

WILD HARVEST INITIATIVE®

A Program of conservation VISIONS®

QUARTERLY UPDATE

•
DECEMBER 2018



*The Wild Harvest Initiative® is pleased to welcome **Arizona Game and Fish** and **Mystery Ranch** to our Partnership Alliance.*

We are also excited to report the completion of the first Wild Harvest Sharing Survey in the state of Texas.

HARVESTED ACROSS A WIDE NORTH AMERICAN RANGE, ELK PROVIDE MILLIONS OF MEALS FOR FAMILIES FROM CANADA'S NORTH TO THE SOUTHERN UNITED STATES.

SPECIES PROFILE - ELK

Harvest in Canada

The Wild Harvest Initiative® Database indicates that elk are harvested in 6 jurisdictions in Canada, including Alberta, British Columbia, Manitoba, Ontario, Saskatchewan, and the Yukon. Of these 6 jurisdictions, Alberta has the largest harvest, with over 8,000 elk taken during the 2015-2016 season.

The total Canadian harvest for the 2014-15 and 2015-16 seasons combined was 30,375 animals. This harvest generated an estimated 7,616,575 kg (16,791,673 lb) of harvest biomass which resulted in 3,046,630 kg (6,716,669 lb) of consumable meat. Assuming a standard 4-ounce serving size per person, this elk

meat furnished more than 26 million organic, protein rich meals.

Harvest in the United States

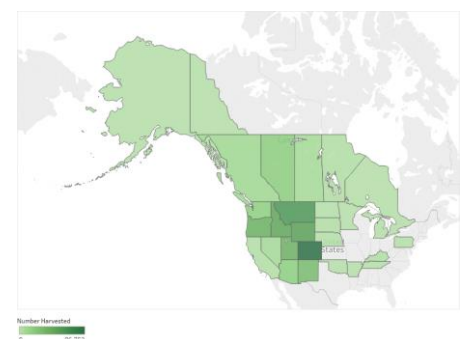
Elk are harvested in 22 jurisdictions across the United States. Colorado has the largest reported elk harvest with more than 40,000 animals harvested during each of the 2014-15 and 2015-16 seasons.

Across the United States the total elk harvest for the 2014-15 and 2015-16 hunting seasons is estimated at 383,361 animals. more than 10 times the Canadian harvest during the same time period. The total U.S. harvest represents an approximate live mass of 96,872,567 kg (213,567,452 lb) which yielded an estimated 38,747,832 kg (85,424,346 lb)

of elk meat. This consumable elk meat provided over 340 million meals and is enough meat to provide 1 meal to every American.



Figure 1: Wild Harvest Initiative® Database Harvest Density Map for Elk (*Cervus canadensis*) in the United States and Canada.





Elk: Species Profile

- *Cervus canadensis*
- Largest form of the red deer species
- Males are known as bulls and females are known as cows.
- Average males weigh about 350kg.
- Average females weigh about 250 kg.
- Average lifespan of 15-20 years
- Long black fur on their necks, referred to as a mane
- Generally social animals, often found in groups of 6-7, though larger groups are not uncommon
- Diet consists of a variety of plant species, usually grasses, and wooden twigs during the winter months.
- Cows hide calves for about 10 days after birth to protect them from Predators.
- Bulls “bugle” during the mating season – a sound starting as a low, throaty noise, rising to a high pitch, and then returning to a grunt.

A Popular Food Choice

Consumer demand for elk meat is growing, even among the non-hunting public. Elk meat is appearing on menus at popular restaurants, and in meal plans as a healthy alternative to store bought beef. Considering the nutritional value of this food source, it is no wonder why elk has become so popular. Despite containing

only 165 calories per 4 ounce serving, elk is a very nutrient dense food. A 4-ounce serving contains 100% of an average adult’s daily recommended intake of vitamin b12, 45% of riboflavin, 30% of niacin, 25% of pantothenic acid, 20% of thiamin, vitamin b6, and zinc, and 15% of iron. Elk meat is also very high in protein, with about 25 grams per standard serving, and is very low in fat, the same standard

serving containing only containing only about 2 grams of total fat.

