in termen successional after forest harvest and burning
- Development of management recommendations for forest policy summarizing differences between burns and cutblocks.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=302



Mark Hebblewhite

Caribou response to encounters with people in Jasper National Park

Project Location: Jasper National Park

Identifying Code: 030 10 90 102

Funding Allocation: \$13,000.00

Principal Investigator: Tracy McKay

Contact Information: Royal Roads University, Victoria, B.C.

Box 1223 Jasper Alberta T0E1E0

matracy@shaw.ca (780) 852-5042

ACA Grant Status: Complete

Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

In many areas, industrial development is linked to caribou population declines. However, the caribou population in the protected area of Jasper National Park is also declining; the number of woodland caribou in south Jasper has decreased by approximately 30-50% since 1988. Possible reasons for this decline include lack of high quality habitat, increased predation, and displacement from critical habitat by people.

Preliminary results suggest that caribou avoid areas near trails. This study will investigate caribou response to humans along three major trail systems in Jasper National Park. The Tonquin Valley Trail, the Brazeau Loop, and the Skyline/Maligne Pass Trails pass through areas of known caribou use. Researchers will directly observe caribou behaviour in response to encounters with people along these trails. In addition, GPS radio collar data from nine collared caribou will be analyzed, to determine if caribou avoid areas after encounters with people. Results from the observations and collar data will help to determine if people are displacing caribou from important areas of habitat. A third component of this study involves surveying Jasper residents and backcountry users to determine their reaction to proposed caribou recovery measures in Jasper National Park.

This project will be carried out in cooperation with Parks Canada, as part of the South Jasper Caribou Project, and with support from the Alberta Conservation Association and the Friends of Jasper National Park. Volunteers from the town of Jasper will be participating in the fieldwork, helping to improve community involvement and heighten public awareness of the status of caribou in Jasper. Information obtained from this project may contribute to improved caribou recovery actions, and could help prevent woodland caribou in Jasper National Park from changing from threatened to endangered status.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=412



George Mercer

Boreal Forest Bird Research

Project Location:	Lesser Slave Lake
Identifying Code:	030 50 90 106
Funding Allocation:	\$15,000.00
Principal Investigator:	Amy Wotton
Contact Information:	Lesser Slave Lake Bird Observatory Box 1076 Slave Lake Alberta 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:

Our research goals are to document population status and trends. Changes in distribution, status, productivity and survivorship serve as an "early-warning system" for environmental problems and as an indication of general trends in biological diversity. While we began with songbird migrants we have now also included some owl work and hope to expand it.

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

Education and Stewardship Objectives

- Increase Collaborative Efforts with Lesser Slave Forest Education Society.
- Partner with Alberta Learning to provide videos on banding and the Songbird Festival
- Partner with Bell to provide nest cameras for two varieties of birds

Deliverables:

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

A comprehensive technical report will be published and available in December 2005.

Videos put out by Alberta Learning

Exhibits for the Boreal Centre for Birds

Reports where the LSLBO data is cited. (Weyerhaeuser Canada, Tolko Industries, West Fraser Timber)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=43

Or visit the LSLBO website:

<http://www.lslbo.org>

Behavioural ecology and conservation of mountain goats in Alberta

Project Location:	Caw Ridge Alberta
Identifying Code:	030 10 90 103
Funding Allocation:	\$15,583.00
Principal Investigator:	Dr. Steeve D. Côté
Contact Information:	Laval University - Department of Biology, Laval University Québec Québec G1K 7P4 steeve.cote@bio.ulaval.ca (418) 656-2131 ext. 3490
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Based on the long-term study of mountain goats at Caw Ridge and aerial surveys of several populations that have been subjected to different management regimes throughout Alberta, our objectives are to:

- a) Measure variation in individual survival and reproductive success in both sexes
- b) Identify the causes of this variation (linked to density dependence, climate, fecal crude protein)
- c) Quantify variation in survival and population sex-age structure among years
- d) Assess the effects of current reproduction on foraging behavior, survival, growth, and future reproductive success in adult females
- e) Identify the factors (including hunting) that affect population size and that are therefore important for management
- f) Model the population dynamics of hunted and unhunted herds
- g) Assess habitat differences between male and nursery groups.

In summary the specific Activities/Methodologies are:

- a) Measure variation in individual survival and reproductive success in both sexes. This will be accomplished by monitoring individually-marked animals between last year and this spring (survival) and observing females with kids at heel in May/June.
- b) Identify the causes of this variation. This will be examined yearly and correlations assessed relative to density dependence, climate, fecal crude protein, etc.
- c) Quantify variation in survival and population sex-age structure among years. This will be calculated based on the individually-marked animals that make up the population each year.
- d) Assess the effects of current reproduction on foraging behaviour, survival, growth, and future reproductive success in adult females. This is part of the Ph.D. program of S. Hamel. It will be examined yearly by monitoring the foraging behaviour, growth, survival, and reproductive success of individually-marked adult females.
- e) Identify the factors (including hunting) that affect population size and that are therefore important for management, and model the population dynamics of hunted and unhunted herds. This will be a collaborative undertaking with SRD. Aerial surveys of hunted vs unhunted populations will provide the population estimates for 11 herds in Alberta and the Caw Ridge study will provide data on age and sex-specific survival and reproductive rates to populate the model.
- f) Assess the differences in habitat quality between male and nursery groups by comparing the forage biomass available in male and nursery group habitats.

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; Gendreau et al. *in press*). The results of our work, particularly the recent publications by A. Gonzalez, provide important biological information to manage mountain goat hunting in Alberta. We are finishing a manuscript on the modelling of the population dynamics of hunted and unhunted mountain goat herds in Alberta using Leslie matrices parameterized with the very detailed data on age-specific survival and reproductive rates of goats from Caw Ridge. These models allow us to predict the population dynamics of most hunted and unhunted mountain goat herds throughout Alberta based on aerial survey data. Using these models, we performed various management scenarios and population viability analyses to evaluate harvest potential for goat populations in Alberta. The manuscript should be submitted to the *Journal of Wildlife Management* in April 2005. 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. The central manuscript from his thesis has just been accepted in the international journal *Behavioural Ecology and Sociobiology* and should be published in summer 2005. We also expect to write preliminary drafts of manuscripts on a) habitat differences between male and female groups and b) foraging behaviour of lactating and non-lactating females during the fall 2005-winter 2006. We are also working on a book on the ecology and behaviour of mountain goats at Caw Ridge (a draft of the first 13 chapters is written), and we expect a complete draft in the fall of 2005. The prestigious publisher *Cambridge University Press* has tentatively accepted to publish it. S. Côté has just published a review paper on the reproductive strategies of female mountain goats in the natural sciences magazine *Le Naturaliste Canadien* 129: 70-77 (January 2005). The preliminary results for each stated objective will also be reported in the Annual report of the Caw Ridge mountain goat study for this application (due for March 2006). We will present talks on the results of this proposal in at least 3 international meetings during the coming year.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=336



Photo Credit Steeve Cote

Identifying essential habitat for Burrowing Owls in Alberta

Project Location: Southern Alberta
Identifying Code: 030 20 90 101
Funding Allocation: \$16,400.00

Principal Investigator: Dr. Erin Bayne
Contact Information: University of Alberta Dept. Biological Science
Edmonton, Alberta T6G 2E1
bayne@ualberta.ca (780) 492-4165

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

Project Objectives:

- 1) To compile all recent and historical locations of Burrowing Owl nests in Alberta into a comprehensive database, thereby defining the species' current and former distribution.
- 2) To determine land-use and habitat characteristics in the vicinity of Burrowing Owl nests, as well as around an equal number of unoccupied locations, and then to analyze this information to determine environmental features required by Burrowing Owls for nesting.
- 3) To determine nesting success and productivity at all current Burrowing Owl nesting sites, and then characterize the specific environmental features required for high Burrowing Owl productivity.
- 4) To generate predictive models that can be integrated into mapping software to illustrate essential habitat for Burrowing Owls in Alberta.

Deliverables:

- Database of all known Burrowing Owl nest sites in Alberta (November 2005)
- GIS maps of current and historical Burrowing Owl ranges in Alberta (December 2005)
- GIS map of potential critical habitat for Burrowing Owls in Alberta (March 2006)
- Journal publication (March 2006)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=439



E. Bayne

Effects of aversive conditioning on elk distribution and fescue growth

Project Location: Ya Ha Tinda Ranch adjacent to Banff National Park
Identifying Code: 030 10 90 104
Funding Allocation: \$18,400.00

Principal Investigator: Holger Spaedtke
Contact Information: University of Alberta Dept. Biological Science
Edmonton, Alberta T6G 2E1
holgers@ualberta.ca & cstclair@ualberta.ca (780) 492-9685

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

One of the largest remaining parcels of rough fescue in Canada occurs just east of Banff National Park (BNP) on the historic Ya Ha Tinda Ranch. The Ranch is managed by Parks Canada and provides a winter home for its working horse population. The most extensive grassland community type in the Ranch area is described as a rough fescue – sedge – junegrass community (Willoughby (2001).

Specifically, our objectives will be to:

- 1) Determine whether it is possible to use humans on horseback to aversively condition elk away from target areas during the spring and summer by
 - a. moving them from the entire grassland or
 - b. moving to different portions of the grassland (to permit rest by rotation).
- 2) Monitor the movement of radio-tagged, resident elk (i.e., those that have previously remained at the ranch during the spring and summer) for both short- and long-term changes in behaviour and to determine whether there is an increase in migratory behavior following conditioning.
- 3) Monitor calf survival based on calf:cow ratios from broad-scale surveys comparable to those conducted in pre-conditioning years.
- 4) Measure responses by portions of rough fescue grasslands following each of two spring / summer seasons of removal and compare these measures to ones taken in the recent past.

Deliverables:

Provide recommendations for long term elk population management of the Ya Ha Tinda elk herd based on the success of the aversive conditioning tools we will examine (by Spring 2008). Produce an M. Sc. thesis and two or more peer-reviewed scientific papers and conference presentations (by Spring 2008). Generate annual progress reports and budget reports to project partners annually (2005 – 2008). Deliver several public talks, presentations, and communications to disseminate the findings of this work (ongoing 2005-2008).

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=441

Factors affecting the habitat selection and development of northern leopard frogs (*Rana pipiens*)

Project Location: Calgary Zoo, Calgary
Identifying Code: 030 50 90 107
Funding Allocation: \$19,110.00

Principal Investigator: Lynne Fraser
Contact Information: Centre for Conservation Research, Calgary Zoo
1300 Zoo Road NE Calgary Alberta T2E 7V6
lynnef@calgaryzoo.ab.ca (403) 294-7662

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

Project Objectives:

1. Using GIS layers, determine what landscape features influence the presence and absence of northern leopard frog populations in Alberta.
This will contribute to our understanding of which habitats need to be protected and help landowner stewardship in Alberta.
2. Determine the exposure of northern leopard frogs to chytrid fungus before reintroductions, one month after release and one year after release.
This disease component will examine if leopard frogs carry or become exposed to disease after releases.
3. Determine the effects of interspecific competition on the habitat selection and body condition of juvenile northern leopard frogs.
Factors other than habitat can act to depress endangered populations such as interspecific competition and disease. An experiment will determine if wood frogs can exclude leopard frogs during the release stage.

Deliverables:

- We will provide verbal updates to Kris Kendell (Biologist, ACA) , Dave Prescott (Species at Risk Biologist, SRD) and Garry Scrimgeour (Manager of Science and Research, ACA) on a 3 month basis
- By September 30 2005, we will provide an interim update on disease status.
- By March 31 2006, we will provide a report on the updated status of all objectives to the ACA.
- M.S.c Thesis December 2006
- Paper submitted to scientific literature May 2007

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=436



Cumulative effects assessment of energy sector development on forest songbird breeding productivity

Project Location: NW Alberta
Identifying Code: 010 80 90 104
Funding Allocation: \$25,000.00

Principal Investigator: Dr. Erin Bayne
Contact Information: University of Alberta Dept. Biological Science
Edmonton Alberta T6G 2E1
bayne@ualberta.ca (780) 492-4165

ACA Grant Status: EXTENDED March 2007 due to environmental conditions
Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

The specific objectives of this project are to determine:

- 1) The ZOI of pipeline development for boreal forest birds based on abundance and productivity measures
- 2) If pipeline edges create an ecological trap for nesting boreal forest songbirds by increasing rates of nest predation relative to forest interiors
- 3) Whether the magnitude of the ecological trap caused by pipeline edges is influenced by the level of cumulative effects in the surrounding landscape.
- 4) If changes in nest predation rate around pipelines and in landscapes with differing levels of cumulative effects are caused by functional, numerical, diversity or differential detection responses by different species of predators.

Deliverables

- Detailed nesting chronology information that will allow us to identify precisely those periods of time when energy sector activities could potentially destroy nests of migratory forest songbirds.
- Identification of scientifically defensible ZOI for pipelines and other linear features for a variety of migratory birds and mammal species. ZOI scores will be used in conjunction with other projects on habitat associations of migratory birds to develop robust habitat effectiveness scores that will be added to the current modeling efforts by our research group.
- Information on changes in predator behavior/ abundance caused by pipeline edges and how these changes (if any) are influenced by the nature of the vegetation surrounding nests. This will allow us to identify mitigation strategies (i.e. planting vegetation breaks strategically) that could be applied to reduce the efficiency of predator movements.
- A broad base of information on the abundance and behavior of various predators including coyotes and bears. This data will not only be of use not in understanding the productivity of migratory birds, but will be valuable to ungulate biologists who are trying to understand the factors influencing other species like woodland caribou.
- Integration of the observed ZOI and habitat associations for boreal birds into the ALCES (A Landscape Cumulative Effects Simulator) model structure for strategic level landscape planning (www.foremtech.com). Subsequent, development of a risk assessment model that uses ALCES to determine the potential demographic impacts of energy sector development on boreal forest songbirds as development proceeds in the future.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=438

Bobcat and long-tailed weasel use of wooded fragments in agricultural landscapes of the

Project Location:	Prairies of Alberta
Identifying Code:	030 50 90 108
Funding Allocation:	\$25,000.00
Principal Investigator:	Laurence Roy
Contact Information:	Alberta Research Council Inc. Bag 4000 Vegreville Alberta T9C 1T4 larry@arc.ab.ca (780) 632-8250
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The Alberta Research Council has considerable experience in remotely surveying large, medium, and small carnivores through ongoing wolverine monitoring efforts in western Alberta (Fisher 2003; 2004).

