Annual Report 2008/2009

Alberta Conservation Association

Conserving Alberta's Wild Side

Annual Report 2008/2009

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Our Mission

ACA conserves, protects and enhances fish, wildlife and habitat for all Albertans to enjoy, value and use.

Our Vision

An Alberta with an abundance and diversity of fish, wildlife and their habitat; where future generations continue to use, enjoy and value our rich outdoor heritage.

Charitable Registration Number: 88994 6141 RR0001

Cover Photo: Darren Dorge

Contents

Alberta Conservation Association

Member Groups:

Alberta Fish & Game Association

Alberta Hunter Education Instructors' Association

Alberta Professional Outfitters Society

Alberta Trappers' Association

Federation of Alberta Naturalists

Foundation for North American Wild Sheep

Pheasants Forever, Alberta Council

Treaty 8 First Nations of Alberta

Trout Unlimited Canada

Board of Directors

Alberta Conservation Association Board of Directors meets quarterly and consists of nine member group representatives, one Provincial Government representative, four Public at Large representatives, one academic representative, one industry representative and the ACA/University of Alberta Chair in Fisheries and Wildlife.

Executive

Brian Bildson, Chairman - Alberta Trappers' Association

Randy Collins, Vice Chairman - Alberta Fish & Game Association

Patrick Long, Secretary - Foundation for North American Wild Sheep

Ward McLean, Treasurer - Pheasants Forever, Alberta Council

Don Pike, Past Chair - Trout Unlimited Canada

Directors

Tom Bateman - Alberta Hunter Education Instructors' Association

Dr. Mark Boyce - ACA University of Alberta Chair in Fisheries and Wildlife

Bob Byers - Alberta Professional Outfitters Society

Ken Crutchfield - Alberta Sustainable Resource Development, Minister's Representative

Dr. Lee Foote - Public At Large, Academic Representative

Sandra Foss - Federation of Alberta Naturalists

J.R. Giroux - Treaty 8 First Nations of Alberta

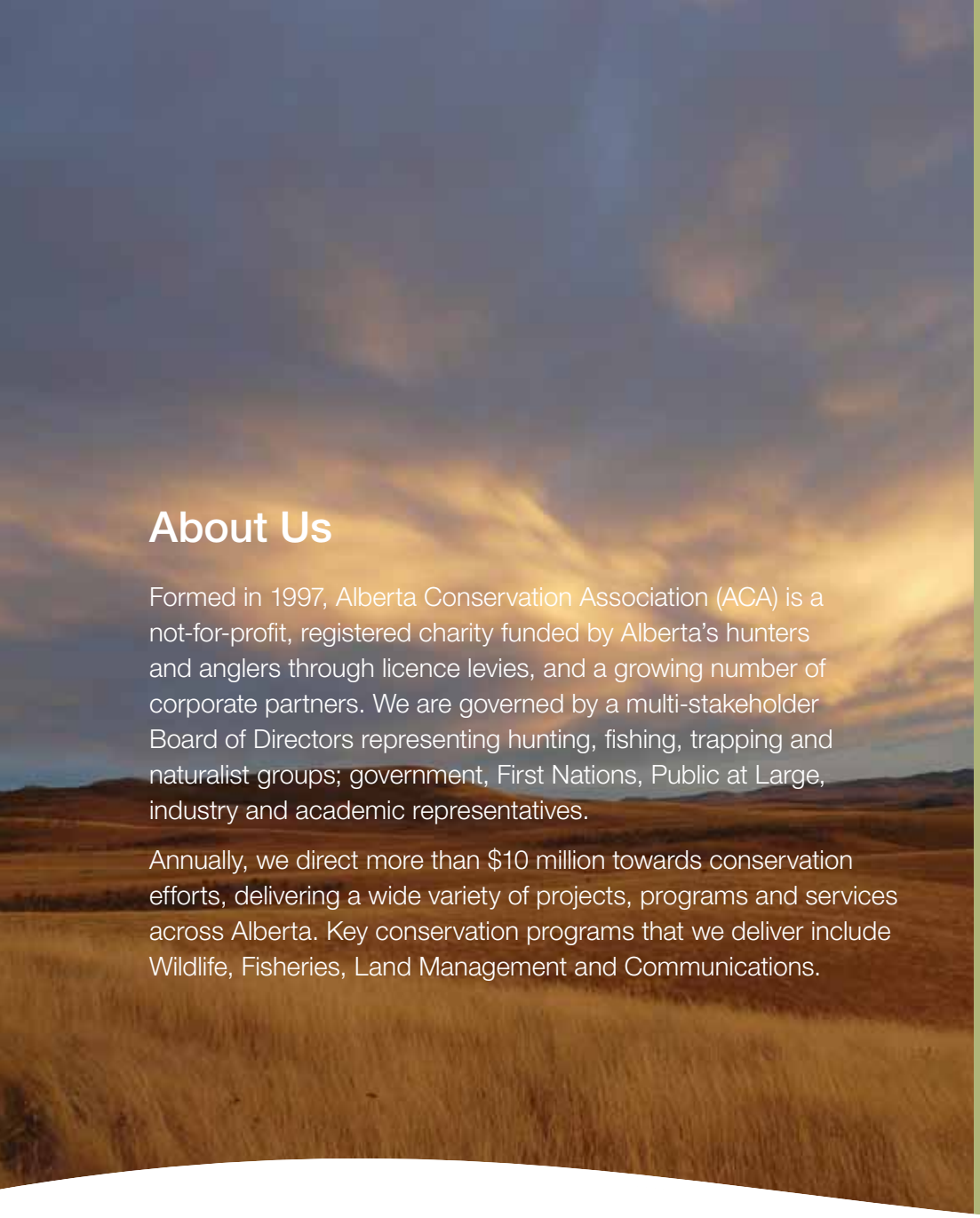
Colin Gosselin - Public At Large, Northeast Region

Calvin Rakach - Public At Large, Eastern Region

Layne Seward - Public At Large, Northwest Region

Jeff Smith - Public At Large, Southern Region

Dr. Roger Smith - Public At Large, Industry Representative



About Us

Formed in 1997, Alberta Conservation Association (ACA) is a not-for-profit, registered charity funded by Alberta's hunters and anglers through licence levies, and a growing number of corporate partners. We are governed by a multi-stakeholder Board of Directors representing hunting, fishing, trapping and naturalist groups; government, First Nations, Public at Large, industry and academic representatives.

Annually, we direct more than $10 million towards conservation efforts, delivering a wide variety of projects, programs and services across Alberta. Key conservation programs that we deliver include Wildlife, Fisheries, Land Management and Communications.

2008/2009 Financial Facts

- 23.25% of ACA's total operating budget was generated from non-levy sources;
- $3.1 million was received in non-levy revenue, this includes partner and donated funds;
- $10,344,875 in levy revenue was collected;
- 97% of the levy value went back to the resource.

Delegated Roles and Responsibilities

ACA holds special status as a delegated administrative organization (DAO), which means that we deliver responsibilities as outlined in the Wildlife Act and defined in a Memorandum of Understanding (MOU) with the Ministry of Alberta Sustainable Resource Development (ASRD).

In our role as a DAO, we work in partnership with ASRD, particularly the Fish and Wildlife Division, in developing program priorities that support the enhancement and management of Alberta's wildlife and fish resources. As part of our DAO responsibilities, we aid in the delivery of the Report A Poacher (RAP) Program and Compensation Programs, which is comprised of the Wildlife Predator Compensation and Shot Livestock Compensation Programs.

Chairman's Report

I am not sure whether it is a reflection of my age or of just how busy life is, but time is definitely flying by. As I look back on our organization, I am struck by how far ACA has come since its inception.

Our founding member groups have always held a wide diversity of individual interests, not all of which are aligned with each other. But what has held these groups together is an underlying passion for Alberta's wildlife, fish and habitats, and the dream to do great things for conservation in Alberta. By any measure, those dreams have come true over the years and continue to this day.

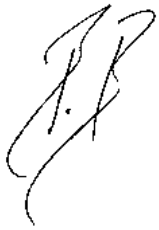
This year has been another one of significant progress. The Board saw a marked improvement in our working partnerships between ACA and our member groups. We teamed with several of our stakeholders over the last year on projects, and these partnerships have been beneficial for all. We also made some exciting new changes to our granting system that should benefit conservation in Alberta.

We are excited about the new opportunities we have been exploring with industry and the prospect of securing additional land in Alberta for conservation. These land acquisitions will ensure recreational opportunities for Albertans for all time, and will certainly be one of ACA's biggest legacies.

Our Board salutes our staff. When I speak to our staff about their area of expertise in the organization, their eyes light up and their deep passion for conservation is evident. We are fortunate to have people of this caliber working with us, and the Board appreciates their efforts.

I encourage you and your family to explore Alberta's great outdoors as often as possible. If you are looking for a place to go, check out our Discover Alberta's Wild Side – Guide to Outdoor Adventure.

Brian Bildson



President and CEO's Message

Once again, the hard work and dedication of ACA staff made this a successful year. For each and every project, our staff fully embraced our four operational cornerstones of *on-time, on-budget, highest quality and done safely.* As of April 2009, we completed and posted on our website a summary report for all projects undertaken in 2008/2009 for every Albertan to review and learn from.

In 2008/2009, ACA (with various partners) added an additional 1,467 acres of land to our conservation sites; stocked over 131,000 rainbow trout in 60 water bodies across Alberta; aerated 17 lakes; participated in 29 aerial ungulate surveys; produced and distributed 100,000 copies of our first *Discover Alberta's Wild Side – Guide to Outdoor Adventure* and completed more than 40 other conservation projects.

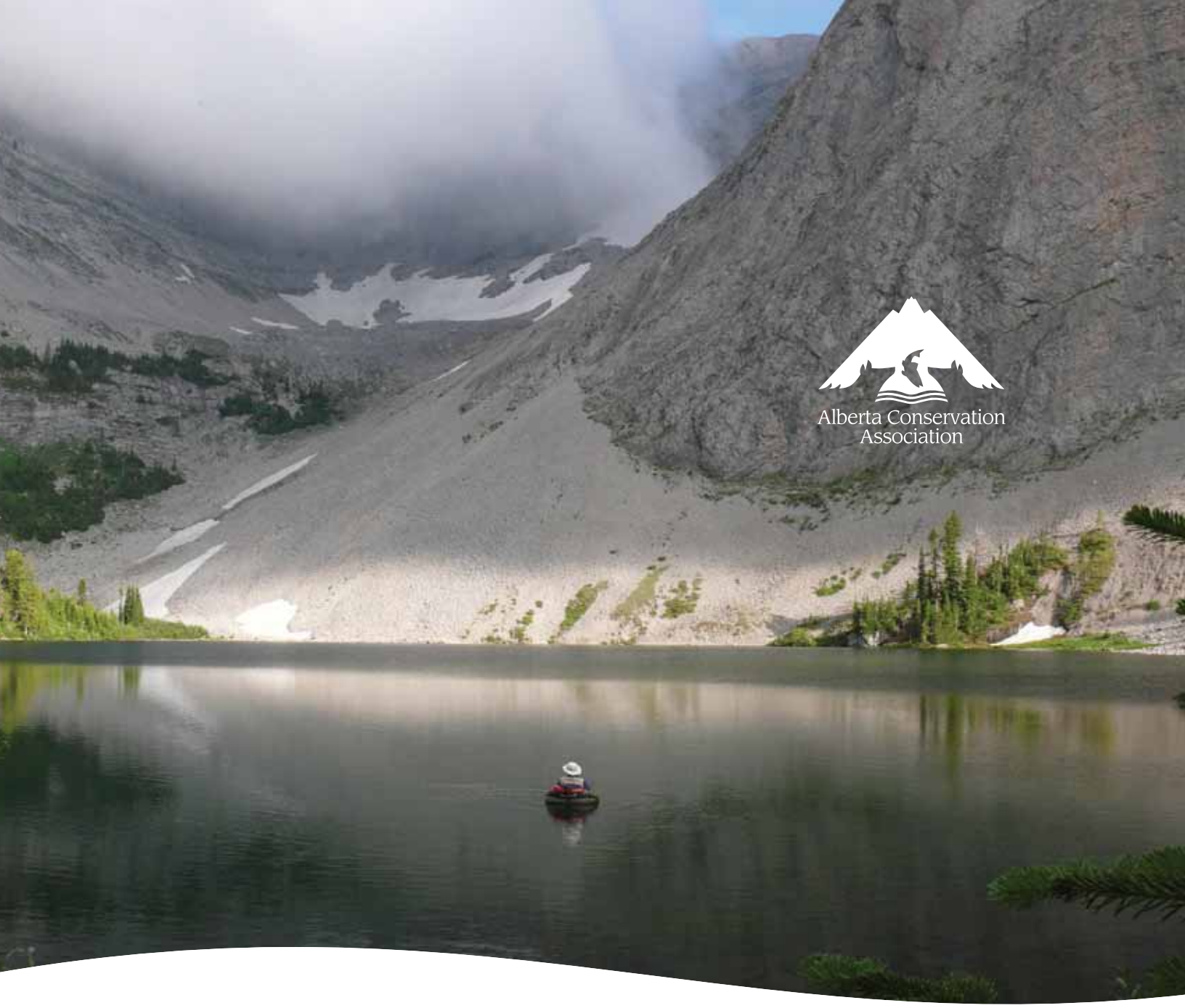
As part of our ongoing effort to improve communications with our stakeholders and partners, ACA staff spent significant time meeting with member groups and with Alberta Sustainable Resource Development (ASRD), giving presentations to the general public, and attending trade shows. This increased effort resulted in additional partner projects we are taking on with member groups, an improved working relationship with ASRD, and a better understanding of the problems that Alberta hunters and anglers encounter. Moreover, this interaction is influencing our programming as we move forward.

What impressed me again this year was the level of dedication of our staff. On numerous occasions I witnessed employees going the extra mile. Our staff always stepped up, whether it is heading out to a lake aeration site during Christmas holidays to repair an aerator, providing presentations to school children during Environment Week, or helping a member group with one of their projects. I believe ACA has the most committed staff, and it shows in their work and personal pursuits.

This coming year, my son will turn 12 years old and he is anxiously anticipating going hunting for the first time—he and his younger sister already join my wife and me on hunting trips, but now he will be carrying his own gun. Thinking about this milestone makes me wonder about what type of outdoor opportunities will be available to him in the future.

Alberta's fish and wildlife resources are continually under extreme pressure, and at the same time we seem to be bombarded with environmental issues in the news; even so, I remain optimistic about the future. As I look forward to the coming years, I anticipate what we can accomplish as a larger conservation community. With our focus on working relationships with our member groups and ASRD, our increased interaction with the general public, and the efforts of our dedicated staff, I believe there is a promising future for conservation in Alberta, and I believe my son will have just as many opportunities, if not more, as I have had to enjoy Alberta's wild side.

Todd Zimmerling



Our People Our Culture

Health and Safety Program

Health and safety is integrated into all aspects of ACA's working environment. Given its paramount importance, everyone on an ACA work site must adhere to the applicable health and safety practices and take personal responsibility for the health and safety of themselves and others. These principles apply to everyone working on an ACA project, whether an employee, contractor, volunteer, visitor or the President and CEO.

ACA utilizes a Health and Safety program based on several core elements. Hazard assessment is critical for the identification and control of workplace hazards and we have established a detailed and effective process for staff to use.

- Personal Protection Equipment (PPE) is a key requirement on all work sites and we have implemented both specific and general PPE to ensure employee safety at all times.
- Ongoing inspections and maintenance ensure that all our vehicles and equipment are kept in safe operating condition.
- Safety training and meetings are an important component of a safe workplace and are mandatory for all employees.
- Incident reporting and investigation are necessary components of all work sites, and we have developed a rigorous approach whereby all incidents resulting in personal injury or property damage are intensively addressed. In addition, serious near misses are also reported and investigated to address potentially unsafe conditions and minimize future reoccurrences.

