

WILD HARVEST INITIATIVE®

A Program of conservation VISIONS®

QUARTERLY UPDATE

MARCH 2019



The Wild Harvest Initiative® is excited to announce new partnerships with conservation philanthropist Richard A. Corbett and the Johnny Morris Foundation / Bass Pro Shops.

DESPITE ITS CLASSIFICATION AS AN INVASIVE SPECIES, HARVESTS OF FERAL PIG (*SUS SCROFA*) PROVIDE AN ABUNDANCE OF MEALS TO AMERICANS AND CANADIANS

Species profile – Feral Pig

Harvest in the United States

Feral pigs are not native to the United States, and as such, are classified as an invasive species by the International Union for the Conservation of Nature. Feral swine were first brought into the Americas in the 1500's by European settlers as a source of food. Some animals escaped and established the first populations within the United States. In the 1900's Eurasian or Russian wild boars were brought into the United States for the purpose of sport hunting. Modern day feral pigs are a combination of domestic pigs which have escaped, Eurasian wild

boars, and hybrid animals comprised of both species.

Within the Wild Harvest Initiative® database feral pigs are noted to be harvested in 37 of 50 states in America. The total reported harvest from these 37 jurisdictions totals almost 1.4 million animals across the 2014-2015 and 2015-2016 hunting seasons, at an estimated harvest of 1,396,848 animals. This yields an annual average reported harvest of approximately 700,000 animals, at 698,424 animals harvested per season.

This annual season estimate has an estimated biomass of 131,245,290 lbs, which provided Americans with an estimated 65,622,645 pounds of

consumable meat, yielding 262,490,580 meals to Americans and their families.

Harvest in Canada

Despite the fact that feral pig populations have become established in a wide range of Canadian jurisdictions and harvest occurs in many of them, no Canadian jurisdictions provided us with any feral pig harvest data for any season. As a result, our Canadian harvest of feral pig reports as 0.





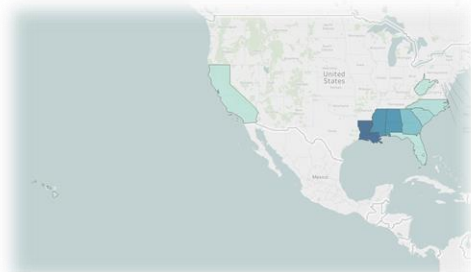
Emerging Insights — A Lack of Feral Pig Harvest Reporting

Feral pig contributes substantially to the food security of many people across the United States and Canada. In fact, of all species that we obtained harvest data for, feral pig harvests provided the second highest number of meals, only surpassed by the iconic white-tailed deer. Despite the impressive statistic, this harvest estimate is based solely on limited harvest data from the United States. Although we know that feral pigs are harvested in at least 42 jurisdictions across the United States and Canada, only 10 American jurisdictions were able to provide us with feral pig harvest data, as evidenced in figure 1 below. In addition, several of the jurisdictions that provided feral pig harvest data were only able to provide data on harvests which were voluntarily reported by hunters. This knowledge gap leads to a substantial underestimate of the benefits of harvesting feral pigs. One study estimates that in Texas alone there were as many as 750,000 feral pigs harvested in 2010, exhibiting the magnitude of missing harvest data. However, since Texas Parks and Wildlife does not track feral pig harvests, per our data assurance protocol we deferred to the jurisdictional verification form and no harvests were recorded in our database. In continually highlighting the lack of harvest reporting across jurisdictional boundaries and providing additional, ongoing insights, the Wild Harvest Initiative® program will exhibit the need for agency and stakeholder collaboration to best manage wildlife and will provide and disseminate the necessary information to adapt wildlife management strategies to modern conservation challenges.



Figure 1:

Wild Harvest Initiative®
Database Harvest Density
Map for Feral Pig (*Sus scrofa*)
in the United States and
Canada.



