

# Annual Report 2018/19



Our People.  
**Our Culture.**

## 2018/19 Snapshot

- Filled four permanent positions. Two out of the four positions were past seasonal staff. We also hired nine seasonal employees to work for the summer field season and filled two temporary positions for the 2019/2020 fiscal year.
- We are pleased to recognize 17 companies that are either new Corporate Partners In Conservation or have renewed/increased their ongoing support for ACA programs and projects.
- 45,000 copies of the Alberta Discover Guide were delivered in January 2019, featuring 789 conservation sites (including Ducks Unlimited Canada and Alberta Fish and Game Association sites). The guide is a free annual publication that provides outdoor enthusiasts with a list and description of conservation sites that can be accessed for hunting, fishing, hiking, and more.
- Finished the year with 18,788 Facebook followers, 5,883 Twitter followers, 460 YouTube subscribers, and 67,457 subscribers to our e-newsletter.
- 2,198 adults and children came out to fish at Kids Can Catch events, involving 100 corporate and community event partners. Communications provided event support and promotion across the province to local community organizers.
- 115 kids learned about needs of pheasants through the 4-H Raise and Release Program. They raised 5,950 pheasants from day-old chicks and released adult birds into suitable habitat.
- Trappers provided 986 marten skulls harvested over winter and, using a refined technique, they were able to accurately detect juveniles from adults measuring tooth age with similar consistency as laboratory results.
- 106,090 twenty-cm long trout (95,250 rainbow, 5,000 brown, and 5,840 brook trout) were stocked into 63 ponds in regions of the province where angling opportunities are limited.
- 1,038 anglers were interviewed during angler surveys, and an additional 1,097 were counted during 44 flights.
- Added 3 new conservation sites, totalling 918 ac (371 ha) with a land value of approximately \$2,100,000.
- Currently managing 32 Landowner Habitat Program Agreements, conserving 5,737 ac (2,321 ha) of wildlife and fish habitat.
- 2,876 calls about suspected illegal activity – reporting fish and wildlife resource crimes. As a result, 499 charges were laid and \$73,100 in rewards were paid to individuals whose call and information led to charges.
- Funded 79 and 17 projects through ACA Conservation, Community, and Education and ACA Research grants, respectively, totalling approximately \$1.3 million.

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# Annual Report 2018/19



## 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.

## Contents

<b>Board of Directors.....</b>	<b>4</b>
<b>About ACA.....</b>	<b>5</b>
<b>Delegated Roles and Responsibilities .....</b>	<b>5</b>
<b>Message from the Chairman.....</b>	<b>7</b>
<b>President and CEO’s Message.....</b>	<b>9</b>
<b>Our People. Our Culture .....</b>	<b>10</b>
Health and Safety .....	10
Human Resources .....	10
Information Technology .....	11
<b>Business Development.....</b>	<b>13</b>
<b>Our Conservation Programs .....</b>	<b>15</b>
Information, Education, and Communications Program.....	15
Wildlife Program.....	21
Fisheries Program .....	33
Land Management Program.....	41
<b>ACA Conservation Reports.....</b>	<b>47</b>
<b>Report A Poacher and Livestock Compensation Programs .....</b>	<b>49</b>
<b>Grants Program .....</b>	<b>51</b>
ACA Conservation, Community, and Education Grants.....	52
ACA Research Grants.....	55
Grants in Biodiversity.....	56
<b>Auditor’s Report .....</b>	<b>58</b>
<b>Financial Highlights.....</b>	<b>61</b>
<b>Corporate Partners in Conservation .....</b>	<b>63</b>





## Board of Directors 2018/19

### Executive

Bill Abercrombie, Chairman – Alberta Trappers' Association  
 Robert Gruszecki, Vice Chair – Alberta Hunter Education Instructors' Association  
 Sandra Mellon, Treasurer – Public At Large, Northwest Region  
 Greg Shyba, Secretary – Public At Large, Central Region

### Directors

Randy Collins – Alberta Fish and Game Association  
 Jeana Schuurman – Alberta Professional Outfitters Society  
 Dr. Brian Joubert – Nature Alberta  
 Michael Perkins – Pheasants Forever  
 Fred Calverly – Trout Unlimited Canada  
 Dr. Mark Boyce – ACA/University of Alberta Chair in Fisheries and Wildlife  
 Dr. Lee Foote – Public At Large, Academic Representative  
 Brian Bildson – Public At Large, Business Representative  
 Ken Ambrock – Northern Alberta Board Liaison  
 Richard Stamp – Public At Large, Southern Region  
 Chuck Priestley – Public At Large, Northeast Region  
 Travis Ripley – Minister's Representative, Alberta Environment and Parks  
 Matthew Mellon – Wild Sheep Foundation Alberta  
 Tom Bateman – Director Emeritus  
 Todd Zimmerling – ACA Administration, President and CEO

## Member Groups





# About ACA

Alberta Conservation Association’s (ACA) Wildlife, Fisheries, and Land Management program biologists 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 non-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.

## Abbreviations Index

Acronym/Abbreviation	Definition
ABMI	Alberta Biodiversity Monitoring Institute
ac	acre
ACA	Alberta Conservation Association
AEP	Alberta Environment and Parks
AFGA	Alberta Fish and Game Association
AFS	ACA Fish Stocking
AHEIA	Alberta Hunter Education Instructors’ Association
AJSG	Alberta Justice and Solicitor General
AOP	Annual Operating Plan
ATA	Alberta Trappers’ Association
cm	centimetre
CN	Canadian National Railway
COR	Certificate of Recognition
CPIC	Corporate Partners in Conservation
CSM	Conservation Site Management
CWD	chronic wasting disease
DAO	Delegated Administrative Organization
DFO	Fisheries and Oceans Canada
DO	dissolved oxygen
DUC	Ducks Unlimited Canada
ECCC	Environment and Climate Change Canada
eDNA	environmental DNA
FSI	Fish Sustainability Index
FWMIS	Fisheries and Wildlife Information System
h	hour
ha	hectare
HLP	Habitat Legacy Partnership
HSP	Habitat Stewardship Program
HUC	Hydraulic Unit Code
IT	Information Technology
km	kilometre
LHP	Landowner Habitat Program
MD	Municipal District
MOU	Memorandum of Understanding
NCC	Nature Conservancy of Canada
NCNT	North-Central Native Trout
NSS	Northern Sagebrush Steppe
PCF	Prairie Conservation Forum
PLUZ	Public Land Use Zone
PVC	polyvinyl chloride
RAP	Report A Poacher
SHARP	Species Habitat Assessments and Ranching Partnerships
SMRID	St. Mary River Irrigation District
TUC	Trout Unlimited Canada
WIN	Wildlife Identification Number
WSCT	westslope cutthroat trout





Photo: ACA, Jason Blackburn



# Message from the Chairman



It gives me a great deal of pleasure and pride to endorse Alberta Conservation Association's 2018-2019 *Annual Report*. When I read through and consider all that has been accomplished this year by ACA staff and partners I can confidently speak for the entire board of directors when I say, "job well done!"

The breadth and scope of the conservation work undertaken and completed this year is truly impressive, and when one takes into consideration that we are currently dealing with a funding shortfall it makes this year's effort all that more extraordinary. Much of the credit is due to ACA's staff, and their ability to be creative and cost-effective in meeting our conservation objectives. This requires a significant buy in across the board, and I must give credit where credit is due, our President and CEO Todd Zimmerling and his management team have done an outstanding job.

In this year of fiscal realities, when more must be done with less, there is another factor at play that is front and centre in every initiative. Whether it be the Information, Education, and Communications; Wildlife; Fisheries; or Land Management programs, the word that stands out is "partnership." The ability of this organization, which includes our member groups and corporate sponsors, to pool resources provided by the outdoor community and leverage a continuous stream of efficient, cost-effective, and high-yielding conservation initiatives and research is an accomplishment the conservation community can be proud of.

Moving forward, we will stay the course and strive to find new opportunities to engage the people of Alberta and expand the conservation research and management objectives forward, seeking new partnership opportunities in more remote areas northern Alberta and with our Indigenous communities. It is also our collective desire to strengthen the relationship with our government partners by moving forward with clear objectives and purpose for the benefit of all Albertans and the resources we work so hard to sustain.

My congratulations to all and best of luck for the fall season.

Yours in conservation,



Bill Abercrombie





Photo: ACA, Charmaine Brunes

# President and CEO's Message

The 2018-19 fiscal year was yet another successful year for ACA. Yes, there were some challenges, dealing with funding shortfalls, but as per usual, ACA staff stepped up and ensured the work still got done. Once again, this year our member groups, stakeholders, and corporate partners played an integral role in ACA's success. Because of our partnerships, we were able to complete a large number of conservation projects across the province. ACA staff are great at what they do, but they know the success of their efforts is multiplied when we partner on a project with shared resources, funding and knowledge. In addition, our staff find that working with partners significantly increases the level of understanding our stakeholders have with respect to the work we do, because our stakeholders are involved.

This year's *Annual Report* highlights a wide range of projects completed and what has been achieved. To name a few: almost 2,200 people participated in numerous Kids Can Catch events across the province, involving 100 corporate and community partners; approximately 28,000 pheasant roosters were released through the provincial program; over 51,000 acres of ranch lands were assessed for habitat conservation; 1,200 yellow perch were stocked in Fort Saskatchewan's Fort Lions Community Fish Pond; over 1,000 anglers were interviewed during creel surveys; 83 sites were sampled for eDNA to determine the presence of Prussian carp; and 918 acres of land were purchased and permanently conserved for future generations.

Not only are our projects interesting, they impact and enhance Alberta's landscape. I encourage you to take your time reading the project descriptions to better understand the allocation of your levy funds. For more details, the annual project summaries are posted and updated on our website. If you still have questions, please contact me directly; If I don't have the answers, I will find someone who does. Open, honest and transparent is what we strive for and I believe it is what you—our stakeholder—should expect.

As I finish writing this letter, I can see the clouds clearing away and what looks to be a beautiful day developing. Given our relatively short summer, I think I will set some time aside this evening to take the family on a quick trip to our favourite fishing spot and enjoy the wonderful outdoor resources we have in this province. No matter where you are and what you are doing, I encourage you to set some time aside to enjoy a summer evening with your family.

Sincerely,

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

Todd Zimmerling  
President and CEO  
Alberta Conservation Association



# Our People. Our Culture.



Photo: ACA, Scott Seward

## Health and Safety

Whether in the office or out in the field, health and safety is a key element in today's workplace. 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 Alberta Occupational Health and Safety standards. The end goal is always that everyone working on ACA projects goes home 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.

### 2018/19 Overview

- Low number of overall incidents (all minor) with substantial decrease in minor injuries requiring first aid as compared to the previous year.
- Developed the Health and Safety Annual Review which summarizes the yearly functioning of the ACA Health and Safety program to ensure all incidents were appropriately addressed and corrected. The overall system of ongoing recording, monitoring, and auditing our work processes and practices throughout the year was also reviewed and improvements were

implemented as required. This approach ensures our program meets or exceeds the requirements of external reviews such as the Certificate of Recognition (COR) program, and more importantly creates a healthy and safe work environment for everyone.

- Annual ACA Employee Survey showed the majority of staff feel ACA's safety forms and documents are easy to access, understand, and use, and that the ACA Health and Safety Committee is responsive to safety feedback and communicates information and updates in a timely and efficient manner.
- Continued emphasis on ensuring all aspects of ACA's Health and Safety program are integrated into daily staff operations as easily and effectively as possible.

## Human Resources

ACA completes many conservation projects over considerable territory each year, thanks in large part to our 84 permanent staff and numerous seasonal staff. It's not just about hiring talent; it's about keeping people and helping them grow and stay committed over the long term. Here at ACA, we recognize that our most valuable resource is our entire team of employees, who work together diligently to accomplish our goals each year.

Numerous employees reached work anniversary milestones this year. We extend our congratulations and

thanks to the following individuals who achieved significant Years of Service milestones:

### 20 Years of Service

Margaret Neufeld, Paul Jones

### 15 Years of Service

Corey Rasmussen, Mike Uchikura

### 10 Years of Service

Colin Eyo, Don Myhre

### 5 Years of Service

Charisma Villa, Lee Moltzahn, Lenore Seward, Rickie Hunt, Scott Seward

### 2018/19 Overview

#### Employee Survey

- 97.3% of employees agree they are satisfied with ACA as a place to work—a tremendous accomplishment.
- 94.5% 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.
- 92% are satisfied with ACA's benefit plan. This is a 9% increase from the previous year. ACA did a market analysis of the plan to ensure we are receiving the best value for our benefits.
- 82.2% are satisfied with the whole compensation package available to them. This has increased by 8.7% from the previous year.



## Employee Retention

- Staff turnover stayed steady at 4.8%.
- We had our fourth retiree this year. Len Peleshok was with the organization for 10 years—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 striving to hire people who are qualified and also the best fit for the organization. Finding that person who fits with the ACA culture is part of the recruitment process.

- Filled four permanent positions. Two out of the four positions were past seasonal staff. We also hired nine seasonal employees to work for the summer field season and filled two temporary positions for the 2019/2020 fiscal year.

## Professional Development

Giving employees the tools they need to succeed continues to be a priority for ACA. We recognize that ongoing leadership, team building, and interpersonal training and support is vital to individual growth and success. This year, we decided to provide in-house support for training in these areas as a timely and cost-effective resource for all staff. We are developing in-house coaching talent to provide support in soft-skill training and coaching to help staff reach their full potential. From empowering leadership skills to conflict resolution, staff have quick access to the training and support they want and need, whether to advance their career or as a refresher to sharpen existing skills.

## Information Technology

The management and ease of access to systems and databases continues to be a focus for Information Technology (IT). 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 within the office or out in the field and to work on projects in conjunction with other researchers almost anywhere 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 improvements to budgeting systems, ensuring compliance with employment laws and better detail for managing our human resources allocated to projects. Several new reports give staff access to the detail they need to plan more efficiently and monitor their projects' progress over the year. Staff are evaluating hardware solutions that will stretch capital investment dollars further for annual evergreening. The IT team discussed our priorities with management to ensure alignment with all other resource and functional areas. This collaboration allows the team to better anticipate and meet needs as they arise.

The Internet phone system was expanded to include our Rocky Mountain House 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 the remaining 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.

Negotiated contracts with Internet and phone suppliers provided significant savings this year. Our technology partner agreed to a three-year funding arrangement to strengthen our partnership and continue to provide 24/7 helpdesk support to our staff. The team is continuing to look for ways to find cost savings, increase efficiency, and improve service to our staff and external partners.

## 2018/19 Overview

- Continued improving staff access by moving to a blend of remote access, on-premise, and cloud-based structure, which allows staff to work across the province and collaborate with external resources as required.
- Negotiated IT support, Internet, and telephone provider services for significant cost reduction and increased partner revenue.
- 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 Manpower system to include overtime calculations based on new employment law. 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 Rocky Mountain House office that will expand over time to remaining locations. This Internet-based system allows for better communication company-wide, and will eliminate individual systems in regional offices.
- Assisted resource staff in developing easier data collection from Alberta trappers. The new system provides online entry of logbook data and gives trappers vital information on their industry's activities.







# 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 four main conservation programs: Fisheries; Wildlife; Land Management; and Information, Education, and Communications. Over the past few years, we have also seen a dramatic increase in support for our growing number of events. In 2018/19, these events continued engaging and teaching 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 connected to ACA's conservation work. Our CPIC participants benefit from ACA's promotion of these partnerships and can directly promote their affiliation with us through their own communications as well.

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



Kids Can Catch Event  
Photo: ACA, Ken Kranrod

## 2018/19 Overview

- We are pleased to recognize 17 companies that are either new CPICs or have renewed/increased their ongoing support for ACA programs and projects:
  - Backroad Mapbooks
  - Beretta/Benelli/Tikka/Sako (Stoeger Canada Ltd.)
  - Canadian Cattlemen's Association
  - City of Medicine Hat
  - ConocoPhillips Canada Resources Corp.
  - County of Warner
  - Covenant Health
  - Dow Chemical Canada
  - Holiday Inn Calgary MacLeod Trail South
  - HUVAN Construction
  - Municipal District of Greenview
  - Natura Drain Products
  - Nutrien – Redwater
  - Saddle Hills County
  - Shell Canada Limited
  - Taber Irrigation District
  - Thorhild County







# Our Conservation Programs

## Information, Education, and Communications Program

Making sure that conservation awareness is a part of Albertans' diverse lifestyles—and valued by the province's corporate sectors and communities—is a cornerstone of ACA's success and Alberta's future. Our Communications resource program's primary role is to do just that. Engaging the public and our stakeholders through multimedia platforms and events creates awareness of conservation on today's landscape, and strengthens partnerships and understanding. We tell the story of ACA's ongoing commitment not only to Albertans, but also to our magnificent province's wildlife, fish, and habitat.

