



A Program of **conservation** V I S I O N S<sup>®</sup>

PO Box 5489 – Stn C • 354 Water Street • St. John's, NL • Canada A1C 5W4 • Tel: (01) 709 – 754 - 4780

## Project Summary

### What is the Wild Harvest Initiative<sup>®</sup>?

Conservation Visions' Wild Harvest Initiative<sup>®</sup> is the first-ever attempt to synthesize and evaluate the combined economic, conservation and social benefits of recreational wild animal harvests in American and Canadian societies. Its innovative approach will help change conversations and provide new insights concerning the relevance of such natural harvests in modern North American society. By exploring the sustainable use of wildlife in the wider social contexts of food security, rural economies, human health, fitness, and nutrition, as well as wildlife habitat and environmental management, the Initiative will deliver a reasoned and mature discussion of wildlife use to the wider public, working within emerging social concerns for food quality and the mounting evidence of the importance of nature experiences to human well-being. In doing so it will demonstrate the natural alliance between hunting and angling and prominent social trends, including the locavore movement, organic eating, homesteading, and "green-living," further amplifying the relevance of recreational wildlife harvests to the broadest possible audience – one that includes youth, women, minorities and, certainly, non-hunters and anglers.

In reframing the debate about the modern relevance of recreational hunting and angling, the Initiative will positively align these activities with other natural resource use traditions such as berry-picking, wild fruit gathering, wild mushroom harvesting, beekeeping, and firewood gathering. These activities are commonly practiced by large numbers of citizens and are well-accepted as appropriate uses of nature's products. Through its communication efforts the Wild Harvest Initiative will represent hunting and angling as philosophically consistent with these accepted practices, forecasting powerful social connections of mutual support.

By conjoining these insights with existing economic assessments of recreational hunting and angling, and by evaluating in detail the environmental costs and mechanisms that would be necessary to replace this wild food harvest, the Wild Harvest Initiative will help focus a fundamental question for conservation policy institutions; namely, if hunting and angling were to cease tomorrow, what would be the economic, social, and conservation consequences?

## Reach

The reach of the Wild Harvest Initiative® is already reflected in its diverse and expanding partnership that includes state governments, the outdoor industry, conservation NGOs and individuals. There can be no doubt of its potential to contribute to a normalizing of hunting and angling, to a renewed and escalated evaluation of wildlife's value to modern society and to encouraging hunter and angler recruitment, retention and reactivation.

## Rationale

Recreational wild harvest In North America should be viewed as one of the most sustainable, healthy, and environmentally friendly food procurement systems in existence. Each year in Canada and the United States nearly fifty million people partake in the legal harvest and consumption of animals and fish obtained through hunting and angling. In both countries, government agencies collect off-take data on some or most of the species harvested in their jurisdictions. These harvest statistics are collected to inform quota allocations, set harvest regulations, and observe population trends. Researchers and conservation groups also use these data to assess conservation policies and monitor wildlife populations. These geographically discrete datasets are certainly meaningful to each jurisdiction or organization, but individually they do not reflect the collective contribution of wild harvests on wider regional, national or continental bases. Nor are they mobilized for public audience consumption. The Wild Harvest Initiative® will amalgamate the most recent hunting and angling harvest datasets from every jurisdiction in Canada and the US into one comprehensive database. The database will enable a fulsome evaluation of the social, economic, and ecological benefits of hunting and angling, will facilitate harvest comparisons between different species, regions, and jurisdictions, and will serve as a benchmark for future evaluations of game and fish management quotas and land use strategies. Understanding recreational harvest contributions to human diets is imperative to making wise land and resource use decisions and for ensuring wild harvest has a sustainable future. This dietary connection is also critical to establishing and maintaining the relevance of hunting and angling in modern society.

## Context

### 1.) Food Security

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996). Yet today, food *insecurity* affects more than 48 million Americans and more than 4 million Canadians. Incredibly, food is frequently an unaffordable luxury for more than 50 million US and Canadian citizens.

