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WILD HARVEST

INITIATIVE®

QUARTERLY UPDATE

•
MARCH 2022



In the last quarter, we released two new films:

*“The Wild Harvest”
produced by Dallas Safari Club, and “The Wild Harvest Initiative”
produced by Rocky Mountain Elk Foundation!*

The food derived from recreational hunting and fishing in Alaska each year is worth over \$647 million dollars!

ALASKA'S WILD HARVEST

Recreational vs subsistence hunting and fishing

Alaska is home to both subsistence and recreational hunters and anglers. As the name would suggest, recreational hunting and angling are often defined in the literature as the pursuit and killing of an animal for recreation or pleasure. However, this does not reflect the wide-ranging motivations of recreational hunters and anglers, which include obtaining nutritious, ethically-sourced wild meat; therefore, we opt for a broader definition of recreational hunting and

angling: the pursuit of an animal for resources that are not essential to meet the person's nutritional, spiritual, cultural, or other health-related needs (as in subsistence harvesting) and are not sold for profit (as in commercial harvesting).

In Canada subsistence hunting and fishing is a right of Indigenous Peoples and is protected under the Canadian Constitution and First Nations Final Agreements. In the US, subsistence hunting and fishing is unique to Alaska, and both Indigenous and non-Indigenous Alaskan residents may be able to qualify for subsistence hunting

and angling. In Alaska, subsistence hunting and fishing results in a large harvest of many different wild animals and fish; however, this subsistence harvest is not considered here.

A food valuation of recreational hunting and angling in Alaska

The Wild Harvest Initiative® Database is comprised of recreational hunting and fishing harvest data where available. Here, we provide an analysis of the food derived from recreational hunting and fishing in Alaska during the harvest seasons 2014-2015 and 2015-2016. Hunting

data were obtained from the Alaska Department of Fish and Game, and the US Fish and Wildlife Service (in the case of migratory birds). Fishing data were obtained from the Alaska Sport Fishing Survey, a mail survey conducted by the Alaska Department of Fish and Game to assess the total number of fish caught and kept by recreational anglers. Fish harvests reported without a species designation were excluded from this analysis, which amounted to approximately 1 million fish per year.

We assigned each harvested species with a retail equivalent, based on what might be purchased at a grocery store in lieu of the harvested meat, and on the availability of reliable retail price data. We obtained US national average retail prices of lean ground beef and boneless chicken breasts from the US Department of Agriculture; and fresh salmon, trout, halibut, cod, and pollock fillets, from Nielsen, a retail data company.

The meat from all harvested large game was assumed to be replaced with lean ground beef, and bird species with boneless chicken breast.

Salmon, trout, cod and halibut harvests were replaced with their respective fresh retail fillets. The meat of other harvested fish species was assigned with the retail price of fresh pollock fillets, because this was the cheapest fillet within the data available, and thus represented the most conservative option.

Recreational hunting food valuation

In Alaska, the harvest of 44 different species derived from recreational hunting are recorded. These include large game and migratory birds, but small game harvests are not record. On average over the 2014-15 and 2015-16 harvest seasons, recreational hunting resulted in the harvest of over 86,000 animals, per year. By assigning each species with a live and edible mass, it was determined that, on average, each year, the live mass of the recreational hunting harvest in Alaska is nearly 16 million lb, and the edible mass is nearly 6 million lb. Based on a 6oz serving, this meat is equivalent to nearly 16 million meals and, based on an Alaskan population of 731,545, is equivalent to 21.7 meals per person, each year! The

retail value of the food generated from recreational hunting each year is estimated to be worth at least 35 million USD (Table 1).

Recreational fishing food valuation

The recreational fishing harvest in Alaska is recorded for 24 different species. On average, between the 2014-15 and 2015-16 harvest seasons, recreational fishing resulted in the harvest of over 2.5 million fish per year (including only fish harvests with a species designation). By assigning each species with a live and edible mass, it was determined that, on average, each year, the live mass of the recreational fishing harvest in Alaska is over 31.5 million lb, and the edible mass is over 10 million lb. Based on a 6oz serving, this meat is equivalent to over 27 million meals each year, and based on an Alaskan population of 731,545 people, is equivalent to 37.1 meals for every person in Alaska, each year! The retail value of the food generated from recreational fishing each year is estimated to be worth at least 612 million USD.

