

Annual Report

2020/21



Alberta Conservation
Association

wildlife | fish | habitat

2020/21 Snapshot

- 98.90% of employees are satisfied with having a good work-life balance, a 3.70% increase from the previous year. This is very important to our organization as ACA has a culture that values work-life balance.
- Transitioned staff to fully remote working during COVID with limited disruption to workflow.
- COVID-19 significantly altered the overall health and safety environment for the entire year, and the associated regulations and restrictions of Alberta Health Services (AHS) often changed. Despite these challenges, ACA proactively implemented all AHS measures and incorporated best practices wherever possible, to meet or exceed provincial requirements so that ACA work was completed, and everyone's safety was maintained.
- Harvest Your Own advertising, contests, and website continued to promote hunting to the locavore culture as an alternative option to source food. This ongoing investment is important to maintain engagement and education of both non-consumers and consumers of wild game. Podcasts were added to the media mix.
- The Phillip J. Currie Dinosaur Museum conservation display on Alberta's Species at Risk was designed and installed; however it has not been opened to the public due to the pandemic.
- We built cooperative partnerships with the iHunter, University of Alberta, and Métis Nation of Alberta to collect wildlife data through the iHunter smartphone app. The primary purpose is to collect wildlife metrics (e.g., bull:cow and calf:cow ratios) to better understand population trends of hunted species. The app is targeted for limited release in fall 2021.
- With key support from Pheasant Forever we initiated habitat enhancements at SMRID's 156-acre Sauder reservoir site. We also installed 4 km of fencing to protect sensitive shoreline habitat along Murray Lake, as well as partnering with Lethbridge Fish and Game Association to install a protective fence at CPR lake.
- 627 hunters, including 80 novice hunters, participated in the annual Taber Pheasant Festival. Since we launched this event back in 2010, we have hosted over 10,000 hunter days, creating engagement and excitement in the upland lifestyle.
- 104,955 twenty-cm long trout (95,695 rainbow, 6,760 brook and 2,500 brown trout) were stocked into 64 ponds in regions of the province where trout angling opportunities are limited.
- Aeration facilitated re-establishment of recreational fishery at Hasse Lake, eight years after fish stocking was suspended due to poor water quality.
- Developed an assessment manual to classify fish barriers for their potential to protect native trout populations from invasive species.
- Participated in the Native Trout Collaborative, a multi-stakeholder group lead by AEP that implements conservation programming for recovery of native trout in Alberta. The collaborative is funded, in part, through a grant from the Fisheries and Oceans Canada (DFO) Canadian Nature Fund for Aquatic Species at Risk.
- Added four new conservation sites, three under the federal Ecological Gift Program, totalling 570 acres (230.7 hectares) with a land value of approximately \$1,745,000.
- Conserved 142 acres (57.5 ha) through new riparian habitat lease agreements and installed 10.7 km of new wildlife-friendly fencing.
- Enhanced habitat on 67 conservation sites, including restoration of a 72.6-ac (29.4-ha) wetland, planting 7,195 trees and shrubs, seeding 37 acres to native grass species, and planting 16 ac (6.5 ha) of food plots for upland game birds.

Annual Report 2020/21



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.

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ab-conservation.com/publications

Charitable Registration Number:
88994 6141 RR0001

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Cover (Project): ACA Fish Stocking Project
Description: Diana Rung stocking Rainbow trout at Boulder Lake Conservation Site
Photo: ACA, Charmaine Brunes



Board of Directors 2020/21

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

Ken Ambrock – Northern Board Liaison

Tom Bateman – Director Emeritus

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

Fred Calverley – Trout Unlimited Canada

Randy Collins – Alberta Fish & Game Association

Robert Grandjambe – Public At Large, Indigenous Board Liaison

Dr. Brian Joubert – Nature Alberta

Patrick Long – Director Emeritus

Matthew Mellon – Wild Sheep Foundation Alberta

Perry McCormick – Pheasants Forever

Chuck Priestley – Public At Large, Northeast Region

Travis Ripley – Minister's Representative

Jeana Schuurman – Alberta Professional Outfitters Society

Richard Stamp – Public At Large, Southern Region

Brent Watson – Alberta Bowhunters Association

Vacant – Public At Large, Academic Representative

Vacant – Public At Large, Business Representative

Vacant – Treaty 8

Dr. Todd Zimmerling – ACA Administration, President and CEO

Member Groups



About ACA

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

Delegated Roles and Responsibilities

In addition to being a 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 |
|----------------------|---|
| µg/L | micrograms per litre |
| 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 |
| AVAMP | Alberta Volunteer Amphibian Monitoring Program |
| BHCI | Boreal Habitat Conservation Initiative |
| 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 Management 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 |
| 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 |

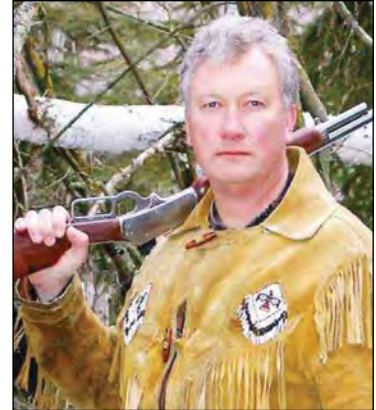


Project: Connectivity Project
Description: White Beardtongue at Chin Reservoir
Photo: ACA, Daniel Knop

Message from the Chairman

Greetings,

When I think about the roller coaster we have all endured over the past while, it is certainly a blessing to be able to return to some form of normalcy. The pandemic has hit humanity hard—there is no doubt—and we have all tried to cope the best way we could. For the conservation community in Alberta the impact on member groups and associations varied from bad to almost terminal. However, a silver lining has developed over the past 18 months. Albertans, for whatever reason, took to the outdoors in record numbers to unburden themselves and take solace with rod, gun, and trap. As a result, there was an increase in levy revenues available to Alberta Conservation Association (ACA); this created a budget surplus that allowed ACA to continue to operate and manage our conservation programs in wildlife, fisheries, and lands. For that, I really must commend the staff and management of all our offices in the field as they really stepped up and demonstrated their commitment to our core operations despite difficult circumstances.



In addition, our ACA Conservation, Community, and Education Grant Program was able to fund a full slate of projects with special provisions that allowed recipients affected by the COVID-19 pandemic to extend or differ projects to ensure the best chance of success. With the reduced capacity of post-secondary institutions to fund conservation research, the ACA Research Grants Program, the Grants in Biodiversity Program, and the ACA Chair in Fisheries and Wildlife played strong roles to continue supporting research opportunities at the academic level.

Over the past 18 months, one of the real hardships was that health guidelines prevented the conservation community from hosting the usual array of family events, fundraisers, and gatherings that really are the glue for our community and the lifeblood of many organizations. With so many Albertans isolated and restricted with safety measures and guidelines, I really must give a shout out to Don Myhre and the Communications Program at ACA. They really upped their game and brought a continual stream of information updates, program opportunities, conservation interest stories, and the operations of ACA staff in the field directly to Albertans through the web and social media. I think it did a lot to help us stay connected and engaged through some hard times. The same can be said for Michael Short and his *Let's Go Outdoors* series of vignettes that presented stories of human interest and conservation issues with integrity and optimism.

Finally, I'd like to extend congratulations to Todd Zimmerling and his administrative/management team who showed outstanding leadership over the past year and went the extra mile to provide assistance to groups and associations in the outdoor community that were in need. They have my admiration and respect. A final thanks to the ACA Board of Directors who did not hesitate to act when action was needed, and whose continued thoughtful discourse and steady hands certainly make my job easier and serve the conservation community very, very well—thank you.

I think that even though our world may never quite be the same, at this point at least we can all have a collective sigh of relief and turn our eyes to the future with renewed optimism.

Warm regards,

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

Bill Abercrombie, ACA Board Chair



President and CEO's Message

This past fiscal year will go down in history as the year of the COVID-19 pandemic. It was a lost year for many, and a year of massive change for all. At ACA, we started out 2020 like everyone else, not knowing how things were going to play out, but we were certain we would be through it by the fall (oh, how wrong we were). Unlike many of our member groups, corporate partners and other conservation partners, ACA was very fortunate with respect to revenue. Social distancing restrictions resulted in a huge number of families deciding to start or re-engage in both fishing and hunting and, as such, we saw a completely unexpected year-over-year revenue increase.

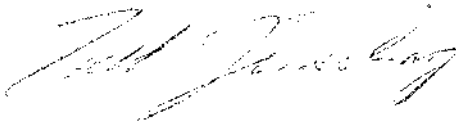
While we did not have to worry about revenue, we did worry about all the smaller conservation organizations out there that have supported ACA throughout the years. Recognizing the impending crisis that many groups were going to face in 2020, ACA's Board of Directors approved a one-time COVID Relief Fund grant that we made available to groups that had received grant funds from ACA in the past. In addition, we reached out to groups that had been granted ACA funds in 2020 and allowed those groups to use a portion of their grants to aid in ongoing operations. We know we could not solve every groups' problems, but we truly hope that the extra funds helped some.

Ensuring the health and safety of our own staff meant a lot of changes to our normal work practices. Staff worked from home for most of the year. Only one person per truck was allowed for fieldwork. Field camps were prohibited, hotel stays were discouraged, and many projects were significantly curtailed or cancelled altogether. However, despite all the turmoil, ACA staff performed admirably. We stayed safe, with no known cases of COVID infecting ACA staff because of work-related exposure.

As you read through this "year of COVID" annual report, please have a look at the wide variety of projects completed this year. Although our work was curtailed, I believe ACA staff went above and beyond expectations to complete the level of work that we did under very stressful and trying times. If after reading through this report you have more questions, please do not hesitate to contact me at any time.

Please continue to enjoy Alberta's great outdoors in a safe and respectful manner. I hope to see you in person at various events in the fall and winter of 2021.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Zimmerling", written in a cursive style.

Todd Zimmerling

President and CEO

Alberta Conservation Association

Project: Conservation Site Management
Description: Installing aeration fencing at Birch Lake Conservation Site
Photo: ACA, Andrew Clough

Our People. Our Culture.

Health and Safety

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

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

2020/21 Overview

- In 2020/2021, there were 39 incidents with a rate of 25.32 incidents per 100,000 payroll hours.
- Most incidents consisted of near misses and non-injuries.
- The results of the 2020/2021 Employee Survey were positive; 93% of ACA staff are supportive of the Health and Safety Program and documentation. ACA staff are supportive of the Health and Safety Committee's practices. The committee continues to engage with staff to improve workplace health and safety.
- COVID-19 significantly altered the overall health and safety environment for the entire year, and the associated regulations and restrictions of Alberta Health Services (AHS) often changed. Despite these challenges, ACA proactively implemented all AHS measures and incorporated best practices wherever possible, to meet or exceed provincial requirements so that ACA work was completed, and everyone's safety was maintained.

Human Resources

ACA completes many conservation projects over considerable territory each year, thanks in large part to our 80 permanent staff and numerous seasonal staff. It is not just about hiring talent; it is 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

Kevin Fitzsimmons, Marco Fontana, John Hallet, Roy Schmelzeisen

15 Years of Service

Mandy Couve de Murville, Amanda Rezansoff, Mike Rodtka

10 Years of Service

Layne Seward, Mike Verhage

5 Years of Service

Charmaine Brunes, Logan Redman

2020/21 Overview

Employee Survey

- 98.75% of employees agree they are satisfied with ACA as a place to work, a 1.25% increase from the previous year —a tremendous accomplishment.
- 98.90% of employees are satisfied with having a good work-life balance, a 3.70% increase from the previous year. This is very important to our organization as ACA has a culture that values work-life balance.
- 88.90% are satisfied with ACA's benefit plan, a 6.20% increase from the previous year. ACA switched benefit providers to ensure that we were getting the best value for our benefits.
- 80.20% are satisfied with the whole compensation package available to them. This figure stayed the same as per the previous year.

Health and Wellness

A strong emphasis was put on employee mental health and wellness this year because of the pandemic and the increased level of stress and anxiety it has brought with it. ACA's Employee Assistance Program saw an increase in utilization which is an indication that employees are reaching out. ACA's top priority has always been its employees and we have been there to support them through these unprecedented times.

Employee Retention

Staff turnover was at 6.25%, a 2.00% decrease from the previous year.

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.

We filled six permanent positions, in a time where we are all working remotely; all new hires were orientated online.

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.

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 supporting 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-term plan for technology. Remote work and mobile accessibility were a top priority this year, especially with the need for staff to work remotely in COVID times. We continued with improvements to online tools, budgeting systems, resource management and cloud technology. 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.

Upgrading to new server hardware was a priority this year. The project was started in March 2021 and is scheduled to be completed this summer. Our technology partner continues to work collaboratively with us by providing 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.

2020/21 Overview

- Transitioned staff to fully remote working during COVID with limited disruption to workflow.
- Continued improving staff remote collaboration by leveraging existing software.
- 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. 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.
- Upgrade of server hardware in progress, schedule to be completed in the summer.



Business Development

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

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

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



Project (above): Taber Pheasant Festival

Description: Happy participants at the novice shoot

Photo: ACA, Ken Kranrod

2020/21 Overview

- We are pleased to recognize 12 companies that are either new CPIC or have renewed/increased their ongoing support for ACA programs and projects:
 - City of Beaumont
 - City of Fort Saskatchewan
 - City of Lacombe
 - Clear Hills County
 - CN Rail
 - Give Back Contracting
 - Heritage Inn (Taber)
 - High Caliber Products
 - Ovintiv
 - Town of High River
 - Toyota on the Trail
 - Tree Time Services

Project (left): Species Habitat Assessments and Ranching Partnership

Description: Large bat house provides an alternative roosting site for bats displaced from surrounding residential buildings. Constructed by HUVAN Construction

Photo: Corey Rasmussen



Our Conservation Programs

Information, Education, and Communications Program

Our Communications Resource Program's primary role is keeping conservation and our work in Fisheries, Wildlife, and Land Management recognized and valued within Albertans' diverse lifestyles, corporate sectors, and communities. We engage stakeholders through multimedia platforms and events, develop hunter and angler retention and recruitment initiatives, and pursue opportunities to strengthen partnerships in conservation.

2020/21 Overview

- 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 2,596 information packages were sent to youth who completed the hunter education course. A total of 167 youth returned the reimbursement form.
- In 2020/21, ACA had over 30,000 followers on Facebook, 6,851 on Twitter, 1,631 on LinkedIn, 5,475 on Instagram, 631 YouTube subscribers, and 66,714 subscribers to our e-newsletter. Social media played a significant role in our communications during the pandemic.
- 40,000 copies of the *Alberta Discover Guide* were delivered in January 2020, featuring over 780 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 advertising, contests, and website continued to promote hunting to the locavore culture as an alternative option to source food. This ongoing investment is important to maintain engagement and education of both non-consumers and consumers of wild game. Podcasts were added to the media mix.
- Over 13,000 subscribers received *Conservation Magazine* thanks to the combined efforts of writers, editors, biologists and designers. This free publication is produced biannually and highlights ACA projects and topics about conservation.
- Supported the Wildlife, Fisheries, and Land Management Resource Programs and Business Development with visual communications, on-demand design, and media services such as regional advertising, site signage, and social media.
- In 2020/21, Kids Can Catch events across Alberta welcomed 200 adults and children and 18 organizations, partners, and sponsors. During this year, COVID-19 restrictions prevented many events from happening, but allowed those who did host events to become creative with ways to bring audiences in safely.
- In 2020/21, views of the wildlife camera section of our website accounted for 26% of web traffic and the species at risk contest quiz reached 37,816 people and had 578 participants.
- The Phillip J. Currie Dinosaur Museum conservation display on Alberta's Species at Risk was designed and installed; however it has not been opened to the public due to the pandemic.

Project: Kids Can Catch
Description: Drawings submitted
for Kids Can Catch prize contest

Advertising and Marketing

Advertising is key to achieving a number of long-term goals within the *Strategic Business Plan*, primarily to increase public recognition of ACA's brand; to increase conservation awareness by creating positive profiles of hunting, fishing, and trapping; and to develop corporate partnerships. Project or event promotional advertising engages various audience targets and supports ACA's public brand recognition. Our "It's an Alberta Thing" campaign is a direct, non-government and contemporary approach for establishing relationships with stakeholders. This is significant for keeping conservation valued within today's varied priorities and cultures.

Advertising supports several ACA programs, projects, and events including Report A Poacher (RAP), *Alberta Discover Guide*, ACA Fish Stocking project, Taber Pheasant Festival, peregrine cameras, Corporate Partners in Conservation Program, ACA/4-H Pheasant Raise and Release Program, and Kids Can Catch Program.

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. 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. Advertising is coordinated and produced for free for ACA member groups. Editorial content is developed and written in-house. The Communications Program coordinates print production and updates and maintains the

subscription database. For 2020/21, we printed 35,000 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 was created so users of the *Alberta Discover Guide* could have another way to access information about conservation sites in pursuit of hunting or angling opportunities. The app also provides ACA with a platform for advertising content from ACA's stakeholders and other organizations and businesses focused on fishing, hunting, and conservation. A new feature was added which provides users the ability to favourite a site so it can be easily referenced in future sessions. In 2020/2021, around 2,425 Android users and 3,937 iOS users downloaded the app.

Annual Operating Plan

Our *Annual Operating Plan* (AOP) informs Albertans, our stakeholders, and partners about the projects we undertake within the current fiscal year as well as how revenue is directed to our resource program areas. Our board members approved the 2021/22 AOP prior to it being posted on our website at the beginning of the fiscal year.