In the past year, ACA has used a revised version of the Health and Safety Manual that is intended to be comprehensive yet easy to use. This document is useful in preparing for work and for use in emergency situations. Safety planning is and will continue to be a priority for ACA.

ACA has identified vehicle-related accidents and near misses as the most common type of incidents associated with ACA workplaces in 2008/2009. Although this is not surprising given the large amount of driving involved with ACA work, steps are being taken to focus efforts on investigating and understanding the nature of these incidents, with the intent of reducing this hazard and eliminating work site incidents.

Human Resources Program

ACA considers its employees to be the most important resource in its successful operation. To effectively deliver programs, we employ approximately 72 full-time and 12 seasonal staff in regional offices located throughout the province. This dedicated team is responsible for ensuring the delivery of ACA's conservation programs.

In 2008/2009, we implemented numerous changes and initiatives to enhance and strengthen human resources, improve efficiencies and ensure success for both the organization and our employees. Highlights included:

- Revision of the Human Resources policies and procedures manual.
- Development of the organizational structure and core processes.
- Revision of job descriptions to give employees a clearer understanding of what is expected of them in their positions.

The yearly employee survey was conducted — results from the survey showed 80% of employees are satisfied with working at ACA. Although the survey clearly showed employees enjoyed working at ACA, the survey did identify some areas for improvement; these will be addressed in the coming year.

Information Technology Program

Information Technology (IT) plays a vital role in supporting the operations of any organization. ACA realizes the need for current and reliable IT systems to support ACA conservation programs, and to ensure projects are completed on-time, on-budget, to the highest quality standards and in a safe manner.

In 2008/2009, the IT department was involved with a number of projects to improve our IT infrastructure.

Projects included:

- Installation of a new web server for hosting our external website www.ab-conservation.com.
- Creation of ACAWeb, an internal website for posting and storage of current information for employees, including new policies and procedures.
- Upgrades to the e-mail server for handling the increase in e-mail traffic.
- Replacement of accounting software for improved financial reporting to ACA's management team.

Along with these projects, the IT program provided daily technical support with respect to software, hardware and network issues.

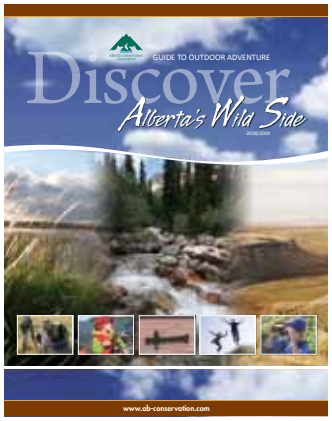
Conservation Programs

Communications Program

In June 2008, a survey was conducted by Leger Marketing that provided information on the public's awareness of our organization, our member groups and conservation issues in Alberta. One objective resulting from this survey is to increase public recognition of ACA from 1.7% to at least 5.0% by 2012.

We launched several plans in 2008 to help increase brand awareness and move us closer to meeting our 2012 objective.

1) Discover Alberta's Wild Side – Guide to Outdoor Adventure



In May 2008, we produced this guide for individuals and families to discover the many recreational opportunities available to them on land designated as *Conservation Sites*. These sites are either private lands owned by ACA or its conservation partners, or are public lands managed by ACA on behalf of the Crown. Only non-motorized recreational activities are allowed and include: hunting, fishing, hiking, bird watching and photography.

We printed 100,000 guides that were distributed at no charge through hunting and fishing license retailers in Alberta, Visitor Information Centres, ACA publication subscribers, guide advertisers, MLA's, AFGA and AHEIA. The guide is linked to our website where property profiles and driving directions can be accessed for each *Conservation Site* using *Google Maps*.

2) Take Time for Tradition

In August 2008, we launched the *"take time for tradition"* advertising campaign across Alberta to remind people of the traditional values associated with hunting and fishing and being outdoors. The campaign included television ads made possible through our partnership with *Let's Go Outdoors*, which aired from August through November, and a print campaign following in September. This is the first year of a two to three year public awareness, retention and recruitment campaign.

3) Use Respect – Ask First

We launched the *Use Respect – Ask First* awareness campaign to remind

hunters, anglers and other outdoor enthusiasts that access to private land is a privilege, not a right. The program encourages recreationists to seek permission from private landowners before accessing private property for responsible recreation.

A number of supporting organizations made the program and distribution of 10,000 posters to private land owners possible, including: Alberta Beef Producers, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Alberta Professional Outfitters Society, Alberta Sustainable Resource Development, Alberta Trappers' Association, the County of Warner - Bow Irrigation District, Ducks Unlimited Canada, Federation of Alberta Naturalists, Federation for North American Wild Sheep, Hunting For Tomorrow, the Municipal District of Taber, Pheasants Forever, Report A Poacher, Trout Unlimited Canada and Western Stock Growers Association.

Publications

Conservation Magazine

We produced two issues of *Conservation Magazine* that were published in-house by our communications team. This free publication is made possible through support from our advertisers and individuals who donate photographs and articles. Current distribution per issue is: 25,000 hard copies and 14,000 electronic copies.

Branding

We completed creative concepts and designs for the following projects: Toyota Camry raffle tickets, *Corporate Partners in Conservation* brochure and logo, a Riparian Conservation fact sheet, *Cowboys, Creeks and Comedy* poster (East Slopes fundraising dinner in partnership with other organizations), Conservation Card mock-up, trade show signs, *Reptiles of Alberta* reptile book for ACA's Alberta Volunteer Amphibian Monitoring Program (AVAMP), 29 Conservation Site signs, branding of internal documents/forms and truck branding, including a Toyota Hybrid donated by Sherwood Park Toyota.

Outreach

Trade shows

In 2009, we attended the following trade shows: **January** – Willow Valley Trophy Show (Pincher Creek), Fish & Game Sportsman Day (Medicine Hat); **February** – Boat & Sportsmen's Show (Calgary), Alberta Fish & Game Association Tradeshow (Edmonton), Sportsman & Outdoor Adventures Show (Red Deer); **March** – Boat & Sportsmen's Show (Edmonton), Northlands Farm & Ranch Show (Edmonton).

Robert Bateman – *Get to Know*

We maintained our role as the provincial lead for the *Get to Know* program. With the support of the Community Initiatives Program, we successfully distributed the *Get to Know* interactive CD to an estimated 782,400 students attending 1,737 schools across Canada in 2008/2009. This CD contains hundreds of videos, virtual hikes, field guides, PowerPoint presentations, reference materials and links, primarily designed for use in a classroom environment. The objective is not to replace real outdoor experiences with indoor ones; instead, it is to offer the students as many opportunities as possible to familiarize themselves with local species as an invitation to go outdoors and experience the real thing. *Get to Know* organizers are currently investigating ways to measure the value and impact of this program.

Corporate Partners in Conservation

In 2007, the Corporate Partners in Conservation Program was established to provide corporate donors with the opportunity to play a vital role in protecting Alberta's natural heritage. Our Corporate Partners in Conservation receive a seal from ACA that identifies them as leaders in conservation.

The following companies are designated as corporate partners:
Albian Sands Energy Inc.,
Canadian Natural Resources Ltd.,
Compton Petroleum Corporation,
Daishowa Marubeni International,
Devon Canada Corp.,
Petro-Canada,
Sherwood Park Toyota,
Suncor Energy Foundation
Total E&P Canada Ltd.

Wildlife Program

Alberta Conservation Association strives to enhance the sustainability of wildlife through science-based conservation, in partnership with stakeholders. The Wildlife program involves activities that enhance the diversity and abundance of wildlife and their habitats within Alberta, focusing on harvested game species, but also including work on species at risk.

The Wildlife program's four thematic areas include:

- Ungulates;
- Upland game birds;
- Waterfowl;
- Species at risk.

Long and short-term objectives are prioritized at the provincial scale with insight gained through ongoing discussions with stakeholders and partners (including ASRD).

Our program supports the inventory and monitoring of priority species and their habitats, the enhancement of key habitats, and the restoration and reintroduction of priority populations. We investigate questions about wildlife populations (particularly game species) that lead to applied management of their populations and enhancement of their habitat. Our species at risk projects inform and support ASRD in the determination of species status and in the implementation of species recovery or management plans.

In 2008/2009, we and our partners worked together on a variety of projects to help retain the diversity and abundance of populations and communities of wildlife in Alberta.

Alberta Northern Leopard Frog Recovery

The northern leopard frog has suffered dramatic population declines in many parts of its range in Alberta and, while little studied, the decline does not appear to be part of a natural cycle. ACA is a member of the provincial recovery team for the northern leopard frog and collaborates with partners to develop and implement actions to recover viable northern leopard frog populations. Our actions focus primarily on reintroductions, habitat enhancement, outreach initiatives and population surveys.

We coordinated two stewardship initiatives in 2008. One was an off-site watering system designed to reduce damage caused by cattle to riparian habitat important for northern leopard frog breeding. The second was an outreach initiative involving the deployment of a series of signs developed to raise the profile of the northern leopard frog at a public reintroduction site. We also contributed data to a provincial disease surveillance program designed to minimize disease transmission among amphibians during reintroductions.

Attempts to re-establish northern leopard frog populations with egg mass deposits in 2007 and 2008 have been met with limited success; however, a lone northern leopard frog was located in 2008 at the egg deposition site on Buffalo Creek in Waterton Lakes National Park.

Partnerships

Alberta Sustainable Resource Development, Calgary Zoo, Government of Canada Habitat Stewardship Program for Species at Risk, MULTISAR, Parks Canada Species at Risk Recovery Action and Education Fund, TD Friends of the Environment Foundation

Aerial Ungulate Surveys

We work in partnership with ASRD to conduct Aerial Ungulate Surveys (AUS); a core, multi-year function of our Wildlife program. In fiscal year 2008/2009, we partnered with ASRD to deliver 29 surveys across 44 management units in Alberta. Our staff participated in the planning, sampling and reporting of all AUS. These surveys provided important population information for moose, deer, elk, bighorn sheep, pronghorn antelope, mountain goats, bison and caribou. In addition, we conducted one training survey to mentor new observers, and implemented trials to test new survey techniques for pronghorn and moose. With the experience gained during the 2007/ 2008 and 2008/ 2009 fiscal years, we look toward continuing to play a substantive role in the delivery of AUS in future years.

Partnerships

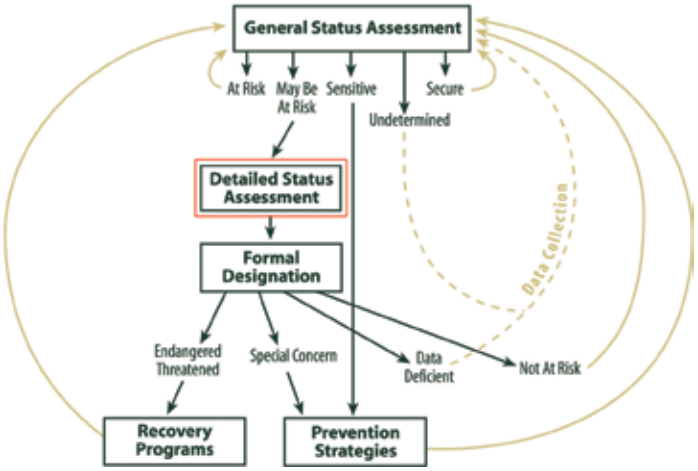
Alberta Sustainable Resource Development

Alberta Wildlife Status Reports

The Alberta Wildlife Status Report Series provides comprehensive summaries of the status of selected wildlife species in Alberta. High priority species are those considered *At Risk* or *May Be At Risk* in *The General Status of Alberta Wild Species 2005*, or considered to be at risk at a national level by the Committee on the Status of Endangered Wildlife in Canada. Each spring, we meet with ASRD staff to prioritize the species that are most in need of a detailed status assessment. Status reports summarize the most current information on the species in Alberta, and provide a basis for the Scientific Subcommittee (of Alberta's Endangered Species Conservation Committee; ESCC) to complete a formal status assessment of that species using criteria developed by The International Union for Conservation of Nature. The Subcommittee provides the ESCC with the formal status evaluation, and the stakeholder-based ESCC then recommends a legal designation for that species to the Minister of Alberta Sustainable Resource Development. ACA oversees the entire publication process for status reports, including the contracting of experts to write the report, editing drafts, supervising the external review process, completing the final formatting, and the distribution of printed reports. In 2008/2009, three new reports were completed: Verna's flower moth, Athabasca rainbow trout and northern long-eared bat (now called northern myotis) update.

Partnerships

Alberta Sustainable Resource Development



Alberta Volunteer Amphibian Monitoring Program

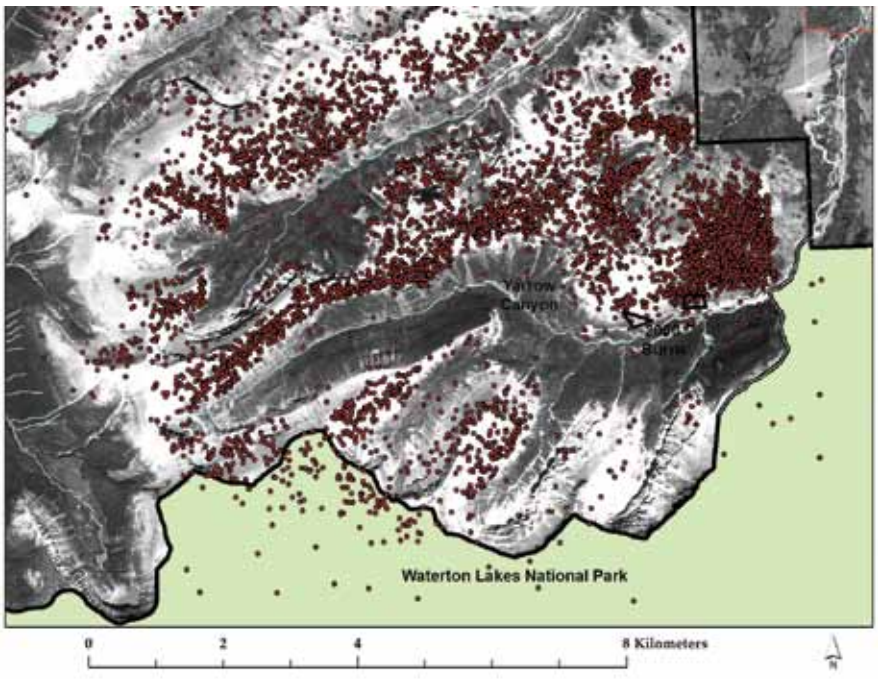
The Alberta Volunteer Amphibian Monitoring Program (AVAMP) was established to support a global initiative to monitor amphibian populations in response to widespread declines in populations and numbers in many jurisdictions. Our objectives are to engage volunteers to better understand the distribution of amphibian and reptile populations in Alberta, and to heighten public interest in this dynamic group of species. In 2008, AVAMP participants submitted a total of 337 amphibian and seven reptile observations, including two snake hibernacula (den) locations. To foster interest and a greater understanding of the needs of amphibians and reptiles, we provided volunteers with a monitoring manual, CD of frog and toad calls, and biannual newsletter. The newsletter also provided a communication conduit between the scientific community and the general public.

Partnerships

Alberta Sustainable Resource Development, TD Friends of the Environment Foundation

Bighorn Sheep Population Demographics and Associated Habitat Recommendations for the Yarrow-Castle Drainage

Rocky Mountain bighorn sheep are habitat specialists preferring open grassy slopes for foraging in close proximity to steep rocky areas for escape terrain. They tend to exist in small, sedentary, isolated populations with patchy distributions within subalpine and alpine habitats. Encroachment of conifers and shrubs as a result of fire suppression has impacted sheep populations by limiting available habitat and restricting movement. Bighorn sheep numbers in the Yarrow-Castle region of Alberta were significantly higher during the late 1970s when compared to recent counts. In 2002, a bighorn sheep demographic study was initiated to gain an improved understanding of factors that may limit ewe numbers in the Yarrow-Castle region. Using data from 2003 and 2005, we found ewe survival, lamb survival and reproductive output within normal ranges for bighorn sheep. With numbers fluctuating below those of the late 1970s, the region now appears to have a lower carrying capacity. To better understand food quality and in support of a pre-burn trial, we evaluated the nutritional value of spring forage using fecal analysis.