### 2018/19 Overview

- 45,000 copies of the *Alberta Discover Guide* were delivered in January 2019, featuring 789 conservation sites (including Ducks Unlimited Canada [DUC] and Alberta Fish and Game Association [AFGA] sites). The guide is a free annual publication that provides outdoor enthusiasts with a list and description of conservation sites that can be accessed for hunting, fishing, hiking, and more.
- Harvest Your Own campaign and website continued to promote hunting to the locavore culture as an alternative option to source food. This ongoing investment is important to maintaining engagement and education of both non-consumers and consumers of wild game.
- 13,000 subscribers received *Conservation Magazine* thanks to the combined efforts of writers, editors, biologists and designers. The publication is produced biannually and highlights ACA projects and topics about conservation.

- In partnership with Hunting for Tomorrow and Alberta Hunter Education Instructors' Association (AHEIA), the Wildlife Identification Number (WIN) Card Reimbursement Program supports the recruitment of young hunters. Over 1,700 information packages were sent to youth who completed the hunter education course. A total of 380 youth returned the reimbursement form.
- Supported the Wildlife, Fisheries, and Land Management Resource Programs with visual communications, on-demand design, and media services such as regional advertising, site signage, and social media.
- In total, 2,198 adults and children came out to fish at Kids Can Catch events, involving 100 corporate and community event partners. Communications provided event support and promotion across the province to local community organizers.
- In 2018/19 we ran peregrine cameras at 6 locations in Edmonton—the Bell Tower, the University of Alberta, Genesee Power Plant, the Misericordia Hospital, Nutrien, and the Weber Centre—and we live-streamed the video through our website.
- The Taber Pheasant Festival celebrated its 8th year in 2018. The week-long event 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 local economies, and connecting with local landholders to discuss potential habitat projects to enhance wildlife and pheasant habitat.
- In 2018/19, ACA had 18,788 followers on Facebook, 5,883 on Twitter, 2,572 on Instagram, 460 YouTube subscribers, and 67,457 subscribers to our e-newsletter.

### 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, and hiking. Boat launch and wheelchair accessibility icons have been added for the 2019 issue. The sites are private land owned by ACA or its conservation partners, or public land that is managed by ACA on behalf of the Crown. All sites are available for public use and 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 free of charge for ACA member groups. Editorial content is developed and written in house. The communications team coordinates print production and updates and maintains the subscription database. For 2018/19, we printed 45,000 copies of the guide 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

### Alberta Discover Guide App

The *Alberta Discover Guide* app is another way to access information about the conservation sites in the *Alberta Discover Guide*. It gives outdoor enthusiasts even more options, whether they're pursuing hunting or angling opportunities or looking for an off-the-beaten-track hiking or foraging adventure. 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 2018/19, around 2,783 Android users and 2,772 iOS users downloaded the app.

## **Annual Operating Plan**

Our *Annual Operating Plan* (AOP) informs Albertans and our stakeholders and partners about the projects we are undertaking within the current fiscal year and how revenue is directed to our resource program areas. The 2018/19 AOP was provided to the board in a timely fashion for approval and posted on our website at the beginning of the 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. The *Annual Report* for 2017/18 was provided to the board in a timely fashion for approval, and it was posted on our website by September 2018. The annual summaries were successfully coordinated, edited, and then posted on our website by April 30, 2018.

## **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 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 on ACA's website.

In 2018/19 we printed a combined 30,000 copies, including articles about the important balance between conservation and agriculture, how fish and wildlife officers benefit Alberta, the truth about rattlesnakes, and what conservation looks like in urban settings. The total number of subscribers now exceeds 13,000.

## **Partnerships**

Alberta Environment and Parks, Ducks Unlimited Canada, Nature Conservancy of Canada, Shell Canada Limited, Syncrude Canada Ltd., TransAlta Corporation

## **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, recreational opportunity enhancement sites, thin-ice areas (warnings), and interpretive trails. In 2018/19, we produced eight conservation site signs, six ACA fish stocking signs, four riparian conservation site signs, two landowner habitat signs, two fisheries access signs, two recreational opportunity enhancement signs, and various other signs.

## **Philip J. Currie Dinosaur Museum/Conservation Education Room**

The Conservation Education Room at the Currie Museum is an opportunity to provide education outreach within an existing tourist and education programming destination. ACA has signed a five-year MOU to lease available space and provide annual exhibits profiling contemporary conservation challenges. Expanding the outreach will be a speaker series generated through ACA member groups, board

members, and staff. In its initial year, ACA designed and developed free-standing displays and custom digital production to highlight the issue of snow geese overabundance.

## **Partnerships**

Philip J. Currie Dinosaur Museum

## **Emerging Issues**

ACA must be able to provide communications services in support of our resource programs' planned project requirements, but we also respond to communications needs that arise as projects develop. We provide services in design, copywriting, photography, editing, print production, and digital media to ACA's executive, our Business Development and Human Resources teams, and our member groups. On-demand requests for communications support include, but are not limited to, aeration updates (social and digital media), aeration signage (print media), pheasant release site updates (social and digital media), digital presentation editing and photography, drone footage documentation, and content development for donation campaigns (print and digital media).

## **Final Report Series**

Our Fisheries and Wildlife Resource Programs 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. Four Wildlife reports and four Fisheries reports were completed for 2018/19; at least five others are in progress for 2019/20.

## **General Advertising**

Advertising is key to achieving a number of long-term goals within the *Strategic Business Plan*. Primarily these are as follows:

1) to increase public recognition





Conservation Education Room Display  
Photo: ACA, Colin Eyo

of the ACA brand; 2) to create conservation awareness by building positive profiles of hunting, fishing, and trapping; and 3) to develop corporate partnerships. Project/event promotional advertising engages various audience targets and supports ACA public brand recognition while the “It’s an Alberta Thing” campaign is a direct approach for establishing relationships with stakeholders that is non-government and contemporary. This is significant to maintain conservation as valuable to today’s varied priorities and cultures.

Some ACA programs, projects, and events supported by advertising included Report A Poacher (RAP), *Alberta Discover Guide*, ACA Fish Stocking project, Taber Pheasant Festival, peregrine cameras, CPIC Program, ACA/4-H Pheasant Raise and Release Program, and Kids Can Catch Program.

## 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. ACA annually funnels

over \$1 million into conservation work in Alberta through the grants. Since its initiation in 2002/03, we have awarded just over \$18 million to 1,178 projects.

## 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. In 2018/19, Harvest Your Own increased its social media audience to 2,665 Facebook followers, 433 Instagram followers, and 192 Twitter followers.

## Internal Communications Needs

Our Information, Education, and Communications Program provides creative and technical services to the President & CEO, Human Resources, and Business Development teams;

and the Wildlife, Fisheries, and Land Management Resource Programs. Working with program managers, regional managers, and project leads, Communications ensures ACA programs and projects receive the media and materials needed for their success.

## Kids Can Catch Program

Kids Can Catch is a province-wide program 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 2018/19, Kids Can Catch events across Alberta welcomed 2,198 adults and children and 100 organizations, partners, and sponsors. The program was expanded to new events and new counties. The flagship Wabamun Lake Kids Can Catch event was unfortunately cancelled due to weather.

## Program Sponsors

AltaLink Corporation, Backroad Mapbooks, Dow Chemical Canada

Kids Can Catch Event, Wabamun  
Photo: ACA, Rhianna Wrubleski



### Event Organizers, Partners, and Sponsors

Absolute Safety Management Inc.; Alberta Agriculture and Forestry; Alberta Environment and Parks; Alberta Fish and Game Association; Alberta Fish and Wildlife Enforcement Branch; ATB Financial; Cochrane and Stony Plain; Barrow Safety Services Inc. – Hinton; Bass Pro Shops – Rocky View; Berkley; Big Sky Flies & Jigs; Brooks and County of Newell Early Childhood Development Coalition; Brooks Fire Department; Cabela's Edmonton South and North Stores; Cabela's Canada Outdoor Fund; Canadian National Railway; Canadian Tire; Brooks, Cochrane, Hinton, Peace River, and Slave Lake; Central Alberta Co-op Ltd.; City of Fort Saskatchewan; City of Lacombe; Cochrane Family & Community Support Services; Co-op Community Spaces; Coronation Elks; Coronation Family Foods; Coronation Family & Community Support Services; County of Grande Prairie; County of Newell; County of Paintearth; D & M Concrete Products;

Edmonton Old Timers Fishing Club; Edmonton Trout Fishing Club; First Five Forever Coalition for Early Childhood Development; Fort Saskatchewan Fish and Game Association; Fort Saskatchewan Lions Club; Fort Saskatchewan Naturalist Society; Fountain Tire – Lacombe; Golby Hardware and Sports; Good Dogs Food Vending; Grimshaw and District Agricultural Society; Hinton Fish and Game Association; Hinton Growing Great Kids Coalition; IGA – Taber; Indominus Sports Ltd. – Edson; JobSite Workwear; JumpStart™; Kiwanis Club of Taber; Lacombe Fish and Game Association; Lamont Fish and Game Association; Lesser Slave Lake Forest Education Society; Lesser Slave Lake Search and Rescue; Lesser Slave Watershed Council; Lesser Slave Regional Fire Service; Lifesaving Society-Alberta; Night Owls Citizens on Patrol Society; Northern Lights Fly Fishers; Paintearth Economic Partners Society; Parkland County; Pita Pit – Brooks; Prairie Parent Link; Provost & District Fish and Game

Association; Quantum Canada; Riverrunner Recreation Ltd.; River Valley Alliance; Saddle Hills County; Safari Club International – Red Deer Chapter; Servus Credit Union – Wabamun; Shakespeare® – Pure Fishing Inc.; Slave Lake RCMP; Slave Lake Rod & Gun Club; Slave Lake Volunteer Firefighters; Smoky Trout Farm Limited; Stony Plain Fish & Game Association and Wabamun Gun Club; Superfly International; Taber Fish and Game Association; Thompson-Pallister Bait Co. Ltd.; Town of Beaumont; Town of Cochrane; Town of Coronation; Town of Gibbons; Town of Hinton; Town of Provost; Town of Stettler; Town of Taber; TransAlta Corporation; Vibrook Vacuum & Septic Service Ltd.; Village of Wabamun; Wabamun & District Chamber of Commerce; Walleye Master Tackle & Bait Ltd.; Wolverine Guns & Tackle; Yellowhead County

### Media Releases

Media releases inform television, radio, and print media sources about events, new conservation sites, and



other important information in hopes that they might be announced to a bigger audience. Nine media releases were sent out in 2018/19.

## 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. We ran five campaigns through Google Ads, resulting in 53,276 impressions and 6,310 clicks. We also ran 89 promotions through Facebook advertising, resulting in 490 additional followers, 5,722 clicks, and 662 comments.

## Other Publications

*Caring for Shorelines* is an existing watershed resource that had become outdated and was to be rewritten and republished in 2016. Nature Alberta approached ACA and AEP to combine resources and expertise to produce a more robust riparian resource for the public within their Living Edge program. ACA took the lead role in redesign and content development. Concepts for the publication were developed and approved, content was proofed and vetted through AEP resources, and ACA printed and delivered 1,000 units of the publication in December 2018.

## Partnerships

Alberta Environment and Parks, Nature Alberta

## 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. In 2018/19 we ran cameras at six locations in Edmonton—the Bell Tower, the University of Alberta, Genesee Power Plant, the Misericordia Hospital, Nutrien, and the Weber Centre—and we live-streamed the video to our website. The cameras draw attention to this species and to other species at risk initiatives and

resources available from AEP. In 2018/19, views of the peregrine pages on our website accounted for 47% of web traffic.

The project was also expanded to include two ferruginous hawk nests monitored by trail cameras.

## Partnerships

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

## Social Media

Social media allows ACA to connect with, inform, and grow our audiences. By using Facebook, Twitter, Instagram, Constant Contact, and YouTube, we can tell our followers about our projects, share news about upcoming events, and respond to questions and comments about conservation in Alberta. In 2018/19, we gained 2,375 new Facebook followers (18,788 total), 714 new Twitter followers (5,883 total), 885 new Instagram followers (2,572 total), and 71 new YouTube Subscribers (460 total). We also send the Constant Contact e-newsletter to 67,457 subscribers.

## 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.

## Waterfowl Warmup

Waterfowl Warmup is a fundraiser in support of the RAP Program. Proceeds from the event help us share more information about responsible hunting and angling with the public and the negative impacts of poaching. Twenty-one teams participated in Waterfowl Warmup. Last year's winning team successfully defended their title. The winning team name and members' names were added to the Waterfowl

Warmup plaque on display at ACA's office in Sherwood Park. Winning team members also received an individual trophy and prize bags to take home.

## Project sponsor

Roughrider International Ltd.

## Partnerships

American Bridge Canada, Beaverhill Sporting Clays, Brad Fenson Outdoors, Canadian Tire Wetaskiwin (Winchester & Browning), Delta Waterfowl, Direct Horizontal Drilling Inc., Ducks Unlimited Canada, Fisher Marketing/Stoeger Canada (Benelli, Beretta & Franchi), Kingston Ross Pasnak LLP, Maverick Inspection Ltd., Nature Conservancy of Canada, The Practical Goose Hunter

## Website Maintenance and Development

ACA's website provides an accessible gateway to information about our work using current technology to engage users. It is perhaps the primary platform we use to work toward increasing our profile in Alberta, one of the long-term goals of ACA's ten-year *Strategic Business Plan*. There were about 634,644 page views of our website in 2018/19.

## WIN Card Reimbursements

In partnership with Hunting for Tomorrow and AHEIA, 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. In 2018/19, over 1,700 information packages were sent to youth who completed the hunter education course. A total of 380 youth returned the reimbursement form.

## Partnerships

Alberta Hunter Education Instructors' Association, Hunting for Tomorrow



Photo: ACA, Amanda MacDonald



## Wildlife Program

The Annual Report provides a window into more than two dozen wildlife projects. Hunters and trappers are important stakeholders and much of our effort leans toward improving habitat and opportunity for the sustainable harvest of game and furbearing species. Even habitat restoration designed to benefit species at risk almost always has direct benefits for huntable species as well—after all, everyone shares the same land. Restoring wildlife habitat involves long-term vision and finding common ground with custodians of the land. We're building relationships with the agricultural community, municipalities, grazing reserves, irrigation districts, and many stakeholder groups to find that common ground and work toward a sustainable future for wildlife.

New this year, but stemming from previous work, is the Species Habitat Assessments and Ranching Partnerships (SHARP) habitat project in central Alberta, where we'll partner with ranchers and mixed farms to improve wildlife habitat. This is a natural progression from our work with producers through MULTISAR and has already led to partnerships with two producers in the coming year.

### 2018/19 Overview

- 600+ hunters registered to use the new Capital Power pheasant release site west of Edmonton.
- 28,173 male pheasants were released on 42 sites, increasing hunting opportunities from Medicine Hat to Peace River.
- 45 km of fencing was established around Ridge Reservoir to separate agricultural activity from riparian habitat over the past 5 years. 25 off-site water units were installed to shift cattle away from sensitive riparian zones.
- 386 ac have been restored and reseeded to perennial wildlife habitat around Ridge Reservoir. We still have an additional 200 ac to go!
- MOUs signed with 2 irrigation districts to improve water quality and increase the amount of high value wildlife habitat around 21 reservoirs. These reservoirs will become hotspots for gamebirds and ungulates in coming years.
- Autumn gamebird counts were lower than average and the lowest observed for grey partridge ("huns") since initiating surveys in 2012. Spring partridge pair counts at Enchant Farm were down as well, although they were still 10 times greater than counts at control sites.
- 90 ac was seeded back to native grass, and then hand-planted with 2,000 needle and thread plugs on the Silver Sage Conservation Site.
- 3 km of wildlife-friendly fencing was installed on a ranch to prevent cattle from accessing sensitive riparian areas.
- Assessments were completed on 7 ranches to identify opportunities for improving wildlife habitat and cattle management.
- Assisted Alberta Trappers' Association (ATA) to develop logbooks to record fur harvest and an approach to track population trends for marten with these data.
- Trappers spent an average of 186 hours on trapping-related activities during the year. On average, trappers set 34 marten traps, catching one marten for every 142 trap nights of effort.
- Trappers provided 986 marten skulls harvested over winter and, using a refined technique, they were able to accurately detect juveniles from adults measuring tooth age with similar consistency as laboratory results.
- Two peer-reviewed manuscripts on wolverine conservation were accepted for publication. The first describes ecological knowledge of trappers relating to wolverines, while the second characterizes wolverine dens in the lowland boreal forest of northcentral Alberta.
- 997 observations of pronghorn were reported by 136 volunteers via the Pronghorn Xing app (road crossing). 13 pronghorn were reported dead along roads.
- 45 km of wildlife-friendly fencing was completed together with AFGA. In total, 406 km of fencing has been enhanced and an additional 32 km of page wire has been removed since the partnership began.
- 115 kids learned about needs of pheasants through the 4-H Raise and Release Program. They raised 5,950 pheasants from day-old chicks and released adult birds into suitable habitat.
- We held a workshop with 4-H kids to discuss the important habitat resources for pheasants in Alberta.
- 58 km of gravel shoreline habitat for piping plover has been restored since 2002, with the majority considered critical breeding habitat.