Annual Report

Our *Annual Report* informs our stakeholders how ACA has used funding, details the conservation outcomes achieved, and documents how ACA has performed relative to its stated goals. Our board members received and reviewed the 2019/20 *Annual Report* for approval, and it was posted on our website in September 2020.

Conservation Magazine

Our *Conservation Magazine* is a free, biannual publication that highlights the projects and successes we and our member groups experience in the province. The Communications Program produces the magazine. It covers topical conservation issues, and helps bridge understanding between the hunting and angling communities as well as the larger conservation community. The magazine also helps increase our profile across Alberta and is used as a tool by some of the following program areas to reach out to potential donors and partners: Fisheries, Wildlife, Land Management, and Business Development. We mail the magazine to our subscribers and distribute it at trade shows and events. It is also available online: www.ab-conservation.com → Our Work → Publications → *Conservation Magazine*.

In 2020/21, we printed 2 issues for a total of 30,000 copies featuring articles about the important balance between conservation and agriculture, the science behind fish stocking, and partnerships in conservation with the oil and gas sector. The total number of subscribers now exceeds 13,000.

Partnerships (advertising)

Alberta Environment and Parks, Ducks Unlimited Canada, Nature Alberta, Nature Conservancy Canada, Shell Canada Limited

Currie Museum/Conservation Education Room

The Currie Museum's Conservation Education Room is an opportunity to provide education outreach within an existing tourist and education programming destination. ACA has signed a five-year MOU to lease unoccupied space and provide exhibits annually that profile contemporary conservation challenges. In its second year, ACA secured exhibit partnerships and developed free-standing displays and custom digital production on Alberta's species at risk. The



Project: Currie Museum/Conservation Education Room
Description: Species at risk display
Photo: ACA, Colin Eyo

COVID-19 pandemic has meant the closure of the display for most of our third year.

Partnerships

Phillip J. Currie Dinosaur Museum, Royal Alberta Museum, Alberta Hunter Education Instructors' Association, Fish and Wildlife, Alberta Environment and Parks

Emerging Issues

The Information, Education, and Communications Program must be able to respond to communications needs that arise as ACA projects, partnerships, opportunities, or crises develop. The Communications Program provide services in design, copywriting, photography, editing, print production, and digital media to ACA's executive, Business Development, and Human Resources teams, plus our member groups. On-demand requests for communications support include, but are not limited to, media releases, aeration updates (social and digital media), pheasant release site updates (social and digital media), drone footage documentation, and member group website support.

Final Report Series

ACA's 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 coordinating the editing, proofing, and formatting of these reports and making sure they are available to the public and our stakeholders and partners through our website. One Wildlife report and one Fisheries report were completed for 2020/21.

Grants Fund Annual Report

The aim of the *Grants Fund Annual Report* is to document the grants 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 funnels over \$1 million into conservation work in Alberta through the grants. For our 2020/21 grants round, we have received 2,379 grant applications, of which 1,360 projects have

been awarded grants. To date, approximately \$20.6 million has been granted to conservation-related projects throughout the province.

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—or people interested in the idea of hunting—with timely and relevant content that will help them take actionable steps and work towards success in the field and kitchen.

In 2020/21, Harvest Your Own increased its social media audience to 3,231 (+246) Facebook followers and 1,013 (+317) Instagram followers. The Harvest Your Podcast, launched in July 2020, currently has 2,433 downloads.



Project: Waterfowl Warmup
Description: Participant receiving mentorship while clay shooting
Photo: ACA, Charmaine Brunes

Internal Communications Needs

The 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, the Communications Program 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 2020, Kids Can Catch events across Alberta welcomed 200 adults and children and 18 organizations, partners, and sponsors. During this year, COVID-19 restrictions prevented many events from happening, but allowed those who did host events to become creative with ways to bring audiences in safely.

Partnerships

Program sponsors:

AltaLink, Cabela's Bass Pro Shops Outdoor Fund, Dow Chemical Canada, Wolf Midstream

Event organizers, partners, and sponsors:

ACA, Cabela's, CN, CN Police Service, County of Grande Prairie, EQUS, Foster Park Brokers, Lake Chaparral Residents Association, MNP – Taber, Taber Co-op, Taber Dairy Queen, Taber Fish & Game Association, Taber McDonald's, Town of Taber, TransAlta

On-site Signage (formerly 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. The Information, Education, and Communications Program works with our Land Management, Fisheries, Wildlife, and Report A Poacher programs to produce signs 1) for conservation sites and their boundaries, 2) to support participating landowners, and 3) for fisheries access sites, pheasant release sites, recreational opportunity enhancement sites, thin-ice areas (warnings), and interpretive trails.

In 2020/21, we produced seven conservation site signs, one ACA fish stocking sign, four riparian conservation site signs, five lake aeration site signs, and various other signage.

Other Publications

Through education outreach activities and partnerships, much needed resources can be developed for the end-user, and collaborative conservation relationships supported.

Partnerships

Environment and Climate Change Canada, MULTISAR

Social Media

Social media allows ACA to connect with, inform, and grow audiences. By using Facebook, Twitter, Instagram, Constant Contact, YouTube, and now LinkedIn, we can inform the public and our followers about ACA projects, support our member groups, recognize and thank Corporate Partners in Conservation, promote upcoming events, and respond to questions and comments about conservation in Alberta.

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 a feature article in *Conservation Magazine*, a post on social media, or a design for a conservation site sign. In addition, ACA provides member group support in their media platforms where needed and as resources allow.

Waterfowl Warmup

Waterfowl Warmup is a fundraiser in support of the Report A Poacher Program. Proceeds from the event support efforts to educate the public about responsible hunting and angling and the negative impacts of poaching. This year we had to limit the number of participants at the event due to COVID-19 regulation in order to keep everyone safe. Sixteen teams participated in Waterfowl Warmup. 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 each received an individual trophy and prize bag to take home.

Project sponsor

Yeti Roughrider Rentals Ltd.

Partnerships

American Bridge Canada, Bass Pro Shops, Beaverhill Sporting Clays, Brad Fenson Outdoors, Canis Outdoors, Dentons, Direct Horizontal Drilling, Fisher Marketing/Stoeger Canada (Benelli, Beretta & Franchi), Foster Park Brokers, Kingston Ross Pasnak, Martin Motor Sports, Maverick Inspection Ltd., Safe & Sound Custom Hearing Solutions, Winchester & Browning

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, and one of the long-term goals of ACA's 10-year *Strategic Business Plan*.

In 2020/21, we added an angler resource including an interactive map of ACA and the Government of Alberta stocked lakes throughout the province and an updated "Learn to Fish" section featuring updated design and content.

In 2020/21, the ACA website achieved approximately 686,723 page views, with the average user spending 1:46 minutes per visit.

Wildlife Cameras

The peregrine and ferruginous hawk cameras provide a bird's-eye view into the daily lives of each species as they fight for mates and territory, catch food, and raise their young. In 2020/21, ACA ran three peregrine cameras at Bell Tower, Genesee Power Plant, and

Nutrien. We live-streamed the video to our website. The project also includes two ferruginous hawk nests monitored by trail cameras. The still images were reviewed and posted on our website. Also, an online species at risk contest quiz was promoted alongside the ferruginous hawk media. Both the peregrine and ferruginous hawk cameras draw attention to these species, other species at risk initiatives, and resources available from AEP. In 2020/21, views of the wildlife camera section of our website accounted for 26% of web traffic and the species at risk contest quiz reached 37,816 people and had 578 participants.

Partnerships

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

WIN Card Reimbursements

In partnership with Hunting for Tomorrow and Alberta Hunter Education Instructors' Association, the WIN Card Reimbursement program supports the recruitment of young people into hunting. The project gives ACA and our member groups a way to connect with new hunters when they purchase their first WIN card. In 2020/21, over 2,596 information packages were sent to youths who had completed the hunter education course. A total of 167 youths returned the reimbursement form.

Partnerships

Alberta Hunter Education Instructors' Association, Hunting for Tomorrow



Project: MULTISAR – South Saskatchewan
Description: ACA staff conducting bird survey
Photo: ACA, Brad Downey

Wildlife Program

We responded to COVID restrictions by tweaking field activities so our biologists could work within reasonable daily driving distance from home. This saw us shifting the sites for some of our field work although we completed over 90% of the activities that were planned. The restrictions curtailed our highly valued face-to-face interactions with landowners and partners but similar to everyone else we adapted with greater use of video conferencing.

Our habitat-focused work is delivered through a few key projects and 2020 saw us placing greater emphasis on developing these relationships in central and northwestern Alberta. We engage with producers through the Species Habitat Assessments and Ranching Partnership (SHARP) project and help them develop long-term objectives for managing their land base while balancing the habitat needs of wildlife with their operation. This approach matches closely with that taken through the MULTISAR and Connectivity projects which primarily focus on lands in southern Alberta. Altogether we are now working with many dozens of landowners annually having a positive impact on more than half a million acres.

Important wildlife information can flow from many sources, and we continue to seek ways of gathering this insight from a broad range of Alberta residents. Shortly after the fall hunting season we reached out to landowners and asked their perspective on allowing others to access their land to hunt. We also formed a collaborative partnership with iHunter, University of Alberta, and Métis Nation of Alberta to develop a user-friendly dashboard on the iHunter app. This will enable users to opt in to contribute wildlife sightings, which in turn will

contribute to estimating important metrics that will be used to manage these populations. We also continued work with trappers to translate their harvest efforts into estimates of furbearer trends. Trappers, hunters, and landowners gain meaningful insight through their own activities and our challenge is to find ways to work with them to translate this knowledge into patterns that can be used to guide wildlife management.

Our projects that are designed to encourage hunter participation and recruitment continue to foster strong support. Hunter participation across the province was on the rise again in 2020. While the social side of the Taber Pheasant Festival was curtailed due to COVID, all the hunts went ahead as planned with more than 620 people participating.

2020/21 Highlights

- Just after the hunting season in fall 2020 we asked landowners for their perspective on allowing others to access their land to hunt. We had tremendous uptake with more than 2,000 landowners sending a reply and we look forward to analyzing the data and releasing the results in 2021.
- We built cooperative partnerships with the iHunter, University of Alberta, and Métis Nation of Alberta to collect wildlife data through the iHunter smartphone app. The primary purpose is to collect wildlife metrics (e.g., bull:cow and calf:cow ratios) to better understand population trends of hunted species. The app is targeted for limited release in fall 2021.
- The pheasant release program continues to be very popular with 42 sites creating hunting opportunities from Peace River to south of Medicine Hat. In addition to regular ring-necked pheasants, we also trialed release of melanistic ring-necked pheasants as well as grey partridge.
- We partnered with five Fish & Game clubs south of the Red Deer River who played key roles in the release of pheasants at 23 southern public sites through the season.
- We continued working with St. Mary River Irrigation District (SMRID) to assess and recommend strategies to improve wildlife habitat and water quality across their system. We focused on four reservoirs in 2020 completing more than 100 range and riparian assessments among four catchments including Chin Reservoir, Grassy Lake, Eight Mile Reservoir, and CPR Reservoir.
- With key support from Pheasant Forever we initiated habitat enhancements at SMRID's 156-acre Sauder reservoir site. We also installed 4 km of fencing to protect sensitive shoreline habitat along Murray Lake, as well as partnering with Lethbridge Fish and Game Association to install a protective fence at CPR lake.
- 627 hunters, including 80 novice hunters, participated in the annual Taber Pheasant Festival. Since we launched this event back in 2010, we have hosted more than 7,000 hunter days creating engagement and excitement in the upland lifestyle.
- Eighty-four 4-H members participated in the seventh year of the pheasant rearing program. A cornerstone of this effort is engaging kids and helping them to understand the habitat needs of wildlife.
- We published a paper on pronghorn survival in *The Journal of Wildlife Management* (Jones et al. 2020b) and submitted a second to *Movement Ecology* that examined the selection pattern of pronghorn in relation to fences and roads (Jones et al. 2021a).
- We compared the ability of different species to move beyond a fence and found that coyotes and mule deer had the highest mean fence permeability index (successful attempts / total attempts) while pronghorn and elk had the lowest.
- Alberta Trappers Association (ATA) and over 200 trappers contributed logbook journals helping to track furbearer trends. Trappers spent an average of >400h on their trapline over the year and harvested 0.91 marten for every 100 trap nights. The majority of these were male with a ratio of 2.8:1 compared to female.

ACA/4-H Pheasant Raise and Release Program

Pheasants were first introduced into Alberta in 1908 by a group of recreational enthusiasts to provide enhanced upland hunting opportunities. Now, more than 100 years later, the tradition continues as we partner with stakeholders to improve the future of upland hunting 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. Pheasants can adapt to areas predominately used for cropland, provided that a suite of habitat features are also available.

In 2014, we initiated a new partnership with 4-H Alberta, offering them the opportunity to raise pheasants from day-old chicks to adult birds for release. This year, we had 84 4-H members who successfully raised and released 2,628 pheasants (mostly hens) into suitable upland habitat. In central and northern Alberta where pheasant survival is limited due to Alberta's cold winters, 4-H members also released 500 roosters onto three designated ACA-titled conservation sites to provide a hunting opportunity for hunters. In addition to the 4-H members, other interest groups including private landowners, Fish & Game Associations, and Boy Scout 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.

Partnerships

4-H Alberta, Alberta Environment and Parks, ConocoPhillips Canada, Lethbridge Fish & Game Association, MacFarlane Pheasants, Private donations

Alberta Volunteer Amphibian Monitoring Program

Volunteers play a crucial role in wildlife conservation efforts through their involvement in biodiversity-

related citizen science projects. The Alberta Volunteer Amphibian Monitoring Program (AVAMP) invites people to engage with nature and to provide unique information on amphibian and reptile distribution and life-cycle events. To streamline the way AVAMP participants make and report their observations, we are partnering with Alberta Biodiversity Monitoring Institute (ABMI) and trialling their free NatureLynx mobile application. The NatureLynx app allows AVAMP participants to complete data entry in the field. Data submissions are accessible by ACA and are organized by the app in an AVAMP community group established in 2019. In 2020/21, 58 participants from AVAMP submitted 113 amphibian and 30 reptile observations, including locations of eight snake hibernacula (dens) directly through AVAMP. An additional ten amphibian records were submitted through the AVAMP Group on ABMI's NatureLynx platform. Combined, these data represented 90% of the amphibian and 33% of the reptile species native to the province. Setting appropriate conservation measures for amphibians and reptiles requires a good understanding of species distributions and timing of life-cycle events, which are often based on relatively few observation records. AVAMP is an example of how ACA can work with a network of enthusiastic volunteers and partners to fill these data gaps and positively impact conservation.

Partnerships

Alberta Biodiversity Monitoring Institute, Alberta Environment and Parks, Volunteer participants

ABHuntLog

In Alberta, aerial surveys have historically been the primary method used to estimate the population size, trend, distribution, and herd composition for ungulates. As such, they have been an important source of data for setting hunting allocations but are intermittent and are prohibitively expensive. We have partnered with University of Alberta, Métis Nation

of Alberta, and iHunter to collect data for game species from hunters using a survey (ABHuntLog) in the iHunter app. We will beta test the survey during the spring and fall 2021 hunting seasons, which will also include a hunter economics component that is led by University of Alberta. The survey enables users to input their sightings of game species, including moose, mule deer, white-tailed deer, elk, pronghorn, carnivores, and gamebirds. In the future, outfitters and hunters will be able to use their personal dashboard within iHunter to retrieve a summary of the data they submitted for evaluating their hunts. Hunters may also choose to use this information to fill out their mandatory reporting requirements for the provincial government. We will write an annual summary of these wildlife data focusing particularly on adult:juvenile and male:female ratios that can be used by hunters to plan their next hunt, and by AEP to assist them in the management of game species. Submissions by individuals will be strictly private and not released; all information will be summarized up to the Wildlife Management Unit (WMU) or at a larger spatial extent.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Professional Outfitters Society, iHunter, University of Alberta, Métis Nation of Alberta

Connectivity Project

The Connectivity Project addresses habitat fragmentation in southern Alberta by working collaboratively with irrigation districts, municipalities, conservation groups, recreationists, and agricultural producers to improve water quality and re-establish or enhance existing wildlife habitat. Doing so will benefit agriculture, hunters, anglers, and other outdoor enthusiasts. 2020 was the third year of the project and the second year of extensive data collection around four SMRID reservoirs: Chin Reservoir, Grassy Lake, Eight Mile Reservoir, and CPR Reservoir. Eleven lotic riparian health assessments, 63 lentic riparian

health assessments, 46 range health assessments, six tame pasture health assessments, and four visual range assessments were completed for use in the second Habitat Conservation Strategy for SMRID. In all, 566 incidental wildlife observations were made across the four reservoirs, 23% of which were species at risk. These data provide a baseline assessment of the plant communities around each reservoir and the wildlife species utilizing them. It also identifies priority sites where habitat enhancements and/or grazing management recommendations will improve ecosystem service provision (carbon sequestration, water filtration and nutrient retention, wildlife habitat and biodiversity). The recommendations put forward in the report are developed to improve water quality and habitat but will also increase the resilience of irrigation district operations and grassland ecosystems.

Partnerships

Alberta Environment and Parks,

Alberta Fish & Game Association (Zone 1), Canadian Agricultural Partnership, Lethbridge Fish and Game Association, Pheasants Forever, Rogers Sugar, Southern Alberta Bowhunters Association, St. Mary River Irrigation District, Taber Irrigation District

Enchant Project – Strong Farmlands. Thriving Habitat.

