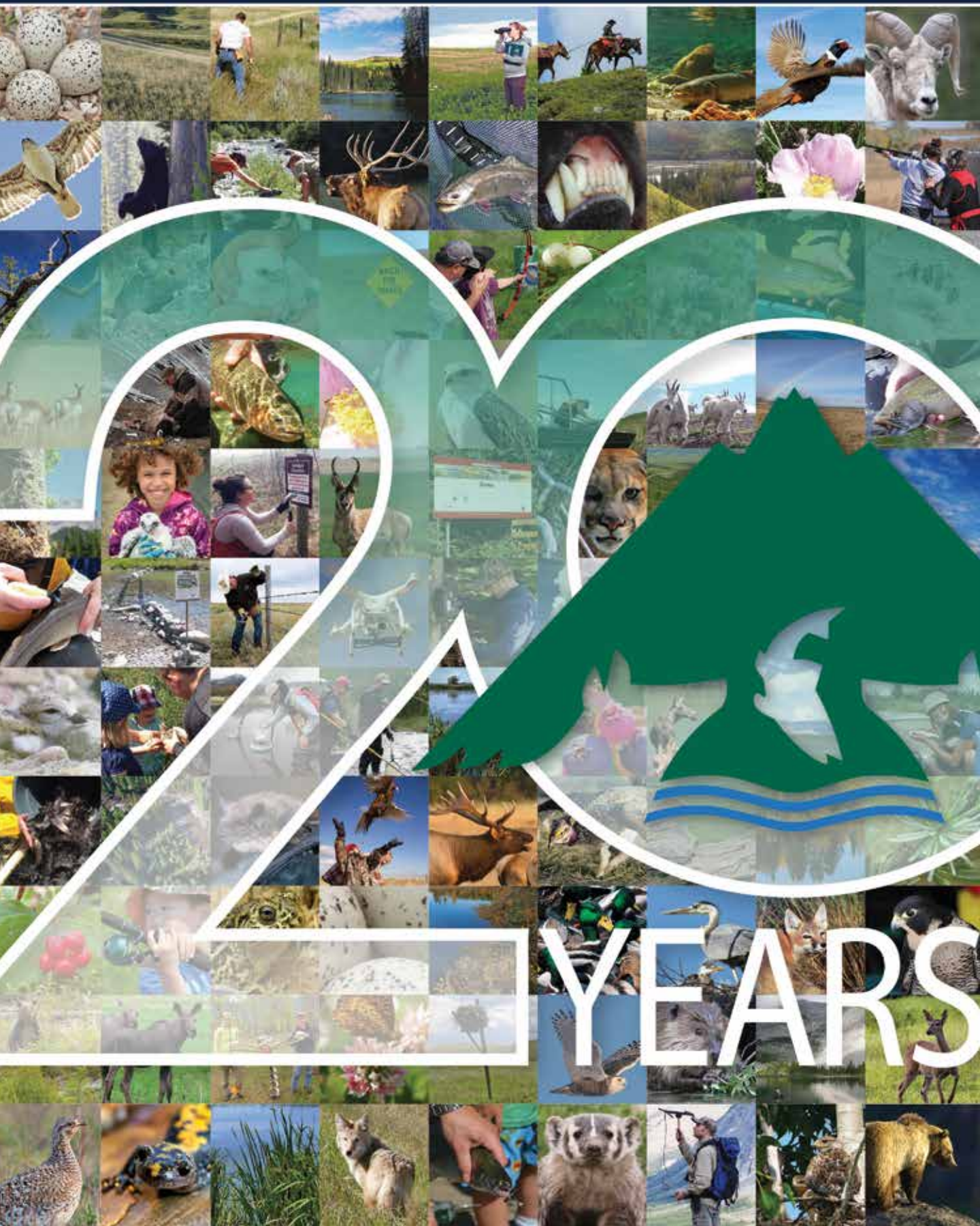


Annual Report
2017/18



2017/18 Snapshot

- Eleven Corporate Partners in Conservation have either signed on with ACA or renewed/increased their ongoing support for our programs and projects.
- Received 174 applications for CCEG and Research Grants. We funded 99 projects totaling \$1,285,046.
- Achieved an overall grade of 96% for External COR Audit and scored 100% in nine of the 13 mandatory elements.
- Finished 2017/18 with 14,573 Facebook followers, 5,180 Twitter followers, 336 YouTube subscribers, and 76,958 subscribers to Constant Contact.
- Kids Can Catch program gained national recognition with a Recreational Fisheries Award from Fisheries and Oceans Canada.
- Collected 3,975 bear hair samples in 1,238 visits to Bear Management Area 1 to estimate grizzly bear density.
- Released 26,000 male pheasants on 42 release sites across Alberta to increase hunting opportunities.
- Stocked close to 90,000 rainbow, brown, and brook trout in 52 ponds across the province.
- Electronically observed mountain whitefish in the McLeod River migrate over 80 km to overwintering sites.
- Added seven new conservation sites—two land donations, one split purchase/donation and four purchases—totalling 1,326 acres (536 ha).
- Planted 167 acres with native seed mix, more than 1,150 trees and shrubs, and six acres of food plots for upland game birds.
- Received 3,108 calls about suspected illegal activity to Report A Poacher line. As a result, 528 charges were laid and \$60,600 in rewards were paid out for information leading to a charge.

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Annual Report 2017/18



Our Vision

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

Our Mission

ACA conserves, protects and enhances fish and wildlife populations and their habitats for Albertans to enjoy, value and use.

Abbreviations Index

ac	acre
°C	degree Celsius
cm	centimetre
h	hour
ha	hectare
km	kilometre
km ²	square kilometre
m	metre
mm	millimetre
mg/L	milligram per litre

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Member Groups

Alberta Fish & Game Association

Alberta Hunter Education
Instructors' Association

Alberta Professional Outfitters
Society

Alberta Trappers' Association
Nature Alberta

Pheasants Forever, Alberta Council

Treaty 8 First Nations of Alberta

Trout Unlimited Canada

Wild Sheep Foundation Alberta

Board of Directors 2017/18

Executive

Patrick Long, Chairman – Wild Sheep Foundation Alberta

Bill Abercrombie, Vice Chairman – Alberta Trappers' Association

Greg Shyba, Secretary – Public At Large, Central Region

Robert Gruszecki, Treasurer – Alberta Hunter Education Instructors' Association

Directors

Ken Ambrock – Northern Board Liaison

Tom Bateman – Director Emeritus

Brian Bildson – Public At Large, Business Representative

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

Fred Calverley – Trout Unlimited Canada

Rob Duncan – Public At Large, Southern Region

Randy Collins – Alberta Fish & Game Association

Dr. Lee Foote – Public At Large, Academic Representative

Chris Fowler – Public At Large, Northeast Region

Dr. Brian Joubert – Nature Alberta

Sandra Mellon – Public At Large, Northwest Region

Michael Perkins – Pheasants Forever

Carla Rhyant – Alberta Professional Outfitters Society

Travis Ripley – Minister's Representative

Vacant – Treaty 8

About ACA

Alberta Conservation Association's (ACA) Wildlife, Fisheries, Land Management, and Communications program staff work on projects around the province to ensure that wildlife, fish, and their habitats flourish. ACA is a non-profit organization dedicated to conserving, protecting, and enhancing these elements for Albertans to enjoy, value, and use now and for generations to come.

Delegated Roles and Responsibilities

In addition to being a not-for-profit organization, and a registered charity, 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 Alberta Environment and Parks (AEP). In our role as a DAO, results from our population studies, surveys, and assessments feed directly into AEP management plans and can form the basis for fishing and hunting regulation changes and evaluations of new management strategies.



Project: Taber Pheasant Festival

Photo: ACA, Brad Downey



Pine Marten

Project: Working with Trappers to Monitor Furbearer Population Trends

Photo: ACA, Mike Jokinen

Message from the Chairman



Greetings,

It is with great optimism that I endorse this Alberta Conservation Association *Annual Report* for 2017. That this is our 20th anniversary year requires pause for reflection on what we have accomplished together over the years. In 1997, some very wise and forward-thinking folks in government and the outdoor community came together with a shared belief that the best use of hunting and fishing licence levy funds would be to separate them from general revenue and dedicate them to conservation. Thus was born Alberta Conservation Association from our founding member groups and government partners. More than ever, that philosophy must guide our collective desire to do our best to preserve our outdoor resources and heritage for future generations.

The trail to the success story that ACA has become has seen its share of pitfalls and rabbit holes, but we had the formula right.

In the end it has been the support of our member groups, partnerships with the business and scientific/academic communities, and engagement with landowners and stakeholders that has carried the day.

This report speaks for itself: our commitment to the securement of conservation lands and habitat, the funding of cutting-edge wildlife and fisheries research, long-term studies with our partners that produce world-class science, the continuing support of grass-roots conservation through community and stakeholder engagement, and finally, some highly successful events supported by our partners and sponsors like the Taber Pheasant Festival and Kids Can Catch program.

The commitment and professionalism of our ACA staff and unwavering dedication of the board cannot be overstated. But beyond all of that there is the thing that binds us all, and that is our passion for the outdoors and a desire to serve a need that is greater than our own.

It is an honour for me to serve the outdoor community through Alberta Conservation Association and a privilege to walk among you, our hunters, anglers, trappers, and naturalists who do so much for so very little.

Best of luck in the future,

A handwritten signature in black ink, appearing to read 'Bill Abercrombie'.

Bill Abercrombie, Chairman of the Board



Photo: Linda Zimmerling

President and CEO's Message

ACA began in April 1997, which means this year's *Annual Report* represents the 20th year of operation. There is no doubt in those 20 years that we been through a lot. From what was, by all accounts, a fairly tumultuous first few years, ACA has matured into what I believe is a well-respected and high-functioning organization that is strongly supported by its member groups and dedicated to meeting the needs of its stakeholders and Government. The third-party ACA Delegated Administrative Organization (DAO) Review, which some of you may have read, characterized ACA as "a well-run and effective organization" that believes "...transparent and fulsome reporting is an excellent way to ensure accountability to their stakeholders, the Board of Directors, and the Province for their duties as a DAO." This certainly is what we are striving for and I hope you, as our stakeholders, find that ACA is in fact open and transparent. If you call or email us with a question, you should be getting a timely answer. If we can't explain why we did something, or how we spent your funds, then we are failing in our commitment to our stakeholders and things have to be changed.

In the spirit of fulsome reporting, I am pleased to be presiding over the 20th Anniversary *Annual Report*. As per usual, partnerships have allowed us to complete a wide range of projects, from 12 Kids Can Catch events involving 69 partners, to surveying species at risk on hundreds of thousands of acres of private lands for the MULTISAR project. ACA continues to expand our work across the province on wildlife, fish, habitat, and communication initiatives.

I would be remiss if I did not take this opportunity to acknowledge the important role our dedicated staff have played in getting ACA to where we are today. Over one-quarter of our staff have been with ACA for a decade or more and 11 have been with us since day one. Clearly these people believe in what they do and enjoy the partners we work with on a daily basis. So thank you to ACA staff for your commitment to conservation.

The first 20 years has brought us a long way with our member group relationships, our partnership building, and our learnings on how to better meet stakeholder needs, all for the benefit of conservation. I cannot wait to see what the next 20 years brings us. Thank you to all of you who have contributed to our success; I hope to see you out on our lakes and rivers this summer.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Zimmerling', with a stylized, flowing script.

Todd Zimmerling, M.Sc., PhD., P.Biol.

President and CEO

Alberta Conservation Association

Our People. Our Culture.



Project: Conservation Site Management
Photo: ACA, Madison Meszaro

Health and Safety

Health and safety is a key element in today's workplace whether in the office or out in the field. ACA's Health and Safety Program was established, and is continually maintained and improved, to provide the necessary tools for our staff to work in a manner that meets and exceeds OH&S standards. The end goal is always that everyone working on ACA projects goes home healthy and safe!

All workers (employees, contractors, volunteers, visitors, etc.) are required to comply with ACA's Health and Safety Program in order to protect themselves and others, which creates a safer and healthier work environment.

2017/18 Overview

- Maintained low number of overall incidents with a decrease in Near Misses and a major decrease in Equipment/Property Damage incidents compared to previous year.
- Continued to conduct work according to requirements established by the Certificate of Recognition (COR) program. ACA completed the 2017 External COR Audit and achieved an overall grade of 96%; scoring 100% in 9 of the 13 mandatory elements.
- Continued emphasis on incorporating all aspects of ACA's Health and Safety Program into employees' day-to-day operations.
- 2017 ACA Employee Survey results showed that the majority of ACA staff supported and understood how ACA's safety program contributed to their safe work environment.

Human Resources

ACA completes many conservation projects over considerable territory each year, thanks in large part to our 80 permanent staff and numerous seasonal staff. It's not just about hiring talent; it is about keeping people and helping them grow and stay committed over the long term. ACA's most valuable resources is its employees.

This year we had numerous employees reach the 20-year

anniversary for their years of service. Congratulations and thanks are extended to the following individuals who achieved significant Years of Service milestones this year:

20 Years of Service

Trevor Council, Darren Dorge, Troy Furukawa, Kevin Gardiner, Paul Hvenegaard, Dave Jackson, Ed Kolodychuk, Joanne Melzer, Lori Rohde, Diana Rung, Ken Wright

15 Years of Service

Brad Downey, Kelly Hudson, Tyler Johns, Mike Jokinen, Sue Peters, Dan Sturgess

10 Years of Service

Deb Dueck, Chad Judd, Ken Kranrod, Natalia McPhee, Len Peleshok, Todd Zimmerling

5 Years of Service

Laura Volkman

2017/18 Overview

Employee Survey

- 97.6% of employees agree they are satisfied with ACA as a place to work—a tremendous accomplishment.
- 95.2% of employees are satisfied with having a good work-life balance. This is very

important to our organization as ACA has a culture that values work-life balance.

- 83% are satisfied with ACA's benefit plan. This has decreased 10% from the previous year. ACA will be looking into doing a market analysis of the plan to ensure we are receiving the best value for our benefits.
- 73.5% are satisfied with the whole compensation package available to them. This has decreased by 13.7% from the previous year.

Employee Retention

- Staff turnover stayed steady at 5%.
- We had our third retiree this year. Jim Potter who has been with the organization right from the time ACA was formed. Another testament that ACA has worked hard to keep employees engaged and happy while working for the organization.

Career Fairs

- Attended two career fairs at the University of Lethbridge and University of Alberta. These fairs provided excellent opportunities to introduce ourselves and inform new graduates about career options available at ACA.

Recruitment

We continue to strive for hiring the best fit for the organization. Finding that person that fits with the ACA culture is part of the recruitment process. This past year we:

- Filled four permanent positions. Two out of the four positions were past seasonal staff. We also hired 14 seasonal to work for the summer field season.

Information Technology

The management and ease of access to systems and databases continues to be a focus for Information Technology (IT) to meet the needs of our staff and stakeholders. IT is committed to discovering and implementing solutions that increase operational efficiencies and provide strong systems to support the work of our teams.

With changes in the workforce and in digital technology, it is essential for staff to access files from just about anywhere and to work on projects in conjunction

with other researchers at almost any location in the province. The IT team is committed to support this collaboration. We consult with staff, talk with partners, and meet with experts in the field to develop systems that ensure staff can focus on their work using efficient processes.

Work continued this year on our long-range plan for technology. Mobile access continues to be our top priority as our needs change over time and we require increased access from remote field sites.

We continued with completion of an audit on our cloud systems that provided direction for improvements. Most changes were completed in 2017/18, with the last migration to cloud anticipated in the next fiscal. We created a Data Storage Policy that sets out the data structure for ACA with guidelines and processes detailing where and how to store files and data. This combination of in-house servers and cloud storage provides efficient access to files and data using linkages for ease of access.

The second priority in IT is to assess in-house processes and provide new systems or improvements to increase ease of use while incorporating cost savings. Our budgeting and reporting systems both saw changes this year to provide more automation along with forms designed to be familiar to staff. The Project Description System incorporates budgeted manpower and expense data into the overall Project Description document. This provides updated and live data in a report format that is automatically generated, saving staff time and costs within the planning cycle. Staff can also access new reports that provide more detail and comparisons to actual performance allowing a finer resolution of variance analysis and forecasting. Better information should support more informed decision making across the company to enable us to achieve our objectives.

The internet phone system was expanded to include our Peace River office this year. Features include the ability to have voicemail emailed to staff, call forwarding to multiple devices, and remote access through internet or cellular service. This phone system will be expanded to include all ACA offices and will allow calls to be moved around the province. This advances us toward our "offices without walls" goal to allow consistent and company-wide access regardless of physical location.

2017/18 Overview

- Continued improving staff access by moving to a blend between remote access, on-premise, and cloud-based structure which allows staff to work across the province and collaborate with external resources as required.
- Accessed expertise by using targeted consultants to increase the timing and effectiveness of IT solutions. IT staff are actively involved in planning and delivering the systems they oversee and maintain, which creates an environment of accountability and strong customer support.
- Continued updating and improving systems to provide better and more consistent online access for staff. The main system improvement was customization to the Project Description report to allow more automated information to be included and increase ease of use. Our goal is to streamline system entry to make an efficient and user-friendly environment for staff, whether they are entering data or retrieving information for monitoring the progress of their projects.
- Completed expansion of a new phone system to the Peace River office that will expand over time to all locations. This internet-based system allows for better communication company-wide and will eliminate individual systems in regional offices.
- Completed evaluation of current data storage and access systems and implemented policies, procedures, and guidelines to standardize data storage and retrieval company-wide.



Project: Kids Can Catch

Photo: ACA, Colin Eyo

Business Development

ACA partners with many Alberta corporations (big and small), municipalities, and community organizations that sponsor, donate, and otherwise support our conservation work and values. These partnerships are integral to helping us achieve the annual goals of our programs including Fisheries, Wildlife, Land Management, and Information, Education, and Communication. Over the past few years, we have also seen a dramatic increase in support for our growing number of events that continue to engage and educate people about conservation in communities across Alberta.

Many of our partnerships are formally recognized in our Corporate Partners in Conservation (CPIC) program, which provides unique opportunities for businesses, municipalities, and organizations to be directly plugged into ACA's conservation work. Our CPIC participants benefit from ACA's promotion of these partnerships and have the ability to promote their affiliation with us through their own communications.

Business Development also generates additional revenue through advertising sales to support our communications activities on television, radio, online, and our in-house publications *Conservation Magazine* and the *Alberta Discover Guide*.

