International Wildlife Management Symposium

Managing Wildlife in the Next Century
Thank You
for your generous support

WILD SHEEP Foundation

Special thanks to World of Music & Arts for providing an anthem singer for this event.
Contents

Message from GOABC’s President ........................................... 2

Message from GOABC’s Executive Director .............................. 4

Press Release: Conservation Organization
Hosts Successful Symposium ............................................. 5

A Vision for Conservation – Shane Mahoney ......................... 6

Message from the Premier of British Columbia ....................... 8

Message from BC’s Minister of Forests, Lands,
and Natural Resource Operations ..................................... 9

Conservation Matters ....................................................... 12

Speaker Summaries .......................................................... 36
Many years ago, a longtime outfitter and friend said that he found some hunting shows too pornographic for TV. At the time, I wasn’t sure what he meant and thought it seemed a little extreme. Now as I get older and more entrenched in the industry, I am beginning to understand, and I agree: sometimes hunting TV is too heavy and graphic for public broadcasting.

Some TV shows will sensationalize “kill shots” and undermine the challenge the hunt actually took. A mountain sheep hunt cannot really be appreciated from the comfort of one’s couch. Sheep hunters will always say half the trophy is the sheep, and the other half is getting to experience the wild country sheep live in. A person who experiences sheep country will hold that memory tight until the day they die. To give a hunt the respect it deserves, we need to make sure we capture the entire experience, not just the “kill shot”.

Lately I’ve noticed I feel some discomfort when a client brusquely tells me he wants to shoot as many big black bears as he can, that he wants to “get one out of the way” so he can get a second. Sometimes when I see high fives and joyous celebration after the shot is made, my heart gets heavy. Hunting should be a deeply spiritual experience that brings us back to the fundamental truth of how fragile our lives really are. We should never forget that an animal’s life has ended. Harvesting an animal can be respectful. It’s not good enough for hunters to just obey the law—we need to go beyond that. A harvest should be done responsibly, respectfully, humanely and with good ethics.

At the symposium, Gray Thornton of the Wild Sheep Foundation (WSF) described this as the Six Stages of the Hunter. It’s that movement from taking shots and keeping score, to really understanding what hunting is all about.

I experienced this myself and am currently watching it again as my sons grow. My younger son, Reid, is all about shooting. Right now he loves his gun, and I anticipate that as he gets older he will transition to refining his skills, selecting a specialty weapon and keeping a scorebook. I will be very proud to watch this develop and will push him as he matures, but I’ll be the most proud when he starts thinking like a true sportsman; when wildlife and the whole outdoor experience are of paramount importance. He’s still a little kid now, but by the time he’s an adult I have no doubt that society will demand he acts this way.

This is where I am going personally: my company’s website, publications and approach will reflect this. We are going to stand for responsible, sustainable, ethical use of wildlife. When I am in leadership position at GOABC, this is where the association will head as well.

~ Mark Werner
When we began to plan *Managing Wildlife in the Next Century* last summer, I started making phone calls to recruit speakers and was immediately struck by how enthusiastically they agreed to participate. The social, political, and environmental pressures on wildlife management required little explanation. Everyone just “got it”—they had all experienced these pressures and had much share.

Boone and Crockett’s Director of Marketing Keith Balfourd says that hunters have been in the “image business” ever since the Lacey Act was passed in 1900, prohibiting the trade of wildlife. Recreational hunters were baptized by fire into the public sphere. Forced to communicate the distinction between recreational hunting and marketing hunting, the early advocates talked about fair chase and ethics.

You’d think that after a century in the “image business” we’d been really good at it. The North American Wildlife Conservation Model is one of the greatest environmental success stories of the past century, but most people don’t hear about it. Our image should be responsible, ethical, stewardly, and community-minded, but it’s not. Society is changing and we haven’t communicated the benefits of hunting to the majority of the population that does not hunt. We’ve been too quiet and let the anti-hunting movement gain a foothold in the public sphere—they are very good at the “image business”.

I moved from the country to the city to go to college. I had grown up in a small town on Vancouver Island where hunting and fishing was the norm. In my first city job I found myself in an office of 300 people where I was one of two hunters. The other guy didn’t tell anyone he hunted. I soon found out why. Other staff would come into my office a “tear a strip off me” for being a hunter; they didn’t understand why anyone would hunt.

You don’t see many hunters grabbing a non-hunter by the scruff of the neck and saying “You need to hunt!” Is it because we are afraid to ask ourselves tough questions? We need to have our own answers to the question of why we hunt. The foundation of my position is that hunting is sustainable, the meat is consumed, and the harvest is humane. Each hunter should advocate based on what he believes. If you make your argument based on science and communicate it with conviction, non-hunters will better understand why you hunt.

I think the anti-everything faction has effectively portrayed trophy hunters in a bad light. The anti-everything faction will not listen to anything our side has to say. It is the majority of the people who live in cities who we must educate. You will hear me refer to this segment of the population as the 70% in the middle. They care about wildlife but are generally disconnected from wildlife management and misinformed by the anti-everything segment. The 70% in the middle are the people we need to speak to. As we think about the future of hunting, it is clear that hunters need to become more active in conservation and must communicate the role of hunting to the 70% in the middle. This will take collaboration and courage.

I’d like to thank GOABC’s President for his vision for this symposium and the Board of Directors for their support. Your commitment to stewardship is evidenced not only by your passion but also by your foresight. We call this a “fundamental shift”—it is a subtle, but important, change from focusing on the hunt to focusing on what is best for wildlife. The GOABC has been honoured to work with like-minded conservation organizations who understand that they need to take a leadership role to ensure we are hunting in the next century. We’d like thank all of our partners for helping make this event a success. An extra special thanks goes to the GOABC staff, Jennifer Johnson with her help on logistics and Jeana Schuurman for her work on this publication; the success of the symposium was a direct result of their commitment and hard work. Well done!

We heard very compelling and passionate speakers at our symposium. It is critical that we learn from this event and use it as a catalyst for future conservation initiatives. The 2013 GOABC International Wildlife Management Symposium Stewardship in Action will be a measuring stick of our progress.

~ Scott Ellis
PRESS RELEASE

FOR IMMEDIATE RELEASE
Monday, January 30, 2012

RE: Conservation Organization Hosts Successful International Symposium

On December 8-9, 2011, the Guide Outfitters Association of British Columbia (GOABC) hosted its first International Wildlife Management Symposium: Managing Wildlife in the Next Century. This was an expansion on previous symposiums to explore the management of social, political, and environmental pressures on wildlife management in other jurisdictions. The goal was to learn from other regions and strategize for the future.

One of the event’s objectives was to trigger a fundamental shift among those who support legal hunting, and, indeed, a sense of urgency emerged from the collaborative message of the speakers. Recent surveys have shown 15% of the population opposes all hunting, and that 85% of the population supports legal hunting. Of the 85%, about 15% are hunters. The anti-hunting movement has been united and well-funded, successfully appealing to the 70% in the middle with their loud and emotional messaging. What will wildlife management look like in the next century? If we as hunters do not relay and enhance the legacy of the hunter conservationist, someone else will formulate a vision for wildlife management. That vision may neglect the important balances in and between wildlife populations, and it will likely assume that stewardship means leaving resources untouched. It is doubtful that hunting will be part of that vision.

As hunters, we must become more united and strategic. We need to be leaders in conservation, not only providing a voice for hunters, but advocating for wildlife. This means getting involved in habitat conservation and enhancement projects, educating non-hunters, getting involved in our communities, connecting with our politicians, and providing financial resources to conservation when we are able.

“We are really pleased with how this symposium went,” states President Mark Werner, “It was certainly the beginning of a new era for GOABC. We want to be leaders in conservation here in BC. We are planning another symposium for 2013, but the theme will be a little bit different. I’ll be disappointed if the event reviews everything we talked about in 2011. The 2013 Symposium will be a “report card” on this first symposium. What did we learn and what are we doing about it?”

Symposium attendees were equally optimistic about the event’s results. Wild Sheep Foundation’s President and CEO Gray Thornton offered his reflections on the event, “Just wanted to congratulate you and your fine team on a superb symposium! I attend many of these, most have questionable value and few take aways. This symposium bucked that trend with superb presentations, very diverse topics and many take aways. Well done! We were very pleased to sponsor and will so again.”

Wildlife Stewardship is our Priority™
There are two fundamental questions that from now on must inevitably haunt humanity. The first is: What do we want from the earth? This is a pragmatic question and focuses upon demands for resources and space. With seven billion of our species gnawing relentlessly at the roots of production and consuming the storehouses of the natural world at a ferocious pace, this is a question pregnant for strife and conflict. It will be the architect for a problematic future unprecedented at the global scale, though certainly there have been many historical examples of ecological collapse and human catastrophe at the regional and local levels. In this sense we know both the enemy and the future: it is us and it is ours. Yet this question is at least one where we can estimate the cost of our existence in terms we all can easily understand.

The second question is much harder to define and requires a more nuanced understanding of both the natural world and our basic humanity. It requires us to presume that the natural world is finite and that human beings are no less tied to its rhythms of production and recovery than are the great whales that swim the world’s oceans or the carnivores that race their prey across the great grassland plains. This second question forces us to consider the limits to human population growth, the choices we must make regarding our demands upon natural systems and the fact that human beings everywhere, regardless of opportunity or advantage must, ultimately and inescapably, harvest from nature in order to survive. Much hinges on this second question, yet its metrics are incredibly difficult to define. Still, somehow we need to decide: What do we want for the earth? After all, its future is in our hands.

While this question seems intractable, I believe we already know a lot about what we really want, at least generally. I believe we want a world of wildlife and scenic diversity, a world of clean water and air, a world where mankind can be provisioned by working within nature rather than by destroying it, a world where human health and cultural diversity can be maintained and a world where traditional livelihoods can be supported and fostered. I believe the majority of people would accept these standards. I believe they would recognize within them the full potential for human beings to remain engaged in harvesting from nature; though certainly also ensuring that such harvests are not depletive, but are tied to the capacities of nature to supply, sustain and replenish. This is what an ecological approach to humanity entails.

What a truly ecological approach does not entail is preempting man’s natural engagements with the rest of biodiversity or denying his inalienable dependence on the products of natural systems. An ecological approach does not include turning humanity from engaged participant to stylistic voyeur or rejecting his evolutionary and historic role as a predator, harvester and cultivator of the natural world. Nor does an ecological approach permit one to disregard the myriad of human cultures whose day to day lives are completely dependant upon and inevitably lead to animal use and animal death as an ongoing reality – fishers, hunters, ranchers, and farmers. In trying to disassemble humanity’s taking of animal lives and describe it as foreign to moral living, or gratuitous, surely we must also deny the direct food and related economic dependencies of billions of people around the world. Are not these people and their cultures also part of the world’s biodiversity and worthy of our interest, admiration and protection?

I believe they are. Indeed, I believe they represent the founding professions of humanity and as such are part of that
A VISION FOR CONSERVATION

by Shane P. Mahoney

original and historic landscape of human-nature engagement that we ought to be most concerned with preserving. For buried somewhere in these odysseys to existence are truths of great significance to humanity, lessons that were hard won by experience and practical engagement that inform how we can most successfully live within the natural world. These lessons have surely also confirmed our absolute dependence on the natural systems we capture and utilize. Precisely because of this knowledge, I also believe these human enterprises must be especially concerned for the natural world and for the lives of animals and the future of species.

Those of us who have been directly responsible for the deaths of animals bear an even greater burden of duty. We are now part of the very fabric of nature and have participated in its vital exchange. We have been witness to death, the passing of life and the undeniable end that awaits all living forms. By our hands has the fire of existence been extinguished in sentient creatures that have enthralled us since our earliest beginnings and continue as a source of fascination and beauty in our lives; creatures that lured us to art and religion and, eventually, to our very notions of humanity. As hunters we have experienced the natural world in ways most human beings never do and can appreciate its intricate designs as essential to the future of wildlife and our own species as well. Our days afield with wild creatures are now indelible parts of ourselves; their deaths an indelible part of our lives.

So it ought to be that we give back to nature more than others; and more than we have taken. Working to ensure the viability of nature and the sustainable use of wild resources ought to be an understood requirement of hunters, as much a part of the hunting experience as learning animal sign or how to safely and accurately use a firearm. Society ought to witness this commitment in our ranks and understand by it that hunting is indeed a force for conservation and not some frivolous indulgence. We cannot simply say we are conservationists and concerned for wildlife’s future. We must demonstrate this and do so emphatically, over and over again. Only by doing so can we convince society of our concern for the wild others we pursue; the same wild others that have sustained us in so many ways over such a long and improbable arc of time.

Doing so will require a good deal of hunters. It will require an understanding of the role of wildlife science and research, of the complex challenges of wildlife management, and of the social and political forces that come to bear on wildlife issues. It will require speaking out on issues and expressing a willingness to learn from others who are knowledgeable about wildlife. It will require dialogue with a wide spectrum of groups whose roles and perspectives may differ considerably but who are equally active players on behalf of wildlife nevertheless. In short, it will require doing things like organizing this wildlife symposium.

The Guide Outfitters Association of British Columbia has clearly launched upon a conservation mission. Certainly the membership of their organization and its leadership must be concerned with the practical realities that confront their businesses. They have, after all, invested their lives and that of their families in these endeavors. Yet, they are clearly concerned with far more than this and are working for the conservation of wildlife in a much broader sense. They are, in fact, demonstrating what seemingly a large percentage of our society has failed to realize; namely, that conservation matters. They are also demonstrating what passion and commitment and broad thinking can achieve.

There are many conservation minded organizations of greater size and means than the Guide Outfitters Association of British Columbia; but very few can attest to having organized a meeting on wildlife conservation equal to the one described in the pages to follow. Bringing practitioners from around the globe together to discuss important issues facing wildlife is not an easy task. It is, however, a sign of commitment, maturity and poise that, if emulated by other organizations throughout North America, would quickly advance wildlife conservation to a vastly improved level of concern and discussion with governments and the public alike. It would also elevate the role of hunting as a force for wildlife conservation.

Let us hope this example is not lost on the wider hunting community but inspires it to do more in the name of conservation. For in the end it is not hunting, but conservation itself that must, and truly does, matter most.

Wildlife are our sentinels of hope, no less today than in our distant past. We ought never to lose sight of this.
A Message from the Premier

December 8, 2011

As Premier of the Province of British Columbia, I would like to welcome everyone attending the first International Wildlife Management Symposium in Richmond.

I understand that a variety of perspectives on wildlife management will be represented at the symposium. This will no doubt be an informative event, and I wish you all the best in your discussions on best wildlife management practices.

To those of you who are visiting from outside of Vancouver, I hope you will enjoy your stay in British Columbia and have an opportunity to explore the beauty and bounty of the region. Nestled between the Pacific Ocean and the North Shore mountains, I am sure you will find the Vancouver region offers many cultural, social, and recreational activities to complement your West Coast experience.

Again, please accept my best wishes for an interesting and thought-provoking symposium.

Sincerely,

Christy Clark
Premier
This symposium’s theme, Managing Wildlife in the Next Century, speaks directly to the responsibility I have undertaken as Minister of Forests, Lands and Natural Resource Operations.

My ministry was established to simplify how we sustainably manage our natural resources, improving access to the tools and permits that businesses need to thrive in this province. For resident hunters and guide outfitters, I’ve recently introduced Wildlife Act amendments that will create new recreational hunting opportunities and support the guide outfitting industry. The bill will create a new mentorship-style Initiation Hunting Licence for residents 18 years of age or older who want to explore hunting with an experienced hunter, and increases the age of youth from 10 to 13 years of age, to 10 to 17 years. This means more inclusivity for teen youth to participate and learn about hunting.

I also know that being a guide outfitter is often a lifetime career. That’s why the bill will extend the guide certificates term from up to 10 to up to 25 years, creating greater business certainty. We’re also seeking to give you more business flexibility and the time you need to submit your guide declarations by moving the declaration provision from the Act into a regulation.

We’ve also launched the new Angling, Hunting and Trapping Engagement Site that gives everyone the opportunity to review and comment on proposed angling, hunting and trapping regulations. This is part of the ministry’s ongoing efforts to enhance public engagement and create a more efficient, transparent and productive regulations development process.

Guide outfitters and hunters like yourselves know B.C.’s wilderness best and I know that on any given day, you’re out there promoting the responsible use of the environment and the sustainable use of wildlife for the benefit of future generations. This government values the partnership we have with the Guide Outfitters Association of BC. Thank you for your contribution to BC’s economy and to the wildlife conservation of our province.

Sincerely,

Steve Thomson
Minister of Forests, Lands and Natural Resource Operations
Keith Balfourd, Marketing Director for the Boone and Crockett Club, presents The "Fair" in Fair Chase.

Artist and First Nations representative Roy Henry Vickers presents The Four Directions of Stewardship.

GOABC President Mark Werner presenting thank you gift to speaker Ben Carter of Dallas Safari Club.

GOABC President Mark Werner presenting thank you gift to speaker Gray Thornton of The Wild Sheep Foundation.

Joe Tetlichi, Chair of the Porcupine Caribou Management Board, presents Management of Caribou in Times of Uncertainty.

Chief Rick McLean of the Tahltan First Nation presents on managing natural resources and the role of First Nations.

Chief Willie Charlie of the Chehalis First Nation shares a traditional story about the relationship between humans and the earth.

Andrea Barnett of Ducks Unlimited presents on landscape management and DU’s approach to stewardship projects.

International Wildlife Management Symposium
Conservation Matters™ • 10
Thomas Baumeister of Montana Fish, Wildlife and Parks compares the German model for wildlife management with the model in Montana.

Mark Werner with Bobby Fithian of the Alaska Professional Hunters Association after presenting on predator management.

Conservation expert Shane Mahoney provokes and inspires the group during dinner with his presentation Why Conservation Matters.

GOABC President Mark Werner presenting thank you gift to speaker Robert Cahill of the Fur Institute of Canada.


Roy Henry Vickers (R) poses a question to speaker Thomas Baumeister (L) on the role of hunters in wildlife management.

GOABC Past President Dixie Hammett and symposium sponsor Greg Williams of Golden Bear Outfitting listen to Don Peay (Sportsmen for Fish and Wildlife) on the Utah experience with wildlife management.

Darrel Rohledge of the Alliance for Public Wildlife discusses issues with game farming in Canada.
EXECUTIVE SUMMARY

In December 2011, the Guide Outfitters Association of British Columbia (GOABC) held its first International Wildlife Management Symposium Managing Wildlife in the Next Century. Exploring some of the most pertinent and controversial issues in wildlife management, the 2-day event sought to strategize for the future by comparing challenges and approaches in different regions. As initially envisioned, each speaker investigated the web of connections between social, political, economic and environmental pressures on wildlife management. How are decisions made? What are our priorities? Who influences them?

It was very clear that wildlife managers are facing new and very serious challenges, and will continue to do so in the future. This paper summarizes these challenges under three interconnected themes:

- Social Change and the 70% in the Middle
- The Hunter Conservationist
- The Institution in Peril

Certainly the change in social perceptions is the most pressing of these challenges. Today many urban people are removed from nature and the reality their existence has on their environment. The majority of people are not required to grow or harvest their own food, but human existence still depends on nature—though this may only be realized when a cold spell in Florida raises the price of a bag of oranges in BC.

We have attempted to sever an innate connection to nature. As a consequence, we have grown disillusioned with what it means to respect the environment. Recent surveys have revealed that 15% of the American population supports legal hunting and 15% opposes all hunting. Unfortunately, this anti-hunting, animal-rights movement has been much more active and strategic than the 15% advocating for hunting. Backed with a highly emotional message, the anti-hunting movement is influencing the 70% in the middle, who are neither for nor against hunting.

Disillusionment has fueled a rise in the “natural diversity” approach to the use of wildlife and other resources. This is evident in our national parks and approach to species at risk. Contending that nature is best left untouched, it has been purported as stewardship. In reality, broken ecosystems, imbalanced wildlife populations, and unmitigated impacts from human development are the antithesis of stewardship. Humans have been interacting with nature since the beginning of time; it is a relationship that has oscillated between periods of triumph and tragedy. The current movement towards closing wildlife off to a portion of land and saying “don’t touch” is not stewardship, it is a tragedy.

One of the triumphs of our history was the development of the North American Wildlife Conservation Model in the early 20th century. Created through the collaborative efforts of hunters and passionate political leaders, the North American Model vested responsibility for wildlife in the public trust, protected against potential abuses, and successfully brought many wildlife populations back from the brink of extinction.

Under this doctrine, responsibility for wildlife is vested in the institution. This is the foundational principle of the North American Model. Unfortunately, the effectiveness of the model lessens when the collaborative relationship between hunters and government decision makers disintegrates. Hunters have become fragmented and unwilling to work together, and the 15% anti-hunting minority has been providing our leaders with a different vision for wildlife management that assumes that resources will manage themselves—that “Mother Nature knows best.”

One of the greatest recoveries in natural resource history is attributable to hunters and fishermen, but this legacy has not been sustained or enhanced. More than ever, it is important for hunters to be active in conservation to ensure hunting is valuable to the general public, but involvement in stewardship efforts is also important because it can provide a strong partner for the institution. The symposium hoped to trigger a fundamental shift among hunters from caring about hunting to caring about wildlife. In order to appeal to the 70% in the middle, hunters need to be dedicated to wildlife stewardship, concerned about ethics, and active in their communities. We need to promote sustainable use, and speak in a language that non-hunters will understand.

Most importantly, hunters will need to be leaders in conservation. Our 15% will need to become more united and find ways to collaborate with like-minded conservation organizations to effectively communicate to government and society the role of hunting in wildlife management. We will need to be at the forefront of issues concerning the environment, backed with science and professionalism.

