Wildlife Program – Bi-weekly Report

Feb. 1 to Feb. 15, 2019

REGION 1 HIGHLIGHTS

Managing Wildlife Populations

Moose Composition Surveys: District 2 Wildlife Biologists Atamian and Lowe completed aerial surveys to collect calf to cow and bull to cow data for the district. The last intensive survey was conducted in 2012, and this year the surveys were limited to areas with good visibility and those of high moose densities in previous years. One hundred and one moose were observed over 10 hours of flight time spread over three days. In GMU 124, 83 moose (38 cows, 14 calves, and 31 bulls) were seen in 58 different groups. The majority were in the Lake of the Woods area of the Mount Spokane North moose unit, and in the Five Sisters area of the Spokane West moose unit. In GMU 127, 18 moose (seven cows, three calves, and eight bulls) were seen in 15 different groups. The flight into this GMU only covered limited ranges in the Tower Mountain and Mica Peak areas due to weather constraints.

Bull moose observed during aerial survey in the Mount Spokane area

Cow and twin calves observed in the Mount Spokane area during moose composition survey

Cow and calf observed in the Five Sisters area during moose composition survey

Cloud cover on Mica Peak limited survey access

Waterfowl Survey: Wildlife Area Assistant Manager Mike Finch and Wildlife Area Manager Juli Anderson conducted a weekly spring waterfowl survey along the designated Swanson Lakes Wildlife Area route. No birds were seen, and what little water found in ponds and creeks was nearly all frozen.

Providing Recreation Opportunities

Providing Access to Land: Wildlife Area Assistant Manager Daro Palmer maintained snow removal at parking areas on Sherman Creek Wildlife Area, and Pend Oreille County Public Works maintained snow removal at the Beaver Creek parking area at Rustlers Gulch Wildlife Area. Both of these areas are used by winter recreationists for cross-country skiing and snowshoeing. With an abundance of snow this week, snow removal was conducted for three straight days. Wildlife Area Assistant Manager Mike Finch plowed the mile-long lane to Swanson Lakes Wildlife Area on Monday and Friday, after snowfall and drifting events. Water Access Manager Dziekan plowed snow and spread ice melt at the Region 1 office in Spokane.

New Contract in Walla Walla County: Private Lands Biologist Thorne Hadley received a telephone call from a landowner in Illinois who purchased a property in Walla Walla County. The landowner had questions about Washington Department of Fish and Wildlife's access programs. Private Lands Biologist Thorne Hadley discussed the various access programs and the landowner said that he would like to put the property into Feel Free to Hunt. At the end of the conversation, the landowner mentioned an additional property that he also owned in Walla Walla County that he would also like to sign up for Feel Free to Hunt.

Providing Conflict Prevention and Education

Grande Ronde Elk: Wildlife Conflict Specialist Wade and Natural Resource Technician Heitstuman spent a night at a haystack on the Grande Ronde River after Wade was contacted by two producers who were having issues with a herd of 40 to 50 elk getting into their haystacks

and livestock feed. Wade and Heitstuman located several herds of elk in the area and hazed when necessary. Wade will continue to work with the producers to explore options to help reduce or stop the damage. Wade also spoke to the producer about possible fencing and Damage Prevention Cooperative Agreement (DPCA) contracts to help prevent future problems.

Conserving Natural Areas

Nothing for this reporting period.

Providing Education and Outreach

Bat White Nose Syndrome Outreach: District 2 Wildlife Biologists Atamian and Lowe joined eastside Public Relations Specialist Lehman for a day each at the Spokane Ag Expo to help educate local rural landowners about bats in general and specifically about white nose syndrome (WNS). WNS is a disease that affects hibernating bats and is caused by a fungus, Pseudogymnoascus destructans, or Pd for short. Pd grows in cold, dark and damp places (e.g. caves). It attacks the bare skin of bats while they're hibernating, causing the bat to awaken multiple times over the course of the winter and burn up fat they need to survive. The disease is estimated to have killed millions of bats in eastern North America since 2006, and can kill up to 100 percent of bats in a colony during hibernation. In March 2016, Washington's first case of WNS was confirmed in a little brown bat (Myotis lucifugus) near North Bend, 30 miles east of Seattle. Though the disease has devastated bat populations in eastern North America, we do not yet know how it will impact western bats. In general, bats in Washington do not hibernate in large groups like eastern North American bats. Thus, the spread of the disease in western North America may be different. For more check out our website (https://wdfw.wa.gov/conservation/health/wns/).