2017/18 Overview

- We are pleased to recognize eleven companies that are either new Corporate Partners In Conservation or have renewed/increased their ongoing support:
 - AltaLink:
MULTISAR and Kids Can Catch
 - Aquality Environmental Consulting Ltd.:
Fish Stocking at Beaumont Pond
 - Can West Legacy Inc.:
Taber Pheasant Festival and
Report A Poacher
 - Canadian National Sportsmen's Shows:
WIN Card Benefits Program
 - Heritage Inn Hotels:
WIN Card Benefits Program
 - Mountain View County:
aeration at Winchell Lake
 - Sinopec Canada Energy Ltd.:
Beaverlodge River Riparian
Conservation Project
 - Thompson-Pallister Bait Company Ltd.:
Kids Can Catch
 - Town of Taber:
Taber Trout Pond and Kids Can Catch
 - TransAlta Generation Partnership:
Peregrine Cameras
 - Yeti Roughrider Rentals Ltd.:
Waterfowl Warmup



Project: ACA/4-H Pheasant Raise and Release Program
Photo: ACA, Colin Eyo



Waterfowl Warmup

Sporting Clays Team Challenge

REPORT A
POACHER
www.reportapoacher.com



Project: Waterfowl Warmup

Photo: ACA, Don Myhre

Our Conservation Programs

Information, Education, and Communications

This resource program is key to keeping conservation part of Alberta's diverse lifestyles and valued within its business sectors. Engaging our audiences and stakeholders through multi-media platforms and events creates awareness of ACA's work within wildlife, fish, and habitat—while promoting partnerships and ACA's profile.

Information, Education, and Communications provides professional visual communications in all aspects of ACA operations and resource programs from producing this annual report to conservation site signage, live-streaming peregrine cameras, event support, advertising, and partnership development and recognition.

2017/18 Overview

- 50,000 copies of *Alberta Discover Guide* were delivered in January 2018, featuring 777 conservation sites (including DUC and AFGA sites). The *Guide* is a free annual publication that provides outdoor enthusiasts with a list of conservation sites that can be accessed for hunting, fishing, hiking, and foraging.
- Harvest Your Own advertising campaign and website continue to promote hunting to the localvore culture as an alternative to where people source their protein. This ongoing investment is important to maintaining engagement and education of non-consumers and consumers of wild game.
- The *Annual Operating Plan* and *Annual Report* were completed and provided to our Board of Directors.

- Produced a combined total of 30,000 copies of *Conservation Magazine* for 2017 celebrating the 20th anniversary of Alberta Conservation Association.
- Supported the Wildlife, Fisheries, and Land Management Resource Programs with visual communications and on-demand design and media services such as regional advertising, site signage, and social media.
- Kids Can Catch is a province-wide program sponsored by Dow Chemical Canada. ACA partners with community and corporate partners to create free family fishing events at lakes and ponds. In total, 2,370 adults and children came out to fish at 12 Kids Can Catch events, involving 69 corporate and community event partners. The program received national recognition with a Recreational Fisheries Award from Fisheries and Oceans Canada.
- The peregrine cameras continued to be the highest traffic trend on our website. A ferruginous hawk camera was added—its inaugural year had mixed reviews due to the birds disconnecting the camera.
- The Taber Pheasant Festival celebrated its seventh year in 2017. It pursues a number of objectives: introducing novice hunters to upland game bird hunting, introducing hunting from a field-to-plate perspective for the non-hunting population, providing passionate pheasant hunters an opportunity to hunt on 40 reserved sites, showcasing how hunting has positive impacts on economies, and connecting with local landholders to discuss potential habitat projects to enhance wildlife and pheasant habitat.
- In 2017/18, ACA had 14,573 Facebook followers, 5,180 Twitter followers, 336 YouTube subscribers, and 76,958 subscribers to our e-newsletter.

Alberta Discover Guide app

The *Alberta Discover Guide* app was created so users of the *Alberta Discover Guide* could have another way to access information about conservation sites in pursuit of hunting or angling opportunities. The app also provides ACA with a platform for advertising content from ACA's stakeholders and other organizations and businesses focused on fishing, hunting, and conservation. In 2017/18, the app was downloaded by 8,189 individual users.

Alberta Discover Guide

The *Alberta Discover Guide* is a free, annual publication that provides outdoor enthusiasts with a list of conservation sites that can be accessed primarily for hunting, fishing, hiking, and foraging. These sites have been made available through conservation efforts by ACA and its partners. The publication is a major project for ACA's Information, Education, and Communications Program and is designed and formatted within this program. Advertising is coordinated and produced for free for ACA member groups. Editorial content is developed and written in-house. The communications team also coordinates print production, and updates and maintains the subscription database. We printed 50,000 copies of the guide at the beginning of 2018 to mail out to subscribers and to distribute at trade shows and to hunting and fishing licence retailers across Alberta. The guide is also available online and as an app.

Partnerships

Advertisers, Alberta Fish & Game Association and affiliated clubs, Ducks Unlimited Canada

Annual Operating Plan

Our *Annual Operating Plan* (AOP) informs Albertans and our stakeholders and partners about the projects we are undertaking each fiscal year and how we are directing revenue to our resource program areas. Our Information, Education, and Communications Program coordinates content from corporate and the other resource programs and then edits the content and designs the document. Upon review and approval by ACA's Board of Directors, the AOP is posted on our website at the start of the new fiscal year.

Annual Report

Our *Annual Report* lets stakeholders know how ACA has used funding, what conservation outcomes have been achieved, and how ACA has performed relative to its stated goals. We coordinate content from the other resource programs then edit the content and design and produce the report. Once it has been reviewed and approved by ACA's Board of Directors, the report is printed and posted on our website.

Conservation Magazine

Conservation Magazine is a free, biannual publication produced by ACA that highlights the projects and work we and our member groups are doing in Alberta, discusses topical conservation issues, and bridges an understanding between the hunting and angling communities and larger conservation community. The magazine also helps increase ACA's profile in Alberta and is used as a tool by some of our program areas (Fisheries, Wildlife, Land Management, and Business Development) to reach out to potential donors and partners. The magazine is delivered to subscribers and distributed at trade shows and events. It is also available in digital format. We printed a combined 30,000 copies in 2017. The editions celebrated ACA's 20th anniversary with articles about the history of the association and what we're hoping

to see in the future, the importance of our partnerships, and a feature on each of the four resource programs (Wildlife, Land Management, Fisheries, and Communications). The total number of subscribers now exceeds 12,000.

Partnerships

Advertisers

Conservation Site Signs

Each conservation site has branded signage to recognize our partners, provide wayfinding for users, and notify users of restrictions on the site. Our Information, Education, and Communications Program works with our Land Management, Fisheries, and Wildlife programs to produce signs for conservation sites and their boundaries, fisheries access sites, pheasant release sites, thin-ice areas (warnings), and interpretive trails. In 2017/18, signs were produced for 22 conservation sites, 11 Enhanced Fish Stocking sites, as well as various Riparian Conservation Site signs, LHP signs, and specialty signs.

Emerging Issues

We provide on-demand services for corporate and resource program communications needs. This can include pheasant release sites updates of closures and releases or rush production of aeration signage. Being able to respond to unforeseen communication needs provides ACA the ability to take advantage of opportunities and react quickly in the case of time-sensitive events.

Final Report Series

Our other resource programs (Fisheries, Wildlife, and Land Management) are responsible for submitting reports every year on the projects they have been working on to describe the findings of the work. Communications is responsible for editing, proofing, and formatting these reports and making sure they are available to the public and our stakeholders and partners through our website and the Alberta Government Library. Nine reports

from 2017/18 were posted on our website and have been sent to the Alberta Government Library.

General Advertising

Advertising helps us work toward a number of long-term goals within the Strategic Business Plan, such as increasing public recognition of the ACA brand; creating positive profiles of hunting, fishing, and trapping; and developing corporate partnerships. In addition to these primary goals, ongoing ACA program support (such as for the Fish Stocking project and Report A Poacher initiative, and event promotions) provides recognition of the work we do and therefore, increases ACA public brand recognition and corporate support.

Grants Fund Annual Report

The aim of the *Grants Fund Annual Report* is to document the grant fund procedures and provide an overview of activities and results of projects financially supported through ACA grants (the Conservation, Community, and Education Grants and the ACA Research Grants) each fiscal year. The annual report provides stakeholders with information about the ACA Grant Fund process, the funding allocations, and the activities and results of the projects that receive funding each fiscal year.

Internal Communications Needs

Our Information, Education, and Communications Program provides creative and technical services to the President & CEO, our Human Resources and Business Development teams, and our Wildlife, Fisheries, and Land Management resource programs. We work with program managers, regional managers, and project leads to ensure our programs and projects receive the communications materials needed for their success. This work is accomplished through a combination of internal staff and outsourced services.

Kids Can Catch

Kids Can Catch is a province-wide program, sponsored by Dow Chemical Canada, in which ACA partners with community and corporate partners to create free family fishing events at lakes and ponds. We developed Kids Can Catch as a way to invite Albertans to fish at stocked and natural waterbodies and to hook new and young anglers on fishing, fish conservation, and responsible angling. In 2017/18, 2,370 adults and children came out to fish at 12 Kids Can Catch events, involving 69 corporate and community event partners. The program received national recognition with a Recreational Fisheries Award from Fisheries and Oceans Canada.

Partnerships

Program sponsor:
Dow Chemical Canada

Event organizers, partners, and sponsors (68)

Access Pipeline; Agrium; Alberta Environment and Parks; Alberta Fish & Game Association; Alberta Fish and Wildlife Enforcement Branch; Alberta Forestry and Agriculture; Alberta Hunter Education Instructors' Association – Lethbridge; ATB Financial, Cochrane; ATB Financial, Stony Plain; Aux Sable; Berkley; Cabela's, Edmonton north; Cabela's, Edmonton south; Canadian Tire, Cochrane; Canadian Tire, Slave Lake; CN; CN Police Service; Coronation Elks; Coronation Family Foods; Coronation FCSS Community Youth Programming; County of Paintearth; Edmonton Old Timers' Fishing Club; Edmonton Trout Fishing Club; Fort Saskatchewan Fish & Game Club; Fort Saskatchewan Lions Club; Fort Saskatchewan Naturalist Society; Freson Brothers, High Prairie; Glamour and Gear, High Prairie; Golby Hardware and Sports; Harold Walters and Associates; High Prairie and District Children's Resource Council; Jerry's Store, Jousard; JobSite Workwear; Jousard Community Association; Canadian

Tire Jump Start; Kinuso Mercantile; Lamont Fish & Game Association; Len Thompson Lures; Lesser Slave Forest Education Society; Lesser Slave Lake Search and Rescue; Lesser Slave Lake Watershed Council; Lesser Slave Regional Fire Service; Trout Unlimited Canada – Northern Lights Fly Fishers Chapter; Parkland County; Peavey Mart, High Prairie; Prairie Parent Link; Provost and District Fish & Game Club; River Valley Alliance; Servus Credit Union, Wabamun; Shakespeare; Slave Lake RCMP; Slave Lake Rod and Gun Club; Stony Plain Fish & Game Club; Superfly International; Town of Beaumont; Town of Cochrane; Town of Coronation; Town of Gibbons; Town of Provost; Town of Stettler; TransAlta; Tribal North Energy Services; Village of Wabamun; Slave Lake Volunteer Firefighters; Wabamun & District Chamber of Commerce; Night Owls Citizens on Patrol, Wabamun; Walleye Master

Marketing Campaign: Harvest Your Own

Alberta is one of the few jurisdictions in North America seeing a growth in the number of hunters. This increase is often attributed to an interest in organic and local food, and hunting as a way to actively and ethically source your own protein. New hunters, in particular men, women, and youth from urban areas, may not have a network of family and friends to help them learn to hunt. Harvest Your Own aims to provide new hunters with timely and relevant content that will help them get started and have success in the field and kitchen. The increase in overall audience—1,895 Facebook followers, 270 Instagram followers, and 105 Twitter followers—is a direct result of consistent and frequent posts on social media tied to quality articles, videos, and images on the Harvest Your Own website.

Media Releases

Media releases inform television, radio, and print media sources about events and important information in hopes that they might be announced to a bigger audience. We sent out five media releases in 2017/18: Wabamun Kids Can Catch, Kids Can Catch won a national prize, celebrate ACA's 20 years, Fort Saskatchewan Kids Can Catch, and pronghorn fence crossing.

Online Advertising

We use online advertising to increase public awareness of ACA and our initiatives. By developing advertising campaigns, often based on seasonal initiatives, we can greatly increase our exposure to the public. As opposed to traditional, analog-style advertising, such as billboards and magazines, online advertising allows us to track a variety of audience and performance metrics for post-analysis and optimization. Not only does online advertising allow us to attract visitors and educate the public, we are able to learn more about the public's preferences, responsiveness, and opinions in regard to specific issues and content personality. We ran six campaigns through Google Adwords (resulting in 787,040 Impressions and 30,019 clicks) and 24 promotions through Facebook Advertising (resulting in 630 additional followers, 2,325 clicks, and 1,076 comments).

Peregrine Cameras

The peregrine cameras provide a bird's-eye view into the daily lives of peregrine falcons as they fight for mates and territory, catch food, and raise their young. We had cameras at five locations in Edmonton—Bell Tower, University of Alberta, Genesee Power Plant, Agrium Redwater, and Weber Centre—and we live-stream the video to our website. The cameras draw attention to this species and to other species at risk initiatives and resources available from Alberta Environment and Parks. Views of peregrine pages on our website accounted for 34% of web traffic in 2017/18.

Partnerships

Aspen Properties, Capital Power, TeraGo, TransAlta, University of Alberta, WiBand

Riparian Publication

Existing riparian resources, *Caring for Shorelines* and *On the Living Edge* have become outdated and were to be rewritten and republished in 2016. Nature Alberta approached ACA and Alberta Environment and Parks to combine resources and knowledge to produce a more robust riparian resource for the public within their Living Edge program. The design and content for the publication was ultimately rejected, and the project was renegotiated, with ACA taking the lead role in redesign and content development. Concepts for the publication were developed and approved. Content development is ongoing.

Partnerships

Alberta Environment and Parks, Nature Alberta

Social Media

Social media is a way for ACA to connect with, inform, and grow our audience. We produce and deliver a monthly e-newsletter and interact daily with audiences on Facebook and Twitter. In 2017/18 we started an Instagram account as well. We use social media to increase awareness of conservation issues and member group activities. In 2017/18,

we gained 2,821 new Facebook followers, 714 new Twitter followers, 26 new YouTube subscribers, and 1,116 Instagram followers.

Stakeholder Communications

To foster positive business relationships and partnerships in conservation sectors, ACA promotes projects and events for our stakeholders and member groups whenever possible. This support might appear as an advertisement in *Conservation Magazine*, a post in social media, or a design for a conservation site sign. The Information, Education, and Communications Program is able to provide creative services related to visual communications and social media, such as design, creative copywriting, digital design, editing, social media, and industry-standard print media production.

Taber Pheasant Festival

Recognizing the potential economic benefits and the importance of pheasant hunting as part of Alberta's hunting heritage, Alberta Conservation Association initiated the Taber Pheasant Festival in 2011. This festival sets up hunting opportunities by releasing male pheasants on 40 pre-selected sites in the Municipal District of Taber. Every year, the Festival hosts a novice hunting weekend where new hunters of all ages get to try pheasant hunting for the first time. This year, 101 hunters attended the novice events. The festival helps to make a connection with local landholders to discuss potential habitat projects to enhance wildlife and pheasant habitat. This unique festival also offers the opportunity to showcase hunting from a field-to-plate perspective for the non-hunting population. We provided new hunters with educational background on pheasants and hunting and demonstrated how to clean and utilize as much of the meat as possible with butchering demonstrations. We ran a Game to Gourmet culinary event to showcase what can be done with pheasant

meat after it is harvested. An economic analysis of the festival by the University of Alberta determined there has been a gradual increase in sales of pheasant licences. They also determined that there was an approximate consumer surplus of \$191.57 per group attending the festival. A consumer surplus means that the hunters were willing to pay more to come to the festival. There is no registration fee for the festival but there are costs associated with travel, accommodation, food, hunting gear, etc. This is the seventh year of the festival. Including the novice hunters, 765 people participated in the 2017 Taber Pheasant Festival.

Partnerships

Alberta Culinary Tourism Alliance, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Beretta/Benelli/Tikka (Stoeger Canada), C&B Alberta Solar Development/Canadian Solar/Bow Mont Capital & Advisory, Cycle Works, Heritage Inn Taber/Canadian Destinations Group, Landowners, MacFarlane Pheasants Inc., Municipal District of Taber, Pheasants Forever – Calgary Chapter, Taber & District Chamber of Commerce, Taber Irrigation District, Town of Taber, Town of Vauxhall, Taber organizing committee, Vortex

Waterfowl Warmup

Waterfowl Warmup is a fundraiser in support of the Report A Poacher (RAP) Program. Proceeds from the event support the new RAP educational trailer, which is used to help educate the public about responsible hunting and angling and the negative impacts of poaching. ACA hosted Waterfowl Warmup on August 17, 2017, at Beaverhill Sporting Clays, 45 minutes east of Edmonton. Twenty-one teams participated in the friendly competition and also spent the morning checking out the shotgun demo stations; picking up tips on decoying, calling, and hunt strategies; dog demos and training tips; and enjoying a wild game lunch of hunter-harvested goose.

Partnerships

Arctic Chiller, Beaverhill Sporting Clays, Brad Fenson Outdoors, Canadian Tire Wetaskiwin (Winchester and Browning), Delta Waterfowl, Ducks Unlimited, Fisher Marketing/Stoeger Canada (Benelli, Beretta, and Franchi), Kingston Ross Pasnak, Maverick Inspection Ltd., Mountain Coil

Website Maintenance and Development

ACA's website provides an accessible gateway to information about our work. It is perhaps the primary platform we use to increase our profile in Alberta—one of the long-term goals of ACA's 10-year Strategic Business Plan. In 2017/18, the ACA website achieved approximately 500,434 page views, with the average user spending 2:05 minutes per visit.

WIN Card Reimbursements

A Wildlife Identification Number (WIN) card is required to purchase fishing and hunting licences in Alberta. In partnership with Hunting for Tomorrow and Alberta Hunter Education Instructors' Association, the WIN Card Reimbursement program supports the recruitment of young people into hunting. The project gives ACA and our member groups a way to connect with new hunters when they purchase their first WIN card. Although the cost of reimbursing each youth for their first WIN card is relatively small, the impact of this program has been significant. ACA

has been able to enhance young hunters' experiences by introducing and connecting them to programs, information, and member-group organizations. It is our hope that making these connections at a young age will result in long-term relationships being formed between these young stakeholders and the larger conservation community. In 2017/18, Hunting for Tomorrow distributed 1,836 information packages to youth who had completed the hunter education course. A total of 372 youth returned the reimbursement form and asked to be included on ACA's mailing list to receive ongoing information from ACA regarding hunting, fishing, trapping, and other conservation activities.

Partnerships

Alberta Hunter Education Instructors' Association, Hunting for Tomorrow



Project: Peregrine Cameras

Photo: ACA, Colin Eyo



Project: Provincial Snake Hibernaculum Survey

Photo: ACA, Kris Kendell

Wildlife Program

Our wildlife program has a strong focus on long-term collaborations that balance wildlife with the social and economic goals of landowners and stakeholders. We've found that building relationships leads to trust, and the opportunity to have honest conversations about the trade-offs involved with wildlife and their habitat needs.