Fecal nitrogen values were within a normal range for spring forage, although we did not measure forage volume or the availability of preferred foods. This analysis has established a reference for measuring changes in fecal nitrogen values if prescribed burn treatments are applied to this area in the future. A series of well-planned prescribed burns would likely increase the availability of preferred forage while improving predator detection in the Yarrow-Castle area.

Partnerships

Alberta Fish & Game Association – Lethbridge and Fort Macleod Chapters, Alberta Sustainable Resource Development, Fish & Wildlife Division, Foundation for North American Wild Sheep – Alberta Chapter, Parks Canada – Waterton Lakes National Park, Richard Kennedy (Veterinarian) DVM, Ph.D., Shell Canada Limited, The Rocky Mountain Elk Foundation of Canada, The Wildlife Society – Lethbridge Community College Chapter, Willow Valley Trophy Club

Elk Habitat Planning Tool

In collaboration with the University of Alberta and ASRD, ACA facilitated the development of a geographic information system (GIS) habitat-disturbance planning tool that incorporated information from a five-year wolf and elk radio telemetry study in the foothills of Alberta. The specific objectives of this project were to: (1) develop a user-friendly GIS-based Elk Tool that can be used to evaluate the influence of proposed landscape treatments on elk occupancy and survival, (2) test the Elk Tool by predicting the effect of prescribed burn treatments on elk habitat in the R11 Forest Management Unit (FMU), (3) evaluate whether the models made by the Elk Tool could be extrapolated to geographic areas outside of the original test area, but still within the Foothills Natural Region, and (4) evaluate the efficacy of using remote trail cameras for detecting elk occupancy based on the Elk Tool predictions.

Partnerships

Alberta Outfitters Association, Alberta Professional Outfitters Society, Alberta Sustainable Resource Development, Foothills Research Institute (formally Foothills Model Forest) Grizzly Bear Project, National Science Foundation (USA), National Science and Engineering Research Council of Canada, Rocky Mountain Elk Foundation Canada, Shell Canada Limited, Sundre Forest Products, Talisman Energy, University of Alberta (Central East Slopes Wolf and Elk Study), Weyerhaeuser

Habitat Selection by Pronghorn in Alberta

The pronghorn thrives in large tracts of open grassland and is considered to be the most specialized large mammal that currently roams free across the prairies of North America. Grasslands in North America have been highly modified through the long-term expansion of agriculture and, more recently, the extraction of oil and gas resources. The cumulative influence of these changes on pronghorn is unknown, but perhaps most urgently requires investigation in Alberta where the species is at the northern extreme of its range. To better understand the relationship between pronghorn and its environment, we examined the species' use of habitat at two spatial scales during the winter and fawning periods. We identified three groups of pronghorn based on habitat composition of the fawning ranges, specifically those that dwell predominantly in 1) native grass prairie, 2) agricultural land, and 3) a mixture of native grass and agricultural land. This result was somewhat unexpected as we anticipated a tendency toward more exclusive use of native grasslands. Our next phase of analysis will be to determine if individuals from the groupings select these habitat features in greater proportion to their availability.

As part of ACA's commitment to pronghorn conservation and management, we co-hosted the 23rd Biennial Pronghorn Workshop in Canmore, Alberta, in partnership with Alberta Fish & Wildlife Division and the University of Calgary. The event was well attended from representatives from across North America.

Partnerships

Alberta Fish & Game Association – Zone 1, Alberta Sustainable Resource Development, Fish & Wildlife Division, Alberta Tourism, Parks and Recreation, Alberta Professional Outfitters Association (Legacy Fund and Wildlife Management Fund), Alberta Antelope Guides, Canadian Forces Base Suffield, Foundation for North American Wild Sheep – Eastern Chapter, Safari Club International, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), Safari Club International – Alberta Chapter, University of Calgary

Hay-Zama Wetland Monitoring

The Hay-Zama Wetland Monitoring Program was developed in response to concerns about the potential impact of oil and gas activities within the Hay-Zama Lakes wetland complex on waterfowl. As a condition of operation within the complex, Energy Resources Conservation Board requires oil and gas companies to monitor staging waterfowl and suspend production of a well if waterfowl numbers exceed the level of 600 individuals within 30 m. To monitor waterfowl numbers, we flew weekly aerial surveys during spring and fall migration periods over all producing oil and gas wells within the complex. Weekly surveys also included an established route over the entire complex to estimate the aggregate number of staging waterfowl, which we used to assess when the bulk of migration had occurred. We observed peak numbers during the first week of May and the third week of September. Waterfowl concentrations did not exceed threshold levels at any well sites during the 2008 migration periods. We also flew a single aerial survey for bald eagle nests within the complex and observed five active nests.

Partnerships

Advantage Oil & Gas,
Hay-Zama Committee,
Pengrowth Corporation

2008 Loggerhead Shrike Survey in Alberta

The Alberta population of loggerhead shrikes is listed as *Special Concern* by the Alberta government and as *Threatened* by the Committee on the Status of Endangered Wildlife in Canada. These designations are based largely on the belief that loggerhead shrike populations in North America declined by about 10% a year between 1950 and 1990.

Every five years since 1987, a roadside survey of loggerhead shrikes is completed across the Canadian Prairies. The federal Prairie Loggerhead Shrike Recovery Team endorses these surveys as an efficient means of monitoring population trends and distribution of this low-density species across western Canada.

Alberta Conservation Association and ASRD conducted roadside surveys along 31 established routes between mid-June and mid-July. Observers recorded the presence of shrikes along the route, and each occupied site was assumed to represent a pair if they were > 300 m from another known pair and were in suitable nesting habitat. Observers also recorded other information, such as distance from the road to the shrike when first observed, general habitat description, and percentage of grass type.

A total of 19 observers spent 174 hours surveying 31 shrike routes between June 17 and July 14, 2008. The total road distance surveyed was 7,869 km and represented approximately 10.1% of available roads in the provincial study area.

Observers encountered 151 shrikes (97 single birds, 27 pairs) at 121 unique sites, for a total of 1.54 indicated pairs (IP)/100 km of route. Comparing these counts with previous surveys suggests a 15% decrease in pairs of shrikes per 100 km compared to 2003, and a 22% decrease compared to 1998.

Partnerships

Alberta Sustainable Resource Development, Fish & Wildlife Division, TD Friends of the Environment Foundation

Moose Aerial Survey Continual Improvement

Current approaches for surveying moose in Alberta are not effective in areas where forest canopy cover is high or where moose densities are low. Helicopter-based distance sampling surveys may be a cost-effective approach to improve moose population estimates in these areas. However, sightability of moose on the transect line may be less than 100%, which violates a key assumption of distance sampling. In 2008/2009, ACA collaborated with the University of Montana and ASRD to conduct sightability surveys with radio-collared moose to determine the proportion that are successfully observed during distance sampling surveys. Survey trials indicated that approximately 50% of moose were not detected by observers in areas with dense forest cover.

Partnerships

University of Montana, Alberta Sustainable Resource Development

MULTISAR

MULTISAR's habitat conservation strategies actively engage landholders, government organizations and conservation groups in developing a plan to conserve and enhance wildlife habitat on both private and public lands. This program takes a multi-species stewardship approach that focuses on species at risk habitat that in turn benefits a variety of wildlife.

Wildlife and range surveys followed protocols outlined by ASRD, while riparian surveys were completed by the Cows and Fish Program. Wildlife inventories resulted in 4,720 entries into the provincial Fish and Wildlife Management Information System database in 2008. Some key sightings included burrowing owls, swift fox, ferruginous hawks, short-horned lizards and greater sage grouse. We completed four habitat conservation strategies on 88,450 acres after we completed detailed baseline inventories of wildlife, range and riparian habitat. We also signed three habitat enhancement agreements allowing for the creation of a riparian pasture, restoration of 140 acres of native grasses, and management of 90 acres of downy brome to be reclaimed to native grasses. Through open communication, MULTISAR will continue to work towards building long-term relationships with landholders, government, non-government organizations and industry in order to implement habitat conservation strategies that benefit both wildlife and landholders.

Partnerships

Alberta Innovation and Science Program, Alberta Sustainable Resource Development, Public Lands Division and Fish & Wildlife Division, Alberta Tourism, Parks and Recreation, Canadian Natural Resources Limited, Government of Canada Habitat Stewardship Program for Species at Risk, Landholders, Nature Conservancy of Canada

Petro-Canada Sustainable Grasslands Program

In partnership with ACA and the University of Calgary, Petro-Canada indicated an interest in supporting the development of a conservation program focusing on innovations in sustainable land use management in Alberta's Grassland Natural Region. The program is based on the concepts of ecosystem restoration and management, including biodiversity conservation, social and economic missions, and associated innovations in mitigation and post-operational reclamation practices. Three projects are currently being delivered in the dry mixed grass natural subregion by graduate students at the University of Calgary – one on sage grouse, one on silver sagebrush reclamation and one on pronghorn antelope. ACA is delivering a fourth project looking at tree and shrub encroachment in the foothills fescue natural subregion. We identified three target areas (Bob Creek, Porcupine Hills and Carbondale) and we initiated air photo analysis and collection of historic photos for our three focal areas, with completion slated for 2009 – 2010.

Partnerships

Petro-Canada, University of Calgary, Alberta Sustainable Resource Development, Public Lands Division

Piping Plover Recovery

The piping plover is a bluebird-sized shorebird listed as *Endangered* under Alberta's *Wildlife Act* and under Canada's *Species at Risk Act*. They rely heavily on gravel strewn beaches for nesting and rearing broods. Nest predation and habitat degradation have been identified as limiting factors for this species. Consequently, we apply predator exclosures to enhance their reproductive success and complete habitat enhancement activities to mitigate threats to breeding habitat. We also conduct annual surveys on core breeding lakes to monitor population numbers and movement, and to complement the international census conducted every five years across North America.

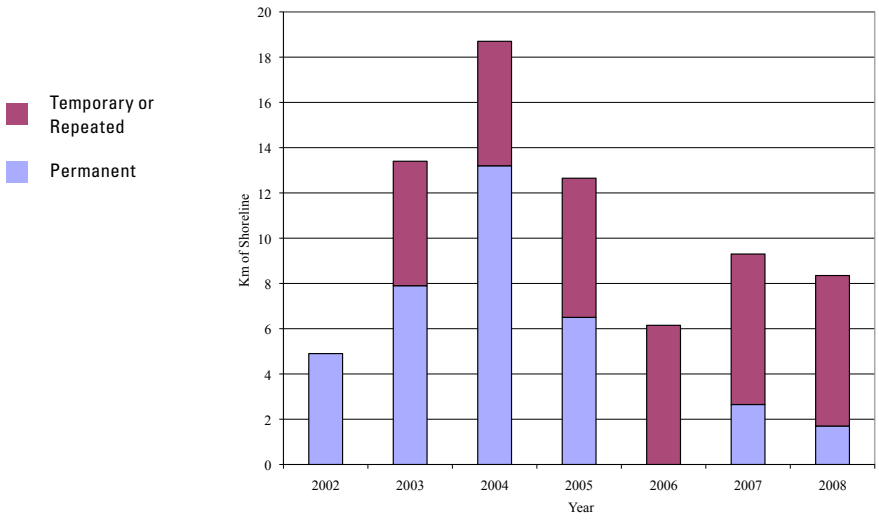
We carried out population inventories on 25 water bodies by walking along beaches between the water's edge and the inshore vegetation line. We sighted 295 adults on 22 lakes and located 123 nests, of which 116 had exclosures applied around them. Overall nest success was 75.6% with an estimated 1.07 chicks per pair fledged. We banded 20 young plovers and re-sighted 79 banded in previous years.

We surveyed 25 lakes for habitat damage and prioritized enhancement needs. We constructed four fences to protect shoreline habitat from cattle, increasing this effort to 43 km of protected shoreline since 2002. We also conducted habitat assessments at 15 sites on six lakes that we have previously protected in order to monitor changes in habitat features over time.

Our work is conducted with the support of the Alberta Piping Plover Recovery Team, our funding partners and the many landowners throughout east-central and southern Alberta.

Partnerships

Alberta Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Cooperating landowners, Ducks Unlimited Canada, Government of Canada – Department of National Defence, Government of Canada Habitat Stewardship Program for Species at Risk, TD Friends of the Environment Foundation, World Wildlife Fund Canada



Pronghorn Antelope Aerial Survey Continual Improvement

In Alberta, accurate pronghorn antelope inventory methods are required to balance recreational hunting opportunities with losses due to severe winters. Traditionally, pronghorn populations have been monitored with aerial surveys across one-mile strip transects. Recent work in the United States has indicated that these surveys may underestimate pronghorn density. In July 2008, ACA collaborated with ASRD to test helicopter-based distance sampling to enumerate pronghorn densities. This work indicated that current methods may underestimate pronghorn densities by over 20%, and that distance sampling surveys can be implemented for little additional cost over the current survey approach.

Partnerships

Alberta Sustainable Resource Development

Sharp-tailed Grouse Lek and Habitat Inventory

Understanding the interaction between sharp-tailed grouse and their human-modified prairie habitat is essential in building towards the goal of preventing population declines like those that have been observed for other prairie grouse in Alberta (i.e., sage grouse). We continued evaluating a rigourous method to survey for sharp-tailed grouse leks over broad spatial extents in east-central Alberta. We developed a model to predict where leks would occur on the landscape and used the locations of detected leks to estimate their density across the region (26,000 km^2). We surveyed roughly 6% of the region, successfully locating 53 leks with a greater than expected rate of detection in the proportion of habitat we considered high quality relative to other areas. We used a modified point-count distance function design to estimate lek density for the study area at 0.026 leks/km^2 (95% CI = 0.016 – 0.043 leks/km^2), with higher densities estimated in areas with higher expected lek occurrences.

Partnerships

Alberta Sustainable Resource Development,
TD Friends of the Environment Foundation

Southwest Montane Elk Sightability Project: Improving Winter Range Counts and Observed Sex Ratios

In Alberta, elk are highly valued as an important component of large mammal predator-prey systems, as a recreational resource, and as an indicator species for assessing the impacts of industrial activity on habitat utilization. In some areas, elk are a major source of conflict with landowners as they compete with domestic stock for forage. Because of the diversity of perspectives surrounding elk, accurate population estimates are important for informing management decisions that attempt to balance conflicting issues.

Elk aerial surveys in southwestern Alberta are currently conducted as total trend counts during winter when elk are congregated and when snow cover provides good sightability. While these surveys provide a useful measure of relative abundance through time, they are a minimum count and do not allow estimates of the proportion of the population that is missed. Mature bull elk (3 point+) typically travel in smaller groups and may exhibit different habitat use from cow groups. It is likely that estimates of bull numbers from trend surveys are biased low due to differential sightability between the two sexes.

Elk survey data could be improved with the development of a method that corrects winter range counts for sightability or identifies new survey areas that would improve the accuracy of observed bull:cow ratios. Using elk GPS collar data from the Southwest Montane Elk Study, it may be possible to identify winter ranges used by mature bull elk that are not currently surveyed and, if necessary, develop a site-specific model to predict the proportion of both bull and cow elk that are not observed. In fiscal year 2008/2009, we used previously collected GPS collar location data from both mature bull and cow elk to examine patterns of spatial overlap between the two sexes during the period when aerial surveys would be conducted (January – March). Mature bull and cow elk showed different patterns of space use throughout the winter, suggesting that current surveys may underestimate bull:cow ratios if they are focused on large elk congregations.

