



# The Wild Harvest Initiative®

*A Program of Conservation Visions®*

**If hunting and angling ended tomorrow, what would be the consequences for nature and for people?**

## **What is the Wild Harvest Initiative®?**

Conservation Visions' Wild Harvest Initiative® is the first serious effort to evaluate the combined economic, conservation, and social benefits of recreational wild animal harvests in modern American and Canadian societies. The program's structured, science-based approach, combined with its long-term advocacy and knowledge mobilization strategies, provide a new, and innovative assessment of wildlife's value to all citizens. Its focus on building cooperative efforts for wildlife and habitat conservation is designed to help normalize hunting and angling in present day North America. The Initiative advances social acceptance of these activities by emphasizing their relevance to the broader values of food, fitness and health. It will contribute meaningfully to hunter and angler recruitment, retention and reactivation through focused messaging of new insights regarding public attitudes and the scale and value of wild meat and fish harvests. The Initiative's forward-thinking strategy works within existing social trends to foster alliances with consumptive users of other wild products such as fruits, berries and fungi, and more generally with healthy lifestyle and green-living advocates. The Wild Harvest Initiative® provides a non-confrontational platform to engage discussions with non-hunters and non-anglers, with hunters and anglers themselves and with those opposed to traditional sustainable use activities.

The Wild Harvest Initiative® is not a project; it is a narrative-changing program. It is not a finite intervention; it is a relentless innovation. It does not seek to change society, but takes its energy from society's culture of change.



## **Program Rationale**

Many humans feel disconnected from nature and are unfamiliar or out of touch with the origins of their food. Processed and pre-packaged foods, available for sale at supermarkets, department stores and restaurants, now dominate the North American cultural landscape and for the majority of Americans and Canadians, the traditional relationship between food acquisition and consumption has been drastically altered. Yet, not all individuals acquire animal protein from the meat aisle or the frozen fish section. Each year in the US and Canada, more than 50 million people partake in the legal harvest and consumption of animals and fish obtained through hunting and angling, harvesting food for themselves and millions of others, including family, friends, neighbors, and charities, with whom wild harvested meat and fish are shared. These wild harvesters positively contribute not only to their own food security and general health and well-being, but also to the conservation and wellness of wildlife, wild lands and waters, and to the economy. While there have been numerous evaluations of the significant economic impact of recreational hunting and angling, little effort has been made to assess the biomass, economic value and food security contributions of the meat and fish that are harvested and consumed. Furthermore, no one has posed the question of what it would cost to replace this food through expansion of existing agricultural, aquacultural, and livestock production.

## **A Deliberate Approach**

Most jurisdictional governments in the US and Canada collect off-take data on some or most of the wildlife and fish species harvested within their boundaries. Harvest statistics are collected to inform quota allocations and set harvest regulations, and are considered critical to sound wildlife and fish management. Researchers and conservation groups also use these data to assess the effectiveness of conservation policies and to monitor wildlife populations. While geographically discrete datasets are meaningful to individual jurisdictions or organizations, they do not reflect the collective contribution of wild animal harvests on 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 datasets from all reporting jurisdictions into one comprehensive database. This will enable harvest comparisons between different species, regions, and jurisdictions, serve as a benchmark for future evaluations of game and fish management efforts and help evaluate land and water use strategies. Doing so will also facilitate a more comprehensive evaluation of the benefits of hunting and angling. Such jurisdictional comparisons may also encourage collaborative, or regional, monitoring of some species to ensure best management and production practices across political boundaries, especially important for migratory species or those with large home ranges that span multiple jurisdictions.



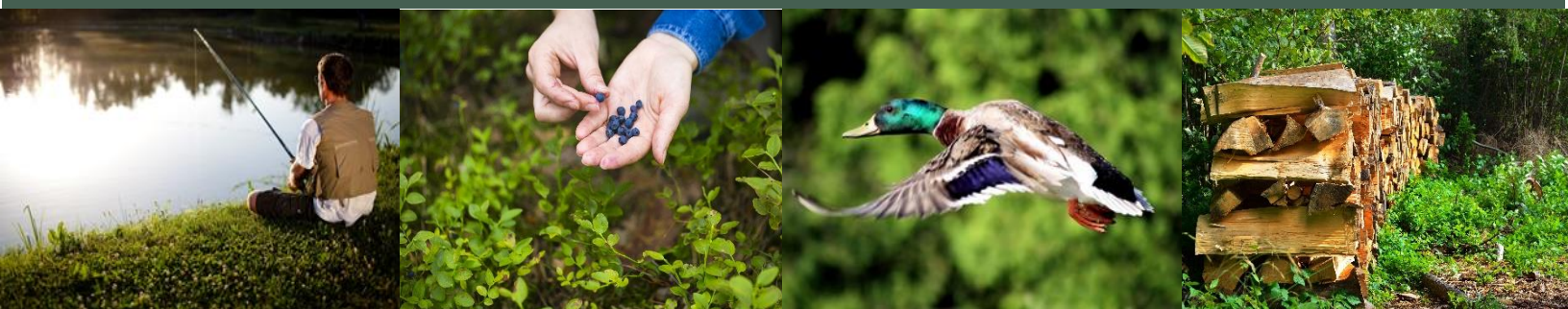
To date, empirical evidence in support of the full social, economic, and ecological benefits of recreational wild animal harvest has been unavailable. Discussions of comprehensive value have often been based on anecdotal evidence and, therefore, have been more easily dismissed by legislators and other decision-makers. In providing robust estimates of biomass from real harvests that have occurred, and basing analyses on these, the Wild Harvest Initiative will offer scientifically verifiable evidence, which may be directly referenced by those advocating for wildlife, wild spaces, and the value they provide.

