

# **Taxidermist Perceptions and Behaviors Related to Chronic Wasting Disease and a Carcass Importation Ban Proposal in Virginia**

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**August 2019**

## **Summary**

Chronic wasting disease (CWD) is an emerging disease of elk, deer, and moose, and it has the capacity to threaten natural populations, ultimately potentially effecting businesses and outdoor enthusiasts that thrive from these native populations. The Virginia Department of Game and Inland Fisheries (DGIF), in collaboration with Virginia Tech, conducted a survey of Virginia permitted taxidermists in order to identify their perceptions and behaviors with respect to CWD, as well as determine the economic impacts this ban may have on taxidermy businesses in Virginia. The response rate of the survey was 103/384 (26.8%). The majority of respondents believed that they have experienced no impact on their taxidermy business due to CWD in Virginia (81%), while 15% said they have experienced a negative impact and 4% said they have experienced an extremely negative impact. Most respondents were not concerned at all (50%) or somewhat concerned (23%) about a potential loss of income following a total cervid carcass import ban in Virginia, while 10% were very concerned and 17% were extremely concerned. Results of this survey indicate that a total cervid carcass importation ban in Virginia would likely not significantly negatively impact the majority of the taxidermists that responded to the questionnaire. However, limitations of the study prevent these results from extrapolating to the entire Virginia taxidermist population.

## **Background**

Chronic wasting disease is a fatal neurological (brain) disease of deer, elk, and moose (collectively known as cervids). The disease is transmitted through animal-to-animal contact (urine, saliva, or feces), contact with infected carcasses, and contact with contaminated water or soil. CWD is extremely difficult to eradicate once it has been established in a wild population on the landscape and as of April 2019, 41 states have implemented either a total ban or a restriction on the importation of harvested cervid carcasses or carcass parts. Most restrictions prohibit the importation of harvested cervid carcasses or carcass parts from any CWD positive state, while total bans prohibit the importation of these parts from any state, no matter the CWD status. As of April 2019, 16 states and five Canadian provinces have adopted total carcass importation bans.

## **The Survey**

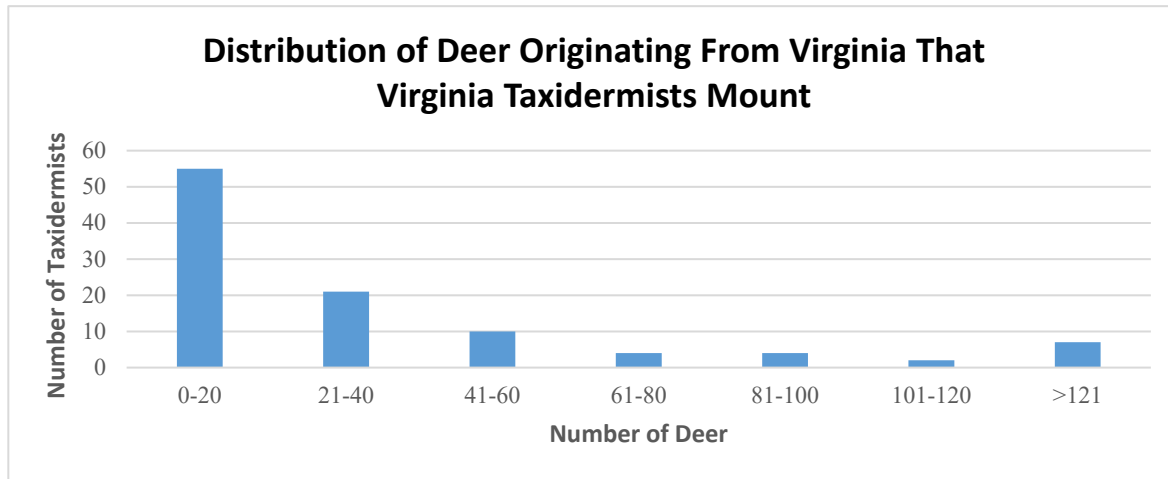
The population target for this survey was Virginia taxidermists that were permitted by DGIF as of May 2019. The survey was conducted via an online questionnaire and all permittees with an associated email address (384) received the survey via an email from DGIF. 103 out of 384 taxidermists completed the survey (26.8%). Any surveys that were less than 5% complete were discarded.