Partnerships

The Southwest Montane Elk Steering Committee was formed in 2005 and consists of the following collaborative partners and funding sources: Alberta Conservation Association, Alberta Ingenuity Fund, Alberta Sport, Recreation, Parks & Wildlife Foundation, Alberta Sustainable Resource Development, Boone and Crockett Club, Canadian Wildlife Federation, Devon Energy Corporation, Natural Sciences and Engineering Research Council of Canada (NSERC), Oregon State University, Parks Canada, Safari Club International, Shell Canada Ltd., Southwest Alberta Sustainable Community Initiative, Spray Lakes Sawmills, University of Alberta, University of Calgary, World Wildlife Fund

Ungulate Winter Range Restoration

Although wildfire suppression was initiated with reasonable intentions by resource managers, conservationists and landowners of the past, our understanding of forest ecology today indicates that wildfire plays an important role in the sustainability of natural forests. Prescribed burning and mechanical clearing provide methods for restoring ecosystem condition in areas affected by wildfire suppression. ACA works with ASRD and other conservation groups to plan such treatments as part of our Ungulate Winter Range Restoration (UWRR) program. In spring 2008, we provided logistical support to ASRD during the implementation of two prescribed burn plans in the Clearwater River subbasin (05DB; ~70 ha) and one in the Peace River subbasin (07HC; ~380 ha). While ASRD is solely responsible for the burning, our logistical support included the deployment and monitoring of portable weather stations, and human resources to assist in fireguard planning and construction, and burn monitoring. To guide how the UWRR program will operate in specific areas in the future, we developed social, economic and ecological objectives at the subbasin level for two priority watersheds in the East Slopes region. In support of these objectives, we continued the collection of baseline ecological information within proposed treatment areas in the Cline River subbasin (05DA) and Peace River subbasin (07HC) as part of an adaptive management monitoring program for evaluating UWRR program objectives.

Partnerships

Alberta Sustainable Resource Development, Compton Petroleum Corporation, Minister's Special License Fund, Tay River Environmental Enhancement Fund (Shell Canada Ltd.)

Upland Habitat Enhancement Project (Pothole Creek)

Upland birds are highly valued by the public, with pheasants, sharp-tailed grouse and Hungarian partridge tightly woven into the fabric of hunting tradition in Alberta. These species rely on upland habitat for the resources important for rearing broods and surviving harsh Alberta winters. While early agricultural expansion may have provided additional resources for some species (forage), the net loss of habitat has decreased the area suitable for hiding a nest or rearing a brood. In spite of these changes, pheasants and Hungarian partridge appear capable of adapting to cultivated landscapes as long as key habitat components are in place. The focus of this long-term initiative is to identify areas in southern Alberta where we can enhance and re-establish remnant areas suitable for nests, brood rearing, travel corridors and winter cover in juxtaposition with one another.

We worked with private landowners, counties, and other agents of land tenure to enhance upland habitat. We also partnered with Pheasants Forever to meet the common objectives of both organizations.

We undertook an enhancement project on 15 acres of land along Pothole Creek. An initial 5.5 acres was disked and reseeded to forbs and legumes to enhance brood cover, while an additional 3.5 acres was mowed in preparation for reseeding for nesting cover. We also developed an educational brochure to distribute to landowners and the general public that describes the habitat needs of a pheasant throughout the year.

Partnerships

Pheasants Forever – Calgary Chapter

Upper North Saskatchewan Fire and Wildlife Interpretive Trail

Prescribed burn programs in the East Slopes of Alberta provided an excellent opportunity to engage the public about the important role that fire plays in maintaining and enhancing forested ecosystems. In 2008, ACA began a new initiative to determine the feasibility of developing an outreach program about fire and wildlife ecology. Our preliminary goals for the program were to develop an interpretive trail in a recent prescribed burn area that would give visitors an up-close glimpse of the forest after fire and enhance their understanding about natural disturbance history. An interpretive trail of this nature would be a unique and timely endeavour in Alberta. Support for this fire education and outreach initiative is growing from a variety of partners and stakeholder groups.

Partnerships

Alberta Sustainable Resource Development, Alberta Sport, Recreation, Parks & Wildlife Foundation, Mountain Equipment Co-op, TD Friends of the Environment Foundation (Red Deer Chapter)

Waterfowl Crop Damage Prevention Program

The Waterfowl Crop Damage Prevention Program (WCDPP) assists agricultural producers in reducing damage to crops caused by waterfowl during fall migration and is delivered by ACA in collaboration with ASRD. We provided waterfowl scaring equipment and advice free-of-charge to producers. We also maintained a web page that provides scaring advice and displays areas of potential waterfowl concentrations that hunters may use to plan their activities. We provided 75 landowners with 144 scare cannons in 2008. Thirty-five per cent of these landowners allowed us to share their contact information with hunters seeking places to hunt. We updated our website weekly with areas of scare cannon use through the fall.

Partnerships

Alberta Sustainable Resource Development

Waterfowl Nesting Habitat Enhancement

In 2008/2009, we combined two waterfowl population enhancement projects into the Waterfowl Nesting Habitat Enhancement project. The intent of this project is to enhance nest success of waterfowl by providing artificial nesting structures in locations where little natural nesting habitat occurs. For mallards, we installed nesting tunnels in wetlands with poor natural ground-nesting habitat. Bufflehead and common goldeneye both naturally nest in tree cavities, although in some areas these natural cavities are not yet abundant in available aspen stands. In these areas, we installed cavity nest boxes to provide secure nesting sites for these ducks. We installed approximately 140 mallard nest tunnels and 1,200 cavity nest boxes in select areas of Alberta, in partnership with Delta Waterfowl and Ducks Unlimited Canada. Annual monitoring and maintenance of nest structures is carried out by our staff and many volunteers.

Preliminary data suggest that waterfowl used 73% of nest tunnels in the 2008 breeding season and that all of these were successful nests. Ninety-two cavity nest boxes were maintained and 74 (80%) had been utilized by ducks, kestrels or owls.

Partnerships

Alberta Fish & Game Association chapters, Alberta North American Waterfowl Management Plan, Delta Waterfowl, Ducks Unlimited Canada, Fort Saskatchewan Fish & Game Club, Wheatland Conservation and Wildlife Association, Windsor Plywood

Fisheries Program

The Fisheries program supports and delivers conservation activities that maintain and improve the diversity and abundance of fish populations, communities, and the biological processes and habitats that support them. It is designed to support fishing as a recreational use by Alberta anglers, and to implement fish conservation efforts in an effective, credible and collaborative manner that will sustain or improve Alberta's fish populations. Program priorities are developed and reviewed annually in collaboration with ASRD and other stakeholders.

Program activities are organized into five thematic areas:

1. Aeration;
2. Enhanced Fish Stocking (EFS);
3. Lotic (running water bodies, e.g., rivers and streams);
4. Lentic (standing water bodies, e.g., lakes);
5. Riparian conservation.

Aeration projects are designed to help develop and maintain lake habitats that promote year-round survival of sport fish, thereby creating or enhancing recreational angling opportunities that would not otherwise exist. Similarly, through stocking of 20-cm rainbow trout, the EFS program provides angling opportunities in areas of the province where such fishing opportunities would not otherwise exist; all stocked water bodies experience frequent fish kills during the winter.

Activities under the Lotic and Lentic themes are complementary. They include inventories and monitoring of priority fish species to provide information on species composition, population structure, abundance, distribution, harvest and associated fisheries demographics in priority waters.

Riparian conservation uses beneficial management tools, such as stream-bank fencing, bank stabilization, provision of off-channel watering for cattle, education and outreach, to enhance, maintain and protect riparian habitats and ecosystem health through collaborations with private landowners, watershed groups, government, industry and other stakeholders.

In 2008/2009, we and our partners worked together on a variety of projects to help retain the diversity and abundance of fish populations and communities, and the biological communities and habitats that support them.

A Preliminary Investigation of Crossing Structures in the Driftwood River Drainage Basin, Slave Lake, Alberta

Alberta Conservation Association partnered with stakeholders to inventory a sub-sample of stream crossings in the Driftwood River drainage basin northeast of the Slave Lake townsite. We assessed 29 of approximately 129 stream crossing sites in the study area. All sites were culvert crossings. Forty-one per cent of culvert crossings had an outfall drop height that may impede fish movement (i.e., drop height distance from culvert to stream surface was > 10 cm). Furthermore, 24% of crossings had both an outfall drop height > 10 cm and had > 10% of the culvert blocked by debris. In total, 18 of the 29 crossings (62%) could benefit from remedial measures such as sediment control or replacement of the culvert. Importantly, we identified two sites as being fish-bearing; both crossings had an outfall drop height that may impede fish movements (i.e., height > 10 cm). Our work confirmed that fish habitat in the Driftwood River drainage basin may be fragmented by problem culverts. We recommend a complete inventory of crossings in this basin, in combination with fish sampling, to assist resource managers in the identification of threats to local fish populations.

Partnerships

Alberta Plywood Ltd./West Fraser Timber Co. Ltd., Canadian Natural Resources Ltd., Canetic Trust, Husky Energy, Tolko Industries Ltd.

Abundance and Distribution of Arctic Grayling in the Upper Little Smoky River

Arctic grayling in Alberta is listed as *Sensitive* and populations near their southern extent, like the Little Smoky River, have experienced declines in abundance and distribution. In the summer of 2008, we used sample angling to assess the abundance of Arctic grayling in the upper 235 km of the Little Smoky River. We angled 27 stream reaches and captured a total of 1,714 individual Arctic grayling. Less than 5% of the total catch was fish of legal size (350 mm total length). Fish 150 – 249 mm fork length (FL) were twice as abundant as fish ≥ 250 mm FL (estimates of 17,294 and 9,326 small and large fish, respectively). Estimated abundance of legal-sized fish was only 3% of the total estimated abundance. Spatially, abundance of Arctic grayling (both large and small) peaked around 135 km upstream of the bottom limit of the study area. Upstream of this point, abundance of small fish dropped, while abundance of large fish remained constant. Our findings will aid resource managers by providing current abundance and distribution estimates of Arctic grayling in the Little Smoky River.

Partnerships

Devon Energy Canada, Forest Resource Improvement Association of Alberta

Alberta Biodiversity Monitoring Institute (ABMI) River and Lake Data Collection Program

As a partnership between the ACA and the Alberta Biodiversity Monitoring Institute (ABMI), ACA Fisheries program manages and delivers the rivers and lakes sampling component of the ABMI aquatic program. Data collected as part of this program will be used to describe the state of Alberta's biodiversity and will facilitate the responsible management of our resources. In 2008, we sampled eight lakes and eight rivers distributed across Alberta and collected data on fish, water quality, aquatic invertebrates and a variety of limnological and aquatic habitat variables. All data and detailed results, as well as a more detailed description of the program, are available on the ABMI website at www.abmi.ca.

Partnerships

This program was completely funded by the Alberta Biodiversity Monitoring Institute.

Belly River Fish Inventory

The Belly River is a major aquatic system in southwestern Alberta, flowing 181 km from the Canada-US border to its confluence with the Oldman River near Lethbridge. High water demand for both domestic and irrigation purposes seriously limits the river's capacity to support cold-water fish species in all but the head-water section. In particular, lack of water in lower sections at critical times limits the capacity of these sections to sustain fish populations. The goal of the study was to assess the capacity of the lower Belly River to support a cold-water fishery by documenting species composition, distribution and abundance of fish within a 71-km reach from the confluence of the Waterton River to the confluence of the Oldman River.

Partnerships

Alberta Environment, Alberta Sustainable Resource Development, Department of Fisheries and Oceans

Cutthroat Trout Population Assessment in the Castle Drainage

Westslope cutthroat trout populations in Alberta have been designated as *Threatened* by the Committee on the Status of Endangered Wildlife in Canada because populations have become severely isolated and depressed. Populations currently occupy no more than 20% of their historical distribution in Alberta. To generate data toward formulating conservation and management strategies, we initiated a drainage-scale population abundance assessment of the species in the Castle River. In addition, we conducted a qualitative assessment of potential hybridization between westslope cutthroat and rainbow trout using external morphological characteristics. In 2008, we electrofished 50 stream reaches within the drainage; an additional 42 sites will be surveyed in 2009. We captured a total of 1,699 trout, consisting of 63% pure strain cutthroat trout, 13% pure strain rainbow trout, and 24% suspected hybrids.

The proportion of adults (> 149 mm fork length) in the pure strain cutthroat trout catch was 34%. Harvest-sized individuals (> 300 mm total length) represented 7% (n = 75) of the cutthroat trout catch. Cutthroat trout were more prevalent in upper sections of the drainage than in lower sections. In contrast, rainbow trout tended to be more prevalent in the lower reaches than upper sections. Suspected hybrids occurred in all reaches except for the headwaters. These trends suggest widespread hybridization of cutthroat and rainbow trout in the Castle River drainage. More detailed genetic analyses will be conducted during subsequent surveys to more accurately identify hybrids, as well as quantify the extent of hybridization.

Partnerships

Devon Canada Corporation

Enhanced Fish Stocking

The Enhanced Fish Stocking program (EFSP) provides anglers with increased opportunities to catch and harvest 20-cm rainbow trout in parts of Alberta where angling opportunities are limited or do not exist. Recipient water bodies were prone to winterkill and as a result required an annual rainbow trout stocking to maintain angling opportunities. All rainbow trout stockings were delivered through contracts with private growers. A total of 60 water bodies were stocked with 131,100 rainbow trout during 86 stocking events in 2008. Approximately 60% of the rainbow trout stockings were completed during the first stocking prior to the May long weekend. A total of 750 rainbow trout stockings have occurred within the EFSP since 1998 when ACA assumed responsibility for the program. Approximately 1.45 million rainbow trout have been stocked during this 11-year period.

Partnerships

Alberta Sustainable Resource Development

Gull Lake Winter Angler Survey, 2009

For several decades, Gull Lake has supported provincially-important winter fisheries for lake whitefish and northern pike. However, the popularity of these fisheries has resulted in fishing pressure on the lake being more than twice as high as that of nearby lakes. With the high angling pressure, ASRD expressed concern regarding the sustainability of the sport fishery on the lake. To address this concern, we conducted a winter angler survey (creel) from January to March 2009 to generate data on the status of lake whitefish and northern pike fisheries that can be used in evaluating the efficacy of existing management regulations at ensuring sustainability of these fisheries. Detailed data analysis is currently underway; therefore only a summary of field observations is included here. Overall, anglers captured four species (lake whitefish, northern pike, yellow perch and burbot) during the winter creel period. Lake whitefish and yellow perch dominated the catch, constituting 44% and 41% of the total catch (n = 2,361), respectively. Northern pike and burbot were poorly represented, constituting 8% and 6% of the total catch, respectively.

Partnerships

Alberta Sustainable Resource Development

Lake Aeration

In an effort to promote year-round survival of sport fish in stocked lakes/ponds, ACA aerated 17 shallow and productive water bodies prone to winterkill and summerkill. These water bodies naturally have high vegetative productivity which results in organic-rich sediments with elevated biological oxygen demand. We utilized lake aeration to increase dissolved oxygen concentrations in an effort to enhance and maintain lake habitats, thereby creating and improving recreational angling opportunities. We used mechanical surface aeration for winter aeration and a point-release system for fall destratification and summer circulation to maintain hypolimnetic oxygen concentrations at 3.0 mg/L or higher. Surface area of aerated water bodies ranged from 0.8 to 139.9 ha and the number of aerators per water body varied from 1 to 10 units. All winter-aerated water bodies successfully overwintered trout with no observed or reported winterkill. During the 2008/2009 period, dissolved oxygen concentrations remained above 3.0 mg/L in all water bodies, thereby ensuring year-round survival of trout in all ACA aerated lakes; there were no reported winterkills or summerkills.

