Oregon Fish and Wildlife Commission Trap Check Working Group Questions for Wildlife Services
(Working group facilitator provided the following 26 questions)

- Scope of services
  Short PPT presentation

- How many APHIS (Wildlife Services) staff trap for damage complaints in Oregon? Where are they located across the state?
  We have approximately 36 field employees, scattered throughout the state. They report to 3 district field offices (Salem, Roseburg, and La Grande), and the state office in Portland. We operate in an average of 24 counties routinely (NW= Washington, Clackamas, Marion, Linn, Benton, Polk, and Lincoln; SW= Lane, Douglas, Coos, Curry, Jackson, and Klamath; East= Wallowa, Union, Baker, Malheur, Grant, Harney, Umatilla, Morrow, Gilliam, Wheeler, and Deschutes counties), and the remaining counties as requested.

- Do they keep track of the numbers of animals that they trap, including species, locations, landownership (private, BLM, USFS, state, other), types of damage, and any other data? Can you share about Wildlife Services recordkeeping work related to trapping that they do?
  - Yes
    WS Directive 4.205, Data and Activity Reporting, 4.205.pdf (usda.gov)

- When a complaint comes in, how quickly do they respond to it? Does this depend on the type of animal involved?
  The goal is timely response, to return contact within 24 – 48 hours;
  Prioritization based upon damage type, location, amount of damage occurring, current workload, and determining the level of human safety risk.
  WS Directive 1.201, Mission and Philosophy of the WS Program, 1.201.pdf (usda.gov)
  WS Directive 2.101, Selecting Wildlife Damage Management Methods, 2 (usda.gov)
  WS Directive 2.201, WS Decision Model, 2.201.pdf (usda.gov)

- How frequently do they check traps?
  What are trap check time intervals for black bears trapped for timber damage?
  WS Directive 1.210, Legal Authority, Microsoft Word - 1210.doc (usda.gov)
  WS Directive 2.105, The WS Integrated Wildlife Damage Management Program, Microsoft Word - 2105.doc (usda.gov)
  WS Directive 2.210, Compliance with Federal, State, and Local Laws and Regulations, 2.210.pdf (usda.gov)
  WS Directive 2.450, Traps and Trapping Devices, 2.450.pdf (usda.gov)

  State requirements:
  - Predatory animal: traps must be checked within 76 hours, 7 days, 30 days, depending on the damage type
  - Unprotected mammals, traps checked within 48 hours
  - Furbearer: traps checked within 48 hours
  - Bears & Cougars – IGA with ODFW specifies within 48 hours
  - Wolves – IGA specifies within 24 hours

- What types of traps are used for which species? Please provide photos of the traps. How often are you using kill traps or live traps for predatory animal control?
  (With a short turn around in receiving the questions, I didn't have time to gather photos of traps, however, trap designs and manufactures identified in the most recent literature pertaining to BMPs depict the types and modifications of the traps used by WS.)
  White et al. 2020, Best Management Practices for Trapping Furbearers in the United States - White - 2021 - Wildlife Monographs - Wiley Online Library
  WS Directive 2.450, Traps and Trapping Devices, 2.450.pdf (usda.gov)

  For all WS methods used when any form of "take" was reported (hazing, freed, killed, etc.) for FY16-FY20, trapping methods accounted for less than 1% of all methods used.
  When trapping methods are deployed, cage traps account for an average of 24% of the trap types used, killing traps 37%, live/ restraining traps 39%.