Camera 'traps' at baited stations: Trailmaster® infrared-triggered camera systems will be deployed in 30 habitat patches of varying size and connectivity in prairie landscapes. These cameras traps have been used as a low-cost alternative to live trapping for a variety of other carnivorous species (see Fisher 2003; 2004 for review). Remote camera systems are linked to an infrared (IR) beam system arranged around a station baited with decaying meat. When an animal visits the bait station, the IR beam sends a signal to the camera to take a series of pictures, identifying the presence of a bobcat, and possibly even identifying individuals through unique pelage markings.

Snow tracking: The 30 study patches will be surveyed using snow-tracking transects to establish the presence (or absence) of bobcats and long-tailed weasels. The combination of both of these methods is necessary, as environmental conditions are too variable to make snowtracking results reliable, and remote detection techniques such as camera trapping require an estimation of unidirectional bias. Together these surveys, conducted between 1 November and 28 February, will yield a reliable measure of bobcat and long-tailed weasel presence / absence.

Landscape Analysis

The landscape surrounding the survey patches will be quantified using GIS landscape inventory data and ArcView Spatial Analyst. Multiple logistic regression will be used to relate bobcat presence / absence to landscape measures of habitat type and fragmentation across patches, using resource selection function (Manly *et al.* 1993) model building and/or stepwise multivariate models. This will reveal patterns of use of habitat fragments by bobcats and weasels, a key piece of information in the development of habitat management plans and population status assessments of each.

Deliverables: The final report, containing all data and conclusions, will be released upon project completion, projected for the Fall of 2008. 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 bobcat and long-tailed weasel management efforts.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=429

Alberta Wolverine Experimental Monitoring Project

Project Location: northeast slopes
Identifying Code: 030 50 90 109
Funding Allocation: \$25,000.00

Principal Investigator: Jason Fisher
Contact Information: Alberta Research Council Inc. Bag 4000
Vegreville Alberta T9C 1T4
fisherj@arc.ab.ca (250) 389-0184

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

Project Objectives:

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 are suspected to be susceptible to human-based landscape alteration, bridging this data gap is a critical first step in properly managing for 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 2004-2005 year-end report will be produced fall of 2005, including analysis of all genetic and camera data, and preliminary power analysis of available wolverine data.

The final report, containing all data and conclusions, will be released upon project completion, projected for the Fall of 2006.

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.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=314



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

Project Location: southern Canadian prairies

Identifying Code: 030 10 90 105

Funding Allocation: \$26,100.00

Principal Investigator: Terry Kowalchuk

Contact Information: Lethbridge Community College

Environmental Science Department, 3000 College Drive South

Lethbridge, Alberta T1K 1L6

t.kowalchuk@lethbridgecollege.ab.ca (403) 320-3232

ACA Grant Status: Complete

Grant Summary Report: Final Grant Summary Report located ACA Corporate Office.

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.

Activities/Methodology:

To determine processes that affect nest site selection in pintails, I will compare habitat selection and resulting survival and production in grassland, FSC and SSC landscapes. To determine habitat preference between landscapes, I will compare breeding pair densities, body condition of hens, and nest initiation dates of hens selecting each of these habitats. I predict higher pair densities, better body condition and earlier initiation of nests in preferred habitat.

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.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=360



Assessing the importance of wetland productivity and upland cover characteristics to waterbird populations in the Boreal Transition Zone

Project Location:	Boreal transition zone of Alberta	
Identifying Code:	010 30 90 101	
Funding Allocation:	\$28,000.00	
Principal Investigator:	Dr. Suzanne E. Bayley	
Contact Information:	University of Alberta Edmonton, Alberta sbayley@ualberta.ca	Dept. Biological Science, CW405 BSB T6G 2E1 (780) 492-4615
ACA Grant Status:	Complete	
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.	

OBJECTIVES

1) To determine the role of alternate trophic states, and limnological conditions in BTZ wetlands under varying agricultural intensities. (to be undertaken by Bayley and student). We expect that water clarity between SAV-dominated wetlands vs. algal-dominated wetlands will be significantly different and these differences will be reflected in waterbird abundance and species composition. Land use surrounding wetlands will have a major impact on water clarity. Most wetlands surrounded by agricultural land use will likely be turbid and dominated by algae.

2) To determine adjacent upland cover characteristics and waterfowl abundances on BTZ wetlands. (Surveys already in progress by Thompson and contributed in-kind to this project). Breeding and moulting waterbird surveys will be conducted in conjunction with the wetland surveys in May and August 2005-2006. Land cover and other physical attributes of survey sites will be measured using aerial photography and other spatial databases because these variables can be strong predictors of waterfowl abundance (Savard et al. 1994). Because this objective is already underway and being funded by DUC, methods will not be described in detail however, if reviewers are interested, breeding and moulting survey protocols can be provided by Thompson.

3) To integrate limnological, trophic states, land cover attributes to predict waterbird abundances in the BTZ wetlands. (Bayley and Thompson). Waterbird abundance, limnological and land cover components will be examined to determine the relative importance of wetland habitat and limnological characteristics in predicting waterbird abundance during the breeding and moulting periods.

Deliverables:

Year 1 April 2006

- Interim report on year 1 findings

Year 2 April 2007

- Final report on year 1 and year 2 findings
- 3 peer-reviewed journal publications
- M.Sc. thesis



Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=416

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

Project Location: Athabasca, Alberta
Identifying Code: 030 50 90 110
Funding Allocation: \$28,642.44

Principal Investigator: Dr. Susan Hannon
Contact Information: University of Alberta CW 405, Biological Sciences Building
Edmonton, Alberta T6G 2E1
sue.hannon@ualberta.ca (780) 492-7544

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

The major objective of the project is to understand how a common songbird in Alberta forests, the American redstart, chooses breeding habitat and whether land use activities such as agriculture (crops, grazing) alter habitat quality and long-term viability of redstart populations. We use redstarts as a focal species that should indicate the behaviour and performance of other open cup nesting migrant songbirds (70% of songbirds in AB forests are migrants). If we can identify the characteristics of high quality 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. Because things like predator and alternative prey abundance, weather and landuse activities can vary over time, a long-term approach is necessary to accurately document the components of high quality songbird habitat. This summer will be the last year of a 10 year study on this species in aspen woodlots near Athabasca: we have monitored habitat choice, reproductive success, survival and movements of redstarts in relation to vegetation characteristics in the breeding patch, landuse surrounding the patch, and predator and alternative prey abundance. This year we add three components: plant phenology, microclimate and insect abundance in patches and in relation to fragment size and landscape position. We focus on answering the following questions:

1. What cues do redstarts use in choosing a territory?
2. If redstarts settle in a poor quality patch, how do they respond?
3. What are the characteristics of high quality patches (woodlots) and how can landowners manage their woodlots to ensure long-term persistence of songbirds

Deliverables:

In conjunction with the pamphlet for woodlot owners that we prepared over the last granting period, we are now developing a website (www.biology.ualberta.ca/woodlots), which will be updated as new information comes in from the study. One aspect of the site is to inform landowners of how they can manage their woodlots to conserve wildlife. There will be links to the ACA on this site. 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.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=355

Cougar Predation on Wild Ungulates in a Multi-Prey, Multi-Predator System in West-Central Alberta

Project Location:	West-Central Alberta
Identifying Code:	030 10 90 106
Funding Allocation:	\$30,000.00
Principal Investigator:	Dr. Mark Boyce
Contact Information:	University of Alberta Dept. Biological Science, CW 405 Edmonton Alberta T6G 2E1 boyce@ualberta.ca and kknopff@ualberta.ca (780) 492-0081
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The chief objective of this study is to evaluate the role of several variables in addition to prey densities in predicting ungulate predation rates and prey selection by cougars. We will achieve this by measuring species-specific kill rates, relating them to possible predictor variables, and incorporating these into a model of predator functional response⁶. Landscape variables are likely to be among the most powerful predictors of predation and hence constitute a major focus of this exercise. We also will examine other likely influences on prey selection including individual cougar characteristics (e.g., sex/age/size) and the hypothesized development of different prey niches between cougars and wolves⁷.

Data necessary to conduct such an analysis has not been available at relevant scales. We have a unique opportunity to unravel the mechanisms behind cougar predator-prey relations at the proposed study site in Alberta's Rocky-Clearwater forest reserve. Dr. Evelyn Merrill, Dr. Mark Boyce, and their students at the University of Alberta have long studied this large multi-prey, multi-predator, and multi-use site, developing a comprehensive geographical information system (GIS) for the area and one of the world's strongest datasets on elk and wolf distribution, abundance and behaviour, including GIS-based resource selection functions (RSFs) for elk. Fitting cougar data into this rich context will result in one of the best-understood large mammal predator-prey systems anywhere.

In addition to providing the landscape and habitat variables required for modeling, existing GIS data enables us to test two competing hypotheses about the impacts of industrial development on cougar population and predation: 1) that habitat fragmentation negatively affects the ability of landscapes to support cougars because reduced forest cover lowers hunting success (measured as kill rate)⁸; 2) that clearcutting increases the density of ungulate prey resulting in higher kill rates and larger cougar populations⁵.

Deliverables:

Annual Interim reports and progress updates (each of the years 2005-08)
Annual presentations at conferences (each of the years 2005-08)
Multi-annual presentations to concerned publics and organizations (each of the years 2005-08)
Published results in the form of several journal articles (2008 or earlier)
A final thesis detailing all project findings (2008)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=415

New field techniques for estimating wolf densities and predation rates in the Central East Slopes of Alberta: Models for wolf sightability and kill-site identification

Project Location: Central East Slopes
Identifying Code: 030 10 90 107
Funding Allocation: \$35,538.00

Principal Investigator: Dr. Evelyn H. Merrill
Contact Information: University of Alberta Dept. Biological Science, CW 405
Edmonton Alberta T6G 2E1
emerrill@ualberta.ca nwebb@ualberta.ca (780) 492-2842

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

Project Objectives:

This proposal addresses the development of two methodological approaches that will provide key elements for improved wolf management with immediate application in the central east slopes of Alberta. Specific objectives are:

- 1) Develop a sightability model to correct estimates of wolf density obtained using the SUPE survey approach for non-detection of wolf tracks in heavily forested areas.
- 2) Develop statistical procedures to identify sites where wolves kill ungulates from movement data of wolves with GPS collar and use these to quantify wolf predation rates on ungulates in the central east slopes of Alberta.

Deliverables: Full deliverables are expected in 2007 given we obtain two-years of funding. However, preliminary results will be available in 2006.

We expect delivery of several important research products including:

- In addition to a PhD thesis describing survey methods and estimation procedures, updated *User Manual* and Excel software (preliminary manual and software will be developed on the basis of 2004-2005 ACA funding) describing detailed methods for conducting SUPE aerial survey and incorporating methods adjustments of estimates based on probabilities of wolf detection.
- Estimates of wolf predation rates on elk moose and deer as part of a MSc thesis for incorporating into SRD ungulate harvest models.
- Two to three additional peer-reviewed journal articles (others funded by NSERC).
- Scientific and management-oriented conferences presentations (e.g. Partners in Flight).
- Articles for the ACA journal "Conservation" on wolf ecology in the central east slopes: movements, predation rates, and harvests.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=442

Wolf and coyote ecology in caribou habitat in northeastern Alberta

Project Location: northeastern Alberta
Identifying Code: 030 10 90 108
Funding Allocation: \$38,094.00

Principal Investigator: A. David M. Latham
Contact Information: University of Alberta Dept. Biological Science
Edmonton, Alberta T6G 2E1
alatham@ualberta.ca (780) 492-8449

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

Woodland caribou are currently identified as threatened in Alberta. Data from the Boreal Caribou Research Program (BCRP) has shown that predation (primarily by wolves) is the main cause of mortality for adult caribou in Alberta. Despite these data, previous studies have suggested that predators rarely use peatland habitat where caribou live; rather they tend to use aspen-white spruce dominated upland habitat adjacent to caribou range. Further, there is evidence to support the theory that caribou spatially separate from alternative prey species (commonly moose and deer) and their shared predators, in an attempt to avoid the deleterious effects of apparent competition (James, 1999). There have been recent suggestions that wolf numbers may be increasing in northeastern Alberta; perhaps a numerical response to increases in white-tailed deer numbers. Even a slight increase in the number of predators in caribou range could result in increased encounter rates between predators and caribou, and consequently an increased likelihood of caribou being killed.

Predator composition, distribution, and relative abundance were assessed at a relatively coarse scale in the WSAR range during winter and caribou calving season (i.e. late spring/early summer), 2004, using hair removal sites, winter snow tracking methods, and aerial surveys (Latham, unpublished data). This study found a surprisingly high incidence of wolves and coyotes distributed throughout the peatland habitat in this caribou range. Coyotes have recently expanded their geographical range to include much of northeastern Alberta, and may be playing a role in caribou (especially calf) predation (e.g. Crête and Desrosiers, 1995). Despite the success of the 2004 predator inventory, more fine scale methods are needed to adequately assess wolf and coyote ecology in peatland habitat. The aim of this project is to deploy GPS radio collars on wolves and coyotes to examine how these species function in peatland habitat within a caribou range.