Partnerships

Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish & Wildlife Division, Alberta Tourism, Parks and Recreation, Canadian Forest Products Ltd., Conoco Philips, County of Stettler, Daishowa Marubeni International Ltd., Moonshine Lake Provincial Park, Northern Sunrise County, TAQA North (formerly PrimeWest Energy), Shell Canada Tay River Environmental Enhancement Fund (TREE Fund), Town of Fairview, Volunteer Stewards, Weyerhaeuser, TransCanada

Lentic Stock Assessment 2008/2009

As part of the Alberta Walleye Management and Recovery Plan (AWMRP), we conducted netting surveys at Elinor, Haig, Ironwood and Wadlin lakes to collect information on walleye population structure and growth. All lakes displayed moderate densities of walleye with catch rates (fish/100 m^2/24 h) of 10.4, 10.5, 18.7 and 21.8 for Ironwood, Wadlin, Elinor and Haig lakes, respectively. Overall, size of walleye in the four lakes ranged from 80 to 675 mm fork length (FL), but there were very few fish > 500 mm FL (the standard size used in the AWMRP) in Elinor and Ironwood lakes. Walleye in all four lakes exhibited wide age-class distributions (> 8 year-classes). Mean (± standard error) ages were 6.5 ± 0.2 y (n = 217) for Elinor, 6.7 ± 0.4 y (n = 126) for Ironwood, 8.1 ± 0.3 y (n = 188) for Haig and 9.5 ± 0.5 y (n = 194) for Wadlin. However, older fish (> 11 y) were poorly represented in Elinor Lake. Also, the Wadlin Lake population was represented primarily by six year-classes only; ages 3 – 7, 9 – 11, and 13 – 16 were poorly represented. Thus, under the AWMRP, age-class distributions were considered stable (6 – 9 age classes present) for Elinor, Ironwood and Haig lake populations, while the Wadlin Lake population was characterized as unstable. All populations displayed slow growth rates and early-maturing fish. Estimates indicated that fish from Haig and Wadlin lakes attained the 500-mm FL average size by age 10, while those from Elinor and Ironwood lakes were unlikely to reach this size (500 mm). Information generated in our study will help ASRD to determine the current status of these walleye fisheries and aid in future management decisions.

Partnerships

Alberta Sustainable Resource Development, Alberta Tourism, Parks and Recreation

North Saskatchewan and Ram Rivers Bull Trout Spawning Stock Assessment

Anglers report catching large, presumably migratory, bull trout in Fall Creek, a tributary to the Ram River, but little else is known about the population. The Fall Creek drainage receives substantial recreational and industrial use. These activities have the potential to negatively impact bull trout populations; spawning areas are particularly susceptible. In 2007, we documented the use of Fall Creek by migratory bull trout for spawning. Our 2008 activities focused on identifying the stream of origin of these fish and the timing and magnitude of the spawning run using a combination of genetic and telemetry techniques. Electrofishing, trapping and redd surveys allowed us to assess the stream's use by bull trout. In 2008, we captured 55 and 299 bull trout using angling and electrofishing gear, respectively. The size distribution of bull trout in the electrofishing catch (41 – 680 mm fork length) suggests Fall Creek is an important stream for spawning and rearing bull trout. We estimated 9,744 juvenile fish (90% confidence limits = 1,494 – 23,149) inhabited the 7.5 km of stream below the falls. We trapped 75 fish, 27 of which we implanted with radio tags. Spawning activity in Fall Creek was concentrated in the upper reaches of the stream, peaked around the third week in September, and was complete by the first week in October. We identified 50 definite bull trout redds during the 2008 survey. Tagged fish migrated up to 71.8 km to overwintering locations in the Ram, North Saskatchewan and Clearwater rivers. The information we collect over the course of our study (which concludes in 2009) will be available to public and private sector land use planners, conservation groups and the general public, and is critical for the conservation and management of the species in the North Saskatchewan River watershed.

Partnerships

Alberta Streamwatch Conservation Coalition, Alberta Sustainable Resource Development, Forest Resource Improvement Association of Alberta, Shell Canada Energy, Smoky Trout Farm

Riparian Conservation

The primary goal of ACA's riparian program is to restore (or improve) degraded riparian habitat and protect a network of functioning riparian habitats in problem drainage basins through collaboration with landowners, watershed groups, government and industry. During 2008/2009, we continued leading riparian conservation activities in Bearberry Creek, Battle River and Beaverlodge River. We also provided technical advice and support for conservation work being led by other agencies in Beaver Creek and Lesser Slave Lake drainage basin. We delivered six new riparian restoration projects with landowner agreements (e.g., livestock exclusion fencing, off-site watering structures, bank stabilization); three at Beaverlodge River, two at Bearberry Creek and one at Battle River. In addition, we planted over 23,708 seedlings at project locations along the Beaverlodge River. In total, we partnered with 28 agencies during 2008/2009. We have remained very active in community outreach and educational activities, particularly in central and southern Alberta. Because of such work completed by ACA and our partners, we anticipate growing interest in riparian conservation projects in 2009/2010. Examples of our most recent conservation successes have been highlighted in local newspapers. As part of an adaptive conservation approach, we monitored riparian areas and aquatic conditions at a subset of project sites. Monitoring efforts included riparian assessments and inventories, low-level aerial videography of shorelines, and backpack electrofishing assessments of fish communities. Monitoring data have been archived for future evaluation of the riparian program. In addition, a standardized approach to monitoring riparian conservation projects across the province is currently in development.

Partnerships

Agriculture and Agri-Food Canada, Alberta Agriculture Food and Rural Development, Alberta Environment, Alberta Environmentally Sustainable Agriculture, Alberta Riparian Habitat Management Society (Cows and Fish), Alberta Stewardship Network, Alberta Sustainable Resource Development, Beaver Creek Watershed Group, Canfor, ConocoPhillips, County of Grande Prairie No. 1, Department of Fisheries and Oceans, Grey Wooded Forage Association, High Prairie Riparian Action Team, Lacombe County, Mountain View County, Olds College, Pacific Regeneration Technologies Inc., Ponoka County, Prairie Farm Rehabilitation Administration, Red Deer County, Red Deer River Watershed Alliance, Rocky Riparian Group, Southwestern Alberta Conservation Partnership, Stantec, Todd Creek Watershed Group, Trout Unlimited Canada, Woodmere Nurseries

Road Developments and Habitat Fragmentation of Sport Fish and Non-Sport Fish Species in the Athabasca River Basin

Recent reports on the status of Arctic grayling in Alberta suggest that populations have declined by as much as 50 to 90%. Habitat fragmentation caused by stream crossings and the cumulative effects of roads may be contributing to declines. Our primary objective was to examine the effects of stream crossings on sport fish, including Arctic grayling, and non-sport fish by comparing abundance above and below crossings on wadeable stream sections in the Freeman River and Sakwatamau River watersheds. Based on preliminary results, 46% of culverts in the Freeman River watershed (n = 33 total) and 69% of those surveyed in the Sakwatamau River watershed (n = 118 total) were hanging (i.e. having a physical drop from the culvert outlet to the stream below). These crossing structures have the potential to impede upstream fish passage. Based on backpack electrofishing, all crossing types appeared to affect fish distributions, but the effect on fish abundance was dependent on fish species and crossing type (i.e., culvert versus bridge). Analyses are ongoing and additional field sampling combined with GIS work being planned for 2009 –2010 will clarify trends. Results from this study will draw attention to the importance of appropriate mitigation measures that should be used by industry and regulated by governmental legislation.

Partnerships

Alberta Sustainable Resource Development, University of Alberta

Summer Sport Fishery Assessment: Buck, Moose, Pine and Pinehurst Lakes, Alberta, 2008

High fishing pressure, coupled with slow-growing and late-maturing populations, have resulted in the over-harvest of many of Alberta's fish populations including walleye and northern pike. To aid in the recovery of these two species, ASRD developed management strategies in 1995 and 1999 for walleye and northern pike, respectively. We conducted creel surveys on four lakes (Buck, Moose, Pine and Pinehurst) during the summer of 2008 to evaluate the efficacy of these management plans. Estimated total angling hours were 17,276 for Pine, 33,558 for Moose, 49,997 for Pinehurst, and 53,781 for Buck lakes. Fishing pressure was highest at Pine Lake (42.7 h/ha) and lowest at Moose Lake (7.4 h/ha), with intermediate values at Buck (21.3 h/ha) and Pinehurst (12.6 h/ha) lakes. Catch rate for walleye was 0.2 fish/h for Moose Lake, 0.7 fish/h for Buck Lake and 0.8 fish/h for both Pine and Pinehurst lakes. For northern pike, catch rate was 0.2 fish/h at Buck and Pine lakes, 0.3 fish/h at Pinehurst Lake, and 0.5 fish/h at Moose Lake. Estimated harvest of walleye was 700 fish at Moose Lake, 4,200 at Buck Lake, and 5,466 at Pinehurst Lake; no estimates are provided for Pine Lake as it is managed with a zero-harvest regulation. Northern pike harvests were 1,070, 1,318, and 1,758 fish for Buck, Pinehurst and Moose lakes, respectively; there was no harvest at Pine Lake (the fishery was regulated with a 63 cm total length minimum size limit). Total yield of walleye was variable among lakes ranging from a low of 0.31 kg/ha in Moose Lake to a high of 2.52 kg/ha in Pinehurst Lake. In contrast to walleye, total yield of northern pike was similar among the study lakes with values ranging from a low of 0.82 kg/ha in Pine Lake to a high of 1.13 kg/ha in Pinehurst Lake.

Partnerships

Alberta Tourism, Parks and Recreation, Alberta Sustainable Resource Development, TD Friends of the Environment Foundation

Trout Stocking Evaluation

Stocking fish to water bodies can serve to maintain, establish or create fisheries and to provide angling opportunities. ACA and ASRD stock over 266 ponds annually. The objective of the Trout Stocking Evaluation project is to develop a tool to assess the associated sport fishery and the rainbow trout populations created through stocking. We evaluated Salter's, Star and Morinville ponds using low effort summer angler surveys, a brief social questionnaire, and a gill netting protocol in the fall. Angling pressure at these stocked ponds averaged 334 angling-hours/ha. This pressure is extremely high when compared to natural sport fisheries. The harvest ranged from 0.03 to 0.09 fish per hour. Generally, anglers were satisfied with their experiences at these ponds. The most frequent suggestions were to improve amenities, stock more and larger trout, or change nothing. The initial results from the gill netting protocol suggest it provides an estimate of abundance and population structure.

Partnerships

Alberta Fish & Game Association, Morinville and Onoway chapters, Alberta Student Temporary Employment Program, Alberta Sustainable Resource Development, TD Friends of the Environment Foundation

Upper Oldman Drainage Adult Bull Trout Population Assessment

Bull trout populations in several East Slope drainages in Alberta are under pressure from habitat loss, migration barriers, over fishing, and competition with non-native fish species. As a result, we initiated a bull trout population assessment to evaluate the adult migratory component of the population in the upper Oldman River drainage. We installed conduit fish traps in Hidden Creek, Livingstone River, Racehorse Creek and Dutch Creek to capture and tag post-spawning migratory bull trout. In addition, we conducted redd surveys to locate critical bull trout spawning areas. Hidden Creek had the highest number of adult migratory bull trout and the highest density of redds of the four streams sampled in the upper Oldman River drainage. Of the 125 adults captured in 2008, 66% were from Hidden Creek, 15% from Livingstone River, 12% from Racehorse Creek, and 7% from Dutch Creek. We observed 108 redds in Hidden Creek compared to 25 and 26 from Livingstone River and Dutch Creek, respectively; we did not observe redds in Racehorse Creek. Throughout the upper Oldman River drainage, we captured and tagged (2007 and 2008) a total of 245 adult bull trout (≥ 300 mm) and at least 176 (72%) of these fish spawned in Hidden Creek. Our recapture results suggest that several bull trout that spawn in Hidden Creek migrate to the Livingstone River, Oldman River or Racehorse Creek to overwinter. Thus, based on the high number of adults and redds, Hidden Creek appears to be a critical bull trout spawning stream in the upper Oldman River drainage.

Partnerships

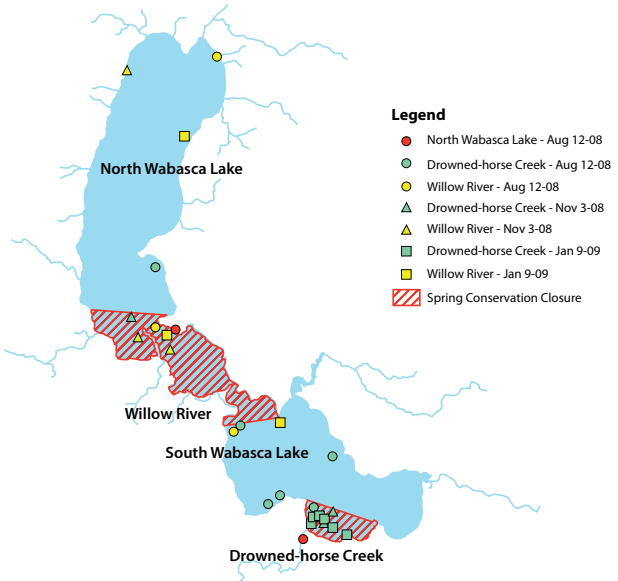
Alberta Sustainable Resource Development, Devon Canada Corporation

Wabasca Lakes Walleye Study

A spring conservation closure (1 April – 1 June) has been established at two inlets, Drowned-horse Creek and Willow River, on North and South Wabasca lakes to protect actively spawning walleye from seasonal harvest. The primary purpose of this study was to assess the effectiveness of these closures by tracking the distribution of mature walleye within the lakes and closure areas before, during and shortly after their spawning season. Our goal for the 2008/2009 season (Year 1 of 3) was to surgically-implant 35 mature walleye (15 from Drowned-horse Creek, 15 from Willow River, and five from North Wabasca Lake) between May and July with radio transmitters and locate these fish during the months of August, November and January to evaluate the effectiveness of radio telemetry in tracking movements of walleye in the Wabasca Lake system. In total, we relocated 20 (57%) of the 35 originally tagged fish, of which 12 fish were tagged in Drowned-horse Creek, six in Willow River, and two in North Wabasca Lake. Fish tagged in both Willow River and Drowned-horse Creek distributed into both North and South Wabasca lakes and fish tagged in North Wabasca were relocated in Drowned-horse Creek. Due to the high proportion of missing fish (43%), we intend to revise our study design, including increasing our sample size by implanting more transmitters during the spring of 2009.

Partnerships

Alberta Sustainable Resource Development



Winagami Lake Walleye Spawning Inventory

Historically, the walleye fishery in Winagami Lake has been maintained through a stocking program. Attempts to enhance natural recruitment through habitat enhancements have had marginal success. However, anecdotal evidence in recent years suggests that walleye make spawning migrations from Winagami Lake through a small channel to the adjacent Lower Heart reservoir (Boone's Slough). However, fluctuating water levels may prohibit movement of fish from the slough back to Winagami Lake. We used pound traps and gill netting to document the existence of spawning migration between Winagami Lake and Boone's Slough. Results from our 2007 and 2008 surveys confirm the existence of spawning migration from Winagami Lake to Boone's Slough based on the presence of ripe walleye in the channel connecting both systems, as well as in Boone's Slough. No walleye were caught in Boone's Slough during the fall of either year, suggesting that water levels may have been high enough to allow fish to return from Boone's Slough into the lake, thereby avoiding being trapped in poor water conditions. Winagami Lake is a stocked lake that until now has never been considered a sustainable fishery. Walleye attempting to spawn in unfavourable habitats may provide an opportunity to encourage successful spawning through habitat enhancement.

Partnerships

Alberta Sustainable Resource Development

Land Management Program

The Land Management program encompasses activities intended to conserve, protect and enhance wildlife and fish habitat, and increase consumptive and non-consumptive recreational opportunities.