Table 1. Yearly average food generation derived from recreational hunting and angling in Alaska over the harvest seasons 2014-2015 and 2015-2016.					
	Animals Harvested	Live Mass	Edible Mass	Meals	Retail Value
	<i>n</i>	<i>lb.</i>	<i>lb.</i>	<i>6oz serving</i>	<i>USD</i>
Fishing	2,543,696	31,513,254	10,182,598	27,153,650	612,338,083
Hunting	86,346	15,942,446	5,953,887	15,877,062	35,195,567
Total	2,630,042	47,455,700	16,136,485	43,030,712	647,533,649

Species of greatest food and cost value

In total, recreational hunting and fishing in Alaska resulted in over 43 million meals per year, on average. This is equivalent to 58.8 meals per person in Alaska each year and could thus feed the entire population of Alaska a portion of meat at dinner for nearly 2 months each year! (Table 1).

By considering only the number of animals harvested, the top 5 most harvested game species were mule deer, mallard, moose, caribou and wigeon spp.; and the top 5 most harvested fish species were coho salmon, sockeye salmon, pacific

halibut, rockfish spp., and chinook salmon. However, due to variation in the edible mass and retail cost of each species, the number of animals harvested does not always reflect the species of greatest food importance, or of the greatest retail value. For example, while halibut generated the 4th most meat of all fish species, it was the 2nd most valuable, due to the higher price of halibut relative to salmon (Figure 1).

The cost valuation of the fishing harvest was much greater than that of hunting. Even though recreational fishing generated only 1.7 times more meat than hunting, the retail value of the recreational fishing harvest was

worth 17.4 times that of the recreational hunting harvest. This is partially because fish tend to be more expensive than meat; however, it is also because we did not consider the many different cuts of meat that are derived from large game. While fish are sold predominantly as fillets, large game have many different cuts of varying costs (for example, ground beef vs filet minion). To provide a conservative price valuation, the different cuts of meat were not accounted for; therefore, the cost valuation of the recreational hunting harvest can be considered as a lower estimate.