## **Program Deliverables**

### ***Knowledge Products***

- A complete list of harvested wildlife and fish species in the US and Canada and a comprehensive dataset containing the most recent recreational harvest data for all species from each reporting jurisdiction;
- The first evaluation of total food biomass of wild protein harvested recreationally in the US and Canada;
- 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 meat and fish harvests;
- A critical evaluation of the environmental and economic costs of replacing recreationally harvested wild protein through commercial agricultural and livestock processes;
- A Social Sharing Index to quantify, for the first time, the number of American and Canadian citizens with whom recreational wild meat and fish harvests are shared; and
- A custom-built, relational Wild Harvest Initiative® database designed to facilitate broad analytics of current and future trends in hunter and angler harvest and enable integrative analyses based on criteria such as human demographics and cultural values, hunter retention, recruitment and reactivation trends, land productivity and access patterns.

Hunters and anglers have many natural allies in the sustainable harvest of wild resources.



## **Advocacy**

- Design and implementation of an ongoing, strategic communications and social-media outreach plan to disseminate program results and present updates on the emerging scientific evidence of the physical and emotional health benefits of wild food gathering;
- Publish 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; articles 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;
- Coordinate 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 from wide-ranging perspectives. These include and emphasize human health, well-being, nutrition and food security perspectives – all of which are preoccupations of modern society.
- Establish 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; and
- Increase public awareness of the importance of fish and wildlife habitat as food reservoirs, encouraging the mobilization of greater efforts and advocacy for land and water conservation, and habitat enhancement.

## **Communicating a New Valuation for Wildlife**

The value of wildlife has been widely ignored or underrated in the past and one of the main threats to wildlife conservation is our failure to recognize the full range of benefits wildlife can offer (Chardonnet et al., 2002). By exploring the sustainable use of wildlife in the wider social contexts of food security, human health and fitness, wildlife and habitat conservation, animal health and welfare, the environment, and the economy, the program will deliver a reasoned and mature discussion of wildlife use to the 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 popular social trends, including the locavore movement, organic eating, and homesteading, further amplifying the relevance of recreational wildlife harvests to the broadest possible audience – one that includes youth, women, minorities, and, certainly, non-hunters and non-anglers. In reframing the debate about the modern relevance of hunting



and angling, the program will positively align these activities with other natural resource use traditions such as berry-picking, mushroom foraging, and firewood gathering, examples of activities commonly practiced by large numbers of citizens and well-accepted as appropriate uses of nature. Through its communication efforts, the program 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 hunting and angling, and by evaluating, in detail, the environmental costs and mechanisms necessary to replace this wild food harvest, The Wild Harvest Initiative® will reframe the debate about the modern relevance of recreational wild harvesting.

## Categories for Discussion

### 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 (USDA, 2017) and over 4 million Canadians (Proof Food Insecurity Policy Research, 2018).

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 unlikely to have the resources to pay for costly treatments or buy healthy food. 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

The Wild Harvest Initiative® will influence our understanding of natural resource conservation and encourage positive attitudes towards sustainable wildlife use.



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 program will purposefully discuss the potential for increasing food security in both nations through increased reliance on sustainable recreational harvest of wild renewable food resources.

## **2.) Human Health**

Recreational wild harvest in the U.S. and Canada 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. Additionally, the physical health benefits of nutritionally rich wild protein, harvested and most often procured locally, are well-known. 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. Poor diet and physical inactivity cause an estimated 18% of US deaths.

Furthermore, scientific research shows that, regardless of age or culture, time spent in nature contributes to general well-being, 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. 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 well-being 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 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. IUCN, in its *IUCN Policy Statement on Sustainable Use of Living Resources* (2000), concludes 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.” As humans, we are inclined to protect and maintain that which has value to us. While concerns for wildlife management, cultural traditions, conservation, and public and private land use policies are highly relevant to some individuals, food and health matter greatly to every human being; so must wildlife and wild places.

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 empirically demonstrating the comprehensive value of wildlife and wild harvested food, we also assign added value to the wild habitats upon which wildlife depend and from which wild food is derived. This, in turn, provides greater leverage for the conservation of habitat.