We have a long-term working relationship with a modern farm to evaluate approaches for re-establishing vibrant upland game bird densities while maintaining a profitable farming operation. We also monitor a range of non-target species to assess how these treatments impact biodiversity (amphibians and songbirds). We trial enhancements that focus on improving habitat features important for nesting, brood rearing, and winter survival of pheasants and grey partridge. This includes approaches within the crop, the juxtaposition of crop

types and rotation, harvest method, field edge improvements, water management and wetlands, and trialling seed mixes important for chick survival. In 2020, we planted more of the perennial seed blend that was trialled in 2019. The blend is designed to be self-sustaining and provide vertical structure and flowering plants. We planted Roundup Ready Corn to provide escape and thermal cover but to also help control unwanted weeds. The landowner planted 3.2 km of additional shrub rows (3,200 shrubs) to increase territorial space on the farm. We planted approximately 1,000 willow stakes around five wetlands. The density of partridge pairs decreased from 113 pairs (19.1 pairs/km²) in spring 2019 to 79 pairs (13.3 pairs/km²) in spring 2020. Autumn partridge totals also had a decrease from 288 in October 2019 to 172 in 2020.

Partnerships

Alberta Environment and Parks, Haggins Family, Stamp Farms



Project: Enchant Project – Strong Farmlands. Thriving Habitat.
Description: White-tailed deer
Photo: ACA, Samuel Vriend

Project: MULTISAR – South Saskatchewan
Description: ACA staff conducting snake hibernacula survey
Photo: ACA, Brad Downey



Habitat Legacy Partnership

Upland game birds are valued for their showy colours, breeding displays, and long history in the hunting tradition of Alberta. Farming practices around the world have changed significantly over the past 50 years, with an ever-increasing economic pressure to maximize yield. Some of these practices have altered the resources important for pheasants, grey partridge, and sharp-tailed grouse, making their outcomes less stable. The Habitat Legacy Partnership works collaboratively with farmers, ranchers, and conservation groups to improve habitat and hunting opportunity for upland game birds. We meet with private landowners to better understand their farming operations and discuss habitat needs. We work together to identify and map habitat enhancements that can be dovetailed into their long-term

farm plans. We also engage the public in a variety of ways to raise the profile of upland game birds and highlight strategies to benefit pheasants and grey partridge on a working landscape. Public engagement activities include presentations at landowner advisory workshops, stakeholder meetings, novice shoots, public presentations, and distribution of information booklets. In 2020, 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. Through the Habitat Legacy Partnership project, we are gaining recognition as being a partner for private landowners to collaborate with for habitat development.

Partnerships

Alberta Environment and Parks, Landowners

Landowner Hunting Access Survey

An online survey was used to collect information from landowners about their perspectives on allowing hunting access on their private land. The study design was developed in partnership with social scientists at the universities of Alberta and Waterloo. Agriculture industry groups helped to refine survey questions and promoted the survey through their publications and social media. The survey remains open at the time of writing (Feb 21), although more than 600 surveys have been completed to date from across the province. An early look at these results suggests that, on average, the number of hunters seeking access has increased in recent years. However, nine times as many landowners said that they have become less likely to grant permission during that time than those who said that they have become more likely to grant

permission. Hunters who were family, friends, or neighbours of the landowner, or who had built a relationship with them over time, were most likely to be granted hunting permission. Few landowners indicated that they would be willing to grant permission to someone without knowing much about them. So, while many landowners do allow hunting by others, these permissions may be less forthcoming in recent years. We will complete analyzing these data in spring 2021 and follow up with a report that refines our interpretation of the results. For now, the early data suggests that those seeking access to private land would do well to develop a connection with landowners as a first step.

Partnerships

Alberta Beef Producers, Alberta Crop Sector Working Group, Alberta Environment and Parks, Alberta Professional Outfitters Society, Alberta Wheat & Barley Commissions, Creative Motion Publishing, Glacier FarmMedia, Minister's Special Licence Grant, University of Alberta, University of Waterloo, Western Stock Growers' Association

MULTISAR – West

While it is true that the majority of species at risk are found in the Grasslands Natural Region of southern Alberta, the Foothills, Parkland, and Rocky Mountain Natural Regions of southwest Alberta boast some of the province's most ecologically diverse landscapes and provide habitat for many species at risk (SAR) including the little brown bat, bull trout, grizzly bear, limber pine, western wood pewee, and westslope cutthroat trout (WSCT). Best management practices and habitat enhancements occurring on farmlands within this area have enabled many of these species to persist, but there are also many opportunities to further enhance habitat quality for these species while mutually benefiting agricultural operations.

In 2020, we collaborated with one private landowner to complete a Habitat Conservation Strategy on a ranch totalling approximately 4,312 acres. We identified 110 different wildlife species on this ranch, including 27 that are considered *Endangered*, *Threatened*, or *Species of Special Concern*. In total, we had 908 observations of wildlife species and conducted 84 range habitat assessments, five flowing water health inventories, four freshwater assessments, and three visual riparian plots. We partnered with three cattle producers to implement seven habitat enhancements, including the implementation of alternate watering systems for cattle, and planting 2,040 riparian shrubs along a tributary to the Oldman River which supports populations of bull trout and westslope cutthroat trout. Building on long-term landowner relationships that ACA has established through previous projects have enabled us to collaborate with producers and implement enhancements in 2020. Our goal is to continue building on this reciprocated trust and respect so that we can collaborate on future projects that mutually benefit habitat for wildlife, species at risk, and ranching operations in southwest Alberta.

Partnerships

Alberta Beef Producers, Alberta Environment and Parks, Alberta Fish and Game Association – Minister Special Licence Program, Canadian Cattlemen's Association, Canadian Roundtable for Sustainable Beef, Cows and Fish – Alberta Riparian Habitat Management Society, Government of Canada, Landholders in Southwest Alberta, Prairie Conservation Forum, Shell Canada – Foothills Legacy Fund

MULTISAR – Milk River

We focus on multi-species conservation at the landscape level that promotes stewardship through voluntary participation

of landholders on both Crown and private lands. In 2020, we worked collaboratively with multiple partners to maintain, increase, and improve habitat for species at risk within the greater sage grouse range of Alberta. This partnership involves habitat assessments, development of voluntary habitat conservation plans, and subsequent implementation and monitoring of on-the-ground enhancements. Due to COVID-19 restrictions and late funding confirmation, we focused our efforts on only one property consisting of 3,832 acres and postponed reassessments in the area until spring 2021. We completed 22 detailed range transects, 31 range health assessments, 17 tame pasture health assessments, 94 visual assessments, and 20 riparian assessments and recorded 783 wildlife observations. In 2020, we purchased two portable electric fencing units for habitat management on two ranches. These portable electric fencing units are being used to prevent the need for further permanent fencing and to provide more options for producers when it comes to managing their cattle distribution and avoiding sensitive areas for wildlife. We also assessed the bird community at our native grassland restoration sites within the greater sage grouse area and compared them to control sites on true native grasslands and cropland. Bird communities on our oldest native grass restoration site (Reseed 1) are now closely aligned to what is expected on a true native grass site compared to what would have been there in cropland.

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, 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 lands and adjoining lands to further enhance habitat quality for these species while also benefiting agricultural operations. We work collaboratively with multiple partners to maintain, increase, and improve habitat for species at risk within the Grassland Natural Region of Alberta. In 2020, we collaborated with ranchers and completed four Habitat Conservation Strategies (HCS) and four Habitat Management Plans (HMP) on 29,035 acres of land. We partnered with 17 producers on 26 enhancements including three portable electric fencing units, two wildlife friendly fencing projects, three portable watering units, 11 upland water developments (spring developments, permanent water troughs, dugout and two pasture pipeline projects designed to move water throughout the property), one ferruginous hawk pole, two single tree protections, two groupings of riparian tree protections, construction of one bat condo, and weed control for one property.

We identified 214 different species on eight properties, including four species that are federally *Endangered*, seven species that are *Threatened*, and seven that are *Species of Special Concern*. In all, we had 4,128 observations of species. On these same eight properties, we also conducted 281 detailed range transects, 443 range health assessments, 62 tame pasture assessments, 271 visual assessments, 62 HMP litter/Robel pole measurements, and 16 riparian health assessments. Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed us to collaborate with producers on 24 properties and implement enhancements on close to 200,000 acres since the project started in 2016.

Partnerships

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

Pheasant Release Program

Upland game bird hunting is a long-standing tradition in Alberta. Following the introduction of the ring-necked pheasant in the early 1900s, wild populations became established in select areas of southern Alberta. To accommodate the high demand for hunting opportunities, the Alberta government started a hatchery in 1945 and created the Provincial Pheasant Release Program, which saw thousands of hatchery-raised pheasants released onto the landscape each fall. The hatchery was eventually privatized due to government cutbacks and 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 beginning in 2014, 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 have increased this number annually to a total of 28,830 in 2020, including 1,000 melanistic pheasants. In addition, we released 300 grey partridge for the first time in 2020. 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 the 2020 season. We worked with five Fish & Game clubs in southern Alberta who played a key role with the weekly release of pheasants (6,040 total) at 23 sites from Medicine Hat to

Cardston. We also partnered with local growers from the Peace River area, who collectively raised 760 male pheasants for release on the northwest sites. We contracted MacFarlane Pheasants to release birds three times a week at 17 sites and once a week at the Peace River sites (n = 22,330 pheasants and partridge). MacFarlane housed these birds in a holding facility near Strathmore. Birds were released at more northern sites beginning September 1 for nine weeks, while releases at southern sites corresponded with the later opening day for pheasants beginning October 15. The program has been well received with positive feedback from hundreds of hunters annually.

Partnerships

Alberta Environment and Park, Capital Power, Cardston Fish & Game Association, Ducks Unlimited Canada, Fort Macleod Fish & Game Association, Lethbridge Fish & Game Association, MacFarlane Pheasants, Medicine Hat Fish & Game Association, Peace River Fish & Game Association, Picture Butte Fish & Game Association

Piping Plover Recovery Program

Piping plovers are small, stubby-billed *Endangered* shorebirds that nest and feed along gravel beaches. They face several threats including high rates of predation and damage to their nesting and feeding habitat. ACA is working with landowners across east-central and southern Alberta to improve habitat and promote awareness of the plight of the piping plover. Each year, we also conduct piping plover counts on key breeding lakes that allow us to monitor population numbers and distribution, and help us guide habitat improvement activities. However, this year contact with landowners and survey coverage were both very limited due to COVID-19

restrictions. We surveyed just three waterbodies and found only one adult plover. We worked with our partners to reduce vegetation encroachment on approximately 5 km of shoreline habitat through an annual grazing agreement. 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. We plan to return to our work with landowners and annual survey schedule in 2021 if COVID-19 restrictions allow.

Pronghorn Fence-crossing Enhancement

Having evolved on the prairies of North America, pronghorn (*Antilocapra americana*) have not developed an instinct to jump vertical obstacles. The proliferation of fencing that

followed cattle ranching into Alberta poses a serious barrier to pronghorn movement (Gates et al. 2012). Pronghorn may cross under fence lines in some locations, but it slows down their movement, making them susceptible to predators and in some cases strips hair off their back causing lacerations and making them vulnerable to infection and frostbite (Jones 2014). Pronghorn also may become entangled in fences and perhaps become trapped and die (Gates et al. 2012). A solution is to replace the bottom wire with double-stranded smooth wire and move it up to 46 cm; however, this is expensive and labour intensive.

To help alleviate this problem, AFGA initiated a fence enhancement project in 2009. ACA provides assistance with identifying important pronghorn

movement zones and landowner introductions, as well as assistance with field activities. The project works with private landowners in southeastern Alberta to actively convert existing barbed-wire fences to wildlife-friendlier fences. The primary objective for this project is to increase permeability within the pronghorn migration corridor in southern Alberta and reduce associated stress to wildlife, physical injury, and even death that can be caused by high densities of current barbed-wire fences. This ongoing effort benefits pronghorn and deer by reducing barriers to seasonal movements and enabling wildlife to move throughout the landscape more easily.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association



Program: Pronghorn Movement and Enhancement
Description: Pronghorn attempt to cross under fence
Photo: ACA, Trail Cam

Project: Ridge Reservoir Habitat Project
Description: 4-H Members releasing pheasants at Ridge Reservoir
Photo: ACA, Samuel Vriend



Pronghorn Movement and Enhancement (Fence Trials)

Between 2018–2020, we evaluated fence modifications proposed for ungulates—to make crossing over a fence easier—to assess if the modifications potentially impact pronghorn and deer fence-crossing behaviours. We have processed all images captured between 2018–2020 from Canadian Forces Base Suffield. Our results from this study will be published in the *Wildlife Society Bulletin* journal in 2021–2022. We will ensure to disseminate our results and conclusions to stakeholders, wildlife managers, and conservation groups.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Bushnell, Cabela's Canada, Canadian Forces Base Suffield, National Wildlife Federation, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), TD Friends of the Environment, The Nature Conservancy

Pronghorn Road Crossing Enhancement (Pronghorn Xing)

Among the diversity of prairie wildlife, the pronghorn is the most specialized and representative large mammal. Within the Northern Sagebrush Steppe 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 animal numbers concentrate. 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 was developed to ground-truth seasonal movement pinch points identified by connectivity modelling

across highways in the Northern Sagebrush Steppe and increase public engagement in pronghorn science and conservation. 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. Data collection ended in June 2020, with pronghorn, mule deer, elk, and white-tailed deer being the most reported species via the WildlifeXing app. As expected, most observations of pronghorn were beside the road, as animal numbers concentrate 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 and Infrastructure, 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 consisting of 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 have installed 51 km of fencing to protect shoreland and riparian habitat. Twenty-five off-site watering units have been installed in strategic areas surrounding the reservoir to redirect cattle away from fragile riparian zones. We have planted approximately 35,500 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, acting as a huge filter for nutrients as well as a magnet for wildlife. Approximately 250 acres

of corridor lands on the east end of the reservoir has been officially surveyed and is ready for fencing, shrub plantings, and permanent cover seeding in the spring of 2021.

Partnerships

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

Species Habitat Assessments and Ranching Partnership

The SHARP project is a voluntary collaborative project designed to improve the quality and quantity of wildlife habitat available on the landscape in central and northwestern Alberta. Our objective is to make wildlife conservation straightforward and cost-effective for producers through education and cost-sharing agreements for habitat enhancements. We develop habitat strategies after first completing in-depth range and riparian health assessments. Through these assessments, we evaluate range and riparian health, and look for areas that could be improved. We balance these with the needs of target species and the long-term objectives of the landholder and come up with mutually agreed-upon solutions that benefit both wildlife and the producer's operations. As enhancements are made, we develop a monitoring plan to assess their progress and effectiveness. We continued to work on two ranches (total 15,700 acres) within the North Saskatchewan Watershed, and enrolled a new ranch (total 10,000 acres) located partly in both the North Saskatchewan Watershed and Red Deer Watershed. We completed nine enhancements focusing on areas of properties that are in an unhealthy state. We look forward

to developing partnerships with more producers in these areas as well as expanding the footprint to include Peace River Watershed in 2021. Long-term relationships built on mutual respect and trust between conservation groups and landowners are the key to effective on-the-ground conservation efforts being undertaken through initiatives like the SHARP project.

Partnerships

Alberta Community Bat Program, Alberta Environment and Parks, ALUS Canada, Canadian Agricultural Partnership, Canadian Cattlemen's Association, Ducks Unlimited Canada, Huvar Construction, Landholders, Wildlife Preservation Canada

Taber Pheasant Festival

Recognizing the potential economic benefits and the importance of pheasant hunting as part of Alberta's hunting heritage, ACA and other core organizations initiated the Taber Pheasant Festival in 2011. We established hunting opportunities at 40 pre-selected sites in the Municipal District of Taber and ensured that each site had pheasants available to hunt each day. Every year, as part of the Pheasant Festival, AHEIA hosts a novice hunting weekend where new hunters of all ages get to try pheasant hunting for the first time. In 2020, 80 hunters attended the Novice Shoot. The festival helps to make a connection 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 educational background on pheasants and hunting and demonstrated how to clean and utilize as much of the pheasant meat as possible through butchering demonstrations as well as how to transport meat legally. There is no registration fee to hunt in the festival, however, the area sees economic benefits as the

hunters spend money on travel, accommodation, food, hunting gear, and other associated costs.

We normally host an annual celebration banquet to thank the landowners who allow hunters on their land, although we did not proceed in 2020 due to COVID restrictions. We did send them a small appreciation package and look forward to meeting again face to face in 2021. To raise funds for next year's festival and to commemorate our 10th anniversary, we raffled off six firearms, including a pair of engraved Beretta shotguns. There was a strong showing of 707 hunters participating in the 10th year of the Festival, with some travelling from British Columbia and Saskatchewan.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Alberta Professional Outfitters Society, AshBros Enterprises Ltd., Beretta/Benelli/Tikka/Sako, Blue Box Customs, Cabela's Outdoor Fund, Can West Legacy Inc., Cycle Works Calgary, Foster Park Brokers, Heritage Inn Taber/Canadian Destinations Group, High Caliber Products, Landowners, Lethbridge College students, MacFarlane Pheasants Inc., Municipal District of Taber, Royal Hotel, SouthGrow Regional Economic Development, Taber & District Chamber of Commerce, Taber Economic Development, Thiessen, Town of Taber, Taber Organizing committee, Vortex Optics

Turkey Distribution and Trends

Wild Merriam's turkeys (*Meleagris gallopavo*) were first introduced into Alberta in 1962, when 21 turkeys from South Dakota were translocated to the Cypress Hills in southeast Alberta. In 1972 and 1973, 12 birds from the Cypress Hills population and an additional 13 birds from Nebraska were transplanted into the Porcupine Hills. In 1988, birds from this

population were transplanted to an additional two sites in the foothills of southwest Alberta. These preliminary translocations of turkeys are what led to Alberta's current population of turkeys (Gerald 1992). Today, wild turkeys are primarily located in the southwest foothills area of Alberta.