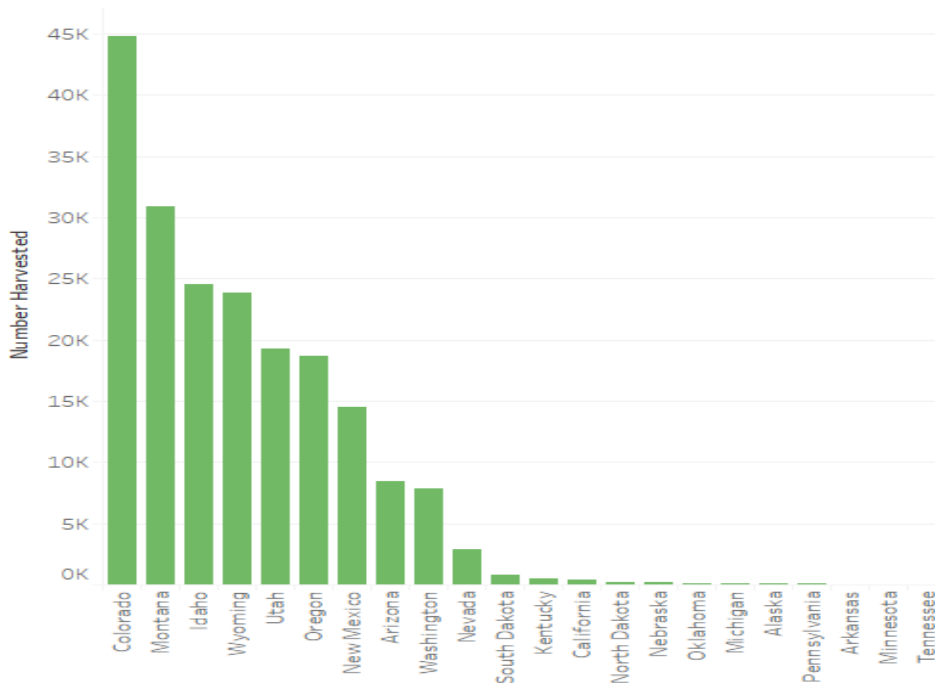
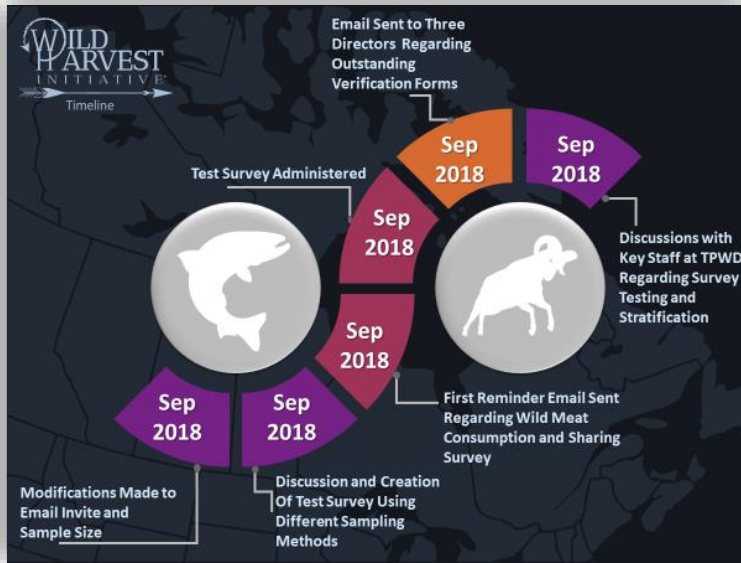