INTRODUCTION

Initially devised with the hopes to establish a commitment to the North American Wildlife Conservation Model in BC, it was quickly evident to the visionaries behind GOABC’s first International Wildlife Management Symposium that the event would be much more than this. Bringing together conservation experts and biologists from around the globe, the symposium explored different ways of balancing social, political, economic and environmental pressures on wildlife management.

Managing Wildlife in the Next Century was a springboard for those in attendance, providing both inspiration and practical “take aways” on balancing pressures. Although the topics covered in the symposium were diverse, several themes regarding challenges and opportunities in the next century emerged. This paper will explore these themes.
Why Conservation Matters: The Connection

“We are all wildlife. We are part of the system,” conservationist Darrel Rowledge stated during the first morning of the symposium. Earth’s resources sustain human life. Even in the age of high rise apartments and the concrete jungle, humans have a relationship with the earth and a close connection with its wildlife. The word “eco” comes from the Latin word for house. Ecology was, and is, the study of our home. If we safeguard wildlife, we will by default protect the habitat that we both depend on. Conservation matters because human lives matter.

In recent years our society has become eager to sever the connection with nature in the name of advancement. We have had some success in this regard. Today 80% of the Canadian population resides in urban centers. In general, we are proud of our mastery over nature, our advancement from the “uncivilized” dependence on nature of the past.

Despite this shift, even those who live and work in areas with more asphalt than green space will retain an innate connection to nature. In the summer adults migrate to the balcony to watch meat cook over an open flame, and children cannot get enough hours to enjoy sprinklers, pools, and slip-and-slides. Shane Mahoney described this well by noting that, “For no logical reason, everyone in Texas has a fireplace.”

Living in close relationship with the land, North America’s earliest people had a strong understanding of the connection between the earth and its inhabitants. Chief Willie Charlie of the Sts’ailes Band relays the principles of his ancestors with a story. When the earth was first made, nature observed that humans were the weakest part of all creation. Nature agreed to support humans in their weakness, providing food, shelter and clothing. Nature asked only for respect in return. In the Chehalis culture, origin stories such as this one define law and custom. This story in particular is their foundation for wildlife stewardship. It reveals the true connection between man and earth: it is one of dependence, innate love and respect.

For the modern man, the innate love is buried but enduring. It is very difficult to respect nature when dependence is not understood.

THE CHALLENGES

The Hunter Conservationist

When Lewis and Clark first ventured across the American west in 1804, they were astounded by the diversity and abundance of the wildlife they saw. Impressive herds of bison, bighorn sheep, deer and elk were noted in their journals, which would
be brought back to their commissioner, President Thomas Jefferson. It is shocking that in less than a century, the social, political, economic and environmental pressures of expanding human development decimated wildlife populations across North America.

Canadian Prime Minister Sir Wilfred Laurier and American President Theodore Roosevelt both recognized the severity of this problem, and were among the first to push the conservation movement forward. They had a vested interest: they were hunters. The principles coming out of this initial movement eventually became the North American Wildlife Conservation Model, which outlines seven interconnected principles for the sustainable use of wildlife.

1. **Wildlife is a public resource.**
   In the United States and Canada, wildlife are held in the public trust and managed by government for the benefit of all people. All citizens have an interest in how wildlife are managed.

2. **Balance the market for wildlife.**
   As with any natural resource, there is an economic aspect to wildlife, but it is important that this does not trump sustainability. During the early North American settlements, commoditization of wildlife grew and the demand for some wildlife resources outstripped supply. For example, bison populations were negatively impacted from the combined effect of increasing demand for bison hides from early settlers and relatively constant, but not insubstantial, First Nations harvest.

3. **Manage wildlife through law.**
   This principle is linked to the first two. Government has the responsibility to create laws and regulations to protect and enhance wildlife populations.

4. **Hunting should be democratic.**
   When wildlife is held in the public trust, hunting cannot be limited to certain pockets of the population. In North America, every citizen has an opportunity to hunt and fish in compliance with the law. Hunting is not limited by private land ownership or special privilege.

5. **Wildlife should only be killed for legitimate reasons.**
   Hunters only harvest surplus wildlife, and it is typically a very small percentage of the population. Many states and provinces have laws and regulations protecting against the wanton waste of wildlife. In North America, the broad guidelines that restrain use of wildlife are for food, fur and predator control.

6. **Wildlife is an international resource.**
   The management of wildlife in one country will affect wildlife elsewhere. Working collaboratively, the United States and Canada strive to manage land and wildlife to ensure that neither takes more than its share of the common resource.

7. **Use science to guide wildlife management decisions.**
   Population estimates, reproductive rates, land ecology, and habitat capacity should help guide decision-making. Science should inform and fuel stewardship efforts.

Propelled by the passion of hunters and...
buttressed by early politicians, the model is truly a joint effort between hunters and the institution. It would not have been successful without collaboration between the two. Notable recoveries include black bears, grey wolves, bison, whitetail deer, and many waterfowl species. The North American Model is an amazing natural resource success story that most non-hunters—and many hunters—are unaware of.

Unfortunately, today many hunters are not engaged in conservation. Some do not consider the threats to the future hunting as serious, and others have little concern for wildlife itself. The hunter conservationist that developed the North American Model is not the norm today. Surplus dollars from licence sales do not make a hunter into a steward.

Native-born German Thomas Baumeister currently works as the Hunter Education Coordinator for Montana Fish, Wildlife and Parks. It was the allure of hunting opportunity that originally brought Thomas to Montana, but he still holds a high regard for the German model for managing wildlife, which is often criticized as being elitist.

Germany is home to an abundance of game and has maintained a surprising amount of wild space despite industrialization. In contrast to the North American Model, hunting rights are vested in property rights, not in the public trust. Those who wish to hunt must undergo extensive hunter education and memorize a “dizzying array of laws”¹. Licensed hunters can individually obtain the hunting rights to a patch of private land, or become part of a hunting pool that leases the rights. They will also be responsible for the wildlife in the hunting area. Not only are they required to develop a game management plan, they are also must pay for any damage to agricultural lands and clean up after wildlife-vehicle collisions. Germany’s model is built on the responsibility of hunters, and the role of the institution is to provide the framework to ensure hunters are invested and responsible.

Thomas contends that the “Achilles’ heel” of the North American Model is that hunters are mere participants. A man can purchase a licence, but he is not truly invested. If the wildlife population in a certain region of his state declines, the North American hunter can easily buy a tag in a different region. For that hunter, the declining population is of little concern to him.

The North American Model was built around a strong group of active hunters. Unfortunately, across the continent, the overall number of hunters is dropping. Just over 2% of BC’s residents purchased hunting licences in 2010—this is a far cry from the 7% that purchased hunting licences in 1975. Decreases in the number of hunters have grave implications for fish and game departments, and many states and provinces are introducing hunter recruitment and

retention programs to help address the problem. “The great irony is that many species might not survive at all were it not for hunters trying to kill them,” writes National Geographic columnist Robert N. Poole in Hunters: For the Love of the Land, “[hunters] pay millions of dollars for licenses, tags, and permits each year, which helps finance state game agencies.” In BC $120 million has been provided to stewardship efforts since 1981 from licence surcharge dollars paid by guide outfitters, hunters and anglers (administered through the Habitat Conservation Trust Foundation).

Today, there are many conservation organizations that do excellent work to promote stewardship, but our efforts are hindered by our fragmentation. In this sense, the anti-hunting movement has been much more successful. Our 15% has been divided and preoccupied with arguments over allocations, equipment choice, preferred location and species. Our greatest and most pressing challenge in the next century will be convincing non-hunters of the value of hunting. This is important because hunters help pay for conservation.

We will not be prepared to do this unless the legacy of the hunter conservationist is sustained and enhanced. If we are not united and active defending hunting now, we will lose our traditions and wildlife will pay the price.

**SOCIAL CHANGE AND THE 70% IN THE MIDDLE**

Recent surveys have revealed that 15% of the American population supports legal hunting, and 15% opposes all hunting. The anti-hunting minority uses loud and persistent marketing to target the 70% in the middle, who care about wildlife but are misinformed. The reminders of our connection with nature can be disillusioning when we are far removed from natural realities.

Today only a small portion of the population depends on wild game meat for survival. Our connection with the land is unclear and many people only see fruits and vegetables in the supermarket, and meat neatly enclosed in plastic and styrofoam. In our country the food chain has become “so long, intricate and obscure that neither producer nor consumer has any reason to know the first thing about the other”.

One in five Canadians has boycotted food products because of concern over animal welfare. Eight percent of the Canadian population defines themselves as vegetarians, and 30–40% of people seek out meatless alternatives on a regular basis. Attitudes towards food and the environment are changing. Today many people believe that it is both realistic and stewardly to manage natural resources by leaving them untouched. As Fredreich Schiller stated about France in 1796, “…as nature begins

---


““The policy of our nation is made in cities, controlled largely by urban voters who aren’t well informed about the changes on the face of the land, and the men and women who work it.”

~ Barbara Kingsolver, Animal, Vegetable, Miracle: A Year of Food Life (HarperCollins, 2008)
gradually to vanish from human life as a direct experience, so we see it emerge in the world of the poet as an idea. We can expect that the nation which has gone the farthest towards unnaturalness would have to be touched most strongly by the phenomenon of the naïve."

It is ironic that the North America Wildlife Conservation Model could lead to the end of hunting because of its commitment to citizen engagement. Under the public trust doctrine, democracy is embedded into wildlife management. Elected leaders are tasked with representing their voters and making decisions for the greater good. Hunters need to gain the support of the 70% in the middle because, here in North America, the people (Greek δῆμος) have the power (Greek κράτος).

In his presentation on why hunting ethics are important, Boone and Crockett’s Director of Marketing, Keith Balfourd, relayed a list of things that society decided “had to go”. This list included slavery, market hunting of bison, women not being allowed to vote, doctor-recommended cigarettes, mullets, and disco. If hunters are not active in promoting conservation and defending sustainable use, society will add hunting to the list of things that “had to go”. Conservation expert Shane Mahoney once mused that this could happen in less than a generation if we are inactive. The core message that must be communicated to the public is that the hunt is sustainable, the meat is consumed and the harvest is humane.

Young entrepreneur and avid hunter Marcel Mennink brought an interesting perspective from his experiences in the Netherlands. In 2002, the single-issue political party Partij voor de Dieren (Party for the Animals) was established. Four short years later, the party received 179,988 votes (about 2% of the total) and earned two seats in parliament. The animal-rights movement has a strong foothold in the Netherlands. One recent animal-rights initiative there was to create a 22 square mile nature reserve. It was filled with 1,200 wild horses, 2,200 red deer and 550 heck cows that would live with relative freedom and not be managed in any way. Unmitigated reproduction and insufficient food resources resulted in a massive die-off that left only 70 horses, 245 red deer and 10 heck cows behind after the first winter.

Stories from around the globe provided an indication of how seriously we need to take these social changes. Well-meaning but misguided efforts spearheaded by the anti-hunting minority can have significant implications for wildlife. One close-to-home example was provided by Robert Cahill of the Fur Institute of Canada, who presented on the seal hunt in northern Canada. Portrayed by the anti-hunting minority as morally unconscionable, Canada has gained international notoriety for its continued willingness to hunt seals. Without a doubt this has been one of the hottest and most emotional topics pushed by a relentless and well-funded anti-hunting minority for the last two decades. The pressure led to an European Union (EU) ban on seal products in 2010. Rob relayed the story of the seal hunt with a warning noting, “Today the focus is seals, but what will it be tomorrow?”

Symposium attendees recognized parallels from across the globe during Ron Thomson’s presentation of elephants in Africa. No other continent has spent as much time as in the international spotlight for its management of wildlife as Africa. Ron has over three decades of experience as a game warden in the former Rhodesia, and has become one of the leading advocates for sustainable hunting in Africa. During the 1980s, uncontrolled elephant poaching in Kenya and Tanzania led to the decline of some populations. Ron is careful to distinguish between species, groups of animals that share the same characteristics,
and populations, groups of animals that share the same characteristics and interact on a day-to-day basis. International anti-hunting pressure “…hijacked society’s responsibility and common sense” and led to elephants as a species being listed as a Species at Risk under Convention on International Trade in Endangered Species of Flora and Fauna (CITES). This was done despite the fact that healthy elephant populations existed in many places.

Wildlife management guided by social and political pressures had dire consequences for many elephant populations. Today Africa’s national parks are said to “protect” the elephant, but they are doing the exact opposite. Since elephants have a heavy impact on their surroundings, excessive populations will cause permanent damage to soil and plants. A big elephant population is not necessarily a healthy one. Elephant populations have the ability to double in a decade through emigration and reproduction. Without intervention, elephant populations will continue to balloon until habitat capacity is far exceeded, at which point the population will crash. After the crash, the population will remain low for a while, expand and crash again. Each time the population grows and crashes within the boundaries of the national park, biodiversity is irreversibly lost. Eventually the elephant will cannibalize its own habitat. Without plants, elephant populations will starve and die off permanently. Compare the photos of the Rwindi Plains in 1934 and 1959. Continued loss of biodiversity leads to desertification.

**THE INSTITUTION IN PERIL**

The North American Model assumes collaboration between the government and hunters, but what happens when the relationship is non-existent or non-collaborative? What happens when the institution fails? What happens when hunters forget their legacy as conservationists? How do we address the decline of hunting and conservation revenue? What can we learn from other jurisdictions?

During the first decade of the 21st century, we entered into the worst economic recession since the Dirty Thirties. Budgets for fish and wildlife departments across the country were slashed. With declining hunters numbers from coast to coast, the recession added insult to injury for many states and provinces. In North America, one of the primary challenges of the managing institution is, and will continue to be, procuring the sufficient resources for wildlife conservation initiatives.

In October 2008, the Founder of Sportsmen for Fish and Wildlife, Don Peay, had the opportunity to present at the Whitehouse Conference on Conservation. His comments were not well received. While many were advocating the allocation of further state and federal funds towards conservation, Don contended that this would be ineffective—it is not how much you have, but how you use it. He provides an example from his home state of Utah. Considering the traditional
supply and demand curves, the economics of hunting in Utah were very poor. Low quality product and attractive alternatives in other states had lowered demand for Utah hunts. Government had maximized tag sales, but neglected to create high quality, high success hunts. They could neither recruit nor retain a market, and the department’s budget was on thin ice.

When Utah rebuilt its management model around creating abundant fish and wildlife populations, interest in hunting and fishing increased. Management efforts were refocused, the support of politicians was gained and a number of high value projects were selected. As a result, applications for Utah’s hunts went from approximately 20,000 applicants in 1997 to more than 250,000 in 2010. “Build it,” Don states confidently, “and they will come.”

This North American story about a failing institution is relatively tame in comparison with others from around the globe. Michael Kjelland is a hunter, professor, ecologist, and biologist who has been extremely involved in promoting conservation in Latin America. In the last decade Michael and biologist Thomas Saldias have been part of a group of hunters advocating for hunting in Peru. In the 1970s, data on wildlife populations was unavailable, so the government decided to prohibit nearly all hunting. Land reforms during that period left two places open for hunting, a total area of approximately 15,000 hectares. If you wanted to hunt legally in Peru, you had to know the right people. Since hunting was so restricted, heavy “subsistence hunting” (poaching) occurred throughout the country. Illegal guiding for Peru’s sought-after species occurred behind the scenes but provided no revenue to government. From 2004-2008, the Peruvian government made just under $4,000 from hunting—pennies compared to the $2 billion earned in Texas, the $3.6 billion earned in Spain, the $300 million made in Mexico and the $150 million in Argentina.

In 2007 the Central Peru Chapter of Safari Club International (SCI) was born, and the group went to government and took to the radio to promote the benefits of hunting. At the outset, the institutional challenges seemed insurmountable. Longtime silence from the stifled hunting industry had left government vulnerable to anti-hunting pressure, guiding legislation had been recycled from other countries, and the fish and wildlife department was data deficient. Each election could mean a complete turnover in decision-makers, and elected officials filled the fish and wildlife department with their friends (regardless of qualifications).

Against all odds, the group successfully got legislation passed in 2008 to allow hunting. Celebrations ensued. A few short days later, a violent uprising from local communities began. Although the legalization of recreational hunting had been widely supported, controversial changes to other natural resource legislation had been tacked on to the same bill. To remedy the situation, the entire bill was discarded, and many staff were released from their positions. SCI Peru was back at square one. They continued their efforts and, in July 2011, were successful. Recreational hunting is now legal in Peru.
Zaryblek Abdekaev, commonly known as Saku, is a guide outfitter in Kyrgyzstan. Following the fall of the Soviet Union, their framework for wildlife management and predator control collapsed. This is evident in the population of Marco Polo sheep, which fell from 76,000 in 1976 to 15,000 in 2011. Social and economic crisis left government unsure of how to manage wildlife, and created widespread unemployment. Nearly a quarter century has passed, but Saku contends that today’s government is still too corrupt and disorganized to properly manage wildlife. Hunters and guide outfitters are beginning to think of new ideas for managing wildlife. Since high predator populations are inhibiting the recovery of Marco Polo sheep, groups of hunters are banding together to reduce wolf populations. They are also suggesting a revision to the trophy fee model that brings hunting revenue back to local communities.

What can we learn from these international stories? It may be tempting to think that we are far removed from this type of political instability, but there are many correlations. Here in BC, our industry anxiously awaits the appointment of ministerial portfolios following an election. We wonder if the appointee will be someone we have an existing relationship with, and whether or not they will be able to demonstrate the leadership necessary to manage wildlife. Consider the controversy surrounding the seal hunt, BC’s grizzly bear moratorium in 2000 or Don Pey’s experience in Utah—these are “canaries in the mineshaft,” warnings that our North American institutions are not impervious to instability caused by social and political change.

Although cultures and management frameworks differ, the perspectives from Kyrgyzstan and Latin America provide valuable insight into the foundations of wildlife management. Under the North American Model, the public trust is the foundation of wildlife management, but those who are concerned about wildlife need to be prepared to stand up and provide ground-level leadership if the institution is in crisis. Political change, limited resources, and economic or political crises can compromise underpinnings, but a united group of conservationists can reinforce existing foundations or establish new ones.

**LOOKING FORWARD**

**The Fundamental Shift**

The anti-hunting, animal-rights movement does not portray hunters as stewards. Instead, hunters are portrayed as greedy, heartless, enemies of wildlife—not a very likeable or relatable image for those who do not hunt. We are coming towards a time when the general public will only accept hunting if it is linked to conservation.

Hunters need to work towards changing the stereotype. Oil and forestry companies gain public respect when they undertake environmental work. The public wants to know that those who use resources are thinking about the future. Accusations that hunters are selfish and shallow are best countered with tangible proof of conservation projects, community initiatives and funds dedicated towards science and conservation. The proof is in the pudding.

When it is obvious that hunters truly care about the future of wildlife, the 70% in the middle will become more receptive to the benefits of hunting.

At GOABC, we have been referring to this as the “fundamental shift”. Hunters need to start thinking about the future of wildlife, not only the survival of their hobby. Gray Thornton, President and CEO of the Wild Sheep Foundation, aptly describes this shift by outlining the Six Stages of the Hunter. Every hunter will transition through these phases, but we want to move the majority of hunters into stages five and six.

1. **Shooting Stage**
   During the initial introduction, a hunter’s priority is taking shots. This is the “nothing is dying unless the lead is flying” phase.

2. **Limiting Out Stage**
   Here the hunter takes fewer shots, but is primarily concerned with “filling the tag”. The scope is narrow and not holistic.

3. **Trophy Stage**
   In the Trophy Stage, the hunter begins to prefer quality over quantity. They become more selective in their pursuits and start to place a lot of value in the size and score of the animal.

4. **Method Stage**
   During this stage, process becomes of increasing importance. The hunter values the challenges presented by different equipment, and begins to define an identity. Although this is typically a positive movement towards maturity, it can become very divisive among hunters.

5. **Sportsman Stage**
   Success is measured by the total outdoor experience. When the sportsman relives his hunt to friends and family, he recalls the scenery, companionship, challenge and adventure—not just the animal taken.

6. **Giving Back Stage**
   Here the hunter becomes focused on the future. They are concerned with passing on their traditions and have a sense of responsibility for nature.

The 70% in the middle can relate to hunters in stages five and six. Many symposium speakers mentioned the importance of coalitions and partnerships in conservation. We share common goals and issues, and our only hope in addressing them is to play off of each other’s strengths. Shared wisdom, avenues of influence, and leveraging resources among like-minded organizations will develop valuable synergies.

Our immediate task will be to keep the legacy of the North American Wildlife Conservation Model alive among hunters and non-hunters. The management of wildlife in North America started as a collaborative effort between hunters and the institution. We must provide strong support...
for government through science, ground-level expertise, valuable insight and funding.

Wildlife management must consider the past and think broadly about the future. Circumstances will change, but proper conservation must remain the priority. In Canada case law has confirmed that the maintenance of healthy, balanced populations trumps all human interests in resource use. All users are also accountable to the principle goal of conservation.

**Predator Management**

In addition to diminishing capacity, social and political constraints have altered some facets of wildlife management. This is most evident in our approach to predator management. It took less than a century for social and political norms to be completely transformed.

During the early settlement of Canada and the United States, “Wolfers” were hired to reduce wolf populations. This initiative was followed by a combined framework of bounties, poisons and aerial gunning. In 1956 the BC Game Commission was the first in North America to remove the bounty on wolves. During the 1960s, wolf populations on Vancouver Island dropped and the non-hunting public became increasingly interested in predator management. Aerial gunning and selected poisoning occurred throughout the 1970s and 1980s, but the real change in direction became evident in the 1990s when government established a working group comprised both of consumptive users and groups vehemently opposed to any consumptive use of wildlife. Deadlocked and frustrated, the group disbanded shortly after its inception.