The demand for hunting turkeys is very high, with 6,000 applicants pursuing 151 tags in 2019 (2.5% draw success), while an additional 16,000 hunters applied to boost their priority level. With 22,000 hunters seeking a turkey tag, it has become a once-in-a-lifetime opportunity for some, although many will never be drawn at the current allocation rate. Our goals for this project are to understand turkey population dynamics, develop and implement a method to monitor turkey abundance, and collect data that will assist with the allocation of tags for harvest in southwest Alberta.

In 2020, we initiated a citizen science approach to establish and maintain working relationships with landowners in the Beaver Mines, Crowsnest Pass – Livingston, Longview – Turner Valley, Porcupine Hills, and Waterton regions; that is, areas that have present or potential wild Merriam's turkey populations. To date, working with private landowners has enabled ACA to identify the locations of local turkey populations and associated habitat features (e.g., roosts, feeding sites), garner local knowledge, and obtain some counts of birds. Throughout this study we hope to engage private landowners to count local turkeys on their private lands and eventually establish a population trend over time.

To further quantify sub-populations identified by landowners, we undertake some traditional survey methods to confirm local counts and gain more detailed information such as age class, male/female ratio, habitat type, location information, and regional conditions.

Partnerships

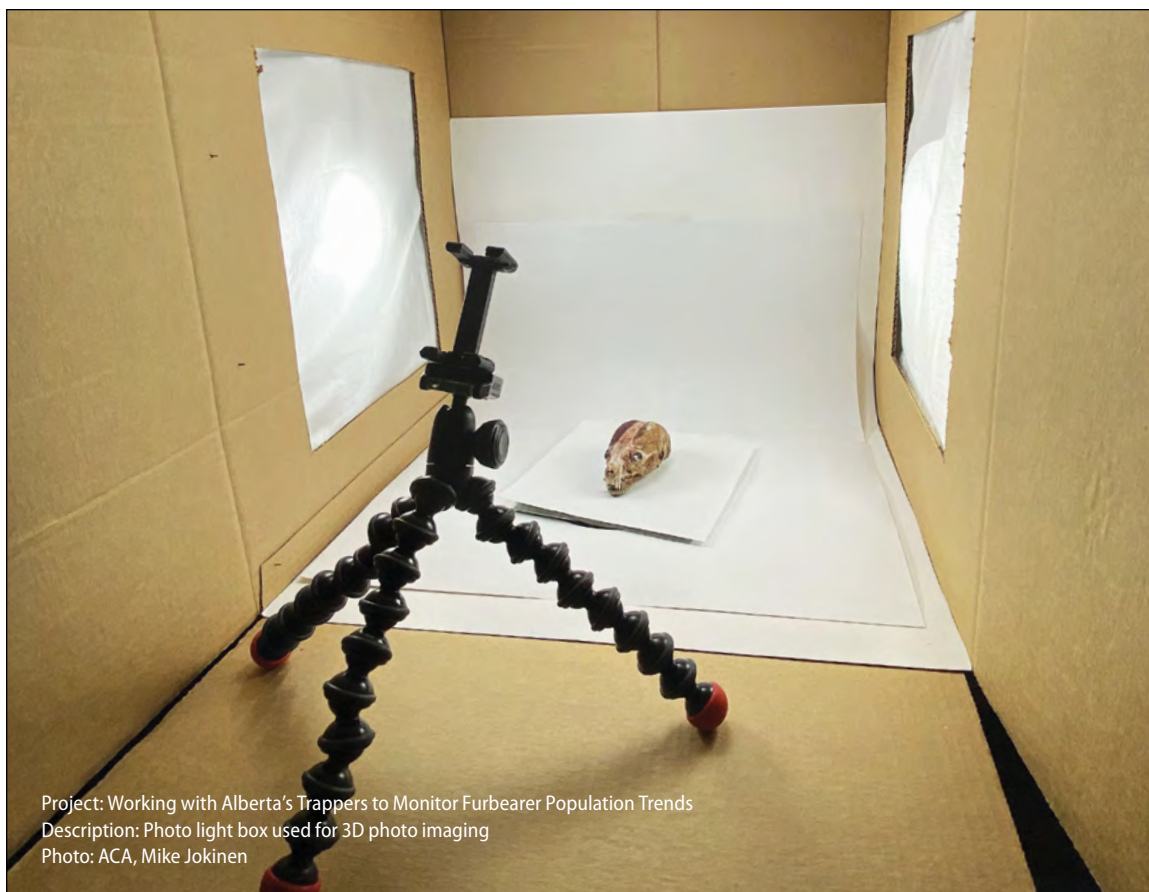
Alberta Environment and Parks, Alberta Fish and Game Association – Minister's Special Licence Program, Landholders in Southwest Alberta, Safari Club International – Northern Alberta Chapter

Upland Gamebird Productivity Surveys

Different to years prior, we reached out to the hunting dog community to ask for their assistance with conducting annual upland gamebird productivity surveys throughout Alberta. The survey information collected by these volunteers enabled us to expand the geographic areas covered as well as the overall survey effort, particularly for grey partridge. We anticipate this will provide a broader representation of the annual survey results for pheasant and grey partridge recruitment leading up to the annual hunting season. We encountered a total of 66 pheasants during 18 hours of survey time while covering 46 km, and 222 grey partridge over 37.6 hours covering 90.67 km. This translates to 1.43 pheasants and 2.45 partridge for each kilometre travelled. Compared to the previous eight years, these counts were again below average. However, the downward trend beginning in 2017 may have bottomed in 2019 and now turned the corner in 2020 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 the survey results on our website and various social media outlets each fall.

Partnerships

Alberta Environment and Parks, Landowners, Pheasants Forever Calgary, Volunteer Survey Participants – Dog Handlers



Project: Working with Alberta's Trappers to Monitor Furbearer Population Trends
Description: Photo light box used for 3D photo imaging
Photo: ACA, Mike Jokinen

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. Eight years ago, we began offering scare cannons free of charge to counties and municipal districts, enabling them to incorporate this equipment into their existing equipment rental programs. This has greatly improved efficiency by placing cannons much closer to end users. In 2020/21, we continued to work with producers as well as counties and municipal districts to ensure that scare cannons were available where needed for waterfowl crop damage prevention. We provided locations where scare cannons were available for loan and crop damage prevention strategies on the ACA website.

Partnerships

Alberta Environment and Sustainable Resource Development, County of Athabasca, County of Camrose, County of Clearhills, County of Flagstaff, County of Grande Prairie, County of Lac La Biche, County of Lacombe, County of McKenzie, County of Minburn, County of Northern Lights, County of Northern Sunrise, County of Paintearth, County of Ponoka, County of Saddle Hills, County of Smoky Lake, County of St. Paul, County of Stettler, County of Two Hills, County of Vermilion River, MD of Big Lakes, MD of Bonnyville, MD of Fairview, MD of Greenview, MD of Peace, MD of Provost, MD of Smoky River, MD of Spirit River

Working with Alberta's Trappers to Monitor Furbearer Population Trends

ACA was asked to assist AEP and ATA with the development of logbooks for trappers to record

information about their trapping activities and fur harvesting results. After revisions to the initial logbook and a concerted communication effort with trappers, the number of logbooks submitted increased substantially over a series of years, providing an adequate sample to track trends over time at the province and natural region levels. Since 2017/18, the logbook entries have focused on marten harvest and effort. In 2019/20, despite a decline in the export of marten pelts from the province, marten catch for an equivalent amount of effort was highest of the years monitored at 0.91 marten per 100 trap nights. The 2019/20 season was the first season in which the four quota species (fisher, lynx, otter, and wolverine) were also included in the logbook.

Partnerships

Alberta Environment and Parks, Alberta Trappers Association, Lethbridge College

Project: Lake Aeration
Description: Beaver Lake Conservation Site
Photo: ACA, Andrew Clough



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. Projects we engage in reflect our emphasis on the enhancement and development of recreational fishing opportunities across the province, and native fish conservation. Our fish stocking and lake aeration projects provide Albertans with recreational angling in areas of the province where such fishing opportunities would not otherwise exist.

Along with partners, we stocked 64 ponds with three trout species, aerated 21 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. This year, we added one new waterbody (Hasse Lake) to expand our aeration project and screened four as potential candidates for future aeration. Aerating Hasse Lake facilitated trout stocking by AEP and re-establishment of a recreational fishery at the lake, eight years after fish stocking was suspended due to poor water quality. However, we were compelled to discontinue aeration at Police Outpost Lake because we could not meet public safety liability requirements due to very frequent extreme weather events. At the request of AEP, we developed a proposal to stock sterile channel catfish into ponds where summer water conditions may be limiting for stocked trout species to create put-and-take fisheries.

Evaluation and inventory projects generated information required for provincial fish conservation and

species recovery initiatives. Projects in the McLeod, Ram, Bow, Oldman, Livingston, Narraway and Muskeg river systems variously determined the distribution, abundance, spawning, habitat, and the potential of fish passage barriers to serve as conservation agents for native trout species. However, work on some of these projects were either scaled-back or deferred due to COVID-19 restrictions. Similarly, COVID-19 restrictions prevented scheduled angler surveys on one river and four lakes.

Overall, the success of our Fisheries program activities in 2020/21 involved the support of 39 partners consisting of provincial and federal governments, industry, watershed groups, non-governmental organizations, counties/municipalities, and other interested groups.

2020/21 Overview

- 104,955 twenty-cm long trout (95,695 rainbow, 6,760 brook and 2,500 brown trout) were stocked into 64 ponds in regions of the province where trout angling opportunities are limited.
- Re-stocked Hermitage Pond for the first time with trout after stocking was suspended in 2017 due to presence of whirling disease.
- At request of AEP, developed proposal to stock sterile channel catfish into ponds for put-and-take recreational fisheries.
- 21 aerated lakes successfully overwintered stocked trout with no reported mortalities.
- Added one new lake to expand aeration project.
- Aeration facilitated re-establishment of recreational fishery at Hasse Lake, eight years after fish stocking was suspended due to poor water quality.

- 4 lakes screened as potential candidates for future aeration.
- 41 fish passage barriers assessed in the Bow River watershed.
- Beaver dams had no negative impact on summer and fall dissolved oxygen in the North Raven River.
- DNA samples confirmed presence of Prussian carp in the Red Deer, Bow, Oldman, and South Saskatchewan river drainages but not in the Athabasca, Battle, Beaver, McLeod, Milk, North Saskatchewan, Peace, Pembina, or Smoky Rivers.
- Designed and successfully operated a solar-powered underwater video to monitor bull trout spawning migration in Fall Creek.
- High abundances of northern pike and yellow perch indicate no need for fish transfer from other sources to re-establish a perch fishery in Joker Lake.
- Developed an assessment manual to classify fish barriers for their potential to protect native trout populations from invasive species.
- 28 rivers/creeks and 57 ponds were surveyed, generating information on fish population status, distribution, fishing effort, spawning and rearing habitat, and water quality.
- 9 new financial partnerships established in support of fish stocking (4) and aeration (5) projects.
- Participated in the Native Trout Conservation Collaborative, a multi-stakeholder group lead by AEP that implements conservation programming for recovery of native trout in Alberta. The collaborative is funded, in part, through a grant from the Fisheries and Oceans Canada (DFO) Canadian Nature Fund for Aquatic Species at Risk.

ACA Fish Stocking Evaluation

In 2020, ACA stocked 104,955 catchable trout (rainbow, brown, and brook trout) into 64 ponds. Due to COVID-19 restrictions on our workplans, our planned field program was modified, and we used trail cameras to estimate angler effort at 21 trout-stocked ponds. Angler effort ranged from 9 h/ha at Vegreville Children's Pond to 6,149 h/ha at Pleasure Island Pond. Our results suggest that angler use was highly variable, yet remained low at some ponds. Our results allow us to better manage our stocking practices and evaluate site management options to serve Alberta anglers better.

Partnerships

Alberta Environment and Parks

ACA Fish Stocking Pond Rehabilitation

Fishing pressure at ACA stocked ponds can exceed 2,000 h/ha in the summer months, indicating these ponds can be popular among anglers. However, some ponds may not be capable of supporting trout survival beyond mid-summer due to low dissolved oxygen (DO). Furthermore, these ponds will not overwinter trout. Six ponds sampled for baseline water quality data had high total phosphorus concentrations, with four of six ponds being hypereutrophic: Rainbow Park Pond ($114 \pm 45 \mu\text{g/L}$), Daysland Pond ($268 \pm 36 \mu\text{g/L}$), Heritage Lake ($334 \pm 173 \mu\text{g/L}$), and Lamont Pond ($116 \pm 84 \mu\text{g/L}$). The remaining two ponds were eutrophic: Innisfree Trout Pond ($98 \pm 21 \mu\text{g/L}$) and Pleasure Island Fish Pond ($91 \pm 53 \mu\text{g/L}$). Alum treatment will reduce bioavailable phosphorus, thereby improving water quality and DO concentration. Rainbow Park Pond will act as an alum pilot case. Through alum dosing jar tests, we determined that a total of 25 mL (59.5g Al/L solution) of alum per litre of Rainbow Park Pond water maintained favourable water quality for fish and invertebrate survival (pH of 7.5; alkalinity of 72 mg/L) while significantly reducing total

phosphorus (85% reduction). We will use the six lakes to conduct a before/after control/impact experiment to determine if alum treatment can improve overall water quality and overwintering DO concentrations.

Partnerships

Alberta Environment and Parks

ACA Fish Stocking Project

The fish stocking project provides anglers with increased opportunities to catch and harvest rainbow trout, brown trout, and brook trout in regions of Alberta where angling opportunities are limited. Recipient waterbodies are prone to winterkill and require annual stocking of fish to maintain angling opportunities. We stocked 64 waterbodies with 95,695 rainbow trout, 2,500 brown trout, and 6,760 brook trout for a total of 104,955 trout. Of the 62 waterbodies with rainbow trout, seven were supplemented with brown trout and nine with brook trout. Overall, we stocked 50 ponds with single species and 14 ponds with multiple species. Two of the three ponds that were not stocked last year were re-stocked this year. They include Kinsmen Lake which was dredged in 2019 and Hermitage Pond where stocking was suspended in 2017 due to the presence of whirling disease. ProAlta Pond was permanently removed from our stocking list due to poor water quality. We installed signage at two waterbodies and acquired four new corporate partners for our fish stocking project.

Partnerships

AQUALITY Environmental, Canadian Tire, CCI Inc., City of Beaumont, City of Fort Saskatchewan, City of Lacombe, City of Medicine Hat, County of Saddle Hills, Nutrien, Shell, SysGen Solutions Group Ltd., Town of Cochrane, Town of High River

Angler Survey - Northwest

The Native Trout Recovery Program (NTRP) is a government-led initiative to promote the recovery of declining native trout and salmonid populations along the Eastern Slopes of Alberta. Understanding

angler effort throughout a watershed helps fisheries managers evaluate threats to sustainability of native trout. The Kakwa River is home to multiple native salmonid species including bull trout, Arctic grayling, and mountain whitefish. The Kakwa River is currently open to recreational fishing with some easily accessible areas while other sections are relatively remote. Angler effort and distribution along the Kakwa River was identified as a data gap by the NTRP. We planned to conduct an aerial type angler survey in summer 2020 to estimate angler effort on the Kakwa River. However, we had to cancel this project due to COVID-19 safety distancing restrictions.

East Slopes Fisheries Inventory

Fishery inventories provide resource managers with information on fish abundance, species distribution, and fish habitat. This information is a key component of responsible land-use planning and management if threats to stream health are to be minimized. AEP's Fish Sustainability Index (FSI) is a standardized assessment process that provides a landscape-level overview of fish sustainability within the province and enables broad-scale evaluation of management actions and land-use planning. The Upper McLeod River watershed has been identified by AEP as a priority for inventory work and will support the Arctic grayling, Athabasca rainbow trout, bull trout, and mountain whitefish FSIs. Our goal during the 2020/21 fiscal year was to assess fish distribution, relative abundance, and stream habitat in four of the eight Hydraulic Unit Code (HUC) 10 watersheds in the Upper McLeod River watershed. However, we had to postpone the project due to COVID-19 restrictions. We have rescheduled field surveys for the summer of 2021.