\* Original document summarized by Chelsey Faller and Megan Kirchgessner

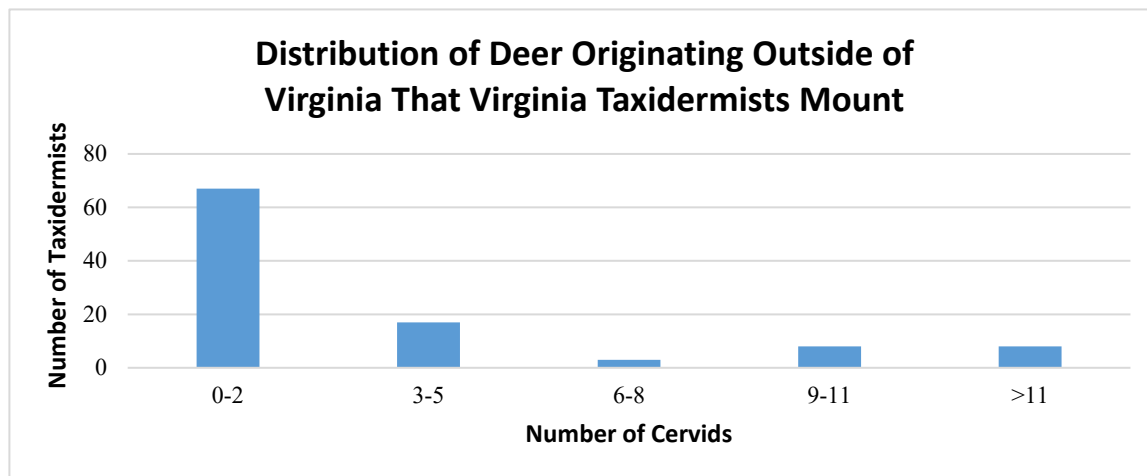
## Survey Results

**Income Distribution:** Of the 103 responding taxidermists, over 60% reported that the majority of their income comes from cervid work. The average percentage of annual taxidermy income from work with cervids was reported to be 73%. 54% of respondents consider taxidermy a supplemental income/hobby, 26% consider it a part-time job, and 20% consider it a full-time job. The average number of employees (including the respondent) was 1, with the most being 5.

Not surprisingly, most deer mounted by Virginia's taxidermists are harvested in Virginia. The average number of Virginia deer that respondents mount each year is 36, with responses ranging up to 200 deer per year. For Virginia deer brought to Virginia taxidermy businesses, most cervids originated from the county within which the respondent works (average = 60%), followed by from an adjacent county (average = 29%), and then from a county further than adjacent (average = 11%).



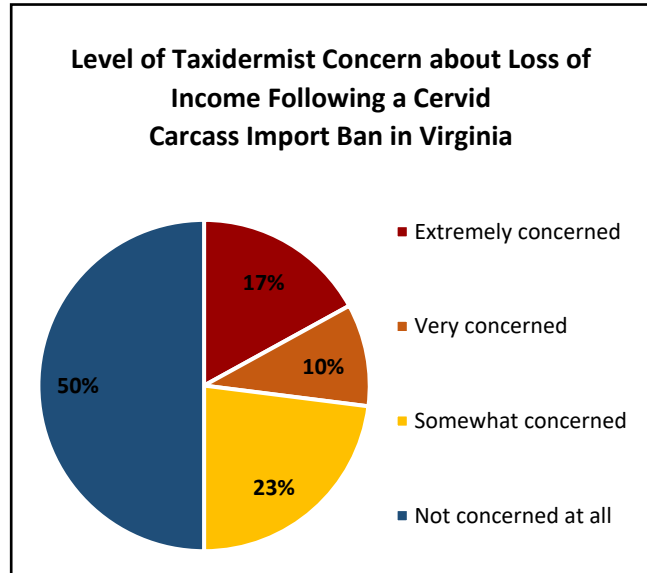
Cervids harvested outside of Virginia make up a much smaller proportion of taxidermy-generated income for the majority taxidermists. The average number of out-of-state cervids that respondents mount each year is six. Although the number of out-of-state cervids ranged up to 140 per year, a majority of respondents mount two or less out-of-state deer each year. Most out-of-state cervid mounts are shoulder/pedestal mounted (average = 66%), while a small number of mounts are European mounted (average = 11%).



**Concerns About Total Carcass Importation Ban:**

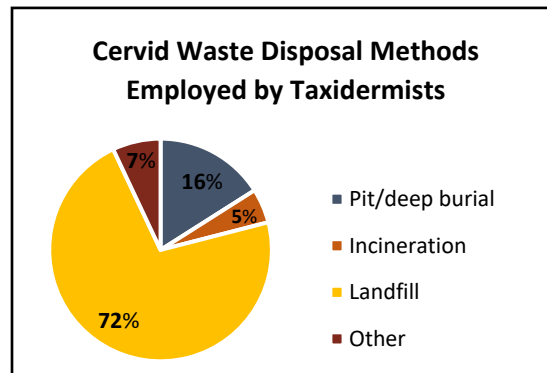
Most respondents were not concerned at all (50%) or somewhat concerned (23%) about a potential loss of income following a total cervid carcass import ban in Virginia. 10% and 17% were very concerned and extremely concerned, respectively.