By 2000, the Conservation Officer Service had given up predator control and, aside from some initiatives tied to the dwindling mountain caribou herd, nothing was done about wolves in the next decade. Alberta and Alaska offer some indication of what would happen if government was to reassert its role in predator control. Proposals for wolf sterilization, bounties and aerial gunning were met with fierce opposition in Alberta and Alaska. Wildlife managers and those interested in conservation should take this drastic turnaround very seriously.

Bobby Fithian of the Alaska Professional Hunters Association (APHA) provided a success story on predator management from Unit 13 in Alaska. At the turn of the millennium Unit 13 was what Bobby refers to as a Low Density Dynamic Equilibrium (LDDE) because of large predator populations. His description of LDDEs is a strong illustration of interconnectedness of ecosystems. Mortality rates for LDDEs run at 85% predation. Here ecological imbalances force wildlife to alter their normal behavior: fearing predation, moose move into unusual habitats and enter winter seasons less healthy and less prepared to ward off disease. In a LDDE, a moose calf’s chance of surviving his first year of life is 10%. Large and hungry wolf packs will also become the primary canine predator. This impacts populations of other canine predators and their prey. Furthermore, wolves will also be forced to compete with grizzly bears, black bears and other wolf packs for food.

Aerial predator management was restarted in Unit 13 to help big game populations in the late 2000s. This was in addition to the regular trapping, snaring and ground shooting activities, and successfully helped circumvent the regular limitations of poor weather and low access. Harvest targets were met for several years consecutively, and moose populations have benefited correspondingly. Statistics revealed an undeniable connection between predator management and the number of moose calves. New hunting opportunity was created and carefully balanced with specified targets and harvest regulations. Unit 13’s story starkly contrasts the story of a government “conservation zone” adjacent to it, where animal populations have been held in a LDDE for many years, driving big game populations towards extinction and leaving residents to hunt for food in alternate jurisdictions.

Predators are now commonly regarded as an iconic species. The general public admires wolves for their beauty, but gives little thought to balance in the environment and dangers of excessive predator populations. Our public policy reflects this, and we end up robbing Peter to pay Paul: big game populations suffer to support excessive predator populations.

Bobby refers to this new approach as a “natural diversity” or “theme park” approach, fueled by a fundamental disconnect with the land. This approach forgets that humans are part of the system, and have been for many years. What humans need and the actions we take—whether it’s building a highway or a hiking trail—affect wildlife populations. An untouched wildlife population certainly does not guarantee a healthy one; actually quite the contrary is true. This same approach was referenced by Ron Thomson in regards to elephants. Shane Mahoney refers to it as the “myth of Eden” and Michael Kjelland and Kurt Alt referred to it as a “preservation model.” Clearly it is a trend in natural resource management that is being felt across many jurisdictions and species.

Our role as hunters and conservationists is to push for prudent stewardship, and sometimes it isn’t politically correct. Ron Thomson called this “tough love” in wildlife management. Social concerns need to be taken seriously, but the realities of conservation need to be communicated to policy makers and the general public. If prefaced and presented properly, the realities of ecosystems and “tough love” might be accepted.

In order to take and defend these actions, we will need data, models and science to make the efforts grounded and consistent. Furthermore, we must ensure our interest stems from a real desire for healthy, sustained wildlife populations, or the public will perceive it as a conflict of interest.
The Economics of Wildlife

In history, the market demand outstripped supply one too many times, and wildlife populations suffered as a result. The North American Wildlife Conservation Model responded to this problem by limiting market hunting to the general boundaries of fur, feathers and fish. This is a precautionary principle, not a blanket ban on all economic uses of wildlife. As with any natural resource, there is finite supply of wildlife, so it is important to be cautious, thoughtful and wise. Our task as conservationists is to ensure sustainability and conservation always have priority over financial gain. A theme arising from the symposium was that we need to balance these interests in a way that benefits all wildlife.

What makes this topic difficult to navigate is the many angles to consider. Darrel Rowledge of the Alliance for Public Wildlife provided an indication of how serious failures to strike this balance can be. Darrel has advocated to public policy makers to halt the spread of Chronic Wasting Disease (CWD), the cervid version of "mad cow disease", to wild elk and deer herds. Despite tangible proof of a linkage between CWD and the domestication and commercialization of wildlife, public policy makers have rigidly opposed changes that would help prevent the spread of the disease. Today many elk and deer populations have become infected with CWD, putting sustainability and potentially even consumers at risk. Government has spent millions to cull infected animals, and continues to support the game farming industry. Profit can cloud good sense, but there are ways that wildlife can be sustainably used to support conservation and local communities.

The North American Wildlife Conservation Model sought to prevent market abuses that were detrimental to wildlife. It did not say that earning profit from wildlife was unethical. Economics are not all bad—they can be used positively. Each year millions in revenue from licences, tags and royalties goes towards habitat enhancement and rehabilitation. Hunters and guide outfitters contribute significantly to the economies of rural communities. Many fish and game departments in the United States are funded by fees generated by hunters. Montana Fish and Wildlife, for example, is funded by 50% nonresident fees. Several symposium speakers suggested that fish and wildlife departments should not only hire staff with science degrees, but should also hire staff with business degrees. There is an economic aspect to wildlife.

Canada’s seal hunt, for example, has supported rural communities for many centuries. The hunt is sustainable, conducted in an ethical manner, and the products are not wasted. Yet this issue has slipped in and out of intense international limelight for two decades, and it is particularly sensitive...
because of the market aspect. Seal pelts, organs, meat, oil and blubber are sold for profit in the international marketplace. This traditional hunt has occurred sustainably for centuries, providing jobs and economic benefit to rural communities. Following a relentless media campaign, the European Union (EU) banned the importation of seal products. Prior to the EU ban, the hunt provided $49 million to the local economy. In less than 5 years this dropped below $5 million.

Sealing is a complex issue with socio-economic, cultural, political, welfare, and international policy undertones. In terms of holistic thinking, the ban was an enormous failure. As a result of “serious concerns by the members of the public and governments sensitive to animal welfare… the placing on the market of seals products should, as a general rule, not be allowed…” 5 Sustainable sealing occurs for conservation purposes in many countries besides Canada. The EU ban contends that the seal hunt is only ethically problematic and a concern to animal welfare when it is done for market gain. Further evidencing the ban’s miosis is the EU’s exception of Inuit hunting. With a collapsed international market, the Inuit hunting exception did little to support First Nations communities.

During the symposium, we heard similar proposals on utilizing economic gain to benefit wildlife from two very different jurisdictions: Africa and Kyrgyzstan. Ron Thomson spoke about elephant population control measures that could recruit hunters and benefit local communities. Each elephant harvest through hunting tourism in Africa’s national parks could result in a levy fee of $5,000, which would be put into a community fund managed by national park administration. If 100 animals were hunted each year, the local community could receive $.5 million by the end of the year. There is one stipulation: the community cannot poach any elephants throughout the year. Every poached elephant would result in the loss of two levies. Under this framework, the local communities would become the “greatest custodians” of the national parks. Similarly, Saku suggested a community-based program for Kyrgyzstan. If 30% of the $8,000 government trophy fee for Marco Polo sheep went to local communities, $500,000 US could be raised each year. Not only would this help reduce poaching, but it would help alleviate poverty in remote areas. Both of these proposals involve utilizing the economic value of wildlife in a positive way, creating local ownership, preventing poaching and generating wealth from a sustainable “green” resource.

**Stakeholders**

“While we are busy in-fighting, the anti-hunters are eating our lunch,” GOABC’s Executive Director Scott Ellis stated in a recent article. Our 15% has been fragmented, and our efforts in conservation have suffered as a result. Given the changing social climate, unity among stakeholders is absolutely vital. If we are fighting over weapon choice, preferred locations or

---

allocations, we will earn the reputation for being greedy and shallow that has been propagated by the anti-hunting movement. Collaboration between stakeholders helps accomplish more. Al Martin, Director of Strategic Initiatives for the BC Wildlife Federation, noted how organizations that work collaboratively can lower costs of administration by about 15% by limiting redundancy. Andrea Barnett of Ducks Unlimited referred to these as “conservation economies of scale”.

There are many places where hunters are fighting over “pieces of the pie.” There needs to be a fundamental shift towards doing towards doing what is really best for wildlife. A change in attitude will take care of the root of the disagreement.

In BC, the role of stakeholders and conservationists will need to grow in the next century. In these challenging economic times, government has been forced to re-assess spending, and there are limited funds available for wildlife inventories. Evidence of this change is visible in the gradual erosion of the budget for the Ministry of Forests, Lands and Natural Resource Operations. In three years, the Ministry has grown in responsibility, but faced a significant budget reduction. It is likely that this trend will continue. We have been told that government capacity is currently an issue, and will become more of an issue in years to come. This is a hole that stakeholders will need to fill.

Al Martin provided information on New Zealand’s unique model for wildlife management, which utilizes government finances and stakeholders. There are 12 regional Fish and Game Councils in New Zealand that employ a total of 70 staff, and utilize over 500 volunteers. This whole structure is funded by a budget of $3,257 million from licence sales. Similar structures that promote stakeholder engagement exist in many European countries. BC has had some success with collaborative conservation efforts. The Freshwater Fisheries Society, Recreation Stewardship Council and Habitat Conservation Trust Foundation all engage stakeholders, and utilize volunteer time and licence revenue towards conservation. Al suggested the establishment of a BC Wildlife Society with 9 elected regional representatives and 5 independent representatives from user groups. While the Crown would retain responsibility for regulations, the groups would use licence funding towards conservation.

Traditional Interests in Modern Context

Many people consider First Nations’ interest in wildlife management an artifact of the past. Lifestyles dependent on the earth and the wildlife it houses are showcased in our museums and written about in our textbooks, but they are rarely spoken about in present tense. One theme arising from the symposium was that First Nations’ interest in wildlife management is not only part of our history here in Canada, but also part of our future.

First Nations have the right to harvest wildlife for sustenance, social and ceremonial purposes. In his presentation, Chief Willie Charlie of the Sts’ailes Band noted how some of the younger generations have forgotten their origin story, and the law of respect that guides interaction with nature. There are various reasons for this,
A lack of engagement in the “bigger picture” is a problem. Chief Rick McLean of the Tahltan First Nation noted with regret that there was no consultation with First Nations in the development of the new Harvest Allocation Policy in BC. It is important that First Nations are not only consulted, but meaningfully engaged in issues relating to wildlife management. Harvest priority does not negate the need to engage First Nations in the “bigger picture” on conservation and stewardship. Simply and appropriately stated by Dr. Vince Crichton, “Without the resource, treaty rights are meaningless.”

Since many First Nations people continue to live close to the land, they are valuable sources of knowledge on wildlife and habitat. Mitchell Taylor referred to this as “traditional ecological knowledge.”

An interesting re-engagement success story came from Joe Tetlichi of the Porcupine Caribou Management Board. The Porcupine Caribou Herd is the fifth largest migratory caribou herd in North America, spanning across Yukon, the Northwest Territories and into Alaska. For the past 20,000 years the herd has been a key food source for First Nations in the area, and in recent years approximately 90% of the caribou harvested have been by aboriginal hunters in remote areas.

A declining caribou population led to the establishment of the Porcupine Caribou Management Board in 1986. Comprised of six stakeholders representing First Nations users, and federal and provincial governments, the board combines traditional and scientific knowledge to provide recommendations on the management of the species. Representatives make decisions in the best interests of conservation, and provide the needs and expertise of those they represent. Most importantly, they also represent the Board within their communities, and explain the importance of the Management Plan. This is vital to the success of conservation efforts. Engagement and accountability go hand-in-hand.

There is a similar story behind moose management in Manitoba. When it became evident that moose populations were declining, First Nations were meaningfully engaged. With the foundations of clear processes and good faith, consultation started at a grassroots level and this helped guide decision-making. Ultimately, the decisions were made in the best interests of conservation and in most cases also had the support of all user groups.

**Strategies**

Unlike a private company, the primary measure of success for most conservation organizations is not the bottom line, but movement towards their mission statement. Even though conservation organizations are focused on larger goals and objectives, strategy and the bottom line still matter. In fact, strategy and financial accountability are even more critical in organizations funded by donations and shareholder dues. Supporters want to see good conservation work and prudent use of funds, or they will withdraw their support in the long-term.

The history and current approach of Ducks
Unlimited (DU) reveals a very smart and strategic approach to conservation. Given the size and complexity of the issues, DU’s success is impressive. DU was originally established in 1937 by Joseph Knapp, E. H. Low and Robert Winthrop in Tennessee. As sportsmen concerned about the future of waterfowl hunting, they initially sought to address the loss of wetlands. Soon after their work began, they realized that working within their jurisdiction was insufficient, and that uplands needed attention if they wanted their efforts to be effective. They successfully met the challenge of working with various levels of government across international borders. Today a remarkable 80% of DU’s revenue goes directly towards habitat conservation.

How does DU do it? One of the keys to their success has been differentiating between opportunity-driven projects and high value projects. Instead of doing a patchwork of small stand-alone projects, DU creates networks of coordinated projects that address the long-term habitat needs of migratory birds. They exhibit strategic thinking typical of the for-profit sector. Timelines, objectives, threats and key actions are identified prior to starting a project. They strive for the best possible return on investments of time.

What is particularly unique about their approach is the widespread support they have earned. Originally founded by hunters, the efficiency of DU has earned them support from a wide base of non-consumptive users. Each of their projects involves a network of partners and stakeholders including federal, provincial and municipal governments, universities, industry, and other conservation organizations (both consumptive and non-consumptive). Intentional collaboration makes the sum of the efforts much greater than its parts.

**Science**

In BC, the status of grizzly bear populations is one of the most hotly contested environmental topics. At the start of the millennium, the grizzly bear hunt was closed when anti-hunting lobbyists successfully convinced government that populations were in trouble. After an international scientific panel reviewed BC’s management of grizzly bears, the hunt was reopened. Today the anti-hunting minority tries to build a ground swell of support based on emotion at the start of bear hunting season. Recently a popular local newspaper featured a full-page ad sporting a bear in a spotting scope with the caption “Some sports don’t deserve a trophy”. Accurate information on wildlife populations is important not only to ensure proper conservation, but also to defend management decisions on social and political fronts.

Doug Heard of BC’s Ministry of Forests, Lands and Natural Resource Operations has no qualms about the limitations of scientific models. A model is a simplification of the real world. “All models are wrong, but some are useful,” he stated in the opening remarks of his presentation on BC’s Grizzly Bear Population Model. There are tradeoffs. When your truck needs to be fixed, you want the service to be good, cheap and fast, but you will need to pick any two. The same is true for modeling. You want scientific models to be precise, realistic and general...
(broadly applicable), but you will need to pick any two of these characteristics. In the case of BC’s Grizzly Bear Population Model, Doug and his team opted for realistic and general. They acknowledge that the model is not perfectly precise, but believe it helps complement existing data to provide overarching guidance for wildlife management.

The Grizzly Bear Population Model seeks to identify variable relationships. By analyzing hair samples from selected geographic areas, recapture rates can be determined. Ecological characteristics—plant productivity, vegetation type, food sources and human disturbance—are compared with the recapture rates. The research found that precipitation, herbaceous cover, ruggedness, human density and livestock density were the key variables influencing grizzly bear populations. Dry, flat, forested areas with lots of people typically have lower grizzly bear populations. These relationships were extrapolated to other regions of the province. Regional biologists were encouraged to think critically about the model—was it estimating too high or too low? The majority of regions found the model insightful, and only a handful of regions found the population estimates too high or low.

In many ways, the development of models is more strategic than collecting field-based population estimates. A field-based estimate is a snapshot of one place in time, but a model can help identify what ecological factors are critical for conserving grizzly bear populations. Combined with other data, these estimates can help determine provincial populations and harvestable portions, but they can also provide vital strategic information on habitat conservation and enhancement.

Developing models is also much less expensive than procuring field estimates. Unfortunately, government’s capacity to do either will be greatly diminished in the future. This is particularly dangerous timing given the increasing pressures on wildlife management. It is a crucial time for stakeholders to step up and undertake strategic, scientific work. Since the Wildlife Act requires guide outfitters to reside in their territory the “majority of the time”, they are in a unique position to gather information on wildlife. Guide outfitters spend many hours afield, gaining crucial knowledge of the habitat and wildlife within their territories. Participation in estimating wildlife populations is not a conflict of interest, it is a vested interest. Guide outfitting tenures are exclusive, and since a guide outfitter is confined to the boundaries of his territory, a long-term sense of responsibility is cultivated.

To capitalize on guide outfitter knowledge and fill the need for quality information, the GOABC has initiated its own scientific data collection program. In his position at the BC Cancer Agency’s Genome Sciences Centre, Dr. Marco Marra is currently examining the genetic changes that can result in human cancers. Marco provided vision and expertise to GOABC’s DNA Collection Program, which started in summer 2011.

There have been amazing advances in technology in the last ten years that
have dramatically increased the ability to sequence DNA. Advances in the field continue to improve the feasibility of DNA sequencing and over the next decade DNA sequencing will become routine for many applications, including medicine. An attractive feature of DNA sequencing is the extent to which it can be generally applied to important problems across the spectrum of life sciences. If one can extract DNA from cells, the DNA can in principle be sequenced. The DNA sequencing technology is extremely flexible such that the same approaches can be used to sequence, for example, the DNA of plants, of animals and of microbes.

The concept behind the DNA Collection Program is that collections of appropriately annotated samples, from which DNA could be extracted, will allow scientists to ask important questions that would otherwise be impossible to address. The DNA will be of two types: nuclear DNA and mitochondrial DNA. Nuclear DNA resides in the cell nucleus and consists of the chromosomes passed from parents to offspring. Humans and other mammals have approximately three billion “letters” of DNA inside each nucleus. In addition to the nucleus, cells have other DNA-containing organelles called mitochondria. Mitochondrial DNA (or “mtDNA”) has approximately 16 thousand letters—much smaller than the nuclear DNA. DNA sequence analysis of mtDNA has been extensively used to reveal evolutionary relationships between species and diversity within populations, and so the technique may be directly relevant to pressing issues in game management in BC.

The plan is to collect samples that will yield both nuclear and mitochondrial DNA so that a diversity of studies can be considered. Sample collection can take advantage of the manpower in the field during hunting season. For example, after each harvest, an outfitter could place a small blood sample on a special card designed to preserve the DNA. Hair roots are another possible source of DNA. At the end of the season, the outfitter will send the package of cards to GOABC’s office in Surrey, where they will be catalogued and stored. Once a collection is of sufficient size and is associated with appropriate ancillary information, the sequence data could be generated and the data used to analyze wildlife populations.

This initiative could feasibly extend beyond our sector. It is a good example of a collaborative strategic project. First Nations and resident recreational hunters could submit, and government could partner in the analysis.

Conclusion

The GOABC believes so strongly in wildlife stewardship that significant resources have been dedicated to conservation initiatives. Our Board of Directors are visionaries who look beyond the immediate issues, and embrace the urgency and importance of triggering a fundamental shift among hunters. We are in a position to take a leadership role and take action to demonstrate the value of hunting in wildlife management. Conservation, not preservation, is best for wildlife. We are obligated to demonstrate to society that
Renowned artist and First Nations representative Roy Henry Vickers explained the Four Directions of Stewardship on the opening morning of the symposium. Humans need to be healers, teachers, visionaries, and warriors. These four directions are strongly interconnected, and provide a fitting summary of GOABC’s first International Wildlife Management Symposium.

If hunters want to participate in wildlife management and conservation in the next century, we will have to demonstrate these four directions.

We will need to be healers, people who recognize weaknesses in existing approaches, and seek innovation in addressing the mistakes of the past.

We will need to be teachers, informing non-hunters about the role of hunting in conservation, encouraging younger generations to get outdoors, and making everyday hunters into dedicated conservationists.

We will need to be visionaries, placing ourselves at the forefront of issues concerning the environment with goals, strategies, professionalism, science, and “big picture” thinking. It is important to think critically about the changes that can be predicted for the next century, and how we will be prepared to address them.

Finally, we will need to be warriors. A true warrior never stands alone. Sometimes it will be a fight, and we are best equipped if we stand together.
2013 International Wildlife Management Symposium

Stewardship in Action

CALL 604.541.6332 OR EMAIL INFO@GOABC.ORG FOR MORE INFORMATION

PHOTO COURTESY OF FIRESTEEL VENTURES / LOVE BROS LEE

Guide Outfitters
Association of British Columbia
Wildlife Stewardship is our Priority™
Conservation does matter.

“In a civilized and cultivated country, wild animals only continue to exist at all when preserved by sportsmen. The excellent people who protest against all hunting and consider sportsmen as enemies of wildlife are ignorant of the fact that in reality the genuine sportsman is, by all odds, the most important factor in keeping the larger and more valuable wild creatures from total extermination.”

— President Theodore Roosevelt

Join today.

www.wildsheep.org  www.superslam.org
Hunting in BC?
Consider leaving some meat behind for The Fair Chase Food Program. Since the program was first started in 1993, it has delivered more than 436,000 pounds of game meat to families in need and local charities throughout British Columbia.

Call GOABC at 604-541-6332 or email info@goabc.org

DNA Collection Program
A small blood sample can provide a wealth of information about wildlife populations. Interested in participating? Please call 604.541.6332 or email info@goabc.org
SCI Foundation has contributed over $50 million in the last decade to international wildlife conservation.