By focusing on things that matter to average citizens, like food and health, the Wild Harvest Initiative® program 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 designed to engage with public sentiment surrounding animal health and welfare, another strong and growing area of public concern and one the sustainable use community generally avoids. However, the consumption of meat is rising worldwide 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 widely debated. The real issue, therefore, is not that animals die, but rather, how did the animals live and how did they die. This, far from conflicting with sustainable wildlife use traditions, provides a new means of argument for the value and acceptance of wild recreational harvest

Wildlife, Wild Harvest and Healthy Food... Natural, Responsible, Relevant.



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 or fishing is a very quick and humane one that does not involve extended 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 and angling must be viewed as among the most humane of alternatives.

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, and can 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 also 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 current recreational harvest of wild protein with standard industrialized production systems, the program 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 US 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 U.S. 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.

By providing the first food market value of harvested wildlife in North America, 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 perspective to replace this wild food through expansion of existing agricultural, aquaculture, and livestock production systems.

The program 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 in the US and Canada.

### **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. If this downward trend continues it will result in a diminished capacity of state and provincial fish and wildlife agencies to conserve species. 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 consensus being that additional and innovative approaches are required to sustain hunter and angler numbers.

**Wildlife management is an economically viable form of land use.**



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 program 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.

### **Influencing Policy and Attitudes**

In North America and across the globe, biodiversity is declining at an alarming rate. Recent estimates reveal an exceptionally rapid loss over recent centuries, indicating that a 6th mass extinction may already be underway (Ceballos et al., 2015). Although knowledge of biodiversity is increasing, conservation continues to be given a relatively low priority than other, more anthropocentric policy challenges. Currently, there exists a general perception that biodiversity research is under-used in decision-making and implementation (Spierenberg 2012). A better, more effective dialogue is needed between biodiversity science and policy to underpin the sustainable use and conservation of biodiversity (Young et al., 2013).

While past projects have aimed to improve communication between conservation science and government policy development, these have mostly conformed to a "linear" or technocratic model of communication in which neutral scientific facts are transmitted directly to policy advisors to solve problems (Nutley et al., 2007). This model has proven insufficient, "as decision-taking is complex, iterative, and often selective in the information used" (Young et al., 2013). More effective policy and decision-making in regard to natural assets will involve a broader range of stakeholders, and a better educated and, therefore, engaged public.

The Wild Harvest Initiative® will compile and analyze pre-existing data to produce new empirical evidence. By assigning empirical values to each harvested wildlife species, stakeholders will, in theory, develop a far more comprehensive understanding of the implications of land development/use in terms of economics, ecological impacts, and human health-related significance. However, transforming scientific evidence into "usable knowledge" is neither automatic nor straightforward (Haas, 2004). Often, "the scientific output is more likely to be mismatched



to user requirements, i.e. not what practitioners need; it may not be delivered in time or in appropriate formats; those interacting do not communicate well; scientists feel their credibility is negatively affected by collaborating with practitioners; stakeholders do not feel their legitimate concerns are addressed, and so on” (Vogel et al., 2007). This program will take that additional step, transforming scientific results into “usable knowledge;” conclusions will not just be interesting and informative, but will have immediate practical uses.

This Wild Harvest Initiative® will ensure the delivery of usable, relevant knowledge to all stakeholders, informing decision-making, influencing policies to best address the societal and environmental challenges of the 21st century, and bridging gaps between science, policy, and society.

### **Beyond North America**

Understanding the importance of wild meat to food security, livelihoods and economies is a global concern for international scientific, social, and political institutions, including the Convention on Biological Diversity (CBD), United Nations Food & Agriculture Organization (FAO), and the International Union for Conservation of Nature (IUCN). However, there has been a disproportionate focus on the study of wildlife harvests in tropical and sub-tropical regions. We believe wild meat harvests in temperate regions, such as North America, should be studied alongside other regions and that they are likely to provide valuable insights and help guide solutions to address unsustainable harvests in other parts of the world.

It is remarkable that over a century ago the US and Canada successfully developed and implemented a wildlife management system in which human harvests of wildlife laid a foundation for both biodiversity recovery and long-term sustainable use and management of wildlife resources. The North America system therefore provides a good practice example of how incentivizing environmental stewardship can produce positive gains in biodiversity and ecosystem services. The Wild Harvest Initiative® will communicate these benefits not just to educate, but to bolster support and tolerance around the world for sustainable wildlife use. This communication liaison between the North American Model and the Wild Harvest Initiative® presents a real and untapped potential for positively impacting conservation debates at home and abroad.

The importance of Wild food has been lost in the debate over hunting's modern relevance. The Wild Harvest Initiative® will change this.



## The Wild Harvest Initiative® Partnership Alliance

The reach of the Wild Harvest Initiative® is already reflected in its diverse and expanding partnership. Through aggressive partnership efforts over the past 2 years, Conservation Visions has formed the Wild Harvest Initiative® Partnership Alliance, now comprised of 32 members representing state governments, domestic and international conservation, science, and hunting-based NGOs, outdoor industry leaders, and private philanthropic foundations



To learn more about the Wild Harvest Initiative® and partnership opportunities, please contact Conservation Visions by email at [insights@conservationvisions.com](mailto:insights@conservationvisions.com) or by phone at +1-709-754-4780