Partnerships

Alberta Environment and Parks, Native Trout Conservation Collaborative

Fish Barrier Assessments in the Bow River Watershed

The historic range of Westslope cutthroat trout (WSCT) in Alberta lies entirely within the Oldman and Bow River watersheds. In recent decades, genetically pure populations have declined to approximately 5% of the historic distribution. Invasive species are among the biggest contributors to the WSCT declines because of hybridization and competition. Natural waterfall barriers that impede upstream fish movements are known to protect headwater populations of WSCT from non-native rainbow trout and brook trout invasions. Consequently, ACA has undertaken a broad-scale inventory and assessments of these barriers as a conservation measure to identify barriers protecting crucial populations currently sustaining the species, and find opportunities to expand the WSCT range into secure, unoccupied habitat reaches above barriers. Since 2017, we have developed standard methods to identify, measure, classify, and rank a complex range of fish barriers in the context of invasion risk and conservation potential, and have completed assessments in much of the Oldman River watershed. In 2020, we finalized assessment methods into a field manual that assesses four main mechanisms that impede fish passage over barriers: 1) height/length

obstructions to leaping, 2) water velocity obstructions to swimming, 3) water depth obstructions to swimming, and 4) turbulence obstructions to swimming. We have broadened surveys into the Bow River watershed, visiting 50 of approximately 250 locations in that watershed. We will continue barrier surveys through 2021 to comprehensively catalogue all barriers across the WSCT range and help prioritize future range expansion strategies to restore and reconnect WSCT populations.

Partnerships

Alberta Environment and Parks, Fisheries and Oceans Canada, Native Trout Conservation Collaborative

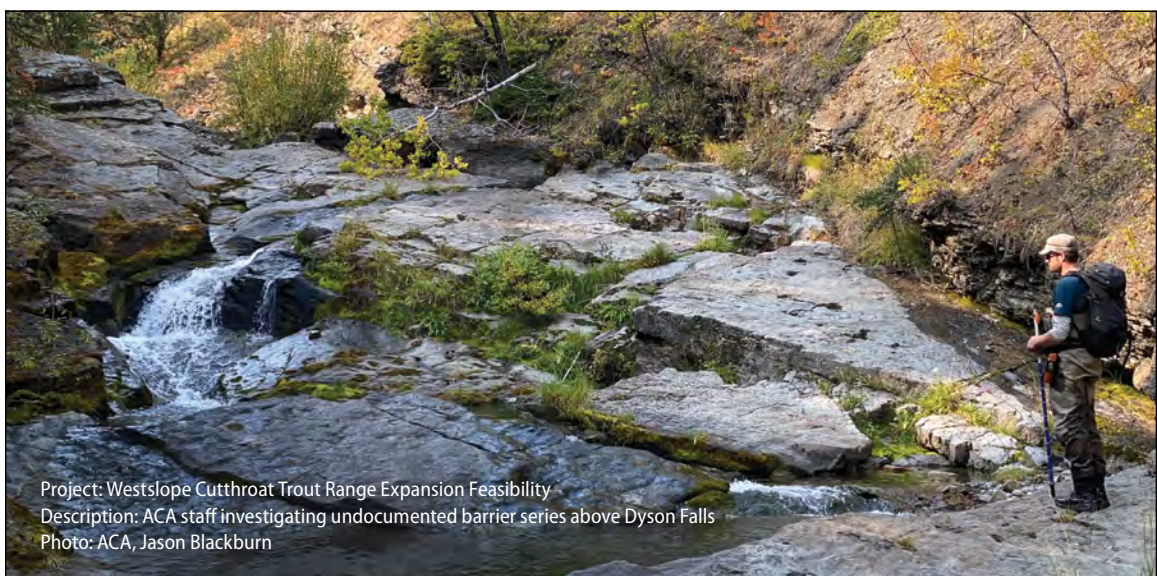
Fish Barriers in Native Trout Drainages

To effectively safeguard against extirpation of native fish species in Alberta, it is essential to protect native trout populations from hybridization and competition with invasive trout species. In Alberta, several sub-populations of native trout remain protected from invasive species primarily because of waterfalls that impede upstream fish movement. Maintaining and isolating these populations from invasion is critical to the protection and persistence of native trout. Cataloguing waterfalls is a necessary first step in determining where

invasion can be managed, allowing for prioritization of population recovery and development of implementation strategies on a stream by stream basis. To determine where native trout refuge might still exist, we used AEP's Fisheries and Wildlife Management Information System to gather fish habitat and community data for the Narraway River watershed and the Muskeg River watershed. We used Google Earth and Bing Maps to identify 110 potential fish barrier locations in the Narraway River watershed in 2019 and 14 potential barriers in the Muskeg River watershed in the fall of 2020. We completed field assessments at 75 of the 110 potential barriers in the Narraway watershed during the 2019/20 field season in the spring/summer during high flow conditions. However, low flow assessments in the fall were cancelled in 2019/20 due to unseasonably high water conditions. We intended to complete low flow assessments in the spring/summer in the Narraway River watershed and high and low flow assessments in the spring/summer and fall in the Muskeg River watershed during the 2020/21 field season, but had to postpone due to COVID-19. We have rescheduled field surveys for the spring or summer and fall of 2021.

Partnerships

Alberta Environment and Parks and Native Trout Conservation Collaborative



Project: Westslope Cutthroat Trout Range Expansion Feasibility
Description: ACA staff investigating undocumented barrier series above Dyson Falls
Photo: ACA, Jason Blackburn

Fish Stocking, New Lakes

Stocked trout fisheries are popular in Alberta, with rainbow trout being the third most captured fish in Alberta (DFO 2015). Given the popularity of trout-stocked fisheries in Alberta, this project seeks to expand the number of stocked ponds through identification and screening of ponds with potential to support a stocked trout fishery. ACA and AEP collaborated to evaluate three new ponds and ACA evaluated one additional new waterbody (Swan Reservoir) and one waterbody identified in 2019 (Boulder Lake). Three of five ponds were suitable for further investigation. Chestermere Pond, a candidate pond from 2017, remains promising and is undergoing further evaluation. Boulder Lake, identified in 2019 and evaluated in 2020, will be stocked in 2021.

Partnerships

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

Fish Stocking Expansion – New Species

Roughly one quarter (25%) of all fishing effort in Alberta is sustained by trout stocking and demand for recreational angling opportunities in the province is high. To help meet demand, millions of hatchery-reared trout are stocked into 300 Alberta lakes, reservoirs, and ponds, annually. The trout stocked are coldwater species and require cool, oxygen-rich environments to thrive. High summer water temperature and low dissolved oxygen stresses trout and increases mortality such that some of Alberta's stocked waterbodies are incapable of supporting trout survival beyond mid-summer. For stocking to be successful at these waterbodies an alternative to trout is required. Following detailed evaluation of seven sport species common to the prairie and parkland region of North America, channel catfish (*Ictalurus punctatus*) was

selected as the most promising alternative. Channel catfish do not currently occur within Alberta so their introduction to provincial waterbodies requires careful consideration. To assist managers in their evaluation, we completed a detailed review of the biology, ecology, management, and culture of channel catfish in North America. We also contracted subject matter experts at the University of Mississippi to assess pathogen transmission risk associated with bringing channel catfish into the province. Government review of the proposal to stock sterile (i.e., non-reproductive) channel catfish to Alberta waterbodies for the creation of summer put-and-take fisheries is ongoing.

Partnerships

Alberta Environment and Parks

Hasse Lake Fisheries Restoration

In recent decades, changes in watershed land use have resulted in increased nutrient runoff, particularly phosphorus, into Hasse Lake that has led to frequent noxious algal blooms, (especially blue-green cyanobacteria blooms), poor oxygen conditions, and fish kills. Recurring summer and winter fish kills have decimated what used to be a popular stocked sport fishery, and there has been no recreational fishery on the lake since 2012. In the summer of 2015, ACA initiated a project with the primary focus of working with local community groups and landowners in the watershed to reduce nutrient loading to the lake, improve water quality, and restore the recreational fishery. Since project inception, we engaged in various activities, including surveys to characterize existing fish community composition (if any), monitoring summer and winter water quality, riparian zone protection, public outreach, and generating pertinent information leading to removal of fecal coliform advisories on the lake by Alberta Health Services. In 2020, we extended electrical power to the lake, installed aeration

infrastructure, and commenced winter aeration in October, deploying seven surface aerators that operated all winter. In partnership, AEP stocked Hasse Lake with 10,000 fish, consisting of 7,500 rainbow trout and 2,500 tiger trout, eight years after the lake was last stocked. Stocked trout grew very fast, doubling in size from 20 cm in the spring to 40 cm by fall. Summer DO remained above 3 mg/L within most of the water column in Hasse Lake, with corresponding temperatures adequate for trout survival. Summer DO and temperature ranges in Hasse Lake were similar to those at two nearby winter-aerated lakes. In contrast to previous winters when much of the water column in Hasse Lake was anoxic under the ice, during the 2020/21 winter aeration period, under-ice DO was high throughout much of the water column, remaining largely above 3 mg/L. No fish kills were reported, indicating that our winter aeration enabled the lake to successfully overwinter fish.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Belair Industries Corp, Fortis Alberta, North Saskatchewan Watershed Alliance, Parkland County, Parkland County, Alternative Land Use Services Program, RPB Industries, Trout Unlimited Canada – Northern Light Fly Fishers

Lake Aeration

We use lake aeration as a fisheries management technique to provide Albertans with diverse recreational angling opportunities in areas of the province where such opportunities would be otherwise limited. Aerated waterbodies are typically shallow, eutrophic, experience prolonged ice cover, and are prone to summer and winter fish kills. Using aeration, we maintain dissolved oxygen levels above 3 mg/L to promote year-round survival and availability of larger fish to anglers. In 2020/21, we aerated 21 waterbodies across the province, all of which successfully overwintered stocked trout without any reported fish kills. This year, we

expanded the aeration project with the addition of two new waterbodies, Hasse Lake and Kerbes Pond, but discontinued aeration at Police Outpost Lake because we could not meet the public safety liability requirements due to very frequent extreme weather events. We also established three new financial and in-kind partnerships with 1) Northern Sunrise County at Cecil Thompson Pond, 2) County of Northern Lights at Figure Eight Lake, and 3) Trout Unlimited Canada – Northern Lights Fly Fishers Chapter at Hasse Lake.

Partnerships

Alberta Environment and Parks, County of Northern Lights, Edmonton Trout Club, Mercer Peace River, Mountain View County, Municipal District of Clear Hills, Municipal District of Greenview No. 16, Northern Sunrise County, Saddle Hills County, Thorhild County, Trout Unlimited Canada – Northern Lights Fly Tiers, West Fraser – Edson Forest Products

New Lake Aeration Development

ACA's Lake Aeration project promotes angling opportunities in stocked waterbodies across Alberta where such fishing opportunities are otherwise limited. Waterbodies aerated in the program are prone to fish kills during winter and summer months due to low DO, but with aeration, DO levels are maintained to promote year-round survival of stocked trout. Given the substantial cost associated with such operations, it is important that we carefully screen candidate waterbodies to ensure that we address top AEP provincial-level priorities. Each year we receive many requests from stakeholder groups to aerate waterbodies throughout the province. After a preliminary review of the requests, we develop a short list of lakes for further screening as potential candidates for future aeration. Currently ACA is screening four candidate waterbodies by monitoring DO and temperature profiles during winter months. In 2020/21, and with the

assistance of AEP, we monitored Little Bear, Peanut, and Sauer lakes, and Bullshead Reservoir. This is the second year collecting DO and temperature at Peanut and Sauer lakes and the third and final year at Little Bear Lake and Bullshead Reservoir. In 2020/21, we added Kerbes Pond to our aeration project and will use an extended open-water period (May – mid-December) diffuser aeration instead of winter aeration. Our screening results indicate that running the diffusers into early December should provide the pond with enough oxygen to overwinter trout with minimal risk of winterkill. We will continue to monitor winter DO profiles at Kerbes Pond and re-evaluate our approach after three years. Based on our screening results, additional candidate waterbodies may be selected for development to expand ACA's aeration project.

Partnerships

Alberta Environment and Parks

North Raven River Beaver Management Project

The North Raven River (NRR) brown trout fishery is widely regarded one of Alberta's best. Management of beaver activity in the NRR began in 1973 and is considered necessary to maintain the trout fishery. It had been over two decades since the observations and assumptions underpinning beaver management along the NRR were critically assessed. We monitored DO in the river in 2020/21 to assess the potential for low DO to negatively impact the trout population. Our work was based on the findings of a scientific literature review we completed in 2019 about the potential impacts of beaver activity on stream ecosystems and trout. We measured DO at five bridged crossings of the NRR and around a beaver-impounded reach during the summer and autumn of 2020. Our spot measurements of DO along the NRR were never below 7 mg/L, well above the 3 mg/L necessary for trout survival. Hourly monitoring of DO along the length of a beaver-impounded reach gave

no indication that damming the river negatively impacted DO, which ranged between 5 and 10 mg/L. We continue to monitor DO in the river during the winter of 2021.

Partnerships

Alberta Environment and Parks

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 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 broad-scale evaluation of management actions and land-use planning. In the summer and fall of 2020, we used a combination of backpack electrofishing and redd surveys to assess the bull trout population in the lower Ram River watershed. Our sample frame for backpack electrofishing included eight selected sites, where we detected fish at six of the eight sites, catching seven different species. Bull trout were the most widely distributed species captured. We captured 22 bull trout electrofishing, with six of the eight sites having at least one bull trout captured. Fall Creek remains an important spawning tributary in the Ram River watershed. We counted 66 bull trout redds on a survey of a 3.5 km reach of Fall Creek. In 2019, we designed and tested a solar-powered underwater video recording system to count adult bull trout exiting the Fall Creek spawning area. We obtained over 40 days of footage during the bull trout spawning migration and counted 76 bull trout



migrating downstream past the camera; this equated to a spawner to redd ratio of 1.2, an index that can be used to estimate bull trout abundance in future redd surveys. Our study provides managers with information on fish species distribution and abundance that can be used to evaluate land-use impacts on fish and bull trout response to recovery actions.

Partnerships

Alberta Environment and Parks,
Native Trout Conservation
Collaborative, 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; however, the degree to which the range of Prussian carp has expanded remains unclear. In 2018 and 2019, ACA used environmental DNA (eDNA) to determine the distribution of Prussian carp in Alberta. Positive signals for Prussian

carp were detected in the Bow, Red Deer, Oldman, and South Saskatchewan River drainages but not in the Athabasca, Battle, Beaver, McLeod, Milk, North Saskatchewan, Peace, Pembina, or Smoky Rivers. Our results help fill in details within the known range of Prussian carp, as well as provide a baseline for drainages where Prussian carp have not yet spread.

Partnerships

Alberta Environment and Parks;
University of Alberta – Dr. Mark
Poesch, Fisheries and Aquatic
Conservation Lab; University of
Alberta – Natasha Pentyluk (MSc.
Candidate), The Green Lab

Walleye-Pike Angler Survey

Angler surveys are used to assess the fishing pressure, catch rates, and harvest rates on lakes. Biological data gathered from angler-harvested fish and test angling aids in the understanding of local fish populations. Angler surveys provide additional information through observed changes to angler effort on one lake over time or between similar waterbodies. Prior to the 2020 angling season, AEP was implementing multiple regulation changes at walleye and northern pike fisheries including the introduction of slot-based harvest limits. Buck and Moose lakes were identified as waterbodies where changes

to regulations were planned and fisheries managers could benefit from angler use data. However, we had to cancel this project due to COVID-19 safety distancing restrictions.

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 Livingstone Public Land Use Zone (PLUZ) encompasses the largest remaining Westslope cutthroat trout (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 HUC 10 sub-watersheds of the upper Oldman River. The objective of the study is to collect fish data at index sites for five years to determine natural WSCT population variations within

the PLUZ. These data will be used to detect population response to the new PLUZ restrictions. In 2020, COVID-19 work restrictions limited our summer sampling to only 20 of 39 electrofishing sites. Westslope cutthroat trout comprised 80% of our total fish catch (n = 677) and were captured at 19 of 20 sample sites. WSCT catches were highest in the upper Oldman watershed, followed by the Livingstone watershed and lowest in the Hidden Creek and Dutch Creek watersheds. We will continue monitoring these four watersheds to examine the ongoing effects of the recent changes to land use in the Livingstone PLUZ.

Partnerships

Alberta Environment and Parks, Fisheries and Oceans Canada, Native Trout Conservation Collaborative

Westslope Cutthroat Trout Range Expansion Feasibility

The historic range of Westslope cutthroat trout (WSCT) in Alberta lies entirely within the Oldman and Bow River watersheds. In recent decades genetically pure populations have declined to approximately 5% of the historic distribution, and the threat to their long-term survival continues to intensify in the headwater streams and tributaries of the Southern Rockies and East Slopes where they primarily reside. Recovery of the species requires strong protections for existing populations, as well as recolonization and expansion of their current range. Invasive species are among the biggest contributors to WSCT declines through hybridization and competition, and the subsequent population fragmentation incurred when neighbouring watersheds become dominated by hybridized and invasive species. Since 2018, we have been adapting a framework originally developed by researchers of bull trout into a developing framework for WSCT range expansion feasibility in Alberta. We continue to catalogue habitats and gather information to populate that framework, while also researching practical criteria

to use for evaluating candidate locations for future introductions. We recently completed a manual that assesses and ranks barriers, enabling the evaluation of invasion risk at potential candidate locations. Similarly, we have established summer stream temperatures as a strong predictor of WSCT abundance, and a measure of candidate habitat quality. In 2020, we expanded the stream temperature monitoring and barrier assessments that were completed in the Oldman River watershed to encompass the Bow River watershed, and began finalizing candidate lists of streams and lakes to be evaluated using a completed framework. We will continue to rank habitats through 2021 to inform the feasibility of future WSCT reintroduction projects and ensure the survival of this iconic species in Alberta.