With more than 60 current projects, SCI Foundation is the on-the-ground organization for sustainable-use of wildlife.
What this buck scores is only part of the story...

How this deer got there in the first place and how he will be replaced are what should MATTER most.
ROUND THE WORLD
Al Martin has extensive knowledge and experience in BC’s resource management issues. During his time in the Ministry of Environment, he provided leadership to improve and develop science-based environmental stewardship programs, implemented policy planning and legislative processes to meet provincial resource management objectives (particularly related to fisheries and wildlife management).

He was also a government member of Public Advisory Board for the Habitat Conservation Trust Foundation (HCTF) and was on the Board of Directors for the Freshwater Fisheries Society of BC. Al is also a keen angler, hunter and outdoorsman. He retired from his position as Executive Director of Fish, Wildlife and Ecosystems in January 2010. He is currently the Director of Strategic Initiatives for the BC Wildlife Federation (BCWF).

**SUMMARY**

Many symposium speakers highlighted the importance of stakeholder engagement and cooperation. The North American Wildlife Conservation Model was built off of the collective efforts of government and hunters. This is particularly relevant today as social ideas are changing, and economic crisis has forced a reduction in many governments’ budgets.

Backed with extensive government experience, Al provided his perspective on BC’s history of stakeholder cooperation on fish and wildlife issues. The establishment of the Habitat Conservation Trust Foundation (HCTF), Recreation Stewardship Panel and Freshwater Fisheries Society of British Columbia (FFSBC) were positive movements towards creating formalized stakeholder engagement.

Based on the principle that resource users should support habitat enhancement and recovery projects, the HCTF was established in 1981. Surcharge dollars from licences and tags are allocated towards stewardship projects through the HCTF. Over the past 3 decades, this has generated approximately $125 million for projects, typically around $6 million per year ($3.5 from fishing and $2.5 from hunting). Changes to the Wildlife Act in 2005 ensured the independence of the HCTF by removing the Minister of Water, Land and Air Protection as a trustee, and establishing a board comprised of stakeholders who are responsible for deciding how funds will be allocated.

The Recreation Stewardship Panel was established in 2002 and tasked with consulting with stakeholders to remedy a significant gap between predicted revenue and expenses for the Ministry of Water, Air and Land Protection. Following the recommendation of the panel, the $18.7 million gap would be addressed in two parts. Recognizing the general interest all British Columbians have in wildlife management, general taxation would be used to cover $5.5 million in non-incremental costs (base level costs associated with acquiring land, creating and maintaining basic infrastructure). Increased user fees would cover the remaining $13.2 million in incremental costs (those associated with operating and managing recreation activities, facilities and services, and annual infrastructure repair). Donations and other contributions would be earmarked to add efforts beyond incremental and non-incremental costs.

Consistent with the Recreation Stewardship Panel recommendations, the Freshwater Fisheries Society of British Columbia was created in 2003 in response to a Cabinet directive to move the fish culture program out of government. Funded through a long-term contract with the Ministry, the society utilizes licence surcharge dollars and differentiates between incremental and non-incremental costs.

These experiences established a base framework for funding stewardship and conservation efforts in our province. User fees are dedicated to the continued provision of recreation opportunities, and conservation functions are funded through general taxation. In addition to securing a relatively stable budget for fish and wildlife conservation efforts, this structure limits competition for funding and priority between conservation projects. This results in continuity and focus. Furthermore, since the HCTF and FFSBC are able to utilize volunteers and broader public support, they are able to formulate operation efficiencies and maintain low administration costs (about 15%).

Looking forward, how can we build on these experiences? Al introduced the New Zealand Model, where the Fish and Game Council employs a remarkable 70 staff across the entire country. There are 12 Regional Fish and Game Councils and about 500 volunteers who ensure their peers follow the regulations and have their licences in order. Although the councils must report to the Minister of Conservation, the budget for the council comes from licence sales. This was approximately $3.2 million in 2010.

Al suggested a similar model for BC. A BC Wildlife Society with 9 elected representatives from regions and 5 independent participants would focus on issues of provincial importance, counterbalancing politics and science with a formalized process. Professional scientific staff would be employed to provide expertise. Not only would this structure ensure a focussed, well-funded effort from government and stakeholders on stewardship initiatives, but it could open a door for effectively utilizing volunteer time and energy.

**AL MARTIN**

**Stakeholder Corporation**

**BIOGRAPHY**

Following 30 years in the BC Public Service, Al Martin has extensive knowledge and experience in BC’s resource management issues. During his time in the Ministry of Environment, he provided leadership to improve and develop science-based environmental stewardship programs, implemented policy planning and legislative processes to meet provincial resource management objectives (particularly related to fisheries and wildlife management).

He was also a government member of Public Advisory Board for the Habitat Conservation Trust Foundation (HCTF) and was on the Board of Directors for the Freshwater Fisheries Society of BC. Al is also a keen angler, hunter and outdoorsman. He retired from his position as Executive Director of Fish, Wildlife and Ecosystems in January 2010. He is currently the Director of Strategic Initiatives for the BC Wildlife Federation (BCWF).
BIOGRAPHY

Andrea Barnett currently holds the position of National Policy Analyst for Ducks Unlimited Canada (DUC) in Ottawa. Prior to this position, Andrea worked as the Head of Industry and Government Relations for DUC in Surrey, BC and as a Policy Analyst and Communications Coordinator for the BC Cattlemen’s Association. She holds undergraduate degree in political science and philosophy and a master’s degree in public policy. She has extensive experience working on a variety of land and resource files in BC including the Wildlife Act, Forests Range Practices Act and the Water Act. Her professional interests are vast, but she most often focuses on land use programs, laws and policies at the provincial level and enjoys working with a variety of conservation partner organizations and stakeholder groups that are inspired to work toward positive change on the land. Born in the BC interior, Andrea has a passion for the outdoors and takes every opportunity she can to get outside and hike, ski, hunt and fish with her family and friends.

SUMMARY

Andrea’s presentation explored organizational strategy and effectiveness in advocacy. Not only has Ducks Unlimited (DU) accomplished a lot on the conservation front, they have also found ways to expand their reach and communicate the benefits of sustainable use. Although founded by sportsmen, DU has garnered the respect and support of the general public. Their approach provides insight into connecting with the 70% in the middle.

DU was originally established in 1937 by Joseph Knapp, E. H. Low and Robert Winthrop in Tennessee. As sportsmen concerned about the future of waterfowl hunting, they initially sought to address the loss of wetlands. Soon after their work began, they realized that working within their jurisdiction was insufficient, and that uplands needed attention if they wanted their efforts to be successful. Uplands are important for nesting, while wetlands are needed to attract and hold breeding pairs, and provide food and areas for birds to raise their young. To meet this challenge, DU came to Canada in 1938. Today there are four strongly interconnected legs to their mission. They work directly with the land, facilitating habitat retention and enhancement projects, acquisitions and land owner agreements. On a higher level, the advocate on policy, do public education and undertake research projects.

In many ways, DU operates with the vision and strategy typical of for-profit groups. They think about short-term and long-term goals, threats and partnerships—and it shows in their financial statements. Today 80% of DU’s revenue goes directly towards habitat conservation projects. Andrea identified their foundational strategic principles for undertaking conservation work:

- establish a sense of urgency
- create a guiding coalition
- identify desired goals and outcomes
- indentify stakeholders and partners and their interests
- identify key problems and barriers
- articulate needs
- define key actions
- choose the right tools
- generate short-term wins
- monitor and evaluate
- adaptive management

One of the keys to the success of DU has been differentiating between opportunity-driven projects and high value projects. Instead of doing a patchwork of small, stand-alone projects, DU creates networks of coordinated projects that address the long-term habitat needs of migratory birds. These plans are designed to create short-term “wins” to ensure public support is sustained.

In 1986, they formulated the North America Waterfowl Management Plan (NAWMP), which sought to return waterfowl populations to pre-1970s levels by conserving habitat and addressing threats. The plan encompassed 22 coordinated and complementary habitat joint ventures across North America, and each venture involved a network of partners and stakeholders including federal, provincial and municipal governments, universities, industry, and other conservation organizations (both consumptive and non-consumptive). In 1989 the North American Wetland Conservation Act earmarked money for the implementation of NAWMP habitat enhancement projects. Money coming from US donors is matched 1:1 by the government.

Their efforts towards strategy and collaboration have paid off. Today the public is widely supportive of DU and 15 million acres of critical habitat has been conserved under NAWMP.
BEN CARTER

The 70% In the Middle

BIOGRAPHY

Ben Carter is an avid outdoorsman who has taken 26 of the 29 North American Big Game Species, six of which qualified for the Boone and Crockett Club Record Book. He has hunted around the world and manages his west Texas ranch for whitetail deer, turkey and quail.

After earning his Bachelor of Business Administration at the University of Texas, Ben Carter spent four years as Marketing Manager for Burroughs Corporation, a company that makes banking equipment. Ben was also the owner of a successful residential construction company from 1985 to 2007.

Executive Director of the Dallas Safari Club (DSC) since 2007, Ben is also a Director for the Wild Sheep Foundation, a Professional Member of the Boone and Crockett Club, and a Director for the Texas Bighorn Society.

In the past, he was Trustee for the Dallas Ecological Foundation, Director for the Texas Bighorn Society, Building Committee Member for the Ursuline Academy Board, President of DSC and Convention Chair of DSC’s Annual Convention. He also serves as a Director of the Congressional Sportsman’s Foundation.

SUMMARY

Dallas Safari Club (DSC) is a strong example of strategic and united efforts in wildlife conservation. Despite its name, only 40% of DSC’s members are from the Dallas/Fort Worth area; the rest are from the United States and beyond. DSC splits funding more or less equally between the three legs of their mission statement:

- Conservation of wildlife and wilderness lands
- Education of youth and the general public
- Promotion and protection of the rights and interests of hunters

They have seen some significant successes on each front, but Ben Carter believes the most important aspect of their mission statement is education. “If we don’t recruit young sportsmen,” he states, “none of the other stuff matters.” DSC successfully developed a classroom curriculum that is in over 120 schools today, reaching over 15,000 kids each year. They have an outdoor adventures program, and bring over 400 kids to the DSC show to get them informed and excited about the outdoors.

What is truly remarkable about DSC’s efforts is that they are a largely volunteer-based organization. They have nine staff and over 500 volunteers. DSC utilizes its partnerships to enhance reach and build on the strengths of other organizations. These partnerships make resources go further, and create effective avenues into important issues. It wouldn’t make sense for DSC to advocate directly to the governments in BC or Alaska on wildlife management issues. It would be financially illogical, and they wouldn’t have the personal ties to the land or the connections in government.

Through the Preferred Conservation Partners Program, GOABC and DSC are able to reach a greater number of people and more issues with increased effectiveness. This is why partnerships make sense.

At the symposium, Ben’s presentation focused The latest surveys state that approximately 80% of the population supports hunting, but since only 10% of those people hunt, we should not take this acceptance for granted. DSC has started working with the Texas Conservation Alliance, a stewardship group that represents consumptive and non-consumptive interests. Through the alliance, they have been able to connect with a new faction of the general public, communicating the benefits of the sustainable use and the North American Model to non-hunters. Trophy hunting has its place in the hunting world, but the hunting industry needs to shift its focus towards things that are readily acceptable to the non-hunting public. Our public message should not be about the biggest whitetail or the highest score, but should focus on ethics, high professional standards, stewardship and cooperation with government. Generally this will be more familiar and acceptable to the non-hunting majority.

Ben’s message was optimistic and straightforward: we need to find common ground, think broadly, select projects carefully, formulate partnerships, utilize volunteers and defend hunting in words that non-hunters can hear. From an organizational standpoint, it said a lot about who we need to be, where we need to go and how we need to do it.
BIOGRAPHY

Robert Fithian is a licensed Alaska Master Guide who owns and operates Circle F Ranch with his family in Lower Tonsina, Alaska. He has served as the Executive Director of the Alaska Professional Hunters Association since 2002. Robert has also served as the President of the Alaska Miners Association. In 2010, Robert was recognized as one of America’s leading sportsman conservationists and was appointed to the bipartisan Wildlife and Hunting Heritage Conservation Council by the US Secretary of the Interior and the US Secretary of Agriculture.

SUMMARY

Alaska’s Constitution outlines three foundations for managing wildlife: sustained yield, sustained abundance, and maximum benefit. This means the goal is not simply the survival of wildlife, but that populations would continue to thrive in the long-term. When held in balance, these three principles will result in real stewardship.

This approach is highly criticized by people who do not understand it. When interpreted by those who do not support hunting, the conclusion is gruff and straightforward: “They just want to kill more wolves so that they can hunt more moose and caribou.” Since wildlife management involves a complex web of ecological relationships, this simplification is neither accurate nor helpful.

Using an example from Unit 13 in Alaska, Bobby introduced the concept of a Low Density Dynamic Equilibrium (LDDE). Mortality rates for LDDEs run at 85% predation. In an LDDE, the ecological imbalance forces wildlife to alter their normal behavior. Fearing predation, moose move to unusual habitats and enter winter seasons less healthy and less prepared to ward off disease. A moose calf’s chance of surviving his first year of life is 10%. One in 90 moose cows will never see a newborn calf life to maturity. Large and hungry packs of wolves in an LDDE become the primary canine predator, which impacts populations of other canine predators and their prey. Wolves will also be forced to compete with grizzly bears, black bears and other wolf packs for food, and this will result in fighting for food between the predators.

Aerial predator management was restarted in Unit 13 to help big game populations in the late 2000s. This was in addition to the regular trapping, snaring and ground shooting activities. It helped circumvent the regular limitations of poor weather and access. Harvest targets were met for several years consecutively, and moose populations have benefited correspondently. Statistics revealed an undeniable connection between predator management and the number of moose calves. New hunting opportunity was created and carefully balanced with specified targets and harvest regulations. Unit 13’s story starkly contrasts the story of a government “conservation zone” adjacent to it, where animal populations have been held in Low (LDDE) for many years, driving big game populations near to extinction and impacting adjacent human populations who depend on the wildlife for food.

Bobby encouraged wildlife managers and hunters to fight for wildlife. The socially prevalent viewpoint is that wildlife does not require management at all. This is what Bobby calls the “natural diversity” formula; the idea that wildlife will thrive on their own, despite changes in their external environment. Sometimes real management will appear harsh at first blush and may be publicly unpopular as a result. However, the vast majority of people are rational and will able to understand the greater ecological context on wildlife management issues. Our responsibility is to communicate how sustainable use, sustained abundance and maximum benefit lead to true stewardship.
Darrel Rowledge is an Albertan businessman and policy analyst. He has spent over 20 years writing and speaking on a variety of public policy issues from forests to healthcare.

Darrel is also a passionate outdoorsman and conservationist, who is well-known for his advocacy on Chronic Wasting Disease (CWD) in Canada. He is currently the President of the Alliance for Public Wildlife.

In the past, he has been involved in the Alberta Fish and Game Association, Sportsmen for 1–143 (bill to prohibit creation of new game farms in Montana), Alberta Wilderness Association, National Caucus on the Constitution and the Environment, and the University of Calgary’s Wildlife Running into the Future conference.

**SUMMARY**

All value in nature and resources begins with sustenance—keeping us alive. However, as we’ve moved beyond mere sustenance, we divided the eco-studies into a wildlife or ecology side, and a commercial or economic side. This separation began with domestication. The more people didn’t have to rely on wildlife, the wider the disconnect became. Today, many have become so focused on the economic side that they’ve lost touch with the other sources of value.

We are still, undeniably, part of the biosphere, but since domestication has become so dominant, and our economies so separated that many see themselves as completely separate from their ecosystems. “People can easily forget the connection if they don’t hunt, but a death occurred for their Happy Meal,” Darrel offers as a reminder. This disconnect with nature is dangerous because it leads us to make tradeoffs without knowing it, and these tradeoffs affect our health and the environment.

The separation of ecology and economy that began with the rise of agriculture has seen the latter develop in enormous scale. This has not happened without a cost. Throughout history, the vast majority of human diseases, epidemics, and pandemics originated in animals. Confinement stresses animals and compromises their immune systems. At the same time, domestication exposes them to myriad new pathogens as a result of high densities of their own and other species. Plus, rodents are attracted to stored food and all manner of animals, insects, and micro-organisms are often kept in squalor. Additionally, selection and survival of docile and hardy animals creates immunity over wild counterparts. All of this fosters even more virulent pathogens. Eventually we create superbugs and superhosts that we take with us wherever we go. Many studies have revealed just how virulent the diseases in domesticated animals are. In a study performed by the University of Washington, scientists put 6 healthy bighorn sheep with 6 healthy domestic sheep. The first bighorn was dead within 4 days; the last died in 78 days.

The reality is that Eurasian diseases in animals have had a profound influence both on humans and wildlife. The amazing abundance of wildlife Lewis and Clark saw in the early 1800s was due, in part, to the fact that European diseases had wiped out tens of millions of the keystone predator: aboriginal people. First Nations people had plenty of domestics, but only plants: animals were hunted, not husbanded. As a consequence, First Nations people were ill-prepared for the types of diseases carried by the European settlers.

A hundred years after Lewis and Clark’s journey, conservationists developed the North American Wildlife Conservation Model in response depleting populations. Commoditization was noted as a key threat to sustainable use. The North American Model sought to prohibit the markets for wildlife and vested responsibility for wildlife in the public trust.

Unfortunately, economic interests in wildlife resurfaced several decades later. In the late 1980s agricultural interests began to push for the establishment of game farms in Canada, citing velvet antler, venison and “canned” hunts as benefits. The Alliance for Public Wildlife responded by communicating the potential consequences of game farming to government, stating that public wildlife would be threatened by diseases, parasites, genetic pollution, habitat loss, and establishment of commercial markets. All of these would negatively affect Canada’s massive wildlife economies.

Incredibly, the economics of game farming had barely been examined. In Canada, the only real economic analysis was commissioned by a pro-game farming government in the Yukon in 1987. It concluded that live animal values (breeding stock) would quickly fall to just above carcass value. Venison sales would not be sufficient to justify building slaughter and processing facilities. Markets for velvet antler were not reliable, and that the industry would show no return on capital, and no return on labour. They said that the only conceivable means to draw a profit would be if animals were released into the wild with farmers subsidized with taxpayer money at $3,000 per animal.

Further warnings came from New Zealand, where game farming was legalized in 1969. As the supply of game products increased, the prices for venison dropped. Behind the scenes, bovine tuberculosis transferred from domestics to the captive deer, creating additional costs for farmers. The venture became so uneconomic
that farmers began to release their animals into the wild, spreading the domestic diseases to feral deer, brush-tail possums, and then back to farms.

These warnings went unheeded and today we are facing a wildlife crisis. Chronic Wasting Disease (CWD), the cervid form of “mad cow disease”, was imported into Canada in game farm animals and spread to public wildlife. The disease is untestable, untreated, highly contagious, and always fatal. In 2007 Alberta resorted to a helicopter cull of 10,000 wild deer in an effort to try and stop the spread of the disease. The entire CWD crisis was not an accident; it was a public policy mistake. Yet elected officials, who swear an oath to “defend public interest over all else” continue to deny even any comprehensive analysis. Despite the hopeless economics, horrific epidemic, and costs to the public stretching into the billions, Canada’s Minister of Agriculture announced a grant of $1 million to help promote game farming in 2010.

The core of this problem goes back to the false disconnect; to our mistaken presumption of being separated from the broader eco-system. Failures in the domestic industries can transfer damage to the equally massive, but sustainable, enterprises based on public wildlife. Moreover, there are indications that agriculture has already pushed past the margins of net benefit in many areas. Practices like severe crowding and over-consumption of antibiotics may have squeezed out a few extra pennies of profit, but they have often done this at the price of human health and the environment.

At this point, the challenge of addressing CWD is formidable, but silence will have dire consequences for wildlife. Scientists also remain gravely concerned about the prospect of CWD jumping to people as mad cow disease did. In such a case, the biggest problem is that CWD is not mad cow disease: it is much worse because it is highly contagious. Scientists describe this possibility as “very remote, but with consequences that could be unthinkable!”

Darrel concluded with a fitting quote from Albert Einstein: “We cannot solve problems by using the same kind of thinking we used when we created them.”
The Future Role of Guide Outfitters in Wildlife Management

BIOGRAPHY

David Beranek was born in Michel, BC and raised on a small farm just outside of Sparwood. He grew up hunting with his father, who worked in the guiding industry in the 1950s and 1960s with guide outfitter Frank Travis.

Following the completion of his Bachelor of Science in Forestry at the University of Alberta in 1987, David worked as an environmental planner in the coal mining industry for 13 years.

He then decided to follow in his father’s footsteps and entered the guiding industry. After he worked as an assistant guide in the Elk River area for Bob Fontana of Elk Valley Bighorn Outfitters for 15 years, he became a full time outfitter in 2000. He has been the owner/operator of Packhorse Creek Outfitters Ltd. ever since.

David has been actively involved with GOABC for many years. He is past President of the Southern Guides Association and is currently serving as a Director for GOABC. He has participated in many committees and represents the association at the Provincial Hunting and Trapping Advisory Team (PHTAT).

SUMMARY

British Columbia is home to 17 of the 29 North American species. By the late 1800s, the world came to recognize that British Columbia was home to not only the greatest diversity of big game species in North America, but that all populations were abundant enough to harvest. Combining the abundance of wildlife with the natural beauty of the province, the guiding industry grew in leaps and bounds to respond to the increased demand by national and international hunters to hunt in British Columbia.