The major activities of this program include:

1. Habitat securement;
2. ACA Conservation Site management;
3. Recreational opportunity initiatives.

Habitat securement initiatives secure important wildlife and fish habitat within focal areas across Alberta. Benefits include increased or enhanced recreational opportunities, such as photography, wildlife viewing, hiking, hunting and angling, and long-term protection of key habitats. Securement occurs primarily through direct purchase, land donations, donated conservation easements and habitat lease agreements. The majority of our land purchases occur in partnership with one or more conservation organizations or corporate partners. Alberta Conservation Association, Ducks Unlimited Canada, Alberta Fish & Game Association and Nature Conservancy of Canada are part of a Memorandum of Understanding that confirms our commitment to work together, whenever possible, to secure conservation lands and ensure long-term management of Conservation Sites.

Conservation Site management includes a number of investments on Crown and privately-owned lands that are the responsibility of ACA. Many of these investments are completed in collaboration with ASRD and other conservation partners. Conservation Site management refers to the management and maintenance of: fisheries access sites, Crown-owned Conservation Sites, ACA titled lands, lands with conservation easements, riparian streambank fencing projects and abandoned farmstead programs.

Recreational opportunity initiatives focus on communication tools and activities required to promote and increase public access to wildlife and fish habitat resources where stewardship of conservation-rich habitat is recognized. This includes the communication and delivery of the *Use Respect – Ask First* program aimed at increasing access on privately-owned lands. Other activities associated with this program include: signage on ACA Conservation Sites, updates to the Conservation Site database on our website and the *Discover Alberta's Wild Side—Guide to Outdoor Adventure* that promotes ACA and partner-owned properties that enhances awareness of the tremendous recreational opportunities available across Alberta.

In 2008/2009, we and our partners worked together on a variety of projects to help fulfill our responsibility to effectively manage wildlife and fish habitat resources (on public and private lands) for conservation, protection and enhancement.

Buck for Wildlife Streambank Fence Renegotiation Strategy

The Alberta Government's Buck for Wildlife (BFW) Streambank Fencing Program, maintained by ACA since 1997 was developed to improve riparian conditions on a number of sport fish-bearing streams. In 2008, we initiated the development of the BFW Streambank Fence Renegotiation Strategy to identify a process that will reduce annual maintenance costs, as well as continue to protect riparian habitat and provide angler access at priority streams. We held scoping meetings and developed project objectives, activities and timelines. The project will continue in 2009 with the intent of developing a strategy that identifies the best options to continue to protect riparian habitat and reduce overall maintenance commitments.

Partnerships

Alberta Sustainable Resource Development

Conservation Site Management

Conservation Sites are managed on a provincial scale to promote consistency and efficiency, but is delivered on a regional scale to maximize local knowledge and partnership opportunities. Conservation Site management involves active maintenance and management of conservation assets that have been accumulated through historic projects and new conservation initiatives. We completed inspections on 268 conservation sites, maintenance on approximately 165 sites, and enhancements on five sites. We manage over 208,000 acres of Conservation Sites and over 17,000 acres of habitat from past project agreements.

Partnerships

Alberta Fish & Game Association, Alberta Sport, Recreation, Parks & Wildlife Foundation, Alberta Sustainable Resource Development, Fish & Wildlife Division and Public Lands Division, Clearwater County, County of Barrhead, County of Lamont, County of Lethbridge, County of Newell, County of Two Hills, County of Warner, Ducks Unlimited Canada, Eastern Irrigation District, Nature Conservancy of Canada, North Raven River Working Group, Pheasants Forever, Private Landowners, Shell Albian Sands, Shell Canada, Suncor, Rocky Riparian Group, Total E&P Canada, Tree Canada, Trout Unlimited Canada, Central Chapter

Fisheries Access Site Management

Fisheries Access Site management ensures that sites are available that provide public access to key streams, rivers and lakes throughout Alberta. In 2008/2009, we maintained 30 fisheries access sites across the province and upgraded nine sites with new picnic tables (two sites), garbage cans (two sites), gravel (four sites), gravel walkway (one site), and sanitary facilities (three sites). Overall, partnerships increased from 19 partners in 2007/2008 to 28 partners in 2008/2009.

Partnerships

Alberta Environment, Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish & Wildlife Division and Public Lands Division, Alberta Tourism, Parks and Recreation, Burnstick Lake Campground, Canfor, Caroline Chamber of Commerce, Clearwater County, County of Newell, County of Stettler, County of Warner, Daishowa-Marubeni International Ltd., Devon Canada, Grimshaw Agricultural Society, Lamont Fish & Game, Municipal District of East Peace, Municipal District of Greenview, Municipal District of Rocky View, North Raven River Working Group, Rocky Riparian Group, Town of Fairview, Town of Lamont, TransCanada, Trout Unlimited Canada, Central Chapter, Volunteer Stewards, Weyerhaeuser, Zama Lake Society

Landowner Habitat and Access

In 1986, Alberta Fish & Wildlife Division launched the Landowner Habitat Program (LHP) to curb the destruction of native wildlife habitat. The program was structured to make annual (in some cases, five-year) payments to landowners who agreed to retain wildlife habitat on private land for a minimum of five years. While the LHP provided a very cost-effective tool for preserving wildlife habitat, expiring agreements have not been renewed in recent years.

In 2008/2009, ACA launched our Landowner Habitat and Access Program (LHAP) to provide a cost-effective method to protect habitat. The program is structured to make annual payments to landowners who agree to retain wildlife habitat on private land. As part of the agreement, landowners must agree to provide reasonable public foot access to the general public. In the first year of the program, many landowners were reluctant to guarantee reasonable public foot access; however, four landowners agreed and entered into 10-year LHAP agreements. These agreements protect a total of 1,014 acres for a 10-year period, and provide reasonable access to the general public.

Partnerships

Landowners

Management Plan Development

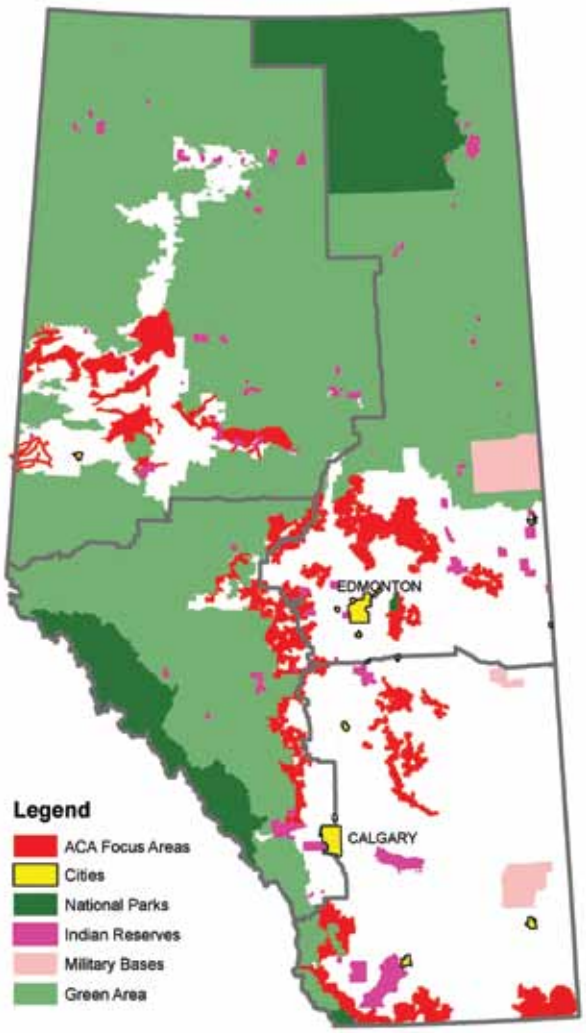
Alberta Conservation Association is dedicated to efficiently managing Conservation Sites that we either hold title to or manage on behalf of the Crown. Development of management plans ensures there are clear objectives and guidelines for these properties that are agreed upon and understood by us and our partners. In 2008/2009, we developed a standardized management plan template with ASRD, Public Lands and Fish & Wildlife divisions, to ensure consistency in individual plan development on Crown-owned properties that we manage. We completed management plans for seven titled properties including East Hays, Flatbush 3, Joussard 2, Karvonen, Linder, North Fawcett 2 and North Fawcett 3. In addition, we worked with partners to develop plans for another 16 sites: Batty Lake, Beaver Lake, Beltz Lake, Blind Canyon, Crow's Nest Lake, Frayne, Lac Delorme, Leavitt, Rice, Sandstone Ranch, Schroeder, Sentinel, South Idlewilde, Spruce Coulee, Stainbrook Springs and Therien. In 2009/2010, we plan to continue to lead the development of management plans for Conservation Sites we manage or own to ensure that effective and mutually-agreed upon practices are administered on these lands.

Partnerships

Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish & Wildlife Division and Public Lands Division, Bow River Irrigation District, County of Newell, Ducks Unlimited Canada, Nature Conservancy of Canada, Partners in Habitat Development, Pheasants Forever, Rocky Mountain Elk Foundation, Sandstone Ranch Grazing Cooperation, Shell Canada Energy, Suncor Energy Foundation, Trout Unlimited Canada

Provincial Habitat Securement

The Habitat Securement Fund allows ACA and our conservation partners to purchase high-quality habitat in identified priority areas. In 2008/2009, we developed a provincially-consistent approach to defining the fund's priority areas, which takes into account recreational opportunity and ecological significance. Securement of these habitats allows for the conservation of diverse wildlife and fish populations. It also ensures or creates recreational opportunities for outdoor enthusiasts. In addition to active securement, we also accept donations of both fee simple titles and conservation easements. ACA and our conservation partners purchased four fee simple titles and accepted seven fee simple land donations for a combined total of 1,857.4 acres in 2008/2009. We also accepted a total of six conservation easements on a total of 711 acres. The entire 2,568.4 acres will be managed in perpetuity to benefit wildlife and fish populations and to provide sustainable recreational opportunities for Albertans.



Partnerships

Alberta Fish & Game Association, Alberta Sport, Recreation, Parks & Wildlife Foundation, Alberta Sustainable Resource Development, Fish & Wildlife Division and Public Lands Division, Battle River Community Foundation, Buffalo Lake Naturalists, Ducks Unlimited Canada, Landowners and Lessees, Nature Conservancy of Canada, Peace Parkland Naturalists, Pheasants Forever Canada, Calgary and Chinook chapters, Private Donors, Rocky Mountain Elk Foundation Canada, Wildlife Habitat Canada

Terrestrial Conservation Offsets

Terrestrial Conservation Offsets began as a Suncor-ACA pilot project at Winagami Lake in 2003, which led to the purchase and protection of 470 acres of lakeshore and upland habitat. The use of environmental offset programs as a stewardship tool is increasing. As industrial activity continues to impact our natural world, greater emphasis is being placed on accountability for those impacts. Suncor Energy Foundation was revolutionary in implementing an offset program in partnership with ACA and the momentum created by the desire to be good environmental stewards continues to grow.

The project expanded in 2008/2009 in terms of corporate partner commitment. Shell Canada Energy and Total E&P Canada Ltd. joined Suncor Energy Foundation in their commitment to balancing conservation with responsible development by partially offsetting habitat impacted by their industrial operations in Alberta. Focus areas for acquisition were identified through a GIS exercise and ranking process. ACA and its *Corporate Partners in Conservation* purchased five fee simple titles for a total of 830.24 acres. Restoration work is scheduled for several of the locations to facilitate the return of these sites to a natural state. The acquired habitat will be protected and managed in perpetuity to benefit wildlife and fish resources, and to provide sustainable recreational opportunities for Albertans.

Partnerships

Alberta Fish & Game Association, Alberta Sport, Recreation, Parks & Wildlife Foundation, Ducks Unlimited Canada, Shell Canada Energy, Suncor Energy Foundation, Total E&P Canada Ltd.

Use Respect – Ask First

In 1986, *Use Respect* was initiated to address the lack of recreational access available on privately-owned lands. The intent was to educate recreationalists to seek landowner permission to access private land through signage and personal communication, and to identify potential lands/landowners that would allow access. Awareness and delivery of the original initiative diminished and in 2008, we took the lead in gathering a group of interested individuals and organizations to discuss revitalization of the message and the initiative. Our Communications program developed a new logo and signage that was endorsed by the group. *Use Respect – Ask First* signs are available free-of-charge to private landowners through the various supporting organizations.

Partnerships

Alberta Beef Producers, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Alberta Professional Outfitters Society, Alberta Sustainable Resource Development, Alberta Trappers' Association, Bow River Irrigation District, County of Warner, Cypress County, Ducks Unlimited Canada, Federation of Alberta Naturalists, Federation for North American Wild Sheep, Hunting For Tomorrow, Municipal District of Taber, Pheasants Forever, Report A Poacher, Trout Unlimited Canada, Western Stock Growers Association

Conservation Reports

All projects listed in this annual report have had a year-end summary report produced, which has been posted to our website and is available for public viewing. In cases where the project is complete and the level of information is considered substantial, a Conservation Report is produced. Conservation Reports are generally more comprehensive, are published in both electronic and hardcopy, and are numbered as part of ACA's Report Series.

The following Conservation Reports were completed and published in the 2008/2009 fiscal year:

Blackburn, J. 2008. Population abundance and stock assessment of westslope cutthroat trout in the Upper Oldman River watershed. Data Report, D-2008-009, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 38 pp + App.

Blackburn, J. 2007. Sport fish distribution and relative abundance on the Lower Red Deer River from Dickson Dam to Joffre, Alberta, 2005. Data Report, D-2007-005, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 25 pp + App.

Blackburn, J., and J. Cooper. 2006. Assessment of sport fish distribution and relative abundance in the Lower Red Deer River, Alberta, Phase II. Technical Report, T-2006-003, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 56 pp + App.

Blackburn, J.K., and J.A. Cooper. 2005. Status of the walleye fishery at Crawling Valley Reservoir, Alberta, 2004. Data Report, D-2005-035, produced by Alberta Conservation, Lethbridge, Alberta, Canada. 24 pp + App.

Carruthers, N., G. Fortier, T. Johns, and J. Tchir. 2008. A creel-based assessment of sport fisheries at Sturgeon Lake, Alberta, 2007. Data Report, D-2008-007, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 18 pp + App.

Carruthers, N., T. Johns, and J. Tchir. 2008. Fall walleye index netting at Sturgeon Lake, Alberta, 2007. Data Report, D-2008-008, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 22 pp + App.

Carruthers, N., and T. Johns. 2007. Status of sport fish in North Wabasca Lake, Alberta, 2006. Data Report, D-2007-012, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 26 pp + App.

Carruthers, N., T. Johns, and G. Fortier. 2007. Status of northern pike and yellow perch at Goosegrass Lake, Alberta, 2006. Data Report, D-2007-002, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 16 pp + App.

Cooper, J.A. 2005. Fish assemblage in southern Alberta reservoirs, 2003. Data Report, D-2005-037, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 62 pp + App.

Council, T., and T.D. Ripley. 2006. Distribution of the Bow River sport fish population monitoring, 2003 and 2005. Data Report, D-2007-006, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada and Alberta Fish and Wildlife, Calgary, Alberta, Canada. 34 pp + App.

Fitzsimmons, K., and M. Blackburn. 2009. Abundance and distribution of Arctic grayling in the upper Little Smoky River, 2007. Data Report, D-2009-004, produced by Alberta Conservation Association, Cochrane, Alberta, Canada. 23 pp + App.

Fitzsimmons, K. 2008. Assessment of trout abundance and distribution in the Waiparous Creek drainage, Alberta, 2006. Data Report, D-2008-011, produced by Alberta Conservation Association, Cochrane, Alberta, Canada. 39 pp + App.

Fitzsimmons, K. 2008. Monitoring bull trout and cutthroat trout populations in Canyon and Prairie Creek drainages, Elbow River, Alberta, 2005. Data Report, D-2008-010, produced by Alberta Conservation Association, Cochrane, Alberta, Canada. 27 pp + App.

Fortier, G., N. Carruthers, and T. Johns. 2006. Status of walleye and northern pike sport fisheries at Lesser Slave Lake, Alberta, 2005. Data Report, D-2006-012, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 21 pp + App.

Ganton, B.P. 2008. Population structure and growth of walleye in Gregoire, Ethel and Hilda lakes, Alberta, 2007. Data Report, D-2008-006, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 19 pp + App.