Partnerships

Alberta Environment and Parks, Fisheries and Oceans Canada, Native Trout Conservation Collaborative

Yellow Perch Fisheries in Joker Lake

Joker Lake, near Red Earth Creek, was once a very popular fishery that was well-known for its high abundance of large yellow perch. However, AEP gillnet data from 2017 suggests that Joker Lake has low abundances of yellow perch and northern pike. Winterkill is believed to be the likely cause of the poor catches. ACA, in collaboration with AEP, intended to transfer perch from Mink Lake to aid in the recovery of the fishery in Joker Lake. However, upon ACA and AEP setting gillnets in Joker Lake to establish baseline abundances of yellow perch and northern pike, we were able to demonstrate a high abundance of healthy northern pike and yellow perch (39 perch and 29 pike), suggesting the fishery is recovering on its own and does not require a yellow perch transfer to improve the quality of the fishery in Joker Lake.

Partnerships

Alberta Environment and Parks

Yellow Perch Stocked Ponds

ACA has been exploring alternative species to stocked trout to increase opportunities for anglers in Alberta. This project was developed to determine whether select ACA waterbodies can support yellow perch populations that produce both harvestable-sized fish and satisfied anglers. Yellow perch are more tolerant to lower water quality than stocked rainbow trout and anglers have shown strong interest in stocking yellow perch in the province. In 2020, we set out to develop a yellow perch stocking plan and conduct an experimental transfer of yellow perch to an ACA stocked pond. Due to COVID-19 restrictions, our planned field program was modified, and we conducted test angling at ponds suspected of having existing perch populations to confirm their presence and determine population characteristics such as size and age structure. We completed test angling at Fort Lions Community Fish Pond at West River's Edge (West River's Edge Pond), Taber Trout Pond, and Don Sparrow Lake. We caught 50 yellow perch at West River's Edge Pond that ranged in size (fork length) from 66 to 254 mm with a mean of 104.3 ± 43.2 mm and weight from 3 to 222 g with a mean of 22.6 ± 43.0 g. West River's Edge Pond perch ages ranged from 1 to 3 years old. We caught 10 yellow perch at Taber Trout Pond that ranged in size (fork length) from 141 to 186 mm with a mean of 167.6 ± 12.1 mm and weight from 34 to 80 g with a mean of 58.2 ± 11.8 g. Taber Trout Pond perch ages ranged from 2 to 3 years old. No fish were caught at Don Sparrow Lake, suggesting that perch do not offer a noteworthy fishery at this pond. Multi-year age classes at West River's Edge and Taber ponds suggest that perch are successfully spawning and overwintering, and thus have potential to maintain self-sustaining populations.

Partnerships

Alberta Environment and Parks



Project: Conservation Site Managment
Description: Hunter at Ross Creek Conservation Site
Photo: ACA, Tyler Johns

Land Management Program

ACA's Land Management Program is all about conserving, enhancing and restoring 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 resources, and in the process, providing an added value for outdoor enthusiasts.

Each year we add acres to the inventory of land assets by securing habitat through purchase or donation. Thanks to our partners and conservation-minded landowners, we secured four new land acquisitions, including three land donations under the federal Ecological Gift Program, which conserved a total of 570 acres (230.7 hectares) of habitat. These lands have an estimated value of \$1,745,000. We manage 23 fisheries access sites that add value by providing quality angling opportunities for Albertans on several stocked lakes and access sites on rivers where access is considered challenging. We collaborate with landowners on other habitat-based programs such as our Landowner Habitat and Riparian Conservation Programs, which focus on enhancing and conserving wildlife and fish habitat while improving recreational access on deeded lands. Currently we manage 37 Landowner Habitat Agreements and 38 Riparian Conservation Agreements conserving 15,229 acres of wildlife and fish habitat. 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.

2020/21 Overview

- Added four new conservation sites, three under the federal Ecological Gift Program, totalling 570 ac (230.7 ha) with a land value of approximately \$1,745,000.
- Continued working with Suncor to secure a financial partnership conserving key habitats using a collaborative approach.
- ACA and AFGA shared titles on two properties: Baird and Funnel Lake conservation sites.
- Currently managing 37 Landowner Habitat Program Agreements, conserving 6,574 ac (2,660.5 ha) of wildlife and fish habitat.
- Renewed five Landowner Habitat Agreements that expired in 2020/21, conserving 699 ac (282.8 ha).
- Signed four new Landowner Habitat Agreements, conserving 1,148 ac (464.6 ha).
- Continued discussions with AEP on management of Crown conservation sites (disposition process ongoing).
- Inspected 177 conservation sites, with routine maintenance completed on 70 sites.
- Enhanced habitat on 67 conservation sites, including restoration of a 72.6-ac (29.4-ha) wetland, planting 7,195 trees and shrubs, seeding 37 acres to native grass species, and planting 16 ac (6.5 ha) of food plots for upland game birds.

- Improved facilities for public foot access to eight conservation sites, including parking areas, foot-access gates, and trails.
- Installed project signs on three conservation sites and continued installing boundary and "Foot Access Only" signs on conservation sites.
- Provided recommendations on 152 land-use referrals and public inquiries.
- Provided angler access at 23 fisheries access sites, of which five received site upgrades and enhancements that included access road and footpath improvements, gate repairs, and the installation of wildlife-proof garbage bins.
- Initiated developments at one newly secured Fisheries Access Site and pursued opportunities to improve access at two additional waterbodies in the Central Region.
- Completed 17 conservation site management plans.
- Delivered 13 riparian enhancement projects: Three fencing projects, five off-site livestock watering initiatives, three bioengineering projects, one erosion control project, and one livestock crossing.
- Conserved 142 acres (57.5 ha) through new riparian habitat lease agreements and installed 10.7 km of new wildlife-friendly fencing.
- Monitored 38 existing agreements that conserves 8,654.7 ac (3,502.6 ha) of riparian and adjacent upland habitat lands throughout the province.
- Provided 12 participating landowners with recreational user sign-in access services for existing properties, totalling approximately 191,671 acres (77,569.3 ha) of access.
- Added six new landowners to our sign-in access system program in the Southern Region, totalling approximately 99,771 acres (40,375.9 ha).
- One landowner opted out of the sign-in access system to trial an app-based sign-in system for their access management.

Corporate Partners Program

Our Corporate Partners Program is a collaboration between ACA and key industry partners to offset the impact of industrial activity through conservation of ecologically important lands in Alberta's Boreal Forest Natural Region. The properties that are secured through our Corporate Partners Program are incorporated into ACA's network of conservation sites and provide key habitat for fish and wildlife species while allowing for increased recreational opportunities for all Albertans. ACA has been partnering with the Suncor Energy Foundation since 2003 to secure ecologically important land in Alberta through the Boreal Habitat Conservation Initiative (BHCI). In 2020/21, ACA and Suncor staff have met virtually to discuss organizational changes since the last revision of the BHCI and updating the document. However, the financial partnership has been postponed due to COVID-19 restrictions and the impacts to the oil and gas industry from this pandemic. ACA staff continue to respond to inquiries from landowners wanting to sell their land for conservation purposes. Our goal is to continue working with Suncor into 2021/22 and to secure a financial partnership, allowing us to conserve key habitats using a collaborative approach.

Conservation Site Management

ACA's Conservation Site Management (CSM) Project currently manages 358 conservation sites and 11 conservation easements, which include over 215,000 acres (approximately 87,000 ha) of titled and Crown land in Alberta. The CSM Project is responsible for ongoing management and enhancement of these sites; activities are guided by site-specific management plans. In 2020/21, our field activities and contracted work were impacted by the COVID-19 pandemic. Nevertheless, our field staff completed inspections and maintenance tasks on 177

sites. Our team also completed habitat enhancement projects on 67 conservation sites, including restoration of a 72.6 acre wetland, seeding 37 acres to native grass species, planting 7,195 trees and shrubs, planting 16 acres of food plots for upland game birds, installing and modifying fencing to wildlife-friendly standards, and removing old farming equipment, garbage, buildings, and other anthropogenic structures on four sites. Recreational access enhancements were completed at eight sites, including construction of foot-access gates, development of parking areas, and clearing new foot-trails. We installed new project signs on three conservation sites and replaced project signs on two sites. Wildlife-friendly fencing informational signage was installed on one site. Staff provided recommendations on 27 land-use referrals and 125 public inquiries. We also managed public access on one high-use conservation site 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 a collaborative effort with a growing number of partners and volunteers throughout Alberta.

Partnerships

Alberta Environment and Parks, Alberta Agriculture and Forestry, Alberta Fish & Game Association, Alberta Woodlot Extension Society, Bow River Irrigation District, Clearwater County, County of Grande Prairie, County of Lethbridge, County of Newell, County of Warner, Ducks Unlimited Canada, Eastern Irrigation District, Environment and Climate Change Canada, Husky Energy, Huvan Construction, Landowners, MD of Greenview, MULTISAR, Nature Conservancy of Canada, Ovintiv, Pheasants Forever – Calgary and Chinook Chapters, Shell Foothills Legacy Grant, Trout Unlimited Canada, Volunteer stewards

Fisheries Access Site Management

ACA's Land Management Program encompasses activities intended to conserve, protect, and enhance fish and wildlife habitat and to increase sustainable recreational opportunities including angling and hunting. One of the activities of the program is the delivery of the Fisheries Access Site Management Program, which provides angling access to key streams, rivers, and lakes throughout the province. We inspected and maintained 23 fisheries access sites and commissioned ten contracts to maintain 19 sites in 2020/21. We upgraded five sites with improvements to access roads, footpath, gate repairs, and the installation of wildlife-proof garbage bins. We worked with partners on the next steps to develop a new fisheries access site at the recently donated Boulder Lake site and at two additional waterbodies on Crown land in the Central Region. We recognized 20 partners in 2020/21 who generously contributed financially or with in-kind assistance. We continued to strive to ensure anglers have high-quality experiences at ACA fisheries access sites across the province.

Partnerships

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



Project: Conservation Site Management
Description: Wildlife friendlier fence on Pomrenk Conservation Site
Photo: ACA, Dan Sturgess

Landowner Habitat Program

Alberta’s forest and native grasslands continue to disappear as our human footprint grows with agricultural, municipal, and industrial development. Wildlife and fisheries are often the first casualties of increased and expanding development with habitat alteration and wetland loss. The northern parts of the province have seen the most development over the past decade. 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. This has contributed to several wildlife and fish species being listed as *endangered*, *threatened*, or *species of concern*. Currently there are 42 known species listed in Alberta. The Landowner Habitat Program (LHP) was initiated to help conserve key habitat and reduce habitat loss on privately owned land. The program provides incentives for 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 landowners to provide reasonable public foot access. Participants in this program are acknowledged with a project sign and provided with *Use Respect – Ask First* signage to display along the perimeter of their property. We currently manage 37 LHP agreements across the province, which conserves approximately 6,574 acres (2,660.5 ha) of important wildlife and fish habitat.

Partnerships

Alberta Environment and Parks, Landowners, Parkland County

Management Plan Development

ACA manages and maintains over 215,000 acres (approximately 87,000 ha) of habitat in collaboration with AEP and other conservation partners. To manage our conservation assets effectively, management plans are developed for each of these sites. Emphasis

is placed on developing detailed habitat management objectives that maintain the ecological integrity of each conservation site. ACA works with our partners to develop management plans which 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 the site. Management plans are reviewed by ACA and our partners as required, or on a term basis (e.g., after five or ten years), to ensure we are meeting our intended goals and objectives. In 2020/21, we developed 17 management plans.

Partnerships

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



Provincial Habitat Securement Program

Alberta's population growth seemed unaffected in 2020, even with the COVID-19 pandemic, downturn in the economy and higher unemployment rates. Alberta's population reached over 4.43 million people, up from 4.37 million in 2019. Habitat loss continues to be a threat to native habitat with increasing demands for urban sprawl, agricultural conversion, and industrial expansion. Almost two-thirds of the province (62%) has been altered by development and this percentage increases each year. Urban and rural development have also contributed to habitat loss, fragmentation, and degradation. This has contributed to several wildlife and fish species being *endangered*, *threatened*, or listed as a *species of concern*. Currently there are 42 species listed in Alberta.

ACA's 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. Twenty-eight priority focus areas help guide securement efforts and opportunities.

Collaborative partnerships with conservation groups, industry, various companies, and conservation-minded private individuals allow us to maximize our conservation impact and the efficiency of our securement efforts. Together in 2020/21, we completed four land acquisitions, including three donations under the federal Ecological Gift (eco-gift) Program, which conserved 570 acres (230.7 ha). These lands have an estimated value of \$1,745,000. Management plans will be prepared in 2021/22 to collaboratively address roles and responsibilities between managing partners. ACA and AFGA shared titles on two conservation sites, namely Baird and Funnell Lake Conservation Sites.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Evelyn Wadey

Recreational Opportunity Enhancement

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

project will focus on initiatives that enhance access to major rivers and waterbodies such as the Bow and North Saskatchewan rivers for angling and other water-related recreational activities. Working with individual landowners has allowed us to improve hunter access to approximately 191,671 acres (77,569.3 ha) of private land across southern Alberta through a sign-in access system. Increasing access opportunities for hunters may provide AEP with additional options such as using hunters as a management tool when managing game species. 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 & Game Association, Landowners, Lethbridge Fish & Game Association

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 by engaging landowners, the public, and other stakeholders through community outreach and education activities. Our collaborative partnerships with landowners, industry, government, watershed groups, and other stakeholders are an integral component of project delivery. In 2020/21, we focused conservation efforts in the following priority watersheds: Beaverlodge, Heart, Raven, and North Raven rivers; and Beaver, Clear, Dogpound, Todd, Sharples, and Five Mile creeks (including their associated tributaries). We delivered 13 enhancement projects using a variety of management

tools, including implementing agreements to conserve 142 acres (57.5 ha) of riparian and associated upland habitat, five off-site watering systems, three bioengineering projects, one erosion control projects, and installing 10.7 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 communicated our Riparian Conservation Program to various communities. Our efforts have contributed to improvements in riparian habitat health and have positively influenced the stewardship approach of many landowners and leaseholders.

Partnerships

Agroforestry & Woodlot Extension Society, Alberta Environment and Parks, Alberta Fish & Game Association, Cenovus Energy, County of Grande Prairie, Cows and Fish – Alberta Riparian Habitat Management Society, Critical Mass, Environment and Climate Change Canada, Fisheries and Oceans Canada, Give Back Contracting Ltd., Huvan Construction, Landowners, Mighty Peace Watershed Alliance, Milk River Watershed Council of Canada, Oldman Watershed Council, Ovitiv Inc., Red Deer River Watershed Alliance, Sinopec Canada, Syncrude Canada Ltd., Tree Time Services Inc., Trout Unlimited Canada, West County Watershed Society

Corporate Partners Program and Provincial Habitat Securement Program Transactions in 2020/21

| Project Name | Securement Tool & Partners | Size (ac) | Special Features |
|---|--|--------------|--|
| Central | | | |
| Boulder Lake Pt. NE-18-039-27-W4M Pt. SE-18-039-27-W4M | An eco-gift land donation from a landowner to ACA. | 183.0 | This site is approximately 5 km from Red Deer and 2.5 km from Blackfalds in the central parkland. It consists of mixed forest, native grasslands and tame pasture. A small creek flows through the property entering the Blindman River which is the south perimeter of the property. A large dugout has excellent potential for a put-and-take stocked fishery. Wildlife in the area include moose, deer, and waterfowl. |
| Northeast | | | |
| Benoit* Pt. SW-04-057-17-W4M | An eco-gift land donation from a landowner to ACA and AFGA. | 81.7 | This site is approximately 65 km northeast of Fort Saskatchewan in the central parkland. It is 22 km from Whitford Lake Conservation Site. It consists of mixed forest, riparian habitat, and hay land. Wildlife in the area include moose, deer, elk, black bear, waterfowl, sandhill cranes, gray partridge, and ruffed grouse. |
| Stefaniuk NE-33-062-21-W4M | An eco-gift land donation from a landowner to ACA and AFGA. | 145.0 | This site is approximately 100 km north of Edmonton in the dry mixedwood. It is 7 km from North Pine Creek and South Pine Creek Conservation Sites and adjacent to the Rochester Buck for Wildlife Area. It consists of mixed forest and hay land. Wildlife in the area include moose, deer, elk, black bear, and ruffed grouse. |
| South | | | |
| Manyberries Creek NE-04-006-05-W4M | A land purchase between ACA, AFGA, Pheasants Forever (Calgary and Chinook Chapters), Environment and Climate Change Canada, City of Medicine Hat and private donations | 160.0 | This site is approximately 70 km south of Medicine Hat in the dry mixedgrass. It is 28 km north of Silver Sage Conservation Site and consists of native grassland, riparian and shrubland habitat, and tame pasture, which is important to a variety of wildlife species. The area supports seventeen "at risk" species including sage grouse, Sprague's pipit, chestnut-collared longspur, burrowing owl and is located in the Critical Sage Grouse Habitat Area. The area is home to game species like mule deer, white-tailed deer, pronghorn, moose, ring-necked pheasant and sharp-tailed grouse. |
| TOTAL | | 569.7 | |

*Benoit land donation closed April 2021. Monetary value will be reflected in the 2021/22 Annual Report.



ACA Conservation Reports

The following is a list of final project reports published in 2020/21. 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

Schmidt, B. and M. Poesch.
Determining the Distribution of Invasive Prussian Carp (*Carassius gibelio*) in Alberta Using Environmental DNA. Data Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 13 pp + App.

Wildlife

Jones, P.F. 2021. Can Pronghorn Serve as an Umbrella Species for other Grassland Obligate Species? Technical Report, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 14 pp + App.