Guiding licences were first issued in 1913.
and guiding territories were established in the late 1940s. In 1961 legislation provided guide outfitters with the exclusive right to guide big game hunters within their territory. Exclusivity in the guide outfitter certificate became the foundation of the guide outfitting industry in BC.

Over the years, guide outfitters have developed a strong understanding of wildlife and wildlife habitat within their guide territory. The combination of time spent in the field by both the outfitter and his/her assistant guides on an annual basis with the number of years in operation, leads to a natural understanding of the territory. In addition to that, many outfitters are active or former biologists that bring a scientific perspective to their knowledge base.

Many guide outfitters also keep detailed diaries of the wildlife in their territories. This information often includes population numbers, habitat referencing and in some cases mapping. Guide outfitters typically run constant hunt schedules from year to year so the diaries and observations are very much based on consistency and constant effort.

The bottom line is that guide outfitters are wildlife stewards and it is in the best interest of wildlife managers to harness and use the available information. Granted the information may not always be scientifically reproducible, but with the development of a proper framework for data collection guide outfitters could play a bigger role in the management of wildlife in the province.

Over the years there has been a hesitancy to use guide outfitter information or have guide outfitters to actively participate in wildlife management because of the perceived conflict of interest. It is not a conflict of interest but actually a vested interest. The viability of the guiding industry has been and will continue to be dependent on the health of our wildlife populations.

Healthy wildlife populations are beneficial to all. The old saying that “animals look differently at one another when the water hole dries up” could never be truer than when it comes to managing wildlife.

With abundant populations of all wildlife species, issues such as allocation shares, quality of product, quality of hunt etc., will be taken care of. It is only when we don’t have the wildlife resource to meet the demand that management becomes difficult.

To support our principle that wildlife stewardship is our priority, GOABC has stepped into the realm of data bases and data collection. GOABC is currently developing a database that will enable us to enter all provincial data including but not limited to harvest rates, population estimates and harvest data. We are venturing into a blood collection bank with the objective of supplying useful DNA information for future management needs.

In conclusion, collaboration and partnerships will be an important part of managing wildlife in the next century. In the world of shrinking resources and budgets, it only makes sense to share resources and information. The keys are to ensure that our industry retains a vested interest in wildlife management, and that the information gained is transparent and reproducible.

The foundation of the North American Conservation Model relies on the active participation of all vested stakeholders in the protection and sound use of the wildlife resource.
DON PEAY

Sportsmen in Conservation: The Utah Experience

BIOGRAPHY

Don Peay has his Bachelor of Science in Chemical Engineering and Master in Business Administration. He worked in the engineering industry before founding Sportsmen for Fish and Wildlife in 1993.

Don is an avid hunter and conservationist. He has hunted extensively throughout BC, the Northwest Territories, Alberta and Africa, and completed his Full Curl of Sheep Hunting in 2002. He has taken nearly half of the North American 29 Big Game Species.

In 1993, he founded the Utah Chapter of FNAWS and in 2010 he cofounded Big Game Forever. Named one of the Top 25 Conservationists by Outdoor Life in 2008, Don went on to lead the effort to remove wolves from the endangered species list in 2011.

SUMMARY

According to Don, the North American Wildlife Conservation Model is broken and needs to be repaired. To support the model blind of its faults would be “cutting off your nose to spite your face.” What are the problems? Born out of the passion and commitment of hunters, the model vests responsibility in the institution. Unfortunately, many hunters have become disengaged from wildlife conservation, failing to support the institution in the face of fiscal challenges and social change. Politics and people drive wildlife management, and hunters have not been active in either.

East of the Mississippi hunting is all private, so there is investment and intentional efforts, and wildlife populations are thriving. West of the Mississippi is mostly public lands, and wildlife are in crisis:

- Mule deer populations are down 50-70% throughout the west
- Several elk herds in Idaho are down 50-70%
- Moose hunts have been closed in Jackson and Cody, Wyoming
- Some herds of caribou and moose in Alaska are in dramatic decline
- Pheasants have disappeared from Idaho and Utah
What is the response from hunters? Our sector has responded with internal politics: division over weapons, allocations and residencies. We are fighting over who gets to take the last animal. Each year hunting produces $100 million in economic activity, but we don’t unite or leverage this to accomplish things that matter. What is the response from fish and game agencies? They have raised licence and tag costs to increase revenue, ignoring significant problems with wildlife populations and hunter experience.

Four years ago Don had the opportunity to ruffle some feathers at the Whitehouse Conference on Conservation by pointing to some weaknesses in the North American Model. “Hunters are not going to buy a licence to go camping,” Don stated. If the success is low and costs are high, people will not continue hunting. Upgrading the product and the outdoor experience will recruit and retain hunters. Kids will not want to hunt again unless it is exciting and fun.

“We need more wildlife managers with MBAs and fewer with PhDs,” Don noted in reference to refocusing management efforts. To fix the product problem, sportsmen in Don’s native state of Utah banded together and gained the support of politicians. By instigating strategic projects and shifting the government’s focus towards quality management, they were able to increase game herd populations by 200-500%. “Quit the marketing plans, and go fix your product,” he recommended. They set up a state-sponsored predator management project, which included a constitutional amendment, $1 million for aerial gunning and coyote bounties, return of the spring bear hunt and an increased harvest on cougars.

Don provided an example where a high-value habitat enhancement project changed 750,000 acres of bare dirt into excellent wildlife habitat for $100 million. Initially there was no vegetation below the trees, which is detrimental for watersheds and wildlife, so the project made strategic cuts. The support of high-ranking politicians was necessary to move past the preservation framework presented by environmentalists.

To fix the economic problems with revenue in Utah’s Fish and Game Department, the $60 million from annual licence sales was refocused. In Utah, 200 permits were provided for draw at Utah Sportsmen Expo, and 5% of tags were given to conservation organization fundraisers. Because of their wildlife management philosophy, Utah is now being recognized as a premiere hunting destination.

Don’s presentation provided a practical perspective on dealing with pressures, and acting strategically. A true businessman, he provided a list with measures of success on the Utah project. In addition to the growth in wildlife populations, super quality tags increased from 1,000 to 5,000, the general open season hunt was improved for 100,000 hunters, and permit applications went from 20,000 to 250,000. Utah effectively rebuilt wildlife populations and saved their hunting industry by uniting hunters, gaining political support, selecting high-value projects and refocusing funding usage.
BIOGRAPHY

Gray Thornton is an accomplished lecturer, writer, hunter and businessman. He received a Bachelor of Science in Management and Marketing from California State University and has earned advanced credits in Wildlife Management from Colorado State University.

With over 22 years of successful conservation association leadership, Gray continues to demonstrate vision and a deep commitment to wildlife stewardship in his position as President & CEO of the Wild Sheep Foundation. He has addressed audiences around the world including sportsmen’s groups and former Presidents of the US, France and South Africa.

He is active member in a number of professional conservation organizations and has served as Chairman of the Associates Committee for Boone and Crockett and Editor in Chief for Fair Chase Magazine. He has received numerous awards for his conservation work including the Wildlife Utilisation Award and Coenraad Vermaak Distinguished Service Award from the Professional Hunters Association of South Africa (PHASA) in 2004 and 2007 respectively. In 2011 he received the President’s Award from the GOABC.

As a hunter, Gray has hunted throughout North America, Alaska, Germany, Mexico, New Zealand, Namibia, South Africa and Zimbabwe. He is an avid international fly fisherman—releasing 85 different species on the fly.

SUMMARY

Across North America, outdoor recreation contributes significantly to the economy. For example, in Wyoming the industry provides more than $4.4 billion and supports 52,000 jobs—which is more than 10% of all state jobs! Beyond this, the hunting industry also provides critical funding to wildlife conservation through the sale of licences and tags. More than 70% of all wildlife agencies’ conservation funding comes from hunting and angling, and these efforts are bolstered by private donations to non-governmental organizations.

Economic value is, however, not enough to keep hunting relevant to the majority non-hunting population. People hunt for a variety of reasons. For many hunting provides subsistence, a healthy organic protein obtained through the work of one’s own hands. Time in nature also provides solace from a busy world, perspective on responsibilities and freedom from technology. Hunting can be a rite of passage for children, and many kids will dream of the day when they are old enough to get their licence or hunt on their own. Although it can become unproductive, working towards hunting accomplishment can be very edifying if considered in scope.

Recent studies have revealed that there are six stages in the development of a hunter. As a hunter improves his skill and experience, his attitude towards hunting and the environment transform.

1. Shooting Stage
   During the initial introduction, a hunter’s priority is taking shots. This is the “nothing is dying unless the lead is flying” phase.

2. Limiting Out Stage
   Here the hunter takes fewer shots, but is primarily concerned with “filling the tag”.

3. Trophy Stage
   In the Trophy Stage, the hunter begins to prefer quality over quantity. They are more selective in their pursuits and start to place a lot of value in the size of the animal. Unfortunately, some hunters will get stuck in this stage and lose perspective on the total experience.

4. Method Stage
   As a hunter refines his skills, process typically becomes of increasing importance. The hunter values the challenges presented by different equipment, and begins to define an identity. Although this is generally a positive stage in the development of a hunter, disagreements about weapons and methods can be very divisive among hunters.

5. Sportsman Stage
   Success is measured by the total outdoor experience. When the sportsman relives his hunt to friends and family, he recalls the scenery, companionship, challenge and adventure—not just the animal taken.

“The companionship of fellow hunters or a fine bird dog, the perfect point or a stalk define success—not when the trigger is pulled or an animal taken,” Gray explains.

6. Giving Back Stage
   Here the hunter becomes focused on the future. They are concerned with passing on their traditions and have a sense of responsibility for nature.

Hunters are made by both nurture and nature; these forces will lead a person to hunt, but social influence will define how they act. Conservation organizations are in a unique position to influence hunter behavior. Hunters in stages five and six are the people that non-hunters understand. Our image matters because it will determine whether or not hunting and conservation will be able to continue. “As the CEO of a hunting organization which provides for my livelihood this statement might appear blasphemous,” Gray remarked, “but I firmly believe it is the hunting organizations themselves and the hunter recognition programs they create which remove the essence from hunting and replace it with competitive killing that pose the great threat to hunters and hunting today.” Non-hunters will not understand the satisfaction of shooting, trophies or the value of good equipment, but they will understand outdoor experiences, fascination with wildlife, community initiatives, and habitat conservation.

GRAY THORNTON
Social Pressures and the Future of Wildlife

Conservation Matters™ • 48
goals, threats and partnerships—and it
and strategy typical of for-profit groups.
In many ways, DU operates with the vision
and undertake research projects.
the advocate on policy, do public education
enhancement projects, acquisitions and
their mission. They work directly with
are four strongly interconnected legs to
raise their young. To meet this challenge,
important for nesting, while wetlands are
hunting, they initially sought to address
concerned about the future of waterfowl
by Joseph Knapp, E. H. Low and Robert
DU was originally established in 1937
with the 70% in the middle.
approach provides insight into connecting
and support of the general public. Their
sportsmen, DU has garnered the respect
of sustainable use. Although founded by
their reach and communicate the benefits
advocacy. Not only has Ducks Unlimited
model that is used across BC, but he is
doug heard was instrumental in the
development affect populations.
There are 118 known field measured
density estimates in North America,
about ¼ of these are in BC. Since the rest
of the province is unknown, we need to
find a way to understand populations.
This matters because bear management is
controversial—it’s a political topic. We need
to manage bears, not only for hunters, but to
help understand habitat capacity and limit
human/bear conflict. By understanding the
variables that affect bear populations, we
can better understand how our actions in
development affect populations.
With the help of fellow government biologist
Garth Mowat, grizzly bear study areas
were set up in northcentral BC. A slurry
comprised of rotten cow’s blood and putrid
beer attracted the grizzlies to the study area
and tufts of hair would get caught in barbed
wire while they ambled around. Finding
no reason to stay, the bears would move
on away from the study area. Doug and
Garth collected the hair samples and sent
them to a lab for DNA analysis. The total
cost of a single study was about $150,000.
Since government cannot afford to conduct
density studies in every area of the province,
the study results were further analyzed to
determine relationships between ecological
characteristics. The research found that
precipitation, herbaceous cover, ruggedness,
human density and livestock density were
the key variables influencing grizzly bear
populations. Dry, flat, forested areas with
lots of cattle and people will typically have
lower grizzly bear populations. Knowing
ecological characteristics in other regions,
these relationships were extrapolated to
estimate populations.

When the Grizzly Bear Population Model
was introduced to regional fish and wildlife
managers, they were encouraged to think
critically about the model. Although some
felt the estimates were off, the majority of
regions felt they were reasonably helpful.
“Even wrong models can provide insight,”
Doug assured symposium attendees.
Scientific models are not the answer to all
political controversies. Sometimes science
will make environmental controversies
worse, but Doug is still optimistic.
Government is charged with managing
wildlife in the public trust, and they have
limited funds to do so. Developing models
helps fill a data void, and helps make difficult
wildlife management more defensible and
mindful of the larger ecological setting.

BIography
Doug Heard earned his Master of Science at
the University of British Columbia (UBC)
in 1978 and has been a wildlife biologist for
33 years.
He has worked for the Ministry of Forests,
Lands and Natural Resource Operations
office in Prince George, BC for the last 17
years. He is also an adjunct professor in
the Ecosystem Science and Management
Program at the University of Northern
British Columbia (UNBC).
SUMMARY
Doug Heard was instrumental in the
development of the Grizzly Bear Population
Model that is used across BC, but he is
humble about it and has no illusions
about the limitations of modeling. “All
models are wrong,” he says, “but some are
useful.” Models are simplifications of the
real world that provide information about
relationships between variables. Doug
compares it to bringing your vehicle to a
truck repair shop. You’re looking for fast,
cheap and good, but you will need to pick
any two. There are tradeoffs. The same is
true with modeling. You are looking for a
model that is realistic, precise and generally
applicable, but you can pick any two. In the
case of the Grizzly Bear Population Model,
they opted to be realistic and generally
applicable.
There are 118 known field measured
density estimates in North America,
about ¼ of these are in BC. Since the rest
of the province is unknown, we need to
find a way to understand populations.
This matters because bear management is
controversial—it’s a political topic. We need
to manage bears, not only for hunters, but to
help understand habitat capacity and limit
human/bear conflict. By understanding the
variables that affect bear populations, we
can better understand how our actions in
development affect populations.
With the help of fellow government biologist
Garth Mowat, grizzly bear study areas
were set up in northcentral BC. A slurry
comprised of rotten cow’s blood and putrid
beer attracted the grizzlies to the study area
and tufts of hair would get caught in barbed
wire while they ambled around. Finding
no reason to stay, the bears would move
on away from the study area. Doug and
Garth collected the hair samples and sent
them to a lab for DNA analysis. The total
cost of a single study was about $150,000.
Since government cannot afford to conduct
density studies in every area of the province,
the study results were further analyzed to
determine relationships between ecological
characteristics. The research found that
precipitation, herbaceous cover, ruggedness,
human density and livestock density were
the key variables influencing grizzly bear
populations. Dry, flat, forested areas with
lots of cattle and people will typically have
lower grizzly bear populations. Knowing
ecological characteristics in other regions,
these relationships were extrapolated to
estimate populations.

When the Grizzly Bear Population Model
was introduced to regional fish and wildlife
managers, they were encouraged to think
critically about the model. Although some
felt the estimates were off, the majority of
regions felt they were reasonably helpful.
“Even wrong models can provide insight,”
Doug assured symposium attendees.
Scientific models are not the answer to all
political controversies. Sometimes science
will make environmental controversies
worse, but Doug is still optimistic.
Government is charged with managing
wildlife in the public trust, and they have
limited funds to do so. Developing models
helps fill a data void, and helps make difficult
wildlife management more defensible and
mindful of the larger ecological setting.
**BIOGRAPHY**

Ian Hatter has a Master of Science in Wildlife Biology and 30 years of related experience, maintaining a broad knowledge of wildlife ecology, conservation and management. He has worked with the Ministry of Environment and Ministry of Forests, Lands and Natural Resource Operations since 1984, first as the provincial Ungulate Inventory Biologist, then as the Wildlife Inventory Specialist, the Ungulate Specialist and currently as the Manager of Wildlife Management. Ian is a Registered Professional Biologist with the College of Applied Biology and served on their Board of Examiners/Credentials Committee from 1995 to 2005. Ian has also served as an Associate Editor for Alces and was a recipient of the Shikar Safari “Wildlife Officer of the Year” award in 1994.

**SUMMARY**

Ian provided a progress report on BC’s Hunter Recruitment and Retention Strategy, which was created in 2007 in response to a noticeable decline in hunting in BC. In 2004, 81,500 basic resident hunting licences were sold – a significant drop from the peak sales of 168,700 in 1981. The Hunter Recruitment and Retention Strategy identifies the reasons that hunter numbers are dropping, and provides a roadmap for recovering participation.

BC is not the only region that is facing this challenge; many other states and provinces have seen large declines in hunter numbers. This is partly due to the fact that our population is aging. “Baby boomers” are turning 65, and many hunters are retiring. The drop is also indicative of shifting social demographics, as more people are moving into cities and adopting distinctively “urban” cultures. Urban or not, hunting competes with a host of options for leisure activities for people’s time and money. In general, people are very busy and have limited vacation time, which can make it difficult to get out into the backcountry to hunt.

Hunter recruitment and retention is important because the North American Wildlife Conservation Model is built off of strong participation from hunters. Declining participation has negative implications for conservation, local communities and government budgets. Hunting contributes approximately $350 million annually to the province and hunters generate about $50 million towards the province’s Gross Domestic Product (GDP).

Ian reviewed 14 of the 34 recommendations contained within the Hunter Recruitment and Retention Strategy, focussing on “The Big Six”. When the strategy was created in 2007, few states and provinces had electronic licensing, but in a few short years it has become the norm throughout our sector. BC has completed a business case supporting an E-licensing business model for hunting licences.

One of the highlights from his report was the progress that has been made to recruit junior hunters and new adult hunters. Recent legislative changes have extended the age range for a junior licence from 10-13 years to 10-17 years old, lowering the licence costs for some families. In addition, the age where a youth can hunt unaccompanied has been changed from 19 to 18 years old. Government has also introduced an “initiation hunting” licence for new hunters 18 years of age and older. BC’s hunter training program is not a prerequisite for this licence, but the new hunter must be closely supervised by an adult licenced hunted and the licence is only good for one season. This is a good way to foster mentorship and raise a new generation of hunters.

Ian also explained the strategy’s direction for wildlife management. With a close eye on conservation, BC’s hunting seasons are being reviewed with an interest in harmonizing and simplifying regulations where feasible. The Ministry is increasing hunting opportunity through increased use of general open seasons, special youth seasons, and more liberal season dates. There is also a movement towards increasing hunting opportunities to reduce wildlife-agricultural conflicts through the Provincial Agriculture Zone Wildlife Program (PAZWP).

To date, about half of the 34 recommendations have been acted on. Consistent with the performance measure set in 2006—to increase basic licence sales to 100,000 by 2014—total licence sales (resident and non-resident) have increased from 87,400 in 2004 to 96,300 in 2010. There have also been encouraging increases in the number of female, senior and junior hunters.

Hunters are essential to the protection and sound management of wildlife, and are an essential component of the North American Wildlife Conservation Model. It is encouraging to see that the value of hunting and the potential impacts of severe hunter decline have been recognized for our province, and that government is moving towards recruiting and retaining hunters for the future.
RICK MCLEAN
Managing Our Resources

BIOGRAPHY
Rick McLean’s traditional name is Dunnaeh which means “man on a mountain”. This is a fitting title for a man who has spent his life enjoying the outdoors and advocating for its protection. Learning the traditional ways and values of wildlife through his uncles and grandfather, Rick pursued a business in guide outfitting that has lasted 23 years. Although he is no longer an outfitter, he likes to get out and guide a couple of hunts each season.

As Chief of the Tahltan First Nation in northwestern BC, Rick has demonstrated a strong commitment to wildlife stewardship in his nation’s territory and has been involved in many wildlife initiatives in the past. He has managed the Tahltan Central Council’s wildlife program, created the Tahltan Wildlife Guardians, negotiated regulation changes and worked to create a collaborative wildlife management agreement with the Province of BC.

SUMMARY
Initially pushed towards leadership because of his passion for wildlife stewardship, Rick quickly discovered the wide array of responsibilities and competing priorities involved in being Chief. During his time in leadership, he has learned that all of the other things are important, but secondary to the proper stewardship of wildlife. Nature has provided the Tahltan with a way of life for the last 10,000 years and today their lives continue to revolve around the sound and sustainable use of resources.

In his presentation, Rick reviewed three aspects of wildlife management that will be important in the next century: inventories, sustainability and shared decision-making. Case law has established a priority sequence for sustainable harvest, but current wildlife data is necessary in order for any harvest to occur in the right way. We need to understand what the implications of our actions are. Stakeholders need to encourage government to make science a priority and fund the projects necessary to procure data on wildlife populations.

Given their dependence on natural resources, the Tahltan understand the need for sustainable wildlife management. Recent years have created a proliferation of access as a result of increased industrial activity. This also changed access to wildlife populations. In 2009 the Tahltan made several attempts to bring their concerns about an unsustainable moose harvest to government. When these concerns were not addressed, they limited access to the territory. An outcry from resident recreational hunters brought government to the table and, after lengthy and tough negotiations, a shortened moose season and Compulsory Inspection (CI) for moose in the region were implemented. Our policies need to protect the backcountry, and sometimes this will mean restrictions.