## ACA/4-H Pheasant Raise and Release Program

Pheasants were first introduced into Alberta in 1908 by a group of recreational enthusiasts to enhance upland game bird hunting opportunities. Now, more than 100 years later, the tradition continues as ACA partners with stakeholders to improve upland hunting opportunities in Alberta. 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. Provided the correct suite of habitat features nearby, pheasants can adapt to areas predominately used for cropland. In 2014, we initiated a new partnership with 4-H Alberta by offering them the opportunity to raise pheasants from day-old chicks to adult birds for release. This year, we had 115 4-H members who successfully raised 5,950 hen and rooster pheasants and released the birds into suitable upland habitat. In addition to the 4-H members, other interest groups including private landowners, AFGAs, and Scouts Canada groups also received the opportunity to raise pheasants from day-old chicks. We did not record how many birds were successfully raised and released from these interest groups as they are free to do what they want with their birds. We held a workshop for participants to provide guidance on pheasant husbandry and to discuss habitat features important for improving the odds of pheasant survival in Alberta.

### Partnerships

4-H Alberta, Alberta Environment and Parks, Calgary Fish and Game Association, ConocoPhillips Canada Resources Corp., Innisfree & District Fish and Game Association, Lethbridge Fish and Game Association, MacFarlane Pheasants Inc., private donations, Wheatland Conservation & Wildlife Association

## Alberta Wildlife Status Reports

ACA and AEP produce *Alberta Wildlife Status Reports* for wild species that are believed to be declining in our province. 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 or extirpated 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 2018/19, we continued our work on two reports: McCown's longspur (*Rhynchophanes mccownii*) and western wood-pewee (*Contopus sordidulus*). We also published the prairie falcon (*Falco mexicanus*) update, which was reviewed by Alberta's Endangered Species Conservation Committee. 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

## 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 2018/19, 36 participants from the Alberta Volunteer Amphibian Monitoring Program submitted 83 amphibian and 24 reptile observations, including locations of two snake hibernacula (dens). These data represented 90% of the amphibian and 56% 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, Parks Canada

## 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. We meet with boards of directors for municipalities, irrigations districts, and grazing reserves to better understand their operations and discuss the habitat needs of various wildlife. We work together to identify and map habitat enhancements that can dovetail into their operations while benefitting wildlife and also improving other parameters such as



water quality, vegetative stands for grazing, access to water for grazing, social licensing, and recreational access. In 2018, ACA assessed the health of the riparian zones on three reservoirs within the Taber Irrigation District and developed a plan to enhance areas needing improvement. An early first step was designing and then contributing materials toward 2.5 km of fencing to protect a sensitive riparian zone on Fincastle Reservoir. We also signed an MOU with St. Mary River Irrigation District (SMRID) with the overarching goal of improving water quality and wildlife habitat.

The first phase will include developing a comprehensive habitat conservation strategy that will assess the health of the vegetation community around 18 reservoirs over the next three years. This will include range, riparian, and wildlife assessments on 10,000 acres of land spanning more than 360 km of shoreline habitat.

### Partnerships

St. Mary River Irrigation District, Taber Irrigation District

## Amphibian Monitoring Using Environmental DNA

Environmental DNA, or eDNA, refers to the DNA 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 have worked towards a reliable method of detecting amphibians using eDNA.

The first phase of this work involved a master's degree project developing an approach for detecting three amphibians in water and aquatic sediment samples. The second phase involved partnering with Washington State University to further refine and evaluate water and aquatic sediment sampling methods. In 2018, we adjusted our eDNA sampling methods to ensure more complete coverage of study ponds so that target species were more fully represented in the set of samples collected. This new strategy improved our ability to detect

certain species that occur in either lower densities or have tadpoles with schooling behaviour that may result in patchy distribution of their eDNA in a pond. The water filtration technique was as good as field surveys for confirming the presence of boreal toads (*Anaxyrus boreas*), wood frogs (*Lithobates sylvaticus*), and boreal chorus frogs (*Pseudacris maculata*) at the ponds sampled; whereas detection was lower using aquatic sediment at 78%. These results indicate eDNA sampling can be an effective alternative to more traditional amphibian monitoring methods.

### Partnerships

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

## Enchant Farm Project

We have a long-term working relationship with Enchant 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



Photo: ACA, Sam Vriend

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 (*Perdix perdix*). This includes approaches within the crop, the juxtaposition of crop types and rotation, harvest methods, field edge improvements, water management and wetlands, and trialling seed mixes important for chick survival. In 2018, we trialled a tall edge sorghum/millet mix and brood rearing mix with a blend of flowering plants. The landowner planted 6.6 km of additional shrub rows (seven rows using 7,225 shrubs) to increase territorial space on the

farm. We seeded an annual mix of sorghum/millet and a perennial brood mix along side new shrub rows. Winter was prolonged and severe with snowpack covering the farm from late November 2017 to mid-May 2018. Excessive flooding from spring runoff occurred over the broad landscape. The density of partridge pairs decreased from 187 pairs in spring 2017 (35.2 pairs/km<sup>2</sup>) to 137 (25.2 pairs/km<sup>2</sup>) in spring 2018. Autumn densities also had a dramatic decrease in partridge numbers from 1,087 in October 2017 to 315 in 2018. Also due to the cumulative effects of a long, cold winter with heavy snowfall, and a late, wet spring, ACA saw an approximate 80% reduction in the

number of pheasants on the farm. From our collared pheasant and partridges, both species hatched eggs this spring.

### Partnerships

Cedarglen Homes, Stamp Seeds

## Working with Alberta's Trappers to Monitor Furbearer Population Trends

We were asked to assist AEP and ATA with a pilot project to develop logbooks for trappers to record information about their trapping activities and fur harvesting results. After completing revisions to the logbook for 2017/18 and a concerted communication effort, the number of logbooks submitted increased tenfold from the previous year. Trappers spent an average of 186 hours on trapping-related activities during the year, with 42% of that time dedicated to setting and checking traps. On average, trappers set 34 marten traps for about 53 days, catching one marten for every 142 trap nights of effort. We compared age class estimation provided by trappers, who used a skull muscle development method, to results provided by a laboratory based on tooth analysis. Overall, there was no difference between the trapper and laboratory age counts. However, trappers were more accurate with their male classification than female. Our results suggest that with additional training and exposure to a larger number of skulls, trappers can produce accurate counts for both sexes as well.

### Partnerships

Alberta Environment and Parks, Alberta Trappers' Association

## Habitat Legacy Partnership

Upland game birds are valued for their showy colours, breeding displays, and long history in Alberta's hunting tradition. 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



Project: ACA/4-H Pheasant Raise and Release Program

Photo: Annette Maayen



sharp-tailed grouse (*Tympanuchus phasianellus*), making their outcomes less stable. The Habitat Legacy Partnership (HLP) 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 dovetail 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 2018, 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 planted an additional 300 shrubs to improve an already existing shelterbelt. We cost-shared the materials of a 2 km fence that will be installed to protect an existing habitat enhancement. The HLP project is gaining recognition as a collaborative habitat development opportunity for private landowners.

### Partnerships

Landowners

### MULTISAR – Milk River

ACA and MULTISAR, focus on the conservation of multiple species at risk at the landscape level that promotes stewardship through voluntary participation of landholders on both Crown and private lands. The program is a collaborative effort between landholders, ACA, AEP, and Prairie Conservation Forum (PCF). Our primary goal is to collaboratively develop plans to benefit multiple species; these plans are then implemented through habitat enhancement activities that benefit both the farm or ranch operation

and wildlife. We reassessed five ranches previously surveyed in 2012 and 2013, totalling 61,119 acres. We completed 186 range health assessments, 32 tame pasture health assessments, eight detailed transects, and eight riparian assessments. In total, we had 3,003 wildlife observations. We saw an increase in range health: 66% of sites were in the healthy categories, as compared to 62% during the baseline assessment. We also saw a decline in unhealthy range sites to 5% of sites, versus 9% during original baseline assessments. In 2018 we completed nine new habitat enhancements on five ranches and continued work on one other enhancement initiated in previous years. These enhancements include native grass restoration, wildlife-friendly fencing, tree protection, portable watering units, and upland watering sites. These improvements not only benefit species at risk habitat, but also provide benefits to upland game birds and ungulates, maintaining the recreational opportunities that these large ranches provide. Emphasizing this is the recent addition of roughly 46,000 acres (from a long-time MULTISAR participant) into the Land Management Program's Recreational Opportunity Enhancement project.

### Partnerships

Alberta Environment and Parks, Government of Canada, landholders, Milk River Watershed Council Canada, Prairie Conservation Forum

### MULTISAR – South Saskatchewan

Numerous species at risk occur in the southern part of Alberta, often overlapping with agricultural landscapes. Existing management practices on these lands is what has allowed these species to persist, but there are also many opportunities on these (and adjoining) lands to further enhance habitat quality for species at risk. ACA and MULTISAR work collaboratively with multiple partners to increase, maintain, and improve habitat for species at risk within the Grassland Natural Region

of Alberta. In 2018, we collaborated with ranchers and completed four Habitat Conservation Strategies covering 51,485 acres. We partnered with seven producers on eight enhancements, including portable wind breaks to be used on uplands to prevent the need for cattle to access riparian habitat, hawk-pole installation, portable watering unit, upland winter waterer, and fencing for riparian protection. We identified 176 different species on these four ranches, including 47 that are considered *Endangered*, *Threatened*, or *Special Concern*. In all, we observed 6,022 species. On these same four ranches, we also conducted 248 detailed range transects, 296 range health assessments, 28 tame pasture assessments, three forest health assessments, and 21 riparian health assessments. Long-term relationships built on mutual respect and trust between conservation groups and landowners is key to our success. It has allowed us to collaborate with producers and implement enhancements on close to 123,876 acres since the project started working with producers in 2016. Our work has benefitted roughly 80 producers thus far, with producers working on another 66,140 acres expressing interest for 2019.

### 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 how 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. Our focal species include prairie rattlesnake and sharp-tailed grouse, although enhancements will benefit other species as well. In 2018, we helped re-establish native shrubs on the East Hays Conservation Site to enhance sharp-tailed grouse habitat, as well as direct cattle away from riparian zones by installing watering units. We delivered presentations to managers and landholders within the MD of Taber discussing habitat needs for grouse and rattlesnakes. We continue to foster long-term relationships with the ranching and broader agricultural community to benefit wildlife habitat within this region.

### Partnerships

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

### Pheasant Release Program

Upland game bird hunting has a long-standing tradition in Alberta. After the introduction of the Chinese ring-necked pheasant in the early 1900s, wild populations established in select areas of southern Alberta. To accommodate the high demand for hunting opportunities, the Government of Alberta started a hatchery in 1945 and created the Provincial Pheasant Release Sites 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 finally closed in 2013. However, a small group of keen hunters formed Upland Birds of Alberta and agreed to run the release program in 2013. ACA agreed to take over the release program for 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, and then to 28,173 in 2018. We developed a webpage that shows a map and directions to all the sites to make this hunting opportunity more accessible. We operated 42 release sites in 2018 including one new site, Capital Power, west of Edmonton. We worked with five AFGA clubs in southern Alberta, whose members 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 Wapiti Fish and Game Association, who collectively raised 1,173 male pheasants for release sites in the northwest. We contracted MacFarlane Pheasants to release birds three times per week at the remaining 17 sites ( $n = 20,960$  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 annual positive feedback from hundreds of hunters.

### Partnerships

4-H Alberta, Capital Power, Cardston Fish and Game Association, Ducks Unlimited Canada, Fort Macleod Fish and Game Association, Lethbridge Fish and Game Association, MacFarlane Pheasants, Medicine Hat Fish and Game Association, Peace Wapiti Fish and Game Association, Picture Butte Fish and Game Association

### Piping Plover Recovery Program

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 work 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 35 waterbodies and found 75 adults on 16 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 second consecutive year breeding activity had been recorded on this habitat. We improved over 5 km of shoreline habitat through 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, Department of National Defence, Government of Canada, landowners

### Pronghorn – Grassland Indicator

The Northern Sagebrush Steppe (NSS) is the northern terminus of sagebrush steppe and grassland habitats and is also the northern range limit for a variety of species. Through multiple anthropogenic pressures, native prairie continues being converted and fragmented across the region, resulting in increased stress on wildlife populations and overall ecosystem function. For wildlife species in this system, maintaining connectivity between seasonal ranges and core habitats is vital in mitigating environmental and anthropogenic pressures. Because pronghorn (*Antilocapra americana*) 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. We used resource-selection function models to predict multi-scale pronghorn seasonal (summer/winter) range across the





Project: MULTISAR – Milk River  
Photo: ACA, Kandra Forbes

NSS, which provided spatial outputs of both multi-scale seasonal range habitats for pronghorn. These seasonal ranges were overlaid using GIS with seasonal range and migration pathway maps for sage grouse, as well as core habitats for grassland birds and waterfowl to assess which species or guild is the most appropriate umbrella species for the NSS. We published a paper comparing the migration pathways and proportion of pathway overlap between pronghorn and sage grouse, and another paper identifying the hazards fences pose for wildlife and the need for greater attention to the effects fences have on wildlife and ecosystems. Both papers were published in *Biological Conservation*. A draft manuscript on the effects of fences on the resource selection by pronghorn is currently under review. Lastly, we continue to work on the assessment of pronghorn as an indicator species for a suite of grassland species. As results from our work become available,

information will be disseminated to stakeholders, wildlife managers, and conservation groups to support efforts to restore and conserve movement patterns and grassland habitats.

### Partnerships

Alberta Environment and Parks, Montana Department of Transportation, National Fish and Wildlife Foundation, National Wildlife Federation, Sagebrush Science Initiative (a collaboration between the U.S. Fish and Wildlife Service and Western Association of Fish and Wildlife Agencies), Sage Grouse Initiative, The Nature Conservancy, University of Montana

### Pronghorn Fence Crossing Enhancement

There is an extremely high density of barbed wire fences in southeast 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 fences in some locations, but barbs located on the bottom strand of fence lines strip hair off their back and cause lacerations, making them vulnerable to infection and frostbite. A solution is to modify the fences by replacing the bottom wire with double-stranded smooth wire and moving it up to 46 cm; however, this is an expensive, labour-intensive initiative. To help alleviate this problem, AFGA initiated a project in 2009, with ACA and volunteers providing on-the-ground assistance. In 2018/19, we completed two fencing projects with AFGA, where we modified 26 km of barbed wire fence. Continued support of the program by ACA is greatly appreciated by AFGA.

### Partnerships

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



## Pronghorn Movement and Enhancement (Fence Trials)

Having evolved on the wide-open prairies of North America, pronghorn did not develop an instinct to jump over obstacles. The proliferation of fencing that followed cattle ranching since the 1880s now poses a serious barrier to pronghorn movement. Pronghorn may cross under fence lines in some locations, but it slows down their movement, which makes them susceptible to predators and often strips hair off their back, causing lacerations and making them vulnerable to infection and frostbite. We evaluated fence modifications proposed for sage-grouse and ungulates and the potential impact these modifications might have on pronghorn and deer fence crossing success. We determined that sage-grouse reflectors and white polyvinyl chloride (PVC) pipe on the top wire do not act as

visual barriers and therefore do not impact the movement across fences by pronghorn, mule deer, or white-tailed deer. We also determined that when successfully crossing a fence, all three ungulates did so by predominately crawling under the bottom wire. As results become available, we will disseminate our conclusions to stakeholders, wildlife managers, and conservation groups.

### Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Bushnell Corporation, Cabela's Inc., Canadian Forces Base Suffield, Montana Department of Transportation, National Fish and Wildlife Foundation, National Wildlife Federation, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), TD Friends of the Environment Foundation, 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. Within the NSS of Alberta, Saskatchewan, and Montana, 55% of collared pronghorn made seasonal migrations from summer ranges to winter ranges. Along the migration pathway, pronghorn must navigate their way across primary and secondary highways that are often fenced on both sides, resulting in pinch points where animals pile up. These pinch points along the migration pathway are a formidable challenge for migrating pronghorn. To address this migration challenge, a citizen science project called Pronghorn Xing was initiated in the spring of 2017. Pronghorn Xing is an app that helps increase public engagement in pronghorn science and conservation throughout the NSS. Information on wildlife



sightings collected by the public will enable us to better understand where pronghorn and other wildlife are commonly crossing, involved in collisions, or staging next to the highway. To date, 136 individuals have signed up for Pronghorn Xing and reported at least one observation via the app. As expected, most observations of pronghorn were beside the road, as animals pile up in key locations and are selective as to when they cross the road. Ultimately, we believe the program will create support in Alberta for the construction of an overpass(es) across Highway 1 and the identification of crossing sites along secondary highways (e.g., Highway 41) where fence modifications can be installed to facilitate easier movement by pronghorn and other ungulates.

### Partnerships

Alberta Environment and Parks, Alberta Transportation, Miistakis Institute, National Wildlife Federation, National Fish and Wildlife Foundation, Nature Conservancy of Canada, Saskatchewan Ministry of Environment, Saskatchewan Government Insurance

### 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—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 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 \$2.2 million has been raised and invested to date. Thus far we’ve installed 45 km of fencing to protect shoreland and riparian habitat. Twenty-five off-site water units have been installed to move cattle away from fragile riparian zones. We have planted approximately 30,000 shrubs 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 an attraction for wildlife. Approximately 16 acres was hayed on the west end of the reservoir to reduce litter load and decrease fire hazard.

### Partnerships

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

### Species Habitat Assessments and Ranching Partnerships

The SHARP project is a voluntary collaborative project designed to help improve the quality and quantity of wildlife habitat available. The objective is to make wildlife conservation straightforward and cost-effective for producers through education and cost-sharing agreements for habitat enhancements. A Habitat Conservation Strategy is a baseline assessment and voluntary plan that identifies beneficial management practices and habitat improvement recommendations to encourage sustainable ranching operations. We develop these strategies after

first completing in-depth range and riparian health assessments, along with baseline wildlife surveys. We evaluate range and riparian health and look for areas that need improvement, and balance these with the needs of targeted species (e.g., sharp-tailed grouse, ruffed grouse, or species groups like amphibians and waterfowl), while also balancing the plan with the long-term objectives of the ranching operation. Mutually agreed-upon solutions are adopted and integrated into these strategies with priorities listed along with a monitoring plan to assess progress. The first ranches participating in the project are located in the North Saskatchewan River watershed, with hopes to expand into portions of the Athabasca and Peace regions in future years. In 2018/19, we secured funding for the SHARP project until spring 2022 and signed Letters of Intent to work with three landowners on properties totaling ~16,000 acres. Long-term relationships built on mutual respect and trust between conservation groups and landowners are the key to effective, on-the-ground conservation efforts.

### Partnerships

Alberta Environment and Parks, Canadian Agricultural Partnership, landholders

### Provincial Snake Hibernaculum Survey

In collaboration with AEP, we initiated the first year of a two-year provincial snake hibernaculum (den) survey in 2018/19. We assessed snake activity at known red-side garter snake (*Thamnophis sirtalis*), plains garter snake (*Thamnophis radix*) and wandering garter snake (*Thamnophis elegans*) hibernacula (i.e., refuge, shelter), using simple visual encounters surveys. We focused our work on garter snake hibernaculum records held in the Alberta Fisheries and Wildlife Information System (FWMIS) database. All crews followed a set of survey instructions to maximize their chance of



Photo: ACA, Colin Eyo

finding snakes and hibernacula. We conducted surveys during snake emergence from hibernacula in the spring, prior to their dispersal to summer habitat, and/or during the autumn, prior to their ingress into hibernacula for the winter. In total, we assessed 52 hibernaculum records for potential snake activity, of which 25 (48%) were verified to be active based on the observation of at least one snake. We suspected that five hibernacula (10%) were inactive as a result of habitat loss or other disturbance factors. While we did not observe snake activity at the remaining 22 (42%) sites, there was nothing to indicate that snakes could not still occupy the site; therefore, these sites were recorded as unknown status. This project has given us a great opportunity to interact with landowners, and they have shared with us the location of new hibernacula as well as the

history of previously known ones. In turn, we have been able to provide them with additional information on snakes and their habitat needs with the goal of conserving native snakes.

### Partnerships

Alberta Environment and Park, landowners

### Taber Pheasant Festival

Recognizing the potential economic benefits and the importance of pheasant hunting as part of Alberta's hunting heritage, ACA initiated the Taber Pheasant Festival in 2011. This festival creates hunting opportunities by releasing male pheasants on forty pre-selected sites in the MD of Taber. Every year, the festival features a novice shooting weekend where new hunters of all ages try pheasant shooting for the first time. In 2018, 100 hunters attended the novice shoots. The festival also helps us connect with

local landholders to discuss potential habitat projects to enhance wildlife and pheasant habitat. This unique festival offers the opportunity to showcase hunting from a field-to-plate perspective for the non-hunting population. We provided non-hunters with educational background on pheasants and hunting, and demonstrated how to clean and use as much of the meat as possible with butchering demonstrations. The Game to Gourmet culinary night showcased what you can do with your pheasant meat after it is harvested. There is no registration fee for the festival, but the area sees economic benefits as the hunters spend money on travel, accommodation, food, hunting gear, etc. We host a celebration banquet to thank the landowners who allow us to hunt on their land and to raise funds for next year's festival. We also showcase a scotch and wing night



in the local community. The festival is in its eighth year. Including the novice hunters, roughly 800 people participated in the 2018 Taber Pheasant Festival.

### Partnerships

Alberta Culinary Tourism Alliance, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Black River Outfitters, Blue Sky Outfitters, Beretta/Benelli/Tikka/Sako, Can West Legacy Inc., Cycle Works Motorsports, Heritage Inn Hotel & Convention Centre, landowners, MacFarlane Pheasants Inc., Municipal District of Taber, Taber & District Chamber of Commerce, Taber Irrigation District, Town of Taber, Taber organizing committee, Vortex Optics, Winefred Lake Lodge

## Upland Game Bird Studies – Upland Game Bird Productivity Surveys

We worked with volunteers to conduct annual upland gamebird productivity surveys in some of southern Alberta's best habitat. In 29 hours of survey time, we covered 67 km and encountered a total of 129 pheasants and 151 grey partridge. This translates to 1.93 pheasants and 2.25 partridge for each kilometre travelled. Compared to previous survey years, this indicates a below average year for both pheasants and 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 and various social media venues each fall.

### Partnerships

Alberta Environment and Parks, 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. Six years ago, we began offering scare cannons free of charge to counties and MDs, 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 2018/19, we continued to work with producers as well as counties and MDs to ensure that scare cannons were available where needed for waterfowl crop damage prevention. On ACA's website, we provided locations where scare cannons were available for loan, along with crop damage prevention strategies.

### Partnerships

Alberta Environment and Parks, Athabasca County, Big Lakes County, Camrose County, Clear Hills County, County of Grande Prairie, Lac La Biche County, Lacombe County, Mackenzie County, County of Minburn, County of Northern Lights, County of Paintearth, County of St. Paul, County of Two Hills, County of Vermilion River, Flagstaff County, Municipal District of Bonnyville, Municipal District of Fairview, Municipal District of Greenview, Municipal District of Peace, Municipal District of Provost, Municipal District of Smoky River, Municipal District of Spirit River, Northern Sunrise County, Ponoka County, Smoky Lake County, Stettler County

## Wolverine Reporting

ACA and ATA worked together to identify where wolverines are located in the province and to determine the major factors associated with their distribution. Trapper local ecological knowledge demonstrated that wolverine signs are more likely to be found in trapping areas that contain more intact forest. To investigate fine-scale habitat use, movement, and denning behavior in a landscape dominated by wildfires, we deployed radio collars on animals in north-central Alberta. A total of 10 wolverines were captured and fitted with collars during the study. Two of the collared females had young during the study, providing us with valuable information about where wolverines den. Seven of the eight dens investigated were under a partially lifted root ball created by a leaning or fallen spruce tree. These were found in black spruce stands characterized by hummocky, wet, and mossy terrain subject to windthrow.

### Partnerships

Alberta Environment and Parks, Alberta-Pacific Forest Industries Inc., Alberta Trappers' Association, Animal Damage Control – A Division of Bushman Inc., Daishowa-Marubeni International Ltd., Crowsnest Conservation Society, McGill University, Roadrunner Leasing and Sales Ltd., Shell Fueling Change, TD Friends of the Environment Foundation, University of Alberta





## Fisheries Program

Fishing is one of Alberta's favourite pastimes, so ACA has an entire team of biologists dedicated to keeping its lakes, rivers, and their fish populations healthy. Along with our partners over the past year, we stocked 63 ponds with three trout species, aerated 19 lakes to improve water quality and ensure year-round survival of stocked fish, and worked at restoring sport fisheries in some of Alberta's lakes that have become prone to algal blooms. We added a new lake to expand our aeration project, as well as two new ponds to our fish stocking project. Our stocking and lake aeration projects provide Albertans with recreational angling in areas of the province where such fishing opportunities don't otherwise exist.

This year, we determined the distribution range of a recent invasive fish, Prussian carp (*Carassius gibelio*), across the province to aid in managing its spread. The spread of Prussian carp poses a serious threat to recreational fisheries in Alberta: they are known to cause devastating declines to native fish populations. We conducted angler surveys (interviewing over 1,000 anglers), generating information that feed directly into AEP fisheries management plans. In addition, our evaluation and inventory studies generated information required for provincial fish conservation and species recovery initiatives.

Overall, the success of our Fisheries program activities in 2018/19 involved the support of over 40 partners consisting of provincial and federal governments, industry, watershed groups, non-governmental organizations, counties/municipalities, and other interested groups.

## 2018/19 Overview

- 106,090 twenty-cm long trout (95,250 rainbow, 5,000 brown, and 5,840 brook trout) were stocked into 63 ponds in regions of the province where angling opportunities are limited.
- 1,200 yellow perch were stocked in Fort Lions Community Pond in Fort Saskatchewan to support Kids Can Catch event.
- 2 new ponds, Taber and County Sportsplex (in Grande Prairie), added to expand fish stocking project.
- 1,038 anglers were interviewed during angler surveys, and an additional 1,097 were counted during 44 flights.
- 19 aerated lakes were successfully overwintered stocked trout with no reported mortalities.
- Added West Dollar Lake to expand aeration project; aerated for first time in winter 2018/19.
- 2 lakes, Little Bear Lake and Kerbe's Pond, monitored for winter dissolved oxygen and temperature to screen them as potential candidates for future aeration.
- Reported previously unknown presence of brown trout in Ruby Creek, largely characterized as a bull trout creek, in the headwaters system of the North Saskatchewan River.
- 24 rivers/creeks, 20 lakes, and 20 ponds were surveyed, generating information on fish population status, distribution, recreational harvest, habitat fragmentation, overwintering habitat, spawning and rearing habitat, and water quality.
- Over 3,000 km of river were surveyed, including 24 km of electrofishing and 8 km of redd survey; logged 59,000 seconds of electrofishing.
- 54 mountain whitefish tagged with radio telemetry monitored for movement and overwintering habitat use in the McLeod River; mountain whitefish migrated over 80 km to overwintering sites.
- Developed a classification and scoring system to rank fish barriers for their potential to protect westslope cutthroat trout populations from invasive species.
- Sampled eDNA from 83 sites distributed over major watersheds throughout the province to determine presence of the invasive fish species, Prussian carp.
- Prussian carp eDNA detected at 12 sites indicating the presence of this invasive fish species in the Red Deer, Bow, Oldman, and South Saskatchewan river drainages; found no evidence of Prussian carp in the Athabasca, Battle, Beaver, McLeod, Milk, North Saskatchewan, Peace, Pembina, or Smoky rivers.
- Continued building unique partnerships that enable the forestry industry and government land use planners to pool resources to address fish conservation issues of mutual interest.

## ACA Fish Stocking Project

The ACA Fish Stocking (AFS) project provides anglers with increased opportunities to catch and harvest rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), and brook trout (*Salvelinus fontinalis*) in regions of Alberta where angling opportunities are limited.

Recipient waterbodies are prone to winterkill and require annual stocking of fish to maintain angling opportunities. By June 30, we had stocked 63 waterbodies with 95,250 rainbow trout, 5,000 brown trout, and 5,840 brook trout for a total of 106,090 trout. We stocked five ponds again in September. Two AFS ponds, Hermitage Pond and Fort Lions Community Pond, tested positive for whirling disease during AEP screening in 2017/18. To reduce the risk of spreading the disease, AEP biologists, in consultation with ACA, stocked yellow perch (*Perca flavescens*) instead of rainbow trout into the Fort Lions Community Pond, primarily to support the popular annual Kids Can Catch event at this pond. Hermitage Pond was not stocked with any fish. We installed signage at four waterbodies.

### Partnerships

Access Pipeline Inc., Agrium Inc. –Redwater, Alberta Environment and Parks, Aquality Environmental Consulting Ltd., Canadian Tire, City of Fort Saskatchewan, Complete Crossings Inc., County of Saddle Hills, Nutrien, SysGen Solutions Group, Town of Cochrane

## ACA Fishing Stocking – New Lakes

Stocked trout fisheries are popular in Alberta, accounting for nearly a quarter of the total number of days reported fishing at all waters in 2005. Given the popularity of trout-stocked fisheries in Alberta, the AFS New Lakes project seeks to expand the number of stocked ponds through identification and screening of ponds with fish stocking potential. We evaluated three new ponds in

2018, but none were suitable for fisheries development. However, one pond identified in 2017 remains promising and is undergoing further evaluation.

Two ponds, evaluated in previous years of the AFS New Lakes project, were added to the AFS project in 2018: Taber Pond was stocked with 4,600 rainbow trout and County Sportsplex Pond (County of Grande Prairie) was stocked with 2,320 rainbow trout.

### Partnerships

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

## ACA Fish Stocking – Pond Rehabilitation

Fishing pressure at AFS ponds can exceed 2,000 h/ha in the summer months, indicating these ponds can be popular among anglers. However, our recent data suggests that some of these ponds may not be capable of supporting trout survival beyond mid-summer due to low dissolved oxygen (DO). We analyzed historical water quality data from AFS ponds to determine what ponds have poor DO concentrations during the open water season. We found 11 ponds that have a mean water depth >3 m with poor DO (<4 mg/L) in the top 3 m of the water column. To address poor water quality in these ponds, we chose two ponds as case studies to limit primary productivity through nutrient reduction:

- 1) we planted shrubs and willows in riparian areas of Castaway Pond to intercept nutrients; and
- 2) we determined that Rainbow Park Pond (formerly Westlock Pond) is hyper-eutrophic and a good candidate for alum treatment to chemically inactivate phosphorus.

### Partnerships

Alberta Environment and Parks, Viking Sports & Wildlife Society

## ACA Fish Stocking – Project Evaluation

In Alberta, fishing opportunities are limited and stocking waterbodies with trout is a tool to increase opportunities for anglers. Determining the success of these fisheries can be difficult, costly, and time consuming. Using trail cameras, we cost-effectively determined the general use of select stocked waterbodies. Angler counts, and estimated angler effort showed considerable variation among the 15 ponds assessed in 2018, with effort ranging from 12h/ha at Mirror Reservoir to 4,517h/ha at Kraft Wimborne Pond. Gill nets were used to sample selected waterbodies for fish presence to determine the success of stocking a pond. We found multiple size-classes of brown trout in Mitford Pond indicating persistence of fish between years. This was not the case at Mirror Reservoir or Dewitt's Pond. We also assessed an experimental stocking of brown trout into Mirror Reservoir, a waterbody prone to avian predation on stocked rainbow trout. Our results suggest that brown trout did not have an advantage over rainbow trout in withstanding predation. We found that brown trout do not appear to be a suitable replacement for rainbow trout in ponds where avian predation is high. Our results allow us to better manage our stocking practices and evaluate site management options to better serve Alberta anglers.