Food insecurity has significant negative impacts for individual health and societal well-being. Food insecure adults have double the risk of “poor health,” including increased risk of diabetes and heart disease, and those with poor health are likely not to have the resources to pay for their treatment plan or to eat the proper foods. The problem can be particularly devastating among children because they are more vulnerable to potential long-term consequences for their future physical and mental health, academic achievement, and economic productivity. The reality is that food insecurity is a serious public health concern that has dramatic, long-term, negative consequences not just for individuals and families, but for national healthcare costs. Thus, regardless of personal circumstances, all Americans

and all Canadians pay the price of health and social problems related to food insecurity. Most troubling is that recent studies show food insecurity is increasing. Every year, in both the US and Canada, more people rely on food banks and community pantries. Charities commonly report that North Americans who struggle with food insecurity are often “desperate for meat and protein items”.

The Wild Harvest Initiative® will demonstrate the magnitude of annual recreational harvests of wildlife and fish in the US and Canada and increase public awareness of the positive health and nutritional benefits of this wild food. It will also highlight the existing contribution this recreational harvest makes to food security and thus the importance of wildlife and fish habitat as food reservoirs for modern society. By doing so, the Initiative will also purposefully discuss the potential for increasing food security in both nations through increased reliance on sustainable recreational harvest of wild renewable food resources. There certainly is, for a number of wildlife species such as deer, Canada geese, snow and blue geese, real potential to substantially increase annual harvests. Why, in our food insecure nations, should we not do so?

## *2.) Human Health*

Recreational wild harvest In North America should be viewed as one of the healthiest food procurement systems in existence given its contributions to human nutrition, physical health and fitness, and emotional and spiritual well-being. This is increasingly significant as modern healthcare practices shift away from treatment of human injury and disease and move toward prevention, with an emphasis on healthier, outdoor lifestyles, especially among younger people. Outdoor recreational activities, including hunting and angling, align with this fundamental notion since they obviously contribute to both physical fitness and healthy lifestyles derived from time spent in natural settings. In addition, the physical health benefits of nutritionally rich wild protein, harvested and most often procured locally, are well-known. For example, many studies have shown that people who eat fish regularly have a lower risk of heart attacks, strokes and death from heart disease.

Both hunters and anglers are less likely to suffer from obesity, a health concern straining the resources of healthcare systems in both the US and Canada. Furthermore, scientific research shows that, regardless of age or culture, time spent in nature contributes to general wellbeing, including mental health and emotional and spiritual wellness. A 2010 study found that even five minutes of exercise in a green space can improve mood and self-esteem. So, it is not surprising that hunters and anglers report a therapeutic and relaxed feeling when pursuing their traditional activities and that they enjoy the quality time these activities provide with family and friends. The positive correlation with good mental health and emotional and spiritual wellbeing is also likely to be associated with other members of the household due to an improved sense of family structure, or a reduction in stress due to increased food security.

The Wild Harvest Initiative® will help establish the relative contribution of wildlife and fish harvested recreationally in the US and Canada to basic dietary and human health requirements, while summarizing and communicating evidence of positive correlations between wild harvest activities, including hunting and angling, and overall good health.

## *3.) Wildlife, Fish and Habitat Conservation*

Natural diversity and wild spaces in the US and Canada are declining as human pressures continue to escalate; yet, wildlife conservation remains a relatively low priority compared with most other

government policy issues. The value of wildlife has been widely ignored or underrated in the past and one of the main threats to wildlife conservation comes from limiting the range of benefits wildlife can provide, or is seen to provide, to human society (Chardonnet et al., 2002). Such benefits incentivize people to care for wildlife and to lobby for its protection. The International Union for Conservation of Nature (IUCN) has concluded that “use of living resources, if sustainable, is an important conservation tool because the social and economic benefits derived from such use provide incentives for people to conserve them” (IUCN, 2000).

As humans, we are inclined to protect and maintain that which has value to us. As the first effort to quantify and aggressively communicate wildlife valuation from a food perspective in North America, the Wild Harvest Initiative® is designed to mobilize a new, broader appreciation for wildlife and fish resources, encouraging greater advocacy for their conservation and helping increase the profile of these resources in land use and policy management decisions. By focusing on human health, the Initiative will provide common ground for discussion and engagement in conservation issues by diverse stakeholders, laying the foundation for wider and more effective coalitions to support wildlife and fish conservation, and encouraging best practices for wildlife production and management on both public and private lands.

#### *4.) Animal Health and Welfare*

The Wild Harvest Initiative® is also designed to engage with public sentiment surrounding animal health and welfare, another strong and growing area of public concern; and one that the hunting community generally avoids. The consumption of meat is rising everywhere, however, and involves the death of hundreds of millions of domestic animals every year. While this reality is accepted by a vast majority of the public, it is the treatment, living conditions and means of death for animals raised as human food that is the widely-debated issue. The real issue, therefore, is not that the animals die, but rather, *how* did the animals live and *how* did they die.