Ganton, B.P., and B. Patterson. 2007. Status of walleye populations at Bourque, Goodfish and Seibert lakes, Alberta, 2006. Data Report, D-2007-009, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 23 pp + App.

Hudson, V. 2008. Alberta Waterfowl Crop Damage Prevention Program, 2007. Data Report, D-2008-003, produced by Alberta Conservation Association, St. Paul, Alberta, Canada. 14 pp + App.

Johns, T., and T. Ernst. 2007. Culvert crossings as potential barriers to fish movement in the Kakwa River watershed, Alberta. Data Report, D-2007-001, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 21 pp + App.

Johns, T. 2006. Status of bull trout in the Kakwa River, Alberta, 2006. Data Report, D-2006-013, produced by Alberta Conservation, Peace River, Alberta, Canada. 12 pp + App.

Johns, T.W.P., and J. Tchir. 2005. Sport fish abundance and distribution in the Simonette River, Alberta, 2004. Data Report, D-2005-034, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 19 pp.

Jokinen, M., D. Dorge, and P. Jones. 2007. Distribution of Bighorn sheep survival and demography in the Yarrow-Castle Region of Alberta, Canada. Technical Report, T-2007-003, produced by Alberta Conservation Association, Blairmore, Alberta, Canada. 60 pp + App

Patterson, B. 2008. Summer sport fishery for walleye and northern pike at Wolf Lake, Alberta, 2007. Data Report, D-2008-004, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 24 pp + App.

Patterson, B. 2008. Walleye and northern pike summer sport fishery at Lac Ste. Anne, Alberta, 2006. Data Report, D-2008-002, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 22 pp + App.

Patterson, B. 2008. Summer sport fishery and special harvest license at Pigeon Lake, Alberta, 2007. Data Report, D-2008-012, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 21 pp + App.

Rodtka, M., and R. Konynenbelt. 2008. Abundance of sport fish in the North Raven River, Alberta, 2005. Data Report, D-2008-005, produced by Alberta Conservation Association, Rocky Mountain House, Alberta, Canada. 20 pp + App.

Spiegl, C., and B.J. Hurkett. 2005. Upper Oldman River drainage angler survey, 2004. Data Report, D-2005-036, produced by Alberta Conservation Association, Blairmore and Lethbridge, Alberta, Canada. 23 pp + App.

Stavne, R.B. 2006. Sharp-tailed grouse lek surveys, northwestern Alberta, 2005. Data Report, D-2006-011, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 11 pp + App.

Stevens, C., and T. Council. 2008. A fish-based index of biological integrity for assessing river condition in central Alberta. Technical Report, T-2008-001, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 29 pp + App.

Wilson, G.A., T.L. Fulton, K. Kendell, G. Scrimgeour, C.A. Paszkowski, and D.W. Coltman. 2009. Genetic assessment of potential source populations for the reintroduction of northern leopard frogs (*Rana pipiens*) to sites in Alberta. Technical Report, T-2009-001, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 32 pp.

Wood, S.K. 2009. Population structure and growth of walleye in Elinor, Haig, Ironwood and Wadlin lakes, Alberta, 2008. Data Report, D-2009-005, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 26 pp + App.

Wright, K.D. 2009. Hay-Zama Lakes waterfowl staging and bald eagle nesting monitoring program, 2007. Data Report, D-2009-001, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 21 pp + App.

Wright, K.D. 2009. Hay-Zama Lakes waterfowl staging and bald eagle nesting monitoring program, 2008. Data Report, D-2009-003, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 20 pp + App.

Wright K.D. 2007. Hay-Zama Lakes waterfowl staging and raptor nesting monitoring program, 2006. Data Report, D-2007-004, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 19 pp + App.

Wright K.D. 2006. Distribution of the Hay-Zama Lakes waterfowl staging and bald eagle nesting monitoring program, 2005. Data Report, D-2006-010, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 18 pp + App.

Wright, K.D., and R. Hermanutz. 2009. Hay-Zama Lakes duck breeding and molting population density surveys, 2005 – 2007. Data Report, D-2009-002, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 25 pp + App.

Report A Poacher and Compensation Programs

The Report A Poacher (RAP) and Compensation programs are delivered in partnership with ASRD. In the past year, ACA and ASRD revised the Memorandum of Understanding to more clearly distinguish the lead role that ACA plays in promotion and administration of the RAP and Compensation programs, whereas ASRD retains sole responsibility for liaising with informants, investigating reports and any enforcement actions. ACA and ASRD will continue to implement the RAP and Compensation programs together.

Report A Poacher

Report A Poacher (RAP) was created in 1990 as a community-based program to assist Albertans with the protection of Alberta's wildlife, fish and the habitat in which they live. RAP provides a toll-free phone number (1-800-642-3800) for people to report suspected illegal activity 24 hours a day, seven days a week. The program also promotes the value and importance of conserving Alberta's wildlife and fish and a positive image of resource users.

Alberta Conservation Association has updated the roadside RAP signs located throughout Alberta. The RAP logo is now red and is composed of a bright reflective material to improve visibility. ACA is working with ASRD to replace old signs that are either significantly deteriorated or missing completely. In addition to their location along major roadways, ACA is working with private landowners to install new signs along roads in rural locations to promote the RAP Program and responsible resource use.

Total RAP calls in 2008/2009	6,927
Total charges	235
Total rewards paid out	$26,450

Compensation Programs

The Wildlife Predator Compensation and Shot Livestock Compensation programs provide compensation to producers for livestock lost to predators (black bear, grizzly bear, cougar, wolf and eagle) and livestock shot during a hunting season. ASRD is responsible for investigating these incidents, while ACA is responsible for the promotion of the programs and management of the compensation funds.

Wildlife Predator Compensation and Shot Livestock Compensation Payments in 2008/2009.

Wildlife Predator	Number of claims	Compensation paid
Eagle	3	$1,327.50
Cougar	8	$2,298.63
Black Bear	12	$7,510.67
Grizzly Bear	10	$5,024.52
Bear (unidentified species)	3	$2,720.08
Wolf	155	$126,406.54
Unknown Predator	3	$636.96
TOTAL	**194**	**$145,924.90**
Shot Livestock	9	$10,749.60

Granting Programs

Annually, ACA provides approximately $1.73 million in grant funding to a wide range of conservation organizations. This funding is provided through three distinct funding programs:

1. Grant Eligible Conservation Fund
2. Habitat Securement Fund
3. Grants in Biodiversity

The goal of these funds is to enable and support work that conserves and enhances Alberta's wildlife and fish populations and the habitats they rely on.

Grant Eligible Conservation Fund

The Grant Eligible Conservation Fund (GECF) supports a variety of projects, both small and large, which benefit Alberta's wildlife and fish populations, as well as the habitat they depend on. Operational since 2002, this fund has provided more than $7.5 million to 424 projects carried out in Alberta by the conservation community. Furthermore, the funding provided by the GECF has consistently leveraged six times its value in conservation dollars, estimated at $47 million—money that has been directly used for conservation work in Alberta.

In 2008/2009, this granting program received 134 applications, a record number, requesting almost $2.5 million. A total of $1,201,354 was granted to 80 projects.

Applications were accepted in January 2008, processed and reviewed in February 2008. Funding recommendations were made by ACA's Board-appointed Funding Review Committee comprised of three board members and 10 citizens of Alberta on February 28, 2008. Project work was carried out between April 1, 2008 and March 31, 2009.

2008/2009 Funding Priorities:

1. Habitat enhancement activities specifically listed on provincial recovery plans for Alberta's endangered species (to be done in cooperation with recovery teams). (See: http://www.srd.gov.ab.ca/fishwildlife/speciesatrisk/recoveryteams.aspx)

2. Site specific enhancements of habitat, structures and facilities aimed at increasing recreational angling or hunting opportunities, improving habitat or increasing wildlife/fish productivity on the site (i.e. planting/seeding vegetation, development of new fisheries access sites, nest box initiatives, food plot trials and cover plot trials, spawning bed enhancement, etc.).

3. Urban fisheries development, including : initial evaluation of water quality aspects of existing ponds to determine their suitability for fish stocking; purchase of equipment required to ensure suitable water quality for fish stocking (e.g. aeration equipment); fish stocking in public ponds; promotion of an urban fishery (including natural water bodies).

4. Stewardship Initiatives (e.g. on-going maintenance of conservation sites or fisheries access sites; adopt a fence; property inspections for invasive weeds; manual weed control; grass mowing).

5. Impacts of non-native species on persistence of native species.

6. Improvements and innovation in matching sportsmen with landowners (e.g. facilitating hunter access to depredating waterfowl, elk and deer).

Grant Eligible Conservation Fund Recipients for 2008/2009

Small grants $2,500 and under:

Brooks and District Fish & Game Association, *Hunter Education and Youth Shooting Program.*

Camps for Children Education Association, *Riparian area fencing project at Aspen Ranch Outdoor Education Facility.*

Coaldale 4th Scout Troop, *Scout and youth fishing pond* (project cancelled).

Dickson Fish & Game Association, *Fiesta Lake dock construction.*

Dunvegan Fish & Game Association, *Waterfowl nestbox project.*

Lamont Fish & Game Association, *Blue bird house kit building project.*

Lethbridge College, *Lee Creek fisheries and riparian health assessment.*

Lethbridge Fish & Game Association, *Intro to fishing - Southern Alberta.*

Lethbridge Fish & Game Association, *Project to attract new bird hunters.*

Onoway and District Fish & Game Association*, Bird-house project.*

Sandy Cross Conservation Foundation, *Conservation Education 2008.*

Sciensational Sssnakes!!, *Reptiles at Risk on the Road 2008, Alberta Phase.*

University of Calgary, *Cohesive conservation: Aligning Alberta land use policy with sage grouse (Centrocercus urophasianus) conservation.*

Large Grants (over $2,500)

Agriculture and Agri-Foods Canada, *Mapping rangeland and rangeland change using remote sensing.*

Alberta Fish & Game Association, *Heritage 100 project.*

Alberta Fish & Game Association, *Operation Grassland Community.*

Alberta Game Warden Association, *Alberta Game Warden Magazine - electronic format.*

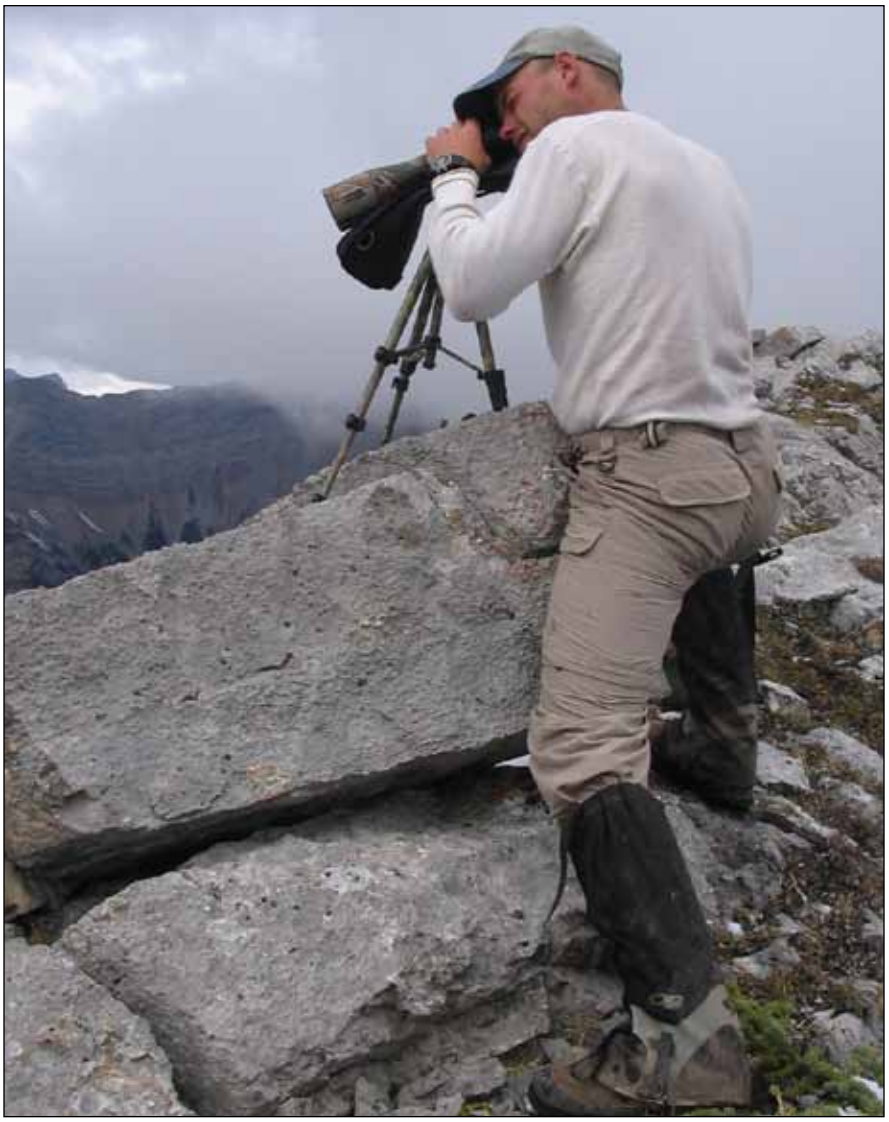
Alberta Hunter Education Instructors' Association, *Hunter safety and marksmanship mobile training units.*

Alberta Hunters Who Care, *Wild game for the foodbank program.*

Alberta Mycological Society, *Biodiversity of fungi in Alberta: A Provincial database.*

Alberta Research Council, *Boreal toad habitat use and response to disturbance in the boreal mixed hardwood forest.*

Alberta Research Council, *From microbes to macrophytes: Assessing major wetland health indicators along a disturbance gradient.*



Alberta Research Council, *Wolverine abundance and habitat use in the Rocky Mountain parks of central Alberta, Canada.*

Alberta Trappers Association, *Biologist workshop 2008.*

Beaverhill Bird Observatory, *Educational bird science events with Beaverhill Bird Observatory.*

Beaverhill Bird Observatory, *Long-term songbird and raptor monitoring in Alberta.*

Bird Studies Canada, *Developing the marsh monitoring program in Alberta's Prairie and Aspen Parklands regions.*

Bow Valley Habitat Development, *Millennium Creek stream reclamation and fish habitat enhancement project, Phase 2.*

Calgary Zoo, *Research, conservation and education of amphibians at the Calgary Zoo.*

Castle-Crown Wilderness Coalition, *Castle Wilderness restoration, on the ground and on the web.*

Conservation Education W.I.S.E. Foundation, *Outdoor Women's Program.*

Conservation Education W.I.S.E. Foundation, *Re-print of Conservation and Hunter Education manuals.*

Conservation Education W.I.S.E. Foundation, *Youth hunter education camps.*

Conservation Education W.I.S.E. Foundation, *Youth seminar.*

Cows and Fish, *Fish 101 and Biodiversity 101 – Making linkages between healthy populations and management.*

Crowsnest Pass Quad Squad Association, *Deadmans Pass/Allison Creek.*

Environment Canada, Canadian Wildlife Service, *Comparison of grassland bird diversity and abundance in fall- and spring-seeded wheat and planted and native grasslands in south central Alberta.*

Heart River Watershed Advisory Council, *Heart River restoration project.*

Hunting for Tomorrow Foundation, *Best practices across North America – Workshop.*

Hunting for Tomorrow Foundation, *Fact sheets.*

Hunting for Tomorrow Foundation, *Hunting…Give it a Shot!*

Hunting for Tomorrow Foundation, *Provincial Hunting Day celebration.*

Lac La Biche County, *The Red Deer Brook area structure plan.*

Lac La Nonne Watershed Stewardship Society, *Riparian health inventory done by Cows and Fish.*

Laval University, *Ecology, population dynamics, and conservation of mountain goats in Alberta.*