### Partnerships

Alberta Environment and Parks

## Methodology for Assessing and Evaluating Waterfall Fish Passage Barriers in Alberta

Invasive species are potentially the greatest threat to westslope cutthroat trout (WSCT; *Oncorhynchus clarki lewisi*) in Alberta, through hybridization, competition, and displacement. To effectively safeguard against extirpation, it is essential that existing pure populations of WSCT



remain protected from invasive species, and additional populations are established outside of areas that WSCT currently occupy. Several sub-populations of WSCT remain genetically pure because of waterfall barriers that impede upstream migration of invasive fish. Similarly, habitats above barriers that are currently unoccupied by WSCT represent opportunities to expand their range and total habitat area through introduction/reintroduction of pure stocks. Before reintroductions can begin, identification and broadscale inventory of barriers that isolate WSCT populations and habitats is a crucial priority to build range expansion strategies on a stream-by-stream basis. To date, there is no single assessment method to identify and rank barrier passibility in the context of invasion risk. Our objective was to develop a standard method for barrier assessment. In 2017, we began modifying methods to assess the ability of trout to successfully ascend barriers based on documented research of their swimming and leaping capabilities. By the summer of 2018, we had evaluated approximately 100 known barrier locations containing approximately 200 barrier features and developed a four-tiered classification system to catalogue a complex array of different barriers. We assessed barrier passibility based on the leaping and swimming ability of various sized trout, and severity of white-water turbulence. We developed a system to score barriers. A final list of scored barriers will rank the potential for each barrier to successfully protect introduced WSCT populations from invasive species downstream. This list will ultimately be used in a related scoring framework that ranks and catalogues habitats above barriers by range expansion potential and feasibility, from which agencies can select individual habitats on which to focus reintroduction efforts.

### Partnerships

Alberta Environment and Parks

## Establishing Walleye Fisheries

We completed a review to compile options for establishing and improving walleye (*Sander vitreus*) fisheries in Alberta. Compiled methods include fish passage for movement between lakes, fish passage to spawning habitat, improvement of spawning habitat, traditional stocking programs, lake-specific stocking, triploid walleye stocking, and adult walleye transfer. Using available data, we developed an understanding of the strengths, weaknesses, feasibility, and data gaps of each method. Based on the information we have gathered, ACA

in collaboration with AEP, will select study lakes and develop lake-specific plans to improve walleye fishing opportunities for anglers.

### Partnerships

Alberta Environment and Parks

## Fisheries Barriers in Native Trout Drainages

To effectively safeguard against extirpation of native fishes in Alberta (particularly bull trout [*Salvelinus confluentus*], Arctic grayling [*Thymallus arcticus*], Athabasca rainbow trout, and WSCT), it is essential to protect genetically pure populations from hybridization and competition with



Project: Using eDNA to Document the Distribution of Prussian Carp in Alberta  
Photo: ACA, Britt Schmidt

invasive species such as rainbow trout and brook trout. In Alberta, several sub-populations of native trout remain genetically pure primarily because of waterfalls that impede invasion. Maintaining and isolating these headwater populations from invasion is critical to the protection and persistence of genetically pure fish. Cataloguing waterfalls is a necessary first step in prioritizing population recovery and building implementation strategies on a stream-by-stream basis. We collected known waterfall and other barrier data for the Peace, Athabasca, North Saskatchewan, and Red Deer river basins into a centralized database. We selected the Narraway River watershed as the pilot study area. We gathered fish habitat and community data for the Narraway River watershed and identified 107 potential waterfall locations. We will complete valley confinement modelling and future ground truthing exercises at these locations to determine what fish passage barriers exist within the Narraway River watershed that can be used for population isolation management.

### Partnerships

Alberta Environment and Parks, Environment and Climate Change Canada

## 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. This reality 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. In 2018/19, 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

## 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 DO levels above 3 mg/L to promote year-round survival and availability of larger fish to anglers. In 2018/19, we aerated 19 waterbodies across the province. This included updated electrical facilities at East and West Dollar lakes to allow for aeration of both lakes from one central location. It fulfilled a long-time desire of both anglers and ACA as we aerated West Dollar Lake for the first time, now combined with East Dollar Lake and known as the “Dollar Lakes” aeration site. We actively established and maintained financial and in-kind partnerships for existing aeration projects.

### Partnerships

Access Pipelines Inc., Alberta Environment and Parks, Daishowa-Marubeni International Ltd., Edmonton Trout Fishing Club, Edson Forest Products, Fisheries and Oceans Canada, Mountain View County, Municipal District of Greenview, Northern Sunrise County, Radway Lions Club, Spring Lake RV Resort, Thorhild County, Trout Unlimited Canada – Oldman River Chapter, Village of Spring Lake

## Mountain Whitefish Overwintering Habitat

As demand continues to grow for industrial, agricultural, and domestic water use, Albertans are seeking strategies to manage water needs. One of the primary tasks in water management is determining the habitat required to maintain a healthy river ecosystem so that managers can seek to meet socio-economic needs, while maintaining the ecological integrity of a watershed. In 2015, AEP completed a study in the Wapiti River to determine overwintering areas and microhabitat characteristics for mountain whitefish (*Prosopium williamsoni*). In collaboration with AEP, we seek to build our understanding of under-ice habitat use and availability for mountain whitefish and validate results from the Wapiti River using the McLeod River. We conducted a telemetry survey on the McLeod River, where we tagged 53 mountain whitefish in the fall of 2017 and tracked their movement throughout the winter of 2017/18. Distance travelled from initial tagging locations varied from 9 km upstream to 89 km downstream, with fish moving greater distances from September to November than from November to March. Additionally, we collected habitat use data at fish locations and habitat availability data from randomly selected sites within our study area. Velocity and water quality remained consistent between habitat use and availability sites; however, fish showed greater use of shallower habitats with substrate dominated by large gravel and cobble. Our data provide valuable information with regards to under-ice movement and habitat preference for mountain whitefish and can be used in future management decisions with regards to winter instream flow needs.

### Partnerships

Alberta Environment and Parks, Alberta Innovates, Fisheries and Oceans Canada, Millar Western Forest Products Ltd. – Whitecourt Pulp



## New Lake Aeration Development

Aeration promotes year-round survival and (sometimes considerable) growth of trout in 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 2018/19 season, with the support of the MD of Greenview, we updated electrical facilities at East and West Dollar lakes to allow for aeration of both lakes from one central location, fulfilling a long-time desire of both anglers and ACA as we aerated West Dollar Lake for the first time. We continue to identify and screen additional candidate waterbodies for development and inclusion in ACA's Lake Aeration Program.

### Partnerships

Alberta Environment and Parks,  
Municipal District of Greenview

## North Saskatchewan River Drainage Fish Sustainability Index Data Gaps

AEP's Fish Sustainability Index (FSI) is a standardized process of assessment that provides a landscape-level overview of

fish sustainability within the province and enables broadscale 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 fish species classed as *Threatened* in Alberta and is particularly sensitive to habitat change. In the summer of 2018, we used backpack and tote-barge electrofishing gear to sample 31 sites randomly distributed throughout the Cardinal River watershed, a tributary to the Brazeau River in the upper North Saskatchewan River drainage. We also sampled ten sites in the Wilson Creek watershed, part of the upper Red Deer River drainage. We captured 221 fish in the Cardinal River watershed, including 98 bull trout, 22 cutthroat trout (*Oncorhynchus clarkii*), ten brown trout, and 91 pearl dace (*Semotilus margarita*). In the Wilson Creek watershed, we captured 208 fish, including 83 bull trout, 119 brook trout, one longnose dace (*Rhinichthys cataractae*), and five mountain whitefish. In the Cardinal River watershed, bull trout was the most widely distributed species with the highest catch rates occurring in Ruby Creek. We captured bull trout in eight of the ten sites sampled in the Wilson Creek watershed. 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 and Red Deer river drainages.

### Partnerships

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

## Using eDNA to Document the Distribution of Prussian Carp in Alberta

Prussian carp is a recent invasive fish species to Alberta, now believed to be widely distributed in the Bow, Red Deer, and South Saskatchewan river drainages. Initial surveys suggest their population and range is expanding exponentially across the province and may be having a negative impact on native species; however, the degree to which the range of Prussian carp has expanded, and scope of their potential impacts remains unclear. In 2018, ACA used environmental DNA (eDNA) to determine the



distribution of Prussian carp in Alberta. We detected Prussian carp DNA at 12 of 83 sampled sites, confirming the presence of Prussian carp in the Red Deer, Bow, Oldman, and South Saskatchewan river drainages. We found no evidence of Prussian carp DNA in the Athabasca, Battle, Beaver, McLeod, Milk, North Saskatchewan, Peace, Pembina, or Smoky rivers. Our results confirm drainages previously identified as Prussian carp positive and shows that the known range of Prussian carp is expanding. Furthermore, they provide additional evidence that Prussian carp have not spread beyond known positive drainages into other major mainstems in the province. Our results will help contribute to the knowledge and information needed to develop effective control and management plans for this invasive species.

### Partnerships

Alberta Environment and Parks, University of Alberta – Dr. Mark Poesch at the Fisheries and Aquatic Conservation Laboratory

## Ram River Bull Trout Assessment

Bull trout is a native sport species classed as *Threatened* in Alberta and is particularly sensitive to habitat change. A government-led initiative, the North-Central Native Trout (NCNT) program, was implemented in 2017 to recover native trout and whitefish in the central and northern East Slopes of Alberta. The program involves implementation of recovery actions (e.g., trail remediation/closure, implementing industry best-management practices, suppression of non-native species) in an adaptive management framework. Success of this program will be measured using AEP's FSI. The FSI is a standardized process of assessment that provides a landscape-level overview of fish sustainability within the province and enables broadscale evaluation of management actions and land-use planning. In the summer of 2018, we used a combination of backpack electrofishing and redd surveys to assess the bull trout population in the lower Ram River watershed. Our sample framework for backpack electrofishing included 12 randomly

selected sites. We detected fish at six of the sites, catching six different species. We captured 48 bull trout electrofishing, 42 of which were captured at a single site on an unnamed tributary to the Ram River. We also counted 78 bull trout redds on a survey of a 7.5 km reach of Fall Creek. 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.

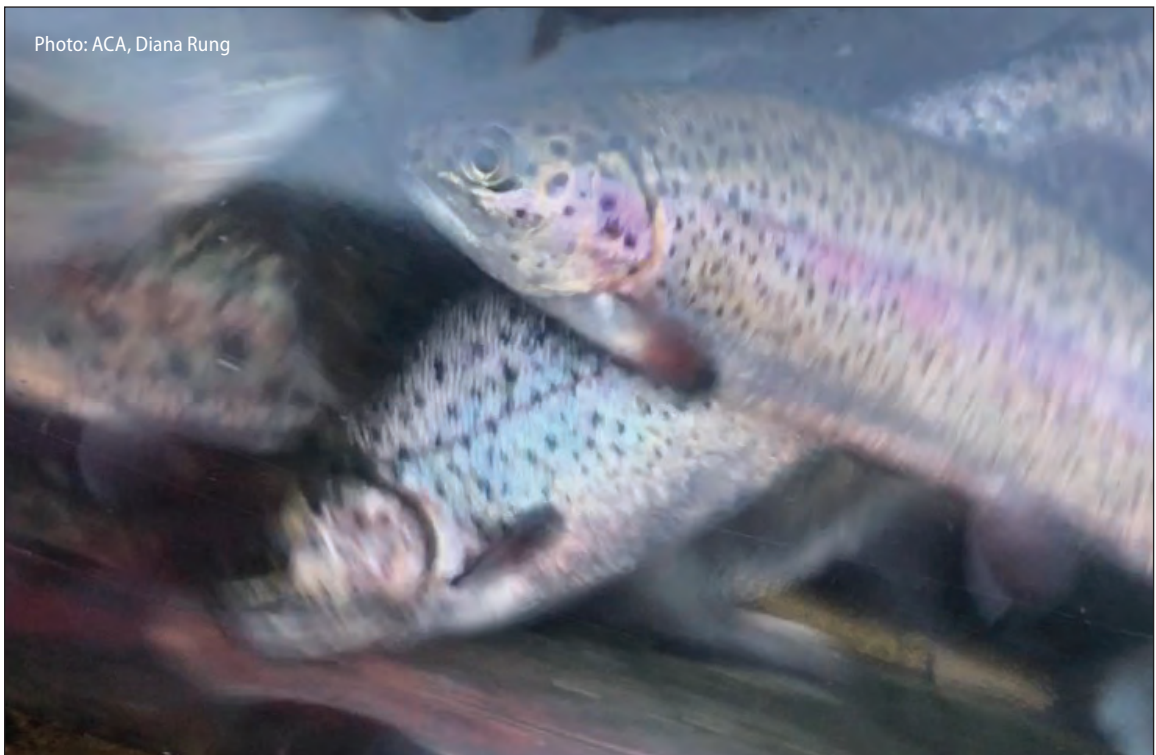
### Partnerships

Alberta Environment and Parks, Alberta Streamwatch Conservation Coalition, Sundre Forest Products – A Division of West Fraser Mills Ltd.

## Upper Oldman River Watershed Angler Survey

We estimated angler effort, number of trips, and fish catch by conducting instantaneous angler counts and angler interviews on major streams in the Upper Oldman River watershed. Between June 16 and October 31, 2018, we

Photo: ACA, Diana Rung





conducted 25 instantaneous angler counts, counted 1,052 anglers, and interviewed 958 anglers over 87 survey shifts. During the survey period, anglers fished for 91,679 hours and made 21,636 trips with the highest angling pressures occurring in the Livingstone, Middle Oldman, and Upper Oldman rivers. WSCT was the primary species targeted by anglers with a total estimated catch of 80,180 fish, which equates to 88% of the overall fish catch ( $n = 91,228$  fish all species). Westslope cutthroat trout catch rates varied throughout the study area but were highest in the Upper Oldman River.

### Partnerships

Alberta Environment and Parks

## Westslope Cutthroat Trout Population Monitoring in the Upper Oldman River Core Area

In 2018, the Livingstone-Porcupine Hills Land Footprint Plan was introduced by the Government of Alberta to reduce cumulative impacts on the landscape by changing land-use patterns to allow existing land footprints to recover. The resulting Public Land Use Zone (PLUZ) encompasses the largest remaining WSCT core area in Alberta. Current land-use restrictions and habitat recovery activities in these critical habitats are anticipated to benefit fish populations and aid in species recovery. ACA is conducting a multi-year WSCT population monitoring study in four Hydraulic Unit Code (HUC)10 watersheds in the Upper Oldman River WSCT core area. The objective of the study is to collect fish data at reference sites for five years to determine natural fish population variations within the Upper Oldman River core area. These data will be used to detect population response to the new PLUZ restrictions. In 2018, ACA completed fish surveys at 39 electrofishing sites in streams of the UOM core area. Overall, WSCT catches were highest in the Livingstone River watershed, followed by the Upper Oldman River watershed. The lowest catch

rates were in the Dutch Creek and Hidden Creek watersheds, where we captured few juvenile WSCT. We will continue to monitor these four watersheds to examine the ongoing effects of the recent changes to land use in the Livingstone-Porcupine Hills PLUZ.

### Partnerships

Alberta Environment and Parks

## Wapiti River Angler Survey

We conducted an angler survey to estimate angler effort, trip length, and fish catch on the Wapiti River between June 1 and September 30, 2019. We used a combination of instantaneous counts and angler interviews to derive effort estimates and angler catch data. During surveys, we interviewed 80 anglers and observed 45 anglers during flights. Of interviewed anglers, 66% were from Grande Prairie with another 20% from the surrounding area. We estimated anglers made 3,000 trips and fished for 4,085 hours. Catch rates were 0.54 walleye/h, 0.07 northern pike (*Esox lucius*)/h, 0.06 bull trout/h, and 0.003 goldeye (*Hiodon alosoides*)/h. Estimated total fish caught was 2,730 made up of walleye (2,195), northern pike (271), bull trout (251), and goldeye (13). Estimated total angler harvest was 207 walleye. No anglers reported catching Arctic grayling or mountain whitefish.

