

# Points, preferences, possibilities...

GMAC, December 5, 2015

Rich Harris, Special Species Section  
Manager

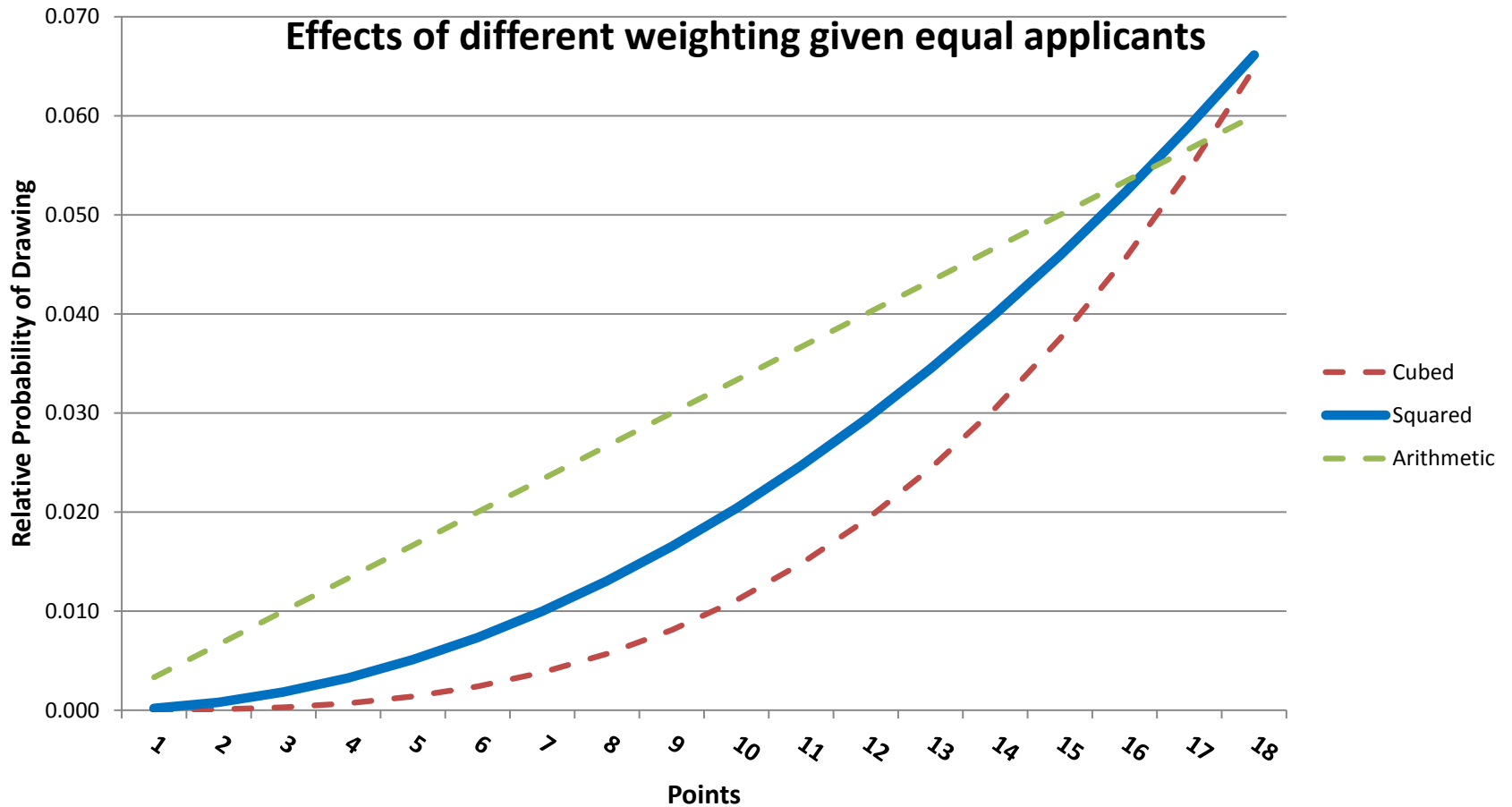
# WDFW values

- Fairness
- Transparency
- Clarity
- Simplicity
- Preference for longevity (advantage given to those failing to draw for longer time)
- Allowing at least some chance of drawing for those just entering...

# Background

- Bonus points awarded when drawing unsuccessful
- Points are squared (e.g., hunter 'A' with 10 points has 100 times higher odds of drawing than hunter 'B' with 1 point)
- We've checked, and the computer really is doing this correctly
- In summer 2014 we received many suggestions of how to further advantage 'high-point hunters', no 2 suggestions alike!
- It's a zero-sum game: Increasing the odds for folks with many points decreases the odds for folks with few
- Many hunters have been accumulating points, assuming the current system would continue into the future (i.e., is it OK to 'change the rules in the middle of the game'?)

Relative probability of drawing if there were an equal number of applicants\*  
with each possible number of points (to 18)