The main objectives of this project will be to:

Assess the pack structure and degree of residency of wolves and coyotes in peatland habitat in the WSAR caribou range.

Describe the degree of association between wolves and coyotes, and various natural and anthropogenic landscape features in the WSAR range.

Assess the interspecific interactions between wolves and coyotes in peatland habitat in the WSAR range.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=433

Monitoring Important Bird Areas (MIBA)

Project Location:	Alberta
Identifying Code:	030 50 90 111
Funding Allocation:	\$41,400.00
Principal Investigator:	George Newton
Contact Information:	Federation of Alberta Naturalists 11759 Groat Road Edmonton, Alberta T5M 3K6 georgen@fanweb.ca (780) 427-8124
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

With an IBA monitoring framework now in place for Alberta, the primary objective becomes getting volunteer birders into the field to conduct **reconnaissance**, **baseline**, and **bird-specific** surveys at Alberta's 48 IBAs (please see the one-pager, Types of Surveys Proposed). However, because the thorough monitoring of all 48 sites is a huge undertaking, and potentially very expensive, the objectives for the upcoming field season are commensurate with what is more likely achievable, focusing primarily on getting **reconnaissance** surveys completed at our top-priority sites. In this regard FAN's specific objectives for monitoring IBAs are:

- 1) To encourage and assist volunteer birders in conducting **reconnaissance** surveys at those IBAs categorized as B4 or B5 sites—these are high and intermediate priority sites, respectively; 26 in all (for the 25 B4 and B5 sites, please see the one-page attachment Reconnaissance Template and Monitoring Matrix).
- 2) To ensure the timing of these volunteer-led reconnaissance surveys correspond closely with each site's most opportune periods for viewing the IBA-qualifying birds, for purposes of collecting data on IBA-qualifying bird numbers. (NB: these periods include nesting, and peak spring and/or fall migration.)
- 3) To have key FAN volunteers work with Canadian Wildlife Service field staff, at select IBAs, in the piloting of Waterbird Lakes survey protocols, setting the stage for participation of FAN operatives in the running of these (more rigorous) **baseline surveys**. (Instruments/protocols are "in the works" *fide* Gerry Beyersbergen, CWS)
- 4) To refine and deepen our understanding of each site's conservation and monitoring needs, primarily through ongoing ground-truthing research and the above-mentioned reconnaissance surveys; and
- 5) To evaluate and report on the progress of the above objectives, and make recommendations for the future monitoring of Alberta IBAs. Integral to the report would be a catalogue of the threats and opportunities related to Important Bird Areas.

Deliverables:

Two half-day field clinics orienting volunteers to the IBA reconnaissance survey protocol. Twenty-six reconnaissance surveys conducted at 26 IBAs.
Fresh data on these 26 IBAs, deposited in FAN's Natural History Database (NHDB) (which is automatically shared with the provincial wildlife database, BSOD) and the Bird Studies Canada (BSC) database. A printed report, also posted on the FAN website, summarizing and showcasing—to the extent the new research affords—the 'state of health' of 26 IBAs, including fresh data on bird numbers, site habitat health, and any impending threats and/or opportunities.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=440

Community structure and demography of waterbirds and riparian birds in Alberta's mixedwood boreal forest: relationships with natural and anthropogenic disturbance gradients

Project Location:	AlPac Forest Management Agreement area, north-east Alberta
Identifying Code:	30 80 90 101
Funding Allocation:	\$44,450.00
Principal Investigator:	Glenn Mack
Contact Information:	Ducks Unlimited Canada 100, 18236 105 Avenue Edmonton, Alberta T5S 2R5 g_mack@ducks.ca & j_morissette@ducks.ca (780) 489-8110
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Objective 1: Investigate waterbird community and demographic patterns

We will address the following specific research questions:

- 1.1. How do waterbird community and demographic patterns vary with habitat conditions in areas that have been undisturbed for at least 50 years?
- 1.2. Shortly after disturbance (i.e., ≤ 5 years of fire or harvest), how do waterbird community and demographic patterns differ, if at all?
- 1.3. If there are differences after disturbance, how quickly do waterbird communities converge?
- 1.4. What are the underlying processes that cause these patterns to arise (e.g., availability of suitable nest sites, changes in bird productivity)?

Objective 2: Investigate riparian bird community assemblages

We will address the following specific research questions:

- 2.1. What is the natural range of variation (richness and abundance) in early post-fire boreal riparian bird communities of various wetland types (e.g., small lakes, bogs, fens)?
- 2.2. How do post-fire live residual patches along wetlands influence bird community structure?
- 2.3. How do vegetation characteristics (e.g., shrub density, snag abundance) of post-fire sites influence bird community structure?

Deliverables:

- Publication of results in peer-reviewed scientific journals.
- Reports to stakeholders that outline management implications of current riparian harvesting guidelines and provide baseline data for future guidelines, policies or research designed around natural disturbance approximation.
- Seminar, conference and workshop presentations as appropriate to communicate project results to partners, forest managers and the public.
- Acknowledgement of funding sources at all public presentations.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=430

Status of Reintroduced Swift Foxes in Canada and Montana

Project Location:	SW Alberta
Identifying Code:	030 50 90 112
Funding Allocation:	\$49,591.00
Principal Investigator:	Dr. Axel Moehrenschrager
Contact Information:	Centre for Conservation Research, Calgary Zoo 1300 Zoo Road NE Calgary Alberta T2E 7V6 axelm@calgaryzoo.ab.ca (403)232-7771
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Activities/Methodology:

The Canadian swift fox census area was determined by the National Swift Fox Recovery Team in 1996 based on habitat criteria and background information (Cotterill 1997). The suspected swift fox range consisted of 65 townships in the Alberta/Saskatchewan border region and 43 townships in and around Grasslands National Park in south-central Saskatchewan. Of these 108 townships, 81 (75%) were randomly selected for subsequent sampling, of which 2 were excluded at the request of the resident landowners. Similarly a census area of 80 townships was selected by Montana Fish, Wildlife and Parks staff in 2000, and 75% of these townships were selected for subsequent sampling. Montana wildlife officials and the Canadian Swift Fox Recovery Team agreed not to include recent reintroduction areas on the Blackfoot Indian Reserve in north-western Montana, which may be disconnected from the current continuous Canada/Montana swift fox population. In 2005/2006, this area will be sampled and also an additional potential area in Montana near Fort Peck Indian reserve where additional reintroductions are being considered.

During the 1996-1997 census, live-trapping in 58 of the 81 randomly selected, Canadian townships was successfully completed. Catch-and-release trapping priorities for the 2000-2001 census, with diminishing priority, were as follows: 1) replicate townships trapped in 1996-1997; 2) sample the remaining 75% of randomly selected townships in Canada and Montana; and 3) survey the final 25% of townships. Although trap effort significantly increased from the previous census, not all townships could be surveyed due to access, time, or equipment restrictions. In 2005/2006, the priorities will be in order: 1. To resample the 1996/1997 area; resample the 2000/2001 area, and then sample 75% of townships which will be randomly selected from the periphery of the swift fox population.

Deliverables / Milestone:

Make database on swift fox disease and genetics. Ship samples to appropriate laboratories with appropriate permits. Analyze disease exposure through Cornell laboratory and haematology through Calgary Zoo. Analyze Genetics through Wildlife Genetics.

Starts: 03/01/2006

Ends: 12/31/2006

Scientific paper comparing population changes through all 3 censuses over 10 year span.

Starts: 01/01/2006

Ends: 12/31/2006

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=435

Atlas of Breeding Birds of Alberta: Update Project

Project Location:	Provincial project that is conducted in all regions of Alberta
Identifying Code:	030 40 90 103
Funding Allocation:	\$56,250.00
Principal Investigator:	Phillip Penner
Contact Information:	Federation of Alberta Naturalists 11759 Groat Road Edmonton, Alberta T5M 3K6 philipp@fanweb.ca (780) 427-8127
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Overview:

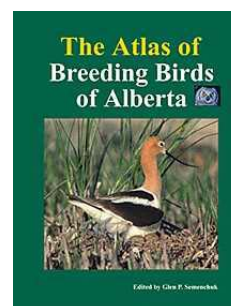
A great deal of valuable information can be obtained when observational records of birdwatchers are collected in a systematic fashion, as in the case of a breeding bird atlassing project, where a large-network of volunteer birders are brought together to survey breeding bird populations in a specific geographic area over a defined period of time. Such projects provide a detailed picture of the distribution and, to a lesser extent, relative abundance of breeding birds in a particular area in a defined time frame. These projects also provide a baseline for comparing historic and future breeding distribution and abundance trends. Atlases have many applications in ecology and conservation and are regarded by many as an essential complement to annual population monitoring schemes and fine-scale studies of bird-habitat relationships (Donald and Fuller 1998). Bird atlas projects have also been identified as an important component of the Canadian Landbird Monitoring Strategy (Downes et al. 2000), and can play an important role in the development of effective conservation and management plans for birds and their habitats

Objective:

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:
- Natural History Database:
- Bird-Habitat Models
- Peer-Reviewed Journal Articles and Graduate Theses:
- Alberta Birdlist and Personal Birdlist Software



Project Information on the ACA Website:

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

Spedden Fish & Game Birdhouse Project

Project Location: Spedden
Identifying Code: 010 10 90 101
Funding Allocation: \$300.00

Principal Investigator: Alberta Fish & Game Association
Contact Information: 6924-104 Street
Edmonton, Alberta T6H 2L7

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

The objectives of this project is to:

- Provide nesting boxes for a variety of songbirds and ducks in the Spedden Community.
- Increase community and public awareness of wildlife and their habitat requirements.
- Promote and increase volunteer participation in habitat projects in the community.
- Create awareness of ACA and AFGA programs.
- Involve children in fun and educational outdoor activities

Activities:

Spedden Fish & Game adult volunteers will buy and cut the materials for the birdhouses. 30 to 40 children will gather on a weekend to build and paint the birdhouses. Volunteers will then install the birdhouses in desired locations around the Spedden community.

Deliverables:

The Spedden Fish & Game Association will build approximately 150 bird and duck boxes. (This may vary slightly depending on the cost of building materials at the time of purchase.) At least 30 children will be involved in the building of these birdhouses.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=426



Onoway Fish & Game Birdhouse Project

Project Location:	Onoway
Identifying Code:	010 10 90 102
Funding Allocation:	\$600.00
Principal Investigator:	Alberta Fish & Game Association
Contact Information:	6924-104 Street Edmonton, Alberta T6H 2L7
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The objectives of this project:

- Provide nesting structures for a variety of songbirds in the Onoway Community.
- Increase community and public awareness of wildlife and their habitat requirements.
- Promote and increase volunteer participation in habitat projects in the community.
Create awareness of ACA and AFGA programs.

Activities:

Onoway Fish & Game volunteers will buy the materials, cut the materials and construct the birdhouses. Volunteers will then deliver the birdhouses to landowners in the community who are interested in putting up the boxes on their land.

This project meets the goals/priorities of the ACA 2005-08 Strategic Business Plan by:
Conserving, enhancing and protecting Alberta's biological natural resources.
Implementing cost-effective strategies such as encouraging volunteer involvement to address fish and wildlife habitat needs in Alberta.
Enhancing opportunities for the enjoyment wildlife resources by hunters, anglers and the public at large.

Deliverables:

The Onoway Fish & Game Association will build approximately 150 birdhouses. (This may vary slightly depending on the cost of building materials at the time of purchase.)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=425



Importance of Fungi in Alberta

Project Location: Alberta
Identifying Code: 002 40 90 101
Funding Allocation: \$1,000.00

Principal Investigator: M. Fjoser
Contact Information: Edmonton Mycological Society
c/o 21111 – 108 Avenue Edmonton, Alberta T5S 1X3
mfjoser@telus.net (780) 454-9994

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

Objectives:

Our aim is to increase awareness and advance education of the importance of fungi to the conservation of Alberta's ecosystems.

Activities:

- To produce a poster illustrating the objectives.
- To declare the finalist (*Leccinum boreale*) from our "Pick a Wild Mushroom, Alberta!" campaign to have a mushroom join Alberta's official emblems, and to use it as a representative specimen to describe the value and importance of fungi to Alberta.
- To define and create a mailing list database of appropriate poster recipients.
- To package and distribute posters throughout Alberta.
- To issue press releases at time of poster distribution.

Deliverables:

A high quality colour poster to be designed before end of June, 2005. Packaging and distribution will take place before Dec. 31, 2005

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=434



Big Hill Creek Habitat Enhancement and Interpretive Sign Project

Project Location: Cochrane, Alberta
Identifying Code: 010 10 90 104
Funding Allocation: \$1,700.00

Principal Investigator: Tim Giese
Contact Information: Cochrane Branches and Banks Environmental Foundation
c/o 20 West Copithorne Place
Cochrane, Alberta T4C 1J3
gieset@telus.net (403) 932-5640

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

Project Objectives & Activities:

Branches and Banks seeks to provide opportunities for the citizens of Cochrane and surrounding communities to enhance the local natural habitat while learning to appreciate the connection between their community and the larger Bow River watershed. The 2005 project will involve a creek clean-up, removal of invasive species and the planting of 2500 – 3000 native trees and shrubs. There will be an environmental education program on-site on the planting day, where specialists will speak to small groups of the public volunteers during the day's events to highlight the ecology of the area.

This year we are starting a project that will continue over 3 - 4 years, with 2 or 3 interpretive signs designed, manufactured and placed along Big Hill Creek each year, on the same date in May as the regular clean-up and planting. The signs will focus on many aspects of the riparian zone and aquatic life as well as the local environment and its relationship to the regional watershed.