Silver bullets may apply in fiction, but never in wildlife conservation. Restoring wildlife habitat involves long-term vision and determined persistence year over year. The fruits of those efforts can be slow at the start, but will continue to grow well into the next decade!

2017/18 Overview

- Hosted a workshop in the County of Taber to identify new opportunities for working together (municipality, town council, chamber of commerce, irrigation districts, and other conservation groups). We're working with Taber Irrigation District to assist with planning and implementation of habitat initiatives on their land base. We also forged partnerships with two grazing reserves within the county to help balance the needs of cattle and wildlife.
 - The Ridge Reservoir Habitat project involves many partners, and continues to develop habitat for wildlife while creating a vegetation buffer around the reservoir. In 2017, we planted more than eight linear km of shrubs that not only create escape cover for game birds, but their deep roots filter out nutrients before reaching the riparian zone, while their flowers are vital for pollinators. The working group completed a six-acre wetland in 2017. We installed signage to showcase the initiative and partners involved, as well as highlight how wildlife habitat serves to provide much broader ecological function.
 - Collaborated with ranchers to develop range-wide management plans for six ranches (58,000 acres) in the South Saskatchewan River area, and reassessments on 44,500 acres in the Milk River drainage (MULTISAR). We assisted producers with fencing to deflect grazing from delicate riparian zones, installed protection from beavers at select trees to reduce erosion, as well as installing hawk poles. We also installed off-site cattle watering units to reduce cattle use near riparian zones. We submitted a manuscript for peer review that discusses effective long-term conservation with private landowners based on the success of MULTISAR.
 - Worked with Circle E grazing reserve to construct an alternate water source to draw cattle away from wetlands. This distributes cattle and enables grazing in areas that may be underutilized, and decreases disturbance in riparian areas that are so vital to wildlife. Circle E has recently become a partner in the MULTISAR program.
 - Collared ten wolverines in the Birch Mountains over two winters to better understand habitat use. Home range size has varied with age and gender, with young animals covering large areas when establishing a home for themselves and the range of denning adult females becomes markedly smaller as they care for their young.
- We recently submitted a peer reviewed paper that characterizes den sites in the boreal forest.
- Currently assisting Alberta Environment and Parks (AEP) and Alberta Trappers' Association (ATA) with a pilot project to assist trappers to track furbearer trends from harvest data (logbooks). We analysed 50 logbooks received over three winters from 36 trappers over 42 registered traplines. Marten were the most commonly trapped species followed by weasel, coyote, lynx, and red squirrel. Over 100 trappers participated in winter 2017/18 and provided over 700 marten skulls that will be analyzed for age and gender. We will use these data to assist with comparing two approaches for measuring population trends over time: young to adult harvest versus catch per unit effort. We anticipate three years of trend assessment will be needed.
 - Collected hair samples at lure sites in Bear Management Area 1 in northwestern Alberta to assist AEP with estimating grizzly bear density. We completed 1,238 visits over five repeat intervals from mid-May to mid-July 2017, and collected 3,975 bear hair samples. Hair samples were delivered to the lab, with preliminary results anticipated in July 2018. AEP will publish the density estimates using a spatially explicit capture-recapture model in 2018/19.
 - More than 100 4-H members learned that habitat is the key to future pheasant populations. They raised and released 11,353 pheasants from day-old chicks to 14-week-old hens and roosters that were released into suitable habitat. An additional 6,587 pheasants were raised by Boy Scout groups, schools, Fish & Game Clubs, and private landowners throughout Alberta.
 - Released 26,000 male pheasants on 42 release sites across Alberta to increase hunting opportunities. Five Fish & Game clubs south of the Red Deer River volunteered to release pheasants weekly at 23 sites throughout the season. A new site, Lac Cardinal Uplands, was added this year near Peace River. 4-H members and the local Fish & Game club raised 1,100 roosters for release at the two sites between Peace River and Grande Prairie.
 - Completed maintenance on over 20,000 shrubs at sites engaged in the Habitat Legacy Partnership. Shrub habitat creates escape cover and winter habitat for pheasants, grey partridge, and other wildlife species. Photo-points are taken at each site to document the changes in habitat over time. Partnering landowners provide reasonable public access.

ACA/4-H Pheasant Raise and Release Program

Changes in agricultural practices and the conversion of native prairie into cropland have dramatically modified the landscape to the point where native game birds are nearly eliminated from areas dedicated to cropland. Pheasants can adapt to areas predominately used for cropland provided that a suite of habitat features are also available. In 2014, we initiated a new partnership with 4-H Alberta and other interested groups offering them the opportunity to raise pheasants from day-old chicks to adult birds for release. This year we had 107 4-H participants who raised 11,353 hen pheasants and released them into suitable upland habitat. This is up from the previous year where participants raised 9,470. In addition to the 4-H participants, 6,587 pheasants were raised by other interest groups including private landowners, school divisions, Fish & Game associations, and Boy Scout groups. We held workshops throughout the province to provide guidance on pheasant husbandry and to discuss habitat features important for improving the odds of survival once the hens are released into the wild.

Partnerships

4-H Alberta, Calgary Fish & Game Association, Dennis and Cheryl Meyer, Lethbridge Fish & Game Association, Southern Alberta Bow Hunters Association, Wheatland Conservation & Wildlife Association

Alberta Volunteer Amphibian Monitoring Program

Volunteers have been playing a crucial role in wildlife conservation efforts for many years. Vast datasets collected through long-established programs like the North American Breeding Bird Survey,

or more recent programs such as eBird, would not exist without their efforts. Individuals who volunteer with ACA can develop skills and gain knowledge related to conservation and, at the same time, increase our capacity to deliver conservation initiatives. In 2017/18, 34 participants from the Alberta Volunteer Amphibian Monitoring Program submitted 55 amphibian and 18 reptile observations, including locations of two snake hibernacula (dens). These data represented 70% of the amphibian and 44% of the reptile species native to the province. Data collected by volunteers provide a better understanding of the distribution and status of Alberta's amphibians and reptiles, and provide valuable information for land-use planning efforts. These partnerships and volunteer relationships are examples of how ACA can work with a network of enthusiastic volunteers to positively impact conservation.

Partnerships

Alberta Environment and Parks

Alberta Wildlife Status Reports

ACA and Alberta Environment and Parks (AEP) produce Alberta Wildlife Status Reports for wild species that are believed to be declining in Alberta. These reports are the essential first step for a species to have its status assessed, and they play a key role in identifying *Endangered* and *Threatened* species that need legal protection and recovery actions to keep them from becoming extinct in Alberta. Each status report summarizes the information needed for assessing a species' status—where it lives, the specific habitat it requires, its population size, and whether it is stable/increasing/declining, factors preventing the species from thriving in Alberta, and what work has been done or is ongoing to manage the species in Alberta. A committee of Alberta-based scientists compares the information in each status report to internationally set thresholds (e.g., for population size) and recommends a

status for the species. Using international criteria and thresholds ensures the status assessment process is as unbiased as possible. The status recommended by the scientists is subsequently scrutinized by an Alberta-based multi-stakeholder committee (the Endangered Species Conservation Committee). Composed of land managers, academic institutions, conservation groups, and industry, the committee provides its recommendation on a species' status to the Minister of AEP. The ultimate decision on status designation (e.g., *Endangered*, *Threatened*) is made by the Minister. In 2017/18, we initiated two reports (McCown's longspur, prairie falcon update) and continued our work on a third report (western wood-pewee) for review by Alberta's Endangered Species Conservation Committee. We also published the Arctic grayling update and completed the American bison update, both of which were initiated in previous years. ACA plays a key role in assessing the status of Alberta's species at risk through our involvement with the Alberta Wildlife Status Report series.

Partnerships

Alberta Environment and Parks

Amphibian Monitoring Using Environmental DNA

Environmental DNA, or eDNA, refers to the DNA that organisms leave behind or shed as they pass through the environment. DNA technology has evolved to allow researchers to detect DNA signatures from material such as mucus, feces, urine, or sloughed skin that is naturally contained within pond water and aquatic sediment. We are working towards a reliable method of detecting amphibians using eDNA. The first phase of this work involved a MSC project developing an approach for detecting three amphibians. The second phase involved a partnership with Washington State University to further refine these methods and evaluate three sample collection procedures to improve reliability

of detection: 1) a simple water grab sample, 2) passing water through a cellulose nitrate filter, and 3) collecting surface material from the top of the substrate on pond floor. The work has revealed that some sampling techniques may be less suitable for detecting certain amphibian species. Laboratory assay results revealed that 31% of water filter samples tested positive for species that were present compared to 16% of the water grab samples. Sediment samples had very few positives. Although there are some details to be resolved, our findings support the theory that amphibian DNA in the environment can be used as a proxy for directly observing a target species. Additionally, we feel that collecting a small amount of surficial sediment warrants further assessment in 2018/19 as it may be the most economical and straightforward approach when considering citizen science applications and amphibian surveys over large regions.

Partnerships

Alberta Environment and Parks, Shell Canada Energy, Washington State University – Caren Goldberg

Connectivity Project

To mitigate the effects of habitat loss and fragmentation, well-coordinated partnerships with many stakeholders are needed to re-establish habitat and connectivity across the land base. We meet with municipalities, irrigations districts, and grazing reserve board of directors to better understand their operations and discuss habitat needs of various wildlife. We work together to identify and map habitat enhancements that can be dovetailed into their operations that will benefit not only wildlife but also improve other parameters such as water quality, vegetative stands for grazing, access to water for grazing, social licensing, and recreational access. Once initial plans have been discussed with the landholder, we also approach other partners for assistance in terms of letters of support, funding, and

manpower needs. In 2017, we hosted a stakeholder workshop in the MD of Taber to scope out opportunities for working together. This led to preliminary discussions and planning sessions with two irrigation districts and two grazing reserves. We cost-shared the construction of a dugout to help deter grazing in an important riparian zone with one grazing reserve. We also developed best management practice guidelines to assist Taber Irrigation District with managing their land base, and assisted them with gaining approval for a new fence designed to improve a riparian zone.

Partnerships

Circle E Grazing, St. Mary River Irrigation District (SMRID), Taber Irrigation District (TID)



Program: Alberta Volunteer Amphibian Monitoring Program
Photo: ACA, Kris Kendell

Enchant Project

We have a long-term working relationship with a farm to evaluate approaches for re-establishing vibrant upland game bird densities while maintaining a profitable farming operation. We also monitor a range of non-target species to assess how these treatments impact biodiversity (amphibians and songbirds). We trial enhancements that focus on improving habitat features important for nesting, brood rearing, and winter survival of pheasants and grey partridge. This includes approaches within the crop, the juxtaposition of crops types and rotation, harvest method, field edge improvements, water management and wetlands, and seed trial plots. In 2017, we trialed a tall-edge habitat mix (sorghum/millet/corn varieties) in areas with and without irrigation,

constructed two small wetlands, and planted 1,500 shrubs in a nine-row shelterbelt. The density of partridge pairs has increased on the farm from 55 pairs in 2014 (10.3/km²), to 191 in 2017 (35.2/km²). Counts in early fall are a reflection of breeding success and the number of grey partridge in our autumn survey was the highest it's been since starting surveys in 2014 with roughly 204 partridge/km². We released pen reared hen pheasants for three years beginning in 2014. There were approximately two hen pheasants per km² in early spring 2017 so we opted not to release additional pen reared hens last summer with the hope that the small naturalized population will increase on its own.

Partnerships

Cedarglen Homes, Stamp Seeds

Grizzly Bear Population Inventory in Bear Management Area 1

Grizzly bears are an iconic symbol of our wilderness and historically an important part of Alberta's hunting heritage. In 2010, grizzly bears were designated as *Threatened* under the provincial *Wildlife Act*, and in 2012, the western population was federally designated as a *Species of Special Concern* by the Committee on the Status of Endangered Wildlife in Canada. Prior to the 2017 study, a population estimate for Bear Management Area 1 (BMA1) had never been attempted—BMA1 is in the Chinchaga area of northwestern Alberta. Preliminary set up of barbed wire corral hair trap sites (rub sites) in the study area began in the summer/fall field seasons of 2015 and 2016. During this period, Alberta Environment and Parks (AEP) surveyed public and private lands within the study area and set up a total of 213 rub sites. In 2017, we partnered with AEP to intensively sample BMA1. Over a nine-week period (mid-May to mid-July), we deployed four field crews (one ACA rotary-winged crew, two ACA ground crews, and one AEP ground crew) to cover 27 routes, visiting each route and its respective rub sites five times. During the initial session, we cleaned off any existing hair, retightened barbed wire, and applied lure to each site. We also located and set up an additional 39 rub sites for a total of 252 rub sites surveyed across BMA1. During the second, third, and fourth visit we collected hair samples and re-applied lure to each site. On the fifth and final visit, we collected hair samples and then removed the barbed wire and signage at all 252 sites. Throughout the 2017 field season, a small number of sites were removed from the study and replaced in alternate locations due to poor landing conditions for the helicopter or territorial bears in the area. We completed 1,238 visits to rub sites with an average of 247 rub sites visited per session over five sessions. From the 42 trail cameras that were set up at a sub-set of sites we collected and processed



Project: Grizzly Bear Population Inventory in Bear Management Area 1

Photo: ACA, Amanda Rezansoff

over 112,000 photos of which 9,965 were animals including 12 grizzly bears. We sent 3,975 hair samples to Wildlife Genetics International for DNA analysis. The DNA results will be used in a spatially explicit capture-recapture framework to estimate grizzly bear density and abundance in BMA1. An accurate population estimate is an integral part of proactive land use planning, designed to support grizzly bear management, and to reduce human-bear conflicts in Alberta.

Partnerships

Alberta Agriculture and Forestry, Alberta Environment and Parks, Forest Resource Improvement Association of Alberta

Habitat Legacy Partnership

Upland game birds are valued for their showy colours, breeding displays, and long history in the hunting tradition of Alberta. Farming practices around the world have changed significantly over the past 50 years, with an ever-increasing economic pressure to maximize yield. Some of these practices have altered the resources important for pheasants, grey partridge, and sharp-tailed grouse, making their outcomes less stable. The Habitat Legacy Partnership works collaboratively with farmers, ranchers, and conservation groups to improve habitat and hunting opportunity for upland game birds. We meet with private landowners to better understand their farming operations and discuss habitat needs. We work together to identify and map habitat enhancements that can be dovetailed into their long-term farm plans. We also engage the public in a variety of ways to raise the profile of upland game birds and highlight strategies to benefit pheasants and grey partridge on a working landscape. Public engagement activities include presentations at landowner advisory workshops, stakeholder meetings, novice shoots, public presentations, and distribution of information booklets. In 2017, we continued maintenance on more than 20,000 shrubs, including many berry-bearing species, to provide a reliable food source and create winter cover

for upland game birds. We attended the Willow Valley, Delta Waterfowl, and Taber Pheasant Festival novice hunts to assist with the activities and to help educate and engage participants in wildlife habitat needs. Through the Habitat Legacy Partnership project, we are gaining recognition as being a partner for private landowners to collaborate with for habitat development.

Partnerships

Landowners

MULTISAR – Milk River

Southeastern Alberta is home to the highest density of *At Risk* wildlife in Alberta. MULTISAR – Milk River is a multi-species stewardship program for species at risk focusing on the Milk River watershed. MULTISAR stands for Multiple Species - Multiple Agencies - Multiple Resources. The program is a collaborative effort among landowners, Alberta Conservation Association, Alberta Environment and Parks, and the Prairie Conservation Forum. Long-term relationships built on mutual respect and trust have enabled us to collaborate with producers and implement range plans and enhancements on close to 400,000 acres. In 2017, we completed wildlife and range surveys on about 44,500 acres, and completed habitat plans for three landowners to help them incorporate wildlife habitat needs into their ranching practices. Federally *Endangered* little brown bats, as well as *Threatened* ferruginous hawks, chestnut-collared longspurs, and Sprague's pipits are just a few of the species identified on these lands. We completed 14 new habitat enhancements in 2017 and continued work on another three enhancements initiated in previous years. This included the continued restoration of 1,300 acres back to native grass through spraying for brome, Canada thistle, and other weeds to help ensure the seed bed is clean. We monitored 35 enhancements in 2017, including ferruginous hawk poles, native grass restoration projects, portable watering systems, shrub/forb plantings, and weed control plots. Seven of the ten existing hawk poles were active in 2017. The diversity of

birds has changed over the years in the restored native grassland sites and shifted to species that prefer taller vegetation with higher litter amounts (Sprague's pipit, Baird's sparrow). These improvements not only benefit species at risk, but can also provide benefits to upland game birds and ungulates and maintain the recreational opportunities that these large ranches provide.

Partnerships

Alberta Environment and Parks, Government of Canada, Landholders, Prairie Conservation Forum

MULTISAR – South Saskatchewan

Southern Alberta is home to many of Alberta's species at risk where they often overlap with agricultural landscapes. But in many cases, it's the existing management practices on these lands that have allowed these species to persist. However, there are often additional opportunities to work with these landholders to further enhance wildlife habitat. In 2017, we conducted baseline assessments on 58,000 acres and implemented 13 enhancements including spring developments, tree protection, and hawk-pole installation. MULTISAR stands for Multiple Species - Multiple Agencies - Multiple Resources. It is through these partnerships, and collaboration with agriculture groups and communities, that we strive to foster a mutually beneficial relationship between the agriculture sector, wildlife habitat, and recreationalist that enjoy accessing the land.

Partnerships

Alberta Beef Producers, Alberta Environment and Parks, Canadian Cattlemen's Association, Canadian Roundtable for Sustainable Beef, Cows and Fish – Alberta Riparian Habitat Management Society, Government of Canada, Landholders, Prairie Conservation Forum

MULTISAR – Taber

Habitat loss is often a key contributor to species population declines. Activities such as habitat modification, road building, expanding agricultural practices, and wetland/riparian alterations can result in habitat loss and negatively impact wildlife species. As the amount of undisturbed land continues to dwindle, it becomes increasingly important to consider the way that our practices modify the land and what we can do to mitigate these changes before species become at risk. The MULTISAR – Taber project focuses on maintaining and enhancing habitat for species outside of the key focal areas for species at risk, and within the Municipal District (MD) of Taber. MULTISAR stands for Multiple Species - Multiple Agencies - Multiple Resources. This project promotes healthy habitats for species not listed under the federal *Species at Risk Act*. Our focal species include prairie rattlesnake and sharp-tailed grouse, although enhancements will benefit other species as well. In 2017, we helped design and provided materials for a new wildlife-friendly fence to restrict cattle and vehicle damage to a sensitive riparian zone. We delivered presentations to managers and landholders within the MD of Taber discussing habitat needs for grouse and rattlesnakes. We are striving to foster long-term relationships with the ranching and broader agricultural community to enhance wildlife habitat within this county.