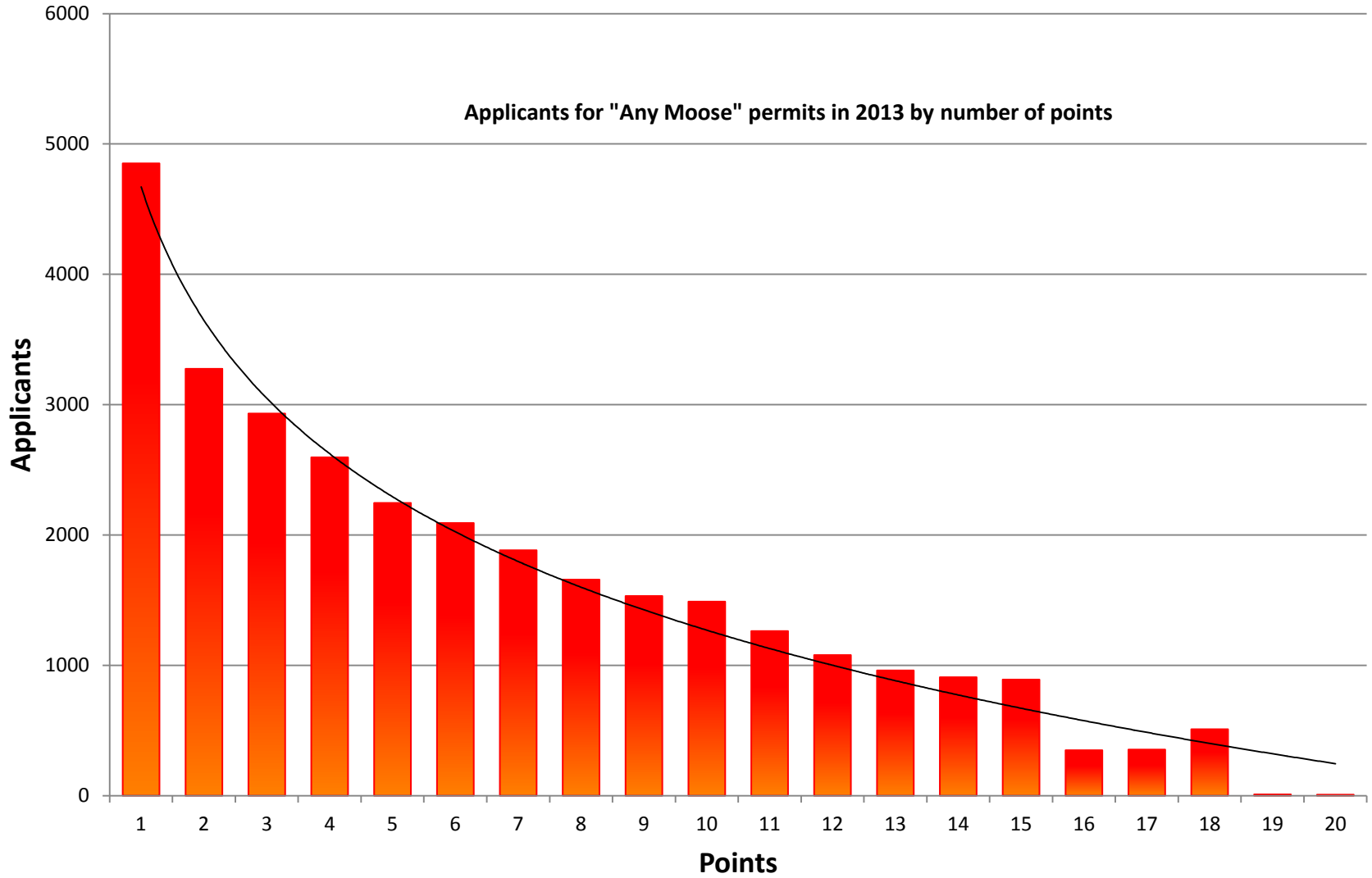


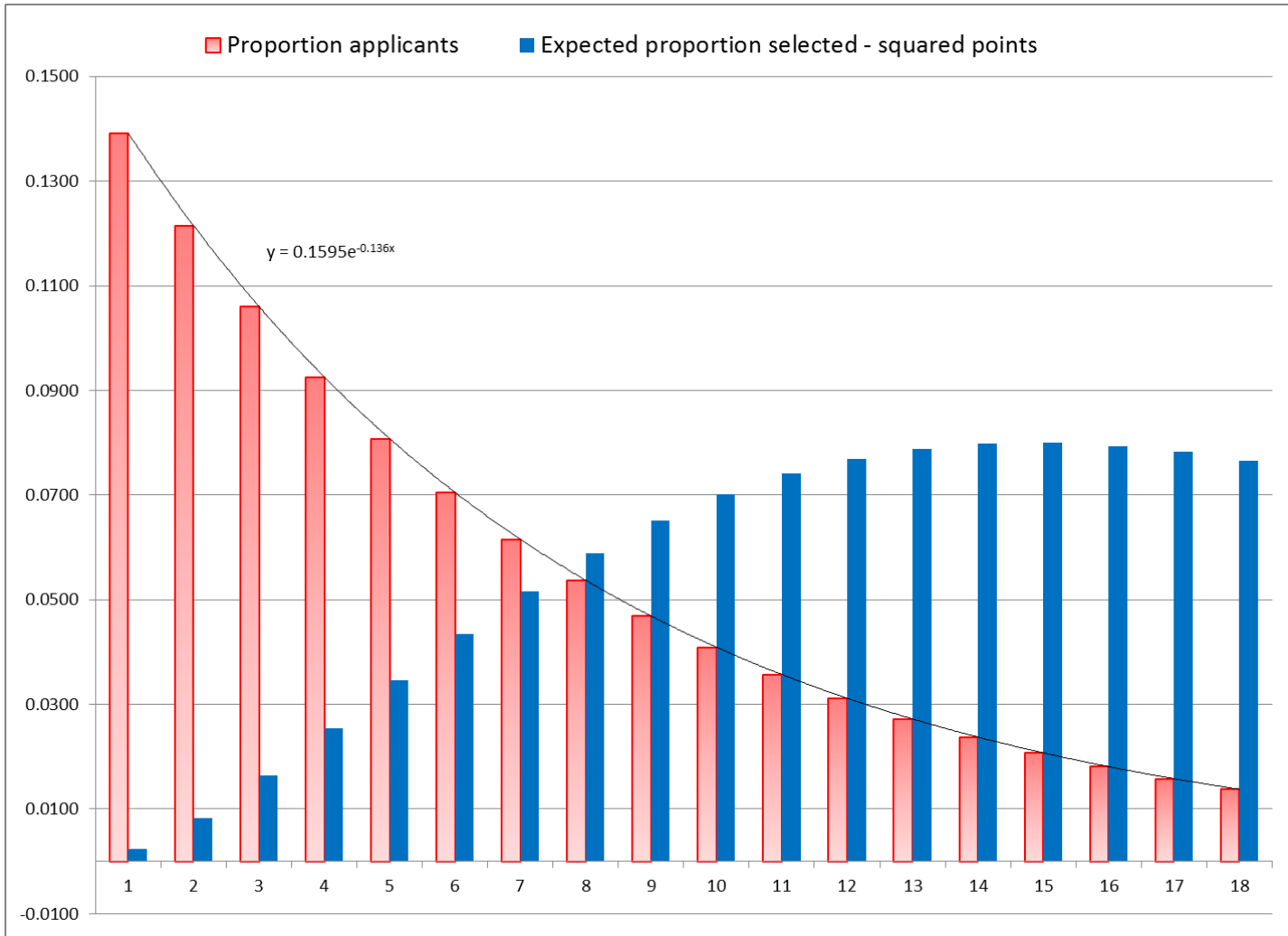
\* Of course, there are NOT equal number of applicants...this is background reference

# Additional background

- There are many more applicants with few points than with many – thus, it often occurs that an individual with relatively few points gets lucky
- In many cases, there are more hunters with high point totals than available permits – any system will feature competition *among* high point holders
- Allowing a non-negligible chance of drawing with few points incentivizes hunter-recruitment

Applicants for "Any Moose" permits in 2013 by number of points





## More stuff to chew on...

- In summer 2014, we considered initiating a ‘dual-system’, in which a fixed proportion of available permits (in a given hunt category) would be allocated to a “loyalty” category, open only to those with a minimum number of points. The remainder of permits would be open for all applicants, irrespective of points.
- The relative benefits to those with 10 (or 12 or more) points were modest, and depended on:
  - The number of points chosen to demarcate the “loyalty” category;
  - The proportion of permits reserved for “loyal” (but frustrated!) hunters, and, critically;
  - The proportion of “loyal” hunters applying under both the “loyalty” and “regular” drawings
    - (If “loyal” hunters applied ONLY under the loyalty option, they could easily end up with a LOWER chance of drawing than under the current system, contrary to the intent!)

We also discovered that this alternative system’s properties would change annually as the maximum number of possible points increased....

Although doubtless an alternative system might be devised that would increase the odds of those with high points ultimately drawing a tag, it would be complex and prone to misunderstanding. It is unclear if the present system is so flawed that it requires fixing....



A possible 'loyalty system' we'd considered:

$$\text{Probability of selection for a loyalty hunter} = \frac{P^2(0.75H)}{\sum_{j=1}^{17} \sum_{i=1}^n \beta_j P_{ij}^2} + \frac{P^2(0.25H)}{\sum_{j=12}^{17} \sum_{i=1}^n \alpha_j P_{ij}^2}$$

$P$  = number of bonus points held by an individual hunter

$H$  = number of permits available in this hunt category

$m$  = maximum number of points possible

$n$  = number of hunters in category  $j$  applying for hunt

$i$  = index for number of hunters applying in point category  $j$

$j$  = index for number of points (currently 1 through 17)

$\alpha_j$  = proportion of loyalty hunters in point category  $j$  selecting the loyalty option

$\beta_j$  = proportion of loyalty hunters in point category  $j$  selecting the regular draw option

Did you really wanna' know?

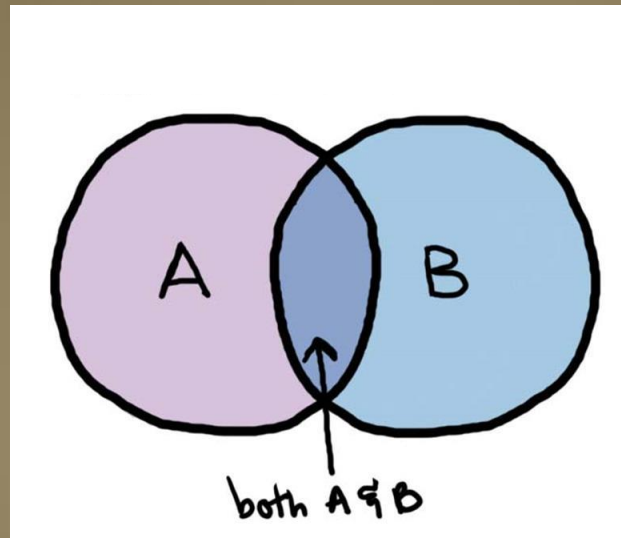
# Deer and Elk Baiting Committee

# Brief Background

- 
- A background image of a field with a wooden structure and a pile of red leaves.
- Game Management Plan
  - 3-year Package
  - GMAC discussions
  - Public Meeting Input
  - Public Hearing
  - Commission Decision
    - Baiting Committee

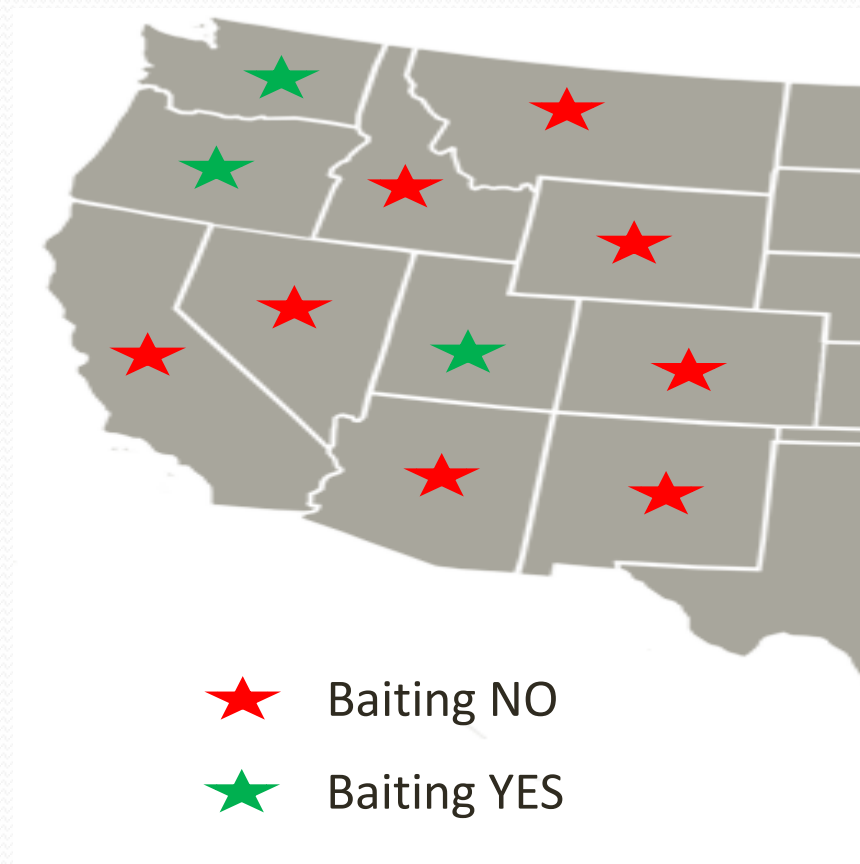
# Task for the Deer and Elk Baiting Committee

Determine if there is a middle ground between unregulated and elimination?