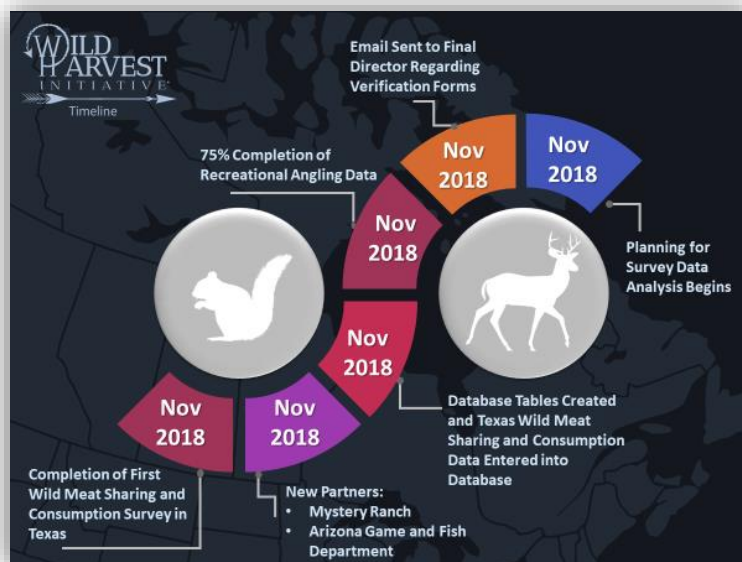
Figure 2: USA Elk (*Cervus canadensis*) Harvest by State during the 2015-2016 Season

QUARTERLY PROGRESS TRACKING & PROGRAM MILESTONES FOR THE WHI



WILD HARVEST INITIATIVE **Figure 3: Progress Tracking September 2018**

WILD HARVEST INITIATIVE **Figure 4: Progress Tracking October 2018**



WILD HARVEST INITIATIVE **Figure 5: Progress Tracking November 2018**

Without continual growth and progress, such words as improvement, achievement, and success have no meaning.

~ Benjamin Franklin

WILD HARVEST INITIATIVE® DATABASE

Hunting Data Quality Assurance and Analyses

Quality assurance testing of hunting harvest data is complete for 61 of 63 reporting jurisdictions. This quarter, we received harvest verification forms from Delaware and South Dakota and these were used to update and modify the existing harvest records. Verification forms for 2 Canadian territories remain outstanding and a final effort will be made to collect these during the next quarter.

Method of take statistics from the reference source documents in our database have recently been compiled.

Recreational Angling Data

Significant progress has been made over the past quarter in establishing the first estimate to quantify the North American recreational fishing harvest. Data collection is ongoing. To date, more than 140 individual data requests have been sent. Responses have been received from 50 of 63 reporting jurisdictions. A detailed breakdown of progress by country is displayed in Figure 6. Initial findings reveal that most jurisdictions collect very limited harvest data for fish and only on select waterbodies, if any data is collected at all. The WHI Team is engaging with the American Fisheries Society to develop a strategy to address the scarcity of angling data available for analyses, once data collection efforts are complete.

Economic Value of Harvest

Phase 1 of the data compilation process for this deliverable is complete. We have collected retail meat prices from 7

internationally recognized institutions, including Statistics Canada, CANFAX, Agriculture and Agri-foods Canada, the United States Bureau of Labor Statistics, the United States Department of Agriculture's Economic Research Service, the United States Department of Agriculture's Agricultural Marketing Service, and the AC Neilson company.

Data regarding per capita consumption of various meats in Canada and the U.S. has also been collected. This information will be used to construct an average meat consumption profile. A breakdown of price and consumption statistics is found in Appendix A.