Partnerships

Alberta Environment and Parks, Government of Canada, Landholders, Municipal District of Taber

Provincial Pheasant Release Project

Upland game bird hunting has a long-standing tradition in Alberta. Since the introduction of the Chinese ring-necked pheasant in the early 1900s, wild populations became established in select areas of southern Alberta. To accommodate the high demand for hunting opportunities the Alberta government started a hatchery in

1945 and created the Provincial Pheasant Release Program which saw thousands of hatchery-raised pheasants released onto the landscape each fall. In more recent years, the hatchery was privatized due to government cutbacks and was closed in 2013, so a small group of keen hunters formed Upland Birds of Alberta and agreed to run the release program. ACA agreed to take over the release program beginning with the 2014 season with the overall aim to provide greater hunting opportunity for all Albertans. We released 17,080 male pheasants for the fall hunting season in 2014 and increased this number to 25,000 in 2015. The total increased to 26,000 in both 2016 and 2017. We developed a webpage that shows a map and directions to all the sites to make this hunting opportunity more accessible. We operated 41 release sites in 2017 including one new site at Lac Cardinal near Peace River. We worked with five Fish & Game clubs in southern Alberta who played a key role with the weekly release of pheasants (6,040 total) at 23 sites from Medicine Hat to Cardston. We also partnered with 4-H families and the Peace River Fish & Game club who raised 1,000 and 350 roosters respectively for sites in the northwest. We contracted MacFarlane Pheasants to release birds three times per week at the remaining 16 sites (n = 18,960 pheasants). MacFarlane housed these birds in a holding facility near Strathmore. Birds were released at more northern sites beginning September 1 for nine weeks, while releases at southern sites corresponded with the later opening day for pheasants beginning October 15. The program has been well-received with positive feedback from hundreds of hunters annually.

Partnerships

4-H Alberta, Cardston Fish & Game Association, Ducks Unlimited Canada, Fort Macleod Fish & Game Association, Lethbridge Fish & Game Association, MacFarlane Pheasants, Medicine Hat Fish & Game Association, Peace River Fish & Game Association, Picture Butte Fish & Game Association

Piping Plover Recovery Project

Piping plovers are small, stubby-billed *Endangered* shorebirds that nest and feed along gravel beaches. They face a number of threats including high rates of predation and damage to their nesting and feeding habitat. We are working with landowners across east-central and southern Alberta to improve habitat and promote awareness of the plight of the piping plover. Each year, we also conduct piping plover counts on key breeding lakes that allow us to monitor population numbers and distribution, and help us guide habitat improvement activities. We surveyed 29 waterbodies and found 112 adults on 18 lakes, with ten or more adults on three of these lakes. We detected one breeding pair on the gravel nesting area we created in 2015, the first-time breeding activity has been recorded on this habitat. We conducted aerial reconnaissance flights to identify lakes that may contain suitable breeding habitat. We flew for approximately 15 hours (2,100 km) and looked at 97 potential lakes. Of those 97 lakes, we followed up with 15 ground surveys to confirm their habitat suitability, and found three lakes that appeared capable of supporting plovers, and one lake where a plover was detected. We improved over 5 km of shoreline habitat, including the implementation of seasonal grazing to reduce the encroachment of vegetation that impairs this habitat for plovers. Since large-scale recovery efforts began in 2002, we have improved over 58 km of shoreline habitat, with the majority of “critical” piping plover habitat being protected or improved through fencing.

Partnerships

Alberta Environment and Parks, Cooperating landowners, Delta Waterfowl, Department of National Defence, Government of Canada, University of Manitoba

Pronghorn – Grassland Indicator

In planning, surrogate species may be selected whose life-history requirements, sensitivity to impacts, spatial range, or position in public perception act as a barometer of ecosystem function. Pronghorn are an iconic prairie species whose life-history attributes require them to range over the longest distances of any ungulate in the Northern Sagebrush Steppe. Because pronghorn are well-distributed across the landscape, move and operate at large landscape scales, are sensitive to both environmental and anthropogenic pressures, and are highly regarded in public perception, we hypothesize that they can serve as an umbrella for other sagebrush steppe and grassland species at the periphery of their range (e.g., greater sage-grouse, Sprague's pipit, chestnut-collared longspur, gadwall, and blue-winged teal). We

have initiated analyses to test our hypothesis that pronghorn are an appropriate indicator species for the Northern Sagebrush Steppe. We have also drafted two manuscripts for submission to peer-reviewed journals.

Partnerships

Alberta Environment and Parks, National Fish and Wildlife Foundation, Sage Grouse Initiative, The Nature Conservancy, University of Montana, Western Association of Fish and Wildlife Agencies

Pronghorn Fence Crossing Enhancement

There is an extremely high density of barbed wire fences in southeastern Alberta. These fence lines pose a serious barrier to movement within the pronghorn migration corridor, slowing down pronghorn movements and making them susceptible to predation. Pronghorn may cross under fence lines in

some locations; however, barbs located on the bottom strand of fence lines strip hair off their back, causing lacerations and making them vulnerable to infection and frostbite. A solution is to replace the bottom wire with double-stranded smooth wire and move it up to 46 cm; however, this is expensive and takes a lot of effort. To help alleviate this problem, Alberta Fish & Game Association (AFGA) initiated a project in 2009 with ACA and volunteers providing on-the-ground assistance. In 2017/18, we completed two fencing projects with AFGA, where we modified 26 km of barbed wire fence by replacing the bottom strand with double-stranded smooth wire and adjusting its height to 46 cm. Continued support of the program by ACA is greatly appreciated by AFGA.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, National Fish and Wildlife Foundation



Program: Pheasant Release Program

Photo: ACA, Scott Seward

Pronghorn Movement and Enhancement

We began our fence modification trials in October 2016, deploying 32 trail cameras at known pronghorn crossing sites on CFB Suffield. The purpose of these trials was to assess how pronghorn react to sage grouse reflectors and white PVC pipe on the top wire (visual marker for ungulates jumping over). Events of pronghorn were the most common, followed by mule deer, white-tailed deer, elk, and coyote. We recorded events of four ungulate and one carnivore species using the same set of known crossing sites, presumed to be just used by pronghorn, which speaks to the communal nature of these crossing locations. Further study is required to assess the spatial and temporal niche portioning by these species around known fence-crossing sites.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Bushnell, Cabelas Canada, Canadian Forces Base Suffield, National Fish and Wildlife Foundation, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), TD Friends of the Environment, The Nature Conservancy, University of Montana, World Wildlife Fund

Pronghorn Road Crossing Enhancement

Among the diversity of prairie wildlife, the pronghorn is the most specialized and representative large mammal and is known to make seasonal migrations. Along the migration pathway, pronghorn must navigate their way across Highway 1, which includes crossing three fences, four lanes of high speed traffic, and a set of railroad tracks. Pronghorn Xing is a citizen science program developed to ground truth seasonal movement pinch-points identified by connectivity modelling across highways in Alberta and Saskatchewan and increase public engagement in pronghorn science and conservation. The Pronghorn Xing project is a

partnership between ACA, Miistakis Institute, Alberta Environment and Parks, Alberta Transportation, Saskatchewan Ministry of Environment, and Saskatchewan Government Insurance. To date, 34 individuals have signed up for Pronghorn Xing and reported a total of 260 observations. Ultimately the project will lead to the development of tools to reduce wildlife – vehicle collisions while ensuring the safe passage of wildlife across highways. The generated information will be shared with Government agencies in both Alberta and Saskatchewan.

Partnerships

Alberta Environment and Parks, Alberta Transportation, Miistakis Institute, Saskatchewan Ministry of Environment, Saskatchewan Government Insurance

Provincial Snake Hibernaculum Survey

Snakes are at the geographic edge of their North American range within Alberta, with most species having a small range of occurrence in the province. This makes them highly susceptible to a variety of environmental drivers and adverse human activities. Obtaining reliable information on important snake habitats in the province, such as the location of hibernacula, is an important step to minimize snake mortality and loss of key habitat. Additionally, determining snake occupancy at hibernacula can help inform land-use planning and best management guidelines. In partnership with Alberta Environment and Parks, we developed and trialed a new protocol for the survey of snake hibernacula in Alberta. We visited five historical garter snake hibernacula when snakes were most likely to be emerging from them in spring or returning to them in the fall. A key goal of the surveys was to identify deficiencies and refine content in the survey protocol, including biosecurity procedures. We were able to detect the presence of a least one species of snake at four of the

five hibernacula surveyed. In the spring of 2018, we will begin a large-scale effort to confirm the status of historical snake dens in Alberta.

Partnerships

Alberta Environment and Parks

Restoring Natural Habitat for Wildlife

We provided third-party support to Alberta Environment and Parks (AEP) to continue prescribed burning on public lands for ungulate habitat enhancement in areas where fire has been historically suppressed. AEP burned approximately 2,256 ha in 2017/18. Data analysis was completed and draft reporting initiated for two ACA-supported AEP prescribed fires, namely the Upper North Saskatchewan and Hutton Creek prescribed fires. We found the Upper North Saskatchewan prescribed fire produced some positive result for bighorn sheep, elk, and mule deer in relation to enhanced foraging habitat. Hutton Creek results are still being assessed. For ACA titled lands, we worked along with Land Management staff to conduct a sharp-tailed grouse survey in the NE Region, and visited three ACA properties in the Central region for which we provided input on habitat enhancement initiatives.

Partnerships

Alberta Environment and Parks

Ridge Reservoir Habitat Project

The Milk River Ridge Reservoir Water Quality Stewardship Initiative is a multi-year collaborative initiative in the County of Warner. The stewardship initiative is overseen and managed by a working group consisting of Alberta Environment and Parks (AEP), ACA, and the County of Warner whose actions are guided by terms of reference. The initiative consists of nine segments around the Waterton-St. Mary headworks inlet canal and along the shorelands of the Milk River Ridge Reservoir. These segments



Project: Pronghorn Road Crossing Enhancement
Photo: ACA, Paul Jones

are predominantly focused on provincial Crown land—known as the “provincial land corridor”—that surrounds the reservoir. The overall goal of this initiative is the improvement of water quality through the restoration of the vegetation community along shorelands and riparian areas. This restoration translates into the creation of vital wildlife habitat that also filters nutrients and reduces erosion. Approximately 1.4 million dollars has been raised and invested to date. Thus far we’ve installed 45 km of fencing to protect shoreland and riparian habitat. Twenty offsite water units have been installed to move cattle away from fragile riparian zones. We’ve planted roughly half of the 40,000 shrubs targeted for the initiative, and seeded 386 acres back into perennial wildlife habitat. A large 6.18-acre wetland was developed on the west end of the reservoir that acts as a huge filter for nutrients as well as a magnet for wildlife.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association Zone 1, David Bissett, County of Warner, Irrican Power, Landowners, Lethbridge Fish & Game Association, Magrath Rod and Gun Club, New Dayton Rod and Gun Club, Pheasants Forever Calgary, Raymond Irrigation District, Southern Alberta Bowhunters Association, St. Mary River Irrigation District, Taber Irrigation District

Supplemental Ungulate Information – Moose App

In Alberta, aerial surveys have historically been the primary method used to estimate the population size, trend, distribution, and herd composition for ungulates. Inspired by the success of hunter moose observation indices in Scandinavia, Mark Boyce initiated Alberta’s *Moose Hunter Survey* app in 2012. The survey uses smartphone technology as a less-costly monitoring alternative to aerial surveys. From 2012 – 2016, the app recorded moose observations within 145 Wildlife Management

Units (WMU), primarily within the Foothills, Northern Boreal, and Parkland natural regions. The app received a total of 14,473 submissions; after data cleaning, 5,926 (41%) of these were considered valid. Across all years and natural regions, moose encounter rates for WMUs typically fell between 0 and 1.2 moose/hour. Though there are limitations with the data collected so far, they hold promise that the app and the data submitted by hunters in Alberta can be of value to managers to monitor larger population-level issues and conservation concerns related to moose in Alberta. Increasing the quality of the data through improvements to the app will further enhance the usefulness of the data as a tool for wildlife managers.

Partnerships

Alberta Environment and Parks

Upland Game Bird Studies – Upland Gamebird Productivity Surveys

We worked with volunteers to conduct annual upland game bird productivity surveys in some of southern Alberta's best habitat. We encountered a total of 163 pheasants, and 214 grey partridge within 22 hours of survey time covering 46 km. This translates to 3.54 pheasants and 4.65 partridge for each kilometre travelled. Compared to previous survey years, this indicates an average year for pheasants and below average year for grey partridge. The information acquired from these surveys helps us understand population trends, brood success, as well as heighten the excitement for the upcoming hunting season, as we release survey results on our website each fall.

Partnerships

Landowners, Pheasants
Forever – Calgary Chapter,
Volunteers – Dog Handlers

Waterfowl Crop Damage Prevention Program

The intention of the Waterfowl Crop Damage Prevention Program is to assist agricultural producers in reducing damage to crops caused by waterfowl during fall migration. Five years ago, we began offering scare cannons free of charge to Counties and Municipal Districts enabling them to incorporate this equipment into their existing equipment rental programs. This has greatly improved efficiency by placing cannons much closer to end users. In 2017/18, we continued to work with producers as well as Counties and Municipal Districts to ensure that scare cannons were available where needed for waterfowl crop damage prevention. We provided locations where scare cannons were available for loan and crop damage prevention strategies on the ACA website.

Partnerships

Alberta Environment and Parks,
County of Athabasca, County of
Camrose, County of Clearhills,
County of Flagstaff, County of
Grande Prairie, County of Lac La
Biche, County of Lacombe, County
of McKenzie, County of Minburn,

County of Northern Lights, County
of Northern Sunrise, County of
Paintearth, County of Ponoka,
County of Smoky Lake, County of
St. Paul, County of Stettler, County
of Two Hills, County of Vermillion
River, MD of Big Lakes, MD of
Bonnyville, MD of Fairview, MD
of Greenview, MD of Peace, MD of
Provost, MD of Smoky River, MD of
Spirit River

Wolverine Density, Movement, and Denning along the Western Periphery of the Birch Mountains

We have been working in partnership with Alberta Trappers' Association (ATA) to identify where wolverines occur in the province and to determine the major factors associated with their distribution. To investigate fine scale habitat use, movement, and denning behaviour in a landscape dominated by wildfires, we deployed radio collars on animals on the western periphery of the Birch Mountains, in north-central Alberta. A total of ten wolverines were captured and fitted with collars over the course of the study. Radio collars have now been removed from the animals and data analysis is under way. Preliminary results suggest that home range size varies greatly among individuals and reproductive status. Two of the collared females had babies during the study, providing us with valuable information about where wolverines den when they do not have persistent late spring snow, as is used for denning in other parts of their circumpolar distribution. Future analysis will look at how wolverines use the habitat within and adjacent to burns of varying ages.

Project: Upland Gamebird Studies

Photo: ACA, Kyle Prince



Project: Wolverine Density, Movement,
and Denning along the Western
Periphery of the Birch Mountains

Photo: ACA, Robert Anderson



Partnerships

Alberta Environment and Parks,
Alberta-Pacific Forest Industries
Inc., Alberta Trappers' Association,
Animal Damage Control – A
Division of Bushman Inc., ATB
Financial, Bildson Realty Ltd.,
BRE-JON Enterprises Ltd.,
Crowsnest Conservation Society,
Daishowa-Marubeni International
Ltd., Hinton Trappers Association,
McGill University, Orion
Foundation of Calgary, Richard D.
McCabe Professional Corporation,
Roadrunner Leasing and Sales
Ltd., Rocky Mountain Wilderness
Society, South Country Trappers,
Stojan's Motor Sports, TD Friends
of the Environment, Trapper Gord

Homestead & Survival, University
of Alberta

Working with Trappers to Monitor Furbearer Population Trends

We were asked to assist Alberta
Environment and Parks (AEP)
and Alberta Trappers' Association
(ATA) with a pilot project that they
established to develop logbooks
for trappers to record information
about their trapping activities and
fur harvesting results. One of the
goals of this project was to produce
information about furbearer
populations across the province. Our
role was to analyze data from the
initial batch of logbooks collected
prior to our involvement, and
summarize the utility of the data
and whether any changes to the
logbooks was needed. We found that
the logbook concept held promise
for producing information on trends
focused on a catch per unit effort
index that could be tracked over

time, as well as age and sex ratio
data. However, it was apparent
that a much larger sample size of
participating trappers would be
needed and recording trapping effort
by species (as opposed to overall
time spent in various activities)
would likely produce a more robust
index. The group (ATA, AEP, and
ACA) decided to focus the next
phase of the pilot project on making
the logbooks simpler (to encourage
participation) and more targeted,
focusing primarily on marten,
which the initial logbooks suggested
were harvested by most trappers.
Participation did jump significantly
during the 2017/18 trapping season,
with over 100 trappers signing up.
We will be analyzing that data in
early 2018/19.

Partnerships

Alberta Environment and Parks,
Alberta Trappers' Association



Project: Winter Water Quality Assessment of the
Whitemud River and Willow Creek Watersheds

Photo: ACA, Nikita Lebedynski

Fisheries Program

Fishing is one of Albertans' favourite pastimes, so ACA has an entire team of biologists dedicated to keeping its lakes and fish healthy. This year we, along with partners, stocked 52 ponds and screened another seven for the fish stocking project, conducted angler surveys, (interviewing over 2,800 anglers), worked at restoring sport fisheries in some of Alberta's lakes that have become prone to algal blooms, and generated information required for provincial conservation and species recovery initiatives.

Our fish stocking and lake aeration projects provide Albertans with recreational angling in areas of the province where such fishing opportunities don't otherwise exist. Shortages in the commercial hatchery fish production related to whirling disease compelled us to stock fewer fish in 2017/18 relative to previous years; ten ponds slated for whirling disease risk assessment by the Government of Alberta were not stocked. Results of our angler surveys feed directly into Alberta Environment and Parks fisheries management plans and form the basis for fishing regulation changes. Similarly, evaluation and inventory studies generate critical information on population structure, abundance, distribution, and life history of priority fish species required for provincial conservation and species recovery initiatives.

Overall, the success of our Fisheries Program activities in

2017/18 involved the support of over 49 partners consisting of provincial and federal governments, industry, watershed groups, non-governmental organizations, counties/municipalities, and other interested groups.

2017/18 Overview

- Close to 90,000 twenty-cm long trout (73,230 rainbow, 5,000 brown, and 4,800 brook trout) stocked into 52 ponds in regions of the province where angling opportunities are limited.
- Screened seven new ponds for fish stocking project expansion, three of which met initial criteria for further evaluation.
- 2,857 anglers interviewed during angler surveys.
- Very strong angler participation in study comparing harvest of different strains of rainbow trout in stocked ponds; anglers returned 20% of the fish tags!
- Added one new pond, Shell True North Pond, to fish stocking project.
- Majority of 19 aerated lakes successfully overwintered stocked trout with no mortalities, but a few may have experienced partial winterkill due to the atypically protracted winter season.
- Expanded aeration project by adding Winchell Lake.
- Surveyed 11 watersheds, four lakes, and 34 ponds, and generated information on fish population status, distribution, recreational harvest, habitat fragmentation, overwintering habitat, spawning, and rearing habitat.