# Committee Discussion

# 8 out of 11 Western States Do Not Allow Baiting for Deer and Elk



# Potential Benefits of Baiting

1. Aids in success for disabled, youth, and senior hunters
2. Economic benefits to small business (guides)
3. Aids in more humane kills
4. Aids in animal selectivity for hunters, particularly in brushy areas
5. Aids in hunters that have no time to scout or do own work
6. Observe lots of animals
7. Attracts nonresident hunters from other states where baiting is banned



# Obstacles to Overcome with Baiting

1. Nutritional issues
2. Disease issues
3. Predation issues
4. Redistribute animals on the landscape
5. Attracting animals from public to private lands
6. Damage and nuisance issues near baiting sites
7. Impact to surrounding habitat from concentrating animals and invasive weeds
8. Question about ethics and fair chase
9. Conflicting and inconsistent with existing rules

# Can we craft a rule that:

- Addresses all these obstacles and is:

- simple



Have a Simple Day

- Enforceable



- Makes sense



# Interim Conclusions

# Committee is very split

- Likely represent our constituents
- The committee falls into these groups
  - Support no change
  - Will work on a compromise but would not vote for it
  - Will work on a compromise and support it
  - Support elimination of baiting

*There is agreement that  
Baiting should not include:*

- Food made available as part of normal farming or ranching operations
- Scents that the animals do not consume
- Food plants or plots that are grown on site and not manipulated

# Some agreement on but not 100%

- A quantity limit for bait at site. (Maybe 10 gallons). Still issues on details.
  - \*10 gallons per site or season
  - \*distance from water and residence and camp sites
  - \*clean up after season
- May not need to be concerned with timing before or after season if quantity is small ~10 gal.
- Any rule needs to apply to both public and private lands

# Still a long way from consensus

Caution: A middle ground option can become overly complex and unenforceable

# Steps Forward

- Commission looking for options
- GMAC discussion
- Drafting proposed rules based on input gained from Committee and GMAC
- Commission hearing in March
- Commission is interested in hearing directly from the Baiting Committee
- Commission decision in April



# Discussion

# Wildlife Interaction Rules

## WAC Chapter 232-36



Washington Department of  
**FISH and WILDLIFE**

# Wildlife Interaction Rules

## - Process -

- May 2014 – November 2015
- Public surveys
- Wolf Advisory Group / Game Management Advisory Committee meetings
- Small Forest Landowners, WFPA, WA Cattlemen's Association, Farm Bureau, Washington Trappers Association, Center for Biological Diversity, Humane Society, Conservation Northwest
- Public Hearings at Commission meetings

# Wildlife Interaction Rules

## New and Amended Rules

- 4 Categories:
  - Damage to Agriculture and Timber
  - Killing Wildlife in Protection of Property
  - Compensation
  - Wildlife Control Operators

# Wildlife Interaction Rules

- **Damage to Agriculture and Timber**
  - **WAC 232-36-310** – creates damage season permits to help landowners deal with damage
  - **WAC 232-36-320** - outlines requirements related to using director-authorized black bear depredation permits for mitigating damage to commercial timber
  - **WAC 232-36-300** - Defines public hunting, specifically as a tool to help minimize property damage cause by wildlife
  - **WAC 232-36-090** - Outlines roles and responsibilities of the Department and owners to work collaboratively

# Wildlife Interaction Rules

- **Killing Wildlife in Protection of Property**
  - **WAC 232-36-051** - Clarifies when owners may kill wildlife (other than wolf) causing damage to private property
  - **WAC 232-36-055** - Outlines proper disposal of wildlife taken under these rules
  - **WAC 232-36-330** - Outlines requirements related to the director authorized bear and cougar removals in response to livestock and domestic animal loss.

# Wildlife Interaction Rules

- **Compensation**
  - **WAC 232-36-100** - Defines limitations and requirements for owners to file for deer or elk damage claims for commercial crops
  - **WAC 232-36-110** - Articulates the filing process for commercial crop damage compensation.
  - **WAC 232-36-210** - Outlines the filing process for livestock or domestic animal damage compensation caused by bear, cougar, or wolf.

# Wildlife Interaction Rules

- **Wildlife Control Operators**
  - **WAC 232-12-142** - Outlines the use of the special trapping permit
  - **WAC 232-36-060** - defines the criteria for applying for wildlife control operator certification.
  - **WAC 232-36-065** - define how Wildlife Control Operators may capture, release, or retain wildlife, and define parameters for revoking certification or permits as well as an appeals process.



# Wildlife Interaction Rules

## Next Steps

- Policy revision and development
  - Revise existing policies (*Controlling Dangerous Wildlife, Managing Wildlife Conflicts, and Preventing and Responding to Big Game Depredation*)
  - Develop new policies based on adopted rules
- Meeting with external stakeholders
- Working with Regional staff and staff from other agency programs

# Questions



# Vehicle-Killed Wildlife Salvage



# Commission Request

- Design a salvage program similar to other states
  - Montana passed a law in 2013
  - Idaho passed rules in 2012





## Vehicle-Killed Wildlife Salvage Permit

The 2013 Legislature passed a bill that allows for the salvage of deer, elk, moose, and antelope killed as a result of a collision with a motor vehicle.

The bill allows a permit to be issued for the salvage of **ONLY deer, elk, moose and antelope**.

- Permits are available at no cost, either through law enforcement officers on the scene of collisions or online through this web page.

### Some important information on the salvage permit

- To possess salvaged wildlife a person must obtain a salvage permit. A person has 24 hours to apply for and get a salvage permit.
- If a person is involved in a vehicle-animal collision, the Montana Highway Patrol and some other law enforcement officers responding to the collision will have the ability to process a permit on site. If not, a person must apply for a permit online themselves. This is accomplished through this web page.
- A person may pick up an animal that he/she did not hit. The process is the same and he/she must obtain a salvage permit through this web page.
- Anyone who salvages a road-killed deer, elk, moose, or antelope will be required to remove the entire animal from where it is found. Parts or viscera cannot be left at the site. To do so is a violation of state law and would encourage other wildlife to scavenge in a place that would put them at risk of also being hit.



## Roadkill & Salvage Highway Mortality Reports and Wildlife Salvage Permits

# Roadkill/Wildlife Salvage Report

Roadkill & Salvage

Report Roadkill

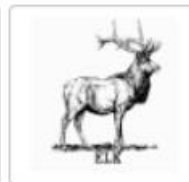
Salvageable Species

Query & Export Submissions

What

**Species \***

Start typing any part of a species name, or pick from common roadkill. Choices will appear, please select one.



# Existing Rule

232-12-287

Possession of dead wildlife.

(1) Except as authorized by permit of the director or by subsections (2) or (3) of this section, it is unlawful to possess wildlife found dead. This rule does not prohibit the possession of naturally shed antlers of deer, elk, or moose.

(2) An individual may remove and dispose of wildlife found dead on his or her property or an adjoining public roadway. Before removing the wildlife, the individual shall, by telephone, notify the department or the Washington state patrol communications office, and shall provide his or her name, address, telephone number, and the description and location of the wildlife. Other laws and rules may apply to the disposal, including rules of the department of health (WAC 246-203-120). **Wildlife removed under this subsection remain the property of the state.**

# WDFW Staff Concerns

- Safety on roadways
- Antlers remain with WDFW
- Potential abuse - poaching
- Fit for consumption
- Existing meat donation programs
- Other benefits to scavengers
- Trespassing on private property
- How to issue a permit to possess



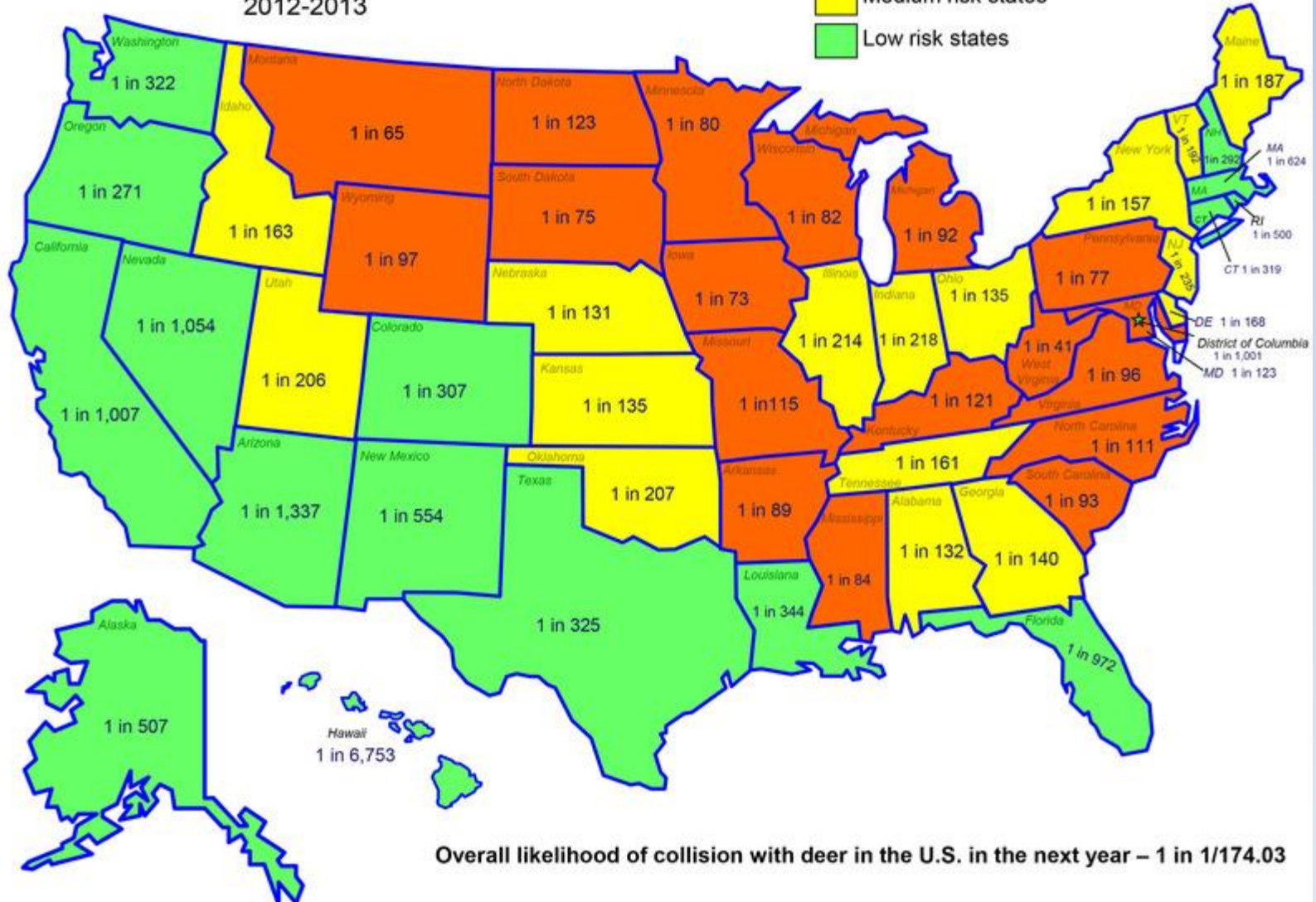
# Steps Forward

- More internal and external discussions.
- Coordinate with State Patrol and counties
- Collaborate with Montana and/or Idaho
  - Permitting process
  - Lessons learned
- Check-ins with Commission
- Develop draft rule – January
- Potentially present rule to Commission in March for April adoption