In terms of turning away hunters or customers asking to mount an illegally imported carcass, most respondents were also not concerned at all (62%) or somewhat concerned (14%), while 11% were very concerned and 13% were extremely concerned.



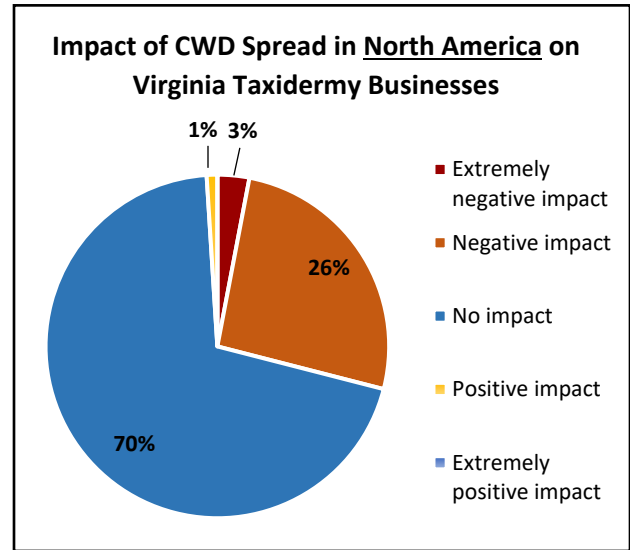
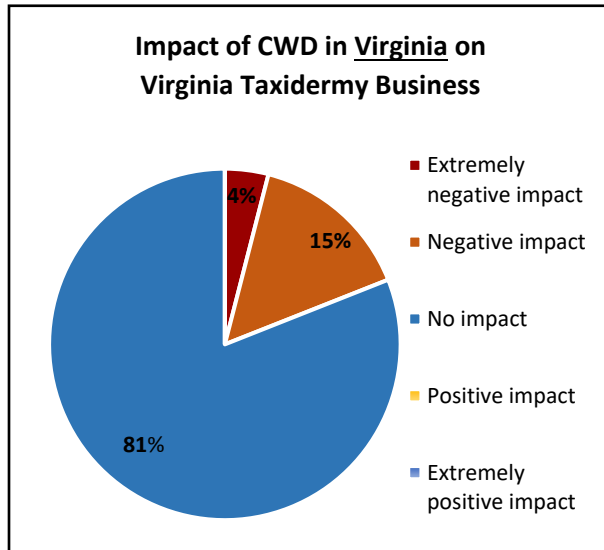
**Potential Economic Opportunities from Importation Ban:** Because Virginia is a CWD-positive state, many states already restrict the importation of carcass parts from deer harvested in Virginia. Only 29% of respondents currently offer expedited caping services for out-of-state hunters that seek to transport their Virginia deer back to their home state, and of those, most were either not likely at all (27%) or somewhat likely (46%) to expand their expedited caping services if cervid carcass import bans continued to be enacted by more states. 12% were very likely and 15% were extremely likely to expand their expedited caping services. Of the respondents that do not currently offer expedited services, most were either not likely at all (66%) or somewhat likely (19%) to initiate these services if carcass import bans continue to be enacted by more states. 10% were very likely and 5% were extremely likely to initiate these services should bans continue to be enacted.

**Carcass Disposal Methods:** Proper carcass disposal is important to reduce the risk of spreading CWD to new areas and landfill disposal is widely regarded as the most convenient and effective disposal method. Respondents mostly utilize landfills as the main method of discarding unused cervid waste (72%), but additional methods are also utilized including pit/deep burial (16%), incineration (5%), and other methods (7%).

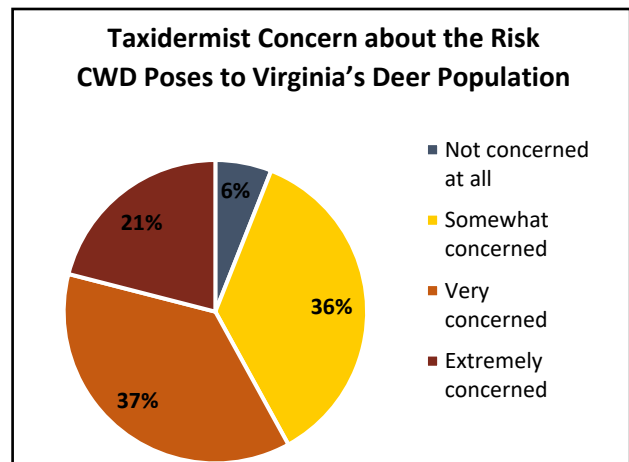


**Perceived Risk that CWD Poses to Virginia's Deer and Taxidermy Business:** For this portion of the survey, DGIF was interested in determining whether CWD had already impacted the respondents' taxidermy business, how concerned taxidermists were about the risk CWD poses to Virginia's deer population, and if taxidermists thought DGIF was placing a high enough priority on managing CWD.