### Partnerships

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

## Westslope Cutthroat Trout Range Expansion Feasibility

WSCT currently occupy only 5% of their historical range in Alberta, and recovery of the species requires expanding their distribution. Therefore, it is imperative to identify additional suitable habitats and determine feasibility for WSCT recovery outside of the current range. Invasive species are potentially the greatest threat to WSCT in Alberta, through hybridization, competition, and

displacement. The presence of natural waterfall barriers partially mediates this threat by impeding invasion by non-native species into headwater streams and lakes. Several sub-populations of WSCT remain genetically pure because of waterfall barriers. The habitats upstream of these barriers represent opportunities for expanding the range of WSCT and total critical habitat area of the species through introduction or reintroduction of pure stocks. Before reintroductions can begin, a thorough examination of upstream habitats must be undertaken to catalogue and rank range expansion potential and identify those areas most suitable for WSCT re-establishment. Our objective is to assess the feasibility of WSCT range expansion into streams and lakes above barriers currently unoccupied by pure WSCT populations. We are customizing an existing framework recently developed by bull trout researchers to score and rank habitats above waterfall barriers based on WSCT life history requirements. We will determine range expansion feasibility for each habitat based on the sum of scores that rate habitat quality, habitat quantity, habitat complexity, threats to existing WSCT populations, and future invasion risk. We will rank both stream and lake habitats by range expansion suitability score, which government agencies require to plan WSCT re-establishment and recovery.

### Partnerships

Alberta Environment and Parks







## Land Management Program

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 our province. Each site has its own unique characteristics that provide an array of opportunities to hunt, fish, forage, or view wildlife. Our goal is to conserve key habitat, benefitting our precious wildlife and fish resource, and in the process, also adding value for outdoor enthusiasts.

Each year we add new conservation sites by securing habitat through purchase or donation. Thanks to our partners and conservation-minded landowners, we secured three new conservation sites this year. One of these is an expansion of an existing conservation site. We also partnered with AFGA to share title on 14 conservation sites, because sharing responsibility makes management of these sites that much more efficient. We manage 27 fisheries access sites that add value by providing quality angling opportunities for Albertans. 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 improving recreational access on deeded lands. Other programs such as our Recreational Opportunity Enhancement Program are aimed at easing access to privately-owned lands by facilitating access management through a hunter/angler sign-in system. We also have other projects that are focused on initiatives that provide access to rivers, wetlands, and lakes to improve hunting and/or angling opportunities in areas where access may be limited.

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. Moreover, they help us maximize each levy dollar we receive, allowing us to achieve the many conservation goals within ACA's Land Management Program.

### 2018/19 Overview

- Added 3 new conservation sites, totalling 918 ac (371 ha) with a land value of approximately \$2,100,000.
- Conservation efforts include sharing of title on 14 properties with AFGA.
- Currently managing 32 Landowner Habitat Program Agreements, conserving 5,737 ac (2,321 ha) of wildlife and fish habitat.
- Signed 1 new Landowner Habitat Program Agreement, conserving 202 ac (81 ha), and added 2 agreements that will be renewed in 2019/20.
- Collaborated with AEP on management of Crown conservation sites (disposition process ongoing). To date we received two dispositions on Crown conservation sites.
- Inspected 192 conservation sites, with maintenance and repairs completed on 86 sites.
- Habitat and recreational access improvements/enhancements were done on 63 conservation sites, and baseline inventories were completed on 6 sites.
- Seeded 304 ac with native seed mix and tame forage and planted over 8,650 trees and shrubs.
- Seeded a 4-ac sorghum food plot for upland game birds on our Ross Creek Conservation Site.
- Completed recreational enhancements on 14 conservation sites including parking areas, foot-access gates, and trails.
- Installed project signs on 13 conservation sites and continued installing boundary

and "Foot Access Only" signs on conservation sites.

- Spent over 12,500 hours on conservation site management and maintenance.
- Provided recommendations on 103 land-use referrals and public inquiries.
- Provided angler access at 27 fisheries access sites, of which 3 received site upgrades and enhancements that included planting 160 trees and shrubs.
- Developed 1 new fisheries access site on the North Raven River (Coulsen), providing additional angling opportunities for brown trout.
- Completed 23 conservation site management plans.
- Delivered 25 riparian enhancement projects, signed 6 new riparian habitat lease agreements, completed 6 riparian fencing projects, installed 9 off-site watering systems, conducted 2 bioengineering projects, and weir removal to promote fish passage on the Beaverlodge River.
- Conserved 151 ac (61 ha) of riparian habitat through new and existing riparian habitat lease agreements. Installed 7.9 km of new fencing, and upgraded 2 km of existing fencing to meet wildlife-friendly standards.
- Completed bank stabilization and restoration by planting dense live staking willow (*Salix*) on two project sites.
- Completed 5 riparian health assessments and collected water samples from 7 sites as part of baseline data collection and ongoing water quality monitoring.
- Collaborated with over 16 groups and organizations to enhance and facilitate riparian conservation across Alberta.
- Provided 6 participating landowners with recreational user sign-in services for existing properties, totalling improved land access to approximately 91,000 ac (36,826 ha).
- Added 1 new landowners to our access sign-in program in southern Alberta, totalling approximately 40,000 ac (16,187 ha).



Photo: C. Kure

## Conservation Site Management

Under ACA's Conservation Site Management (CSM) Project, we currently manage 344 conservation sites, which include over 210,000 acres (approximately 85,000 ha) of titled and Crown land in Alberta. The CSM Project staff is responsible for ongoing management and enhancement of these sites, and their activities are guided by site-specific management plans. In 2018/19, we inspected and maintained 192 conservation sites. Our team also completed habitat enhancement projects on 63 conservation sites, including seeding of grass and forb species on 304 acres, planting food plots for upland game bird species, and removing old farming equipment, garbage, buildings, and other anthropogenic structures. Recreational access enhancements were completed at 14 sites, including construction of foot access gates and parking areas. We installed new project signs on 13 conservation sites

and provided recommendations on 103 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 AEP representatives to determine long-term partnership roles and responsibilities at Crown conservation sites that ACA manages. Our success in managing and enhancing conservation sites is achieved through collaborative efforts with a growing number of partners and volunteers throughout Alberta.

### Partnerships

Alberta Environment and Parks, Alberta Fish and Game Association, Alberta Trail Riding Association, Bow River Irrigation District, ConocoPhillips Canada Resources Corp., County of Newell, County of Warner, Ducks Unlimited Canada, Eastern Irrigation District, Environment and Climate Change Canada, landowners, Lethbridge County, Municipal District of Greenview, Medicine River Wildlife

Centre, MULTISAR, Myrnam River Ridge Riders Snowmobile Club, Nature Conservancy of Canada, Pheasants Forever – Calgary and Chinook chapters, Shell Canada Limited, Strathcona County, The Carbon Farmer Inc., Trout Unlimited Canada, volunteer stewards, Westlock Whitetails Junior Forest Warden Club

## Corporate Partners Program

The cumulative effect of habitat loss and fragmentation from human disturbance of natural ecosystems is a major concern in Alberta. As industrial activity continues to expand, greater emphasis is being placed on loss and alteration of habitat. Our Corporate Partners Program was initiated in 2002/03 with the goal of collaborating with industry and other organizations to conserve important wildlife and fish habitat. Our securement efforts are guided by focus areas and ranking criteria that are developed collaboratively between ACA and our corporate partners. Corporate partnerships and collaboration with other conservation organizations



allow us to maximize our conservation impact and the overall effectiveness of our securement efforts. Partnerships may consist of short- or long-term agreements. Despite an economic downturn in the past few years, we continue to partner with Suncor Energy Foundation and in partnership with AFGA and Suncor purchased a new conservation site: MacConnachie. This acquisition represents 309 acres (125 ha) of wildlife habitat, with an estimated land value of approximately \$438,000. Our goal is to continue conserving key habitats using a collaborative approach and work towards expanding these opportunities by maintaining our current corporate partnerships and developing new partnerships.

### Partnerships

Alberta Environment and Parks, Alberta Fish and Game Association, Suncor Energy Foundation

### Fisheries Access Site Management

ACA's Land Management Program encompasses activities intended to conserve, protect, and enhance fish and wildlife habitat, while also increasing sustainable recreational opportunities like angling and hunting. One of the activities of the program staff is delivering the Fisheries Access Site Management Program, which provides angling opportunities to key streams, rivers, and lakes throughout the province. We inspected and maintained 27 fisheries access sites and commissioned 12 maintenance contracts in 2018/19. We upgraded three sites with improvements to site signage and a boat launch, site landscaping, tree planting, and the installation of a picnic table and garbage/recycling container. We developed one new fisheries access site along the North Raven River in the central Alberta region and continued working with partners to identify next steps for

access development projects at two additional waterbodies. We engaged with 15 partners in 2018/19, who generously contributed financially or with in-kind assistance. We continued striving to ensure anglers have excellent experiences at ACA fisheries access sites across Alberta.

### Partnerships

Alberta Environment and Parks, Alberta Fish and Game Association, Clearwater County, County of Newell, County of Northern Lights, Devon Canada Corporation, Municipal District of Greenview, North Raven River Working Group, Northern Sunrise County, Rocky View County, Saddle Hills County, Shell Canada Limited, Trout Unlimited Canada – Central and Yellowhead (Wetaskiwin County) chapters

### Provincial Habitat Securement Program

Despite a slower economy, provincial population growth seemed unaffected in 2018. Alberta's population steadily increased and

Provincial Habitat Securement Program Transactions in 2018/19

Project Name	Securement Tool & Partners	Size (ac)	Special Features
Central			
<b>Porter</b> Pt. SW-17-036-04-W5M	A land purchase between ACA, AFGA, Edmonton Trout Fishing Club, Environment and Climate Change Canada (ECCC)- Habitat Stewardship Program (HSP), Red Deer River Naturalists, Trout Unlimited Canada (TUC) –Central and Edmonton, and public donors.	145	This site is located on the Raven River approximately 55 km southeast of Rocky Mountain House in the dry mixedwood region. It is adjacent to our Drake Conservation Site and consists of riparian habitat, mixed spruce, and aspen forest. With its diverse habitat, the site offers great berry picking for raspberries and blueberries. Wildlife in the area include moose, deer, elk, black bear, ruffed grouse, and spruce grouse.
South			
<b>Chinook</b> NE/SE/SW-01-011-03-W4M	A land purchase between ACA, AFGA, ECCC-HSP, Pheasants Forever (PF) – Calgary and Chinook chapters, and Wild Elk Foundation.	464	This site is approximately 45 km southeast of Medicine Hat in the dry mixedgrass region. It consists of riparian habitat along Ross Creek, native grassland habitat, and tame pasture. Wildlife found here include deer, moose, ring-necked pheasant, sharp-tailed grouse, grey partridge, northern leopard frogs, ferruginous hawks, Sprague's pipits, and chestnut-collared longspurs.
Northeast			
NE/SE-35-054-11-W4M	Suncor	309	This site is located 120 km northeast of the city of Edmonton. Habitat is primarily dry mixedwood forest, with small wetlands scattered throughout. Wildlife in the area include elk, moose, deer, black bear, and upland game birds.
<b>TOTAL</b>		<b>918</b>	

reached over 4.33 million people in 2018, up from 4.31 million in 2017. Habitat alteration and wetland loss has impacted over 410,000 km<sup>2</sup> of Alberta. Northern parts of the province have seen the most alterations, with the province selling off Crown lands for agricultural development and political pressure to sell off more Crown lands in the Peace River Country for agricultural expansion. Almost two-thirds of the province (62%) has been altered by industrial or agricultural development. Urban and rural development have also contributed to habitat loss, fragmentation, and degradation.

Our Provincial Habitat Securement Program conserves important wildlife and fish habitat through land purchases, 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. In all, 28 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 work. Together in 2018/19, we completed two land acquisitions, which conserved 609 acres (246.5 ha). These lands have an estimated land value of approximately \$1,730,000. Through a unique partnership, ACA and AFGA shared title on 14 existing conservation sites. Management plans will be developed in 2019/20 to share roles and responsibilities between partners.

### Partnerships

Alberta Environment and Parks; Alberta Fish and Game Association; Edmonton Trout Fishing Club; Environment and Climate Change Canada – Habitat Stewardship Program for Species at Risk, Mr. Porter; Pheasants Forever – Calgary and Chinook chapters; public donations; Red Deer River Naturalists; Trout Unlimited Canada – Central and Edmonton; Wild Elk Foundation

### Landowner Habitat Program

Habitat alteration and wetland loss has continued in Alberta, currently impacting over 410,000 km<sup>2</sup>. The northern parts of the province have seen the most alterations with the province selling off Crown lands for agricultural development and political pressure to sell more Crown land in the Peace River Country. Approximately two-thirds

of the province (62%) 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 compensates 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 32 LHP agreements across the province, which conserves approximately 5,737 acres (2,321.8 ha) of important wildlife and fish habitat.

### Partnerships

Alberta Environment and Parks, landowners

### Management Plan Development

ACA manages and maintains over 210,000 acres (approximately 85,000 ha) of habitat in collaboration with AEP and other conservation partners. In order to manage our



Provincial Habitat Securement Program  
Chinook Conservation Site  
Photo: ACA, Tyler Johns



Recreational Opportunity Enhancement Project

Photo: ACA, Jeff Forsyth



conservation assets effectively, management plans are developed for each of these sites. We emphasize developing detailed habitat management objectives that maintain the ecological integrity of each conservation site. ACA works with our partners to develop management plans that are used as guiding documents for overall site management. These plans provide specific details regarding site features, objectives regarding enhancement or restoration, recreational and facility enhancements, guidelines, and other planned activities for each 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 2018/19, we developed 23 management plans.

### Partnerships

Alberta Environment and Parks, Alberta Fish and Game Association, Ducks Unlimited Canada, Nature Conservancy of Canada

### Recreational Opportunity Enhancement Project

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 focuses on initiatives that enhance access to major rivers, such as the Bow and North Saskatchewan rivers, for angling and other water-related recreational activities that benefit our stakeholders. Working with

individual landowners has allowed us to improve hunter access to approximately 91,000 acres (36,826 ha) of private land across southern Alberta through a sign-in access system. To reduce ungulate depredation issues and improve hunter access in northwestern Alberta, we continue collaborating 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

Alberta Environment and Parks, Alberta Fish and Game Association, Canadian Land Access Systems, landowners, Lethbridge Fish and Game Association



Photo: ACA, Nikita Lebedynski

## Riparian Conservation Program

The ecological integrity and health of Alberta's rivers, streams, and surrounding landscapes are often negatively affected by ongoing human 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 habitat in priority watersheds through on-the-ground habitat restoration projects. We engage 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 2018/19, we focused conservation efforts in the following priority

watersheds: Beaverlodge, Owl, Raven, and North Raven rivers; and Clear, Todd, and Five Mile creeks and their associated tributaries. We delivered 25 enhancement projects using a variety of management tools, including implementing agreements to conserve 664 acres (269 ha) of riparian and associated upland habitat, nine off-site watering systems, two bioengineering projects, and installing or repairing 9.9 km of 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 shared information about our Riparian Conservation Program with 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 and Game Association, Cenovus Energy Inc., County of Grande Prairie, Cows and Fish – Alberta Riparian Habitat Management Society, Environment and Climate Change Canada, Fisheries and Oceans Canada, landowners, Mighty Peace Watershed Alliance, Milk River Watershed Council Canada, Nature Conservancy of Canada, Oldman Watershed Council, Sinopec Canada Energy Ltd., Syncrude Canada Ltd., Trout Unlimited Canada, West County Watershed Society



# ACA Conservation Reports

The following is a list of final project reports published in 2018/19. All of these reports can be found on our website or through the Government of Alberta Library.

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

## Fisheries

Hurkett, B., and K. Fitzsimmons. 2019. Angler survey in the Upper Oldman River watershed, 2018. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 17 pp + App.

Judd, C., M. Rodtka, and Z. Spence. 2019. North Saskatchewan River drainage, fish sustainability index data gaps project, 2018. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 17 pp + App.

Lebedynski, N. 2019. Angler survey on the Wapiti River, Alberta, 2018. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 8 pp + App.

Schmidt, B., K. Fitzsimmons, and A. Paul. 2019. Mountain whitefish overwintering habitat use in the McLeod River. Data Report produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 19 pp + App.

## Wildlife

Ranger, M., and M. Verhage. 2019. Grizzly bear inventory project in Bear Management Area 1. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 12 pp.

Rasmussen C., and E. Anderson. 2019. Notikewin River watershed subbasin (07HC) ungulate winter range restoration program, 2008-2010. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 31 pp + App.