# Collecting Your Thoughts

## Likelihood of Collision with Deer 2012-2013

- High risk states
- Medium risk states
- Low risk states



Overall likelihood of collision with deer in the U.S. in the next year – 1 in 1/174.03

# Hoof Disease Investigations



# Hoof Disease Investigations

- **3 goals**
  - **Investigate Distribution and Prevalence**
  - **Investigate Survival**
  - **Investigate Productivity**

# TAHD Prevalence/Distribution

## Survey Design

- Citizen-scientist based effort (218 volunteers)
- Conducted surveys March-May
- Surveyed 175 survey points across 29 GMUs and 10 counties

## Results

- Observed 283 groups of elk (~2,600 elk)
- 29% of groups had  $\geq 1$  limping elk
- 6-8% of all elk observed were limping
- Analysis indicated detection probability was related to observation covariates (e.g., distance, visual aide, observation time, etc.)

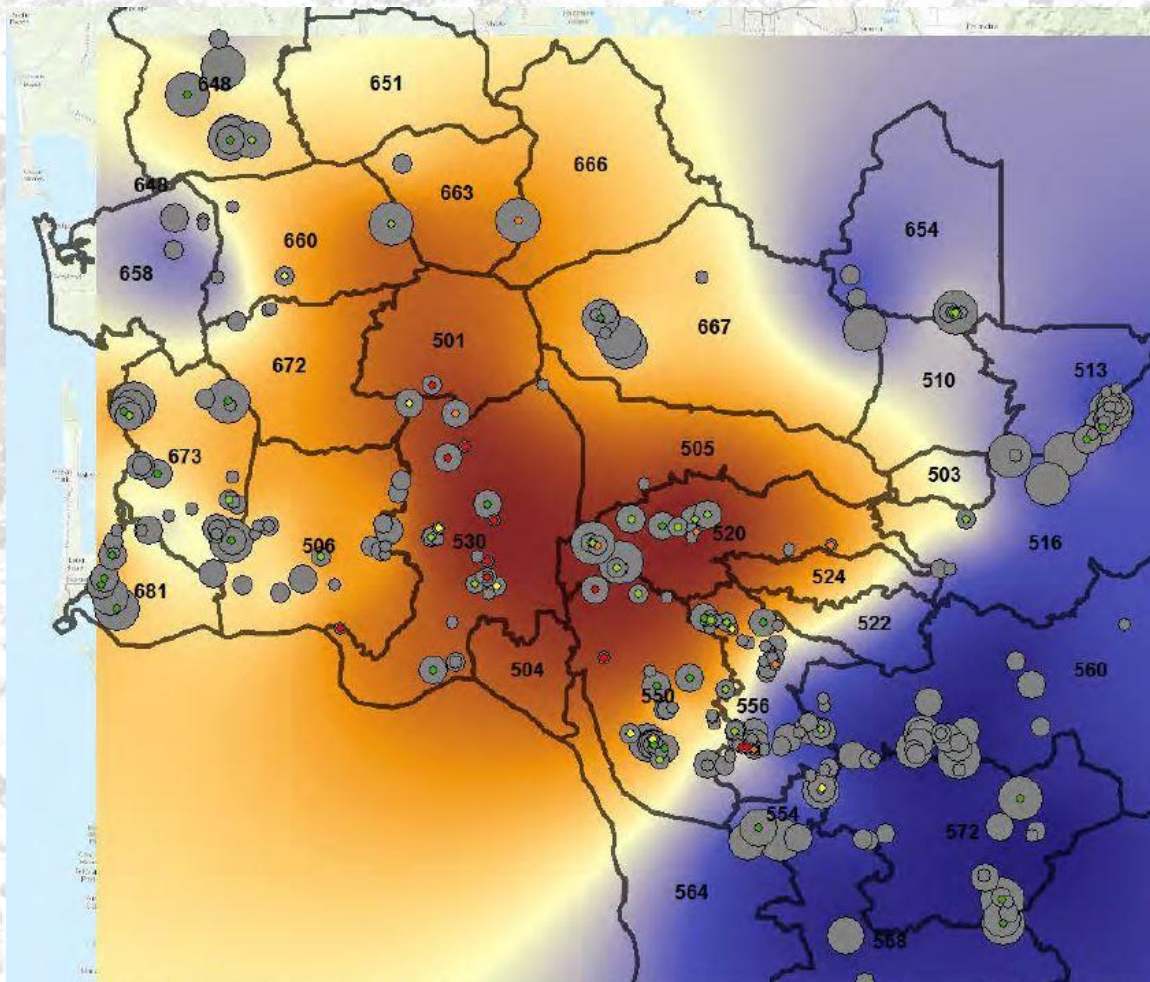
# TAHD Prevalence/Distribution

## Correcting Data for Detection Bias

- Could not reliably estimate prevalence at the individual level
- Estimated that 48% (95% CI = 40-57%) of groups observed had  $\geq 1$  limping
  - Region 5 = 51% (95% CI = 41-61%)
  - Region 6 = 42% (95% CI = 28-59%)
- Could not reliably estimate % of groups with limping elk at GMU-level because of small sample sizes

# TAHD Prevalence/Distribution

Used a prediction model to spatially depict the probability of encountering groups of elk with TAHD



# **TAHD Prevalence/Distribution**

## **Moving Forward**

- **Initiated pilot effort to use hunter-harvested elk to estimate prevalence at individual level**
- **Refine citizen-science survey approach to address detection issues**



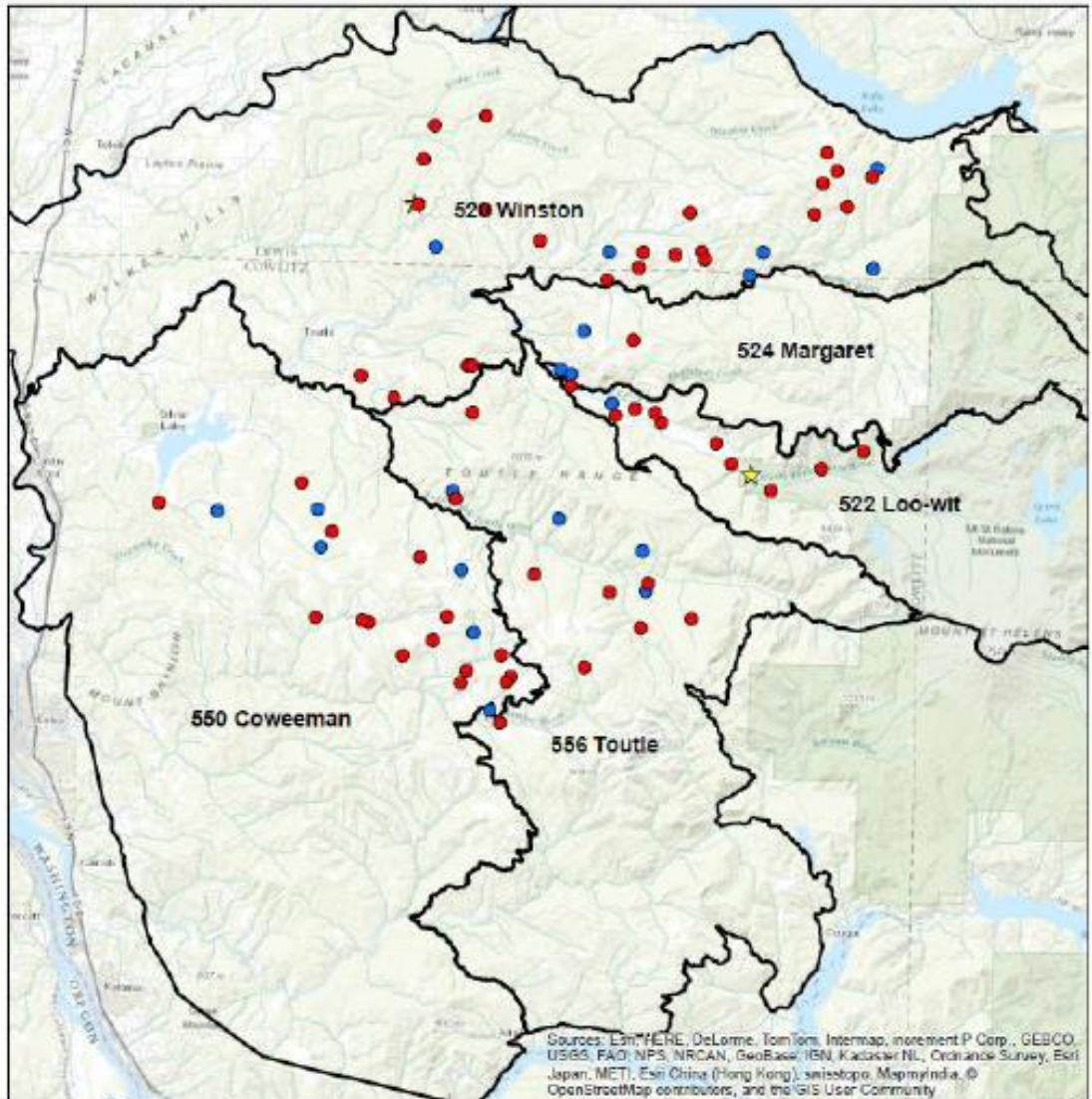
# TAHD Survival Study



# TAHD Survival Study

## Elk Captures:

<b>GMU</b>	<b>TAHD</b>	<b>Control</b>	<b>Total*</b>
520	24	6	30
522	11	3	14
524	1	3	4
550	15	5	20
556	9	5	14
<b>Total</b>	<b>60</b>	<b>20</b>	<b>80</b>



Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

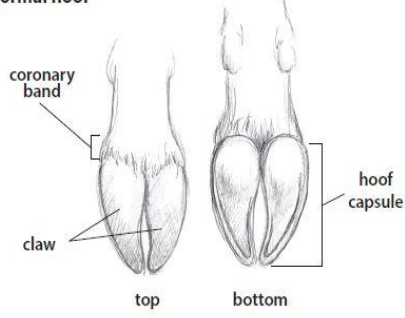

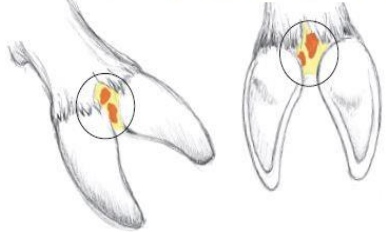
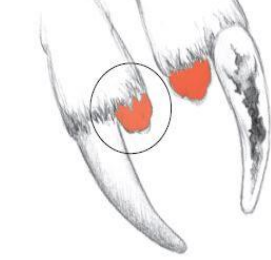
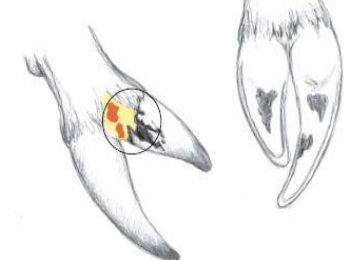
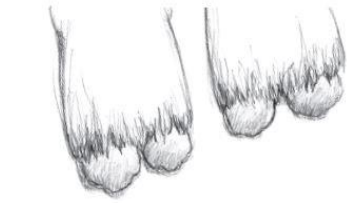


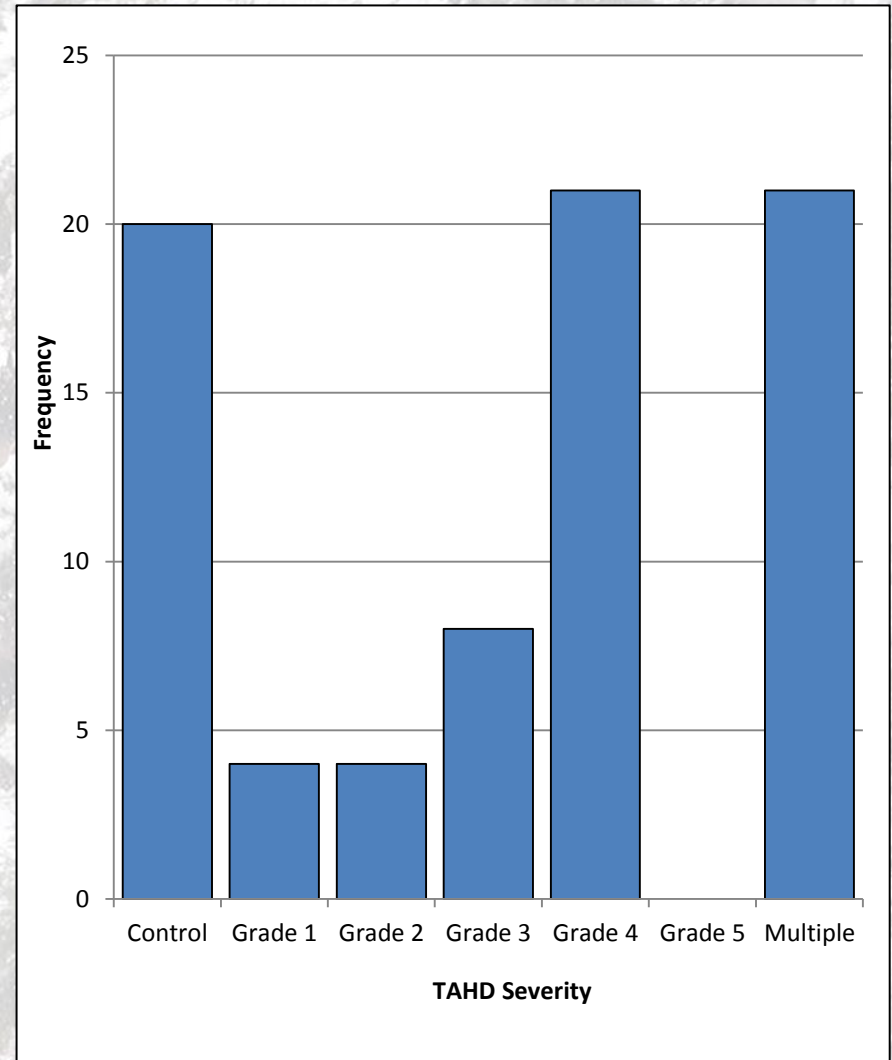
**2015\_Capture\_Locations**

- ★ Capture Mortality
- Control
- TAHD
- ▭ GMU Boundary



# TAHD Survival Study

<p><b>Normal hoof</b></p>  <p>coronary band claw hoof capsule top bottom</p>	<p><b>Grade 3</b> A large cavity or hole in one or both hoof capsules, usually on the bottom of the hoof. May include Grade 2 lesion. Hoof capsule(s) may or may not be overgrown.</p> 
<p><b>Grade 1</b> Broken or infected-appearing skin along the coronary band or between the toes/claws/digits. Lesions are limited to the skin with no hoof capsule involvement. Hoof capsule(s) may or may not be overgrown, but are not infected or broken.</p> 	<p><b>Grade 4</b> Missing one or both hoof capsules. Remaining claw may include Grade 2 or Grade 3 lesions; and remaining hoof capsule is usually overgrown.</p> 
<p><b>Grade 2</b> Skin wound is beginning to work its way underneath the hoof capsule. Hoof capsule(s) may or may not be overgrown.</p> 	<p><b>Grade 5</b> Missing one or both hoof capsules, but completely healed with no evidence of active disease in either hoof capsule (i.e. dry, with no blood or infection visible)</p> 



# TAHD Survival Study

## Body Condition

- Body Fat and Mass decreased with severity

## Pregnancy

- Pregnancy rates decreased with severity

		<u>Age</u>	<u>IFBF</u>			<u>Body Mass</u>		<u>Pregnant</u>
Score	n =	$\bar{x}$	$\bar{x}$	95% CI		$\bar{x}$	95% CI	
Control	19	7.6	5.13	3.95–6.31		205.2	197.0–213.3	0.84
Early	7	7.3	5.19	3.42–6.95		208.5	194.9–222.2	1.00
Late	28	6.5	4.26	3.45–5.08		194.4	188.3–200.4	0.64
Multiple	21	5.6	3.86	2.80–4.91		188.3	178.7–198.0	0.33

**The most severely affected elk also tended to be younger elk, which suggests there is likely to be a TAHD x Age interaction**

# TAHD Survival Study

## Survival May 1-December 1

- TAHD (n=55) = 87%
- Control (n=20) = 85%

## Primary Cause of Mortality

- TAHD = Malnutrition/disease (other than TAHD)
- Control = Harvest related



# TAHD Survival Study

## Productivity:

**\*Too soon to make definitive statements\***

## Of note:

- **4 of 6 cow elk with TAHD were lactating at time of death**
- **Time of death was late enough that calves were no longer dependent on the cow.**

# Hoof Disease Investigations

A photograph of a herd of brown deer standing on a steep, snow-covered mountain slope. The deer are scattered across the frame, some facing the camera and others looking away. The background is a dense forest of evergreen trees, also covered in snow. The overall scene is a winter landscape.

**Questions?**



# Washington Wolf Monitoring and Management Update

Scott Becker, WDFW Wolf Specialist



Washington Department of  
**FISH and WILDLIFE**

# WASHINGTON GRAY WOLF CONSERVATION AND MANAGEMENT 2014 ANNUAL REPORT

*A cooperative effort by the Washington Department of Fish and Wildlife, Confederated Colville Tribes, Spokane Tribe of Indians, USDA-APHIS Wildlife Services, and U.S. Fish and Wildlife Service*



*Photo: WDFW*

*This report presents information on the status, distribution, and management of wolves in the State of Washington from January 1, 2014 through December 31, 2014.*

**This report may be copied and distributed as needed.**

**Suggested Citation:** Becker, S.A., T. Roussin, E. Krausz, D. Martorello, S. Simek, and B. Kieffer. 2015. Washington Gray Wolf Conservation and Management 2014 Annual Report. Pages WA-1 to WA-24 in U.S. Fish and Wildlife Service Rocky Mountain Wolf Program 2014 Annual Report. USFWS, Ecological Services, 585 Shepard Way, Helena, Montana, 59601.