Deliverables:

- 2500 – 3000 Native trees and shrubs planted along creek - May 7
- 200 -300 Volunteers involved in clean-up and planting – May 7
- 2 New Interpretive Signs along creek/pathway system – May 7
- Project Summary report – Aug 2005

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=409

Educational Kiosk at Beaverhill Lake Natural Area

Project Location: Beaverhill Lake
Identifying Code: 030 40 90 101
Funding Allocation: \$1,800.00

Principal Investigator: Matt Hanneman
Contact Information: Beaverhill Bird Observatory (BBO)
Box 1418 Edmonton, Alberta T5J 2N5
M_hanneman@shaw.ca (780) 468-4313

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

Project Objectives & Activities:

Beaverhill Lake is found approximately 60 km east of Edmonton, Alberta. The lake is 18 km long and about 10 km wide. The lake was designated as a National Nature View Point by the Canadian Nature Federation in 1982. The south east corner of the lake, along with the Dekker Islands and Pelican Islands were designated an Alberta Natural Area in 1987. As well in 1987, the lake was designated as a Wetland of International Importance under the Ramsar Convention. The lake then became a Regional Reserve in the Western Hemisphere Shorebird Reserve Network in 1996. In 1997, Beaverhill Lake was identified as an Important Bird Area of Global Significance because of the large numbers of shorebirds and waterfowl that use the area as a stop-over site during migrations. The Beaverhill Bird Observatory serve as stewards of the Natural Area.

Hundreds of people visit the site each year, and many comment that it is difficult to find the trails and viewpoints. The main sign at the Natural Area is quite old and needs to be upgraded. A new kiosk will be built at the entrance to the Natural Area. The kiosk would house a large map of the Natural Area trails and points of interest (based on trail map that was created last year for a Natural Area brochure), a bulletin board that allows us to post events, etc., and a box to hold copies of brochures for people to pick up. This will help the public better understand the importance of this important region, and how to navigate the trail system.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=431



Riparian Edge Rehabilitation: Pilot Project - St. Albert, Alberta

Project Location: Sturgeon River
Identifying Code: 10 20 90 101
Funding Allocation: \$2,000.00

Principal Investigator: Miles Constable
Contact Information: Big Lake Environment Support Society
P.O. Box 65053 St. Albert, Alberta T8N5Y3
miles@constable.ca (780) 458-5617

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

Project Objectives & Activities:

In cooperation with the City of St. Albert, BLESS is planning on a pilot project to rehabilitate the riparian habitat of the Sturgeon River through the City of St. Albert.

An inventory of the riparian habitat along the Sturgeon River within St. Albert will be done. Several areas will be selected from the inventory, rehabilitation of these areas will occur this summer. Rehabilitation techniques, plant cover types, woody species selection and planting techniques will be tested in this pilot project to work out approaches for a larger project in the summer of 2006.

State how this project meets the goals/priorities of the ACA Strategic Business Plan 2005-2008:

This project is to improve the riparian habitat along a small, productive river that runs through the City of St. Albert. Past land management practices have called for mowing to the waters edge, thereby eliminating much of the stream-side vegetation. It is intended that this cooperative pilot project will identify areas to be rehabilitated and to develop techniques and species to be used in the future by the City and BLESS to improve this condition. The rehabilitation of the stream-side will reduce erosion, provide shade along the river to reduce water temperature, reduce nutrients in the river, provide cover for small mammals and amphibians, and provide cover for perching birds and ducks. It is also anticipated that improvements of the stream ecology will limit winter fish kills in the Sturgeon River.

Deliverables:

This year we plan on rehabilitating two or three areas within the City of St. Albert as a pilot project. The summer project will be completed by Sept 1, 2005, including a report on the success of the pilot project. From it we can jointly produce a larger plan to work within the City to improve riparian habitat.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=423

Rare Plant Surveys, Castle Wilderness

Project Location:	Castle Wilderness
Identifying Code:	010 60 90 101
Funding Allocation:	\$2,000.00
Principal Investigator:	Christyann Olson
Contact Information:	Alberta Wilderness Association 455-12th ST NW Calgary, Alberta T2N 1Y9 awa.ed@shaw.ca 403.283.2025
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives & Activities:

Rare plants are a good indicator of biodiversity; they are also a good indicator of current management and can be used as a benchmark for future management decisions. Although a comprehensive floristic survey was completed for Waterton Lakes National Park (Kuijt 1982), no such survey has ever been done in the Castle area. Most of the truly rare plants found in southern Alberta occur only in the Waterton/Castle area. The area is particularly rich floristically because of its overlapping ecosystems stretching from high alpine meadows to the Foothills Grassland ecoregion. Half of Alberta's vascular plant species can be found in the Castle area including more than 120 rare species (CCWC). A rare plant survey will greatly increase the knowledge of this diverse ecosystem at the landscape level.

Deliverables:

Expected Outcomes: Because of the floristic richness of the Castle area and because there has been no previous formal rare plant survey done in the Castle, we expect to locate and document a wide variety of rare plants. These occurrences will be put in the ANHIC database and will serve as permanent records. A final report of the survey field season will be prepared and presented to ACA by mid October, 2005. The results will be published to AWA's website and available in the Alberta Wilderness Resource Centre in Calgary.

The rare plant occurrences will be put in the ANHIC database and will serve as permanent records. A final report of the survey field season will be prepared and presented to ACA by mid October, 2005. The results will be published to AWA's website and available in the Alberta Wilderness Resource Centre in Calgary. An Open House evening to discuss the results and a general discussion on wildlife habitat issues in the Castle region will be held as part of AWA's regular talks program.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=410



Open Space Toolkit for Alberta

Project Location:	Alberta
Identifying Code:	010 20 90 102
Funding Allocation:	\$5,000.00
Principal Investigator:	Carole Stark
Contact Information:	Chinook Institute for Community Stewardship Box 8618 Canmore Alberta T1W 2V3 carole.stark@chinookinstitute.org (403) 678-4040
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

Rural communities in Alberta are facing increased development pressure on ecologically and culturally important landscapes, fueled by ever-increasing numbers of people moving into rural areas. Communities and lands within commuting distance of large cities, such as Calgary, are feeling the greatest impacts of unplanned growth: fragmentation of landscapes and wildlife habitat, degradation of environmental quality, and loss of community character and rural values. The public value of preserving open natural space (landscapes that have largely retained their natural values) is reflected in ecological, social and economic benefits to society. With a growing understanding of the value that open space plays in promoting healthy communities, vibrant economies and viable ecological systems; increasingly communities are seeking ways to protect and sustainably manage surrounding landscapes - along with their associated natural and cultural assets - as an essential component of their planning and future development.

The *Open Space Toolkit for Alberta* is a community workshop and resource series with the purpose of: building the capacity of rural Alberta residents and landowners to understand and practice sustainable land use and conservation of open natural space.

The goals of the project are to:

- increase understanding of the underlying trends, issues and options relating to conservation and sustainable use of Alberta's natural landscape;
- build community capacity to implement a range of conservation tools and planning processes; and
- generate locally appropriate strategies for open space and habitat conservation.

The Toolkit offers a powerful combination of practical research and information targeted primarily at rural residents and landowners; and a structured community-based learning and dialogue process to help local people identify the conservation tools and solutions most appropriate for their own situation. The Toolkit is a catalyst to initiate community action on local conservation and land use issues.

The Toolkit workshops will bring together community residents with local municipal officials, real estate agents, land managers and developers, to proactively address growth and land conservation issues. Toolkit workshops can be delivered through the Chinook Institute in collaboration with local community associations, conservation groups, municipal governments or post-secondary institutions; or accessed as a program model or content to be offered directly through these and related organizations.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=445

Taber Fish & Game Riparian Fencing Project

Project Location: Taber
Identifying Code: 010 20 90 103
Funding Allocation: \$5,000.00

Principal Investigator: Alberta Fish & Game Association
Contact Information: 6924-104 Street
Edmonton, Alberta T6H 2L7

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

Project Objectives:

The objective of the project is to construct a hard fence (steel pipe fence) to eliminate vehicle and off-highway vehicle (OHV) access to the riparian area on the West ½-1-10-17-W4M. Other objectives include:

- Installing signage to promote foot access to the area.
- Doing a site clean up of the entire area.
- Creating awareness of the importance of eliminating vehicle and OHV access to the area.
- Increasing awareness of protecting and maintaining riparian habitat.
- Promoting awareness of AFGA and ACA habitat and fisheries initiatives.

Deliverables:

The old fence will be removed and a hard fence will be built on the east perimeter of the W-½-1-10-17-W4M. One or two gates will be built and kept secure. Signage will be posted to reaffirm no vehicle or OHV access is permitted. A garbage cleanup on the entire property will be done.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=427



Innovation Alberta Omnimedia Project

Project Location: Alberta
Identifying Code: 002 40 90 102
Funding Allocation: \$7,000.00

Principal Investigator: Cheryl Croucher
Contact Information: Porcupine Stone Productions 8552 – 79 Avenue
Edmonton, Alberta 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:

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. As well, ACA related information about events, etc. will be featured in the *Innovation Alberta Online* e-newsletter when appropriate.

Interviews will be conducted at the researchers' offices or labs, with travel into the field when possible during the field season to gather audio and visual material. These will be produced as audio items for inclusion in the *Innovation Alberta* program. Information for the e-newsletter *Innovation Alberta Online* will be accessed from reports or notifications from ACA.

Deliverables:

- ACA highlighted as a "Featured Theme" 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 logo on IA website
- Inclusion of ACA related news and event promos in the Innovation Alberta Online e-newsletter

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=236

Recreational Access Workshop

Project Location: Alberta
Identifying Code: 010 80 90 101
Funding Allocation: \$7,180.00

Principal Investigator: Calvin Rakach
Contact Information: Alberta Off Highway Vehicle Association (AOHVA)
9556 – 82 Avenue Edmonton, Alberta T6C 0Z8
aohva@shaw.ca & crakach@telus.net (780) 432-0858

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

Project Objectives:

Engage conversation between the key motorized and non motorized recreational user groups in conjunction with agriculture, industry and government to resolve environment and wildlife concerns, and access and safety issues - and create and motivate a collective vision for Alberta's future.

Get recreational (and government) groups working actively together with a better understanding of each other's perspective. Demonstrate a grassroots desire to the Alberta Government for action on dealing with recreational access issues. Provide the government possible solutions to issues surrounding recreational access and environmental concerns.

Activities/Methodology:

- Hold a multi-stakeholder 2 day workshop with key groups.
- Engage professional facilitation services in order to control process and provide tangible deliverables.
- Obtain Consensus on a Best Next Steps to convey resulting message and recommendations to appropriate level of government, preferably Executive Branch.
- Follow up communications with all stakeholders involved to move forward a collaborative and proactive process.

Deliverables:

Proceedings of multi-stakeholder workshop to be available to government, and to recreational groups province wide (by May 30, 2005).

Multi-spectral list of recommendations to encourage Government action.

A much more cooperative and knowledgeable recreation community, that will be able to work together to problem solve, when the need arises.

Pertinent research & Workshop results & recommendations will be made available to anyone on the FAN website.

Project Information on the ACA Website:

<http://www.ab-conservation.com/projects>

This Box is for you! An Educational Program about Alberta's Cavity Nesting Species

Project Location: Alberta
Identifying Code: 030 40 90 102
Funding Allocation: \$7,600.00

Principal Investigator: Bryne Spence
Contact Information: Beaverhill Bird Observatory (BBO)
Box 1418 Edmonton Alberta T5J 2N5
bryn@beaverhillbirds.com (780) 619-9261

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

Project Objectives:

Promote the stewardship of natural areas by highlighting the wildlife when interacting with landowners, teachers and students.

1. Teach students about the ecology and needs of cavity nesting birds in Alberta including groups like waterfowl, falcons, owls, songbirds and woodpeckers.
2. Develop curriculum-based PowerPoint educational presentations that relate to cavity nesting species in Alberta.
3. Promote the project with the use of our website and by developing a pamphlet.
4. Bring students into the field to see cavity nesting species in their natural surroundings.
5. Solicit volunteer participation.

Deliverables:

Section of the Beaverhill Bird Observatory webpage will be devoted to this project (supporting agency logos will be appear here)(completed before September 2005)

- Pamphlet with ACA Logo on it (completed before September 2005)
- Component of BBO Annual report will be on activities carried out under this project (completed before February 2006)
- Submission of an article and photos to Nature Alberta that includes details about this project and acknowledgment or supporting agencies (completed before February 2006)
- Provide quarterly updates and final report as required by the ACA (completion dates up the discretion of the ACA)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=437



Aquatic invertebrate community structure and abiotic drivers in the South Saskatchewan River

Project Location: South Saskatchewan River
Identifying Code: 090 80 90 101
Funding Allocation: \$10,500.00

Principal Investigator: Heather Powell
Contact Information: University of Calgary Department of Biological Science BI 257, 2500 University Drive NW Calgary, Alberta T2N 1N4
hmpowell@ucalgary.ca (403) 289-3551

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

Project Objectives:

The objectives of this research project are to 1) continue the enumeration and identification of invertebrate samples; 2) obtain specialized consultation (QA/C) to verify the accuracy of insect identification; and 3) determine the pattern of sediment distribution in relation to the pattern of aquatic invertebrate communities of the South Saskatchewan Drainage Basin. Obtaining QA/C for the invertebrate identification will lend additional confidence to the results of this research and will allow for an invertebrate voucher collection to remain at the University of Calgary for further research purposes.

Aquatic invertebrate distribution is dependent, in part, on physical habitat (primarily water flow and sediment characteristics). In southern Alberta, changes in physical habitat are expected due to human use of aquatic systems, yet data are not always available. While existing data show a significant decline in water flow due to human use, sediment data are collected irregularly. Thus, the relationship between changes in sediment characteristics and invertebrate community structure is unclear.