- Over 1,100 river km surveyed.
- Assessed 62 fish barriers on 39 streams in the Oldman River headwaters for potential to influence westslope cutthroat trout recovery.
- Mountain whitefish in McLeod River migrate over 80 km to overwintering sites.
- Forged unique partnerships that enabled forestry industry and government land-use planners to pool resources to address fish conservation issues of mutual interest.

ACA Fish Stocking Evaluation

Angler counts, and estimated angler effort, showed considerable variation among the 23 ponds assessed in 2017. Estimated angler effort ranged from 49 hours at Pro Alta Pond to 11,638 hours at Ray's Pond. Angler hours per hectare ranged from 26 at Pro Alta Pond to 5,339 at Ray's Pond. Using these results, we will be able to manage stocking times and rates, and evaluate site management options to better serve Alberta anglers.

Angler Recruitment and Retention Trends in Alberta

Since 1985, the number of licensed anglers in Canada has declined by 31% despite a 30% increase in the population over the same time frame. Anglers are also much older than they used to be, with the mean age of Canadian anglers increasing from 41 in 1975 to 50 in 2010, suggesting that decreased popularity is primarily due to poor recruitment of young anglers. Alberta trends mirror those observed nationally. Since 1985, the number of licensed anglers in the province has declined by 27%, while the population has grown by 38%. In 2010, the average age of Alberta anglers was 45. Recent licence sales data suggest the precipitous declines in anglers observed in the 1990s and early 2000s is over, but the fundamental question remains: what factors influence yearly angler licence sales in Alberta? In a time-series analysis of per capita recreational angling licence sales since 1975, licence cost (adjusted for inflation) followed by the number of trout stocked in the province had the best predictive power of future resident angler licence sales. As licence cost rose, licence sales were found to have declined, but sales increased as the number of trout stocked in the province increased. Although this analysis cannot identify causation, these relationships are intuitive and bear consideration when considering changes to licence fees or Alberta's stocking program.

Partnerships

Alberta Environment and Parks

Angler Survey on Upper Bow River Tributaries

We estimated angler effort, trip length, and fish catch by conducting instantaneous angler counts and angler interviews on the Sheep and Highwood rivers. Between June 16 and October 31, 2017, we conducted 28 instantaneous angler counts, and interviewed 321 anglers. Anglers fished for 19,829 hours and made 6,284 trips on the Sheep River and fished for 39,581 hours and made 9,474 trips on the Highwood River. We estimated total release of all fish was 14,236 on the Sheep River and 20,886 on the Highwood River.

Partnerships

Alberta Environment and Parks

East Slopes Trout and Mountain Whitefish Recovery

Bull trout is a native sport species classed as *Threatened* in Alberta and is particularly sensitive to habitat change. A new government-led initiative, the North-Central Native Trout (NCNT) program, is being implemented to recover native trout and whitefish in the central and northern East Slopes of Alberta. Although details of the program are still being worked out, the general approach involves implementation of recovery actions (e.g., angling closures, trail remediation/closure, implementing industry best-management practices, suppression of non-native species). Success of this program will be measured using Alberta Environment and Parks' Fish Sustainability Index (FSI). The FSI is a standardized process of assessment that provides a landscape-level overview of fish sustainability within the province and enables broad-scale evaluation of management actions and land-use planning. In the summer of 2017, we used a combination of backpack-electrofishing, angling, and redd surveys to assess the bull trout population in the lower Ram River watershed. Our sample frame

for backpack-electrofishing included ten randomly selected sites where we detected fish at seven of the ten sites, catching six different species. We captured 76 bull trout electrofishing, 67 of which were captured at two sites located along Fall Creek, a major bull trout spawning tributary. While angling a 26 km stretch of the Ram River, we caught 70 bull trout. We also counted 65 bull trout redds on a survey of a 3.5 km reach of Fall Creek, up from the 52 counted last year. Our study provides land-use managers with information on fish species distribution and abundance necessary to minimize land-use impacts on fish, evaluate bull trout status, and otherwise balance the diverse values of the Ram River watershed.

Partnerships

Alberta Environment and Parks, Alberta Streamwatch Conservation Coalition, Forest Resource Improvement Association of Alberta

Fish Stocking Project

The Fish Stocking (FS) project provides anglers with increased opportunities to catch and harvest 20-cm rainbow trout, brown trout, and brook trout in regions of Alberta where angling opportunities are limited. Recipient waterbodies are prone to winterkill and require annual stocking of trout to maintain angling opportunities. We stocked 52 waterbodies with 73,231 rainbow trout, 5,000 brown trout, and 4,800 brook trout. Ten waterbodies were not stocked pending an assessment by the Government of Alberta for whirling disease risk. We installed signage at ten waterbodies. Approximately 60% of the stockings were completed before the May long weekend. We installed project signs at ten waterbodies.

Partnerships

Access Pipeline, Agrium Redwater, Alberta Environment and Parks, Aquality Environmental, Canadian Tire, City of Fort Saskatchewan, Complete Crossings, Dow Chemical Canada, SysGen Solutions Group, Town of Cochrane

Fish Stocking Expansion – New Lakes

With approximately 1,100 lakes with sport fish and over 300,000 anglers, Alberta's lakes experience high fishing pressure that puts considerable strain on our recreational fisheries. ACA is working to identify new lakes to stock with rainbow trout through the Fish Stocking (FS) project. We continued our investigation of waterbodies with fisheries potential to identify new ponds for expansion of our FS project. We evaluated seven new waterbodies, of which three have fisheries potential. These three waterbodies will undergo further evaluation to determine if they are suitable for fisheries development. Waterbodies evaluated in previous years of the project are being added to the FS stocking project: Shell True North Pond, near Spirit River, has been developed into a new fishery and stocked with 640 brook trout; Taber Pond, in Taber, will be stocked with 3,600 rainbow trout in the spring of 2018. County Sportsplex Pond (County of Grande Prairie), in Clairmont, is being evaluated further to determine suitability for FS expansion.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Transportation, County of Grande Prairie, Taber Irrigation District, Town of Taber

Fish Stocking Expansion – New Species and Strains

The Alberta Government and ACA currently stock several strains of rainbow trout including the Troutlodge Silver Steelhead and Lyndon strains. Both strains are bred for their fast growth and angling qualities. To assess these qualities in the field, we compared condition and angler harvest of the Silver Steelhead and Lyndon strains at four small, put-and-take fisheries during the summer. Gill nets were used to assess trout relative abundance and condition,

angler reports of catching tagged trout, corrected for reporting rate and tag loss, were used to assess angler harvest. Condition of both strains was good overall although both strains lost condition over the summer. Of the 2,250 trout we tagged, anglers reported catching 461 (20%) including 205 Lyndon and 256 Silver trout. Estimates of angler harvest indicated a large proportion of both strains were harvested from most ponds although Silver strain fish appeared to be harvested more rapidly. Millions of rainbow trout are cultured in Alberta every year; small differences in field performance like those assessed in our study have large implications for the quality and efficiency of Alberta's trout stocking program.

Partnerships

Alberta Environment and Parks, Cabela's Canada Inc., Lacombe County, Town of Beaumont, Town of High River

Hasse Lake Fisheries Restoration

In recent decades, changes in watershed land use have resulted in increased nutrient runoff, particularly phosphorus, into many lakes, including Hasse Lake. Increased phosphorus in aquatic systems has led to increased intensity and frequency of algal blooms, especially blue-green cyanobacteria blooms, and fish kills. Recurring fish kills in Hasse Lake have decimated what used to be a popular stocked sport fishery. The primary goal of this project is to support and collaborate with local efforts to reduce nutrient loading in Hasse Lake to improve water quality and restore the stocked sport fishery. During surveys in past seasons, we have found no evidence of large fish species in Hasse Lake, catching only fathead minnows and brook stickleback. In 2017/18, we continued to monitor lake health, participate in outreach activities, and provide technical guidance and recommendations for on-the-ground restoration activities in

collaboration with Parkland County and local agricultural producers. We will continue to participate in local initiatives, providing support through data collection, communication, coordination, and delivery of on-the-ground restoration projects.

Partnerships

Alberta Biodiversity Monitoring Institute, Alberta Environment and Parks, North Saskatchewan Watershed Alliance, Parkland County Alternative Land Use Services Program

Isle Lake Fisheries Restoration

In recent decades, changes in watershed land use have resulted in increased nutrient runoff, particularly phosphorus, into many lakes, including Isle Lake. Increased phosphorus in aquatic systems has led to increased intensity and frequency of algal blooms, especially blue-green cyanobacteria blooms, and fish kills. Recurring fish kills in Isle Lake have decimated what used to be a popular recreational sport fishery. Prior to our survey in 2015, local reports from Isle Lake indicated a complete loss of sport fish; however, we found a remnant population of sport fish that survived the kill events or may have migrated in from nearby waterbodies. The primary goal of this project is to support and collaborate with local efforts to reduce nutrient loading to Isle Lake, improving water quality and restoring the fish community and associated sport fishery. In 2017/18, we maintained numerous partnerships with key stakeholders, including the Lake Isle & Lac Ste. Anne Water Quality Management Society, Parkland County and Lac Ste. Anne County Alternative Land Use Services Programs, and Sturgeon River Watershed Alliance, which allowed us to support watershed improvements by helping to guide the delivery of on-the-ground restoration activities, providing technical guidance and recommendations, and sharing results of our field surveys.

Partnerships

Alberta Environment and Parks, Environment and Climate Change Canada – Environmental Damages Fund, Lake Isle & Lac Ste. Anne Water Quality Management Society, Parkland County and Lac Ste. Anne County Alternative Land Use Services Program, Sturgeon River Watershed Alliance

Kakwa River Watershed Arctic Grayling FSI Assessment

Alberta's Arctic grayling population has declined as a result of habitat degradation and fragmentation, and overfishing. Resource development in the Kakwa River watershed has expanded over the last two decades and is suspected of negatively impacting Arctic grayling populations, but data are outdated. Alberta Conservation Association conducted a two-year study assessing relative abundance, distribution, and population structure of Arctic grayling in the Kakwa River watershed. The goal of the study is to update Arctic grayling abundance data, which feed directly into the provincial Arctic grayling Fish Sustainability Index (FSI). We angled Arctic grayling throughout the Kakwa River watershed during July and August of 2016 and 2017. We sampled 117 sites covering a total distance of 55.8 stream km. We captured 259 Arctic grayling in the lower three-quarters of the watershed detecting Arctic grayling at 44% of sites. No Arctic grayling were captured upstream of both the South Kakwa River Falls and the Lower Kakwa River Falls. Relative abundance of Arctic grayling was low with a catch-per-unit-effort of 0.56 fish/hr (95% CI: 0.40 – 0.72). The data collected will aid in determining an Arctic grayling FSI score for the Kakwa River watershed and support regulatory actions to remediate the effects of industrial activities on Arctic grayling populations and their habitats.

Partnerships

Alberta Environment and Parks

Lake Aeration

We use aeration as a fisheries management technique to provide Albertans with diverse recreational angling opportunities in areas of the province where such opportunities would be otherwise limited. Aerated waterbodies are typically shallow, eutrophic, experience prolonged ice cover, and are prone to summer and winter fish kills. Using aeration, we maintain dissolved oxygen levels above 3 mg/L to promote year-round survival, continued growth, and availability of larger fish to anglers. In 2017/18, we aerated 19 waterbodies across the province, including upgraded (surface) aeration infrastructure at Hansen's Reservoir. We actively established and maintained financial and in-kind partnerships for existing aeration projects.

Partnerships

Access Pipelines, Alberta Environment and Parks, Daishowa-Marubeni International Ltd, Edmonton Trout Fishing Club, Edson Forest Products, Fisheries and Oceans Canada, Fisheries Enhancement Society of Alberta, Mountain View County, Municipal District of Greenview No. 16, Northern Sunrise County, Radway Lions Club, Spring Lake Campground, Thorhild County, Trout Unlimited Canada – Oldman River Chapter, Village of Spring Lake

Mountain Whitefish Overwintering Habitat

This project seeks to support the continued development of instream flow needs in Alberta by building on our understanding of under-ice habitat use and availability for mountain whitefish. In September, we implanted 54 mountain whitefish with radio telemetry tags and have since been tracking their movement using monthly aerial surveys. Fish travelled between 9 km upstream and 89 km downstream from initial tagging locations, with most fish moving in a downstream direction. Aerial surveys completed in February and March were complemented by ground surveys to collect habitat

use and availability data. The results from this project will allow for a broader application of mountain whitefish instream flow needs across the Eastern Slopes of Alberta, and help inform management decisions with respect to water allocations and withdrawals.

Partnerships

Alberta Environment and Parks, Alberta Innovates, Department of Fisheries and Oceans, Millar Western Pulp Mill

New Lake Aeration Development

ACA has completed aeration of select stocked trout ponds across Alberta for each of its 20 years. Aeration promotes year-round survival and (sometimes considerable) growth of trout in these ponds that would otherwise be lost to summer or winterkill. As anglers value the potential to catch larger, memorable trout there is continued interest to identify additional stocked ponds that may benefit from aeration. In the 2017/18 season, with the support of Mountain View County, we began aeration of Winchell Lake, and now aerate 19 waterbodies across the province. Early results from dissolved oxygen monitoring indicated that surface aeration maintained dissolved oxygen levels well above 3 mg/L, with higher monthly averages than in previous winters. We also identified an additional aeration opportunity at West Dollar Lake. We have partnered with the MD of Greenview and laid out plans for extension of existing power facilities from East Dollar Lake allowing for aeration of both East and West Dollar lakes from one central location expanding ACA's aeration program to 20 lakes in spring 2018.

Partnerships

Alberta Environment and Parks, Mountain View County, Municipal District (MD) of Greenview

North Saskatchewan River Drainage FSI Data Gaps

Alberta Environment and Park's Fish Sustainability Index is a standardized process of assessment that provides a landscape-level overview of fish sustainability within the province and enables broad-scale evaluation of management actions and land-use planning. Priority species for assessment in our sample area include bull trout and mountain whitefish. Bull trout is a native sport species classed as *Threatened* in Alberta and is particularly sensitive to habitat change. In the summer of 2017, we used backpack and tote-barge electrofishing gear to sample 52 sites randomly distributed throughout the Blackstone River, Brown Creek, Chungo Creek, Devil Forks, Thistle Creek, and Wapiabi Creek. We captured 701 fish, including 308 bull trout and 235 mountain whitefish in the sampling area. Our catch was dominated by bull trout, which was also the most widely distributed species. Bull trout and mountain whitefish had the highest catch rates in Thistle Creek and the Blackstone River, respectively. Our study provides land-use managers with information on fish species distribution and abundance that is necessary to minimize land use impacts to fish, evaluate bull trout status, and otherwise balance the diverse values of the North Saskatchewan River watershed.

Partnerships

Alberta Environment and Parks, Hinton Wood Products – A Division of West Fraser Mills Ltd.

Owl River Walleye

The Owl River is considered a primary spawning system for Lac La Biche walleye. In 2011, ACA began a long-term project to protect and restore riparian habitat along the Owl River to aid walleye population restoration in the lake. We monitored aquatic habitat, water quality, and the use of the Owl River

as walleye spawning habitat every three years, completing our final year in 2017. From May to August, we collected monthly water quality data, and in August completed an aquatic habitat assessment. Flooding in August created conditions that prevented the collection of all variables that were done in 2011 and 2014; however, data that was collected and personal observations show that little changed from initial baseline conditions. Dissolved oxygen and temperature were within the optimal range for walleye spawning in May. Total phosphorus concentrations were high throughout the system, indicating that the Owl River is a nutrient-rich system, with a trend of increasing concentration farther downstream. Summer averages of total nitrogen fell above the Alberta Environment and Parks limit (1.0 mg/L) at three out of five water sampling sites. Total coliform counts exceeded the Canadian Council of Ministers of the Environment Canadian Water Quality Guidelines for agriculture use (>1,000 mpn/100mL) at all sites. Macroinvertebrate species richness and diversity were higher in 2017 compared to baseline conditions, but showed no clear spatial patterns. Despite enhancements to the riparian area in 2012, significant changes to water quality have not been observed, emphasizing the need for continued conservation efforts along the length of the river, complemented by further long-term monitoring.

Partnerships

Alberta Environment and Parks, Syncrude Canada Ltd.

Pekisko Creek Trout Recovery

Stimson Creek watershed is a refuge for westslope cutthroat trout (WSCT) and bull trout (BLTR). Both populations continue to exist in the watershed despite the anthropogenically induced changes in fish habitat and fish communities from oil and gas development and agriculture, and the introduction of rainbow trout. ACA completed an assessment to identify undocumented pure WSCT populations, determine abundance and distribution of both WSCT and BLTR, and BLTR spawning habitat distribution and redd density in the Stimson Creek watershed. We sampled fish using backpack electrofishing at 33 randomly selected sites in third-order streams from July 4 – 27 and September 25 – 27. We measured size for all captured fish and collected tissue samples from WSCT and cutthroat – rainbow trout hybrids for DNA analysis. We captured 2,447 fish, consisting of 13 different species, five of which were sportfish. Rainbow trout catches were highest of all sportfish, representing 46.7% of the sportfish catch, followed by WSCT at 40.3% and cutthroat – rainbow trout hybrid at 11%; bull trout and mountain whitefish represented only 2% combined. Westslope cutthroat trout densities were highest in upper Pekisko Creek,



Project: Pekisko Creek Trout Recovery

Photo: ACA, Brad Hurkett

Greenfeed Creek, and Bear Creek. We observed six BLTR redds and ten adult BLTR in close proximity to redds downstream of McConnell Falls. Westslope cutthroat trout and BLTR populations continue to persist in the headwater streams of the Stimson Creek watershed but in low numbers.

Partnerships

Alberta Environment and Parks, Environment and Climate Change Canada

Pike Fishery Angler Survey

High fishing pressure, coupled with slow-growing and late-maturing populations, have resulted in the over-harvest of many of Alberta's sport fish populations, especially northern pike and walleye. To generate the information required on Gull and Snipe lakes, we conducted angler surveys during the summer of 2017. At Gull Lake, we interviewed 1,831 anglers who fished for 4,730.8 hours resulting in an estimated 17,436 anglers fishing for 43,382.8 hours or 5.35 h/ha of angling pressure during the survey period. At Snipe Lake, we interviewed 567 anglers who fished for 1,078.8 hours resulting in an estimated 1,910 anglers fishing for 4,266.0 hours or 1.01 h/ha of angling pressure. Catch

rate was higher at Gull Lake than at Snipe Lake with anglers catching 0.98 fish/h (0.68 walleye/h and 0.30 northern pike/h) and 0.60 fish/h (0.09 walleye/h and 0.51 northern pike/h) respectively.