Rasmussen, C., R. Anderson, and E. Anderson. 2019. Assessment of ungulate resource values within the Cline River Subbasin following the 2009 Upper North Saskatchewan River prescribed fire. Data Report produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 43 pp + App.

Verhage, M. 2019. Grizzly bear inventory project in Bear Management Area 5. Data Report, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 16 pp.





Photo: ACA, Sam Vriend



# 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 (AJSG). 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. AJSG retains sole responsibility for liaising with informants, investigating reports, and enforcing laws.



## 2018/19 Overview

- 14,873 total calls from the public to the RAP toll-free hotline.
- 2,876 calls about suspected illegal activity – reporting fish and wildlife resource crimes.
- 499 charges laid.
- \$73,100 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 damaged as a result of predator (eagles, cougars, bears, and wolves) or hunter activities, relief is provided through the Wildlife Predator Compensation and Shot Livestock Compensation programs. Like RAP, we are responsible for program promotion and compensation fund management, while AJSG is responsible for incident investigations and determining payouts.

Wildlife Predator	Claims	Compensation (\$)
Black Bear	19	19,440.24
Grizzly Bear	70	110,831.41
Cougar	24	28,394.33
Wolf	115	160,276.96
Bald Eagle	6	1,723.20
TOTAL	234	320,666.14
Shot Livestock	9	16,555.02



Photo: Morgan Schaufele



# Grants Program

Alberta's hunters and anglers contribute directly to conservation through levies on their hunting and fishing licences. The levy funds come to ACA, and one of the many things we do with that money is to support community and research efforts via our Grants Program.

## 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.

### 2018/19 Overview

- Received 130 applications, requesting just under \$1.9 million.
- Supported 79 projects with \$969,983 of funding.
- Over the past 3 years, funds provided have been leveraged 4:1.

## 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 [CWD] in deer) to trials of citizen science to help determine the distribution of species such as rock snot (*Didymosphenia geminata*) and enhance the collection of fisheries data.

### 2018/19 Overview

- Received 29 applications requesting \$689,196.
- Funded 17 research projects with a total of \$329,724.
- Over the past 3 years, funds provided have been leveraged 4:1.

## 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 student academic projects included studies on feral horse management, whirling disease hosts, and lodgepole pine (*Pinus contorta*) susceptibility to mountain pine beetles (*Dendroctonus ponderosae*). This year's grants ranged from \$4,650 to \$14,810 and were distributed to six doctoral degree and 14 master's degree candidates.

### 2018/19 Overview

- Supported 20 graduate student projects with a total of \$206,460 of funding for 2018/19.
- Syncrude Canada Ltd. continued to support of the ACA Grants in Biodiversity Program with \$250,000 commitment over five years (2014 through 2018).
- Over the past 3 years, funds provided have been leveraged 3:1.

## 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](http://biology.ualberta.ca/faculty/mark_boyce).

### 2018/19 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
Alberta Fish and Game Association (AFGA)	Increasing habitat for species at risk in Alberta's grassland region through adaptive management, habitat enhancement, and outreach	\$40,050.00
AFGA	Pronghorn antelope migration corridor enhancement	\$36,728.00
Alberta Hunter Education Instructors' Association (AHEIA)	Conservation Education for the Army Cadet League of Canada – AB	\$2,500.00
AHEIA	AHEIA's Outdoor Bound Mentorship Program	\$3,000.00
AHEIA	AHEIA's National Archery in the Schools Program (NASP)	\$40,000.00
AHEIA	15th Annual O.W.L. Day - "Outdoor Wildlife Learning"	\$3,000.00
AHEIA	Outdoor Youth Seminar	\$3,000.00
AHEIA	Provincial Hunting Day Initiatives	\$16,500.00
AHEIA	Safety Video for AHEIA's Firearms Centres	\$3,000.00
AHEIA	Mandarin Language Safety Video for AHEIA's Firearms Centres	\$2,500.00
AHEIA	Bighorn Sheep Hunting Essentials Course	\$2,500.00
AHEIA	AHEIA Teachers' Workshop	\$6,000.00
AHEIA	Youth Hunter Education Camp (Week 1,2,3,4)	\$48,000.00
Alberta Hunters Sharing the Harvest	Wild Game for the Food Bank Program	\$8,000.00
Alberta Invasive Species Council	Expansion and Promotion of the Early Detection and Distribution Mapping System (EDDMapS) Alberta	\$13,175.00
Alberta Junior Forest Warden Association	AJFWA Pathfinder and Trailblazer North Camp 2019 - "Come to the Real North"	\$4,850.00
Alberta Riparian Habitat Management Society - Cows and Fish	Implementing Riparian Habitat Management Improvements for Westslope Cutthroat Trout	\$8,500.00
Alberta Riparian Habitat Management Society - Cows and Fish	Grazing Schools for Women: Promoting habitat and improved grazing stewardship to livestock producers in south and central Alberta	\$3,000.00
Alberta Trapper's Association	Trapper Education in the Schools	\$15,600.00
Alberta Trapper's Association	Youth Camp	\$10,000.00
Ann & Sandy Cross Conservation Area	Outdoor Education for High Needs Schools at the ASCCA	\$7,250.00
Ann & Sandy Cross Conservation Area	ASCCA Wildlife Friendly-Fencing East & North Boundary Fencing Project	\$34,478.00
Beaverhill Bird Observatory	Public Engagement, Wildlife Conservation and Monitoring at Beaverhill Lake	\$23,750.00
Big Country Rod and Gun Club	2018 Annual Big Country Rod and Gun Club First Time Bird Hunt	\$1,500.00
Bow River Trout Foundation	Bow River Policeman's Flats River Access Upgrade	\$27,525.00
Brazeau County	Sardine Lake Dock	\$7,500.00
Calgary Fish and Game Association	Upgrade & Expansion of Pheasant Facility	\$5,000.00
Calgary Fish and Game Association	CFGA Pheasant Crate Update	\$2,948.40
Camrose and District Fish and Game Association	Making Pleasure Island Accessible; Angler Recruitment and Retention, and Conservation Education	\$23,585.00
Camrose Wildlife Stewardship Society	2018 Camrose Purple Martin Festival	\$1,350.00



Recipient	Project	Funding
Canadian Parks and Wilderness Society (CPAWS) Southern Alberta Chapter	Connecting with Conservation: Getting kids and new Albertans outside to experience and value Alberta's wilderness	\$20,000.00
Castor Fish and Game Club	Evaluation of the Parr Reservoir (Castor Creek) for Fish Stocking Suitability	\$3,000.00
Central Alberta FGA (Zone 3)	Bennett Pond Aeration Electrical Access Fees	\$4,300.00
Edmonton Mallards - Junior Forest Wardens	Fall Wilderness Family Camp	\$2,125.00
Edmonton Nature Club	2018 Snow Goose Chase	\$3,000.00
Edmonton Water Striders - Junior Forest Wardens	Fall Wilderness Family Camp	\$2,125.00
Elbow River Watershed Partnership	Streambank restoration project on Silvester Creek	\$19,385.00
Ghost Watershed Alliance Society	Bioengineering Workshop in the Ghost Watershed	\$10,000.00
Growing Great Kids Coalition; Family and Community Support Services (FCSS) Hinton	Kids Can Catch with Growing Great Kids	\$3,000.00
H.A. Kostash School	H A Kostash Youth Mentorship Program	\$7,700.00
Helen Schuler Nature Centre	"Extreme by Nature" Environmental Education for 11 to 15-year-olds	\$3,000.00
Helen Schuler Nature Centre	Community Engagement in River Valley Conservation	\$3,000.00
High River Fish and Game	Sheep River Fencing	\$2,749.00
Highway 2 Conservation County of Barrhead	Alberta Bat Education and Habitat Enhancement	\$3,000.00
Kneehill 4-H Multi Club	4-H Club Archery Supplies	\$2,500.00
Lacombe County	Alternative Land Use Services (ALUS)	\$15,000.00
Lamont Fish and Game Association	Trout pond dock system	\$8,000.00
Lesser Slave Lake Bird Observatory Society	Avian Monitoring and Outreach Education Programs at Lesser Slave Lake	\$22,750.00
Lesser Slave Watershed Council	Kids Can Catch Lesser Slave Lake Winter	\$1,090.00
Lethbridge Fish and Game Association	8th Annual AFGA/ACA Youth Fishing Recruitment Day	\$14,800.00
Lethbridge Fish and Game Association	LFGA - Conservation Community and Education Project	\$14,500.00
Lethbridge Fish and Game Association	Fly Tying Programs	\$2,000.00
Mountain View County	Riparian and Ecological Enhancement Program	\$25,000.00
Nature Alberta	Important Bird and Biodiversity Areas - Enhanced awareness and caretaker support	\$18,500.00
Nature Alberta	Living by Water	\$53,500.00
Nature Alberta	Nature Kids Family Nature Nights and BioBlitzes across Alberta	\$16,180.00
Northern Lights Fly Fishers Chapter TUC	Riparian Protection on the Raven River (2018)	\$31,500.00
Northern Lights Fly Fishers TUC Edmonton Chapter	Conserving and Restoring Arctic Grayling in the Upper Pembina River Watershed - Habitat Restoration Planning	\$16,965.00

Recipient	Project	Funding
Onoway & District Fish and Game Association	Salter's Lake Improvements	\$2,500.00
Onoway & District Fish and Game Association	Bird / Bat House Project	\$800.00
Partners in Habitat Development	Partners in Habitat Development	\$15,000.00
Red Deer County	Wildlife and Native Habitat Enhancement in Red Deer County via ALUS (2018)	\$40,000.00
Rocky View School District - Alberta	PISCES' Aquatic Project	\$1,772.00
Safari Club International (SCI) Red Deer Chapter	Red Deer, Kids Can Fish Event	\$2,100.00
Safe Drinking Water Foundation	Operation Water Drop, Operation Water Pollution and Operation Water Biology kits to be used by students in Alberta as part of field trips/outdoor education	\$3,145.00
Southern Alberta Sustainable Community Initiative (SASCI)	Foothills Restoration Forum Outreach and Extension: Range Health Assessment Training and Fall Information Session	\$8,181.00
Sustainability Resources	Restoration Program	\$22,000.00
The King's University College	Faith-based organizations and conservation: engaging volunteers in recovery plans of endangered pines	\$4,933.00
Trout Unlimited Canada (TUC)	Water Edu-kit	\$11,000.00
TUC	Yellow Fish Road	\$30,000.00
TUC	East Slopes Strategic Watershed Action Team	\$30,000.00
Trout Unlimited Oldman River Chapter	Fly Fishing and Conservation Program	\$3,000.00
TUC Bow River Chapter	Legacy Island - Habitat Rehabilitation	\$3,500.00
Warne in the Wild	American Kestrel Nest Box Program in Alberta	\$3,000.00
Waterton Biosphere Reserve	Promoting Wetland Stewardship and Improving Wetland Habitat in Waterton Biosphere Reserve	\$14,350.00
Wetaskiwin County	Wetaskiwin/Leduc Alternative Land Use Services (ALUS)	\$8,750.00
Wildlife Conservation Society Canada	Going to Bat for Bats: Citizen Science in Alberta	\$29,994.00
Yellowhead County	Kids Can Catch Event	\$2,500.00
	<b>TOTAL FUNDING ACA RESEARCH GRANTS</b>	<b>\$969,983.40</b>



## ACA Research Grants

Receipt	Project	Funding
Avocet Environmental Inc.	Efficacy of detecting sharp-tailed grouse leks in fall surveys	\$13,500.00
Goldstream Publishing Inc.	Using Citizen Science to Enhance Fisheries Data Collection and Monitoring	\$23,000.00
St. Mary's University	Evaluating possible vectors for the spread of invasive plant <i>Thesium ramosum</i>	\$9,985.00
STRIX Ecological Consulting	Canada Warbler Rapid Assessment Protocol - Phase 2	\$8,005.00
Trout Unlimited Canada	Discovering Didymo Distribution (D3)	\$8,460.00
Université de Sherbrooke	Evolutionarily sustainable management of bighorn sheep	\$9,950.00
University of Alberta	Cyanobacterial Blooms and their Toxic Effects on Fish Populations	\$26,000.00
University of Alberta	Is cougar ( <i>Puma concolor</i> ) habitat selection on a reclaimed mine based on prey availability?	\$20,000.00
University of Alberta	Chronic Wasting Disease in deer: modeling transmission from contact rates	\$32,400.00
University of British Columbia	Evaluating camera trap surveys as an effective means of monitoring remote ungulate populations	\$39,690.00
University of Calgary	Wild pollinator conservation and restoration in Southern Alberta croplands IV: Pollinator community responses to prairie habitat restoration	\$22,000.00
University of Calgary	Biogeography of Native Bumble Bee Species in Alberta: The Influence of Weather	\$7,473.34
University of Lethbridge	Ecological epidemiology of emerging <i>Ambystoma tigrinum</i> virus (ATV) in a population of tiger salamanders in southwestern Alberta	\$6,096.00
University of Montana	Bull elk recruitment, survival, and harvest in a partially migratory elk herd in the Ya Ha Tinda	\$30,000.00
University of Saskatchewan	Density-Dependent Habitat Selection of Feral Horses and Competition with Other Ungulates in a Changing Landscape	\$30,000.00
Waterton Biosphere Reserve Association	Optimizing Mitigation Strategies for Reducing Grizzly Bear Agriculture Conflicts	\$18,000.00
Wildlife Conservation Society Canada	Baseline Population Monitoring and Bioenergetics of Alberta Bat Populations: Predicting Risk of White-Nose Syndrome to Guide Conservation Actions	\$25,165.00
	<b>TOTAL FUNDING ACA RESEARCH GRANTS</b>	<b>\$329,724.34</b>

## 2018 ACA Grants in Biodiversity Recipients

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

Recipient	Institution	Supervisor(s)	Project Title
Sangwook Ahn (MSc)	University of Lethbridge	Cameron Goater	Effects of host community structure on parasite transmission and disease risk
Josue Arteaga (MSc)	University of Alberta	Kimberley Mathot	How do Black-capped Chickadees ( <i>Parus atricapillus</i> ) respond to different types of information about predators?
Jackson Beck (MSc)	University of Alberta	Nadir Erbilgin	Impact of disturbance altered soil microbial communities on lodgepole pine seedling performance and carbon allocation
Paul Boyce (PhD)	University of Saskatchewan	Phil McLoughlin	Assessing the efficacy of immunocontraception to manage feral horses in the Alberta Foothills
Danielle Clake (PhD)	University of Calgary	Paul Galpern and Sean Rogers	Resilience of pollinator populations to landscape changes: using genomic methods to assess montane bumble bee populations in Alberta
Jenna Cook (MSc)	University of Alberta	Rolf Vinebrooke	Phytoplankton communities as indicators of environmental change and water quality across the Canadian Rockies
Melanie de Kappelle (MSc)	University of Alberta	Nadir Erbilgin	Are lodgepole pine trees at higher elevations and latitudes more susceptible to attack by range-expanding mountain pine beetle?
Melissa Dergousoff (MSc)	University of Alberta	Bill Shotyk and Glynnis Hood	Factors influencing trace element concentrations in the tissues of beavers ( <i>Castor canadensis</i> ) from central and northern Alberta
César Estevo (MSc)	University of Alberta	Erin Bayne	Run to the hills: are boreal hilly systems in Alberta potential microrefugia for boreal bird communities in response to global warming?
Angelo Filicetti (PhD)	University of Alberta	Scott Nielsen	Recovery of woody vegetation on linear disturbances
Spencer Goyette (MSc)	University of Alberta	Toby Spribille	Fungal diversity associated with hair lichens in boreal and montane forests in Alberta
Jessica Grenke (MSc)	University of Alberta	JC Cahill	Grassland plant species and functional diversity responses to intensive grazing
Adriana Guerrero Chacón (PhD)	University of Saskatchewan	Jeffrey Lane	Intraspecific variation in the energetics of reproduction in Columbian ground squirrels ( <i>Urocitellus columbianus</i> )
Lee Hecker (PhD)	University of Alberta	Scott Nielsen and Mark Edwards	Trade-offs in foraging mechanisms influencing the habitat selection of wood bison on a multiple-use landscape
Jeremiah Kennedy (MSc)	University of Alberta	Erin Bayne	Using bioacoustic methods for assessment of predator avoidance behaviour and improved techniques for analyzing bioacoustic data
Zachary MacDonald (PhD)	University of Alberta	Felix Sperling	Does gene flow within a badlands butterfly, <i>Papilio machaon dodi</i> , follow eroding riverbank corridors?
Corey Smereka (MSc)	University of Alberta	Andrew Derocher	Survival of cougar kittens and maternal space use in west-central Alberta
Samantha Stachiw (MSc)	University of Alberta	Bill Shotyk	Trace elements in native berries growing in the vicinity of open pit mines and upgraders: distinguishing root uptake from aerial deposition of dusts
Nikki van Klaveren (MSc)	University of Alberta	Suzanne Tank	Assessing stream functional responses across a gradient of agricultural land use in Alberta
Colby Whelan (MSc)	University of Calgary	Leland Jackson	Occupancy and habitat preferences of <i>Tubifex tubifex</i> , alternate host of Whirling disease, in Banff National Park



## Auditor's Report



Photo: ACA, Kris Kendell



June 14, 2019  
Edmonton, Alberta

## INDEPENDENT AUDITOR'S REPORT

To the Members of Alberta Conservation Association

### Opinion

The summary financial statements, which comprise the summarized statement of financial position as at March 31, 2019, and the summary statement of operations are derived from the audited financial statements of Alberta Conservation Association for the year ended March 31, 2019. We expressed a qualified audit opinion on those financial statements in our report dated June 14, 2019.