District Wildlife Biologist Atamian describing the anatomy of a big brown bat to two young attendees of the Spokane Ag Expo

Conducting Business Operations and Policy

Diamond Lake Seasonal Gate Closure: Water Access Manager Dziekan worked with Wildlife Area Manager Anderson to address issues with anglers circumventing a vehicle gate to gain entree to a water access site that is seasonally closed for vehicular traffic. The seasonal closure was imposed to address the risk of vehicles losing control and sliding onto the ice. Regional Wildlife Program Manager Robinette and Statewide Water Access Coordinator Belson were asked for their input on the issue. Dziekan proposed installing removable bollards on site. The gate could be kept open to allow for ATVs and snowmobiles to still access the ice while providing a barrier that would stop an out of control truck from slipping onto the ice.

Steep access route with winter ice danger

Training: Wildlife Area Assistant Manager Palmer attended the two-day Washington State University (WSU) Pesticide Education Training in Spokane Valley this week to acquire pesticide recertification credits for maintenance of his pesticide applicator license.

District Team Meeting: Water Access Manager Daniel Dziekan, Wildlife Area Assistant Manager Mike Finch, and Wildlife Area Manager Juli Anderson attended the quarterly District 2 team meeting in Spokane this week. Jason Lowe, a biologist with the U.S. Bureau of Land Management (BLM), also joined the group to discuss planned power line burial at Swanson Lakes Wildlife Area, slated for this coming summer. BLM is covering the cost of half the work and the electric company will pick up the rest. The district team was receptive to the plan.

Other

Infrastructure maintenance: Wildlife Area Assistant Manager Mike Finch and Wildlife Area Manager Juli Anderson repaired a shop roof at Swanson Lakes Wildlife Area on Tuesday, after high winds pulled a metal strip up and away from the underlying truss. The strip was screwed back down securely.

REGION 2 HIGHLIGHTS

HERE'S WHAT WE'VE BEEN UP TO:

Managing Wildlife Populations

Pygmy Rabbit Safe Harbor Program: Private Lands Biologist Hughes provided information to a landowner regarding our Safe Harbor program for the endangered pygmy rabbit. After talking to Hughes and neighbors in the area who are enrolled in the program, the landowner wants to enroll his ground in the program. Hughes spoke to District Biologist Comstock to get details on the steps that need to be taken to develop a Safe Harbor Agreement from scratch. Hughes plans to meet with the landowner in person to go over what land he has and what a Safe Harbor plan looks like. One of the landowner's parcels was enrolled and was marked as a priority to survey this winter by the pygmy team. The team decided to hold off on surveying due to the landowner not having a safe harbor agreement. Now that the landowner wants an agreement, the priority area will get to be surveyed for pygmy rabbits in the near future.

Pygmy Rabbit Burrow Surveys: Coordinator Gallie, Biologist Zinke, and Technician Bell began wrapping up the survey effort for the year by completing missed transects and revisiting "non-burrow" detections. With most of the surveys this year conducted without snow, many times pygmy rabbit sign was detected but a burrow could not be found. We revisited over 50 of these sites to locate and map the burrow site. We visited nearly all of these and were successful in finding burrows at most of these sites.

The recent snowstorms dropped between one to two feet of fresh snow followed by severe snow drifting, making all pygmy rabbit sites inaccessible by truck. With a little assistance from the access team, we were able to get our snowmobiles running. We will utilize them for the remainder of site checks next week.