Partnerships

Alberta Environment and Parks, Government of Canada: Service Canada, Canada Summer Jobs

Winter Water Quality Assessment of the Whitemud River and Willow Creek Watersheds

Cumulative landscape disturbances have resulted in widespread declines of lotic fisheries across Alberta, and the nutrient inputs from surrounding land management practices have been linked to anoxic conditions in Alberta streams. Low dissolved oxygen (DO) levels in winter can be a significant limiting factor for fish production, particularly for cold-water fish species in Alberta, such as Arctic grayling, bull trout, Athabasca rainbow trout, and westslope cutthroat trout. Past measurements suggest winter DO falls below the federal guidelines for cold water species in some Alberta streams, and approach sub-lethal levels in others. In winter 2016/17 we began

broad-scale monitoring across two watersheds to determine if winter DO levels may become limiting for Arctic grayling in the Whitemud River watershed of northwestern Alberta, and for westslope cutthroat trout in the Willow Creek watershed in southwestern Alberta. We installed datasondes to monitor under-ice DO levels at eight locations on the Whitemud River, and six locations on Willow Creek and conducted bi-weekly measurements with hand-held DO meters at all datasonde stations, and on all major tributaries entering the mainstems. Based on datasonde data, we observed unsuitable DO levels at five of seven locations on the Whitemud River mainstem, and three of five locations on the Willow Creek mainstem.

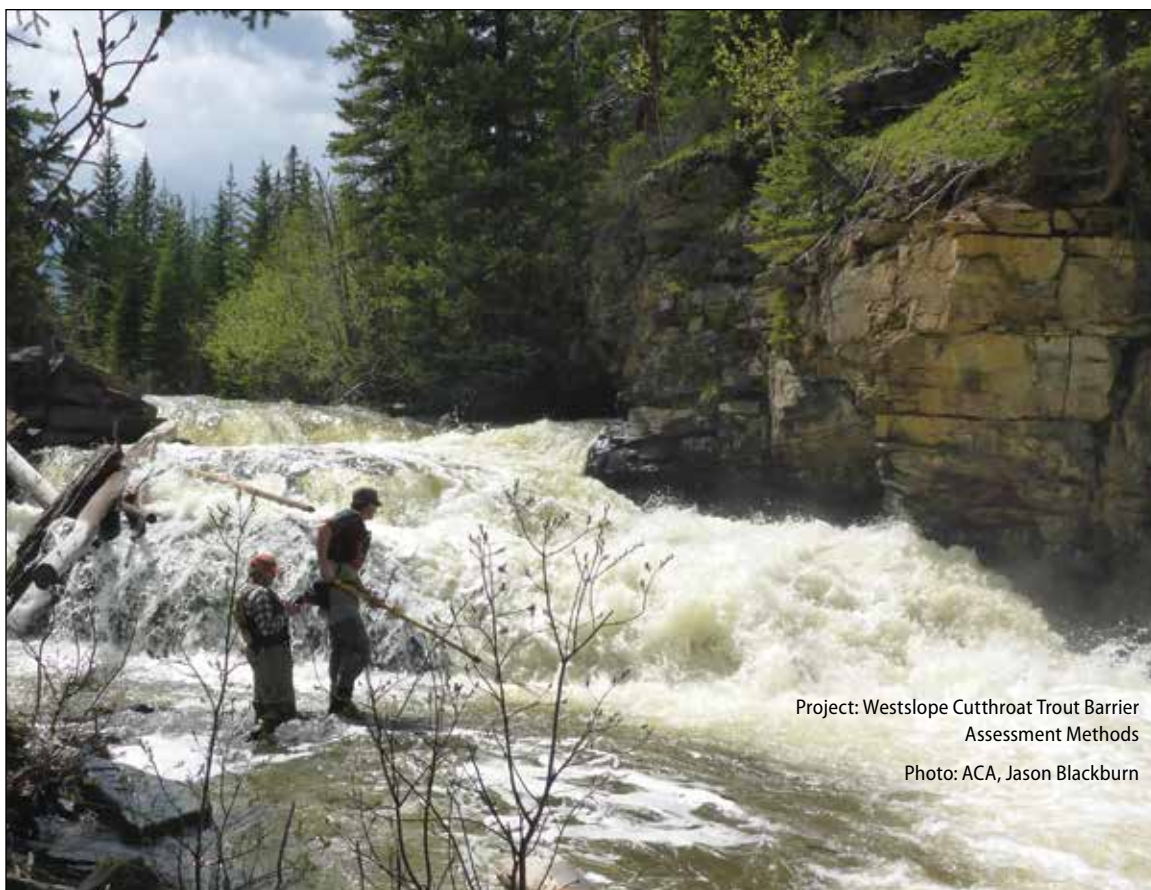
Partnerships

Alberta Environment and Parks, Cooperating landowners

Project: Winter Water Quality Assessment of the Whitemud River and Willow Creek Watersheds

Photo: ACA, Logan Redman





Project: Westslope Cutthroat Trout Barrier Assessment Methods

Photo: ACA, Jason Blackburn

Westslope Cutthroat Trout Barrier Assessment Methods

To effectively safeguard against extirpation of Alberta westslope cutthroat trout (WSCT), it is essential to protect existing pure populations from hybridization and competition with invasive species such as rainbow trout (RNTR). In Alberta, several sub-populations of WSCT remain genetically pure primarily because of barriers that impede invasion. Maintaining and isolating these headwater populations from invasion is critical to the protection and persistence of genetically pure fish. To date, no single recognized method exists to identify and rank barrier passability in the context of invasion, yet it is a critical first step to prioritize population recovery and build implementation strategies on a stream by stream basis. The primary objective of this project is to develop a barrier assessment methodology to identify, measure, classify, and rank

barrier passability to ensure barrier data are consistent, comparable, and correctable across the WSCT range, and to facilitate future restoration feasibility studies. In 2017, we began refining a literature-based methodology to determine the ability of trout to successfully ascend barriers based on swimming and leaping performances, biomechanics, and previous technical field assessments conducted by various agencies. In May 2017, during the spring freshet and adult RNTR spawning migration, we collected detailed barrier measurement information at 62 documented fish barriers on 39 streams in the Oldman River headwaters using RNTR swimming and leaping performance curves to help evaluate passability potential of fish at natural headwater barriers. During this process, we discovered the majority of barriers were complex features where passability could not be conclusively determined from simple measurements of barrier height and

length, water velocity, or consulting theoretical swimming and leaping performances. We determined that a more comprehensive classification and ranking system incorporating a range of potential barrier mechanisms is required to effectively catalogue, analyse, and assess barrier features. We are currently developing a system that not only assesses passability of barriers, but will classify them into four barrier Modes, three barrier Types, and seven barrier Classes. We are currently refining the measurement and assessment methodologies and will continue barrier re-assessments in the spring and summer seasons of 2018 using the current framework.

Partnerships

Alberta Environment and Parks, Environment and Climate Change Canada

Project: Conservation Site Management
Photo: ACA, Madison Meszaros



Land Management

ACA's Land Management Program is all about conserving important wildlife and fish habitat across Alberta. Our *Alberta Discover Guide* highlights ACA and partner-owned conservation sites which span hundreds of thousands of acres across Alberta. Our goal is to conserve key habitat to benefit our wildlife and fish resource with an added value that extends to outdoor enthusiasts. Each site has its own unique characteristics that provide an array of opportunities to hunt, fish, forage, or view wildlife.

Each year we acquire new conservation sites by securing habitat through purchase or donation. Thanks to our partners, we secured seven new conservation sites, two of these were expansions of previously conserved conservation sites. We also manage 26 Fisheries Access Sites that add value by providing quality angling opportunities across Alberta. We collaborate with landowners on other habitat-based programs such as our Landowner Habitat and Riparian Conservation Programs, which focuses on enhancing and conserving key wildlife and fish habitat while enhancing recreational access on deeded lands. Other programs such as our Recreational Opportunity Enhancement Program are aimed at enhancing access to privately owned lands by facilitating access management through a hunter/angler sign-in system. Objectives also include identifying opportunities to link landowners who are experiencing depredation issues, with hunters, as well as exploring other initiatives to provide access to rivers, wetlands, and lakes to enhance hunting or angling opportunities in areas where access may be limiting.

The success of our Land Management Program is a testament to the support and effort of over 50 partnerships, including government, industry, non-governmental organizations, counties/

municipalities, leaseholders, private landowners, corporate partners, and other interested groups. These collaborative partnerships are vital to our success in achieving our conservation goals and result in an overall reduction in the amount of levy dollars required to achieve our many goals within our Land Management Program.

2017/18 Overview

- Added seven new conservation sites, totalling 1,326 acres (536 ha) with an approximate land value of over \$1,600,000.
- Conservation efforts include two land donations, one split purchase/donation, and four land purchases.
- Currently managing 37 Landowner Habitat Program Agreements conserving 6,065 acres (2,462 ha) of wildlife and fish habitat.
- Renewed two Landowner Habitat Program Agreements conserving 634 acres (256.6 ha) and added four new landowner agreements conserving an additional 965.6 acres (390 ha).
- Collaborated with AEP on management of Crown conservation sites (disposition process ongoing). We received two dispositions on Crown conservation sites.
- Inspected 183 conservation sites with maintenance and repairs completed on 79 sites.
- Habitat and recreational access improvements/enhancements on 51 conservation sites, baseline inventories completed on four sites.
- Seeded 167 acres with native seed mix and planted over 1,150 trees and shrubs.
- Planted six acres of food plots for upland game birds.
- Restored 4.5 acres of wetland habitat.
- Completed recreational enhancements on 13 conservation sites including parking areas, foot-access gates, and trails.
- Installed project signs on six conservation sites and boundary and "Foot Access Only" signs on 18 conservation sites.
- Spent over 12,500 hours on conservation site management and maintenance.
- Provided angler access at three rivers and 23 lakes of which six received site upgrades and enhancements that included installation of five new floating docks.
- Developed one new fisheries access site on our Shell True North Property, which provides additional angling opportunity for brook trout.
- Provided recommendations on 93 land-use referrals and public inquiries on conservation sites.
- Completed 38 conservation site management plans.
- Delivered 19 riparian enhancement activities, signed eight new riparian habitat lease agreements, four riparian fencing projects, three off-site watering systems, and one tree-planting project.
- Completed bank stabilization and restoration project.
- Completed five riparian health assessments and collected water samples from seven sites as part of baseline data collection and ongoing water quality monitoring.
- Collaborated with over 18 groups and organizations to enhance and facilitate riparian conservation across Alberta.
- Provided six participating landowners with recreational user sign-in services for existing properties, totalling approximately 51,000 acres (20,655 ha).
- Added five new landowners to our access sign-in program in Southern Alberta totalling approximately 40,323 acres (16,317 ha).

Conservation Site Management

ACA currently manages 359 conservation sites, which include over 210,000 acres (approximately 85,000 ha) of titled and Crown land in Alberta. Our Conservation Site Management Project is responsible for these sites in accordance with site management plans. In 2017/18, we inspected and maintained 183 conservation sites. Our team also completed habitat enhancement projects on 51 conservation sites, including seeding 167 acres to native grass/forb species and planting food plots for upland game bird species. Recreational enhancements were completed at 13 sites, including construction of foot access gates and parking areas. We installed project signs on six conservation sites and provided recommendations on 93 land use referrals and public inquiries. We also managed public access on two high-use conservation sites through a reservation system. Further, we continued discussions with Alberta Environment and Parks representatives to determine long-term partnership roles and responsibilities at Crown-owned conservation sites that ACA manages. Our success in managing and enhancing conservation sites is achieved using a collaborative effort with a growing number of partners and volunteers

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Sport Connection, Alberta Trail Riding Association, Bow River Irrigation District, ConocoPhillips, County of Lethbridge, County of Newell, County of Warner, Daishowa-Marubeni International Ltd., DOW AgroSciences, Ducks Unlimited Canada, Easter Irrigation District, Environment and Climate Change Canada, Landowners, MULTISAR, Myrnam River Ridge Riders Snowmobile Club, Nature Conservancy of Canada, Pheasants Forever – Calgary and Chinook Chapters, Shell Canada Energy, The Carbon Farmer Inc., Tree Canada, Trout Unlimited Canada, Volunteer stewards, Westlock Whitetails Junior Forest Warden Club

Fisheries Access Site Management

ACA's Land Management Program encompasses activities intended to conserve, protect, and enhance fish and wildlife habitat and to increase sustainable recreational opportunities including angling and hunting. One of the activities of the program is the delivery of the Fisheries Access Site Management Program, which provides angling opportunities to key streams, rivers, and lakes throughout the province. We inspected and maintained 26 fisheries access sites and commissioned 14 maintenance contracts in 2017/18. We upgraded six sites with improvements to site signage, vehicle barriers, and the installation of five floating docks. We developed one new fisheries access site on an existing conservation site in the Northwestern Region and investigated access development projects at two additional waterbodies in the Calgary area, which will be pursued in the following fiscal year. We engaged 14 partnerships in 2017/18 who generously contributed financially or with in-kind assistance. We continued discussions with Alberta Environment and Parks representatives to determine long-term partnership roles and responsibilities at Crown-owned Fisheries Access Sites provincially.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Clearwater County, County of Greenview, County of Newell, County Northern Lights, Devon Canada Corporation, Municipal District of Rocky View, North Raven River Working Group, Northern Sunrise County, Shell Canada Energy, Trout Unlimited Canada – Central Chapter, Trout Unlimited Canada – Yellowhead Chapter, Wetaskiwin County

Habitat Securement Program

Alberta's population reached 4.31 million in 2017, with a growth of 1.3% from 2016. The population continued to grow despite a slow economic recovery. Urban expansion has been extensive over the past five years, eight of the top ten city expansions in Canada come from

Alberta. Alberta's natural land base is under intense pressure from a variety of other sources related to its population growth, including agricultural, municipal, and industrial development. The Institute of Wetlands and Waterfowl Research estimates that approximately 64% of the slough/marsh wetlands in the settled areas of Alberta no longer exist. Our Provincial Habitat Securement Program conserves important wildlife and fish habitat through land purchase, land donations, and leases on Crown land. Securing habitat ensures these lands will be conserved in perpetuity to benefit our valued wildlife and fish resources, and to provide Alberta's outdoor enthusiasts with year-round, sustainable recreational opportunities. Twenty-eight priority focus areas help guide securement efforts and opportunities. Collaborative partnerships with conservation groups, industry, various companies, and private individuals allow us to maximize our conservation impact and the efficiency of our securement efforts. Together in 2017/18, we completed seven land acquisitions which conserved 1,326 acres (536.6 ha) including two donations, one split purchase/donation, and four purchases. These lands have an estimated land value of approximately \$1,658,000.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Environment Canada – Habitat Stewardship Program for Species at Risk, Fisheries and Oceans Canada, Mr. Dickmann, Mr. Kure, Mr. Pomrenk, Mr. Scheerschmidt, Nature Conservancy of Canada, Pheasants Forever – Chinook Chapter, Provincial Court of Alberta

Habitat Securement Program Transactions in 2017/18

Project Name	Securement Tool & Partners	Size (ac)	Special Features
Central			
Edson Creek Pt. NE-17-055-17-W5M	A collaborative land purchase partnership between ACA and creative sentence order of the Provincial Court of Alberta.	155	This site is located on the Edson Creek approximately 25 km north of Edson and is located in the lower foothills. The creek supports angling opportunities for Arctic grayling, Athabasca rainbows, burbot, mountain whitefish, and brook trout. This unique property provides important habitat for wildlife including deer, elk, moose, black bear, furbearers, ruffed grouse, and waterfowl.
Raven Ridge (Crown) SW-29-035-03-W5M SE-29-035-03-W5M	A collaborative partnership between ACA, AEP, NCC, and Lessee (Mr Kure) to obtain a Department License of Occupation (DLO).	302	This site is located approximately 29 km east of Caroline and 50 km southeast of Rocky Mountain House in the dry mixedwood. It consists mostly of aspen and spruce forest, tame pasture, and a 20 acre wetland. Wildlife in the area include deer, elk, moose, coyote, ruffed grouse, waterfowl, and a variety of songbirds.
Scheerschmidt NW-14-038-19-W4M Pt. SW-14-038-19-W4M	A private land donation to ACA.	240	This site is located approximately 7 km southeast of Stettler and 75 km east of Red Deer and is located in the central parkland. It consists mostly of aspen, wetlands, tame pasture, hay land, and some crop land. Wildlife found here include deer, moose, elk, coyote, waterfowl, and various songbirds.
Northeast			
Pomrenk Homestead Property NW-04-051-12-W4M	A private land donation to ACA and AFGA.	160	This site is approximately 5 km southwest of Ranfurly and 29 km southeast of Vegreville and is located in the central parkland. It consists of mostly crop land, wetlands, and riparian habitat along an unnamed creek. Wildlife found here include deer, coyote, porcupine, various songbirds, and waterfowl.
Northwest			
Little Burnt River SW-33-082-01-W6M	A collaborative land purchase between ACA and creative sentence order of the Provincial Court of Alberta.	160	This site is approximately 5 km north of Whitelaw and 24 km east of Fairview and is located in the dry mixedwood. The Little Burnt River flows through this property and consists of tame pasture, mixed forest, wetlands, and riparian habitat adjacent to the river. Wildlife in the area include deer, moose, black bear, small furbearers, waterfowl, and a variety of shorebirds.
Little Burnt River (Crown) (Expansion 1) NW-28-082-01-W6M	A collaborative partnership between ACA, AEP, NCC and Lessee (Mr Dickmann) to obtain a Department License of Occupation (DLO).	149	This site is approximately 5 km north of Whitelaw and 24 km east of Fairview and is located in the dry mixedwood. This Crown land parcel expands the Little Burnt River Conservation Site to 309 acres (125.1 ha) in size and is located on the north shore of Caron Lake. The Little Burnt River flows through this property and consists of pasture, mixed forest, wetlands, and riparian habitat. Wildlife in the area include deer, moose, black bear, small furbearers, waterfowl, and a variety of shorebirds.
South			
Ross Creek (Expansion 1) NE-09-012-03-W4M	A land purchase between ACA, EC HSP, and PF – Chinook Chapter.	160	This site is approximately 25 km west of Medicine Hat and is located in the dry mixedgrass. It consists of native grassland habitat and tame pasture. It expands the Ross Creek Conservation Site to 1,100 acres and creates greater connectivity across the landscape. Wildlife found here include deer, pronghorn, sharp-tailed grouse, grey partridge, furbearers, Sprague's pipit, and chestnut-collared longspur.
TOTAL		1,326	

ACA – Alberta Conservation Association

AEP – Alberta Environment and Parks

AFGA – Alberta Fish & Game Association

EC HSP – Environment Canada Habitat Stewardship Program

NCC – Nature Conservancy of Canada

PF – Pheasants Forever

Landowner Habitat Program

Approximately 410,000 km² of Alberta has now been altered from its natural state, more than any other province. This alteration contributes to habitat and wetland loss each year. Almost two-thirds of the province has been altered by industrial or agricultural development. Urban and rural development have also contributed to habitat loss, fragmentation, and degradation. The Landowner Habitat Program (LHP) was initiated to help conserve key habitat and reduce habitat loss on privately owned land. The program provides financial incentives to landowners who are willing to sign a legally binding agreement to retain habitat for a term of five to 20 years, a condition of the agreement is for landowner to provide reasonable public foot access. Participants in this program are acknowledged with a project sign and provided with

“Use Respect – Ask First” signage to display along the perimeter of their property. We currently manage 37 LHP agreements across the province, which conserves approximately 6,085 acres (2,462.6 hectares) of important wildlife and fish habitat.