This project will collect sediment characteristics at each invertebrate sample location, in order to compare changes in invertebrate community structure in relation to patterns in sediment characteristics (i.e. sediment size, compaction, and fine sediment distribution). Understanding patterns of sediment characteristics will elucidate where human activities have the greatest impact on river habitat. 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.

Deliverables:

Report to ACA – 2006
Poster presenting project and results - Spring 2007
Dissertation – 2008
Journal publications – 2008-2009

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=315

Fish, Fur & Feathers: Fish and Wildlife Conservation in Alberta, 1905 - 2005

Project Location: Alberta
Identifying Code: 002 40 90 103
Funding Allocation: \$12,000.00

Principal Investigator: Petra Rowell
Contact Information: Alberta Fish and Wildlife Historical Society
prowell@telusplanet.net

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

Project Objectives:

- To document the past 100 years of history of fish and wildlife management and conservation in Alberta,
- To collect the relevant thoughts and opinions of past fish and wildlife proponents as to the successes and failures of the past century, and
- To make this information available to the next century of fish and wildlife proponents.

Activities/Methodology:

The 354-page manuscript is now in the editing stage. By early spring, it will go for layout and design (coupled with approx. 100 photos) and by mid-summer, it will go to print (5,000 copies). A book launch will take place in the fall with distribution to follow.

Deliverables:

- 5,000 copies printed.
- In September 2005, we anticipate a book launch in partnership with our sponsors.
- All sponsors will be acknowledged in the book as well as any media materials.
- We have already committed to placing up to 25 copies in post secondary institutions at no cost.
- We will fulfil all *reporting requirements to sponsor agencies*.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=143

Retaining Native Rangeland in the Aspen Parkland Through the Establishment of Beneficial Livestock Management Practices

Project Location: Kinsella Research Station in the Aspen Parkland of Alberta
Identifying Code: 010 40 90 101
Funding Allocation: \$13,800.00

Principal Investigator: Dr. Edward Bork
Contact Information: University of Alberta 410E Agriculture/Forestry Center
Edmonton, Alberta T6G 2P5
edward.bork@ualberta.ca 780-492-3843

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

The **Specific Objectives** to be addressed in this project are:

Experimentally compare biophysical agronomic characteristics (forage yield and quality) from native rangeland landscapes managed at 2 contrasting intensities, with that of old (20 yr+) tame pastures.

Using new (2005-2006) and archived (1981-1983) data from native rangelands managed at 2 intensities, as well as that from tame pastures, conduct a net present value (NPV) assessment between the conflicting land management options of native Aspen Parkland rangeland retention and conversion into tame pasture.

Using collective biological and economic criteria, establish the Beneficial Management Practices for cattle producers grazing in areas of the Aspen Parkland containing native rangeland habitats.

Deliverables:

In addition to interim reports, the following will be produced:

- Completed M.Sc. thesis in April, 2007.
- Poster and oral presentations will be made at the 2007 winter meeting (Feb.) of the Society for range Management.
- Publication of peer-reviewed publications in journals such as the Journal of Rangeland Ecology and Management and/or the Canadian Journal of Agricultural Economics – Fall 2007.
- Production of extension bulletins and/or popular articles in magazines such as Alberta Crops and Beef, Cattlemen's, and Country Guide (Fall 2007).

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=443

Rocky Mountain Repeat Photography Project

Project Location: SW Alberta
Identifying Code: 010 80 90 102
Funding Allocation: \$15,000.00

Principal Investigator: Dr. Eric Higgs
Contact Information: University of Victoria School of Environmental Studies,
University of Victoria. P.O. Box 1700 STN CSC
Victoria, British Columbia V8W 2Y2
ehiggs@uvic.ca 250 472 5070

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

Project Objectives:

Hydrological changes evident in the images may also be of concern where sensitive aquatic habitat has been either seriously altered, fragmented or degraded, threatening the perpetuation of healthy fish populations. Effective assessment of the magnitude and rate of habitat change, and the subsequent impacts on threatened or sensitive wildlife species, requires the systematic documentation of detailed information about historical ecological states and processes. As such, the objectives of this project are to:

1. Conduct an inventory of existing historical photographic images and maps stored at Library and Archives Canada for the Castle River/Crowsnest Pass region. Photographic surveys of interest include: the BC-Alberta Interprovincial Boundary Photo-topographic Survey (1913-1915) and the 1913-1914 Crowsnest Forest Reserve Photo-topographic Survey.
2. Create a digital archive of relevant historical images. This will involve using a specialized scanning procedure developed for previous studies, and the creation of a well-structured digital image database.
3. Determine and locate precise camera stations in the field, and complete a comprehensive survey of repeat images using precise field methods developed in earlier stages of the project.
4. Complete post-processing of the images. This will involve image resampling, cropping, and enhancements as appropriate.
5. Enter the historical and repeat images into a well-designed and accessible database, creating an archive of historical and repeat images for future analysis and research by academics, regional management and conservation organizations. The resultant information will be invaluable for future sustainable land-use planning and decision support.

This proposal outlines the requirements for a project to be conducted in the summer of 2005 that will be an extension of past work in two National Parks (Jasper National Park, and Waterton Lakes National Park), and a pilot for similar work in areas outside of the protected areas network with similar conservation value. If successful, the project team will aim to continue similar work in surrounding areas, and attempt to engage interested organizations in possible research initiatives involving habitat conservation and landscape change stemming from this work.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=520
<http://bridgland.sunsite.ualberta.ca/index.html>

Pond Scum, Inc. ~ the Watershed Conservation Program

Project Location:	Alberta
Identifying Code:	002 40 90 104
Funding Allocation:	\$16,000.00
Principal Investigator:	Tara Ryan
Contact Information:	Evergreen Theatre Society 2633 Hochwald Ave SW Calgary, Alberta T3E 7K2 etheatre@evergreentheatre.com (403)228-1384
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The overall goal of the educational project "*Pond Scum, Inc.*" is to introduce challenging environmental-science concepts in an engaging way, one that will kindle intellectual curiosity and develop a desire for lifelong learning and action in habitat preservation. Our focus is to raise public awareness of the vital importance of our diminishing river resources, not only to the human user group, also to the 80% of the wildlife populations who depend exclusively upon the riparian habitats. The project intends to:

- 1) Translate scientifically credible riparian research into the accessible language of theatre through the creation of a 100% science-based educational theatre program;
- 2) Inspire understanding of watershed importance and curiosity in scientific research through the presentation of post-show, talkback sessions about watershed issues, the fielding of questions and the encouraging of debate.
- 3) Provoke participants to make positive personal choices in watershed/river issues and take personal action in riparian habitat preservation,
- 4) Make connections to existing agencies whose objectives include watershed, riparian and wetland conservation; (Trout and Ducks, Unltd.)
- 5) Provide them with the necessary information for effective decision-making; and
- 6) Create an investment in future generations by engaging a cross-section of Albertans through an 8-month tour of both rural and urban centres, to schools as well as communities, reaching an estimated 70,000 participants.

Deliverables:

- 1) development of a teacher resource and student activity booklet (20-30 pages – please go to www.evergreentheatre.com to preview past workbooks: "On the Brink")
- 2) creation of an innovative, hour-long educational theatre program on conservation of riparian systems
 - 3) preparation of follow up post-show presentation for grades 4-6 (demonstration of science research for riparian area followed by a mini-debate forum to illustrate complexity of water issues)
- 4) writing 10 web-based follow-up student activity pages
- 5) production of in-school teacher workshop kit for: water testing, understanding invertebrates and conservation debates

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=406

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

Project Location:	Alberta
Identifying Code:	010 20 90 104
Funding Allocation:	\$18,850.00
Principal Investigator:	Danah Duke
Contact Information:	The Miistakis Institute for the Rockies c/o Environmental Design 2500 University Dr. NW Calgary, Alberta T2N 1N4 danah@rockies.ca (403) 220-8968
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Overall goals of the project:

- Determine wildlife use and human use of OHV trails in the study area using remote cameras and counters,
- Quantify the spatial and temporal relationships between OHV use and wildlife use,
- Use the information in developing a land-use model for access management and regional wildlife connectivity,
- Communicate with relevant land managers, recreational and community groups to ensure that the information contributes to regional decision-making.

Short term deliverables (available Dec 2005) will include a progress report including reporting and analysis of data collected in the 2005 field season highlighting the relationships between human use of the area and wildlife.

Long-term deliverables (multi-year field study) include an article submitted in the scientific literature which will include detailed analysis on recreation and wildlife use of the Livingstone Range as well as a comprehensive final report. Potential conference presentations for 2005 include: International Symposium on Social Science and Natural Resource Management, Sweden, June; Rockies Wildlife Crossing Field Course, Payson, Arizona – April 11-13 2005; Defender of Wildlife Carnivore Conference 2006; one other international conference presentation.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=295



Implementation of Beneficial Management Practices

Project Location: Mountain View County and Little Red Deer River Watershed
Identifying Code: 010 20 90 105
Funding Allocation: \$20,000.00

Principal Investigator: Lesley Gavelin
Contact Information: Mountain View County Bag 100
Didsbury, Alberta T0M 0W0
lesleyg@telusplanet.net (780) 335-3311

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

Project Objectives:

- Improve the health of the riparian areas in Mountain View County and the Little Red Deer River Watershed.
- Improve the wildlife habitat in Mountain View County and the Little Red Deer River Watershed.
- Improve the riparian health to increase the sport fish distribution and abundance, therefore the opportunities for anglers.
- Improved the riparian health to support increased biodiversity.
- Areas targeted for improved riparian health will be lotic riparian areas where Bull Trout are present.
- Increase the awareness of sustainable agriculture.
- Make producers aware of new rules and regulations that will affect their farm.
- Increase the number of livestock producers practicing sustainable rotational grazing techniques in bush or grassland pastures.
- Increase the number of livestock producers that have taken steps to protect riparian areas and waterways from the potentially negative impacts of unrestricted livestock access
- Increase the number of livestock producers that are taking steps to reduce the amount of livestock manure that has the potential for entering adjacent water bodies.
- Increase the number of livestock producers that are implementing Beneficial Management Practices by funding them at 50%.

Deliverables:

Project profile sheets will be done for each project that is funded which will be available to be printed for distribution.

The results from the riparian health assessments will be available.

Projects will also be available for tours.

The landowner's projects will have to be completed by March 31, 2005.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=413

Limber pine conservation in Canada

Project Location: SW Alberta
Identifying Code: 010 80 90 103
Funding Allocation: \$20,000.00

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

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

Objectives:

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 WPBR on LP in Canada and assess overall rate of infection and mortality.

Background

Limber pine (LP), *Pinus flexilis*, is a highly distinctive and rare component of Canada's biodiversity wealth, and is important to many other species because it is an integral part of a diverse ecological web. LP has the most limited distribution of Canada's native pine species. In fact, this is one of the rarest conifers in Canada. Although much more widespread in the USA, in Canada LP is found almost exclusively in Alberta, ranging from the southern border with Montana, as far north as Kootenay Plain (Farrar 1995). A couple of small pockets are also found in eastern British Columbia. In Alberta, LP is found in mainly discontinuous pockets which are largest and most numerous in the Porcupine Hills/Whaleback area. Further north this species is increasing disjunct and rare

Deliverables

1. 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 (summer 2005).
2. 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.
3. Newsletter articles and web pages describing the project for dissemination by ACA, CFS and SRD (throughout life of project).
4. Training of post-doc in the area of molecular genetics and conservation.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=363

Alberta Wilderness Watch

Project Location:	SW Alberta
Identifying Code:	010 20 90 106
Funding Allocation:	\$20,000.00
Principal Investigator:	Christyann Olson
Contact Information:	Alberta Wilderness Association 455-12th ST NW Calgary, Alberta T2N 1Y9 awa.ed@shaw.ca 403.283.2025
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

The purpose of this monitoring project is to establish a program to strengthen the land ethic and stewardship values among Albertans. The project will monitor the effects of human use and find practical and creative solutions to protect wilderness from negative effects of inappropriate use. It is expected that results of this project will include

- greater appreciation and awareness of sensitive wilderness environments by the general public,
- opportunities to learn about impacts and long term problems caused by inappropriate human recreational activities,
- provide credible data and observations for scientific analysis and assist other researchers in developing meaningful stewardship programs and
- develop volunteer opportunities that will encourage individuals to enjoy our wilderness areas and participate in the protection of wildlife habitat

Deliverables:

It is expected that we will find differences from the measurements taken last season. At the best, we hope that the monitoring will show an improvement based on some specific mitigation measures undertaken by Alberta SRD and increased awareness and enforcement measures. At worst, trail deterioration or increased impact by human use will be identified and with the evidence to support the request, mitigation and remedial measures sought. The project will be completed in 2006.

At the completion of each field season a detailed report of findings will be provided to ACA. Results will be discussed and reviewed with Alberta SRD staff and other interested agencies. Articles about the project and the results will be published and communicated to the general public and other interested parties.

Requests for mitigation by Alberta SRD will be documented and will be followed up to ensure mitigation is undertaken.

Awareness by local people of the stewardship and monitoring efforts will be created and partnerships formed.

Awareness and support for wilderness protection and that of our natural biological resources will be created

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=411

Re-print of Conservation and Hunter Education manuals

Project Location:	Alberta
Identifying Code:	002 40 90 105
Funding Allocation:	\$23,000.00
Principal Investigator:	Robert A. Gruszecki
Contact Information:	Alberta Hunter Education Instructors' Association 911 Sylvester Crescent SW Calgary, Alberta T2W 0R8 robert_gruszecki@ezpost.com (403) 319-2275
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Project Objectives:

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.).