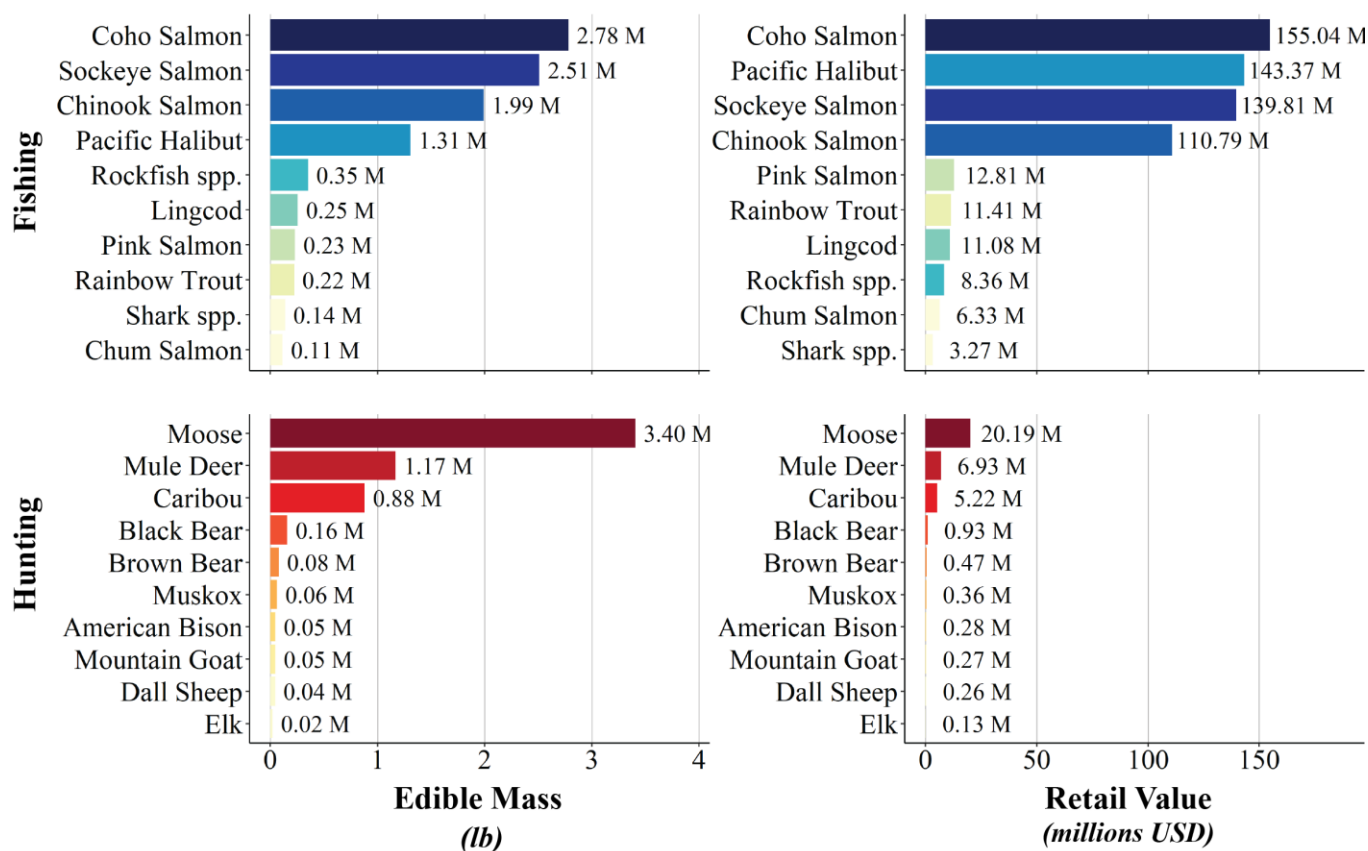


Figure 1. Average yearly edible mass and retail cost of the top 10 species with the greatest edible mass and retail value, respectively.

It is important to note, however, that the retail value of both the hunting and fishing harvests are likely much higher. The hunting and fishing harvests assessed herein did not include small game species, nor over

1 million fish harvest each year for which species information was not available. Furthermore, retail replacements were restricted to accurate data, representative of the entire US. This prevented the

assignment of other types of rarer meats on the market (such as goat, mutton, and shark), and did not account for the regional cost of meat in Alaska, which can be much higher than in other parts of the US.

PROGRESS REPORTING

Recreational Fishing in Canada

A technical paper focusing on the food value of Canada's recreational fishery has been subjected to review by an external expert. Their comments and suggestions are being carefully considered for a revised draft. In this report, we summarize new findings surrounding recreational fishing in Canada, with important conclusions regarding the relevance of recreational fishing as a food provisioning system.

Wild Harvest Initiative® Database

Wild Harvest Data Collection

Our latest round of data collection has focused on the 2016-2019 period is now complete. Quality assurance testing has begun and state wildlife agencies are being contacted to ensure data are accurate and comprehensive.

Economic Valuation - Hunting

Research and consultations needed to derive domestic economic and environmental replacement costs are ongoing. Research has begun to differentiate edible-mass assignments with respect to different cuts of meat. Preliminary results, using conservative retail prices, reveal that moose, deer, elk and caribou harvests are worth at least 192 million USD in

Canada and 1.9 billion USD in America, each year. More research is needed, however, to refine and bolster these estimates. Research has also commenced with regard to creating an environmental replacement cost of wild-harvested meat, by considering how much greenhouse gas production and land-use change would occur, if the same amount of meat were to be obtained from conventional food systems.

Database Updates

Conservation Visions contracted Triware Technologies, an industry leading technology and business support provider based in St. John's, Newfoundland, to provide expert development services and migrate the WHI Database to a cloud-based platform. We experienced significant delays associated with the COVID-19 pandemic, however, the WHI Database has now been migrated to a cloud-based server and quality assurance testing is complete. The new and improved set-up has been designed to facilitate controlled remote access and data sharing, as well as more complex analyses and interdisciplinary research. This represented an important step in professionalizing the WHI.