In order to be effective, wildlife management efforts need to be collaborative. Rick lamented the fact that First Nations were not invited to participate in development of BC’s new Harvest Allocation Policy. First Nations must be engaged in decision-making and strategy formulation. Priority harvest does not negate First Nations interest in the larger questions of conservation and management.

“Our lives depend on our country...to lose [the land] means we would lose our means of living and therefore our lives”.

~ Declaration of the Tahltan from October 18, 1910
BIOGRAPHY

Joe Tetlichi was born at his family’s traditional camp on the Peel River 75 kilometres upstream from Fort McPherson, Northwest Territories.

After 12 years in a residential school, Joe decided to spend some time reconnecting with the land. Twenty years later, Joe decided to move back to the community. He has served as Chair of the Tetlit Gwich’in Renewable Resource Council and Chief of the Tetlit Gwich’in First Nation in the Northwest Territories.

Joe moved to Old Crow, Yukon in 1995 and lived there with his family until 2008. He currently resides in Whitehorse, Yukon with his wife and two sons and works for the Council of Yukon First Nations as a support worker to former students of residential schools. In 1995 Joe was appointed Chair of the Porcupine Caribou Management Board.

After many years of hard work and community engagement, the Board recently completed a Harvest Management Plan for the Porcupine Caribou Herd, which has now been agreed to and signed off on by all governments and user organizations. An Implementation Plan has also been developed, outlining specific responsibilities and tasks of each government and user group.

SUMMARY

Joe provided a story that highlights the value of traditional ecological knowledge, and the importance of engaging First Nations in wildlife management.

Spanning approximately 250,000 km² of habitat, the Porcupine Caribou Herd is the fifth largest migratory caribou herd in Canada. The herd has been of crucial significance to First Nations communities for over 20,000 years. In the past, the caribou were corralled along their migratory path and hunted with bows and arrows. All of the parts of the caribou were utilized. Since they depended on the animals, they understood that disrespect would put their lives in jeopardy.

The Porcupine Caribou Management Board (PCMB) was established following a First Nations land claim group in 1985. Comprised of First Nations, federal government and provincial governments, the Board is tasked with the challenge of ensuring the health, habitat and consentience of the caribou herd.

The primary success of the PCMB has been communication. There are 15 communities located along the migration route of the caribou and, in many of these areas, old wounds from government initiatives have left people suspicious of efforts to manage the wildlife. For this reason the PCMB has sought to educate rather than regulate. Joe provided an example of a caribou collaring project that they undertook a number of years ago. At first the program was met with resistance from local communities as many people felt the collars were disrespectful, but once they met with the people and explained the importance of the collars for inventory and data collection, people became more receptive.

The Board’s composition and methodology has provided an inlet into the culture and inner workings of the communities. Consultation is a duty by law, but it must be people-oriented. Wildlife management decisions should take into account the tremendous knowledge about wildlife from people living on the ground. It should work with local people to find working structures and solutions.
In many ways, DU operates with the vision and undertake research projects. The advocate on policy, do public education enhancement projects, acquisitions and the land, facilitating habitat retention and the loss of wetlands. Soon after their work hunting, they initially sought to address concerns about the future of waterfowl by Joseph Knapp, E. H. Low and Robert. DU was originally established in 1937 and provide food and areas for birds to raise their young. To meet this challenge, DU came to Canada in 1938. Today there are voicing their opinions about how wildlife should be used, managed, and cared for. How hunting is being conducted is therefore of utmost relevance.

Hunters, as a minority vote, have been in the “image business” since the last days of commercial market hunting. The public and sportsmen rose together to stamp out this industry of indiscriminate slaughter. The problem was uninform; non-hunters wrongfully associated legitimate hunting with market hunting. To distance themselves from for-market gunners, sportsmen rallied to a fledgling ideal called “Fair Chase”.

“Fair Chase climbed to national acceptance out of a Mississippi swamp,” Keith began. In 1902, US President Theodore Roosevelt, founder of the Boone and Crockett Club traveled from the White House to the Mississippi Delta to settle a border dispute between the states of Mississippi and Louisiana. While there, he engaged in a hunting trip for black bear. With concerns for the President’s safety, much to Roosevelt’s disappointment, his hosts insisted that he stay in camp until the houndsmen and their dogs cornered a bruin. Omission from the actual chase was unsettling to Roosevelt, who prided himself on living the hardy life.

Eventually, the well-trained hounds exhausted a small bear, which the guides captured and tied to a tree before sending for the President. Upon arrival, Roosevelt refused to kill the defenseless bear. In his mind he did not endure the hardship of hunt and it would have been unfair to shoot a defenseless animal, therefore he did not deserve this trophy.

By not acquiescing to a common practice of the time, one powerful man, a President with an inborn passion for the hunt, primarily defined the honor and ethics of hunting. With self-imposed restraint, Roosevelt later finished his southern black bear engagement as a more active participant, forever setting the center stone for the concept of fair chase—respect for the hunted and the right to hunt. Fair chase has been the sportsman’s ethical code of conduct ever since.

Keith admits that hunting is not fair in the context most commonly associated with being fair. It’s not meant to be, because hunting is not a sport like soccer, or baseball, or hockey. In these activities there are willing participants—you don’t have willing participants in hunting. If the game knows its being hunted the gig is up. There are no referees or umpires in hunting, no booth reviews. We referee ourselves. In field sports and others games, the participants come into the engagement with pre-determined individual rights—the rules of engagement.

In hunting, the reality of it is the prey does not have the “right” to warrant fairness in the pursuit. They are the hunted. Fairness is carried into the field by the hunter and bestowed to the prey by the sake of his or her own virtues. How we feel about ourselves and the game we purist puts the “fair” in fair chase. How we feel about ourselves is the value proposition of hunting.

As for a definition, author Jim Posewitz writes in Beyond Fair Chase that an ethical hunter is “A person who knows and respects the animals hunted, follows the laws, and behaves in a way that will satisfy what society expects of him or her as a hunter.”

The Boone and Crockett Club gets flooded with emails, calls, and letters asking if this or that is fair chase. Is baiting fair? Trail cameras? Thousand yard shots, camo, tree stands, food plots? On many subjects, there are no hard and fast answers and we certainly do not need thicker hunting regulations booklets. Ethical hunting requires continual personal “gut check”. If you feel your actions were justified, necessary, and you feel good about the outcome, then you made a good choice. No one feels worst about a poor choice than a true sportsman.

We’re hunting today because the majority of sportsmen have held themselves to a high personal standard for over a century. That’s why conservation happens.
defend sustainable use in areas where people live.

There is some urgency for those who want to conservation only with total protection, so those of the surrounding habitats. This project the wildlife management frameworks in parks to Parks, Kurt Alt began a “pet project” comparing During his time with Montana Fish, Wildlife and resources and institutionalized conservation economic considerations, public ownership of wildlife management. For Kurt, these experiences reinforced the importance in developing effective wildlife management. For Kurt, these experiences reinforced the importance in developing effective connections between socio/political concerns, economic considerations, public ownership of resources and institutionalized conservation within a working landscape.

SUMMARY

During his time with Montana Fish, Wildlife and Parks, Kurt Alt began a “pet project” comparing the wildlife management frameworks in parks to those of the surrounding habitats. This project is significant because most people associate conservation only with total protection, so there is some urgency for those who want to defend sustainable use in areas where people live and work.

Yellowstone National Park operates under a preservation approach. It is 8,093 km² in size and has one set of management objectives and one owner. Man is only an observer within the park, and management of the area is under national and international scrutiny. There is no hunting. This framework is rigid, but it works in Yellowstone National Park. However, this framework is not suited to lands where people live and work, such as the area surrounding Yellowstone National Park, which is over 100 times larger in size.

In Montana, Wyoming and Idaho, there is 860,900 km² surrounding Yellowstone National Park. Since people live and work on the land, the geography is complex with thousands of different land ownerships and differing objectives. For this reason, local scrutiny is given to wildlife management. Responsibility is vested in a variety of government departments and ministries. Hunting is permitted. Here the interactions between human settlement and wildlife must be managed. This is a conservation approach.

Kurt pulled a similar comparison from Africa, where the Serengeti/Masai Mara National Park is their Yellowstone. No humans reside in the 16,273 km² area. It operates under two owners and two sets of objectives, engaging national and international publics in its management. Surrounding the parks, there is 1.5 million km² of land in Kenya and Tanzania where people live and work. With differing objectives and vested interests from a variety of owners, they too are faced with the challenge of maintaining wildlife within a complex working landscape. Between the demands of human need, poaching, agriculture and settlement, this is no easy task. In Tanzania, hunting is part of the management framework, but in Kenya it is not. Like Montana, Tanzania provides hunting opportunity for both residents and non-residents, generating substantial revenue for the managing agencies. Montana manages for opportunity, and Tanzania manages for a quota. In contrast, Kenya draws funding from tourism but none specifically for conservation and is facing continuing overpopulation of some species while others are in decline.

The rise of preservation models is evident beyond the boundaries of national parks in the Endangered Species Act (US) or the Species at Risk Act (Canada). By asserting that resources are safer in the long term if left untouched, this approach isolates species from their larger context, applying the Yellowstone/Serengeti framework to pockets of land within large, interconnected working landscapes. They are often under the purview of national and international pressures. There is a time and a place for preservation management, but in “normal” landscapes it is often hard to delist species after objectives are met because the issues become social and political at the national and international levels. It is often difficult to impossible for local publics to be meaningfully engaged in the process. Kurt maintains that this is a trust issue among the 70% in the middle, a fear that we will repeat histories rather than learn from them and a lack of understanding the complexity of conservation on working landscapes.

These comparisons are important because national parks are important and also easily identified by the 70% in the middle as the model of conservation. However, conservation through management is the most viable model for the complex geographical landscapes where people live and work. It is imperative for habitat and species conservation that the 70% in the middle understand that a strict “parks” model of protection is not suitable for these working landscapes. Without support from non-hunters, we could lose our hunting tradition and the sense of public ownership, political will and ultimately the budgets for conservation on working landscapes.

Those who support conservation management need to communicate its benefits in a language that is understandable to those who do not hunt. It is imperative to increase the awareness that large landscape and large species conservation can only be accomplished through management and by engaging the people who live, work and recreate on those complex landscapes. Preservation only alienates the very people who can offer the most in terms of a social, political and economic conservation force on the larger geography of working landscapes.

On a working landscape, people need to have access to wildlife resources so that they are engaged in the management and conservation of those resources. Funding generated through sustainable use should go directly towards conservation of wildlife and habitat. Collectively this group needs to exert a political will in elections and provide input on how to go forward with government to popularize conservation models for working landscapes. In short, local publics—both consumptive and non-consumptive—need to be engaged in the management of wildlife. A structure that people are meaningfully involved with develops a sense of public ownership and will survive political or bureaucratic change. Kurt calls this a Cultural and Institutionalized Conservation Ethic, broadly embedded into local communities and facilitated by the institution.

BIOGRAPHY

Kurt Alt earned his Bachelor of Science and Master of Science in Fish and Wildlife Management from Montana State University.

He worked for 32 years as a wildlife biologist and wildlife manager in southwest Montana, and was intimately involved in developing strategies relating to biological, social and political aspects of high-profile issues in the tri-state Greater Yellowstone Ecosystem.

Having collaborated with biologists and wildlife administrators from Argentina, Africa, Norway, Sweden and Russia on various topics, Kurt retains a well-rounded international perspective on wildlife management. For Kurt, these experiences reinforced the importance in developing effective connections between socio/political concerns, economic considerations, public ownership of resources and institutionalized conservation within a working landscape.

KURT ALT

Conservation: Management vs. Protection

860,900 km² surrounding Yellowstone National Park. Since people live and work on the land, the geography is complex with thousands of different land ownerships and differing objectives. For this reason, local scrutiny is given to wildlife management. Responsibility is vested in a variety of government departments and ministries. Hunting is permitted. Here the interactions between human settlement and wildlife must be managed. This is a conservation approach.

Kurt pulled a similar comparison from Africa, where the Serengeti/Masai Mara National Park is their Yellowstone. No humans reside in the 16,273 km² area. It operates under two owners and two sets of objectives, engaging national and international publics in its management. Surrounding the parks, there is 1.5 million km² of land in Kenya and Tanzania where people live and work. With differing objectives and vested interests from a variety of owners, they too are faced with the challenge of maintaining wildlife within a complex working landscape. Between the demands of human need, poaching, agriculture and settlement, this is no easy task. In Tanzania, hunting is part of the management framework, but in Kenya it is not. Like Montana, Tanzania provides hunting opportunity for both residents and non-residents, generating substantial revenue for the managing agencies. Montana manages for opportunity, and Tanzania manages for a quota. In contrast, Kenya draws funding from tourism but none specifically for conservation and is facing continuing overpopulation of some species while others are in decline.

The rise of preservation models is evident beyond the boundaries of national parks in the Endangered Species Act (US) or the Species at Risk Act (Canada). By asserting that resources are safer in the long term if left untouched, this approach isolates species from their larger context, applying the Yellowstone/Serengeti framework to pockets of land within large, interconnected working landscapes. They are often under the purview of national and international pressures. There is a time and a place for preservation management, but in “normal” landscapes it is often hard to delist species after objectives are met because the issues become social and political at the national and international levels. It is often difficult to impossible for local publics to be meaningfully engaged in the process. Kurt maintains that this is a trust issue among the 70% in the middle, a fear that we will repeat histories rather than learn from them and a lack of understanding the complexity of conservation on working landscapes.

These comparisons are important because national parks are important and also easily identified by the 70% in the middle as the model of conservation. However, conservation through management is the most viable model for the complex geographical landscapes where people live and work. It is imperative for habitat and species conservation that the 70% in the middle understand that a strict “parks” model of protection is not suitable for these working landscapes. Without support from non-hunters, we could lose our hunting tradition and the sense of public ownership, political will and ultimately the budgets for conservation on working landscapes.

Those who support conservation management need to communicate its benefits in a language that is understandable to those who do not hunt. It is imperative to increase the awareness that large landscape and large species conservation can only be accomplished through management and by engaging the people who live, work and recreate on those complex landscapes. Preservation only alienates the very people who can offer the most in terms of a social, political and economic conservation force on the larger geography of working landscapes.

On a working landscape, people need to have access to wildlife resources so that they are engaged in the management and conservation of those resources. Funding generated through sustainable use should go directly towards conservation of wildlife and habitat. Collectively this group needs to exert a political will in elections and provide input on law and policy, working with government to popularize conservation models for working landscapes. In short, local publics—both consumptive and non-consumptive—need to be engaged in the management of wildlife. A structure that people are meaningfully involved with develops a sense of public ownership and will survive political or bureaucratic change. Kurt calls this a Cultural and Institutionalized Conservation Ethic, broadly embedded into local communities and facilitated by the institution.
MARCEL MENNINK

Culture’s Consequences

BIOGRAPHY

Marcel Mennink is a Dutch national who has been hunting small game with his relatives in the Netherlands since the age of 6.

In 2006, he graduated from Hanze University of Economics and, in light of the lack of big game hunting opportunities in his home country, he immigrated to Norway in 2007. From 2007 to 2011, he gained experience hunting big game with red stag, reindeer and moose hunts.

In 2009 he founded Novahunt AS, a company that helps pool land owners with smaller properties in Norway and Sweden for improved hunting opportunities. Marcel freelances for the Dutch hunting magazine Waidmannsheil, writing informative articles on typical Scandinavian hunts.

In September 2011, he joined forces with a hunting equipment company called Nordskog AS to create greater synergy between the hunting retail and travel industries.

SUMMARY

Marcel compared how culture influences public opinion by comparing Norway and the Netherlands. Although born and raised in the Netherlands, Marcel has hunted extensively in Norway and feels a strong connection to both countries.

Ninety-five percent of the land in Norway is not suitable for agriculture. These mountainous areas do, however, make excellent habitat for moose. Approximately 30,000 moose are harvested in Norway each year. Hunting rights are vested in land ownership, and private rights are pooled together to make larger hunting area. In general this works well, but there are two problems that result from this structure.

First, it results in inconsistency between areas. While some landowners manage for age-class, others feel that “a buck is a buck.” Wildlife management on privately-owned land is very fragmented. The second problem is that only 50% of the Norway’s land is privately-owned, and the rest is controlled by the state. The Norwegian government does not retain good information on wildlife populations, which means the areas are typically not very well-managed. Low moose populations are evidence of the mismanagement. Populations in close proximity to cities tend to produce fewer animals of a smaller size than those in the more northern areas.

Hunting tourism is not a big industry in Norway, but there are many hunters that live within the country. Licence costs are low and no education is required, so there are few entrance barriers. Eighty percent of the population considers hunting an acceptable activity. Marcel asserts that this is because wildlife are considered a natural resource that can help support people. It is considered a valuable part of life for ordinary people.

Opinions about hunting are not nearly as positive in the Netherlands. With a human population density of 403.5 people per square kilometer, the wildlife populations and management needs are very different that those of Norway, where the human population density is 12.5 people per square kilometer. In the Netherlands, roe deer are the most common animal and hunting is determined by the government. Tags for certain management areas are issued to landowners, and this is mostly for population control and traffic safety. There is no hunting tourism, partly because there are few market-worthy opportunities, and partly because hunting has always been considered a “luxury” in the Netherlands.

When a culture defines hunting as a privilege for a small portion of the population, it will have a hard time maintaining relevance in the long-term. Fueled by memories of the past, the majority of people in the Netherlands think that hunting should not be a hobby and that it is outdated. They do not understand that there is more to hunting than just killing an animal, even though most of hunting in the Netherlands is done for traffic protection. A recent survey revealed that 28% of people would rather hire a roe deer with their vehicle than have it shot by a hunter.

The same survey revealed that only 3% of the population thinks recreation is an acceptable reason to hunt. This is evident in the development of the single-issue political party Partij voor de Dieren (Party for the Animals) that was established in 2002. Four year after its establishment, the party received 179,988 votes (about 2% of the total) and earned two seats in parliament. The animal-rights movement has a strong foothold in the Netherlands. One recent animal-rights initiative was to create a 22 square mile nature reserve. It was filled with 1,200 wild horses, 2,200 red deer and 550 heck cows that would live with relative freedom and not be managed in any way. Unmitigated reproduction and insufficient food resources resulted in a massive die-off that left only 70 horses, 245 red deer and 10 heck cows behind after only one winter. To many people, this is considered stewardship.

Marcel emphasized that it is importance of communicating all of the reasons that people hunt. Marcel only eats wild game meat and laments the fact that many people do not associate their food with nature. Beyond the obvious, hunters enjoy going out into nature and embracing the physical challenge; this defense makes hunting sound a little bit more relatable and down-to-earth to those who do not hunt.
MARCO MARRA

Using DNA to Estimate Wildlife Populations

Dr. Marra has published 12 book chapters and 233 peer-reviewed papers.

SUMMARY

In his position at the BC Cancer Agency’s Genome Sciences Centre, Dr. Marco Marra is currently examining the genetic changes that can result in human cancers. Marco provided vision and expertise to GOABC’s DNA Collection Program, which started in summer 2011.

There have been amazing advances in technology in the last ten years that have dramatically increased the ability to sequence DNA. Advances in the field continue to improve the feasibility of DNA sequencing and over the next decade DNA sequencing will become routine for many applications, including medicine. An attractive feature of DNA sequencing is the extent to which it can be generally applied to important problems across the spectrum of life sciences. If one can extract DNA from cells, the DNA can in principle be sequenced. The DNA sequencing technology is extremely flexible such that the same approaches can be used to sequence, for example, the DNA of plants, animals and of microbes.

The concept behind the DNA Collection Program is that collections of appropriately annotated samples, from which DNA could be extracted, will allow scientists to ask important questions that would otherwise be impossible to address. The DNA will be of two types: nuclear DNA and mitochondrial DNA. Nuclear DNA resides in the cell nucleus and consists of the chromosomes passed from parents to offspring. Humans and other mammals have approximately three billion “letters” of DNA inside each nucleus. In addition to the nucleus, cells have other DNA-containing organelles called mitochondria. Mitochondrial DNA (or “mtDNA”) has approximately 16 thousand letters—much smaller than the nuclear DNA. DNA sequence analysis of mtDNA has been extensively used to reveal evolutionary relationships between species and diversity within populations, and so the technique may be directly relevant to pressing issues in game management in BC.

The plan is to collect samples that will yield both nuclear and mitochondrial DNA so that a diversity of studies can be considered. Sample collection can take advantage of the manpower in the field during hunting season. For example, after each harvest, an outfitter could place a small blood sample on a special card designed to preserve the DNA. Hair roots are another possible source of DNA. At the end of the season, the outfitter will send the package of cards to GOABC’s office in Surrey, where they will be catalogued and stored. Once a collection is of sufficient size and is supported with appropriate ancillary information, the sequence data could be generated and the data used to analyze wildlife populations.

The GOABC is extremely excited about this opportunity for members to participate in wildlife management in the province. Guide outfitters spend many hours in the field, and have considerable amount of interaction with wildlife throughout the year. They develop an understanding of the ecology and wildlife populations within their territory, and maintain relatively consistent harvest numbers and schedules from year to year. The DNA Collection Program is a practical way of utilizing the time guide outfitters spend afield, and we anticipate that it will be a valuable source of wildlife data in years to come.

BIOGRAPHY

Dr. Marra completed his PhD in Genetics at Simon Fraser University in 1994 and subsequently spent five years as a postdoctoral fellow and research faculty instructor at Washington University in St. Louis. He has been involved in the development and application of efficient, high-throughput genomics approaches, with special emphasis on large-scale genome mapping and DNA sequencing. Current activities include the development and application of “next generation” sequencing approaches to characterize genomes, with the aim of comprehensive identification of the genetic changes that drive cancer progression.