Project: Fisheries Access Site Management
Description: Boulder Lake Conservation Site
Photo: ACA, Marco Fontana



Photo: ACA, Charmaine Brunes

Report A Poacher and Livestock Compensation Programs

Report A Poacher

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

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

2020/21 Overview

- 18,922 total calls from the public to the RAP toll-free hotline.
- 3,867 calls about suspected illegal activity – reporting fish and wildlife resource crimes.
- 660 charges laid.
- \$101,500 in rewards paid to individuals whose call and information led to charges.



Livestock Compensation Programs

For producers whose livestock may have been killed or injured because of predators (eagles, cougars, bears and wolves) or careless discharge of a firearm, relief is provided through the Wildlife Predator Compensation and Shot Livestock Compensation programs. Like Report A Poacher, we are responsible for program promotion and compensation fund management, while Alberta Justice and Solicitor General is responsible for incident investigations and determining payouts.

Predator Compensation 2020/21

| Wildlife Predator | Claims | Compensation (\$) |
|-------------------|------------|-------------------|
| Bear & Black Bear | 22 | 30,740 |
| Cougar | 12 | 10,796 |
| Eagle | 2 | 3,577 |
| Grizzly Bear | 60 | 98,024 |
| Wolf | 112 | 147,948 |
| TOTAL | 208 | 291,085 |

Shot Livestock Compensation 2020/21

| Shot Livestock | Claims | Compensation (\$) |
|----------------|-----------|-------------------|
| TOTAL | 11 | 20,567 |

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.

2020/21 Overview

- Received 132 applications, requesting almost \$1.8 million.
- Supported 69 projects with \$961,653 of funding.
- Leveraged an estimated \$4 for every \$1 spent by ACA Conservation, Community, and Education Grants.

COVID Relief Fund

The COVID Relief Fund was created in 2020/21 by the Board of Directors to assist organizations that in the past five years received funding from one of the ACA Grants. This grant funding provided a one-time payment to organizations that suffered financial hardship, particularly related to raising funds associated with administrative costs. The applicant was required to show a decline in revenue between March and July 2020 compared to the same period in 2019 of a minimum of 15% to qualify to receive the grant.

2020/21 Overview

- \$2,500 One Time Payment to Applicants.
- Funded 16 Organizations with a total of \$40,000.

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 evaluating activity survey apps to calculate the conservation and economic values from recreational activities such as hunting.

2020/21 Overview

- Received 35 applications requesting almost \$1 million.
- Funded 16 research projects with a total of \$329,587.
- Leveraged an estimated \$3.5 for every \$1 spent by ACA Research Grants.

ACA Grants in Biodiversity

The ACA Grants in Biodiversity Program supports projects by master's and doctorate students from around the world who are studying the flora, fauna, and habitat of Alberta. Grants are given for two-year terms. The program is funded by ACA with a sponsorship from Syncrude Canada Ltd. (a \$250,000 commitment over five fiscal years [2019/20 to 2023/24]).

2020/21 Overview

- A total of \$211,000 of grants distributed with individual grants ranging from \$2,140 to \$17,160.
- 19 student projects were funded as follows: 14 Masters and five PhD candidates from the University of Alberta, University of Calgary, University of Lethbridge, Université Laval, and McGill University.

- Invasion was a common theme amongst some of the projects funded. From parasites that do not quite kill to invasive sportfish to the Chinese mystery snail. Other funded projects include the effects of municipal wastewater on rainbow trout, aversive conditioning of urban coyotes, and the impact of wildfire on forest biodiversity.

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: apps.ualberta.ca/directory/person/boyce.

2020/21 Overview

- In 2020, Dr. Boyce and his students published several research papers in peer reviewed journals. The research cover, ducks, black bears and caribou (<https://apps.ualberta.ca/directory/person/boyce#Publications>).

ACA Conservation, Community, and Education Grants

| Recipient | Project | Funding |
|---|--|-------------|
| Alberta Fish & Game Association | Pronghorn Antelope Migration Corridor Enhancement | \$40,278.00 |
| Alberta Fish & Game Association | Pomrenk Property Wildlife Friendly Fencing | \$9,000.00 |
| Alberta Fish & Game Association | Increasing Habitat for Species at Risk in Alberta's Grassland Region through Promotion and Implementation of Best Management Practices | \$29,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Army Cadet Program | \$3,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Field to Table Seminar | \$1,500.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Outdoor Bound Mentorship Program | \$6,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's National Archery in the School Program | \$40,000.00 |
| Alberta Hunter Education Instructors' Association | New Firearms Acquisition for Alford Lake | \$3,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's 27th Annual Outdoor Woman's Program | \$15,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Provincial Hunting Day Initiatives | \$20,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Rifle Sight-In Seminar | \$2,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Teachers' Workshop | \$6,000.00 |
| Alberta Hunter Education Instructors' Association | AHEIA's Youth Hunter Education Camps (Weeks 1, 2, 3, 4) | \$32,000.00 |
| Alberta Hunters Sharing the Harvest | Wild Game for the Food Bank Program | \$8,000.00 |
| Alberta Riparian Habitat Management Society - Cows and Fish | Implementing Riparian Habitat Management Improvements for Westslope Cutthroat Trout | \$11,500.00 |
| Alberta Trapper's Association | Youth Camp and Mentoring Program | \$30,730.00 |
| Alberta Trapper's Association | Trapper Education in Schools | \$25,100.00 |
| Alexis Nakota Sioux Nation | ANSN Hunting and Fishing Knowledge Transfer Youth Project | \$30,000.00 |
| Ann & Sandy Cross Conservation Area | Fencing to Improve Wildlife Movement and Harvest On and Near the ASSCA | \$36,676.00 |
| Becoming an Outdoors Woman | Becoming an Outdoors Woman Camp | \$1,700.00 |
| Bow River Trout Foundation | Bow River Policeman's Flats River Access Update | \$21,500.00 |
| Calgary ATV Riders Association (CARA) | Meadow Creek Trail Rehabilitation Project | \$16,500.00 |
| Calgary Chapter Pheasants Forever Canada Society | Post-secondary First Pheasant Mentor Hunt Program | \$5,000.00 |
| Calgary Hook and Hackle Club | Beginner Fly Tying and Tying in the Community | \$3,000.00 |

| Recipient | Project | Funding |
|---|--|-------------|
| Camrose and District FGA | Habitat Improvement, Protection, and Inventory Project | \$10,822.50 |
| Castor Fish and Game Club | Evaluation of Parr Reservoir (Castor Creek) for Fish Stocking Suitability | \$11,000.00 |
| Chinook Pheasants Forever | Sauder Reservoir Habitat Project | \$30,510.00 |
| Devon Fish and Game Club | Jim Nelson Memorial Trout Pond Dock Replacement | \$20,000.00 |
| Ghost Watershed Alliance Society | Watershed Education, Literacy, and Restoration Project | \$20,400.00 |
| Grassy Lake Recreation Association | Sherburne Reservoir Boat Launch Rehabilitation | \$24,000.00 |
| H.A. Kostash School | H.A. Kostash Youth Mentorship Program | \$8,200.00 |
| Helen Schuler Nature Centre | Community Engagement in River Valley Conservation | \$2,100.00 |
| Innisfail Fish and Game Association | Waterfowl Nesting Habitat Enhancement | \$1,500.00 |
| Inside Education Society of Alberta | Wildlife Education in Alberta Schools | \$20,000.00 |
| Isabelle Sellon School | Place-based Learning and Archery | \$2,500.00 |
| Junior Forest Wardens - Yellowhead Regional Council | Trailblazer Advanced Camp | \$2,900.00 |
| Kimiwan Lake and Wildlife Preservation Society | Kimiwan Birdwalk Outdoor Classroom | \$15,000.00 |
| Kneehill Bow Hunters and Archers | Public Awareness & Education through Mentorship Project | \$2,000.00 |
| Lesser Slave Lake Bird Observatory Society | Avian Monitoring and Outreach Education Programs at Lesser Slave Lake | \$20,250.00 |
| Lesser Slave Watershed Council | Kids Can Catch Family Day 2021 Event | \$2,130.00 |
| Lethbridge Fish and Game Association | Mentored Hunts | \$3,000.00 |
| Lethbridge Fish and Game Association | LFGA Community Recruitment and Education Fund | \$13,500.00 |
| Marshall Springs School | Outdoor Education: Wildlife Identification and Safety | \$1,000.00 |
| Mountain View County | Riparian & Ecological Enhancement Program | \$25,000.00 |
| Northern Lights Chapter/ Trout Unlimited Canada | Aeration of Hasse Lake | \$20,126.00 |
| Northern Lights Chapter/ Trout Unlimited Canada | Dogpound Riparian Protection - Mader Property | \$39,434.00 |
| Northern Lights Fly Fishers/ TUC Edmonton Chapter | Conserving and Restoring Arctic Grayling in the Upper Pembina River Watershed - Habitat Restoration Planning | \$7,000.00 |
| Northern Sunrise County | Skwarik Riparian Enhancement Project | \$28,000.00 |

| Recipient | Project | Funding |
|---|--|---------------------|
| Oldman Watershed Council | Measuring Success of Oldman Headwater Education and Restoration Efforts | \$25,000.00 |
| Onoway Fish and Game Association | Wild Bird & Bee Houses | \$2,500.00 |
| Partners in Habitat Development c/o Eastern Irrigation District | Partners in Habitat Development | \$5,000.00 |
| Red Deer County | Wildlife and Native Habitat Enhancement in Red Deer County via ALUS (2020) | \$40,000.00 |
| Southern Alberta Bible Camp | Walleye - Pike Fishing | \$2,500.00 |
| Southern Alberta Bible Camp | Pelletry Program | \$1,500.00 |
| Southern Alberta Bible Camp | Archery Program | \$3,000.00 |
| Strix Ecological Consulting | American Kestrels - Using nestboxes and technology to increase awareness and promote conservation | \$14,956.40 |
| Sturgeon County | Habitat Heroes Day Camp | \$2,100.00 |
| Sturgeon County | Dock System - Cardiff Park | \$3,000.00 |
| Taber Fish and Game Association | Taber Fish and Game and ACA Youth Fishing Recruitment Day | \$15,000.00 |
| Taber Fish and Game Association | Winter Family Fun Fishing Day | \$8,100.00 |
| Town of Cochrane | Kids Can Catch 2020 | \$3,000.00 |
| Town of Hanna | Helmer Dam Revitalization Project - Phase 1 | \$10,000.00 |
| Town of Redcliff | Redcliff Landfill Wetland Enhancement | \$2,500.00 |
| Trout Unlimited Canada | Alberta Eastern Slopes Strategic Watershed Action Team (SWAT) 2020 | \$30,000.00 |
| Trout Unlimited Canada | Yellow Fish Road/ Water Edu-Kits | \$21,040.00 |
| Trout Unlimited Canada | Pinto Lake Recreational Fishery Development Project | \$15,000.00 |
| Valhalla School Foundation | DEKER (Developing Environmental Knowledge and Respect) | \$15,000.00 |
| Wetaskiwin County | Wetaskiwin/Leduc Alternative Land Use Services (ALUS) | \$5,600.00 |
| Wild Sheep Foundation Alberta | Evan Thomas and Bow Valley Vegetation Management: Mountain Sheep and Ungulate Prescribed Burn Habitat Enhancement Planning | \$10,000.00 |
| TOTAL FUNDING: ACA CONSERVATION, COMMUNITY, AND EDUCATION GRANTS | | \$961,652.90 |

COVID Relief Fund

| Recipient | Funding |
|--|-----------------|
| Alberta Invasive Species Council | \$2,500 |
| Alberta Prairie Conservation Forum | \$2,500 |
| Beaverhill Bird Observatory Society | \$2,500 |
| Calgary Fish & Game Association | \$2,500 |
| Canadian Parks and Wilderness Society – Northern Alberta Chapter | \$2,500 |
| Edmonton Valley Zoo | \$2,500 |
| Elbow River Watershed Partnership | \$2,500 |
| Friends of Fish Creek Provincial Park Society | \$2,500 |
| Glenbow Ranch Park Foundation | \$2,500 |
| Lacombe Fish & Game Association | \$2,500 |
| Land Stewardship Centre of Canada | \$2,500 |
| Narrow Lake Conservation Centre | \$2,500 |
| Nature Alberta | \$2,500 |
| Red Deer Fish & Game Association | \$2,500 |
| Spruce Grove Fish & Game Association | \$2,500 |
| Weaselhead/Glenmore Park Preservation Society | \$2,500 |
| TOTAL FUNDING: COVID RELIEF FUND | \$40,000 |

ACA Research Grants

| Recipient | Project | Funding |
|---|--|---------------------|
| Athabasca University | Algae as Modifiers of Fish Health in Agriculture-Impacted Waters | \$9,750.00 |
| fRI Research | Predator-Prey Dynamics and Habitat Disturbance: Are all Disturbances Created Equal | \$18,500.00 |
| University of Alberta | Chronic Wasting Disease in Deer: Modeling transmission from contact rates | \$11,000.00 |
| University of Alberta | Wildlife Monitoring to Support Urban Ecological Planning | \$21,500.00 |
| University of Alberta | Evaluating Activity Survey Apps for Conservation and Economic Valuation from Recreation | \$33,700.00 |
| University of Alberta | Sustaining Access and Social License for Hunting in a Mix-Use Conservation Site: A case study in the Cooking Lake-Blackfoot PRA | \$27,000.00 |
| University of Alberta | Chronic Wasting Disease Inactivation by Humic Substances | \$25,000.00 |
| University of Alberta | The Changing North: How will thawing and burned permafrost peatlands impact habitat for woodland caribou and moose | \$34,000.00 |
| University of Alberta | Interactive Effects of Landscape Diversity and Local Flower Abundance on Wild Pollinator and Other Beneficial Insect Abundance, Diversity, and Interactions in Agricultural Landscapes | \$29,500.00 |
| University of Alberta, Augustana | Distribution and Habitat Associations of Semi-Aquatic Furbearers in the Beaver Hills Biosphere | \$28,750.00 |
| University of Calgary | Causes and Consequences of Gut Microbiome Diversity in Bighorn Sheep | \$21,000.00 |
| University of Lethbridge | Ecological Epidemiology of Emerging <i>Ambystoma tigrinum</i> Virus (ATV) in a Population of Tiger Salamanders in Southwestern Alberta | \$9,387.00 |
| University of Lethbridge | Wildlife Effects on Genetic Diversity and Population Connectivity in the Long-toed Salamander | \$34,000.00 |
| University of Lethbridge | Testing the Effects of Recreational Trails on Plant Communities and the Spread of Invasive Plant Species | \$11,500.00 |
| University of Montana | Bull Elk Recruitment, Survival, and Harvest in a Partially Migratory Elk Herd in the Ya Ha Tinda; Year 4 (Final) | \$15,000.00 |
| TOTAL FUNDING: ACA RESEARCH GRANTS | | \$329,587.00 |

2021 ACA Grants in Biodiversity Recipients

Syncrude Canada Ltd. continued to support the ACA Grants in Biodiversity Program with a \$250,000 commitment over five fiscal years (2019/20 to 2023/24).

| Recipient | Institution | Supervisor(s) | Project Title |
|---------------------------------|--------------------------|----------------------------------|---|
| Emily Baumgartner (Ph.D.) | University of Calgary | Steven Vamosi | On the population health and persistence of long-toed salamanders, <i>Ambystoma macrodactylum</i> , in the Bow River Corridor |
| Chloe Christenson (M.Sc.) | University of Alberta | Mark Poesch | Assessing the potential impacts of whirling disease along a temperature and elevation gradient in the Bow River basin |
| Hayley Drapeau (M.Sc.) | University of Alberta | Suzanne Tank | Impacts of glaciers on microbial biodiversity, food webs, and carbon cycling in Banff and Jasper National Parks |
| Priyanka Dutt (M.Sc.) | University of Lethbridge | Robert Laird | The Lansing Effect in <i>Lemna turionifera</i> (Lemnoideae) |
| Megan Edgar (M.Sc.) | University of Alberta | Mark Poesch | Effects of invasive Chinese mystery snail and Northern crayfish in food webs in southern Alberta reservoirs |
| Kaitlin Holden (M.Sc.) | University of Alberta | Viktoria Wagner | A cross-habitat comparison of nutrient availability and levels of invasion in Central Alberta |
| Gabrielle Lajeunesse (M.Sc.) | University of Alberta | Colleen Cassady St. Clair | Community-based aversive conditioning of urban coyotes in Edmonton |
| Brianna Lorentz (M.Sc.) | University of Alberta | Colleen Cassady St. Clair | Bridging the gap between pest management and conservation through the development of an effective translocation protocol for Columbian ground squirrels (<i>Urocitellus columbianus</i>) |
| Brooke McPhail (Ph.D.) | University of Alberta | Patrick Hanington | Using digenean trematodes as a surrogate for host biodiversity in reclaimed wetland habitats in Alberta |
| Shannon Meadley Dunphy (Ph.D.) | McGill University | Anna Hargreaves | How do positive and negative interactions with neighbours affect elevation gradients in fitness and species range limits? |
| Benjamin Mercer (M.Sc.) | University of Alberta | Rolf Vinebrooke | Cumulative impacts of invasive sportfish and rising temperatures on alpine stream ecosystems. |
| Raytha Murillo (Ph.D.) | University of Alberta | Viktoria Wagner | Quantifying the role of soil disturbance and propagule pressure as drivers of invasion across three habitat types in central Alberta |
| Bukola Oguntuase-Osagie (M.Sc.) | University of Lethbridge | Theresa Burg | Genetic basis for the population differentiation and local adaptation of White-crowned sparrows (<i>Zonotrichia leucophrys</i>) to different forest habitats |
| Marcel Schneider (M.Sc.) | University of Alberta | Charles Nock | Comparing vascular plant species and functional diversity in forest remnants of harvested and wildfire disturbed stands |
| Kyle Shanebeck (Ph.D.) | University of Alberta | Stephanie Green & Clement Lagrue | What doesn't kill you may not make you stronger: Sub-lethal effects of parasites on body condition and heavy metals in river otter and mink |
| Marcus Sommers (M.Sc.) | University of Alberta | Charles Nock | Comparing structural complexity and tree attributes in fire and harvest remnants |
| Roxanne Turgeon (M.Sc.) | Université Laval | Sandra Hamel & Fanie Pelletier | Relative influence of the drivers of population dynamics in mountain ungulates |
| Emma Vaasjo (M.Sc.) | University of Calgary | Doug Whiteside | Gastrointestinal microbiome development, diversity, and its potential relationship to captivity and antibiotic use in a captive population of endangered greater sage-grouse (<i>Centrocercus urophasianus</i>) |
| Graham Young (M.Sc.) | University of Calgary | Mathilakth Vijayan | Effects of municipal wastewater and stormwater effluents on the metabolic performance in Rainbow trout (<i>Oncorhynchus mykiss</i>) |

Auditor's Report

Project: Recreational Opportunity Enhancement
Description: Private land enrolled in the sign in for access program
Photo: ACA, Kelsey Cartwright

June 11, 2021
Edmonton, Alberta

INDEPENDENT AUDITOR'S REPORT

To the Members of Alberta Conservation Association

Opinion

The summary financial statements, which compromise the summarized statement of financial position as at March 31, 2021, and the summary statement of operations are derived from the audited financial statements of Alberta Conservation Association for the year ended March 31, 2021. We expressed a qualified audit opinion on those financial statements in our report dated June 11, 2021.