- Do they teach landowners to avoid the damage issues? Yes
  Do you currently prioritize non-lethal methods like exclusion, one-way doors, chimney caps, better attractant storage and better property housekeeping as coexistence methods? Yes
  Have you ever refused to provide animal removal services to a client that clearly was unwilling to take the steps to remove attractants or harborage conditions for the species they wanted controlled? Yes
  YES
  WS Directive 1.201, Mission and Philosophy of the WS Program, 1.201.pdf (usda.gov)
  WS Directive 2.101, Selecting Wildlife Damage Management Methods, 2 (usda.gov)
  WS Directive 2.105, The WS Integrated Wildlife Damage Management Program, Microsoft Word - 2105.doc (usda.gov)
  WS Directive 2.110, WS Research and Methods Development, Microsoft Word - 2110 7-21-08 e-signature.doc (usda.gov)
  WS Directive 2.115, National Wildlife Research Center
  WS Directive 2.201, WS Decision Model, 2.201.pdf (usda.gov)

  WS implements an integrated wildlife damage management program, providing recommendation to landowners on what they can implement themselves, providing guidance on how to improve methods they are already implementing, providing demonstration or training on what methods to use and how best to use them, and or implementing integrated methods directly for the resource owner.
  During FY 2016 – FY 2020, WS-Oregon reported providing an annual average of 1,068 technical assistance to resource owners. Also, in those technical assistance actions, WS reported recommending over 2,162 integrated method recommendation to resources owners in addition to the methods already being deployed by resource owners.

- Are they able to use licensed trappers to handle some of the complaints? Do they use contractors to handle the complaints?
  Wildlife Services does not have regulatory authority. ODFW has legal authority to license and regulate trapping in Oregon, and WS does not overlap with state wildlife management authority. Wildlife Services does not subcontract services.
  WS Directive 1.210, Legal Authority, Microsoft Word - 1210.doc (usda.gov)

- Do your trappers follow the AVMA euthanasia guidelines for each species?
  WS Directive 2.505, Lethal Control of Animals, United States Department of Agriculture (usda.gov)
  WS-Oregon follows AVMA recommended euthanasia procedures when feasible to minimize pain and suffering. AVMA (2020) notes, "…it may still be an act of euthanasia to kill an animal in a manner that is not perfectly humane or that would not be considered appropriate in other contexts. For example, due to lack of control over free-ranging wildlife and the stress associated with close human contact, use of a firearm may be the most appropriate means of euthanasia. Also, shooting a suffering animal that is in extremis, instead of catching and transporting it to a clinic to euthanize it using a method normally considered to be appropriate (e.g., barbiturates), is consistent with one interpretation of a good death. The former method promotes the animal's overall interests by ending its misery quickly, even though the latter technique may be considered to be more acceptable under normal conditions." As described by the AVMA, there may be a distinction between clinical euthanasia and field practices for humane killing, but field practices are still considered an acceptable form of euthanasia. APHIS-WS policy and operating procedures fully comply with these guidelines, and APHIS-WS recognizes the importance of careful decision making in the field regarding all use of lethal methods.

- Do you agree that most wildlife injuries like paw rub, face rub, chipped teeth, cut gums, and damage from loss of circulation are directly proportional to the length of time the animal is left in the trapping device?
  We do not agree that time in trap correlates directly to injuries based on the available data and peer-reviewed literature. From (White et al 2020), "It may also be tempting to assume that average injury scores are positively correlated with the time spent in a trap, but data are extremely limited. Based on observed restraint behavior described above, injury occurrence might be most likely in the first hours after capture, and again when humans approach to dispatch or release the animal (which would occur regardless of trap-check interval), although it may not be appropriate to assume animal movement is required to cause trap-related injury."

  The authors go on to state the following:

  > "Furthermore, trap-check interval does not equate with time spent in a trap; with a 48-hour trap check requirement, a captured animal could still have been in a trap for only 6 hours prior to trap inspection."