Wild Meat Sharing and Consumption Index

Wild Meat Sharing and Consumption Index Survey reports are in progress for Wyoming, Nevada, and Arizona. We have received feedback on reports for Wyoming and Nevada and are creating new drafts to carefully implement their comments and suggestions. A final report for Wyoming and Nevada can be expected during the upcoming quarter, and for Arizona shortly after.

The WHI team has finalized work on the Alaska survey questionnaire designed in collaboration with the state wildlife agency, and we plan to implement this survey during the upcoming quarter.

Once analyses of these four latest surveys are completed, we will conduct a comparative analysis (with the Texas survey results also included) to determine how hunting harvest sharing compares among states, and this information will be presented in a separate document that will include a review of relevant academic and grey literature.

We remain in discussions with other US States concerning subsequent surveys and hope to launch a Canadian survey in 2022.

Additionally, we continue to investigate the possibility of expanding this program initiative to

administer surveys in other parts of the world, thus potentially documenting the true universality of the wild meat sharing phenomenon.

Wild Harvest Initiative® Partnership Alliance

Exploring New Partnerships

We are also working to renew all partnerships and expand the partnership in 2022. We remain engaged in partnership discussions with several organizations, including state agencies, an alternative energy company, and a land trust. We have made significant progress in partnership discussions with the US Forest Service and are very close to reaching an agreement.

Communications

Fact Sheets

A new WHI Fact Sheet focused on Moose (*Alces alces*) was released in the last quarter. This was the fifth Fact Sheet produced thus far.

Films

In the last quarter, we released two new films: “The Wild Harvest”, produced by Dallas Safari Club (<https://www.facebook.com/ShaneMahoneyConservationVisions/videos/the-wild-harvest/511267523436812>), and “The Wild Harvest Initiative”, produced by Rocky Mountain Elk

Foundation

(<https://www.facebook.com/ShaneMahoneyConservationVisions/videos/the-wild-harvest-initiative/429385285645442>) both of which currently have over 95,000 views.

We expect to launch a new film “Cowboys & Conservationists”, with Wyoming Department of Fish and Game in the next quarter. This film portrays the cultural importance of the ranching tradition in Wyoming and demonstrates how private lands culture promotes conservation to create a system where ranching and nature can coexist.

Other films currently under production include “Hunting, Fishing, and Food” and a longer, twelve-minute production, entitled “Hunting and the Art of Human Existence”. Both films are nearly complete and will be released in 2022.

Press Releases

In the last quarter, we issued a press release through Outdoor Wire and Archery Wire to announce the joining of Wildlife Systems, Inc. into the Wild Harvest Initiative® partnership alliance

(<https://www.theoutdoorwire.com/releases/17f5eba3-595b-4591-836f-6878b4434a5a>;

<https://www.archerywire.com/releases/747b4a27-07dc-4910-8c51-fcfe07e2efa8>).

Podcasts

We are currently in production of a new podcast with Randy Newberg; it will have 5 episodes of approximately 1 hour each to cover the North American Model of Wildlife Conservation. The podcast will feature Shane Mahoney, and each episode will breakdown a fundamental tenet of the model. During the podcast, Shane will discuss the foundation of the model, clarify misinformation surrounding it, discuss its virtues, room for improvement, and much more.

Social Media

We are beginning a new social media series entitled “Fireside Chats”. This will feature a variety of short videos of Shane Mahoney answering a variety of wide-ranging questions relating to hunting, sustainable use, conservation, animal welfare, and more.

International Engagement Document

In the last quarter, Conservation Visions created a brochure summarizing the importance of various international entities with which we engage. The brochure summarizes what these entities do, and how Conservation Visions engages with them to support the sustainable use of wild resources, and influence policy decisions pertaining to conservation.

THE WILD HARVEST INITIATIVE® PARTNERSHIP ALLIANCE



Not pictured is Richard A. "Dick" Corbett

conservation VISIONS®