These issues, far from conflicting with sustainable wildlife use traditions, actually provide a new means of argument for the value and acceptance of wild recreational harvest of wildlife. Wild animals live their lives for years and sometimes decades, depending on the species, in a natural state of total freedom, responding to the realities of their physical environment with the full complement of their evolved behaviors. Their death through hunting is a very quick and humane one that does not involve long periods of stress or confinement, nor the experience of other frightened and traumatized animals around them. In the range of alternatives available for providing meat for human consumption, hunting must be viewed as one of the most humane of all possibilities.

Furthermore, animal welfare as a concept can also be applied to wild species in another sense. Habitat destruction, industrialization and impoverishment deprives wild species and populations of life requisites and can cause trauma and distress and lead to increased mortality, population declines and, even, species loss. Both animal welfarists and conservationists aim to avoid these outcomes- for all animals, wild and domestic. Thus, providing a healthy and humane environment for wild and domestic species should be fashioned into a common concern.

#### *5.) Ecological and Environmental Benefits*

Recreational wild animal harvest in North America has proven sustainable over nearly a century and is at the core of one of the most successful wildlife conservation systems in the world, the North American

Model of Wildlife Conservation. Yet, it is seldom acknowledged that regulated, science-based hunting harvests are not only sustainable, but also far more favorable than other food production systems in terms of environmental impact and ecological maintenance. Hunting wild game, for example, requires no land modification at all and, in fact, encourages the conservation of wild land, public and private. Conserving such wild spaces for hunting and angling creates an umbrella effect whereby non-game species also benefit from the conservation of habitats for game species. In fact, the entire ecosystem receives protection: the water, soil, vegetation and wildlife. The interactions between these elements are conserved as a natural consequence.

The Wild Harvest Initiative® will showcase the sustainability and low environmental impact of recreationally harvested wild meat and fish and provide positive ecological comparisons with commercial fisheries and agriculture. By exploring the economic and environmental costs and impacts of replacing the recreational harvest of wild protein with standard industrialized production systems, the Initiative will demonstrate the many ecological advantages of hunting and angling as food procurement systems.

### *6.) Economic Contributions*

It is well established that the current system of funding in place for American and Canadian wildlife and fish conservation relies heavily on those citizens who identify as hunters and anglers, and this is most evident in the United States where outdoor sportsmen and sportswomen overwhelmingly remain conservation's largest single funding source. Through the Pittman-Robertson Federal Aid in Wildlife Restoration Act, for example, hunters have, since 1937, contributed more than \$14 billion to wildlife conservation, aiding in phenomenal recoveries of many wildlife species, with benefits flowing to hunters and non-hunters alike.

Further, the growing US outdoor recreation economy generates over \$646 billion annually. A recent survey by the US Fish and Wildlife Service found that over 90 million US citizens participate in hunting, fishing, or wildlife-watching. These activities alone generate over \$144 billion in annual expenditures and support more than 600,000 livelihoods, many of these in rural areas where employment opportunities may be otherwise scarce. In Canada, the three activities combined contribute \$14 billion to the national economy each year.

By providing the first ever food market value of harvested wildlife, the Wild Harvest Initiative® will significantly expand and enhance these existing economic wildlife valuations. It will also answer the question of what it would cost from an economic and environmental perspective to replace this wild food through expansion of existing agricultural, aquaculture, and livestock production systems.

The Initiative is also designed to educate the citizenry on how much greater the public cost of wildlife and fish management would become, and how much more of a burden the average taxpayer would have to bear, if hunters and anglers who regularly practice wild protein harvest did not, by doing so, contribute so disproportionately to wildlife conservation.

Wildlife must be valued to be managed and conserved and the practical benefits of wildlife must be evident to a wide percentage of the public to incentivize their financial support. Providing the most comprehensive economic valuation of this renewable resource, including for the first time its food value, is intended to encourage greater public investment in this resource.