Dr. Marra is the UBC Canada Research Chair in Genome Science, and a member of the Order of British Columbia. He is a recipient of a 2010 Genome BC Award for Scientific Excellence. He was elected to the Canadian Academy of Health Sciences in 2009; received the Frontiers in Research Award from the BC Innovation Council in 2008; and was appointed a Fellow of the Royal Society of Canada in 2007. He was a recipient of a Distinguished Achievement Award from UBC, a MSFHR Career Investigator Senior Scholar Award, and Simon Fraser University President’s 40th Anniversary Award. In 2004, he received a Terry Fox Young Investigator Award and BC Biotech’s Innovation and Achievement Award (together with the entire GSC staff) for sequencing the SARS coronavirus genome. Dr. Marra’s contributions to genome science led to an honorary Doctor of Science degree from Simon Fraser University in 2004, and an honorary Doctor of Laws degree from the University of Calgary in 2005.
Wildlife Conservation Model in Latin America for guide outfitters and hunters are not currently a problem. There is no definition especially for international hunters, is licensing process and firearm requirements, of solutions. At present, ambiguity in the challenges in wildlife management in Latin America, which give rise to a catered package fundamental principles can be adapted so not be accepted in Latin America, but the "The North American Model "as is" will not allocate funds for research, training or promotional activities, and also runs the risk of being duplicated by another branch of government.

When Michael and his friend Thomas Saldias first began advocating for legal hunting in Peru, the challenges seemed insurmountable. All of the challenges were deeply entrenched in history and political change, and wildlife management had been simplified to avoid complexity, unfortunately at the expense of wildlife. Since data on wildlife populations was unavailable during the 1970s, the government decided to prohibit nearly all hunting. Two reserves with a total area of approximately 200 km² remained open to hunting. Further, only one of the reserves (about 50 km²) had game species left to hunt which essentially made it an activity for a select group of individuals. Since hunting was so restricted, heavy "subsistence hunting" (poaching) occurred throughout the country. Even recently, international hunters have been willing to pay guides tens of thousands of dollars for the opportunity to hunt the country's jaguars, taruka deer or pudu deer, but there is no structure in place to provide funding generated by these activities back to conservation. From 2004–2008, the Peruvian government made just under $4,000 from hunting—pennies compared to the $2 billion earned in Texas, the $3.6 billion earned in Spain, the $300 million made in Mexico and the $150 million in Argentina.

In the forty years hunters spent underground in Peru, anti-hunting environmental groups gained a political foothold. When the Central Peru Chapter of Safari Club International (SCI) was established in 2007, they sought to build relationships within government and indigenous groups, navigating the challenges of a legislative void, "green" anti-hunting influence, and turnover in decision-makers. In 2008 the group experienced some success, as legislation was passed to allow hunting. A violent public outcry occurred several days later—not as a result of the hunting legislation, but because other controversial natural resource legislation had been piggybacked on to the same bill. The government responded by discarding the entire bill and dismissing many staff, leaving SCI Peru back at square one. "That was very depressing, but we knew that we were so close, too close to give up," Michael stated and, with help from Jim Shockey and SCI, about three years later, the group was successful in passing legislation to permit recreational hunting in Peru. Next stop, Paraguay!

The Peruvian experience highlights that elements of the North American Model are helpful in creating a foundation to withstand political, social, and bureaucratic change. Funding for conservation from licences and tags is valuable to government and conservation, and engages hunters in the wildlife management framework. This is also valuable to native, local stewards of the land, as it can help keep habitat intact and functional, providing an alternative means of generating an income. Thomas and Michael's experience in Peru also highlighted what hunters can accomplish when they are united and strategic: in half a decade, they managed to completely turn around the framework for managing wildlife. "We need to keep the momentum going, teaching people about the North American Model and its benefits," Michael concluded. There is still a lot more work to be done, but they are now well-positioned to move forward in conservation in other areas of Latin America.
BIOGRAPHY

Dr. Mitchell Taylor has worked on polar bears for the past 34 years, and was the polar bear biologist for the Northwest Territories and Nunavut Territory for 22 years.

He was a member of the International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Polar Bear Specialists Group and Canada’s Federal/Provincial Polar Bear Technical Committee until 2008. From 2004 to 2008, he was the Manager of the decentralized and relocated Wildlife Research Section.

Dr. Taylor has published over 50 scientific papers on polar bear-related topics, and has conducted or participated in field research programs on most of the world’s polar bear populations. In 2007, Dr. Taylor and his colleagues completed the Davis Strait population inventory. He was also a co-author on Committee on the Status of Endangered Wildlife in Canada (COSEWIC) polar bear draft status report.

Dr. Taylor is currently an adjunct professor and contract lecturer at Lakehead University. He also maintains a private contracting business practice in the Thunder Bay area. Current research interests include polar bear population enumeration and demography, managing polar bears in a changing environment, climate change, and peregrine falcons.

SUMMARY

As one of the only countries that has not listed polar bears as a species at risk, Canada is facing mounting international pressure to change our approach to management. Kassie Siegel, a Californian lawyer at the Center for Biological Diversity, was behind the US uplisting of polar bears. “Canada is willfully ignoring the deep trouble that polar bears are already in and the likely extinction they face without rapid cuts in greenhouse emissions,” she stated in November 2011.

The Center for Biological Diversity, where Kassie Siegel works as a lawyer, challenged Canada’s failure to protect polar bears under the Species at Risk Act. The challenge was filed with the Commission for Environmental Cooperation, a panel under the North American Free Trade Agreement that exists to monitor signatories’ compliance with environmental laws. Presenting an emotional plea for support, Siegel asserts that polar bears are on thin ice and a reduction in CO2 is necessary to prevent further habitat destruction. Mitch Taylor began by presenting all of the science proving a connection between CO2, climate change, and declining polar bear populations. He agrees that there is scientific evidence pointing towards change in polar bear populations. On average the bears are smaller, and they are moving towards cities and eating each other out of desperation for food.

He also asks some necessary questions about the severity and cause of the change. Looking at the change in populations over the last decade reveals a steady population that increases at different times in recent history – a trend that is certainly not consistent with the steep downward slope depicted by the climate change activists. Is this a crisis? Are polar bears as a species threatened by climate change? There appears that there is a connection between CO2 emissions and climate change, but what are the real implications? Mitch contends that there is more going on than meets the eye. Correlation does not prove causation. Following the last ice age in almost 10,000 years ago, the earth has gone through periods of heating and cooling that polar bears have survived.

It is not clear that the increase over the last number of years is caused by post-industrial production of CO2. Our earth is warmed by a greenhouse effect of about 33°C, but only 3.86°C is due to CO2, the majority of which occurred in pre-industrial times. A significant change in lifestyle—i.e. moving and consuming in a pre-industrial fashion—would have to occur to revert to previous temperatures.

A decline in the polar bear population, from 25,000 to approximately 18,000, will occur with declining sea ice, at a certain point it will level off. At first the introduction to CO2 will cause a large jump in temperature, but once the air reaches a certain concentration of CO2, the impact on temperature diminishes.

A study completed by Mitch and one of his colleagues examined 13 polar bear populations and their ecologies, revealing 6 declining populations and 7 increasing. When they completed the study, they realized it had neglected to take into account traditional ecological knowledge from the Inuit who have lived in close proximity to polar bears for many years. All of the studies on polar bears had margins of error for thoroughness and method, but traditional ecological knowledge was still at odds with the majority of the results.

Since correlation does not prove causation, Kassie Siegel’s efforts may be well-meaning, but ineffective. Precautionary principle says to prevent actions when the outcome is catastrophic, but the evidence on climate change is not conclusive enough in this
regard. Additionally, precautionary principle would demand a reversal of our social and economic development that goes far beyond the Kyoto Accord or driving electric cars. In terms of the polar bear listing, Mitch states that “precautions” can be used politically as a way of imposing one’s values on a section of society that is weaker and less represented. The polar bear hunt maintains a social and economic significance to Inuit and residents in remote arctic communities.

Furthermore, increases in CO2 are not the only possible cause of temperature increase. Fluctuations in water vapor, which is also a greenhouse gas, are important to look at as well. There is 26 times as much H2O as there is CO2, and H2O is 5 times as capable of absorbing and re-radiating heat. It is the proximity of the earth to the sun that sustains life on our planet, and water acts as a thermometer. As earth’s temperatures warm, more water vapor is produced, so the temperature increases further because there is also more reflectance. Some researchers believe that the earth’s climate is mainly determined by variations in solar radiation, stabilized by the opposing effects of water vapour, and mediated by the earth’s wind and ocean current heat distribution systems.

CO2 is a highly political issue, because it is tied to wealth, economies and control. The polar bear is a wedge issue for climate change; a likeable but highly simplified poster child of a large and multifaceted issue. Responding to the impact of climate change on polar bears by listing them on the Species of Risk Act is not necessary an effective means of addressing concerns. Climate change is a complex issue with data deficiencies and prediction limitations, and the call to reduce emissions would require a substantial change in lifestyle that may not even effect change. What Mitch’s presentation highlighted is the possible implications of simplifying environmental issues for political purposes, and the way science can be used to make environmental controversies worse. The accuracy of data and effectiveness of conservation measures have high stakes for local communities.
Robert Cahill opened by noting a disconnect between the model’s efforts to eliminate the market for wildlife products, and the sale of fur products including seals. In conversation with other experts, Rob learned that there are generally three exceptions for the market use of wildlife: fur, feathers and fish. He contends that there ought to be a fourth exception: phoque, which is French for seal. He makes a compelling case for this.

Although simplified by the animal-rights movement, sealing is a complex issue with socio-economic, cultural, political and welfare undertones. Historically the hunt was of great significance to the Inuit, who survived off of the meat, oil, bones and fur provided. Today seal hunting continues to contribute towards subsistence of coastal communities, some of which are Inuit.

Wherever there are seals, there is a managed seal hunt. Canada is one of six countries that has a seal hunt today. Since 1971, the Department of Fisheries and Oceans (DFO) has set a quota for the number of seals that can be harvested each year, and creates regulations to dictate the proper age and type of animal. Sealers use rifles or what’s called a hakapik, a multipurpose hunting tool with a club and a hook, to hunt seals. Many independent, peer-reviewed studies have revealed that the hakapik is an effective and ethical means of killing a seal when used properly, however the image remains a public relations challenge.

The seal hunt is also one in a handful of wildlife management scenarios that have become the object of international policy. In 1983 the European Union (EU) banned the import of white coats, leaving a well-meaning but ineffective exception for Inuit-derived product. When the market collapsed, the Inuit exception was of little help. Harvests decreased for a period and the industry sought to rebuild itself, emphasizing the quality of Omega-3 found in seal oil, as important new product with international interest.

Following a public outcry from animal-rights groups, a ban on all seal products was passed in the EU on April 1, 2009. Of the 736 members of the EU Parliament, only 7 had showed up for the debate the day prior. The language used in the formulation of the EU seal ban is disconcerting and has serious implications for other hunting activities. In 2006, the EU Parliamentary Council recommended that member states “…ban cruel hunting methods which do not guarantee the instantaneous death, without suffering, of the animals, to prohibit the stunning of animals with instruments such as hakapiks, bludgeons and guns, and to promote initiatives aimed at prohibiting trade in seal products.”

The 2009 ban followed along the same vein, “The hunting of seals has led to expressions of serious concerns by members of the public and governments sensitive to animal welfare considerations” and “the placing on the market of seal products should, as a general rule, not be allowed in order to restore consumer confidence while, at the same time, ensuring that animal welfare concerns are fully met.” Once again, an Inuit exception was allowed. This stands to reason there were serious concerns about cruelty and animal welfare, when the product is destined for the market and the hunt is not conducted by Inuit. Given the fact the hunting method and market for Inuit and non-Inuit seal product is one and the same; this approach again fails to protect Inuit interest and animal welfare considerations.

Furthermore, the ban is not even consistent
regarding the market for seal product. Within the EU, there are countries where seals are hunted and put on the market to ensure the sustainability of fisheries; “Seals are hunted within and outside the Community and used for obtaining products and articles, such as meat, oil, blubber, organs, fur skins and articles made therefrom, which include products as diverse as Omega-3 capsules and garments incorporating processed seal skins and fur. Those products are sold commercially on different markets, including the Community market,” states the EU Seal Ban regulation.

Here Rob distinguishes between charismatic species and ecological conservation. Innocent black eyes contrasting the downy white fur of a seal pup is the epitome of a charismatic species, and certainly the image of a hunter with a hakapik only intensifies public sympathy for the animal doesn’t help. The EU ban is a response to political and social pressure relating to a charismatic species. Naïve to the realities of local communities and habitat capacity, it has very little to do with conservation at all and is contrary to the principles of sustainable use set out in the Convention on Biological Diversity and the IUCN (World Conservation Union). The controversy surrounding the hunt and inconsistencies in the ban should act as a warning sign to wildlife managers. “Today the focus is seals,” Rob noted, “but what will it be tomorrow?” Sealing is a wedge issue; it effectively divides the 70% in the middle. The North American Wildlife Conservation Model did not limit market hunting because it was inherently wrong, it did so to ensure that economic interests would not trump conservation, which has been a problem with some species in the past. The current exceptions for fish, fur and feathers are obviously not made to the detriment of wildlife populations.

Not only does this issue highlight the complexity of wildlife management, but it also demonstrates the importance of sustainable resource use at the local level. Once the sealing issue had crossed the ocean, the connection with the people, the economy and the history were largely relieved. The 1983 and 2009 bans have had negative consequences for remote coastal communities where there are limited employment opportunities. Like elephants or wolves, the seal ban was a placebo for the animal-rights community, and the “solution” was far-removed from the realities of its immediate environment. Aside from easing a few anxious hearts, the ban said nothing definitive about ethics, standards or sustainably, but testified to the power of charisma.
BIOGRAPHY

Ron Thomson grew up in the former Rhodesia (now Zimbabwe) and had a passion for wildlife from a very young age. Before his 20th birthday he had already hunted his first elephant, crocodile and several leopards. He persistently pestered the National Parks Department for a Game Ranger’s position, despite the fact they would not appoint people under the age of 22. In 1959 the department gave in and created a position for him at 20 years old: Cadet Game Ranger.

Ron has now served in the department for 24 years. His unique perspective and hands-on approach eventually found him in the post of Provincial Game Warden in charge of Hwange National Park, the top field position in the department. During this period he also completed a diploma course in Field Ecology with the University of Rhodesia, which he passed with distinction.

In 1986 he authored his first book On Wildlife Conservation. Then, in 1992, he wrote The Wildlife Game. Six other books have since followed, and over the last 30 years he has published over a hundred major articles in wildlife and hunting magazines. He has become known as one of the leading voices for international wildlife conservation in southern Africa, being awarded Safari Club International’s Conservation Trophy in 1992, the International Council for Game and Wildlife Conservation’s Conservation Medal, and Associate Life Member of the International Professional Hunter’s Association.

SUMMARY

The management of elephants cannot be viewed in isolation. Management priorities must be for the soil, the plants and the wild animals, in that order. If we do not care for our soil and our plants, the animals will not survive. Ron carefully distinguishes between species and populations. A species is a group of animals that shares the same physical characteristics. A population is a distinct group of animals of the same species that shares the same habitat, interacts with each other on a day-to-day basis, and breeds only with others in the same group. It is not possible to manage a species. Management can only be applied to individual populations because the environmental pressures on different populations are highly variable.

Maintenance of biological diversity is, or should be, the prime management objective of each and every national park in the world. This principle guided southern Africa’s national parks throughout the 20th century, but has been discarded as a result of public antagonisms towards the practice of culling elephants. Elephants are being allowed to proliferate without any kind of population control in recent decades and this has started to very badly affect biological diversity in most southern African national parks.

The reason for this state of affairs is the infiltration of southern African urban societies by the international animal rights movement, the success of the animal rights propaganda, and the listing of the elephant as an endangered species under Convention on International Trade in Endangered Species (CITES) in 1989.

In Africa, rural human populations are doubling every 20 years and already there is not enough land to satisfy the demands of African subsistence agriculture. Poverty is the real spectre that haunts Africa now, and this is likely to worsen in the foreseeable future. Over the last three decades, the average annual income of people living in remote rural communities was less than US $10.00 per family (and the average family is comprised of 8 people)! Poverty has been the driving force behind the escalation of commercial poaching since the middle 1970s as the money received for a pair of poached tusks or rhino horns represented 3 to 4 years of income. Uncontrolled poaching led to serious decline in elephant populations in Kenya and Tanzania in the 1980s. Animal rights organizations at CITES convinced delegates that this was due to the greed of the poacher and a ban on ivory trade was instituted in 1989.

According to Ron, the endangered species concept is a fallacy and, even if it was valid, this “draconian” measure should never have been applied to the elephant populations of southern Africa. In 1989 South Africa, Namibia and Zimbabwe were all still culling excessive and still growing elephant populations!

A big elephant population is not necessarily a healthy one. Numbers mean nothing if they are not applied to the context of their habitat. The existence of 150,000 or 200,000 elephants in Botswana only means something when you consider that this population first began to exceed the carrying capacity of its habitat around 1960 when there were 7,500 elephants in the country. This “grossly excessive” elephant population has caused the decline of 11 other major large mammal species by, on average, over 60% over the last 15 years.
Exploding elephant populations call for drastic action and some “tough love”. When a population is known to have exceeded the carrying capacity of its habitat, a population reduction of at least 50% is necessary. In the 1970s, Ron led a population reduction operation in Gonarezhou National Park in which 2,500 elephants were taken over two years. On average 41.6 elephants were taken each day for one month for two years in a row. One of Ron’s photographs revealed the uncomfortable reality: 47 elephants shot and killed within 60 seconds using brain shots. All of these animals were dissected and used for science, the hides and ivory were recovered, and the meat was prepared for human consumption. Today it would be very difficult to convince the general public a cull is appropriate for a species that everybody believes is endangered.

Instead of the CITES ivory trade ban, what should have happened in the 1980s?

An investigation of Africa’s many elephant populations should have guided decision making, not animal rights propaganda. The populations should have been classified as being “safe” (not endangered) or “unsafe” (declining and under threat). Safe populations should have been subjected to conservation management, which allows for sustainable use. Unsafe populations should have been placed under preservation management and the ecological pressures that caused the decline should have been systematically addressed. In this framework, the elephants of east Africa that were under threat from commercial poaching would have been protected and culling of the excessive populations in southern Africa would have continued.

Ultimately, Africa’s wildlife management must integrate the needs of the national parks with those of the rural human communities that live on the national park boundaries. Instead of culling animal populations in our national parks, hunting by high fee paying hunters should be allowed. These fees would be administered through the national parks and brought back into local communities each year provided no elephants were poached. Not only would this would help control elephant populations, but it would help alleviate poverty, making local communities the “greatest custodians” of the parks. However this program would require “a paradigm shift of immense proportions” in the minds of our urban societies as non-intervention has become society’s mantra.
ROSS PECK

History of Guide Outfitters in Wildlife Management

BIOGRAPHY

After 25 years as guide outfitter in Northeastern BC, Ross retired in 2005 and now raises mountain horses at his home on the Peace River near Hudson’s Hope, BC. He is the current President of the Hudson’s Hope Historical Society and is involved in a number of projects that profile early expeditions and their guides.

He maintains his status as a registered professional biologist and sits as a director on a number of boards including the Habitat Conservation Trust Foundation (HCTF) and the Resources North Association. Ross is a Past President and Director of both the Northern BC Guides Association and GOABC, and served as chair of the Muskwa-Kechika Advisory Board from 2001–2007.

SUMMARY

Ross provided an overview of the last century of BC’s guiding heritage. What was most evident in his presentation is that wildlife management is about people and their ecos (house). Changing transportation systems, industry growth, trade and local communities were—and continue to be—factors that influence wildlife management in our province. The guide outfitting industry was designed to promote stewardship, and can be a valuable resource to government in this regard.

In the late 1800s the word about BC’s big game populations was spreading throughout the hunting world. Getting into the backcountry was difficult, and hunting trips were often long and tough. The industry was embedded into the economies of rural communities, with large trading companies such as the Hudson Bay Co. providing outfitting services. Wildlife was crucial for local sustenance, but also provided revenue and jobs in smaller communities. There were few regulations on wildlife use in those days, as an article in the Victoria Daily News of April 1892 noted; “…our game laws are a dead letter. Nobody minds them a bit…I doubt if a single license has ever been procured, yet there were more than a dozen men in town this fall that ought to have paid for one.”

Non residents hunters had been required to have a license since 1892, but bag limits were liberal, and enforcement minimal. A hunter was permitted to harvest 10 deer, 3 caribou, 2 sheep, 5 goats, 2 bull moose, and 2 bull elk. In 1906, 21 hunters in the Cassiers took 17 moose, 63 sheep, 29 caribou, 17 goats, 6 grizzlies, 11 black bears…an average of 6.8 animals per hunter. This was of concern to some conservationists. As Hornaday and Phillips wrote in Campfires in the Canadian Rockies (1906), “The big game in BC is a public asset of very considerable value. If rightly protected and exploited, it can be made to yield to the southern districts many thousands of dollars annually—in the hire of guides and horses, the purchase of supplies, and in licence fees.”

In 1905, government responded by appointing A. Bryan Williams to the position of Provincial Game Warden, and things began to change under his guidance. Bag limits were reduced and the BC Government began to promote the quality of hunting opportunity available in BC. Fees for a non-resident licence doubled to $100 in 1908, and the same year the Game Department received its first budget of $10,000, which was no small sum in those days. By 1913, non residents were required to have a guide to hunt in BC, and 42 guide licences were sold that year.