A wild pygmy rabbit sits at a burrow site in Douglas County – Photo by J.Gallie

Okanogan Wolf Management – Beaver Creek Pack: Biologist Heinlen helped Biologists Maletzke and Spence conduct a snowmobile survey of the Beaver Creek wolf pack to try to determine a minimum number of animals. Based on tracks found during the survey, there are a minimum of four animals in this pack. They also found elk, moose, deer, cougar, bobcat, coyote, weasel, snowshoe hare, and red squirrel tracks. Biologist Heinlen also checked remote cameras in the area, capturing photos of two (or three) wolves from the Beaver Creek pack.

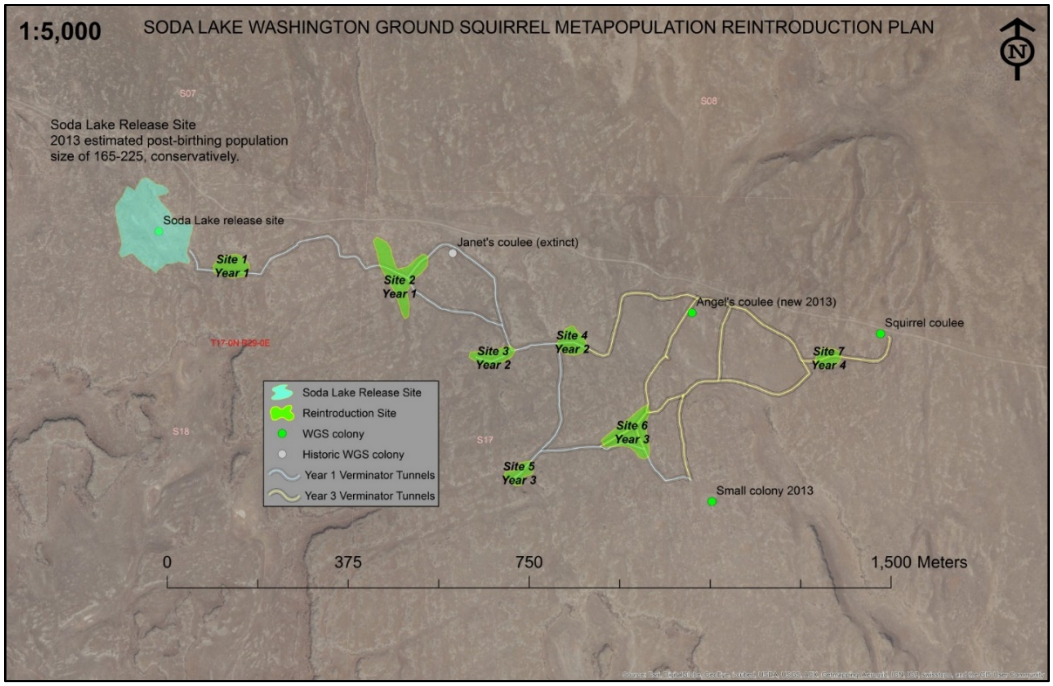
Two wolves from the Beaver Creek Pack – WDFW remote camera

Scotch Creek Wildlife Area Sharp-tailed Grouse Winter Counts: Columbian sharp-tailed grouse were listed as endangered in the state of Washington in 2018. Only seven small populations persist in the state, with one of those at the Scotch Creek Wildlife Area in Okanogan County. In the winter, when the snow covers their preferred shrubsteppe habitat they descend to healthy riparian habitats to feed on water birch catkins and buds as well as other deciduous trees and shrubs. This winter started out slow, with very little snow cover in January and only a few visits by a few sharp-tails. Since the beginning of February however, periodic snowfalls and increasing depth of snow in the uplands have brought the birds into their winter habitats along Scotch Creek. Counts have been steadily increasing this month with the high count observed this week. Wildlife Area Manager Olson watched a large flock in the riparian areas around the Scotch Creek headquarters, and recorded 51 birds when they flushed. The highest count of wintering birds on this unit since acquisition.