Feral Pig: Species Profile

- *Sus scrofa*
- Adults generally weigh between 100 and 400 pounds
- Much of their omnivorous diet is based on seasonal availability
- Capable of breeding at just 6 months of age and generally have litters of 4 – 6 young
- Average lifespan of 4 to 5 years
- Both males and females have tusks
- The USDA estimates that they cost the United States \$1.5 billion each year due to control costs and crop damage

TOP THREE CONTRIBUTORS TO FOOD SECURITY IN THE USA AND CANADA

#1: WHITE-TAILED DEER



#2: FERAL PIG



#3: ELK



The Wild Harvest Initiative® program carefully tracks progress to ensure efficient use of project resources and timely meeting of deliverables. A progress timeline highlighting program achievements from the previous quarter is shown below.

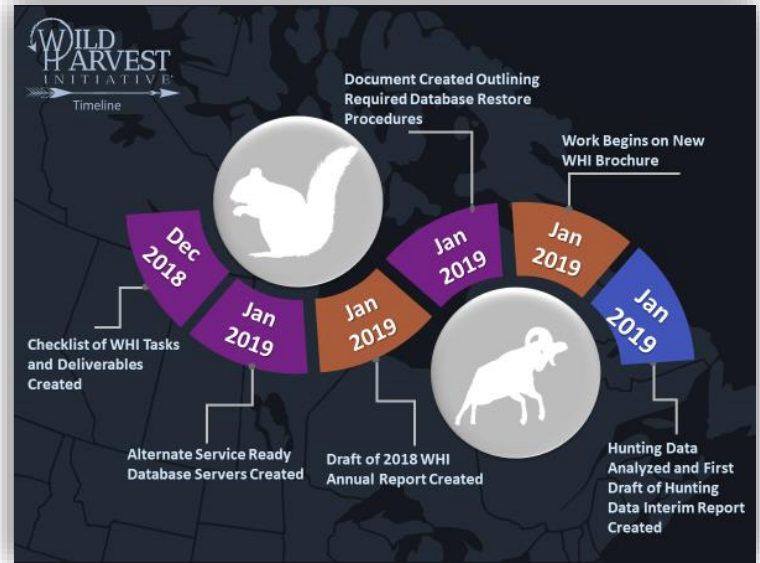
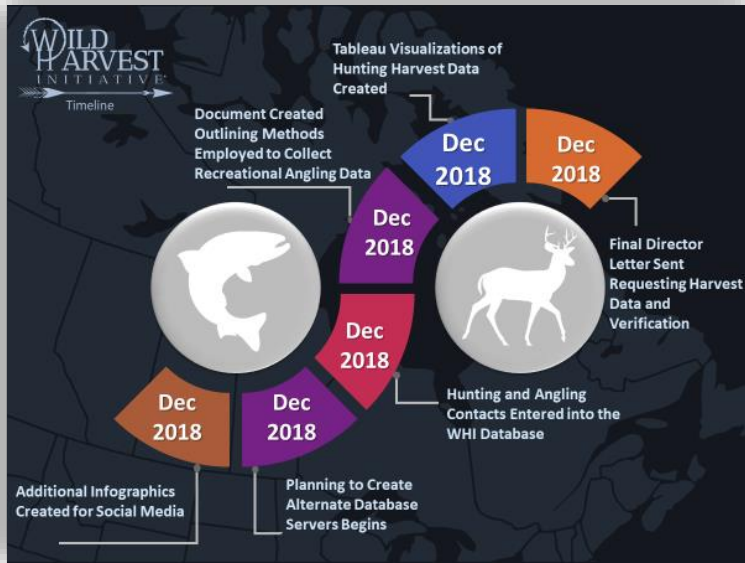