## *7.) Hunter and Angler Recruitment, Retention, and Reactivation*

Participation in recreational hunting and angling has been generally declining in the US and Canada since the 1980s. This decline in the proportion of Americans and Canadians who hunt and fish poses an ever-growing threat to wildlife and fish conservation, to cherished outdoor traditions, and to the many local economies that depend on hunting and angling related expenditures. If the downward trend continues, it will result in diminished capacity of state and provincial fish and wildlife agencies to conserve species. It is that simple. In response, fish and wildlife agencies, conservation and shooting sports organizations, and the hunting/shooting sports industry have invested heavily in hunter and angler recruitment, retention, and reactivation initiatives to reverse the decline in participation. However, the success of these efforts thus far has been limited, with the general consensus being that additional and innovative approaches are required to sustain hunter and angler numbers.

The Wild Harvest Initiative® will broaden and enhance public awareness of the positive values of harvesting wild protein at a time when health and nutrition and environmental sustainability are of increasing public concern across a wide political, gender and demographic spectrum. Informing the public's knowledge and impressions of hunting and angling and providing evidence for its irreplaceable economic, food and health benefits will help develop social attitudes that are more favorable towards and supportive of hunting and angling, thus encouraging participation from within traditional and non-traditional recruitment communities. By increasing public awareness of hunting and angling as effective conservation tools, food security strategies and as activities that contribute to human health and nutrition, the Initiative will help dispel the myth that these traditional activities have become irrelevant in modern society. The combined effect will be to help normalize hunting in the public's mind thereby encouraging openness to and understanding of the persisting relevance of the personal harvest of wild food, leading to new motivations to engage and increased participation in these activities.

### **Strategic Objectives**

- 1.) To quantify the amount of wild meat and fish procured annually by recreational hunters and anglers in each Canadian province and territory, and each US State
- 2.) To determine the economic value of harvested wild game and fish for Canada and the US
- 3.) To calculate a "sharing index" to estimate the numbers of citizens with whom this recreational wild harvest is shared
- 4.) To estimate the agricultural costs of replacing the wild harvest of game and fish with equivalents in beef, chicken, farmed salmon, etc.
- 5.) To provide evidence why hunting and angling remain relevant to citizens' livelihoods and food security, and to the conservation of wild lands and waters in both countries

### **Project Deliverables**

#### *Knowledge Mobilization*

- A complete list of harvested wildlife and fish species in Canada and the US and a comprehensive dataset containing the most recent recreational harvest data for all species from each reporting jurisdiction.
- The first ever evaluation of the total food biomass of wild protein harvested recreationally in Canada and the United States.

- A comprehensive assessment of the economic value of wildlife and fish harvesting in the US and Canada, synthesizing existing socio-economic data but incorporating, for the first time, a true economic assessment of the food market value of recreational harvests.
- A critical evaluation of the environmental and economic costs of replacing recreationally harvested wild protein through commercial agricultural and livestock processes.
- Calculation of a Social Sharing Index to quantify, for the first time, the number of Canadian and American citizens with whom this recreational wild harvest is shared.
- Production and management of the Wild Harvest Initiative® Database – a custom-built relational database management system designed to facilitate broad analytics of current and future trends in hunter and angler harvest and enable unprecedented analyses based on a wide array of relevant criteria such as changes in human demographics and cultural values, hunter retention, recruitment and reactivation trends, impediments to hunter-gatherer access, landscape productivity values, and changes in wildlife abundance etc.

### *Advocacy*

- Design and implementation of an aggressive, ongoing and strategic communications and social-media outreach plan to disseminate program results and, also, present constant updates on the emerging scientific evidence of the physical and emotional health benefits of wild food gathering.
- Publications, including a series of Fact Sheets for consumption and circulation by the WHI partners and the broader public addressing major themes related to the use and value of wild meat and fish; publications in popular magazines, newspapers, and online forums; and peer-reviewed, scientific publications in academic journals, as well as supplemental academic research and independent publications, including graduate level theses, facilitated through academic partnerships and graduate student support.
- Formation of the Wild Harvest Initiative® Alliance, a uniquely diverse coalition of stakeholders and participants engaged in and supportive of the harvest of wild foods and products and advocating for the conservation of wildlife and the natural environment from wide-ranging perspectives. These would include and emphasize human health, well-being, nutrition and food security perspectives – all of which are preoccupations of modern society.
- Establishment of a series of ongoing, high profile Public Events celebrating Wild Harvests and the Wild Harvest Community and involving restaurateurs, music and art celebrities, media, businesses, and the outdoor industry.