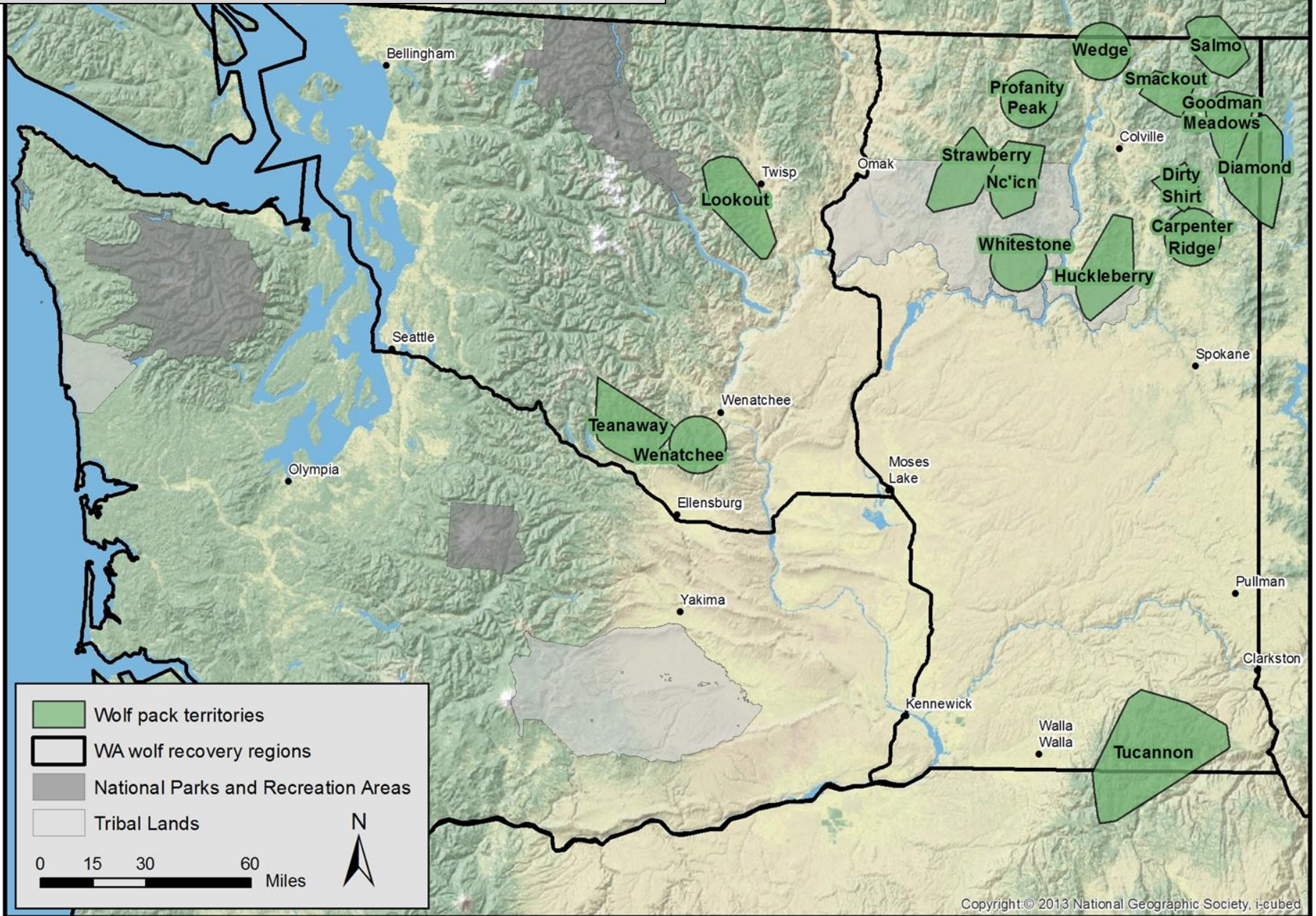
## ● Monitoring

- Trapping
- Aerial captures
- Capture/monitoring update
- Known mortalities
- Future of wolf monitoring

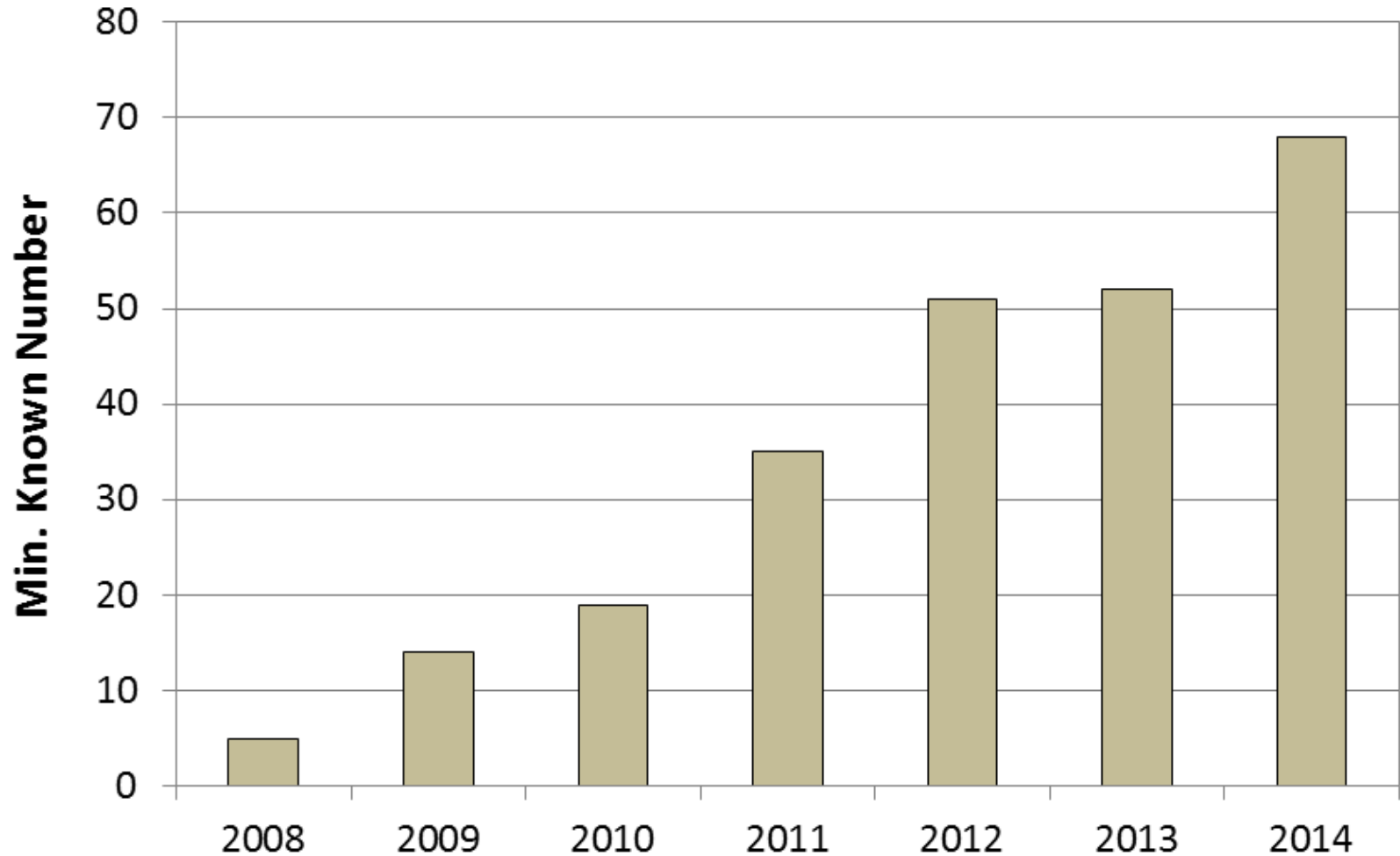
## ● Management

- Number of confirmed livestock losses by year
- Number of packs depredating on livestock by year
- Number of confirmed livestock losses by month: 2015