Figure 2: Progress Tracking December 2018

Figure 3: Progress Tracking January 2019

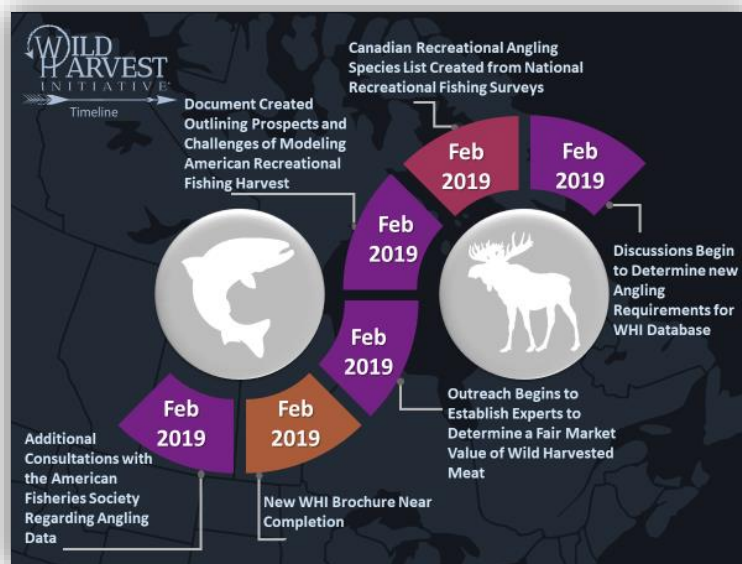


Figure 4: Progress Tracking February 2019

Progress is impossible without change, and those who cannot change their minds cannot change anything.

~ George Bernard Shaw

WILD HARVEST INITIATIVE® DATABASE

Hunting Data Quality Assurance

During the previous quarter the Wild Harvest Initiative® Team made final efforts to collect and verify outstanding hunting harvest data for the two remaining Canadian jurisdictions. As no response has been received to date, it is likely that additional data and verification will not be forthcoming from these jurisdictions. As such, hunting data verification is now complete for all reporting jurisdictions across the United States and Canada.

Recreational Angling Data

Recreational angling data collection is nearing completion. We have now received responses to our recreational angling data requests from 61 of 63 reporting jurisdictions. A complete breakdown by country is shown in figure 5 below. Data collection methodology has been documented.

In reviewing the collected data, the WHI Team have determined that using the collected information alone is insufficient to represent recreational angling harvest across these two countries. As a result, we are exploring the option of using harvest data from the National Survey of Recreational Fishing in Canada for our Canadian harvest estimate.

Additionally, we have held consultations with the American Fisheries Society to determine the viability of modeling recreational angling harvest in America using our collected creel survey data and have determined required resources and challenges. Additional consultations with the American Fisheries Society and other relevant parties are planned for the upcoming quarter.

Hunting Data Analysis

As all requests for additional hunting data and data verification have been exhausted, the WHI Team has begun to analyze the collected harvest information and assigned weight measures. We have recently calculated the number of meals provided for each jurisdiction across the United States and Canada for both the 2014-2015 and 2015-2016 seasons. We have also determined the most harvested animals across each of these seasons, as well as determined which species contribute the most to live, dressed, and consumable biomass in each season. We have also calculated the number of meals per capita provided by hunting harvest in each country. This was accomplished by employing population averages calculated from data obtained from the United States Bureau of Labor Statistics and Statistics Canada.

Economic Value of Harvest

The WHI Team has calculated three different minimum economic values of our wild harvested meat using the composite prices for beef, pork, and broilers determined by the United States Department of Agriculture's Economic Research Service. This price was selected for an initial valuation as it considers all cuts of meat from each commercial species in a proportional manner and calculates a representative average price per pound.

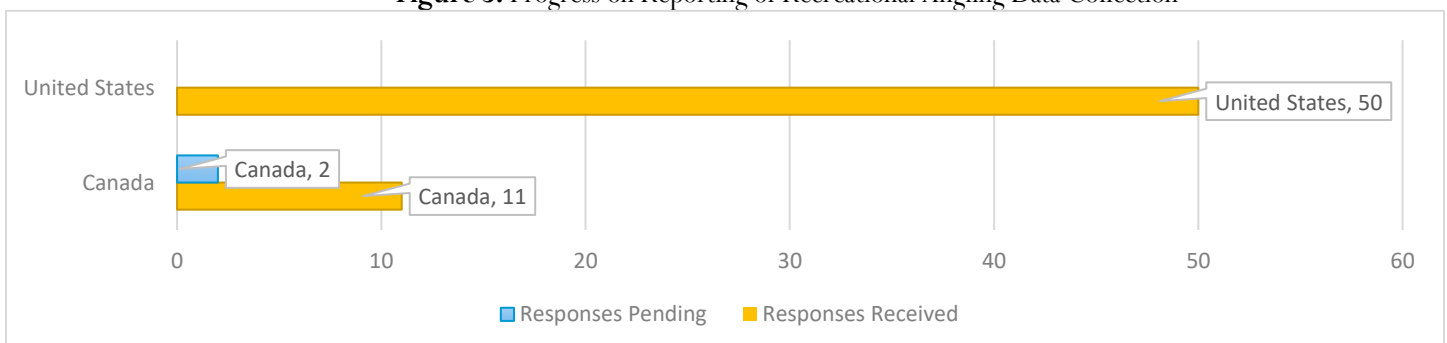
While wild harvested meat is most similar to organic or grass-fed meats, no robust data is available on the average prices of these meats in either country. In order to determine the fair market value of this meat, advanced statistical valuation techniques are being explored. A compilation of literature on valuation techniques is ongoing and industry experts are currently being sought to determine the most viable solution.