Although guiding pretty well ground to a halt during the first World War, BC Guides were back on the trail, and played a critical role in opening up the BC backcountry in the 1920s and 1930s. Thrust forward by a proliferation of access, improving post-war economies, and an upsurge in moose populations in central BC, the guiding industry exploded; going from 131...
guides in 1931 to close to 700 in 1948. It was clear the industry needed some structuring, and new guiding regulations were brought forward.

It wasn’t until after World War Two that the guide outfitting began to look as it does today, with exclusive guiding areas and extensive regulation. BC government’s experience with managing traplines in the 1920s had revealed the value of exclusivity, so in 1949, the BC government began the process of allocating individual areas for guiding. The subsequent allotment of areas took different forms and timelines across the province, but by the mid-1960s, BC was well on its way to developing the current guide outfitter system that gives exclusive rights to guide non-residents within a specific area. Increased security allowed many guides to grow their businesses and create improvements within their guiding area. On the wildlife management front, it gave guides a vested interest in the health and well-being of wildlife populations.

In 1967 the newly-formed Western Guides Association (precursor to GOABC) held its first Annual General Meeting (AGM) in Prince George. During the early 1980s, the Habitat Conservation Trust Foundation (HCTF) was established, providing a dedicated funding source for conservation from licence and tag sales. Across the province, guide outfitters began to help with research projects, participate in predator management, and work with government on the development of wildlife management plans and regulations. For a period, government gave funding to outfitters to facilitate the development of Guide Area Plans, an initiative that encouraged people to think ahead and do inventories.

Ross’ presentation was coupled with a presentation from David Beranek entitled The Guide Future Role of the Guide Outfitting Industry in Wildlife Management. By “looking back down the trail”, a rich history of guide outfitters in the backcountry is evident in their role in local communities and natural resource industry growth. A lot has happened in one century: an industry was born, government accepted a growing role in wildlife management and social context has undergone a dramatic transformation. It stands to reason that we ought to be equipped for growth and change for the trail that lies ahead. BC’s framework for managing the guide outfitting industry creates long-term interests in the land, which means our industry is well-positioned to face the challenges of a changing land base and social climate in the next century. Efforts to sustain and enhance the role of BC’s “backcountry custodians” are already underway. For a vision of guide outfitters in wildlife management in the next century, please see pages 44 to 45.
ROY HENRY VICKERS
The Four Directions of Stewardship

BIOGRAPHY

Today Roy Henry Vickers is a successful artist, writer and gallery owner. He was born in the village of Greenville, BC in 1946. He has stayed on the northwest coast of BC ever since and his love and respect of the magnificent natural beauty of this area is evident in his art.

Roy’s father was a fisherman with the blood of three northwest coast First Nations (Tsimshian, Haida and Heiltsuk). Roy’s mother was a schoolteacher whose parents had immigrated to Canada from England. This unusual mixed heritage has had a strong influence on Roy’s art.

Roy studied traditional First Nations art and design at the Gitanmaax School of Northwest Coast Indian Art in Hazelton. His work can be found at the Canadian Museum of Civilization and in public collections in British Columbia. Today he is best known for his limited edition prints, but he is also an accomplished carver, design advisor for prestigious public spaces, sought-after keynote speaker, and publisher and author of several successful books. He is a recognized leader in the First Nations community and a tireless spokesperson for recovery from addictions and abuse.

Roy has received many honours for his art and community involvement including a hereditary chieftainship Hemas Tlakwagila (Chief Copperman), and hereditary names from Northwest Coast First Nations. He was the first artist ever recognized in Maclean’s Annual Honour Roll of Extraordinary Canadian Achievers (1994). The Province of BC appointed Roy to the prestigious Order of BC in 1998 and in 2003 he received the Queen’s Golden Jubilee Medal. For him, the biggest honour was becoming a Member of the Order of Canada in 2006.

SUMMARY

With a deep understanding of the importance of community and relationships, Roy brought the perspective of a philosopher to the symposium. His aboriginal name is “Wi Haast” which means “big fireweed”, a plant that is first to appear in the spring, and able to grow in areas of devastation.

Managing Wildlife in the Next Century was about healing. There is a deep connection between humans and nature, but many people have forgotten how their actions affect their surroundings. The environment needs those who will stand against disrespect and dishonouring of life. Roy aptly quoted from Disney’s The Lion King (1994).

Mufasa: Everything you see exists together in a delicate balance. As king, you need to understand that balance and respect all the creatures, from the crawling ant to the leaping antelope.

Simba: But, Dad, don’t we eat the antelope?
Mufasa: Yes, Simba, but let me explain. When we die, our bodies become the grass, and the antelope eat the grass, and so we are all connected in the great Circle of Life.

Roy began his presentation with a traditional First Nations centering exercise. For the purpose of the symposium, he called it The Four Directions of Stewardship. Beginning with a look towards the horizon to thank the creator of the universe, the ancient exercise provides perspective both on the road behind and the journey ahead. Our connection with nature obliges us to become teachers, healers, visionaries and warriors.

Each human must be a teacher with the eyes, ears and heart of a student. Lessons are available to us every day. A teacher begins as an empty vessel and is filled with wisdom from the other three roles: healer, vision and warrior.

As healers we are required to pay attention to matters of the heart. We must understand our own healing journey before we can become a balm to others. In this role, we look to the mistakes of the past, and aim to correct and rebuild for the future.

In the natural world, humans are unique creations because we have the “ability to see with our eyes closed”. We have vision; we can see beyond what is tangible. The warrior must stand for truth, strength and beauty in order to protect the world around us and make it a better place for all. As warriors, we must put our vision into practice by being courageous, standing strong and advocating for justice.
BIOGRAPHY

Born and raised in Newfoundland, Shane Mahoney is a biologist, writer, and widely-known spokesman for environmental and resource conservation issues. He has a Masters Degree from Memorial University of Newfoundland and is completing his Ph.D. at the University of Calgary.

Beginning his professional career in 1981 as a Habitat Biologist and later as Big Game Biologist, Shane was appointed head of Ecosystem Research and Inventory for all wildlife species in Newfoundland and Labrador in 1992.

He was also responsible for the creation and direction of a new Wildlife Research Unit. In 2002 he assumed the position of Executive Director for Science, Wildlife and Protected Areas, and that of Executive Director for Sustainable Development and Strategic Science in 2004. Shane is also the Founder and Executive Director of the Institute for Biodiversity, Ecosystem Science and Sustainability at Memorial University of Newfoundland.

Shane is known for his expertise in wildlife biology, his love for conservation history and his skill as an orator. He is widely publicized in academic journals and popular hunting magazines, and has spoken to audiences around the world, including elected officials in Ottawa and Washington DC. As a historicist and philosopher, his writings and lectures demonstrate a profound commitment to rural societies, hunting heritage and the sustainable use of fish and wildlife.

He has received many awards for his conservation efforts including the Public Service Award of Excellence by the Government of Newfoundland and Labrador in 2005 and Gold Medal in Wildlife Science by the Caesar Kleberg Institute in 2006. Outdoor Canada Magazine named him one of Canada’s 10 Most Influential Conservationists in 2006 and Outdoor Life Magazine recently named him as one of the 25 Most Influential and Inspiring Conservationists in North America. In 2008 he was named the International Conservationist of the Year by Safari Club International.

SUMMARY

With the wisdom of a philosopher and the passion of a true outdoorsman, Shane brought symposium attendees back to examine foundational question about conservation and hunting. Why does conservation matter? What drives our efforts in conservation?

Unfortunately, today many hunters are unable to conjure up answers to these questions. The fact that non-hunters do not seem to care about wildlife is widely lamented, but we should not expect the general public to be concerned if those who are invested and use the resources are not able to explain why conservation matters.

Shane contends that conservation matters because people matter. He shared a story from his native province of Newfoundland. In 1992 Canada’s Minister of Fisheries announced the closure of a cod fishery on the coast of Newfoundland. It had sustained a market for over half a millennium until human ignorance, greed and useless policies drove the cod population near to extinction. Today we have only “infantile impressions of how significant this was.” In small communities on the east coast of Canada, life changed for many families. The man accustomed to getting up at 3:00 a.m. and heading out onto the water, would have his morning tea as normal and disappear from his home for the day, embarrassed to face his kids and disillusioned by the loss of his career. People will be impacted when conservation fails. If we safeguard wildlife, we by default safeguard ecosystems and people.

We can anticipate that the greatest conflicts in the next century will be over natural resources: timber, oil, minerals, water, fish and wildlife. Conservation is more than just economics or the environment. The social aspect of natural resources means the difference between peace and war. This is because humans are deeply connected to natural resources, especially wildlife.

“Early man understood that where animals died, fluorescence emerged,” Shane stated. Beautifully austere paintings that adorn the insides of ancient caves testify to the depth of man’s reverence for wildlife: early man did not paint trees or landscapes, he painted wildlife. Death leads to life. An animal’s death nourishes the ground that once sustained it.

Despite technology and industrialization, we are not so far removed from this history as we like to think. “The past walks with us so fundamentally every day that it is almost disturbing,” Shane remarked. His examples illustrated this statement well. If we go to a restaurant with normal bright lights and plain décor, we can expect to pay $12 for a steak dinner. However, if the lights are dimmed, and there is visible wood and stone in the décor, or perhaps a visible grill, we can expect that price to double. In our homes, we prefer to sleep off the ground, on the second floors of our modern homes. We have all the modern cooking conveniences at our disposal, but in the summer we love to congregate around protein cooking outdoors over an open flame. The past walks with us every day; it is part of who we are. Our connection with nature is restorative and provides perspective of our significance in the grand scheme of things.

Wildlife no longer exists by accident. Our primary challenge will be to continue to examine the question of how we will live with wildlife. The pressures of natural resource development, human policy, use and economics will affect wildlife, even if we erect walls of “preservation”. Shane encouraged symposium guests to fight for the fundamental truth that conservation matters.

The development of the North American Model and the rescue of wildlife from the “embers of destruction” is one of the greatest environmental success stories of this century. Ideas can have immense power. As Shane explains, “We are the talking ape, and that’s made all the difference.” We can’t take models and simply transpose them into other locations, but we can glean inspiration and strategy from the ideas of others.
In Montana this structure is working well. Wildlife are thriving and 25% of people hunt. At present there is a strong hunting culture, but challenges are on the horizon. Across North America, hunting participation is down. Thomas contends that this is the result of changing demographics and, in particular, an aging population. When the "Baby Boomer" generation gets older, they are less physically able and may chose to adopt alternate leisure activities. Many states and provinces are preparing themselves for this shift by creating hunter recruitment and retention programs to make it easier for people to hunt by lowering licence costs and liberalizing seasons.

According to Thomas, hunter recruitment and retention is not the problem. "It's a model viability challenge," he states. The system can't afford the hunter any more incentive to keep hunting than it already does. Since the North American Model is built off of strong participation from hunters, its "Achilles' heel" is that the hunter is a customer, not a steward. To illustrate the problem and offer a solution, Thomas drew from his experience of growing up in Germany. Despite industrialization, Germany has maintained a lot of open space and an abundance of wildlife. Approximately 400,000 people hunt. Contrary to popular perception, a person does not need to be "born into it" to hunt in Germany: anyone can hunt, but they must undergo training to do so.

In Germany hunting rights are vested in property rights, not government. The government facilitates stewardship and sustainable use. Since many properties are smaller than the 150 acre requirement, municipalities aggregate private lands into hunting units. These are typically about 500 acres in size and leased for 9–12 years. Encompassing a total area of 35.7 million hectares, there are approximately 70,000 hunting units in Germany. In Germany the hunters are responsible for clean up and the scrutiny of his peers in mind. Once a year, the region puts their horns and heads on display, and a committee goes through and compares the harvest plan with the trophies. If there are inconsistencies between the two, the trophy will receive a red sticker. In a country where hunting is an important part of culture, this creates enormous social pressure to manage the wildlife well.

Further responsibilities are also vested within hunting units. If there is damage to agricultural lands, the hunting unit must take care of the animals and pay for any damage. When a vehicle collides with wildlife within the hunting area, the hunters are responsible for clean up and reporting to the insurance company. This is why German hunters must undergo extensive education: they need to be prepared for the responsibility that comes with it.

Unlike Montana, a German hunter must invest long-term. It is part of the culture, but it is also a very distinct lifestyle commitment. A management framework where the hunter is not merely a customer will be beneficial to wildlife. Under the North American Model, there is a wealth of hunting opportunity for all people, but little investment in the management of wildlife and the environment. From Thomas’ presentation we learn the importance of engaging hunters in management, vesting opportunity alongside responsibility to create a framework in which hunting becomes a lifestyle commitment.
In the 1980s Manitoba’s moose population was approximately 21,000. This increased to 35,000 in the early 1990s, but by 2011 had dropped below 20,000 due to diseases (e.g. brain worm, liver fluke and winter tick), increased access and uncontrolled harvest. This decline has caught the attention of many First Nations communities, licensed hunters and wildlife managers. “Bullwinkle hasn’t changed since he walked across the Bering Land Bridge 12,000–15,000 years ago,” Vince noted. Humans, on the other hand, have access to all of the modern technologies such as, cars, trucks, all-terrain vehicles, snow machines, high-powered rifles etc. There is also increased access, and the impacts are cumulative. We must adapt to ensure our resource use remains sustainable.

One of the major challenges in addressing the decline of Manitoba’s moose populations is lack of financial resources to adequately monitor populations. Manitoba Conservation has one of the lowest wildlife monitoring budgets in Canada, and there is little information on harvesting by rights-based users. Recently an intensive effort has begun to restore moose populations by working with rights-based users and stakeholders. It is in the best interests of government and First Nations to consult meaningfully. Vince states the reality is simple: “Without the resource, treaty rights are meaningless.”

Consultation with rights-based harvesters is required by law but must be respectful, sensitive and strive to interfere as little as possible with constitutional-based rights; although use patterns will often have to be altered to achieve the goals of conservation and sustainable use. Consultation does not necessarily mean First Nations interests will always be accommodated, but the process needs to be meaningful and undertaken in good faith. Vince emphasizes that information sharing must also be part of the consultation process. Managers need to keep detailed records and acquire sound data to support management decisions and actions. Acceptable solutions have come forth from local communities and stakeholders with the recognition that there must be a decrease in the anthropogenic harvest.

“Management of a finite resource that is dynamic, variable and constantly changing does not usually offer the luxury of time,” Vince states. Since management needs to be expeditious in addressing threats, consultation needs to be effective and time-sensitive. Engaging First Nations in “the bigger picture” of wildlife management will help ensure the future sustainability of wildlife populations. In Manitoba’s case, solutions from local communities ranged from:
- conservation closures (all hunting closed)
- reduction of wolf populations for a finite time period via intensive trapping by registered trappers with financial rewards
- access management

Support, understanding and education are essential ingredients in all discussions between rights-based communities and Manitoba Conservation. There also is a need to manage populations rather than on a game hunting area basis. These areas have out lived their usefulness and in many instances have resulted in discrete populations being fragmented and managed differently.

In closing, Vince emphasized that the future of wildlife is ours to make, not ours to predict. How do treaty rights fit into the North American Model? This is a major missing ingredient in the model, and the challenge is to find a way to make it fit—we must “get in the same canoe, paddle in the same direction”, working as equal partners to ensure the resources are available for this generation and for those who will follow in our footsteps.
BIOGRAPHY
William “Willie” Charlie, Jr. is the Chief of the Sts’ailes Band. He was born and raised in Sts’ailes, a community of 1,000 members, about half of which live on reserve. His Xwelmexw skwix (Indian name) is Chaquawet.

Growing up in this close-knit community helped him grasp and utilize the cultural teachings of his people. He has been involved in the leadership of the community for many years.

He is currently the Chairperson for the Kwikwexwelhp Senate Advisory Committee, a group of independent leaders who oversee the operation of the Kwikwexwelhp Healing Village. He also sits on the Statlu Sand and Gravel Board of Directors, as well as two BC First Nations Chiefs’ working groups: the First Nations Interim Health Governance Committee and the Interim First Nations Child and Family Wellness Council.

He also sits on the Provincial Justice Committee and the Royal Canadian Mounted Police (RCMP) Aboriginal Advisory Committee. In September 2009, Willie was elected as the Vice President of the Union of BC Indian Chiefs (UBCIC).

Willie is also the co-owner of an award-winning family Aboriginal tourism business called Sasquatch Tours, which provides authentic First Nations cultural experiences including guided river boat tours, First Nations cultural dance performances, drum making, and traditional medicines facilitation.

SUMMARY
Chief Charlie came prepared not with a PowerPoint slideshow, but with “his antennae out”. His mentors once told him that if you speak from the head, it will get big. You need to speak from your heart, keeping your “antennae” out to glean the mood of the room and the significance of the event. Chief Charlie’s antennae certainly captured the theme and the questions of GOABC’s International Wildlife Management Symposium. As humans, we are part of nature—how do we do justice to this relationship? How do we rebuild bridges?

For the Sts’ailes people, stories relay history, but they are also Snowoyelh—natural law. Stories articulate how people are supposed to get along, treat nature, and act as ambassadors of their family and community. One of these stories beautifully articulates the relationship between humans and the environment. At the beginning of time, the sun and moon fell in love. They were separated by distance, but where their feelings met, the world was created. Over time and evolution, living things on the earth began to take different forms: air, water, four-legged creatures, humans etc. The rest of creation saw that humans were the weakest of all living things and took pity, offering themselves as food, shelter and survival. In return they asked only to be respected and remembered.

Expanding on these themes, Chief Charlie described the lifestyle of the Sts’ailes. Earth’s resources still dictates their lifestyle, and they are diligent to provide the thanks it deserves in ceremony. The reality that a life has been taken to nourish one’s body and spirit should never be forgotten. Since their people have been dependent on wildlife for many years, they understand that their lifestyle will be affected if the earth is mistreated and disrespected. It was clear that community is an essential part of this lifestyle, and that the harvest of fish and wildlife is closely tied to family and celebration. Each year people look forward to the beginning of the hunting season, not only for the thrill of the hunt, but for the first taste of game meat and the quality time spent with others.

His elders once relayed the wisdom that the laws of life are simple; it is our humanness that complicates life. As humans we are supposed to respect all living things, but we have become greedy and selfish. We do things for ourselves rather than the people we represent and the generations that will come after us. Chief Charlie’s presentation offered an urgent call to reconnect with the land: “I don’t want to be remembered as the ones in history that lost something—whether it’s our language, culture, traditions, or our relationship with living things.”
ZARYLBEEK (SAKU) ABDYKAEV  
Wildlife Management in Kyrgyzstan

BIOGRAPHY

Zarylbek (Saku) Abdykaev was born in 1974 in a small town close to the Chinese border in what is now Kyrgyzstan. He grew up fishing for trout and hunting sparrows with a slingshot until he got his first wolf trap at the age of 15. He has been passionate about trapping ever since.

Inspired by the works of Jack London and Fennimore Cooper, he always dreamed about becoming a guide outfitter. Today he is a hunting guide near the village where he grew up. His next dream is to introduce North American mule deer and New Zealand’s tahr into the wildlife environment in Kyrgyzstan.

SUMMARY

Historically, Kyrgyzstani people were hunters who lived very close to the land. Wildlife was “the meaning of life” for people because it provided sustenance, warmth and protection. Civilization came to Kyrgyzstan when the country came under the control of the Soviet Union a century ago.

Kyrgyzstan gained independence from the Soviet Union in 1991. With this independence, the system for managing wildlife collapsed and many wildlife populations suffered as a result. The population of Marco Polo sheep dropped dramatically, going from 76,000 in 1976 to 15,000 in 2011. Today social and political stability continue to evade Kyrgyzstan. Although democratic in constitution, government corruption is widespread, which has limited their ability to develop an effective approach to wildlife management. Poaching and predator control are among the most immediate of the problems.

An important consideration for wildlife management in Kyrgyzstan is that the country is home to a primarily rural population. Less than 1/3 of its 5.2 million people live in urban areas. Unemployment, poverty and remoteness need to be considered when forwarding conservation efforts.

Hunters and guide outfitters are beginning to think about how they can get engaged in the management of wildlife. Government currently issues 50-80 hunting licences for Marco Polo sheep each year, charging an $8,000 trophy fee on successful hunts. Saku suggested that 30% of this trophy fee should go back to local communities. This could raise about $500,000 US each year. Not only would this help reduce poaching, but it would also help alleviate poverty in remote areas and improve the general public’s attitude towards hunting.

Since high predator populations are currently inhibiting the recovery of Marco Polo sheep, groups of hunters are banding together to reduce wolf populations. Predator hunting clubs have been established, and there are bounties on wolves. People are also beginning to see value in long leases for resource users and some privatization of wildlife—these changes will stimulate local investment in wildlife management.

There is an undeniably human dynamic to wildlife management. During the symposium, this dynamic was also examined in regards to Africa and Latin America. Wildlife management efforts need to be culturally and contextually aware. This is why the North American Wildlife Conservation Model “as is” cannot be transplanted from one region to another. In the case of Kyrgyzstan, the principles of the North American Model reveal the importance of engaging users and utilizing economic value in a way that benefits conservation.
There's an elephant in the room.

Shouldn't your membership support your passion?

DALLAS SAFARI CLUB
Protect your passion: conservation, education, and your rights as a sportsman. JOIN DSC.
www.biggame.org or 1 800 9GOHUNT
PUTTING & KEEPING WILD SHEEP ON THE MOUNTAIN

CONVENTION DATES: JANUARY 30TH - FEBRUARY 2ND
GRAND SIERRA RESORT & CASINO - RENO, NEVADA