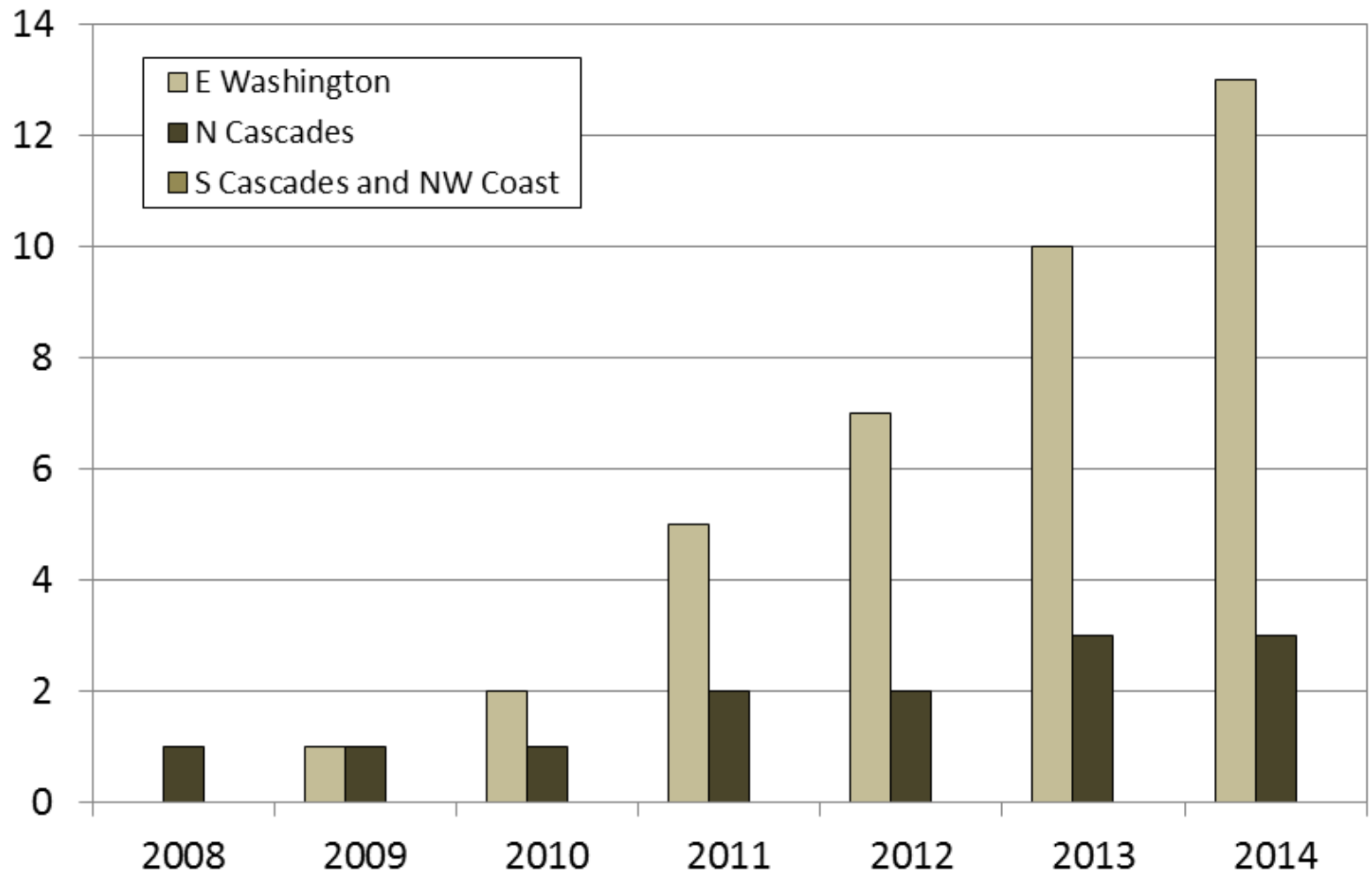
# 2014 Pack Territories



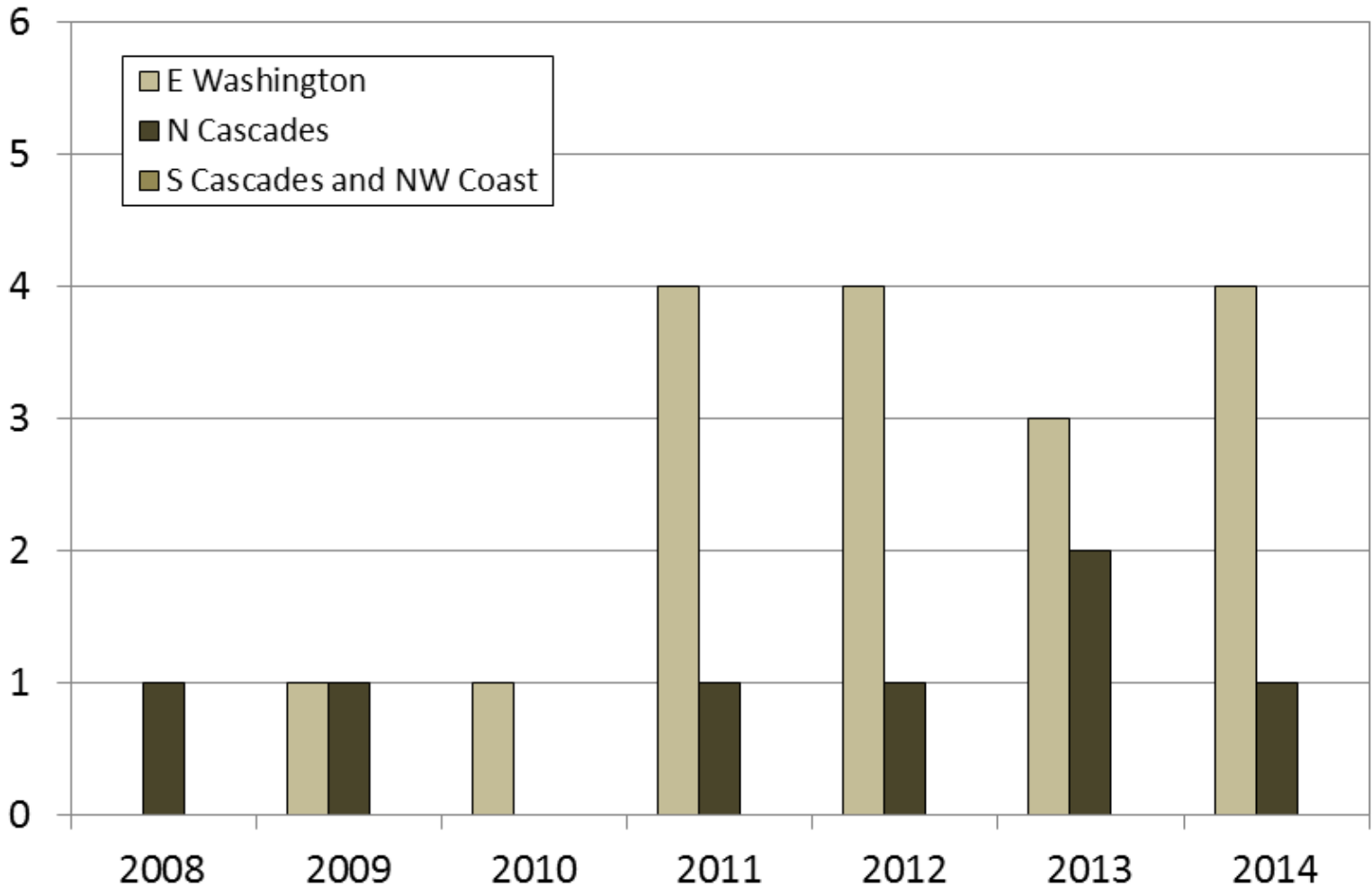
# Minimum Known Number of Wolves by Year



# Minimum Known Number of Packs by Year



# Minimum Known Number of Breeding Pairs by Year



# Trapping



- Identifying priorities
- Conduct intensive monitoring
  - Set on sign
  - Put in position for success
  - If they aren't there, we won't catch anything no matter how pretty our sets are
  - PATIENCE & PERSISTENCE
- At least 1 collar in as many packs as possible

# Best Times to Trap

- Late spring/early summer





# Best Times to Trap

- Late summer/early fall

# Aerial Captures



- Target packs with functional collars only



# 2015 Capture/Monitoring Update



- 2015 Captures
  - Wolves: 15
  - Packs: 9 (plus 1 lone wolf)
- Monitoring
  - Wolves: 14
  - Packs: 10 (plus 1 disperser)
  - Known packs without collars
- Continue to follow-up on clusters of public sighting reports to identify areas of potential new activity

# Known Mortalities: 2015



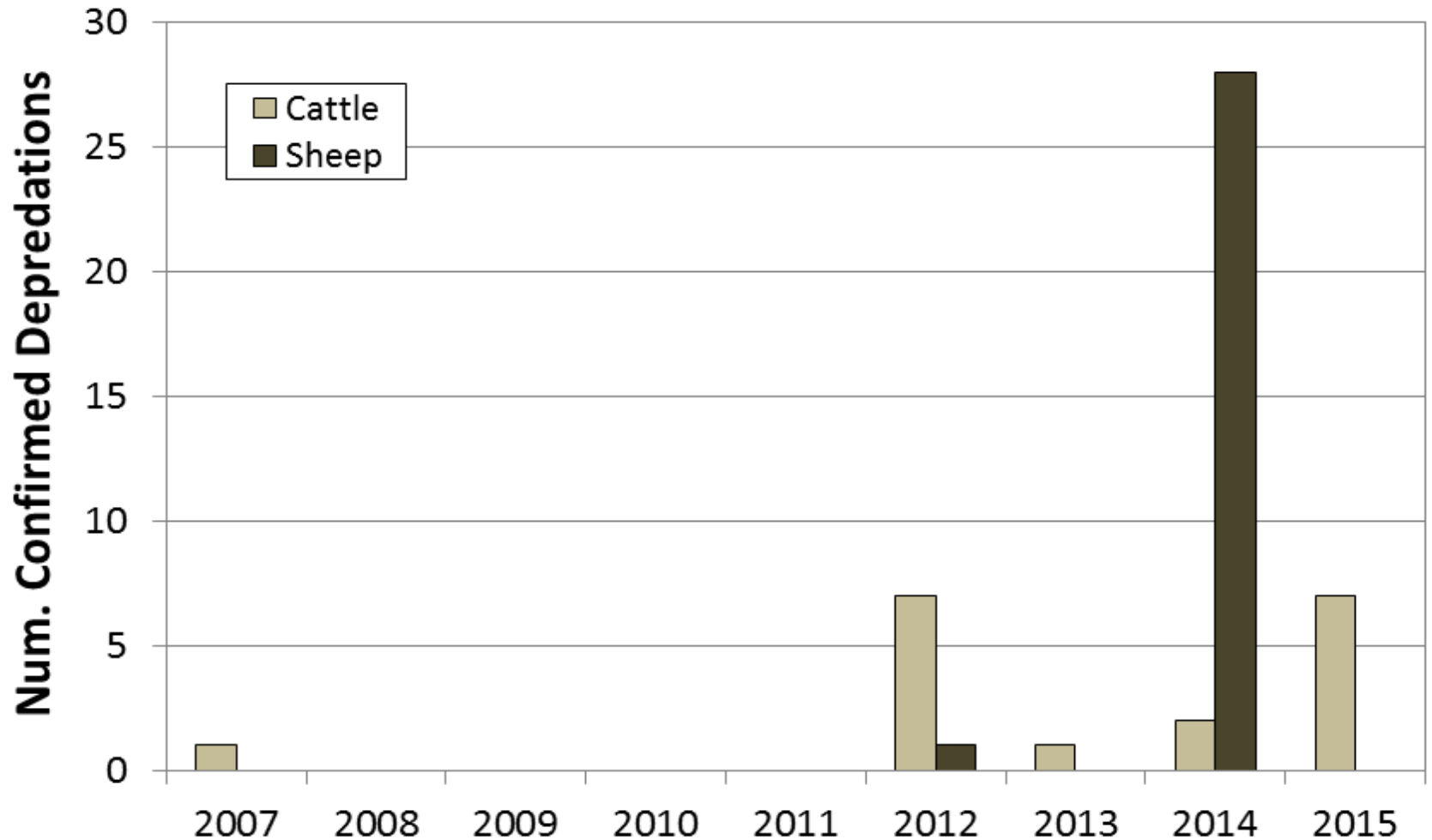
- 3 human-caused
- 1 unknown
- 1 legal harvest (STOI)
- 1 legal harvest (ID)