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, 2021, 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

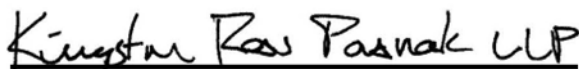
We expressed a qualified audit opinion on the audited financial statements in our report dated June 11, 2021. The basis for our qualified opinion was that, in common with many charitable organizations, the Association derives some of its revenue from donations, the completeness of which is not susceptible 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.

Responsibilities of Management for the Summary Financial Statements

Management is responsible for the preparation and fair presentation 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

Chartered Professional Accountants


ALBERTA CONSERVATION ASSOCIATION
Summarized Statement of Operations
Year Ended March 31, 2021

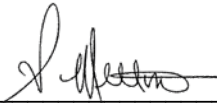
| | 2021 | 2020 |
|--|---------------------|-------------------|
| REVENUE | | |
| Levy, fees and assessments | \$ 15,025,013 | \$ 13,198,056 |
| Partner contributions | 1,588,976 | 1,985,975 |
| Miscellaneous | 323,632 | 271,940 |
| Donations | 15,484 | 89,646 |
| Interest income | 572 | 22,537 |
| | 16,953,677 | 15,568,154 |
| EXPENDITURES | | |
| Salaries and benefits | 6,993,200 | 7,639,823 |
| Materials and supplies | 2,029,984 | 1,746,963 |
| Grants | 1,547,053 | 1,525,407 |
| Contracted services | 1,257,399 | 1,359,261 |
| Rentals | 439,413 | 591,119 |
| Landowner agreements | 319,097 | 219,078 |
| Office | 318,941 | 299,591 |
| Repairs and maintenance | 288,433 | 284,474 |
| Advertising | 257,582 | 233,990 |
| Amortization | 245,294 | 305,124 |
| Insurance | 184,880 | 168,427 |
| Telephone and communications | 153,749 | 161,383 |
| Fuel and lubricants | 142,959 | 166,823 |
| Utilities | 93,168 | 82,846 |
| Freight and postage | 65,983 | 71,915 |
| Bank charges and interest | 41,893 | 40,730 |
| Travel | 40,295 | 231,905 |
| Fees, licenses and permits | 26,175 | 19,500 |
| Training and membership | 24,808 | 31,470 |
| Bad debts | 21,633 | - |
| Hosting and conferences | 5,092 | 46,062 |
| Interest on loans | 520 | 7,185 |
| | 14,497,551 | 15,233,076 |
| EXCESS OF REVENUE OVER EXPENDITURES FROM OPERATIONS | 2,456,126 | 335,078 |
| OTHER REVENUES (EXPENDITURES) | | |
| Unrealized gain (loss) on investments | 912,391 | (917,145) |
| Investment income | 300,007 | 452,211 |
| Gain (loss) on disposal of property and equipment | 33,358 | (13,059) |
| Gain on sale of investments | 16,914 | 138,345 |
| Land grant expense | (279,000) | - |
| | 983,670 | (339,648) |
| EXCESS (DEFICIENCY) OF REVENUE OVER EXPENDITURES | \$ 3,439,796 | \$ (4,570) |

ALBERTA CONSERVATION ASSOCIATION
Summarized Statement of Financial Position
March 31, 2021

| | 2021 | 2020 |
|--|----------------------|----------------------|
| ASSETS | | |
| CURRENT | | |
| Cash | \$ 3,348,313 | \$ 696,851 |
| Short term investments | 8,821 | 10,962 |
| Accounts receivable | 474,353 | 424,347 |
| Inventory | 632 | 1,071 |
| Goods and Services Tax recoverable | 55,413 | 41,324 |
| Prepaid expenses | 116,508 | 660,476 |
| | 4,004,040 | 1,835,031 |
| LONG TERM INVESTMENTS | 6,601,268 | 5,308,701 |
| PROPERTY AND EQUIPMENT | 34,931,472 | 33,337,794 |
| FILM COLLECTION | 1,549,577 | 1,549,577 |
| | \$ 47,086,357 | \$ 42,031,103 |
| LIABILITIES AND NET ASSETS | | |
| CURRENT | | |
| Bank indebtedness | \$ - | \$ 20,000 |
| Accounts payable and accrued liabilities | 1,893,133 | 1,704,602 |
| Source deductions payable | 85,310 | 82,003 |
| Deferred contributions | 3,635,030 | 4,139,733 |
| Deposits | 37,888 | 33,690 |
| | 5,651,361 | 5,980,028 |
| NET ASSETS | | |
| Invested in property and equipment | 36,481,049 | 34,887,371 |
| Internally restricted | 582,675 | 443,349 |
| Unrestricted | 4,371,272 | 720,355 |
| | 41,434,996 | 36,051,075 |
| | \$ 47,086,357 | \$ 42,031,103 |

ON BEHALF OF THE BOARD


 _____ Director


 _____ Director

BASIS OF PRESENTATION (Note 1)

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 any 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 2020/21, ACA received \$15,025,013 in levy revenue from hunting and angling licences, representing an increase of \$1,826,957 from the previous year. Residential fishing licences increased over the prior year by approximately 77,000 contributing \$1,416,000 to levy. Wildlife certificates were required to be purchased with each draw in the 2020/21 year, resulting in an overall increase in revenue from wildlife certificates of approximately \$550,000. In addition, residential hunting licences also increased over the prior year contributing approximately \$360,000 in additional levy. Non-resident licences in hunting and angling decreased by approximately \$570,000 due to the COVID-19 restrictions.

Despite the challenges of a world pandemic in 2020/21, 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, Predator Compensation, Shot Livestock and RAP Programs had expenditures totalling \$11,770,833, plus an additional \$1,944,125 in land purchases from partner funds and donations (for accounting purposes, these funds are recorded as assets, not direct operational expenditures). Total expenditures for the year (includes Land Purchases and Donations) were \$13,714,958 resulting in approximately 91.3% of the levy value collected being directly invested back into conserving Alberta's resources. Although 91.3% is lower than in past years, it is a direct result of the increased hunting and fishing licence sales and decreased expenditures during the year due to COVID-19 restrictions. ACA recognized a \$2,456,126 surplus in the 2020/21 fiscal, this surplus

will be used for future conservation activities in the coming fiscal years.

ACA received approximately \$3,872,789 in non-levy revenue (including \$1,944,125 in land donations and funds for land purchase), representing 20.5% of total revenue. These funds came from a variety of donors, including individuals, corporations, granting foundations, the federal government, and other conservation organizations. Total revenue of \$18,897,802, means ACA was able to leverage levy dollars an additional 25.8% 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 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 four resource areas.

Administration costs (6.5% of expenditures) continue to be well below the federal guideline for charitable organizations and includes areas such as regional and corporate administration.

2020/21 ended in an unbudgeted operational surplus of \$2,456,126 (revenues minus expenses). ACA used \$187,180 of this surplus for capital expenditures (included property and equipment). An additional \$582,675 is set up in

the Habitat Securement Fund for future securement activities in the upcoming fiscal year. The addition of realized and unrealized losses and gain from investments, investment income, transfer of land assets to a partner and exchange loss resulted in an accounting surplus of \$3,439,796.

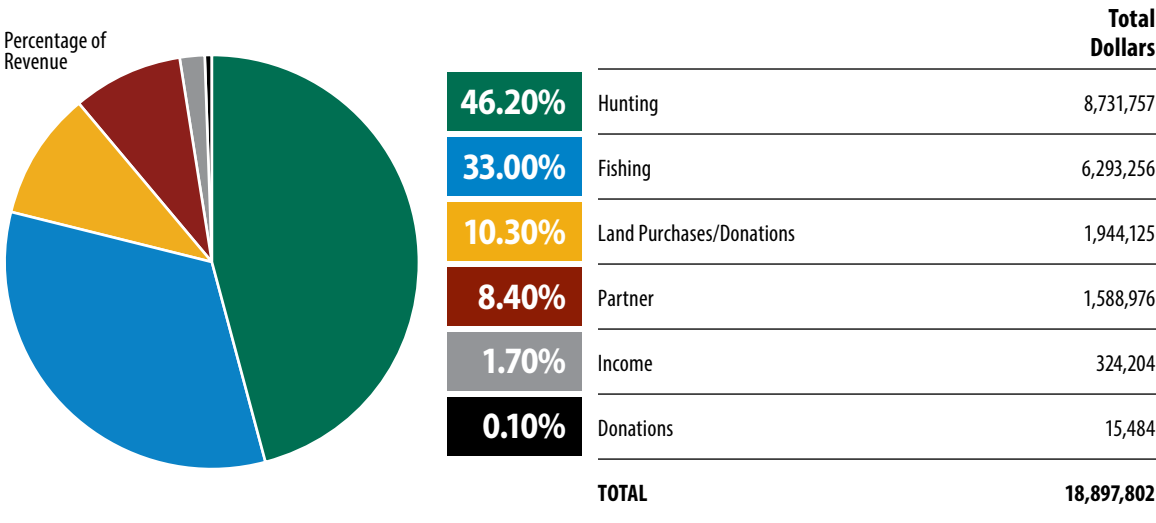
Revenue by Source

Approximately 20.5% of ACA's total revenue was generated from non-levy sources (\$3,872,879). The increase from the previous year is due to higher land donations and land purchases with partner funds. Miscellaneous and interest income are made up of a variety of revenue sources, these include, reimbursement by AEP for Predator Compensation, Raffle Ticket Sales for various ACA events, registration for Waterfowl Warmup and Taber Pheasant Festival. Interest income is a result of the bank balances and is directly available for operating activities. Land donations and purchases added approximately 570 acres to ACA's conserved lands, for future generations to use, value, and enjoy.

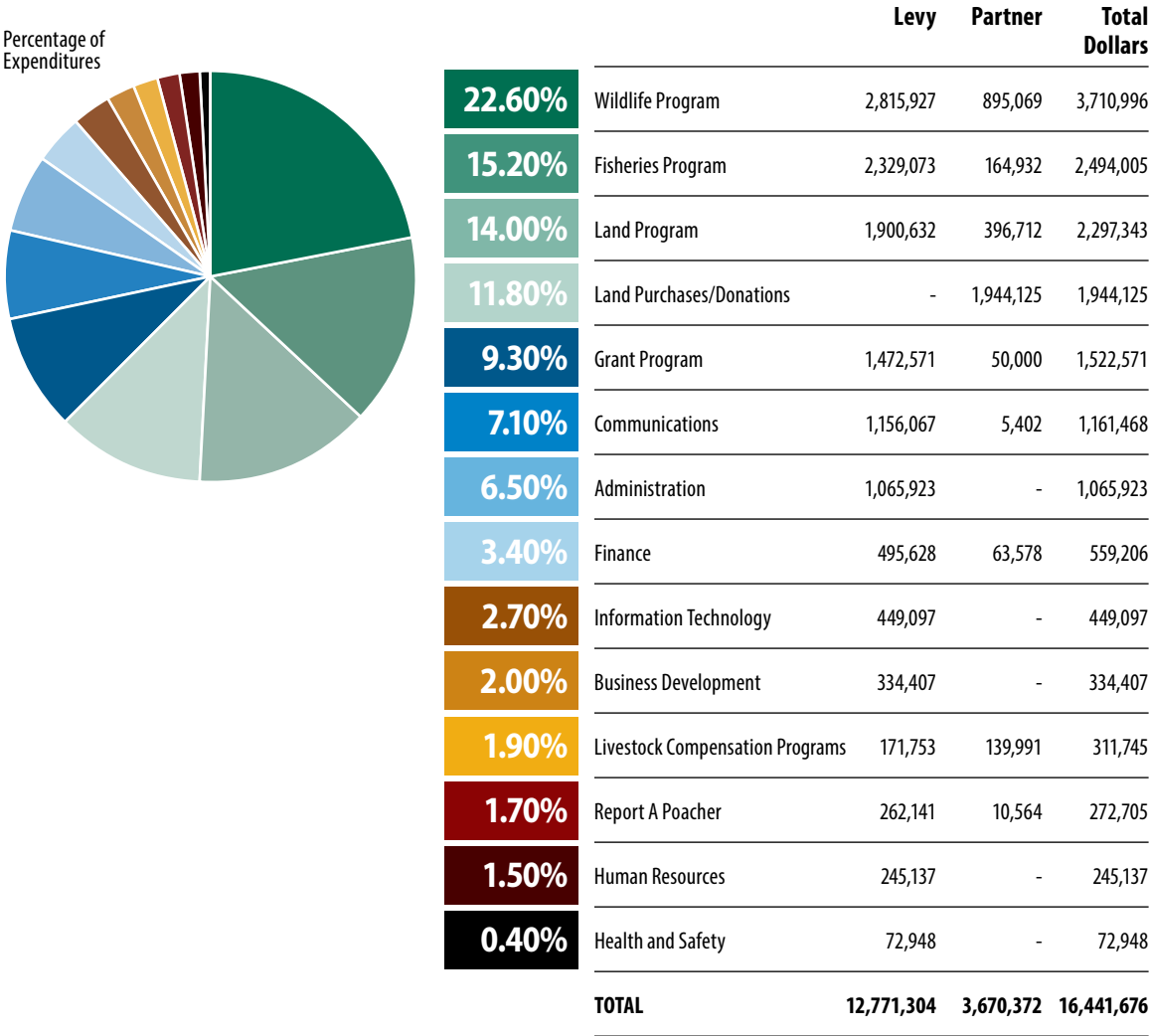
2020/21 Overview

- Total revenue of \$18,897,802
- Received \$15,025,013 from levies on hunting and angling licences.
- Received \$3,872,789 in non-levy revenue (includes land donations and partner funds for land purchases).
- Applied 91.3% of levy value directly towards the conservation of Alberta's wildlife, fish, and habitats.
- Administration costs kept to 6.5% of total expenditures.
- Current year operational surplus is \$2,456,126, which reflects increased revenues and decreased expenditures due to the global pandemic and restrictions.

Revenue by Source



Expenditures by Program



Corporate Partners in Conservation



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 Outdoor Fund

Can West Legacy Inc.

Canadian Cattlemen's Association

Canadian Natural Resources Limited

Canadian Tire – Cochrane

Capital Power

CCI Inc.

City of Beaumont

City of Fort Saskatchewan

City of Lacombe

City of Medicine Hat

Clear Hills County

CN Rail

ConocoPhillips Canada Resources Corp.

County of Cardston

County of Warner

Cycle Works Motorsports

Dow Chemical Canada ULC

Edmonton Trout Fishing Club

EQUUS

Foster Park Brokers

Give Back Contracting

Heritage Inn (Taber)

High Caliber Products

Holiday Inn Calgary MacLeod Trail South

HUVAN Construction

Inter Pipeline Ltd.

Korth Group

MacFarlane Pheasants Inc.

Martin Motor Sports

Matrix Solutions Inc.

Mercer Peace River Pulp Ltd.

Mountain View County

Municipal District of Greenview

Northern Sunrise County

Nutrien

Ovintiv

Saddle Hills County

Shell Canada Limited

Southern Alberta Bowhunters Association

St. Mary's River Irrigation District

Suncor Energy

Synchrude Canada Ltd.

SysGen Solutions Group Ltd.

Taber Irrigation District

TeraGo Networks

Thompson-Pallister Bait Company Ltd.

Thorhild County

Tourmaline Oil

Town of Cochrane

Town of High River

Town of Taber

Toyota on the Trail

TransAlta Generation Partnership

Tree Time Services

West Fraser Mills Ltd.

WiBand Communications

Wolf Midstream

Yeti Roughrider Rentals Ltd.



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