Partnerships

Bow River Irrigation District, Landowners

Management Plan Development

ACA manages and maintains over 210,000 acres of habitat in collaboration with Alberta Environment and Parks and other conservation partners. In order to manage our conservation assets effectively, management plans are developed for each of these sites. Emphasis is placed on developing detailed habitat management objectives that maintain the ecological integrity

of each conservation site. ACA works with our partners to develop management plans that identify the site history and features, our plan to manage, enhance, or restore habitat, recreational and facility enhancements, guidelines, and planned activities for the site. Management plans are reviewed by ACA and our partners as required, or on a term basis (e.g., after five or ten years) to ensure we are meeting our intended goals and objectives. In 2017/18, we developed 38 management plans.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Ducks Unlimited Canada, Shell Canada Energy, Pheasants Forever – Calgary and Chinook chapters, Wild Elk Federation, Nature Conservancy of Canada

Recreational Opportunity



Project: Landowner Habitat Program

Photo: ACA, John Hallett



Enhancement

The Recreational Opportunity Enhancement project was established to improve opportunities for fishing and hunting, as well as other non-consumptive activities such as hiking, canoeing, or photography. Improving waterfowl hunter access to Crown waterbodies and improving upland and big game hunter access to private lands is the major focus of this project. In addition, the project will focus on access to major rivers such as the Bow and North Saskatchewan rivers for angling and other water-related

recreational activities which would also be beneficial to our stakeholders. Working with individual landowners has allowed us to improve hunter access to 51,000 acres (20,655 ha) of private land across southern Alberta through a sign-in access system. In an effort to reduce ungulate depredation issues and improve hunter access in northwestern Alberta, we continue to collaborate with partners to develop a pilot program that will connect hunters with landowners experiencing depredation issues. Not only will increased opportunities encourage hunter

and angler recruitment, it will also help maintain quality outdoor experiences by distributing hunters and anglers across the landscape.

Partnerships

Agriculture Financial Services, Corporation, Alberta Environment and Parks, Alberta Fish & Game Association, Canadian Land Access Systems, Landowners, Lethbridge Fish & Game Association

Riparian Conservation

The ecological integrity and health of Alberta's rivers, streams, and surrounding landscapes are often negatively affected by ongoing human development. Aquatic and terrestrial habitats have been degraded by activities such as agriculture, land conversion, forestry, oil and gas exploration, and urban and rural community development. Riparian areas are complex ecosystems that provide important ecological functions and are critical to maintaining watershed health. Proper management of this sensitive habitat is essential to maintain water quality and habitat integrity. The primary goal of ACA's Riparian Conservation program is to protect and restore riparian areas in priority watersheds through on-the-ground habitat restoration projects by engaging landowners, the public, and other stakeholders through community outreach and education activities. Our collaborative partnerships with landowners, industry, government, watershed groups, and other stakeholders are an integral component of project delivery. In 2017/18, we focused conservation efforts in the following priority watersheds: Beaverlodge, Edson, Owl, Raven, North Raven, and Oldman rivers; and Clear, Todd,

Beaver, Drywood, Yarrow, Lyndon, Pincher, and Indianfarm creeks and their associated tributaries. We delivered 19 enhancement projects using a variety of management tools, including implementing agreements to conserve 513 acres (207 ha) of riparian and associated upland habitat, planting 15 balsam poplar palisades, and installing or repairing 5.58 km of mainly wildlife-friendly fencing to protect important riparian habitat as part of new and existing agreements. We also monitored water quality and riparian health on three systems to help evaluate the effectiveness of riparian enhancements, supported landowners with riparian enhancement activities, and communicated our Riparian Conservation Program to various communities. Our efforts have contributed to improvements in riparian habitat health and have positively influenced the stewardship approach of many landowners and leaseholders.

Partnerships

Agroforestry & Woodlot Extension Society, Alberta Fish & Game Association, Cenovus Energy, County of Grande Prairie, Cows and Fish – Alberta Riparian Habitat Management Society, Fisheries and Oceans Canada, Landowners,

Longshore Resources Ltd., Matrix Solutions, Mighty Peace Watershed Alliance, Milk River Watershed Council, Sinopec Canada, Syncrude Canada Ltd., Treecycler, Trout Unlimited Canada, West County Watershed Society, Woodmere Nursery



Project: Riparian Conservation

Photo: ACA, Mandy Couve

ACA Conservation Reports Fisheries

The following is a list of final project reports published in 2017/18. All of these reports can be found on our website or through the Government of Alberta Library.

Annual Summary reports for all on-going projects can also be found on our website.

Fisheries

Fenson, S., T. Johns, and B. Schmidt. 2018. Owl River riparian restoration and enhancement project: Monitoring report II. Data Report produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 29 pp + App.

Fitzsimmons, K. 2018. Angler Survey on the Sheep and Highwood Rivers, 2017. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 21 pp. + App.

Hurkett, B., J. Blackburn, and L. Redman. 2018. Abundance, distribution, spawning, and thermal habitat of Westslope cutthroat trout and bull trout in the Stimson Creek watershed. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 19 pp + App.

Judd, C., M. Rodtka, and Z. Spence. 2018. North Saskatchewan River drainage, fish sustainability index data gaps project, 2017. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 18 pp + App.

Lebedynski, N. 2018. Summer Sport Fishery Angler Survey at Gull and Snipe Lakes, Alberta, 2017. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 16 pp + App.

Redman, L., N. Lebedynski, and J. Blackburn. 2018. Winter dissolved oxygen conditions of the Whitemud River and Willow Creek watersheds, Alberta, 2016 – 2017. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 13 pp + App.

Rodtka, M. 2018. Field performance of two commercial strains of rainbow trout (*Oncorhynchus mykiss*) in four small put-and-take Alberta fisheries. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 21 pp + App.

Seward, S., and B. Hurkett. 2018. Kakwa River Watershed, Arctic Grayling Assessment 2016 – 2017. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 12 pp + App.

Wildlife

Peters, S.H., P.F. Jones, and R.A. Anderson. 2018. Assessment of the Alberta moose hunter survey app, 2012 to 2016. Technical Report, produced by Alberta Conservation Association, Blairmore, Alberta, Canada. 23 pp + App.



Report A Poacher and Livestock Compensation Programs

Report A Poacher

The Report A Poacher (RAP) program encourages all Albertans—not just hunters and anglers—to help protect our wildlife, fish, and natural habitats. In addition to providing education about poaching, perhaps the most important RAP program tool is the toll-free phone number: 1-800-642-3800. It allows people to report suspected illegal activities 24 hours a day, seven days a week. Alberta Fish and Wildlife enforcement officers often rely on information from these calls; individuals and communities are RAP’s eyes and ears, and the important information they provide regularly leads to investigations and convictions.

RAP is delivered jointly by ACA and Alberta Justice and Solicitor General. ACA is responsible for program promotion and education activities to enhance public awareness and understanding of poaching, and also for the administration of program funds. Alberta Justice and Solicitor General retains sole responsibility for liaising with informants, investigating reports, and enforcing laws.



2017/18 Overview

- 16,392 total calls from the public to the RAP toll-free hotline.
- 3,108 calls about suspected illegal activity—reporting fish and wildlife resource crimes.
- 528 charges laid.
- \$60,600 in rewards paid to individuals whose call and information led to charges.
- Promoted RAP at numerous trade shows and events throughout Alberta, and distributed branded promotional items to educate and raise awareness about poaching and ethical hunting and fishing practices.
- Increased RAP promotion through social media, television, radio, and print.

Livestock Compensation Programs

ACA takes pride in fostering good working relationships with landowners. For producers whose livestock may have been killed or injured as a result of predators (eagles, cougars, bears, and wolves) or hunter activities, relief is provided through the Wildlife Predator Compensation and Shot Livestock Compensation programs. Like Report A Poacher, we are responsible for program promotion and compensation fund management, while Alberta Justice and Solicitor General is responsible for incident investigations and determining payouts.

Wildlife Predator	Claims	Compensation (\$)
Bald Eagle	1	660.00
Black Bear	26	24,924.58
Cougar	14	12,803.19
Grizzly Bear	49	83,869.23
Wolf	117	153,530.97
Unkown	2	1,810.58
TOTAL	209	277,598.55

Shot Livestock	10	\$43,168.19
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Wild game for Foodbank Project

Photo: Alberta Hunters Sharing the Harvest

Granting Programs

Alberta's hunters and anglers contribute directly to conservation through levies on their hunting and fishing licences. A portion comes to ACA, and one of the many things we do is support community and research efforts via our Granting Programs.

ACA Conservation, Community, and Education Grants

This fund supports conservation activities that contribute to wildlife and fish population health and the health of their environments, and to the understanding, appreciation, and use of those environments. Projects that increase participation in, and awareness of, outdoor opportunities, while developing knowledge and respect for conservation, are also funded through this grant. The projects ranged from youth hunter, angler, and archery programs to local festivals to restoration and stewardship projects.

2017/18 Overview

- Received a record number of applications, 147 in total, requesting just under \$2.1 million.
- Supported 81 projects with \$955,056 of funding

ACA Research Grants

The ACA Research Grants fund high-quality research projects on wildlife, fish, and habitat that inform the effective management of wildlife and fish populations and habitat in Alberta. Topics ranged from examining the spread of wildlife diseases (e.g., Chronic Wasting Disease in deer), to trials of citizen science to help determine the distribution of various species of importance in Alberta such as *Didymosphenia geminata* and grizzly bears.

2017/18 Overview

- Received 27 applications requesting \$610,513.
- Funded 18 research projects with a total of \$329,990.

Grants in Biodiversity

The ACA Grants in Biodiversity Program is funded by ACA and operated through the Alberta Cooperative Conservation Research Unit—a partnership between the Universities of Alberta, Calgary, and Lethbridge. The ACA Grants in Biodiversity program supported 19 graduate student projects with a total of \$214,210 of funding for 2017/18. The student academic projects included studies on mites and tiny duckweed to elk and towering pines, with birds, cougars, frogs, and ants in between. This year's grants ranged from \$3,820 to \$17,830 and were distributed to five PhD and 14 Masters candidates. ACA Grants in Biodiversity celebrated awarding \$5 million to 486 researchers at a reception with many current and past grant recipients in November 2017.

2017/18 Overview

- Reached the milestone of allocating \$5 million to biodiversity research since the program began.
- Syncrude Canada Ltd. continued to support of the ACA Grants in Biodiversity Program with \$250,000 commitment over five years (2014 through 2018).

ACA Chair in Fisheries and Wildlife at the University of Alberta

The ACA Chair was established through an endowment to the University of Alberta, providing educational initiatives to wildlife professionals. By addressing issues and problems relevant to Alberta's biological resources, the Chair, Dr. Mark Boyce, supports ACA's goals for long-term, sustainable wildlife and fish resources. A contribution to teaching is also an essential duty of the position. The ACA Chair is expected to contribute to the activities of the Department of Biological Sciences and to the university as a whole. Dr. Boyce's expertise is internationally recognized, and he has significantly enhanced ACA's efforts to conserve Alberta's wildlife and fish resources. For more information and for a list of publications, visit: biology.ualberta.ca/faculty/mark_boyce.

2017/18 Overview

- Endowed with \$20,500 as part of ACA's commitment to science, research, and education.

ACA Conservation, Community, and Education Grants

Recipient	Project	Funding
Agroforestry and Woodlot Extension Society (AWES)	Enhancing Woodlots for Wildlife	\$13,000.00
Alberta Council for Environmental Education	Get Outside and Play Week – Promoting outdoor nature play in the early years, May 27 – June 3	\$6,000.00
Alberta Fish and Game Association (AFGA)	Increasing habitat for species at risk in Alberta's grassland region through adaptive management, habitat enhancement, and outreach	\$37,400.00
AFGA	Nevis Property Wildlife Friendly Fencing	\$4,500.00
AFGA	North Raven Riparian Conservation Project	\$40,000.00
AFGA	Pronghorn antelope migration corridor enhancement	\$36,288.00
Alberta Hunter Education Instructors' Association (AHEIA)	AHEIA Teachers' Workshop	\$3,000.00
AHEIA	14th Annual OWL Day – "Outdoor Wildlife Learning"	\$3,000.00
AHEIA	24th Annual Outdoor Women's Program	\$24,000.00
AHEIA	Alberta Fishing Education Program – Electronic Course	\$25,000.00
AHEIA	Educational Development of the Conservation Education Wildlife Museum	\$3,000.00
AHEIA	HTML5 Course Conversion	\$10,000.00
AHEIA	Lethbridge College Conservation Enforcement Student Workshop	\$2,000.00
AHEIA	Outdoor Bound Mentorship Program	\$3,000.00
AHEIA	Outdoor Youth Seminar	\$3,000.00
AHEIA	Provincial Hunting Day Initiatives	\$20,000.00
AHEIA	Youth Hunter Education Camp (Weeks 1,2,3,4)	\$44,000.00
Alberta Hunters Sharing the Harvest	Wild Game for Food Bank Project	\$8,000.00
Alberta Junior Forest Wardens Association	JFW National Camp 2017, Canadian Home Grown	\$25,000.00
Alberta Riparian Habitat Management Society (Cows & Fish)	Grazing Schools for Women: Promoting habitat and improved grazing stewardship to livestock producers in south and central Alberta	\$3,000.00
Alberta Riparian Habitat Management Society (Cows & Fish)	Implementing riparian habitat management improvements for westslope cutthroat trout	\$6,150.00
Beaverhill Bird Observatory	Public engagement, wildlife conservation, and monitoring at Beaverhill Lake	\$16,500.00
Bow River Chapter – Trout Unlimited Canada	Legacy Island	\$2,500.00
Calgary Bird Banding Society	Cypress Hills Landbird Monitoring and Educational Programs	\$12,000.00
Calgary River Valleys	River Access Education	\$15,500.00
Camrose Wildlife Stewardship Society	2017 Camrose Purple Martin Festival	\$2,450.00
Canadian Parks and Wilderness Society (CPAWS) Southern Alberta Chapter	Kids for Conservation: Celebration 20 year of getting kids outside to experience Alberta's wilderness	\$15,000.00
Castle-Crown Wilderness Coalition	Education and reclamation in the Castle	\$17,500.00
Central Alberta Fish & Game Association	Bennett Pond Access Trail and Dock	\$6,500.00
Cloudy Ridge Ranch	Cloudy Ridge/Yarrow Creek off-site water and riparian improvement project	\$18,000.00
Edmonton Nature Club	2017 Snow Goose Chase	\$3,000.00
Edmonton Valley Zoo	Edmonton Valley Zoo ACA Go Wild Activity Tent	\$2,934.44

Recipient	Project	Funding
Edwin Parr Composite High School	Edwin Parr Composite High School NASP Archery Program	\$12,700.00
Foothills Restoration Forum	Foothills Restoration Forum Outreach and Extension: Range Health Assessment Training and Fall Information Session	\$8,400.00
Friends of Fish Creek Provincial Park Society	Beaver, Poplars, and More: Education, Stewardship, and Conservation for a Healthy Fish Creek Watershed	\$3,000.00
Glenbow Ranch Park Foundation	2017 Vegetation Management at Glenbow Ranch Provincial Park	\$18,800.00
H.A. Kostash School	H A Kostash Youth Mentorship Programs	\$15,900.00
Hardisty Lake United Church Camp	Archery Days	\$2,500.00
Helen Schuler Nature Centre	"Extreme by Nature" Environmental education for 11- to 15-year-olds	\$2,700.00
Helen Schuler Nature Centre	Community Engagement in River Valley Conservation	\$3,000.00
Highway Two Conservation	Alberta Bat Education and Habitat Protection: Enhancement of the Cache Park Bat Reserve and the "Save a Barn, Save a Bat Program"	\$4,700.00
Highway Two Conservation	Riparian Education/Restoration Program	\$5,750.00
Innisfail Fish & Game Association	Waterfowl Nesting Habitat Enhancement	\$1,500.00
Inside Education	Wildlife Education Student Field Trips	\$7,491.00
Junior Forest Wardens Bezonson Brown Bears	Outdoor Conservation Education for BBB JFW	\$1,300.00
JFW Glory Hills	Fall Wilderness Family Camp	\$2,000.00
JFW Lobstick Lynx	Archery	\$5,100.00
JFW St Albert Sturgeons	Fall Wilderness Family Camp	\$2,000.00
JFW - Yellowhead Regional Council	Regional Camp 2017 support	\$3,875.00
JFW - Yellowhead Regional Council	Wild Women Training Week	\$6,000.00
JFW - Yellowhead Regional Council	Winter Skills Camp	\$3,500.00
Lesser Slave Lake Bird Observatory	Avian Monitoring and Education Programs at Lesser Slave Lake	\$22,500.00
Lethbridge Fish & Game	7th Annual LFGA/ACA Youth Fishing Recruitment Day	\$12,000.00
Lethbridge Fish & Game	Hooked on Fishing Program by ACA & AFGA	\$18,328.00
Living Lakes Canada c/o Wildsight	Lac La Biche Shoreline Management Guidelines	\$10,000.00
Mountain View County	Riparian & Ecological Enhancement Program	\$20,000.00
Nature Alberta	Expanding Family Nature Nights across Alberta	\$32,470.00
Nature Alberta	Living by Water	\$40,000.00
Northern Lights Fly Fishers/TUC Edmonton	Conserving and restoring Arctic grayling in the Upper Pembina River Watershed – Habitat restoration planning	\$27,910.00
Nuttig, Carson	Car Creek Riparian Conservation	\$7,000.00
Oldman Watershed Council	Engaging recreationists in the Oldman Headwaters through restoration and education project	\$35,750.00
Onoway & District Fish & Game Association	1st Annual OFGA Ladies League Outdoor Education Camp	\$2,500.00
Onoway & District Fish & Game Association	Bluebird / Bat House Project	\$800.00
Partners in Habitat Development	Partners in Habitat Development	\$15,000.00