Lesser Slave Lake Bird Observatory, *Migratory and breeding bird research.*

Lethbridge College, *Maximizing the utility of native riparian trees and shrubs for bioengineering projects in prairie ecosystems.*

Miistakis Institute, *Recreation and wildlife in the Rockies in southwestern Alberta: analysis and recommendations for human use management.*

Moose Lake Watershed Society, *Restoring the future.*

Mountain View County, *Riparian area management improvements.*

Nature Conservancy of Canada - Alberta region, *Stewardship of Nature Conservancy of Canada's Rocky Mountain and Foothills properties.*

Partners in Habitat Development, Eastern Irrigation District, *Partners in Habitat Development.*

Red Deer County, *Assessment of electric fencing as a riparian management tool for agricultural producers.*

Royal Alberta Museum, *Northern Alberta non-game fish status assessment - Year 6.*

Sarcee Fish & Game Association, *Alberta junior pheasant project.*

Southern Alberta Conservation Cooperative, *Factors contributing to, and depredation avoidance methods for reducing carnivore-livestock conflicts during winter in southern Alberta.*

Trout Unlimited Canada - Bow River Chapter, *Bow River riparian fencing project.*

Trout Unlimited Canada - Oldman River Chapter, *Outpost (Police) Lake aeration.*

Trout Unlimited Canada - Edmonton Chapter, *Assessment of riparian health and fish assemblage integrity in the Raven River, Alberta.*

Trout Unlimited Canada, *Habitat enhancement program for Alberta's East Slopes fishery.*

Trout Unlimited Canada, *Late fall fisheries investigation in diversion canals in southern Alberta.*

University of Alberta, *Cougar predation on wild ungulates in a multi-prey, multi-predator system in west-central Alberta.*

University of Alberta, *Developing alternative wolf management strategies.*

University of Alberta, *Development of a prairie-deer sightability model for aerial surveys.*

University of Alberta, *Development of biophysical criteria to measure restoration success and enhance best management practices in the montane and subalpine regions of Alberta.*

University of Alberta, *Does petroleum development affect burrowing owl nest-site selection, reproductive success or nocturnal space use?*

University of Alberta, *Ecological effects of sport fish stocking and aeration in Boreal Foothills lakes.*

University of Alberta, *Effects of access management of elk in southwestern Alberta.*

University of Alberta, *Effects of roads and road access management on grizzly bear (Ursus arctos horribilus) habitat use and movement.*

University of Alberta, *Long-term vegetation and population monitoring for managing the Ya Ha Tinda elk herd.*

University of Alberta, *Russian thistle (Salsola kali) impact on native ungulate habitat.*

University of Alberta, *The role of behavioural adaptation in safeguarding a species: grizzly bear (Ursus arctos horribilis) response to encroaching development in the foothills of Alberta.*

University of Calgary, *Mating systems at large spatial scales: Breeding migration in Rocky Mountain bighorn sheep.*

University of Lethbridge, *Development of aquatic communities in high altitude mine pit lake systems.*

University of Lethbridge, *Modelling mercury biomagnification in the South Saskatchewan River Basin.*

University of Montana, *Moose habitat models for management in west-central Alberta.*

Valley Zoo and John Janzen Nature Centre, *Amphibian Education Outreach Program.*

Watershed Advisory Committee and Lac La Biche Watershed Steering Committee, *Lac La Biche watershed project.*

Willmore Wilderness Foundation, *Willmore Wilderness Park trail clearing partnership.*

Woodlot Association of Alberta, *Riparian reforestation and wildlife habitat enhancement of Beaverlodge Watershed - Phase 1.*

Habitat Securement Fund

Annually, ACA makes $500,000 available in the Habitat Securment Fund for grants toward conservation land purchases. While these funds are available for any group to apply for, they are also available to ACA's Land Management Team. Decisions on what grants to approve are made by the Board of Directors based on information supplied in the grant application. In 2008/2009, four land purchases were made through this fund and all four applications came from ACA's Land Management Team.

Grants in Biodiversity

ACA's Grants in Biodiversity Program provides research funds to outstanding graduate students and postdoctoral fellows doing Alberta-based research. ACA's Grants in Biodiversity program is operated through the Alberta Cooperative Conservation Research Unit – a partnership between the University of Alberta, the University of Calgary and the University of Lethbridge. The research supported by the Grants in Biodiversity Program aims to conserve, protect and enhance Alberta's wildlife, fish and natural habitats. ACA's annual financial contribution to the fund is $225,000. For more information on current projects visit the ACA Grants in Biodiversity Program website at: www.acabiodiversity.ca.

Grants in Biodiversity Recipients for 2008/2009

Bacon, Michelle	Dept. Biological Sciences	University of Alberta	Dr. Mark Boyce	Habitat and prey selection of an isolated cougar (Puma concolor) population.
Cameron, Erin	Dept. Biological Sciences	University of Alberta	Dr. Erin Bayne	Mechanisms of brown-headed cowbird expansion in the boreal forest.
deBruyn, Nathan	Faculty of Veterinary Medicine	University of Calgary	Dr. Susan Kutz	Development and application of a rapid, non-invasive molecular diagnostic tool for assessing gastrointestinal parasite biodiversity in wild cervids.
Gorrell, Jamie	Dept. Biological Sciences	University of Alberta	Dr. David Coltman	The importance of immunogenetic variation in immunocompetence, selection and fitness of Columbian ground squirrels.
Jung, Jennifer	Dept. Biological Sciences	University of Alberta	Dr. Bill Tonn	Population response of fathead minnows to alarm substance and predator cues.
Magyara, Nora	Dept. Biological Sciences	University of Lethbridge	Dr. Gail Michener	Multiple mating and paternal distribution in litters of Richardson's ground squirrels (Spermophilus richardsonii).
Martinson, Adam	Faculty of Environmental Design	University of Calgary	Dr. Cormack Gates	Modeling dispersal and road mortality of prairie rattlesnakes (Crotalus viridis viridis) in southern Alberta.
Pagnucco, Katherine	Dept. Biological Sciences	University of Alberta	Dr. Cindy Paszkowski	Movement patterns, road mortality, and use of amphibian culverts by long-toed salamanders in Waterton Lakes National Park.
Pengelly, Christian	Dept. Biological Sciences	University of Calgary	Dr. Ralph Carter	Impacts of logging on the bumble bee-influenced pollination community.
Pigeon, Karine	Département de biologie	Université Laval	Dr. Steeve Côté	The effects of weather patterns and climate change on the den behaviour of grizzly bears.
Rooney, Rebecca	Dept. Biological Sciences	University of Alberta	Dr. Suzanne Bayley	Exploring the natural variability in diversity and composition of epiphytic and submerged aquatic plant communities in undisturbed boreal open-water marshes across a range in salinities: the first step in ecological assessment.
Sawaya, Michael	Department of Ecology	Montana State University	Dr. Steven Kalinowski	Evaluating the demographic and genetic benefits of wildlife crossing structures for grizzly and black bear populations in the Bow Valley, Alberta.
Scheffers, Brett	Dept. Biological Sciences	University of Alberta	Dr. Cindy Paszkowski	Amphibian breeding, movement patterns and habitat selection within urbanized landscapes.
Shafer, Aaron	Dept. Biological Sciences	University of Alberta	Dr. David Coltman	Population structure and phylogeography of mountain goats *(Oreamnos americanus)* within Alberta and across North America.
Sponarski, Carly	Faculty of Environmental Design	University of Calgary	Dr. Marco Musiani	Do wolves become livestock killers because of environmental conditions?
Waller, Jennifer	Dept. Biological Sciences	University of Alberta	Dr. Jens Roland	Forest tent caterpillar parasitoid community shifts across the 'front' of advancing outbreaks in Alberta.
White, Shannon	Dept. Biological Sciences	University of Alberta	Dr. JC Cahill	Role of seed bank and seed rain in Alberta's grassland community composition following disturbance from climate change and grazing.
Wood, Charlene	Dept. Renewable Resources	University of Alberta	Dr. John Spence	Saproxylic beetle - deadwood habitat associations.
Young, Natasha	Campus Saint-Jean	University of Alberta	Dr. Dennis Gignac	Do First Nations reserves and Métis settlements protect regional plant and lichen diversity in a highly developed agricultural landscape?
Zettel, Paul	Dept. Biological Sciences	University of Alberta	Dr. Rolf Vinebrooke	Impacts of nitrogenous air pollution on the biodiversity and ecosystem function of alpine ponds.

Financial Highlights

May 22, 2009
Edmonton, Alberta

Auditors' Report

To the members of Alberta Conservation Association:

The accompanying summarized statements of financial position and results from operations are derived from the complete financial statements of Alberta Conservation Association as at March 31, 2009 and for the year then ended. In our auditors' report on the complete financial statements dated May 22, 2009, we expressed a qualified opinion because we were unable to satisfy ourselves concerning the completeness of donations and partner contribution revenue. The fair summarization of the complete financial statements is the responsibility of management. Our responsibility, in accordance with the applicable Assurance Guideline of the Canadian Institute of Chartered Accountants, is to report on the summarized financial statements.

In our opinion, the accompanying financial statements fairly summarize, in all material respects, the related complete financial statements in accordance with the criteria described in the Guideline referred to above.

These summarized financial statements do not contain all the disclosures required by Canadian generally accepted accounting principles. Readers are cautioned that these statements may not be appropriate for their purposes. For more information on the Association's financial position and results of operations, reference should be made to the complete financial statements.

Kingston Ross Pasnak LLP

Chartered Accountants

Summarized Financial Statements

Alberta Conservation Association

Year ended March 31, 2009

RESULTS FROM OPERATIONS	2009	2008
REVENUES		
Fees and assessments	$ 10,344,875	$ 8,412,010
Partner contributions	2,053,881	1,769,275
Other	1,079,327	944,416
	13,478,083	**11,125,701**
EXPENDITURES		
Salaries and benefits	5,513,887	4,786,692
Contracted services	1,616,331	1,450,311
Grants	1,479,588	1,251,472
Office and sundry	963,395	824,800
Rentals	962,708	707,441
Travel	701,442	618,077
Amortization	617,320	494,324
Advertising	262,956	248,904
Materials and supplies	307,075	223,339
Landowner agreements	103,821	97,709
	12,528,523	**10,703,069**
OTHER REVENUES		
Gain on disposal of long-term investments	66,253	769
Loss on disposal of property, plant and equipment	3,725	(20,140)
Unrealized loss on investments	(1,409,831)	(538,465)
(DEFICIENCY) EXCESS OF REVENUES OVER EXPENDITURES	**$ (390,293)**	**$ (135,204)**

FINANCIAL POSITION		
ASSETS		
Current assets	$ 464,263	$ 527,966
Long-term investments	5,788,389	8,853,940
Property, plant and equipment (net of accumulated amortization)	7,770,420	6,087,603
	$ 14,023,072	**$ 15,469,509**
LIABILITIES		
Current liabilities	$ 4,023,166	$ 5,079,310
NET ASSETS		
Invested in property, plant and equipment	7,770,420	6,087,602
Internally restricted	459,466	836,902
Unrestricted	1,770,020	3,465,695
	9,999,906	10,390,199
	$ 14,023,072	**$ 15,469,509**

APPROVED BY THE BOARD

Director

Director

Alberta Conservation Association

Financial Highlights

Summarized Financial Statements

In 2008/2009, ACA received $10,344,875 in levy revenue from hunting and angling licenses purchased by our stakeholders. Our Wildlife, Fisheries, Land Management, Communications and RAP/Compensation programs had expenditures of $10,071,842. This means that 97% of the levy value collected went back into the resource. This number does not include over $500,000 in habitat purchases (Habitat Securement Fund).

ACA received more than $3.1 million in non-levy revenue. These funds came from a variety of donors, including corporations, individuals, granting foundations, the federal government, and other conservation organizations.

EXPENDITURES by PROGRAM

Often stakeholders want to determine if "enough" funds are being directed toward their particular passion. When examining the Expenditures by Program, the numbers shown are arbitrary and do not necessarily represent all projects related to that program.

For example, in 2008/2009:

- The Fisheries program had expenditures of approximately $2.9 million; however, this is not the total amount spent on fisheries-related projects. The riparian fencing project is important for maintaining water quality and fish habitat, but that project is operated within our Land Management program because it is managed within other fencing projects.
- Our fisheries access sites are important to anglers in the province; however, the cost of maintaining these sites is also within the Land Management program.
- Approximately $200,000 was spent on a marketing campaign for retention and recruitment of hunters and anglers. These funds are included within our Communications program and not within the Fisheries program our Wildlife program.

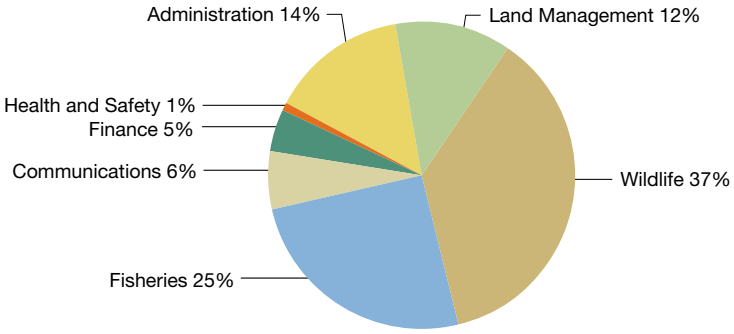
While the charts in this section of the report provide you with a summary of the expenditures in each program area, we encourage you to review the entire annual report to gain a greater understanding of the types of projects being undertaken within each program.

REVENUE BY SOURCE

In 2008/2009, 23.25% of ACA's total operating budget was generated from non-levy sources.

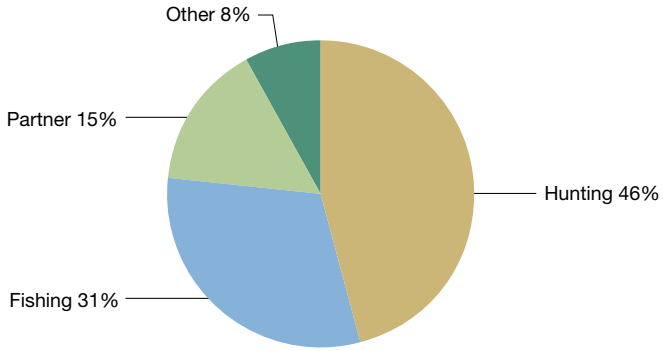
Expenditures By Program

Land Management	1,542,700
Wildlife	4,602,581
Fisheries	3,179,579
Communications	746,982
Finance	577,169
Health and Safety	98,197
Administration	1,781,314
TOTAL	**12,528,523**



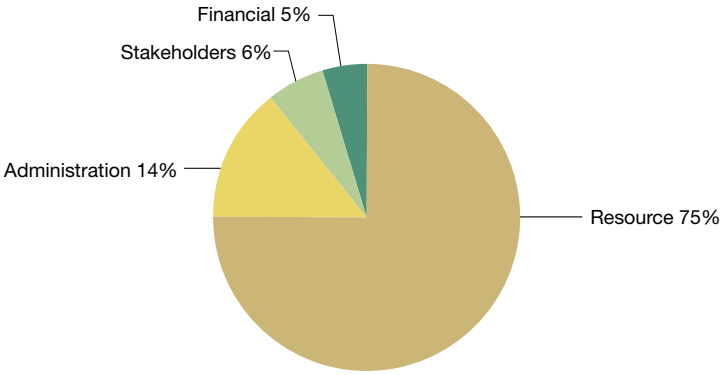
Revenue By Source

Hunting	6,207,387
Fishing	4,137,488
Partner	2,053,881
Other	1,079,327
TOTAL	**13,478,083**



Expenditures By Category

Resource	9,423,058
Administration	1,781,314
Stakeholders	746,982
Financial	577,169
TOTAL	**12,528,523**



Alberta Conservation Association

Conserving Alberta's Wild Side

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CORPORATE PARTNER IN CONSERVATION

Alberta Conservation Association

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