  White et al. 2020, Best Management Practices for Trapping Furbearers in the United States - White - 2021 - Wildlife Monographs - Wiley Online Library

- Do you currently record the length of time you think the animal has been in the trapping device?
  No

- Do you have animal welfare focused policies like not trapping in temperature extremes or requiring "worry toys" inside livetraps to give the occupants a safe alternative to chewing on the metal trap? Do you have a policy of not having any metal baits (like cat food cans) inside the trap?
  WS goal is to address the concerns of damage by following WS's Decision Model. Included in this decision matrix is considering how to address the damage, including determining the ideal locations of setting traps. WS employees are trained to consider animal welfare when setting traps, and this includes trap placement, availability of food and water, cover, as well as the

security of the trap to prevent the trapped animal being susceptible to predation or human disturbance. WS has not assessed the negative or positive impacts that worry toys would have in trap capture rates or potential reduction of injuries. We don't currently have any policy on metal baits; however, WS is willing to explore alternatives to this type of bait delivery system.
WS Directive 2.101, Selecting Wildlife Damage Management Methods, 2 (usda.gov)
WS Directive 2.105, The WS Integrated Wildlife Damage Management Program, Microsoft Word - 2105.doc (usda.gov)
WS Directive 2.201, WS Decision Model, 2.201.pdf (usda.gov)
WS Directive 2.450, Traps and Trapping Devices, 2.450.pdf (usda.gov)
WS Directive 2.505, Lethal Control of Animals, United States Department of Agriculture (usda.gov)

- What are your protocols for finding live animals in kill traps?
  Animals targeted for lethal removal would be dispatched immediately, removed from capture devices, and properly disposed.
  WS Directive 2.450, Traps and Trapping Devices, 2.450.pdf (usda.gov)
  WS Directive 2.505, Lethal Control of Animals, United States Department of Agriculture (usda.gov)
  WS Directive 2.510, Fur, Other Animal Parts, and Edible Meat, 2.510.pdf (usda.gov)
  WS Directive 2.515, Disposal of Wildlife Carcasses
  https://www.aphis.usda.gov/wildlife_damage/directives/pdf/2.515.pdf

- How do you handle non-target wildlife caught in traps? Do most survive and do you record that?
  Non-target animals captured, when legal to do so, and when possible (safety and health of the employee, and of the animal) are released.
  For FY2016-2020, for all trapping methods, the average annual non-target capture was an average of 2% of all captures, approximately 72 individual animals per year. Non-target lethal take was less than 1% of all captures (36 individual animals) trapping equipment.
  WS Directive 2.450, Traps and Trapping Devices, 2.450.pdf (usda.gov)
  WS Directive 2.505, Lethal Control of Animals, United States Department of Agriculture (usda.gov)

- Challenges you face with different intervals across terrain, species, settings (urban/rural)?
  Individual animals respond differently to novel stimuli or disturbances and are likely to also respond differently in different environmental conditions. Selecting for specific and individual animals can be challenging given their unique behavioral responses. A coyote in an urban area is likely to be more tolerant of human disturbance and novel stimuli whereas a coyote in a rural area is less tolerant to human disturbance.
  It is possible to set a trap for a coyote and capture the coyote in the first night of a trap being set. However, studies have shown that coyotes are reluctant to approach a trap site (ground disturbance) and make several attempts of increasing proximity to trap sites before being caught. Reported recreational coyote trapping data, (Personal Communication, Derek Broman 2021) identified that catch per unit effort was 1.3 coyotes for every 100 trap nights. It took approximately 77 nights of effort (multiple traps set) to catch 1 coyote.

Urban environments or areas with increased human traffic may increase the risk of pets being exposed to traps or people coming into contact with animals in traps, which increases the need for more frequent trap checks.
WS is trapping in response to damage and is targeting specific individuals or localized groups of individuals using the appropriate Best Management Practices in response to conflicts. We are not running recreational trap lines in small geographic areas. With a limited number of employees statewide, and the possibility of conflicts occurring anywhere, staff cover large geographic areas. Properties, and damage can occur in very remote areas far away from developed roads and or miles behind gates. Travel time getting into remote sites and locations must be taken into account to allow for sufficient time in checking equipment. Coupled with variables in animal behavior, traps need to have sufficient time for specific animals to have time to be in the area of the trap, and to work past novel stimuli to catch themselves in the trap.

- Opportunities to do things differently
  The question was not very clear in what it was asking. WS works closely with its research arm of Wildlife Services, the National Wildlife Research Center (NWRC) and partner with other entities in conducting research. As technology and research become available, WS is prepared to utilize these in our IWDM activities.