Activities/Methodology:

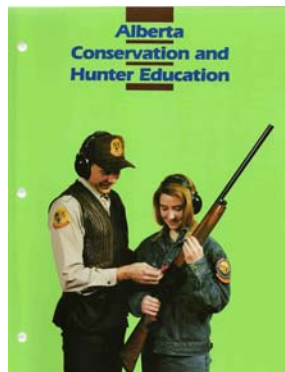
This is an Alberta Education Curriculum manual distributed to the general public. It is received by all age levels from kindergarten to adult and is used year round. It is distributed to all students of Conservation and Hunter Education through a network of Alberta Hunter Education Instructors province-wide.

Deliverables:

We intend to reach 15,000 students throughout 2005 with the overall theme of wildlife conservation and the safe, legal, responsible and ethical hunting and other outdoor use.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=297



Partners in Habitat Development

Project Location:	SE Alberta
Identifying Code:	010 40 90 102
Funding Allocation:	\$25,000.00
Principal Investigator:	Rick Martin
Contact Information:	Partners in Habitat Development c/o Eastern Irrigation District., PO Bag 8 Brooks, Alberta T1 R 1B2 rmartin@eidnet.org or cdbuteau@shaw.ca (403) 362-1414
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The Partners in Habitat Development Program (PHD) is an initiative developed eight years ago to mitigate for the loss of wildlife habitat in Southern Alberta. This habitat loss is due in part to the upgrading of irrigation canal systems, as well as the intensification of agricultural practices. The PHD program works with landowners, Watershed groups and other organizations to create, preserve and restore critical wildlife habitat. This habitat will support a large diversity of wildlife species by providing nesting and security cover, food sources and travel corridors linking critical habitat areas.

The PHD project's goals are best accomplished by working with agricultural landowners, assisting them with new conservation efforts while at the same time providing benefits to their farming operation. The PHD program is a partnership made up of many organizations and will act as an agent for all partners, providing landowners with access to PHD technicians and resources, as well as acting as a link to the other partner organizations.

Deliverables:

- 125,000 trees and shrubs will be planted
- 20,000 meters of fencing will be installed
- Intending to construct 6 wetland development projects – working with landowners and various watershed organizations.
- Several food plots will be established that will leave free standing grain throughout the winter to be used as an alternate food source for wildlife.
- Several field trials will be conducted on Giant Wild Rye, Alkali grasses and salt bush in cooperation with the Lethbridge Research Centre and the Crop Diversification Centre – South in Brooks.
- Reseed a minimum of 50 hectares of permanent grass cover.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=419

Operation Grassland Community

Project Location: Southern Alberta
Identifying Code: 010 20 90 107
Funding Allocation: \$29,820.00

Principal Investigator: Martin Sharren
Contact Information: Alberta Fish & Game Association
6924-104 Street Edmonton, Alberta T6H 2L7
martin@afga.org ; kerry@afga.org (780) 437-2342

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

Project Objectives:

1. **Long-term protection of wildlife habitat in the grassland region** through promotion of private land stewardship and landholder contact and recruitment and through on-the-ground habitat management initiatives. Increase numbers of voluntary stewardship agreements and work with individual OGC members on development and implementation of species and site-specific habitat management.
2. **Ongoing growth in awareness of prairie wildlife habitat needs, species at risk, habitat conservation, and sustainable agricultural practices** through presentations to schools, community groups, landholders, and industry representatives throughout southern Alberta, distribution of the hands-on Education Kit "Burrowing Owls and Cows" to schools, and through participation in all forms of news media.
3. **Improve and enhance quality of the land** by assisting landowners with on-farm planning design and implementation of habitat enhancement activities. Working with landowners to implement significant land management changes to benefit Burrowing Owls in particular.
4. **Maintain and increase prairie conservation partnerships** with private landholders, public, government, non-government groups, and industry concerned with prairie conservation.

Deliverables:

Promotion of Private Land Stewardship through Landholder Contact and Recruitment

- Renew habitat agreements with 60-70 current Operation Grassland Community (OGC) members whose five-year memberships expire in 2005. (April - September 2005)
- Increase amount of land protected by signing 25-30 new voluntary stewardship agreements protecting 8-10,000 acres of native grassland habitats. (April 2005- March 2006)
- Refer 1-2 landholders interested in obtaining conservation easements, to the Alberta Fish and Game Association's Wildlife Trust Fund, Southern Alberta Land Trust Society or the Nature Conservancy of Canada. (May 2005-March 2006)
- Develop 10-15 new individualized Burrowing Owl Management Plans for OGC members' habitat. Deliver management plans in conjunction with 10-15 documents entitled "Your Land: A Natural Resource Inventory and Species Management Plan". (April 2005- December 2005)
- Based on the success of the 2004 pilot year for individualized Prairie Loggerhead Shrike Management Plans for OGC members (15 plans), we would continue to seek 15-20 additional participants with shrike habitat. Deliver management plans in conjunction with 15-20 documents entitled "Your Land: A Natural Resource Inventory and Species Management Plan". (April 2005- December 2006)

- Involve OGC members in annual census of Canada's endangered burrowing owl (15th year). (July- October 2005)
- Involve OGC members in the 2nd year of the annual census of Canada's threatened prairie loggerhead shrike on OGC members' land. (July-October 2005)

Public Awareness and Education

- In-depth, one-on-one discussions with 300-500 landholders on habitat/species conservation issues. Supplement these discussions with OGC Conservation Toolbox fact sheet series (10 topics). (April 2005- March 2006)
- Update existing OGC Conservation Toolbox fact sheet: "Oil & Gas Development: Opportunities to Minimize Environmental Impacts on Your Land" to include any changes companies must adhere to re: SARA. (April 2005-March 2006)
- Provide OGC members with existing literature on best management practices (e.g. off-site watering brochures/fact sheets produced by Alberta Agriculture) that have potential to positively affect SAR on their lands. (April 2005-October 2006)
- Make 5-10 presentations to community groups, industry representatives and schools throughout southern Alberta. (April 2005-March 2006)
- Continue partnership with the Alberta Science Foundation in lending the hands-on Education Kit, "Burrowing Owls and Cows," to schools and youth groups across the prairie region. (April 2005- March 2006)
- Obtain 5-10 successful news media opportunities to highlight programs and land stewardship. (April 2005-March 2006)
- Produce bi-annual newsletters for OGC members (over 300 farmers and ranchers), describing the various programs and presenting articles about species, habitat and land management. (April 2005-March 2006)
- Deliver 25-35 documents entitled "Your Land: A Natural Resource Inventory and Species Management Plan" to landowners participating in habitat management plans. (April 2005-Januray 2006)
- Update and maintain OGC web site to provide information to landholders, partners, other interested organizations and agencies, and the general public. (April 2005-March 2006)
- Continue partnership with the Medicine Hat Interpretive Program in promoting "Grassland Species At Risk" using their highly interactive education display. (April 2005-March 2006)

Habitat Enhancement

- Increase/Improve prey habitats through 10 off-site watering and native seeding projects. (April 2005-March 2006)
- 5-10 projects to increase nest/roost availability through reduction of pest control (i.e., allow areas where ground squirrels and badgers are not controlled). (April 2005-March 2006)
- 2-5 mitigation of predation pressure projects (e.g., removal of predator perches/nesting sites, and site-planning to ensure potential predator perches/nest sites are placed an adequate distance from nesting owls). (April 2005-March 2006)
- Refer 1-2 requests for information about conservation easements to the pertinent agencies. (April 2005-March 2006)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=48



The Living by Water Project

Project Location:	Alberta
Identifying Code:	090 40 90 101
Funding Allocation:	\$30,000.00
Principal Investigator:	Kimberley Dacyk
Contact Information:	Federation of Alberta Naturalists 11759 Groat Road Edmonton Alberta 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:

Overview: The *Living by Water Project*, a Canada-wide initiative, has been operating within the province of Alberta under the Federation of Alberta Naturalists (FAN) since 2001. *LbyW* focuses on the relationship between natural shorelines and shoreline communities by ensuring that permanent and seasonal residents have the knowledge and tools necessary to understand their effect on fisheries, habitat or wildlife resources and water quality in their communities.

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 former 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* facilitates some of the targets of Alberta Government's "Water for Life: Alberta's Strategy for Sustainability", which recognizes the needs for a public awareness and education program and of supporting watershed stewardship groups to improve the condition of watersheds.

Specific Project Objectives:

- To raise awareness in the target communities about shoreline and water issues and positive individual actions to protect the shoreline and riparian habitat by delivering 15 presentations/year and implementing a survey of residents' attitudes and knowledge of riparian issues.
- To build more local capacity for stewardship of Alberta's shorelines and riparian environment through training of 10+ community volunteers, delivery of *Living by Water* programs and provision of tools such as the On the Living Edge: Your Guide for Waterfront Living book, poster and Workshop in a Box modules
- To support community-based action on shoreline/watershed issues by partnering with related programs and municipalities
- To determine measurable, positive shifts in attitudes about riparian and watershed values, uses and management amongst participating shoreline property owners
- To encourage 20+ new households/year to participate in the Home-site Evaluation Program and undertake at least one action to improve local stewardship
- To further monitor, support and document change with owners of Shoreline and back-lot properties initially assessed in 2003/4
- To train 6 student interns in conducting home-site evaluations, providing them with a *LbyW* Intern Induction handbook and providing opportunities to gain hands on learning in riparian/shoreline issues and positive case studies of local stewardship that they can carry forward in their future careers.

- To produce and distribute 1000 *Introducing Living by Water* booklets, thus extending the *Living by Water* message to new property owners, communities and other stakeholders
- To deliver the *LbyW* educational programs to residents of 2 storm water lakes in Edmonton and Calgary

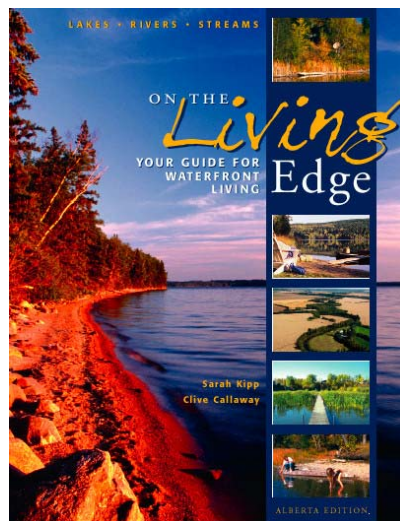
Deliverables:

Production of a LbyW Intern Induction handbook

- 6 student interns hired, trained in conducting home-site evaluations
- Production of 1000 *Introducing Living by Water* booklets
- 15 LbyW presentations in the target communities in partnership with municipalities or related programs where possible
- 10+ community volunteers trained and provided with tools such as the On the Living Edge: Your Guide for Waterfront Living book, poster and with access to Workshop-in-a-Box modules
- 20+ new households participating in the Home-site Evaluation Program 2005 and undertaking at least one action each to improve local stewardship
- Follow up monitoring with owners of Shoreline and back-lot properties of neighboring communities initially assessed in 2003/4
- Deliver of educational programs to 2 storm water lakes in Edmonton and Calgary
- “Our Lakes, Our Role” Summary Report (summarizing results from a survey of shoreline residents’ attitudes and current knowledge about riparian and watershed values, uses and their role in mitigating impacts).
- A volunteer appreciation event held in November 2005

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=254



Criteria, indicators, and three-dimensional corridors for managing biodiversity in urban and regional river valleys

Project Location: Alberta
Identifying Code: 010 80 90 105
Funding Allocation: \$35,000.00

Principal Investigator: Dr. Ross W. Wein
Contact Information: University of Alberta 751 General Services Building
Edmonton Alberta T6G 2H1
ross.wein@ualberta.ca (780) 492-2038

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

The objectives of this research project are:

1. To quantify the incorporation or resistance of exotic species into urban forest types in light of key disturbance/land-use factors.
2. To extrapolate these ideas using remote sensing techniques to larger areas of riparian forests outside of urban study areas to identify vulnerable riparian forest types (and to develop conservation and management strategies).
3. To identify three-dimension patterns in riparian forest canopy and biomass on an urban-rural gradient along the North Saskatchewan River, along Astotin Creek, to Elk Island National Park.

2005-2006 Deliverables and milestones include:

1. Field data collection and data set preparation (Completion date: September 2005),
2. Extraction of laser transect data into a format ready for statistical treatment
3. Field data analyses (Completion: January 2006),
4. Project report to ACA. (Completion: April 2006 or earlier),
5. Presentations to partners and conferences, web site development,
6. Journal manuscripts (submission by April 2006).
7. Biodiversity patterns and the effect of disturbances on the patterns in urban forests: methods and validation.
8. The status of exotic plant species and their effects on forest understory plant communities.
9. Spatial patterns of forest canopy and biomass along an urban-rural gradient.

Project Information on the ACA Website:

<http://www.ab-conservation.com/projects>

Conservation Lands Partnership

Project Location: Parkland Alberta
Identifying Code: 010 20 90 108
Funding Allocation: \$40,000.00

Principal Investigator: Andrew Schoepf
Contact Information: Alberta Fish & Game Association 6924-104 Street
Edmonton Alberta T6H 2L7
(780) 437-2342

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

Project Objectives:

- 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 municipally 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:

- Complete a 'Natural Resource Inventory' for 50 program participants representing over 17,000 acres of agricultural lands.
- Coordinate on-farm surface water testing through delivery of 'Farm WaterWatch' resources to 50 landowners within Katchemoot Creek, Tide Creek, Raven River, and Maskwa Creek.
- Preparation of 100 'Farm Conservation Plans' for proposed habitat enhancement projects to enhance fisheries and/or wildlife values on participating lands.
- Secure 100 'Voluntary Conservation Agreements' representing 16,000 acres of locally significant habitats. Final stewardship awards and presentations will be made at the annual Fish and Game Association conference in 2006.
- Collect baseline water quality parameters on nutrient and sediment loads within watersheds affecting fish and wildlife values on WTF properties (Katchemoot Creek, Tide Creek and Maskwa Creeks).
- Support 20 program members in specific farm/habitat improvement projects by linking participants to additional resources of financial and/or technical support.
- Increased public awareness of conservation issues and greater recognition of program partners through the development of 2 fact sheets, preparation of feature articles for local newspapers/newsletters, and delivery of program presentations at the annual AFGA conference, 10 club meetings, and 3 community workshops.
- Develop framework and solicit volunteer recruitment for an Adopt-a-Stream program to support the ACA Streambank Fencing Program on the Raven and North Raven Rivers.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=373

Cows and Fish: Managing Riparian Areas Through Community Collaboration

Project Location: Alberta
Identifying Code: 090 20 90 101
Funding Allocation: \$50,000.00

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

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

Objectives:

1. Increase the understanding of the importance of riparian areas through delivery of riparian awareness messages to Alberta's agricultural producers, as well as other rural landowners, the general public and resource managers.
2. Improve understanding of range and pasture management principles, as well as provide realistic management options, to assist producers in using sustainable grazing practices.
3. Increase the appreciation and understanding of riparian health and the need to maintain or improve management, resulting in healthier riparian areas.
4. Promote local community/watershed initiatives that rely on the community-based, landowner-driven process to ensure that local involvement leads to long-term commitment.

