

## Hoof Disease Pub Working Group Meeting Notes

14 January 2015, 2-5pm  
WDFW Region 5 Office

**In Attendance:** B. Anderson (Rocky Mountain Elk Foundation), D. Cothren (Wahkiakum County Commissioner), W. Clifford (WA Department of Health), J. Gardner (Cowlitz County Commissioner), S. Ogden (WA Department of Natural Resources), M. Rochelle (Weyerhaeuser), B. Schlecht (SW Land Access Coalition), M. Smith (Local resident/business owner), A. Swanson (Clark County Senior Policy Lead), **WDFW Staff:** S. Bergh, M. Cope, B. George, B. Hoenes, E. Holman, S. Jonker, K. Mansfield, J. Nelson, N. Stephens.

**On Phone:** Dr. T. Besser (Washington State University), B. Moeller (Puyallup Tribe of Indians).

- Purpose of meeting is to provide the opportunity to: share information about the hoof disease phenomenon, discuss research and management questions with regard to hoof disease, and public outreach.
- The Hoof Disease Technical Advisory Group Consensus statements were presented to the group:
  - Available evidence is most consistent with an infectious bacterial hoof disease.
  - The disease shares many features and most resembles treponeme-associated contagious ovine digital dermatitis (CODD).
  - Environmental factors, including wet conditions, are likely important in disease initiation and propagation
- Sandra Jonker (SJ) gave a PowerPoint presentation on the current findings of the treponeme associated hoof disease (TAHD) distribution effort, the plan for the upcoming citizen science prevalence study and the survival study, the euthanasia procedures and the next steps. Questions and comments were made throughout the presentation.
- **Current results of the TAHD distribution effort:** SJ gave methods for outreach to the public, explained the map and reporting tool, and gave the current totals of reports, including the number of reports of harvested animals.
  - Axel Swanson (AS) asked if WDFW is trying to keep track of antler deformities and if the online reporting tool is a way to do that?
  - Kristin Mansfield (KM) replied that antler deformities are known to be correlated with injuries to the legs of ungulates. This occurrence is documented in literature dating back many years. The reason these antler deformities occur when there is a leg injury is unknown.
  - SJ is unsure if asking the public for antler deformity information would give more answers related to the distribution of the disease.
  - SJ commented that the reporting effort of limping elk is ongoing and will help to illustrate the possible “edge” of the disease.

- **Upcoming Citizen Science Prevalence Study:** SJ described the results of the volunteer based prevalence pilot study conducted in August and explained the current methodology of the larger effort to take place beginning in March. The goals, objectives and sampling design were addressed.
  - Mark Smith (MS) had questions regarding the distance between points since some are close together, and it appeared the area isn't being surveyed entirely. He asked if WDFW had considered the time of year.
  - SJ responded that there are limitations due to access to lands and the points are based on accessibility.
  - Wayne Clifford (WC) offered the idea of recruiting volunteers through facebook posts on hunting group pages
  - MS asked if Weyerhaeuser had been approached since most elk are located on private land.
  - SJ responded that timber companies will be approached for permission for staff or volunteer access to conduct surveys.
- **Survival Study:** SJ elaborated on the study proposal and objectives. Many questions and discussions were initiated and addressed.
  - Regarding the study location, AS asked if WDFW had permission to access private lands. SJ said that Weyerhaeuser and the US Forest Service have been given the study proposal and efforts are ongoing to gain access.
  - MS asked if elk were collected in the study area during the diagnostic collections. SJ said yes.
  - **Questions and discussions regarding Objective one:** Estimate the effects of TAHD on survival of adult (>2 years old) female elk.
    - MS asked why WDFW is focusing on female elk.
    - Brock Hoenes (BH) responded that from a population perspective male elk are important in the population but female elk are the most important. The population is more sensitive to changes in the number of females. Calf survival is important as well but is dependent on the survival of females. Knowing the survival of females with hoof disease will allow a better understanding on how to manage the population with hoof disease as a factor.
  - **Questions and discussions regarding Objective two:** Determine cause-specific mortality rates for adult female elk that have TAHD.
    - Pertaining to capture methods, MS asked if trapping elk was considered.
    - BH stated that trapping elk was considered but that the process takes a considerable amount of time and that time is not available to achieve the desired sample size.
    - AS asked if it is possible to count more than just females with hoof disease from the helicopter while conducting the captures.

- SJ responded that the method has been attempted but it is not a good indicator.
- Eric Holman (EH) elaborated that you can tell from a distance but once the animal runs or the group masses, it is difficult to tell. EH also stated that 16 elk were captured indirectly through the St Helens study and the sightability continues every year.
- **Questions and discussions regarding Objective 4:** Estimate the effects of TAHD on elk productivity (i.e. survivorship of calves).
  - MS stated that there is a high bull to cow ratio in his area and a high population of bulls. He stated that the study is not focusing on all things. MS asked if there is an effort to look at the disease transmission.
  - SJ stated that there is a very long list of questions/information needs as identified earlier and that due to constraints, you can't answer all the questions in one study. Fecal samples will be collected and will be tested for the presence of treponemes. This will show if the disease could be spread through that method similar to what is found with cattle manure.
- **Questions and discussions regarding Objective 5:** Estimate the effects of TAHD on adult female elk condition in autumn through hunter harvested organ collections.
  - WC asked if any female elk organs will be collected or just female elk with hoof disease.
  - BH responded that both will be included. WDFW will ask the hunter to indicate if the animal had deformities. Organs are also collected because it is difficult to determine lactation in February. It needs to be determined in the fall. For the Cook body fat Kistner score equation you need body fat which is also lower in February.
  - MS asked if we know what the body condition is for elk in the area.
  - SJ responded that the results are available in the Mount St Helens study.
  - AS asked if there will still be antlerless permits.
  - SJ responded that yes, there will be permits and that this year's recommendations are for a reduction in permits in the core areas.
- SJ presented the **Standard Operating Procedures for the lethal removal of severely affected animals**. The guidelines and the role of Master Hunters were addressed:
  - MS asked if volunteers will be utilized.
  - SJ stated that many considerations were taken into account and many variables were discussed. Right now, based on these discussions Master Hunters will assist staff with the assessment, verification, potential disposal, and the data entry. Master hunters will not dispatch animals.
  - MS asked if the meat could be consumed and if there is a method for disposal of an animal