Recipient	Project	Funding
Red Deer County	Wildlife and Native Habitat Enhancement in Red Deer County via ALUS	\$40,000.00
Safari Club International Red Deer Chapter	Red Deer SCI Wild Game Processing Events	\$2,500.00
Safari Club International Red Deer Chapter	Red Deer, Kids Can Fish Event (mentored youth fishing day)	\$2,000.00
SARDA Ag Research	Importance and Protection of Native Pollinators for Sustainable Crop Production in Peace Region of Alberta	\$7,600.00
Slave Lake Rod and Gun Club	Youth Archery Equipment	\$3,000.00
Society of Grassland Naturalists	Beware the Wetland Invaders	\$6,525.00
Spruce Point Park Association	Outdoor Safety Expo	\$1,495.00
Trout Unlimited Canada	Girardi Creek Bioengineering Project	\$3,000.00
Trout Unlimited Canada	Quigley Creek Fish Passage Project	\$17,925.00
Trout Unlimited Canada	Water Edu-kits	\$20,000.00
Trout Unlimited Canada	Yellow Fish Road	\$25,000.00
University of Lethbridge	Outdoor Education	\$5,000.00
Warne, Mitchell	American Kestral Nest Box Program in Alberta	\$2,000.00
Weaselhead/Glenmore Park Preservation Society	Weaselhead Invasive Plant Program	\$3,000.00
Wildlife Conservation Society Canada	Going to Bat for Bats: Citizen Science in Alberta	\$28,715.00
Willingdon and District Fish & Game Association	Willingdon Fish Pond and Park	\$1,600.00
Zone 4&5 Alberta Fish and Game	Narrow Lake Conservation Centre	\$15,000.00
	TOTAL FUNDING CCEG	\$970,056.44

ACA Research Grants

Recipient	Project	Funding
Athabasca University	Taking the Strain: Assessing the sensitivity of rainbow trout strains to hypoxia and ammonia associated with agricultural run-off	\$16,800.00
Avocet Environmental Inc.	Efficacy of detecting sharp-tailed grouse leks in fall surveys	\$9,600.00
Foothills Restoration Forum	Use of native hay and construction matting to improve restoration outcomes in dry mixed-grass habitats	\$7,430.00
Hillcrest Fish & Game Preservation Association	Highway 3 and bighorn sheep	\$14,630.00
Miistakis Institute	Grizztracker: Testing the efficacy of public participation in grizzly bear science	\$10,420.00
STRIX Ecological Consulting	Canada Warbler Rapid Assessment Protocol – Phase 1	\$5,725.00
The King's University	Implication of anthropization for host partitioning and epidemiology of emerging zoonotic parasites in wild canids	\$24,250.00
Trout Unlimited Canada	Discovering Didymo Distribution (D3)	\$13,210.00
University of Alberta	Automating identification of wildlife in audio recordings	\$16,800.00
University of Alberta	Evaluating alternative elk harvest strategies in SW Alberta	\$7,650.00
University of Alberta	Chronic Wasting Disease in Deer: Modeling transmission from contact rates	\$27,600.00
University of British Columbia	Evaluating camera trap surveys as an effective means of monitoring remote ungulate populations	\$31,700.00
University of Calgary	Wild Pollinator Conservation and Restoration in Southern Alberta Croplands III: Experimental tests of crop yield	\$17,820.00
University of Calgary	Development and application of molecular epidemiology tools to define bighorn sheep parasite communities and guide management	\$35,200.00
University of Manitoba	Effects of anthropogenic noise associated with oil and gas development on survival and reproductive performance of grassland songbirds in Alberta's mixed-grass prairie	\$18,300.00
University of Montana	Bull elk recruitment, survival, and harvest in a partially migratory elk herd in the Ya Ha Tinda	\$30,060.00
University of Winnipeg	Assessing the Risk of CWD: A microbiological-behavioural metric to quantify the risk of prion transmission between deer	\$16,800.00
Wildlife Conservation Society Canada	Baseline population monitoring and bioenergetics of Alberta bat populations: Predicting rise of White-Nose Syndrome to guide conservation actions	\$25,995.00
TOTAL FUNDING RESEARCH GRANTS		\$329,990.00

2017 ACA Grants in Biodiversity Recipients

Synchrude Canada Ltd. has committed \$250,000 over five years (2014 - 2018) to support the ACA Grants in Biodiversity.

Recipient	Institution	Supervisor(s)	Project Title
Rob Belanger (MSc)	University of Alberta	Scott Nielsen	Where do the wood bison roam? Habitat selection of the Ronald Lake herd
Jillian Cameron (MSc)	University of Alberta	Erin Bayne	Influence of natural and anthropogenic light levels on anuran calling behavior in Alberta
Joseph Cooper (MSc)	University of Alberta	Justine Karst	Forest demography in the southern boreal forest: time, climate, and neighbors
Frédéric Dulude-de Broin (MSc)	Université Laval	Steeve Côté	<i>Impact of predator-induced stress on the reproduction of mountain goats (Oreamnos americanus)</i>
Matthew Dyson (PhD)	University of Waterloo	Bradley Fedy	Waterfowl nest success in the western boreal forest: Does industrial development affect predation?
Mitchell Flowers (MSc)	University of Alberta	Evie Merrill	Trading-off vigilance and space use by migrant and resident elk to avoid multiple predators
Jerrad Hayden (MSc)	University of Lethbridge	Robert Laird	Does senescence occur in <i>Lemna minor</i> in the wild?
Mitchell Johnsen (MSc)	University of Alberta	Rolf Vinebrooke	Resiliency of freshwater communities under a rapidly changing climate: An alpine-montane reciprocal transplant ecosystem experiment
Kara MacAulay (MSc)	University of Alberta	Evie Merrill	Can contents of predator scat predict the spatial risk of predation for elk herd segments at the Ya Ha Tinda?
Matthew Meehan (MSc)	University of Alberta	Heather Proctor	Assessing the relative utility of mesostigmatid vs. oribatid mites as bioindicators of disturbance in forested areas of Alberta, Canada
Paul Metzler (MSc)	University of Alberta	Justine Karst	Revealing the belowground diversity of boreal forests with molecular tools
Samridhi Rijal (PhD)	University of Calgary	Kathreen Ruckstuhl	Diversity and prevalence of different parasites: Effects of host sex, body condition, and hormones of Rocky Mountain bighorn sheep
Federico Riva (PhD)	University of Alberta	Scott Nielsen and John Acorn	Individual and simultaneous effects of disturbance from wildfire and oil sands on butterflies
Jean Rodriguez-Ramos (MSc)	University of Alberta	Nadir Erbilgin	Can ectomycorrhizal fungi prevent lodgepole pine starvation during droughts by becoming its carbon source?
Natalie Sánchez Ulate (PhD)	University of Alberta	Erin Bayne	Song variation and singing behavior of songbirds in response to chronic industrial noise
Raiany Silva (MSc)	University of Alberta	Ellen Macdonald	Restoration and enhancement of riparian vegetation in wetlands degraded by all-terrain-vehicles in Blue Rapids Recreation Area, Alberta
Michael Terry (MSc)	University of Alberta	Mark Poesch	Ranges of fisheries productivity and habitat-productivity relationships in natural and compensation lakes in northern Alberta
Mari West (PhD)	University of California, Riverside	Jessica Purcell	Worker caste organization in the ant genus, <i>Formica</i>
Samantha Widmeyer (MSc)	University of Alberta	Mark Boyce	Inferring prey specialization in cougars using stable isotope analysis: A method for testing the boot season



Auditor's Report

Project: Landowner Habitat Program

Photo: ACA, Jeff Forsyth



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June 8, 2018
Edmonton, Alberta

INDEPENDENT AUDITOR'S REPORT

To the Members of Alberta Conservation Association

The accompanying summarized consolidated financial statements, which comprise the summary consolidated statement of financial position as at March 31, 2018, and the summary results from consolidated statements of operations for the year then ended are derived from the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2018. We expressed a qualified audit opinion on those consolidated financial statements in our report dated June 8, 2018.

The summary consolidated financial statements do not contain all the disclosures required by accounting standards for not-for-profit organizations. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of Alberta Conservation Association.

Management's Responsibility for the Summarized Consolidated Financial Statements

Management is responsible for the preparation of the summarized consolidated financial statements on the basis described in Note 1.

Auditor's Responsibility

Our responsibility is to express an opinion on these summarized consolidated financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, "Engagements to Report on Summary Financial Statements."

Opinion

In our opinion, the summarized consolidated financial statements derived from the audited consolidated financial statements of Alberta Conservation Association for the year ended March 31, 2018 are a fair summary of those consolidated financial statements, on the basis described in Note 1. However, the summary consolidated financial statements are subject to conditions equivalent to those of the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2018, upon which we issued a qualified audit opinion.

In addition, in common with many not-for-profit organizations, the Association derives some of its revenue from partner contributions and donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amount recorded in the records of the Association and we were not able to determine whether any adjustments might be necessary to partner contributions, excess of revenues over expenses, current assets, deferred contributions and net assets.

Kingston Ross Pasnak LLP

Kingston Ross Pasnak LLP
Chartered Professional Accountants

ALBERTA CONSERVATION ASSOCIATION
Summarized Consolidated Statement of Operations
Year Ended March 31, 2018

	2018	2017
REVENUE		
Levy, fees and assessments	\$ 14,422,950	\$ 14,570,386
Partner contributions	1,772,059	1,606,470
Investment income	250,693	326,969
Miscellaneous	170,357	298,964
Donations	83,818	73,833
Film sales	3,308	-
	16,703,185	16,876,622
EXPENDITURES		
Salaries and benefits	6,998,541	7,009,467
Grants	1,736,250	1,515,030
Contracted services	1,717,641	2,273,211
Materials and supplies	1,527,095	1,563,439
Rentals	587,766	456,979
Amortization	359,085	311,015
Travel	354,936	330,715
Landowner agreements	314,862	166,563
Office	289,849	399,881
Repairs and maintenance	281,491	419,516
Advertising	245,349	237,941
Fuel and lubricants	195,876	186,453
Insurance	165,904	131,346
Telephone and communications	157,414	160,355
Interest on loans	119,943	59,008
Freight and postage	81,690	83,776
Utilities	77,605	50,283
Bank charges and interest	53,635	54,749
Hosting and conferences	41,795	45,306
Training and membership	34,543	37,449
Fees, licenses and permits	22,406	33,745
Bad debts	9,107	494
	15,372,783	15,526,721
EXCESS OF REVENUE OVER EXPENDITURES FROM OPERATIONS	1,330,402	1,349,901
OTHER REVENUES (EXPENDITURES)		
Gain on sale of investments	132,870	91,318
Gain (loss) on disposal of property and equipment	10,717	(1,204)
Unrealized (loss) gain on investments	(111,777)	430,221
	31,810	520,335
EXCESS OF REVENUE OVER EXPENDITURES	\$ 1,362,212	\$ 1,870,236

ALBERTA CONSERVATION ASSOCIATION
Summarized Consolidated Statement of Financial Position
March 31, 2018

	2018	2017
ASSETS		
CURRENT		
Cash	\$ 1,516,606	\$ 781,948
Short term investments	488,205	400,339
Accounts receivable	267,224	600,807
Inventory	2,530	6,153
Goods and Services Tax recoverable	47,373	113,764
Prepaid expenses	308,849	134,639
	2,630,787	2,037,650
LONG TERM INVESTMENTS	7,502,332	7,338,849
PROPERTY AND EQUIPMENT	30,586,965	29,243,264
FILM COLLECTION	1,549,577	1,549,577
	\$ 42,269,661	\$ 40,169,340
LIABILITIES AND NET ASSETS		
CURRENT		
Bank indebtedness	\$ 730,000	\$ -
Accounts payable and accrued liabilities	1,765,511	2,443,900
Source deductions payable	59,675	73,670
Deferred contributions	3,251,596	2,616,247
Deposits	31,697	11,560
Term loans	3,406,666	4,270,000
	9,245,145	9,415,377
NET ASSETS		
Invested in property and equipment	32,136,542	30,792,841
Internally restricted	476,811	1,176,182
Unrestricted	411,163	(1,215,060)
	33,024,516	30,753,963
	\$ 42,269,661	\$ 40,169,340

ON BEHALF OF THE BOARD


Director


Director

Alberta Conservation Association

BASIS OF PRESENTATION

Management is responsible for the preparation of the summary consolidated financial statements. The summary consolidated financial statements are comprised of the summary consolidated statement of financial position and the summary consolidated statement of operations, and do not include and other schedules, a summary of significant accounting policies or the notes to the consolidated financial statements. The summary consolidated statement of financial position and the summary consolidated statement of operations are presented with the same amounts as the audited consolidated financial statements, but all note referencing has been removed.

Financial Highlights

Summarized Financial Statements

In 2017/18, ACA received \$14,422,950 in levy revenue from hunting and angling licences, representing a decrease of \$147,163 from the previous year. This result demonstrates that despite the continued downturn in the economy, interest in hunting and angling in Alberta remains reasonably stable, as most of this decrease can be easily explained because of poor weather during key fishing weekends.

Together, our Wildlife, Fisheries, Land Management, Communications, Grants, and Report A Poacher Programs had expenditures totalling \$12,262,898, plus an additional \$1,214,651 in land purchases and donations (for accounting purposes, these funds are recorded as assets, not direct operational expenditures). These numbers mean approximately 93.4% of the levy value collected went back into conserving Alberta's resources (expenses plus increase in habitat assets).

ACA received approximately \$3.49 million in non-levy revenue (including \$1,214,651 in land donations and funds for land purchase), representing 19.5% of total revenue. These funds came from a variety of donors, including individuals, corporations, granting foundations, the federal government, and other conservation organizations. Total revenue of \$17,917,836, means ACA was able to leverage levy dollars an additional

24% for conservation activities. This does not include increased dollar leveraging that has occurred as a result of grants provided to third-party conservation organizations. Administrative costs were held to 7.5% of total revenue (including funds for land purchase and donations).

Current year accounting surplus is \$1,362,212 (7.6% of budgeted revenue), the majority of which was budgeted for land purchases through the Habitat Securement Fund and debt repayment related to previous land/office purchases (\$1,000,000). An additional \$271,286 in "investment income" remains within our investment fund and is not available for operations. With these funds removed, the surplus is approximately \$58,616 cash (0.3% budgeted revenue).

Expenditures by Program

Often stakeholders want to determine what funds are being directed towards their particular passion. When examining the Expenditures by Program, please keep in mind that the numbers shown are somewhat arbitrary and do not necessarily represent all projects that may relate to a particular program area. For instance, fisheries access sites, which are directly related to increasing angling opportunities, are administered, and budgeted for, under our Land Management Program instead of the Fisheries Program. Granting is shown separately even though it relates to all three resource areas.

Administration costs (7.5%) continue to be well below the federal guideline for charitable organizations and includes areas such as Human Resources and regional and corporate administration.

Revenue by Source

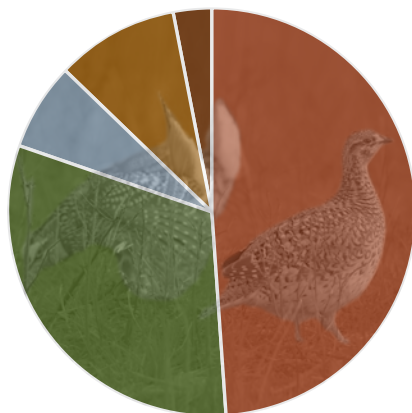
Approximately 19.5% of ACA's total budget was generated from non-levy sources (\$3,494,886). This increase from the previous year was largely attributable a planned giving donation from one donor. Land donations and purchases conserved approximately 1,107 acres for future generations.

2017/18 Overview

- Total revenue of \$17,917,836.
- Received \$14,422,950 from levies on hunting and fishing licences.
- Received \$3.49 million in non-levy revenue.
- Applied 93.4% of levy value directly towards the conservation of Alberta's wildlife, fish, and habitats.
- Administration costs kept to 7.6% of total expenditures.

The following charts summarize the total operating budget breakdown according to each program and revenue area. We encourage you to review the entire annual report for a greater understanding of the conservation projects undertaken within each program and how they may relate to your particular interests. If you have any questions, please do not hesitate to contact our President and CEO, Todd Zimmerling.

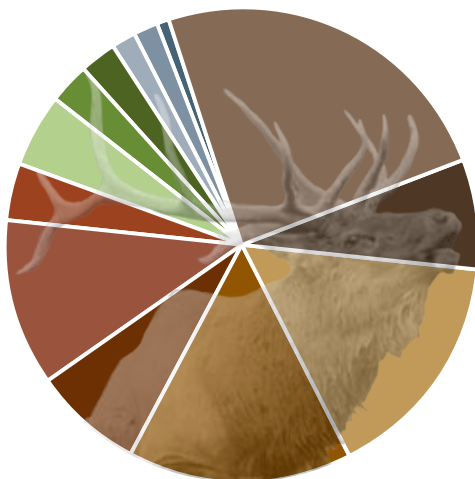
Revenue by Source
















		Total Dollars
48.9%	Hunting	8,763,666
31.6%	Fishing	5,659,284
6.8%	Land purchases/donations	1,214,651
9.9%	Partner	1,772,059
2.8%	Other	508,176
	TOTAL	17,917,836

*Not including unrealized gains on investments, but including \$132,870 in investment income (outside of Management’s control).

Expenditures by Program



		Levy	Partner	Total Dollars
24.4%	 Wildlife Program	2,952,757	1,083,648	4,036,405
7.3%	 Land purchases/donations	-	1,214,657	1,214,651
15.8%	 Fisheries Program	2,453,424	161,550	2,614,974
15.3%	 Land Programs	2,100,651	428,489	2,529,140
7.5%	 Administration	1,127,514	138,225	1,265,739
11.4%	 Granting Programs	1,772,523	116,273	1,888,796
4.0%	 Finance	400,598	263,311	663,909
4.9%	 Communications	750,584	62,293	812,877
3.0%	 Information Technology	494,861	75	494,936
2.4%	 Business Development	391,048	7,159	398,207
1.7%	 Report A Poacher and Compensation	283,379	-	283,379
1.7%	 Human Resources	274,230	-	274,230
0.6%	 Health and Safety	97,327	-	97,327
TOTAL		13,098,896	3,475,674	16,574,570



Alberta Conservation Association wishes to thank our Corporate Partners in Conservation who have provided multi-year financial contributions in support our conservation programs and projects. Together we are conserving Alberta's natural heritage for generations to come.

Abacus Datagraphics
 Access Pipeline Inc.
 AltaLink
 Aquality Environmental Consulting Ltd.
 Aux Sable
 Cabela's Canada
 Canadian National Sportsmen's Shows
 Canadian Natural Resources Ltd.
 Canadian Tire Cochrane
 Can West Legacy Inc.
 Capital Power
 CCI Inc.
 City of Fort Saskatchewan
 Cycle Works Motorsports
 Daishowa Marubeni International
 Dow Chemical Canada ULC
 Edmonton Trout Fishing Club
 Heritage Inn Hotels
 Inter Pipeline Ltd.
 Jobsite Workwear
 Let's Go Outdoors
 MacFarlane Pheasants Inc.
 Martin Motor Sports
 Matrix Solutions Inc.
 Mountain View County
 Nutrien
 Shell Canada
 Sinopec Canada Energy Ltd.
 Suncor Energy Foundation
 Syncrude Canada
 SysGen Solutions Group Ltd.
 TeraGo Networks
 Thompson-Pallister Bait Company Ltd.
 Town of Cochrane
 Town of Taber
 TransAlta Generation Partnership
 West Fraser Mills
 Wheaton Toyota On The Trail
 WiBand
 Wingate by Wyndham
 Yeti Roughrider Rentals Ltd.



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