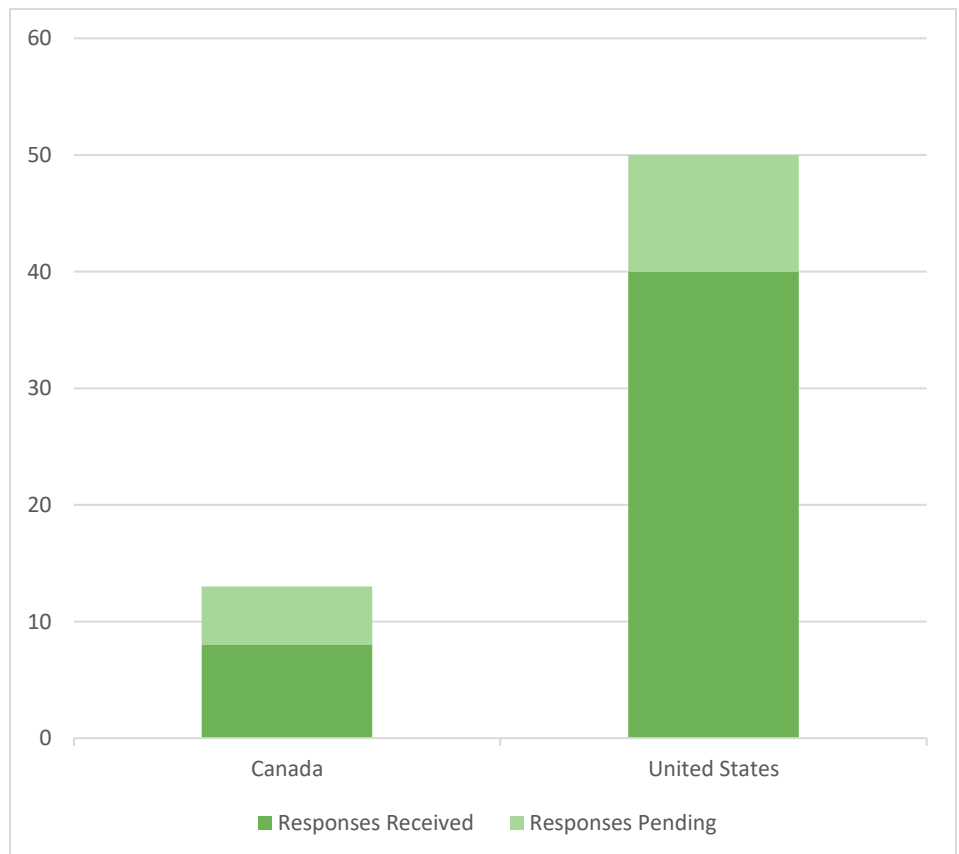


Figure 6: Progress on reporting of Recreational Angling Data

Replacement Costs

The statistical compilation pertaining to greenhouse gas emissions and water usage on farms is ongoing. Expert consultations will follow.

WILD MEAT SHARING AND CONSUMPTION INDEX

The Wild Harvest Initiative's® first *Wild Meat Sharing and Consumption Survey*, implemented in Texas with assistance from Texas Parks and Wildlife, is complete.

In September first reminders were sent to survey recipients and response rates were examined. Following this initial review, we increased the survey sample size to ensure a statistically valid number of responses would ultimately be received. Additional respondents were selected from another sample pool to further refine results and ensure statistical validity.

A second round of mailings was sent in October and the survey was closed in November.

Survey response data was coded to enable linkages to fields in the WHI Database, such as species and harvest area, and a quality-assurance methodology was employed. A decision tree was created to determine whether stratification would be required. Response data was organized into tables and then imported to the database using SQL Server. Internal table linkages were constructed and queries were written to facilitate basic analyses.

The Program will employ external expertise to further assist with statistical data analyses. The team has reached out to academic research teams at various

universities in Canada and the U.S. and consultations are ongoing. Analyses will begin during the next quarter.

Work to launch additional surveys in other jurisdictions will also begin during the next quarter.

ACADEMIC PROGRAM

In November, the Program's® first graduate student, Brian Millward, successfully defended his thesis, *The effects of anthropogenic and environmental factors on the wild harvest of large mammals across North America*. Mr. Millward will be awarded a MSc Biology Degree from Trent University's Environmental and Life Sciences Graduate Program.

WILD HARVEST INITIATIVE® PARTNERSHIP ALLIANCE

New Partners

The Wild Harvest Initiative® Partnership Alliance has welcomed two new partners: Arizona Game and Fish, Arizona's state wildlife agency, and Mystery Ranch, an international manufacturing company focused on packs and load carriage for military, hunting, wildlife fire, and mountaineering clientele.