- SJ responded that there are potentially many other health factors in consuming animals that are in such poor body condition. SJ also responded that there is a WAC in place to remove the hooves and there isn't a disposal site available for the whole elk.
- SJ shared the next steps of Implementation of the projects discussed, continued collaboration with both the public working group and technical advisory groups, and to continue to assess and prioritize needs.
- A request for further questions was put towards the group:
  - MS asked if there is any information on the economic value generated from harvest and what is the budget for hoof disease.
  - Jerry Nelson (JN) stated that sales of licenses have increased across the state compared to the previous year.
  - Bob Schlecht (BS) asked if it is the same for Cowlitz County.
  - JN responded that the sales data at the county level is not available yet, but he can provide that information in the near future.
  - MS stated that information on the 504 corridor is that hunting was down over 50%.
  - SJ stated that the budget request for hoof disease for the next biennium is \$250,000.
  - Dan Cothren (DC) stated that the public perception for WDFW is way down. Cows appear to be calving later and they are being harvested in Grays River.
  - SJ responded that the hunts in Grays River are in place to respond to damage for landowners. There have been changes in the recommendations and there has been a decrease in the number of individual hunts.
  - DC remarked that access is tough on Hancock and the hunt schedules are unclear.
  - AS suggested that WDFW focus on what can be controlled. Can't control hunter behavior and WDFW should evaluate hunter behavior and potential effect with regard to harvest of healthy versus hoof diseased animals. Hunters are not harvesting elk with hoof disease. Need fewer antlerless tags.
  - MS proposed the need for live animal testing. MS stated that a 5% increase in Copper in a diet can eliminate treponeme. MS asked if the transmission is from animal to animal.
  - KM responded that soil appears to be intermediate. KM stated that some progress has been made in determining the role of the different bacteria that have been found to be associated with digital dermatitis but the information is based on domestic animal studies at this point.
  - WC added that polymicrobial diseases in humans are difficult to describe as well.
  - BS asked if there was a "smoking gun", if we know what the cause is, and what we do about it.
  - KM responded that the cause is bacterial (TAHD) and that the results of the diagnostic efforts have been peer reviewed by experts in the scientific community.

- MS asked what the schedule is for upcoming meetings.
- SJ responded that there is a loose timeframe based on need, likely meet on a quarterly schedule.
- BS asked when the implementation of euthanasia will take place.
- SJ responded that the final procedures are being drafted and implementation will likely take place in the spring.
- **Public Testimony:**
  - Bruce Barnes (BB) testified that elk are stressed from a long hunting season. BB stated that Atrazine has been found to take copper and selenium out of the ground and that a cause still needs to be found. BB has observed a reduction in elk and suggests a change in management. BB is glad there is a new WDFW Director with a wildlife background so now there will be an effective game management plan.
  - Gene Crocker (GC) described his past hunting experience in southwest Washington. GC stated that timber companies spray numerous applications of herbicide and that affects pollinators, which in turn changes the availability of certain plants, which could be helpful to elk with hoof disease if consumed. GC referenced Devil's club, which he stated is a medicinal plant with many uses including the treatment of wounds and arthritis. He stated that the floods in the Boistfort Valley were a result of forest management practices.
- Before the conclusion of the meeting SJ asked for additional questions.
  - BS asked if a chemical cause was off the table he asked if live animal testing would take place.
  - MS additionally asked why leptospirosis is not being considered and why Boone Mora's testing can't take place.
  - SJ responded that WDFW did consider Leptospirosis, tested for it and found low titers of leptospirosis in both elk affected and not affected with hoof disease, and Dr. Wilson-Welder from USDA (expert on Leptospirosis in animals) has indicated based on findings that what we are seeing here in elk is not Leptospirosis. In addition, WDFW has met with Dr. Mora on several occasions regarding his theory and has requested a study plan for this proposal from Dr. Mora. A study plan is required to conduct scientific investigations on wildlife in the state of Washington. WDFW has offered to wave the collection permit fees for Dr. Mora, but has not received a study plan to date.
  - AS asked if live capture and live studies were still being considered.
  - KM state that live animal studies have not been ruled out and there is a lot of interest but the questions and study design need to be clear and detailed in order to initiate the investigation.
  - MS asked if because of the potential for the disease to cross state lines, is there outreach taking place through groups such as the Western Governors Association.

- SJ said that WDFW has reached out to many entities including the National Academy of Science, the US Department of Agriculture, and Oregon Department of Fish and Wildlife. SJ added that the suspected cases of hoof disease found in Oregon will likely be confirmed as TAHD.
- AS asked if findings of the upcoming studies will result in adjustments to previous permit numbers.
- SJ responded that if hoof disease does have an effect on the population, the permit numbers will be adjusted. SJ added that the Mount St. Helens herd was in a herd reduction mode. Since the herd reached targeted levels in 2013, permit levels were decreased to a lower level of harvest which included a buffer, added to consider potential effects of hoof disease.
- Meeting adjourned at 4:00 pm.