- What work is wildlife services doing around beaver monitoring, both population generally and harvest?
  ODFW has management authority for wildlife in the state. Dr. Jimmy Taylor with the NWRC (WS) is our subject matter expert on beaver. He has conducted beaver research in the Pacific Northwest, the arid Southwest, the Atlantic states, and the Southeast and has published 20 or more scientific articles on beaver. In the 15 years that Dr. Taylor has been a Field Station Leader and Project Leader with NWRC. WS and NWRC can assist the state with research on beaver and or estimate beaver population size in Oregon.

- What is the primary reason that wildlife services gets called regarding beavers (i.e. flooding impacts, blocked culverts, etc)
  WS-Oregon is requested to assist with beaver damage management. The main reason it did so was for the protection of human health and safety. Beaver activities that result in flooding of roads, structures, homes, property, and/or utilities present significant, and immediate threats to human health and safety because flooding may cause motor vehicle accidents, cause power outages, isolate individuals from ingress or egress from their homes, and impact access to emergency and other essential services. On average, 70% of the conflicts WS-Oregon has responded to is for damage or threats to structures, which affect human health and safety.

Habitat Questions:

- Is wildlife services undertaking any projects to evaluate the habitat requirements for beavers?
  Specifically, at this time, no.
  The general habitat requirements for beaver are well known. They are central-place foragers that require water, access to food, and escape cover. They have a wide foraging niche and consume a variety of woody and herbaceous plants. In many places within Oregon beaver thrive without building dams. They live in bank dens to rest and raise their young instead of living in

traditional constructed lodges, thus they are largely unnoticed by the public. One of Dr. Jimmy Taylor's current graduate students is developing models to beaver occupancy and beaver dam occurrence in southwest Oregon. He's also investigating the potential effects of climate change on beaver habitat use and how beaver dams affect stream temperatures and dissolved oxygen. Dr. Taylor and colleagues also have proposed a largescale study in western Oregon to better understand beaver survival and habitat use in a largely forested landscape that is modified by timber harvest and wildfire. If funded this study will be the first of its kind in Oregon.

- Does wildlife services have any data on whether available habitat or trapping is a limiting factor for beaver habitat in the state?
  Along with coauthors from Oregon State University, Dr. Jimmy Taylor from the NWRC recently published the results of a largescale study in the Oregon Coast Range which concluded that beaver dispersal is not limited by landscape features and occurs most commonly within watersheds, but also among adjacent watersheds in the Oregon Coast Range. They also concluded that natural recolonization of empty habitat likely does not require translocation if beaver are present within the major tributary (fifth level) watershed, or in adjacent major tributary watersheds. The potential for recolonization through dispersal is still possible, albeit at lower probability, even if beaver are only present within the sub-basin (fourth level) watershed. There is no data or evidence that we are aware of to suggest that beaver are limited by any factor in Oregon. However, our research scientists with the NWRC would be very interested in addressing this in a research study if stakeholders identify this as an important research need and provide research funding.

- To what extent does trapping permanently solve the problem? Is it agreeable that not addressing attractants will simply perpetuate the problem? If so, what actions do you take to address the attractants?
  We respectfully submit that it is unrealistic to think that any single management action would solve a problem forever when the environment and the species within it are dynamic. Trapping can be very effective in reducing human-wildlife conflict. It can also be effective in combination with non-lethal practices in an adaptive framework to reduce damage. Although trapping may remove a small number of individuals from a population, research has shown it can increase reproductive rates in the population. It can also create unoccupied space that is occupied by dispersing individuals. These density-dependent effects are often considered by Wildlife Services in choosing the appropriate techniques to reduce human-wildlife conflicts.

  We also do not understand what you mean by "attractants". If referring to beaver, beaver require water, access to forage, and cover to escape predators and raise their young. We are not aware of beaver being attracted to anything other than the conditions that allow them to survive.