Sharp-tailed grouse in flight at Scotch Creek - Photo by Jim Olson

Sharp-tailed grouse feeding in water birch along Scotch Creek - Photo: Jim Olson

Washington Ground Squirrel Translocation Project: Biologist Dougherty submitted a project proposal that seeks funding to conduct a Cultural Resource Assessment, purchase native grass and forb seed to enhance habitat, and as well as purchase materials to construct enclosures to house translocated Washington ground squirrels (Urocitellus washingtoni). The selected translocation site is near Soda Lake in the Seep Lakes Unit of the Columbia Basin Wildlife Area. The site is owned by Bureau of Reclamation (BOR) and managed by WDFW. In 2011, in cooperation and coordination with BOR, WDFW reintroduced Washington ground squirrels and established a small population, estimated to be around 200 individuals, post-breeding season. Because of the success of other recent reintroductions (2014 & 2018) on the Columbia National Wildlife Refuge, WDFW would like to increase efforts and establish additional populations in suitable areas. Viability of meta-populations are dependent upon the ability of individuals (particularly juvenile males) to successfully disperse to nearby colonies. If adjacent colonies are dispersed too widely, probability of survival for dispersing individuals is low and small outlying populations can end up having few males. Establishing additional meta-populations, to act as dispersal stepping-stones, will contribute to the overall health of these small populations by increasing survival and genetic variability.



Predator-Prey Research Project: Project PhD student Satterfield and crew retrieved the remote cameras from two radio-collared mule deer mortalities previously investigated by Biologists Fitkin and Heinlen. As expected, a bobcat was the first carnivore to appear on the mortality deemed a bobcat kill. Eagles largely cleaned up the second mortality from unknown causes. In addition to the mortality camera photos, the University of Washington crew shared photos from cameras deployed opportunistically to monitor current study animals. Like usual a variety of scavengers showed up to claim a share of the food. This project seeks to investigate the interactions between large carnivores (cougars and wolves), and the interactions between these same carnivores and their prey.

Mule deer carcass visitors from top: Bobcat, bald eagles, golden eagles, and a cougar family

Meso-Carnivore Research Project: Biologist Fitkin assisted Technicians Vanbianchi and Machowitz with the project's first capture of female bobcat. This project complements the project mentioned above and seeks to investigate the interactions of meso-carnivores (bobcats and coyotes) with larger carnivores.

From top: Capture crew getting ready to radio-collar an anesthetized bobcat, new study animal leaving the scene after drug reversal

Chelan Butte Bighorn Sheep Capture: Biologist Comstock spent the majority of the last two weeks preparing to capture bighorn sheep at the Chelan Butte Wildlife Area. Biologist Comstock purchased supplies and coordinated logistics amongst WDFW staff members, volunteers, and personnel from Utah Division of Wildlife Resources who hope to receive sheep from this capture effort for translocation. On Feb. 7, a small army of WDFW employees coalesced to complete the last minute building needs on the sheep trap. Assistant District Biologist Will Moore from Ellensburg came up to assist with setting up the trigger mechanism and testing the trap. Biologist Moore and Biologist Bernatowicz have provided invaluable technical expertise. Pete Lopushinsky and John Hagen completed welding and building the swing doors. Fidel Rios built one more chute door for the trap and Joe Bridges, Brad Zebreznik, and Cori Michel assisted with completing trap construction and feeding sheep. Wildlife Area Manager Fox did a bang up job of attaching color tags to the telemetry collars. All of this hard work culminated in the sheep capture being postponed from Feb. 12 to Feb. 21 due to the constant snowstorms. Many thanks to Natural Resource Worker Rios and Wildlife Area Manager Peterson for plowing the access road to the trap site. Stay tuned for more updates in the next edition of the bi-monthly report.

Feb. 7: WDFW staff members help put the finishing touches on the Chelan Butte sheep trap

Feb. 15: Bighorn sheep waiting for their feed outside the trap. Notice the difference in the snow pack from Feb. 7

Mount Hull Bighorn Sheep Survey: Biologist Heinlen conducted an initial ground survey of the Mount Hull bighorn sheep herd finding 41 sheep (32 ewes, 6 lambs, and 3 rams) out of an estimated herd of 100 animals. Additional surveys will be conducted at the end of winter when sheep begin to congregate on early spring green-up.