# Future of Wolf Monitoring

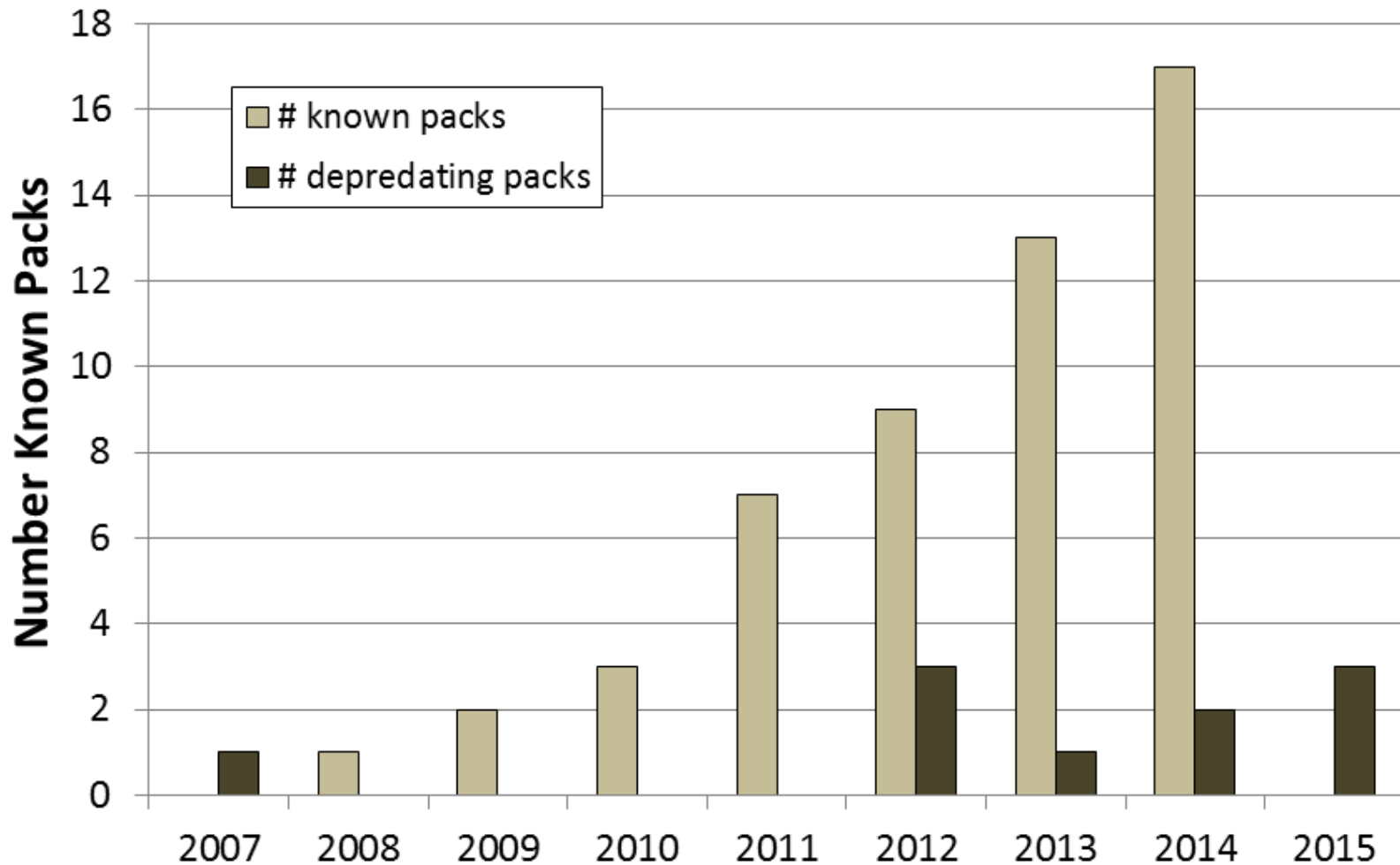


- More challenges as more wolves occupy landscape
- Developing alternative population estimation techniques

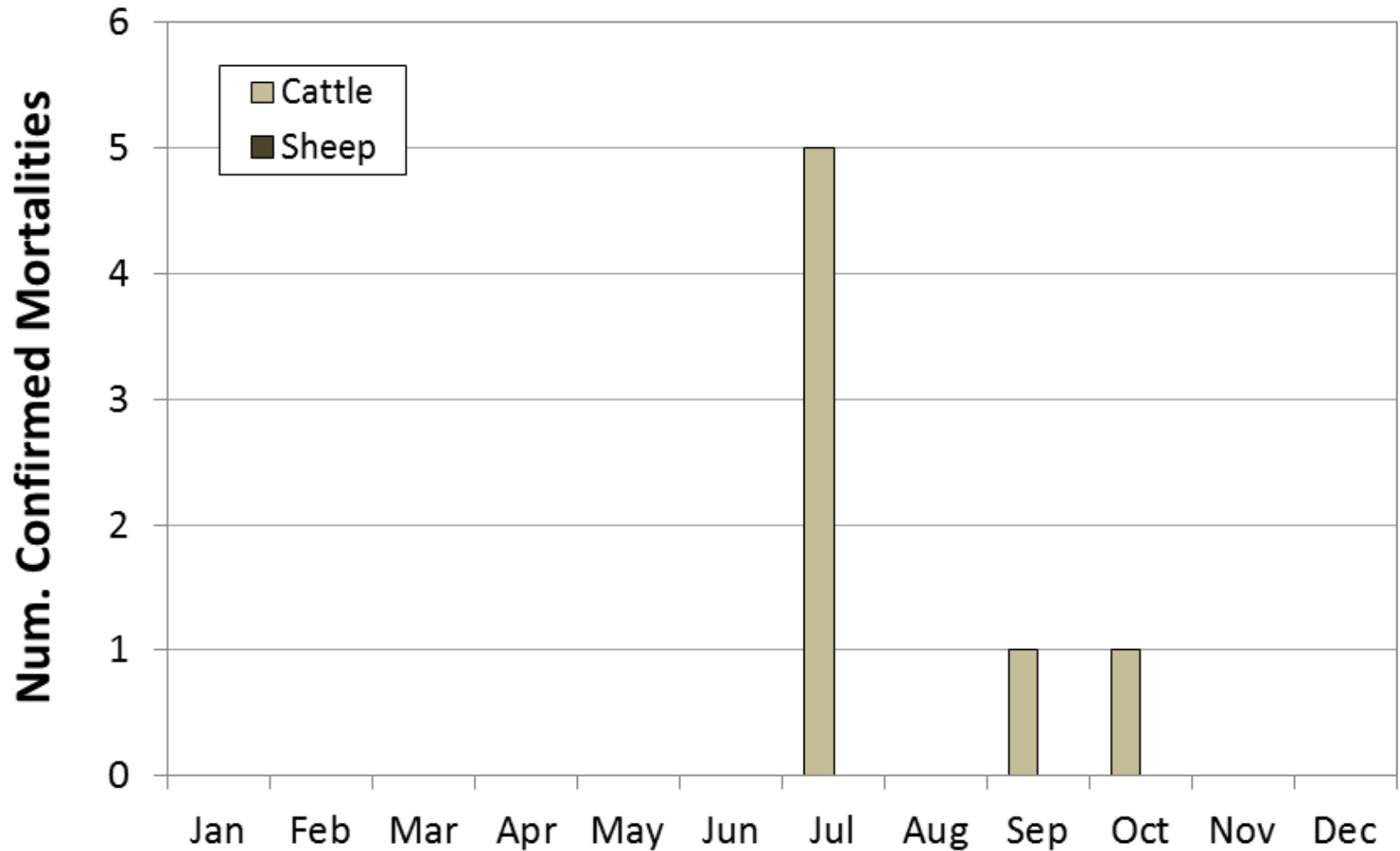
# Number of Confirmed Livestock Losses by Year in WA



# Number of Packs Depredating on Livestock by Year in WA



# Number of Confirmed Livestock Losses by Month: 2015





# Questions??