Database Updates

In early 2019 the WHI Team worked to move the database to a standalone server and create additional service ready servers in the cloud. These cloud-based servers acting as restore points in combination with the new standalone database server prevent data



Figure 5: Progress on Reporting of Recreational Angling Data Collection



loss and afford minimal downtime in the event of a server failure. Database restore methodology has been documented and can be accomplished by several members of the WHI Team should it be required.

The WHI Team is currently reviewing the database to create additional database tables and UI features to facilitate the entry of recreational angling harvest information. This process remains ongoing.

WILD MEAT SHARING AND CONSUMPTION INDEX

To ensure accurate results from the first Wild Meat Sharing and Consumption Survey the Wild Harvest Initiative® Team will work with external expertise employing advanced statistical techniques to complete data analyses. The Team has continued to hold consultations with various experts during the previous quarter; however, we have decided to extend our decision-making process into the next quarter.

Work to launch additional surveys will begin once initial survey data analysis is complete.

WILD HARVEST INITIATIVE® PARTNERSHIP ALLIANCE

New Partners

The Wild Harvest Initiative® Partnership Alliance has been significantly strengthened over the previous quarter with the addition of Richard A. Corbett, a well-known conservation philanthropist, and the Johnny Morris Foundation / Bass Pro Shops, leaders in funding and outfitting the outdoor community.

The Partnership Alliance now has 32 diverse members, representing government agencies, domestic and international NGOs, outdoor industry leaders, and philanthropists. The continuous growth of the partnership alliance since its inception is shown in figure 6.

COMMUNICATIONS

As we simply do not wish to produce a report that will sit on a shelf, we have significantly shifted our focus to disseminating emerging results and insights from the Wild Harvest Initiative®, in doing so positively aligning hunting and angling with accepted uses of

natures products, and forecasting powerful connections of mutual support for all wild harvest activities. Examples of our recent communication efforts are shown below.

Social Media Growth

We have recently surpassed 825,000 individual users in our combined Facebook following. Over 100,000 of these follower's stem from our stand-alone webpage for the Wild Harvest Initiative®. We aim to surpass 1,000,000 combined followers in the coming months, distributing results and insights from the initiative to as wide an audience as possible, one that includes women, minorities, and certainly non-hunters and anglers.

Website

Development of the standalone Wild Harvest Initiative® website remains ongoing with the Team continually working alongside Revolve Marketing to make suggestions and revisions during the construction process.



Figure 6: Growth of the Wild Harvest Initiative® Partnership Alliance



Radio Appearances:

Managing Grizzly Bear Populations:

<https://www.bearsinbc.com/2019/02/managing-grizzly-bear-featured-on-bass-pro-shops-outdoor-world-radio/>

Podcasts:

The North American Model of Wildlife Conservation, Part 1

<https://www.themeateater.com/listen/the-hunting-collective-2/ep-51-shane-mahoney>

New Films:

Eating Eden to Extinction:

<https://www.facebook.com/ShaneMahoneyConservationist/videos/2098957630416772/>

Press Releases:

Richard A. Corbett:

<https://www.prnewswire.com/news-releases/conservation-philanthropist-richard-a-corbett-joins-the-wild-harvest-initiative-partnership-alliance-300802257.html>

THE WILD HARVEST INITIATIVE® PARTNERSHIP ALLIANCE



Not pictured are Sean Olmstead, Richard A. Corbett, and the Johnny Morris Foundation / Bass Pro Shops

Coming together is a beginning, staying together is progress, and working together is success. ~ Henry Ford