In our opinion, the accompanying summarized financial statements are a fair summary of the audited financial statements, on the basis described in Note 1. However, the summary financial statements are subject to conditions equivalent to those of the audited financial statements of the Alberta Conservation Association for the year ended March 31, 2019, upon which we issued a qualified audit opinion.

### Summary Financial Statements

The summary financial statements do not contain all the disclosures required by *Canadian accounting standards for not-for-profit organizations*. Reading the summary financial statements and the auditors reports thereon, therefore, is not a substitute for reading the audited financial statements and the auditor's report thereon.

### The Audited Financial Statements and Our Report Thereon

We expressed a qualified audit opinion on the audited financial statements in our report dated June 14, 2019. The basis for our qualified opinion was that, in common with many charitable organizations, the Association derives some of its revenue from 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 contributions, excess of revenue over expenses, current assets and net assets.

### Management's Responsibility for the Summary Financial Statements

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

### Auditor's Responsibilities

Our responsibility is to express an opinion on whether the summary financial statements are a fair summary of the audited financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standards (CAS 810), *Engagements to Report on Summary Financial Statements*.

*Kingston Ross Pasnak LLP*

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**Kingston Ross Pasnak LLP**  
Chartered Professional Accountants



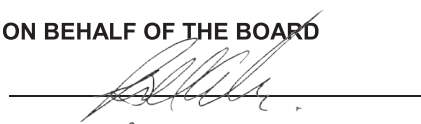
**ALBERTA CONSERVATION ASSOCIATION****Summarized Statement of Operations****Year Ended March 31, 2019**

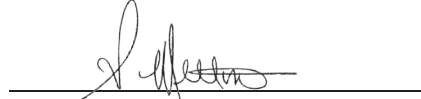
	2019	2018
<b>REVENUE</b>		
Levy, fees and assessments	\$ 13,492,496	\$ 14,422,950
Partner contributions	1,568,685	1,772,059
Investment income	478,841	250,693
Miscellaneous	336,159	170,357
Donations	103,763	83,818
Film sales	-	3,308
	<b>15,979,944</b>	<b>16,703,185</b>
<b>EXPENDITURES</b>		
Salaries and benefits	7,304,561	6,998,541
Grants	2,905,325	1,736,250
Materials and supplies	1,767,290	1,527,095
Contracted services	1,719,759	1,717,641
Rentals	496,704	587,766
Amortization	372,625	359,085
Office	280,597	289,849
Repairs and maintenance	260,261	281,491
Travel	245,098	354,936
Advertising	230,649	245,349
Fuel and lubricants	202,847	195,876
Landowner agreements	199,671	314,862
Telephone and communications	169,062	157,414
Insurance	157,269	165,904
Interest on loans	127,346	119,943
Utilities	99,197	77,605
Freight and postage	63,638	81,690
Hosting and conferences	51,109	41,795
Bank charges and interest	47,435	53,635
Fees, licenses and permits	26,649	22,406
Training and membership	26,269	34,543
Bad debts	41	9,107
	<b>16,753,402</b>	<b>15,372,783</b>
<b>(DEFICIENCY) EXCESS OF REVENUE OVER EXPENDITURES FROM OPERATIONS</b>	<b>(773,458)</b>	<b>1,330,402</b>
<b>OTHER REVENUES (EXPENDITURES)</b>		
Gain on disposal of property and equipment	653,571	10,717
Gain on sale of investments	241,760	132,870
Unrealized (loss) on investments	(466,273)	(111,777)
	<b>429,058</b>	<b>31,810</b>
<b>(DEFICIENCY) EXCESS OF REVENUE OVER EXPENDITURES</b>	<b>\$ (344,400)</b>	<b>\$ 1,362,212</b>

**ALBERTA CONSERVATION ASSOCIATION**  
**Summarized Statement of Financial Position**  
**March 31, 2019**

	2019	2018
<b>ASSETS</b>		
<b>CURRENT</b>		
Cash	\$ 714,416	\$ 1,516,606
Short term investments	10,132	17,402
Accounts receivable	476,755	267,224
Inventory	3,292	2,530
Goods and Services Tax recoverable	29,501	47,373
Prepaid expenses	70,493	308,849
	<b>1,304,589</b>	<b>2,159,984</b>
<b>LONG TERM INVESTMENTS</b>	<b>5,174,377</b>	<b>7,973,135</b>
<b>PROPERTY AND EQUIPMENT</b>	<b>33,099,703</b>	<b>30,586,965</b>
<b>FILM COLLECTION</b>	<b>1,549,577</b>	<b>1,549,577</b>
	<b>\$ 41,128,246</b>	<b>\$ 42,269,661</b>
<b>LIABILITIES AND NET ASSETS</b>		
<b>CURRENT</b>		
Bank indebtedness	\$ 355,000	\$ 730,000
Accounts payable and accrued liabilities	1,521,697	1,765,511
Source deductions payable	83,160	59,675
Deferred contributions	3,616,365	3,251,596
Deposits	13,946	31,697
Term loans	-	3,406,666
	<b>5,590,168</b>	<b>9,245,145</b>
<b>NET ASSETS</b>		
Invested in property and equipment	34,649,280	32,136,542
Internally restricted	243,349	476,811
Unrestricted	645,449	411,163
	<b>35,538,078</b>	<b>33,024,516</b>
	<b>\$ 41,128,246</b>	<b>\$ 42,269,661</b>

**ON BEHALF OF THE BOARD**

 Director

 Director

**BASIS OF PRESENTATION**

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



# Financial Highlights

## Summarized Financial Statements

In 2018/19, ACA received \$13,492,496 in levy revenue from hunting and angling licences, representing a decrease of \$930,454 from the previous year. This result demonstrates the impact of the unplanned, mid-year reduction in the cost of a seniors white-tailed deer hunting licence and seniors wildlife certificate (approximate \$430,000 reduction in levy revenue) implemented by AEP, and a decline of 26,400 in the number of resident fishing licences sold in the province (approximate \$480,000 levy reduction). The unexpected decline in levy forced ACA staff to make mid-year adjustments to projects in an attempt to reduce expenditures and shrink the resulting operational deficit.

Despite the significant financial challenges faced by ACA in 2018/19, our staff were still able to complete a wide range of projects and provide substantial leverage to the levy funds we received. Together, our Wildlife, Fisheries, Land Management, Communications, Grants, and RAP Programs had expenditures totalling \$13,528,620, plus an additional \$2,723,425 in land purchases and donations (for accounting purposes, these funds are recorded as assets, not direct operational expenditures). These numbers mean approximately 120.5% of the levy value collected went back into conserving Alberta's resources (expenses plus increase in habitat assets).

ACA received approximately \$5.21 million in non-levy revenue (including \$2,723,425 in land donations and funds for land purchase), representing 27.8% 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 \$18,703,369, means ACA was able to leverage levy dollars an additional 38.6% for conservation activities. This does not include increased dollar leveraging that has occurred as a result of grants provided to third-party conservation organizations.

## Expenditures by Program

Often stakeholders want to determine what funds are being directed towards their particular passion. When examining the Expenditures by Program, 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.

As per previous years, administration costs (7.3% of expenditures) continue to be well below the federal guideline for charitable organizations and includes areas such as Human Resources and regional and corporate administration.

Unlike previous years, 2018/19 ended in an unbudgeted deficit. Despite significant efforts by staff to reduce expenditures to shrink the budget shortfall, expenditures still exceed revenue by \$773,458.

## Revenue by Source

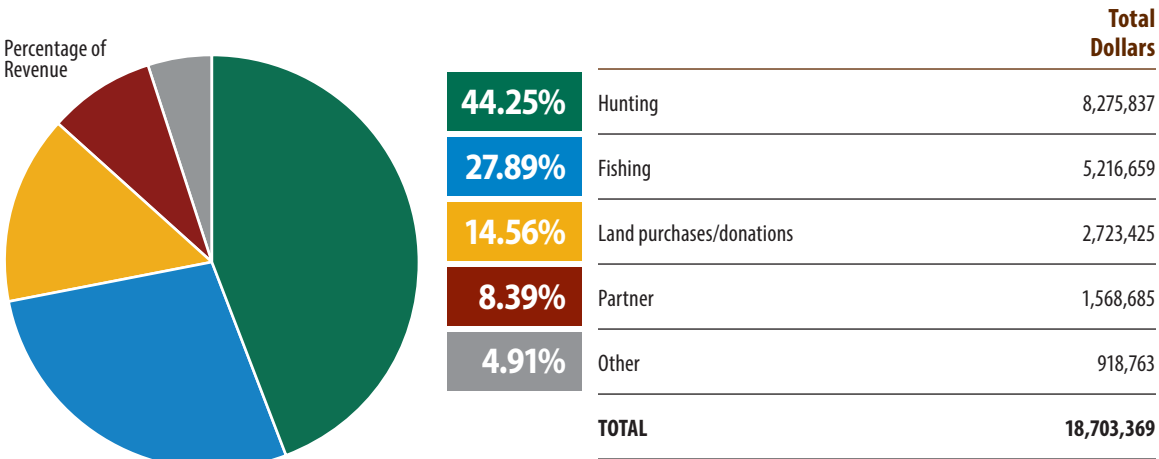
Approximately 27.8% of ACA's total budget was generated from non-levy sources (\$5,210,873). This increase from the previous year was largely attributable to a planned giving donation from one donor. Land donations and purchases added approximately 4,167 acres to ACA's conserved lands, for future generations to use, value, and enjoy.

## 2018/19 Overview

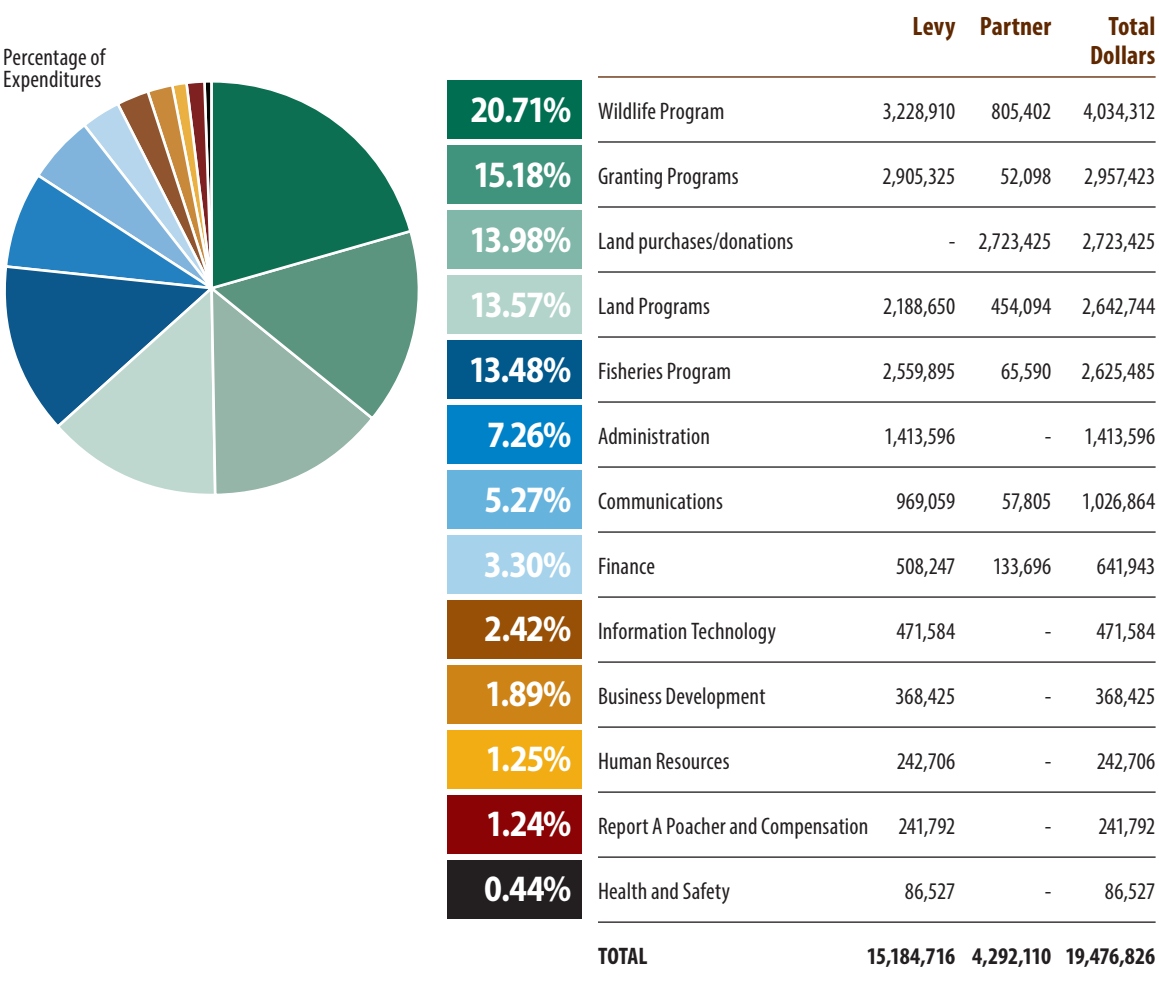
- Total revenue of \$18,703,369
- Received \$13,492,496 from levies on hunting and fishing licences.
- Received \$5.21 million in non-levy revenue.
- Applied 120.5% of levy value directly towards the conservation of Alberta's wildlife, fish, and habitats.
- Administration costs kept to 7.3% of total expenditures.
- Current year accounting deficit is \$(773,458), the majority of which relates to a decline in fish licence sales and a reduction in senior licence costs, implemented by AEP.

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



# Expenditures by Program







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 Ltd.  
AltaLink  
Aquality Environmental Consulting Ltd.  
Backroad Mapbooks  
Beretta/Benelli/Tikka/Sako  
Cabela's Canada  
Canadian Cattlemen's Association  
Canadian National Sportsmen's Shows  
Canadian Natural Resources Limited  
Canadian Tire – Cochrane  
Can West Legacy Inc.  
Capital Power  
CCI Inc.  
City of Fort Saskatchewan  
City of Medicine Hat  
ConocoPhillips Canada Resources Corp.  
County of Warner  
Covenant Health  
Cycle Works Motorsports  
Dow Chemical Canada ULC  
Edmonton Trout Fishing Club  
Heritage Inn Hotels  
Holiday Inn Calgary MacLeod Trail South  
HUVAN Construction  
Inter Pipeline Ltd.  
JobSite Workwear  
Let's Go Outdoors  
MacFarlane Pheasants Inc.  
Martin Motor Sports  
Matrix Solutions Inc.  
Municipal District of Greenview  
Mercer Peace River Pulp Ltd.  
Mountain View County  
Natura Drain Products  
Nutrien  
Saddle Hills County  
Shell Canada Limited  
Sinopec Canada Ltd.  
Suncor Energy  
Syncrude Canada Ltd.  
SysGen Solutions Group Ltd.  
Taber Irrigation District  
TeraGo Networks  
Thorhild County  
Town of Cochrane  
Town of Taber  
TransAlta Generation Partnership  
West Fraser Mills Ltd.  
WiBand Communications  
Wolf Midstream  
Yeti Roughrider Rentals Ltd.



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[reportapoacher.com](http://reportapoacher.com)