The Partnership Alliance now hosts 30 diverse members, representing government agencies, domestic and international NGOs, and outdoor industry leaders. Figure 7 depicts the Partnership Alliance's continuous growth.

Pending Partners

During the next quarter, we hope to finalize a partnership agreement with Colorado Parks and Wildlife. We are also exploring a partnership with the National Wildlife Federation.

COMMUNICATIONS

The WHI Team continues to update promotional and informational materials, while proactively engaging with media to reach target audiences and to inform and influence the broader public.

Social Media Growth

We have recently surpassed 690,000 individual users in our combined Facebook following.

Website

Development of the standalone Wild Harvest Initiative® website is ongoing. The WHI Team continues to work closely with Revolve Marketing to refine the design and produce content. The completed site is scheduled to become live by February 2019.

Marketing and Communications Intern

In October, Conservation Visions hired a new marketing and communications intern. Ashley Quirke holds a BSc. Hon. Biology from Memorial University of Newfoundland and has also been awarded a Diploma in Graphic Design. Ashley will assist in the development of Wild Harvest Initiative® marketing materials, focusing on infographics and films.

Web links to media mentions:

<http://dscnewscenter.org/2018/09/wild-harvest-initiative-wild-meat-consumption-and-sharing/>

New Films:

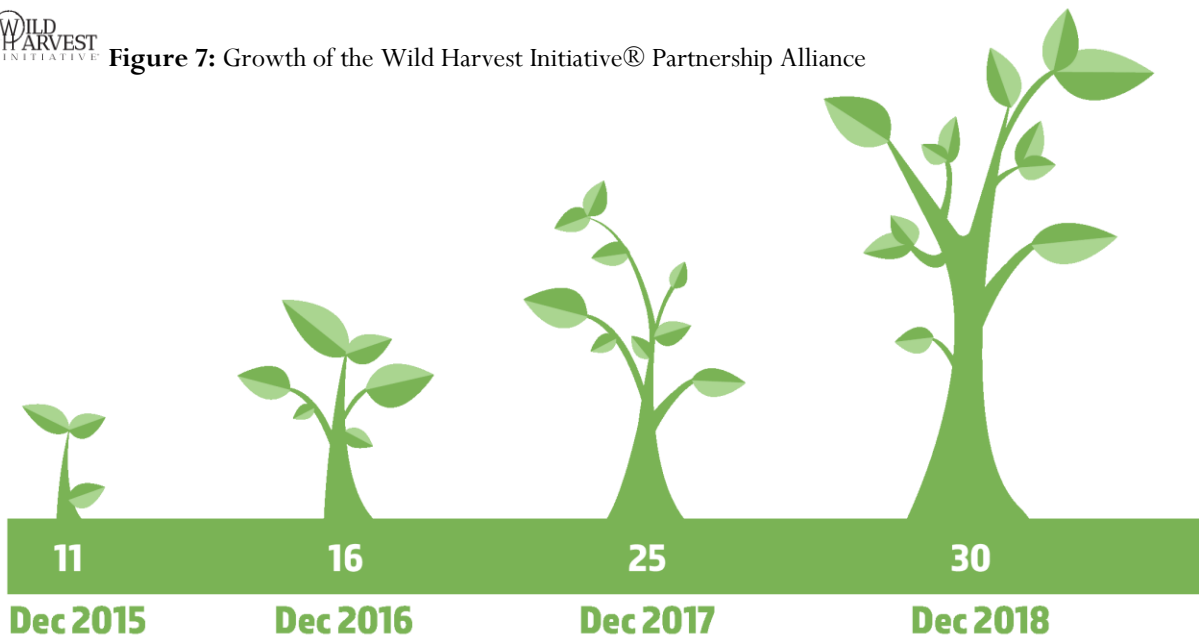
Chronic Wasting Disease:

<https://www.facebook.com/ShaneMahoneyConservationist/videos/234265817248883/>

THE WILD HARVEST INITIATIVE® PARTNERSHIP ALLIANCE



Figure 7: Growth of the Wild Harvest Initiative® Partnership Alliance



APPENDIX A: BREAKDOWN OF PRICE & CONSUMPTION STATISTICS

Country	Meat	Prices Available	Retail Weights	Eviscerated / Carcass Weight	Boneless Weight
Canada	Beef	1) Average Monthly Price of 6 Cuts Dollars / Lb 2) Simple Average Beef Price Using the 6 Cuts Dollars / Lb 3) Quote for Total Fresh Beef Price in Average Retail Tonnage Price from AC Neilson	Yes	Carcass Weight	Yes
USA	Beef	1) Composite Retail Beef Price cents / lb 2) Variety of Cuts of U.S. City Average Dollars per Lb 3) Quote for Total Fresh Beef Price in Average Retail Tonnage Price from AC Neilson	Yes	Carcass Weight	Yes
Canada	Pork	1) Weighted Average Retail Pork Prices of tenderloin, ribs, chops, roast via AC Neilson Dollars / Kg 2) Average Retail Price of Pork Chops and Bacon Dollars / Lb 3) Quote for Total Fresh Pork in Average Retail Tonnage Price from AC Neilson	Yes	Carcass Weight	Yes
USA	Pork	1) Composite Retail Pork Price Cents / Lb 2) U.S. City Average of a Variety of Cuts (Bone in and boneless chops, ham, bacon etc) Dollars / Lb 3) Quote for Total Fresh Pork on Average Retail Tonnage Price from AC Neilson	Yes	Carcass Weight	Yes
Canada	Turkey	1) Weighted Average Regional Retail Turkey Prices of Various Cuts (Whole fresh and frozen, legs, ground, etc.) via AC Neilson Dollars / Kg 2) Quote for Total Fresh Turkey in Average Retail Tonnage Price from AC Neilson	No	Eviscerated Weight	Yes
USA	Turkey	1) Frozen Whole Turkey Dollars / Lb 2) National Weekly Advertised of Featured (Not Regular Price) Weighted Average Retail Price for A Variety of Cuts (Ground, Breast, Whole, etc.) Dollars / Lb 3) Quote for Total Fresh Turkey in Average Retail Tonnage Price from AC Neilson	Yes	Carcass Weight	Yes
Canada	Chicken	1) Weighted Average Regional Retail Chicken Prices of Various Cuts (Whole fresh and frozen, breast, ground, etc.) via AC Neilson Dollars / Kg 2) Quote for Total Fresh Chicken in Average Retail Tonnage Price from AC Neilson	No	Eviscerated Weight	Yes
USA	Chicken	1) Fresh Whole Chicken Dollars / Lb 2) Chicken Legs and Boneless Chicken Breast U.S. City Average Dollars / Lb 3) Composite Broiler Retail Price Cents / Lb 4) National Weekly Advertised or Featured (Not Regular Price) Weighted Average Retail Price for a Variety of Cuts (Ground, Breast, Whole, etc.) Dollars / Lb 5) Quote for Total Fresh Chicken in Average Retail Tonnage Price from AC Neilson	Yes (broilers and other chicken)	Carcass Weight (broilers and other chicken)	Yes (broilers and other chicken)
Canada	Veal	Not Available	Yes	Carcass Weight	Yes
USA	Veal	Not Available	Yes	Carcass Weight	Yes
Canada	Lamb and Mutton	1) Quote for Total Fresh Lamb in Average Retail Tonnage Price from AC Neilson 2) Wholesale prices are available from a variety of sources but there are no retail prices outside of AC Neilson Data	Yes	Carcass Weight	Yes
USA	Lamb and Mutton	1) Quote for Total Fresh Lamb in Average Retail Tonnage Price from AC Neilson 2) Wholesale prices are available from a variety of sources but there are no retail prices outside of AC Neilson Data	Yes	Carcass Weight	Yes
Canada	Fish	No Prices Collected	Edible Weight Only		
USA	Fish	No Prices Collected	No	No	No
Canada	Eggs	No Prices Collected	Dozens of Eggs		
USA	Eggs and Egg Products	No Prices Collected	Per Capita Disappearance of Shell Egg Equivalent		