Deliverables:

Building ecological literacy and understanding of riparian areas is the foundation for awareness and knowledge. Management change can only come from improved awareness; management change will lead to healthier landscapes. People need to understand the issues, the questions, and the 'why' before they can take action. A core value of our program is creating that understanding and answering the 'why'.

We will focus on providing riparian and grazing awareness information to rural landowners, producers, resource managers, and the public, with an annual audience of 3,000 through 110 presentations and workshops. Topics will include:

riparian health
riparian form and function, for flowing and still-water systems,
values of wetlands
riparian restoration and reclamation
riparian grazing strategies
linking livestock behaviour to management
economics of riparian management
what the Cows and Fish program is
how to work with communities, using the Cows and Fish Process

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=62

Or visit our website:

www.cowsandfish.org

Hunting For Tomorrow Foundation – Working Group Deliverables

Project Location:	Alberta	
Identifying Code:	002 70 90 101	
Funding Allocation:	\$60,000.00	
Principal Investigator:	Kelly Semple	
Contact Information:	Hunting For Tomorrow Foundation # 87, 4003 – 98th Street Edmonton, ksemple@huntingfortomorrow.com	Alberta T6E 6M8 (780) 462-2444
ACA Grant Status:	Complete	
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.	

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.

Fact Sheets and Display Holders

Expansion Of Hunters Who Care Program (C-2)

New Market Exposure & Trade Show Participation (C-3)

HFTF Web-site Expansion (C-4)

Newsletter (C-6) – Winter/Spring 2005 and Summer /Fall 2006

Deliverables:

The “Gone Hunting!” Women’s Outdoor Excursion Program is designed to open up the world of hunting, fishing and trapping to women. This program helps to make it easier for a novice woman to learn these outdoor skills. Superb locations, talented and competent hosts and guides, outstanding food and accommodations all add up to an idea experience for newcomers to this activity. Experienced female hunters will find camaraderie with other outdoorswomen, plus unmatched opportunities to test their skills and pass on their knowledge to newcomers.

Youth and Female Hunter Kits (HP-2)

Youth and First Time Hunter Mentorship Programs (HP-3):

Multi-Stakeholder Workshops (HP-4)

Multi-Stakeholder Regulations Review Meeting – Implementation of 5 Key Objectives (HP-5)

Landowner/Hunter Survey (HP-6)

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=228

<http://www.huntingfortomorrow.com>

Tide Creek Beaver Management – Tide Creek, Alberta

Project Location: Alberta
Identifying Code: 020 60 90 101
Funding Allocation: \$1,850.00

Principal Investigator: Alberta Fish & Game Association
Contact Information: 6924-104 Street Edmonton, Alberta T6H 2L7

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

Project Objectives & Activities:

The objective of this project is to keep the portion of Tide Creek that runs through the Pigeon Lake Wildlife Trust Fund Property, free of beaver dams to provide a consistent source of water for spawning fish and allow fry to return to Pigeon lake. Specific objectives include:

- Managing beaver numbers and removal of dams by hiring a trapper.
- Supervision of the creek through regular volunteer visits.
- Increased walleye, pike and suckers accessibility to spawning habitat.
- 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.

Activities involve hiring a trapper to trap beavers and remove beaver dams from Tide Creek in the spring of 2005. The going rate for trapping beaver is \$10.00/beaver, \$135.00 to remove each dam and \$0.39/kilometre for travel time. Approximately four dams and 20 beavers will be removed from the area in 2005. These numbers are calculated using the beaver activity from the past several years as reference. Millet Fish and Game Association volunteers also regularly inspect the site throughout the spring and summer to remove debris from the creek and monitor ongoing beaver activity.

Deliverables:

- Provide access for spawning walleye, pike and suckers 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.
- 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.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=68



Northern Alberta Non-game Fish Status Assessment – Year 3

Project Location:	Alberta
Identifying Code:	020 10 90 104
Funding Allocation:	\$29,225.00
Principal Investigator:	Mark Steinhilber
Contact Information:	The Provincial Museum of Alberta 12845-102 Avenue Edmonton, Alberta T5N 0M6 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: Formal species status assessments require data on 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 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.

An equally important objective is to provide data and “hands-on” resources for public education and societal engagement in biodiversity conservation. Maximizing public access to information on-line and preserving specimens for detailed examination and interpretive displays will further the cause of environmental awareness and public stewardship of our natural resources.

This will be the fourth consecutive year of an ACA funded project by the Provincial Museum to gather information on relative abundance and distribution of non-game fishes in northern Alberta. The objectives for the 2005 field season are to re-visit 25 of the sites surveyed in 2002 - 2004, including 15 sites that have already been surveyed three consecutive years, and to conduct initial reconnaissance surveys of 10 additional sites in each of the Grande Prairie and Swan Hills areas.

Deliverables:

Baseline non-game fish relative abundance and specimen data from 45 sites throughout northern Alberta will be gathered and compiled for incorporation into the FMIS database (March 2006).

- 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 (November 2005).
- 2005 specimen data will be incorporated into the Provincial Museum's database and available through the *Creature Collection* website. A summary of project results to date will be incorporated into the joint ACA/PMA website on *Alberta's Fish Diversity* (January 2006).
- Results of field activities in 2005 will be incorporated into a detailed project report including raw data, sampling and data analysis protocols, maps, and photographs from each site. A summary report will highlight results of the surveys (March 2006).
- Fluid preserved specimens will be incorporated into “visible storage” in the Museum's new *Biodiversity* gallery (tentatively scheduled to open 2008). The Non-game Fish Assessment project is expected to figure prominently in presentations discussing biodiversity research in Alberta.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=250

North Raven River & Clear Creek Beaver Management Program

Project Location:	North Raven River & Clear Creek
Identifying Code:	020 60 90 103
Funding Allocation:	\$3,000.00
Principal Investigator:	Barry Mitchell
Contact Information:	Central Alberta Chapter of Trout Unlimited Canada 6C, 5571 - 45 Street Red Deer, Alberta T4N 1L2
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

To control the number of beaver dams built on these two spring creeks to allow free movement of the resident trout to and from their traditional spawning areas and to reduce the heavy siltation caused by beaver dams which could and does suffocate any eggs deposited in redds each fall.

Activities/Methodology:

Problem beavers are either trapped using #30 Conibear "instant kill" traps or by shooting them when they can not be trapped.

Deliverables:

There are no products, videos or structures produced by this program. All we do is remove any beaver(s) that build dams in areas where dams could possibly impeded spawning migrations, cause excessive siltation (especially in known spawning areas), flood farm lands or riparian areas.

Since inception more than 1,300 beavers and innumerable dams have been removed from this small low gradient creek. Since the creek is so low gradient even during high water events the dams do not wash out and become permanent structures, thus stopping fall spawning migrations and silting up known spawning areas.

Our work keep the creek free flowing and the spawning beds free of silt which smothers the eggs by cutting off the free flow of well oxygenated water to the redds.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=291

Ironside Pond Aeration Project

Project Location:	Ironside Pond – Rocky Mountain House
Identifying Code:	090 30 90 101
Funding Allocation:	\$10,500.00
Principal Investigator:	Don Andersen
Contact Information:	Central Alberta Chapter of Trout Unlimited Canada 5616 - 54a Ave Rocky Mountain House, Alberta T4T 1H6
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

A group of stakeholders including Alberta Sustainable Resource Development (ASRD) Staff, the Alberta Conservation Association (ACA) and several dedicated local volunteers from Trout Unlimited determined that Ironside Pond would be a good candidate for the next lake aeration project in the Rocky Mountain House - Caroline area.

PROJECT AREA:

Ironside Pond (SW 7-38-7-W5M) is situated on public lands south east of Cow Lake, or approx. fifteen kilometers southwest of Rocky Mountain House [Figure 1]. The land surrounding the pond is held under a grazing lease. This small, pear-shaped natural lake has a surface area of approximately 3.3 hectares (8.1 acres), and reaches a maximum depth of 13 metres (42 feet). The lake drains north via intermittent stream into a small muskeg area.

Activities/Methodology:

- Secure leaseholders agreement and road use agreement (winter 2004/2005). Consultation with leaseholders requesting consent to withdraw land from current lease agreements will be conducted in conjunction with ASRD representative. Road use agreements will be pursued in discussions with Imperial Oil (ESSO) representatives.
- Secure Water Act approval for placement of aerators into a public waterbody.
- Contract installation of power systems (prior to fall of 2005). Fortis Inc. Alberta (formerly Aquila Networks Canada) will be contacted.
- Construct power control shed or control box (prior to fall of 2005). Control box would be preferred as it is less prone to potential vandalism and more affordable.
- Purchase aeration system and install prior to 2005/2006 freeze up.
- Prepare parking lot and access road/boat launch. Included would be existing access road improvement, creation of a small parking area, fencing the parking area and installation of a cattle guard gate, and developing a foot access trail to the pond along with a hand launch area. These items should be completed prior to winter 2005.
- Installation of appropriate signage acknowledging project participants, and outlining site-specific regulations.

Deliverables:

- 1] Construct power system and install aeration units prior to freeze up 2005
- 2] Construct parking lot prior to winter 2005
- 3] Enhance existing access roads prior to winter 2005
- 3] Construct path to boat launch area prior to winter 2005
- 4] Install appropriate signage in line with time constraints of site development.
- 5] Continue meetings and consultation with ASRD and ACA throughout process.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=408

The Economic Benefits of Recreational Fishing on the Bow River: Canmore to Bassano

Project Location: Bow River: Canmore to Bassano
Identifying Code: 020 10 90 101
Funding Allocation: \$4,000.00

Principal Investigator: Dr. William Holden
Contact Information: University of Calgary
Science, 2500 University Drive Calgary, Alberta T2N 1N4
wnholden@ucalgary.ca (403) 220-4886

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

Project Objectives: This is a study on the contribution made to the economy of Southern Alberta by the recreational fishing industry on the Bow River. In recent years people in the western United States have begun to use the term "the New West" as a descriptive term for a post industrial vision of the American West. The American West is a region which initially, and still to some extent today, had its economic base provided by industries such as oil and gas, mining, and forestry. Today, in contrast, many people see the driving force of this region's economy being amenities based growth; things such as retirement destinations and recreational activities including, but not limited to, trout fishing. In Montana, for example, the Blackfoot river, made famous by Norman MacLean's novel (and Robert Redford's film) *A River Runs Through It* has acquired a prolific reputation as a "blue ribbon trout stream" that Montanans refer to it as "a realtor runs through it."

Activities/Methodology: The project has three components. The first stage of the project will transpire in July and August of 2005. This phase will be a "scoping" phase that will be concerned with identifying the exact methods that will be engaged in the fieldwork stage. The second stage will be the fieldwork stage; this will involve interviewing anglers, guides, and outfitters to obtain data on the amount of recreational fishing that occurs on the Bow River, the origins of those who fish on the river, and how much is *directly* spent on recreational fishing on the Bow River. The second stage will occur during the summers of 2006 and 2007 and will involve employing two graduate students to conduct empirical surveying. The third stage will take place in the Fall-Winter of 2007/2008; the third stage will involve an econometric estimation of the total, both direct and indirect, contributions of Bow River recreational fishing to the economy of Alberta. Finally, in March 2008 a final report will be submitted to the Alberta Conservation Association.

Deliverables: The principal desired outcome of this study is a quantification of the extent to which high water quality in the Bow River contributes to the economy of Alberta by facilitating a recreational fishing industry. This will be of immense benefit to numerous stakeholders including the Federal Department of Fisheries and Oceans, Alberta Environment, Travel Alberta, the City of Calgary, the Banff Canmore Chamber of Commerce, the Calgary Convention and Visitors Bureau, and the recreational fishing industry itself.

Project Information on the ACA Website:
http://www.ab-conservation.com/projects/project_details.asp?project=407



Edmonton Urban Fishing Program

Project Location:	Edmonton
Identifying Code:	020 40 90 101
Funding Allocation:	\$5,100.00
Principal Investigator:	Derek Sutherland
Contact Information:	City of Edmonton – Community Services Dept Edmonton Alberta T5J 2R7 Derek.Sutherland@edmonton.ca (780) 496-2950
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

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

Activities/Deliverables:

To operate an annual special event, "River Day" to further the goals of the committee.

- In conjunction with provincial & national fishing weeks.
- Making use of Berkley's Pathways to Fishing Program

To develop Lake based fishing opportunities within the city limits.

- Improvements to Hermitage Park Stocked Pond to improve fishing and information and access.
- Exploring the stocking of other lakes within the City.

To develop River based fishing opportunities within the city limits.

- Improvement of boat and canoe launches
- Information kiosks at popular fishing spots
- Wing dam at Dawson Park

To publish biannually a River Recreation Guide to further the goals of the committee.