In addition, Biologist Heinlen responded to two reports of dead bighorn sheep on Highway 97. One animal was an adult ram, the skull and horns of which were salvaged and will later be auctioned to help support the maintenance of the bighorn sheep fence on Highway 97 in the Swakane herd area north of Wenatchee.

A group of Mount Hull bighorn sheep, ewes, and lambs – Photo by J. Heinlen

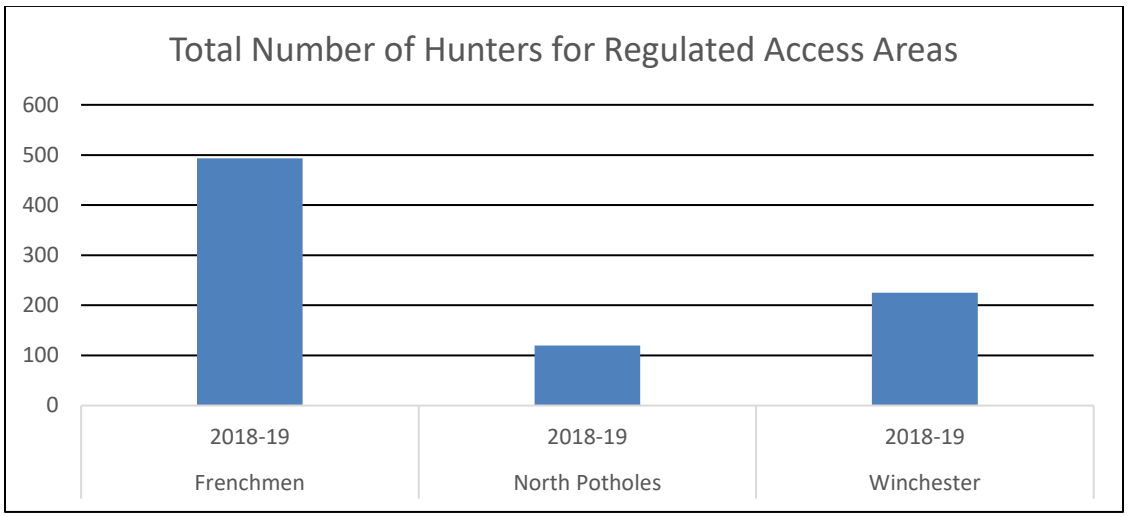
Sinlahekin Winter Bird Feeders: Maintenance Mechanic Boulger fabricated and constructed three new bird feeders that will be replacing three feeders on the Sinlahekin Unit. The new feeders are constructed out of steel to help minimize the amount of maintenance that is required to keep them functional and to reduce the risk of replacement during a potential wildfire. The bird feeders are part of a winter feeding program on the Sinlahekin. We fill the feeders during the fall with seed that is acquired from a local wheat farmer in the Okanogan Highlands. There are approximately 20 feeders throughout the Sinlahekin Unit and it takes approximately 5,000 pounds of seed to fill the feeders. The feeders are a common hot spot for bird hunters during the late season.