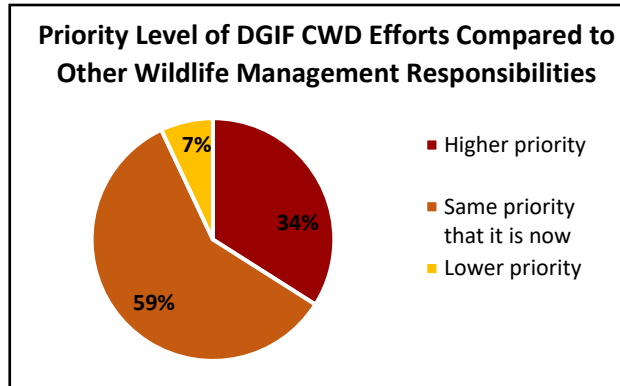
The majority of respondents reported no impact on their taxidermy business due to the presence of CWD in Virginia (81%), while 15% reported they had experienced a negative impact and 4% reported they had experienced an extremely negative impact. The majority of respondents reported no impact on their taxidermy business as a result of the spread of CWD throughout North America (70%), 26% reported a negative impact, 3% reported an extremely negative impact, and 1% reported a positive impact.



When asked how concerned they were about the risk CWD poses to Virginia's deer population, most respondents felt either somewhat concerned (36%) or very concerned (37%), while 21% felt extremely concerned and 6% were not concerned at all.

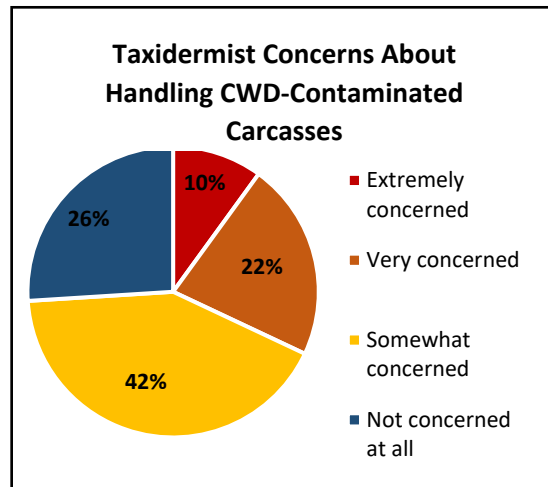


59% of respondents felt that DGIF should not change the current priority level of CWD-related efforts compared to other wildlife management responsibilities. 34% believed CWD-related efforts should be a higher priority and 7% believe that they should be a lower priority.



**Concerns About Handling Potentially Infected Carcasses:**

The infectious agent that causes CWD can remain active and infectious for years in a carcass or on the ground. This poses a challenge to taxidermists who wish to avoid prion contamination of their equipment and shop. Regarding the handling of potentially CWD-contaminated carcasses, 26% of respondents were not concerned at all, 42% were somewhat concerned, 22% were very concerned, and 10% were extremely concerned.



There are recommended protocols that minimize risk of CWD contamination of equipment and surfaces but 33% of respondents said that they have not changed any protocols or procedures in order to decrease chances of CWD contamination of their shop or equipment. The remaining respondents have changed at least some of their protocols, including disinfection of equipment between deer (37%), use of protective gloves and frequent hand washing (59%), and discontinuation of sawing through bone/brain and spinal cord (9%).

**Participation in Taxidermist-Assisted Statewide CWD Surveillance Program:** Beginning in fall 2018, DGIF began a statewide surveillance effort to try and determine if CWD existed outside known infected counties. Because bucks are more likely to be infected than does, and older bucks are more likely to be infected than younger individuals, working with taxidermists to obtain samples was determined to be an efficient method for detecting an outbreak.

23% of the respondents currently participate in the DGIF Taxidermist-Assisted Statewide CWD Surveillance Program. The average time it took to fill out a data card and collect the lymph node sample for the respondents that are participants was 17 minutes and ranged from 4 – 31 minutes. Of the 77% of respondents that are not currently in the program, 62% did not want to become a cooperator for the 2019 hunting season. Reasons for the lack of interest in becoming a cooperator with DGIF included not having enough time (19%), not located near CWD-infected areas (30%), and not working with many deer (43%).

## Summary

Taxidermists are critical stakeholders when it comes to issues of wildlife management. Results of this survey indicate that a total cervid carcass importation ban in Virginia would likely not significantly negatively impact the majority of taxidermists that responded to the questionnaire. However, due to limited participation, the results and analysis of this survey cannot claim to reflect the views and characteristics of all of the permitted taxidermists in Virginia. Enhancing the connection between taxidermists and wildlife managers can only have a beneficial impact on these stakeholders as well as the wildlife populations they interact with and DGIF is grateful to all taxidermists that participated in this survey.

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