To develop more opportunities for Citizens to fish & learn about fishing.

- Partnership with Big Brothers/Sisters
- Rod Loaner Program
- Adult and kids programs offered by Edmonton Community Services

To actively involve volunteers from the various stakeholders and recognize them for their efforts

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=366

Assessing effects of sportfish-stocking and aeration on communities in small Boreal Foothills lakes

Project Location:	Rocky Mountain House Area
Identifying Code:	090 30 90 102
Funding Allocation:	\$25,900.00
Principal Investigator:	Dr. William Tonn
Contact Information:	University of Alberta Department of Biological Sciences Edmonton Alberta T6G 2H1 bill.tonn@ualberta.ca (780) 492-4162
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

The objectives of our study is to increase our knowledge of how introduced, non-native trout interact with native forage fish, invertebrate, and amphibian communities, and to asses how these communities respond. We are also examining how the practice of aeration influences these relationships. Results from our research will help guide ACA's current stocking and aeration program and contribute to the larger goal of enhancing Alberta's recreational fishery, while maintaining the native biodiversity of lake ecosystems.

Amphibians, forage fish, and invertebrates were sampled on 11 lakes (with and without stocking & aeration) in the Caroline and Rocky Mountain House from April – August 2006. Adult and newly metamorphosed amphibians were sampled via visual transects and by trapping. Fish populations were censused on all lakes with minnow traps and fyke nets, as well as sampled to determine spatial distributions. Invertebrates were sampled on all lakes and preserved for laboratory analysis (presently underway). Physical and chemical parameters (temperature, dissolved oxygen, total nitrogen and phosphorus, etc.) were measured on all lakes.

1. Annual reports to ACA (2006-2008) - Completed for 2006: this report for and attached posters.
2. Interim presentations to ACA staff in Rocky Mt. House – Completed: planning and reporting meetings with staff in April and November 2005.
3. Conference presentations: Poster presentations at annual meeting of Canadian Conference for Fisheries Research (Calgary, 01/06), Prairie University Biology Symposium (02/06), and Biological Sciences Graduate Research Days (Edmonton, 03/06).
4. MSc theses – Programs underway (completion in 2008).
5. Articles for peer-reviewed scientific journals – Data collection and analysis underway (projected submission – 2008).
6. Formation of partnerships – Funding and support secured from: a) University of Alberta (equipment, facilities, student support, etc); b) NSERC (USRAs); c) AB Community Development (Sport, Recreation, Parks, and Wildlife Fdn Grants to L. Nasmith and C. Schank); d) Alberta Cooperative Conservation Unit (equipment). Funding pending from: a) Alberta Ingenuity; b) Canadian Circumpolar Institute; c) Mountain Equipment Co-op.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=432

Hardisty Creek Restoration Project (HCRP)

Project Location: Hinton
Identifying Code: 090 50 90 101
Funding Allocation: \$10,000.00

Principal Investigator: Connie Bresnahan
Contact Information: West Athabasca Watershed Bioregional Society
Box 5058 Hinton Alberta T7V 1X1
Cbbresn@telus.net (780) 865-2081

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

Project Objectives:

The Hardisty Creek Restoration Project (HCRP) was conceptualized by the West Athabasca Watershed Bioregional Society in 2001. The central mission of the project is to restore health to the Hardisty Creek watershed and to build capacity for watershed stewardship within the community of Hinton among citizens, schools, agencies and industry.

Upon gaining the endorsement and support of the Foothills Model Forest, a working partnership with watershed stakeholders and associated agencies was developed to address the biophysical restoration and the awareness/education elements of project. The HCRP partners include Alberta Sustainable Resource Development, Alberta Transportation Canadian National Railways, Cows & Fish Program, Fisheries and Oceans Canada, Foothills Model Forest, Town of Hinton, Weldwood of Canada Ltd., and the West Athabasca Watershed Bioregional Society.

Community partnerships were created with Gerard Redmond Community Catholic School, Harry Collinge Senior Secondary School, Hinton Fish & Game Association, Hinton United Church, and interested citizens.

Funding partnerships thus far have been established with the Alberta Conservation Association, Alberta Ecotrust, Fisheries and Oceans Canada, and with our project partners.

The HCRP is also endorsed by UNESCO's Wonder of Water Initiative, and was officially launched as a celebration of 2003 - the International Year for Fresh Water.

Deliverables:

Deliverables for this project will include:

- 1) completed floodplain reconstruction;
- 2) completed riffle;
- 3) completed boulder cluster construction at Hardisty Avenue culvert.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=374



Quirk Creek Native Fish Initiative

Project Location:	Quirk Creek
Identifying Code:	020 10 90 103
Funding Allocation:	\$12,800.00
Principal Investigator:	Brian Meagher
Contact Information:	Trout Unlimited Canada 1130-12 St SW Calgary Alberta T3C 1A7 bmeagher@tucanada.org (403) 209-5185
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Objectives:

- The primary objective of Quirk Creek Native Fish Initiative is to facilitate the restoration of native Bull and Cutthroat Trout populations in Quirk Creek. Removing Brook Trout through angling will hopefully restore the balance that was disturbed when non-native Brook Trout were introduced into this river system.
- The education component of this initiative is to help teach anglers and others how to properly identify some of Alberta's fish species. This is important because misidentification may often lead to the illegal harvest of Bull Trout throughout Alberta.
- An assessment will be conducted to determine the feasibility and success rate of an eradication study for the recovery of native trout species in Alberta. It is the hope of Trout Unlimited Canada that we can demonstrate the pressures that native fish face as a result of the introduction of non-native fish.

Over the past 7 years, over 4,224 volunteer hours and approximately \$53,500 in corporate funding have been committed, resulting in the selective harvest of 7,940 brook trout. We carry out weekly, chaperoned trips where anglers fish designated areas, releasing Bull and Cutthroat Trout, while keeping any Brook Trout they may encounter.

Trout Unlimited Canada would like to thank all the volunteers that graciously donate their time and effort including Jim Stelfox for his many hours of work on the project. Alberta Conservation Association is an important funding partner of this project.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=392

Late Fall Fisheries Investigation in Diversion Canals of Southern Alberta

Project Location:	Southern Alberta
Identifying Code:	020 10 90 102
Funding Allocation:	\$5,300.00
Principal Investigator:	Brian Meagher
Contact Information:	Trout Unlimited Canada 1130-12 St SW Calgary Alberta T3C 1A7 bmeagher@tucanada.org (403) 209-5185
ACA Grant Status:	Complete
Grant Summary Report:	Final Grant Summary Report located ACA Corporate Office.

Agricultural practices of southern Alberta include the use of irrigation to maintain crops and rangeland. Irrigation canals divert water from major waterbodies including the Bow River, Highwood River, Belly River, Oldman River and the Waterton Reservoir for this purpose. An unfortunate side effect of removing water is the entrainment of fish into these canal systems, once fish enter a canal, there is little or no opportunity for them to escape the channel. Each fall canals are dewatered to avoid the negative effects of freezing on these channel structures. As canals dry up fish become trapped in the residual pools and they eventually die. It is the goal of the fish rescue to collect as many individuals as possible from these de-watering canals to be returned to nearby waterbodies. TUC works closely with their partners during this endeavor to safely retrieve fish while collecting data including composition and abundance. This project was initiated in 1996 and it has grown to the project that it is today.

All work was completed in 2005, removing fish from the areas examined along the six canals systems visited. All fish were identified to species and tallied; some individuals (mainly sportfish) were measured for length and weights. Measured fish data can be found in the FMIS database. Fish were captured by various methods including electrofishing, seine netting and by use of dip nets.

The project will be repeated again in 2006 soon after the canal closure. Since there are very few structures in place to exclude fish from these systems, TUC will collect stranded individuals to replace them back into their associated river system. The project tentatively will begin in late September and run through October.

Deliverables included the visiting of the six canal systems associated with the Fish Rescue study, the data collected is being compiled for a final report to be sent to Alberta Environment, including the calculated effort, volunteer hours and species data. Acknowledgement of the ACA donation was mentioned during daily pre-fieldwork talks with all volunteers. The ACA name was added to the information and Thank You letters sent to present and past volunteers.

A total of 24,798 fish were collected during the 2006 effort, bringing the total of all rescues to 487,672. 48.6% of the collected individuals were sportfish species. Attached is a breakdown of the canals and the fish caught in 2006.

Project Information on the ACA Website:

http://www.ab-conservation.com/projects/project_details.asp?project=22

Alberta Landuse Mapping Simulation Project

Project Location: Alberta
Identifying Code: 010 20 90 109
Funding Allocation: \$20,000.00

Principal Investigator: Dr. Brad Stelfox -
Contact Information: Forem Technologies.
PO BOX 805
Bragg Creek, AB, T0L 0K0
(403) 949-3008

ACA Grant Status: Complete
Grant Summary Report: Final Grant Summary

To develop computer software models that assist in sustainable resource and landscape management. The flagship program of Forem Technologies is ALCES® (A Landscape Cumulative Effects Simulator), a program that is rapidly gaining acceptance by industry, government, and the public as an effective simulation tool for exploring the consequences of different landuse strategies and conducting cumulative effects assessment (CEA).

Deliverables:

- Develop visual presentation models in PowerPoint.
- Complete the predictive model.
- Make presentations to various government audiences (federal, provincial, municipal), industrial groups (forestry, energy, agriculture), and NGO's.

Project Information on:
<http://www.foremtech.com/>

Appendices

Appendix A

Alberta Conservation Association

Grant Eligible - Conservation Fund

Project Submission Guidelines For Funding in 2005 - 2006

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 9th year of Conservation Funding. Up to **\$1.2 million dollars** will be available for project funding via the Grant Eligible - Conservation Fund during the 2005/2006 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 2005 – 2006**
- Section D: Grant Application Screening & Decision Process**



Section A: About This Grant: 2005-2006

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 the your 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 \$2,000.00.
- Large Grant Application Form – requests over \$2,000.00.

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, 2005 for funding consideration in the 2005/2006 fiscal year. Applications received after **16:30** on **January 31, 2005** 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 2005-2008;
- 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, 2005 and March 31, 2006;
- 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 a manner commensurate with its sensitivity.

Section C: Major Funding Priorities of the Conservation Fund 2005 – 2006

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 2005-2008. The Strategic Business Plan 2005-2008 is available on-line at: www.ab-conservation.com

Major Funding Priorities

ACA Wildlife Program Priorities for 2005-2006

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 2005-2006

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 2005-2006 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 2005-2006

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, 2005. 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, 2005 to March 31, 2006

Cooperative Project Agreement

Between

ALBERTA CONSERVATION ASSOCIATION

-and-

RECIPIENT

Project Title:

Project Code:

Maximum Funding:

Effective Date: **April 1, 2005 to March 31, 2006**

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, 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
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B. FUNDING TERMS AND CONDITIONS

The Alberta Conservation Association Agrees to:

Provide a maximum contribution of **\$0.00 dollars (zero dollars and zero cents)** during the 2005-2006 fiscal year (April 1 to March 31) to support this project. Payments are contingent upon receipt of appropriate invoice or request for payment form and meeting the reporting requirements. 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. Return any unspent funds to ACA within 60 days of project completion.
7. Include with the final report (due on or before March 15, 2005) a financial accounting of all expenditures of these funds.
8. Assume responsibility for any expenditure of funds beyond those approved in Section B of this agreement.
9. 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.
10. 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.
11. 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 - refer to **Schedule C** for a more detail

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

1. **One interim update on activities related to the project will be required on or before September 15, 2005: (See Schedule C).** Included in this report should be a detailed description of activities, objectives, deliverables/achievements and a Request for Payment form or invoice.
2. **A final project report is required on or before March 15, 2006.** Included in this report should be information that satisfies the terms of the funding agreement, including a detailed description of activities, objectives, deliverables/achievements and an accounting of how ACA funds were expended including receipts, when requested. **(See Schedule C)**
3. **Web Page Summary:** A one-page project summary (max. 250 words) and at least one photographs/images (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 installment 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 please contact David Fairless at 780.644.6833.

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 2005 - 2006

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

Please Note:

An invoice or a request for payment form must be submitted to the Alberta Conservation Association for each scheduled payment. Please ensure that the Project Code is clearly identified on each invoice or the request for payment form.

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 2005-2006 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 or request for payment form. Please ensure you submit a project description for uploading to our website.

Payment Two:

\$0.00 will be paid upon receipt of the interim report and the corresponding invoice or request for payment form on or before September 15, 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, 2006 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

Interim Report

Submission Date: on or before September 15, 2005

Please ensure that your interim update report includes, but is not limited to, the following information: a reporting template will be provided for your convenience.

- Project Title & Project Code;
- Update Current Status and Recent Activities of the Project;
- Financial Highlights and Disclosure of ACA funding expenditures;
- List any Reports or Deliverables that are Currently Available;
- 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

Submission Date: upon signing of this agreement.

- 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
- At least one photograph (print, slide or jpeg at 75 dpi) preferably in a digital PC format.

Final Project Report

Submission Date: on or before March 15, 2006

Included in this report should be information that satisfies the terms of the funding agreement, including a detailed description of activities, objectives, deliverables/achievements and an accounting of how ACA funds were expended including receipts, when requested.

- Project Title & Project Code;
- Update Current Status and Recent Activities of the Project;
- Financial Highlights and Disclosure of ACA funding expenditures;
- List any Reports or Deliverables that are Currently Available;
- Any other key points you would like to mention.

Please send electronic copies where possible

Deliverables

Any other reports or deliverables generated as a result of your project specified in the project proposal (Schedule A). ie: brochures, reports, videos, CD-ROM's, etc.



**The Alberta Conservation Association is a non profit,
non government association working collaboratively
to conserve and enhance Alberta's wildlife, fisheries
and habitat.**