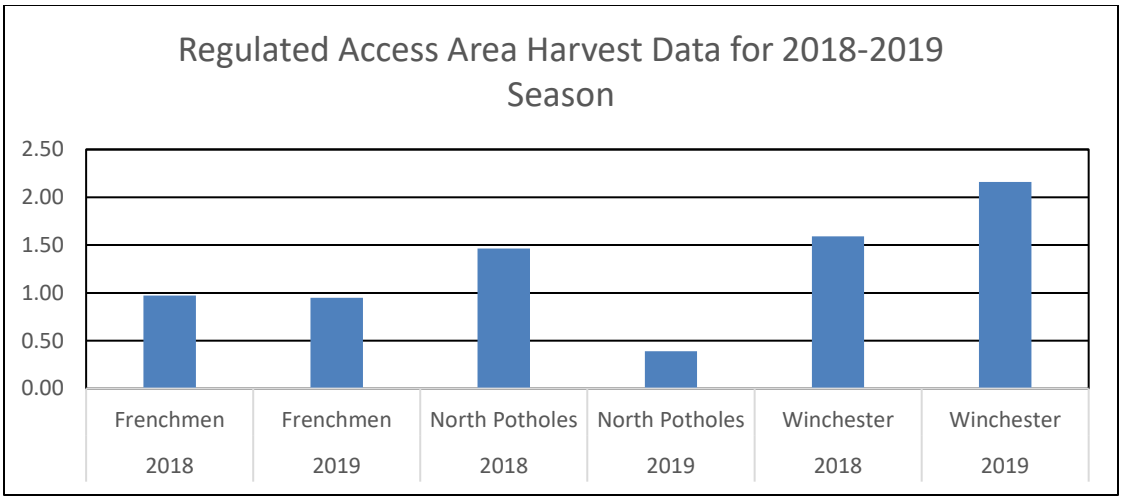
Completed feeder structure – Photo by Nathan Wehmeyer

Providing Recreation Opportunities

Corn Stubble Program: Private Lands Biologist Walker processed corn stubble harvest and hunter satisfaction data and began writing the annual corn stubble program report. Waterfowl harvest through the corn stubble program was down this year in comparison with previous years with fewer than 50 birds harvested. This may, in part, be due to fewer corn stubble sites (only four this year compared to around 10 in previous years) and thus fewer hunting opportunities. Biologist Walker also prepared paperwork required for getting producers paid for their enrollment in the program. Biologist Walker reached out to several WDFW staff members to inquire about ways to improve the reports presentation of information and utility. Biologist Walker also committed, after speaking with Waterfowl Section Manager Spragens, to giving a brief presentation and answering questions at the upcoming Waterfowl Advisory Group.

Columbia Basin Regulated Hunting Access Areas: Specialist McPherson finished entering harvest and hunter data from all three regulated access areas in the Columbia Basin Wildlife Area. All evidence continues to suggest it was a difficult season in the northern part of the Columbia Plateau, but efforts at improving reliability in the Winchester Regulated Access Area have paid off. We are excited to expand on these efforts by improving water movement between the ponds for the 2019 season.





Columbia Basin Hatchery Youth Fishing Access Site: Water Access Manager Harmon, Natural Resource Technician Steele, and Lands Operations Manager Finger visited with Fish Hatchery Complex Manager Lyons and Columbia Basin Fish Hatchery staff members to discuss the Water Access Section taking on management of the area. Conveniently, the Water Access Section has been working though a statewide process of cleaning up Water Access Site designations. This particular site is a good fit for the designation of a water access site because it has a facility for Americans with Disabilities Act (ADA) and youth fishing access and is a high use area. The group negotiated expectations and responsibilities and agreed that this would be a team approach. Also discussed was the potential for a future Recreation and Conservation Office (RCO) grant proposal for enhancements that could include excavation to develop deep water holes and side pockets, altering side slopes to prevent erosion and improve accessibility, removing defunct raceways for safety, and developing a fish cleaning station. Efforts will begin to secure a trail counter and collect photos of use to support an RCO proposal for the 2021-23 biennium. Water Access personnel look forward to taking this site under their wing and pursuing improvements in the future.

This site is open from April through September and provides a unique opportunity for youth and anglers with disabilities to participate in fishing just outside of the City of Moses Lake. The site is regularly stocked to ensure high success rates and get kids hooked on fishing. Recent changes to the fishing pamphlet have reduced the limit from three fish per day to two fish per day in an effort at rule simplification and consistency with other similar sites.

Fishing area at low water. Boards are installed to develop fishing ponds.

Providing Conflict Prevention and Education

Okanogan Highlands Elk Issue: Specialist Heilhecker worked with WDFW staff members to mitigate elk damage to haystacks in the Okanogan Highlands. For the past couple of years, her conversations with landowners have emphasized fencing or tarping haystacks. She reminds landowners that elk will return as long as they have access to a food source. However, landowners continued to get frustrated when hazing does not deter elk. Since landowners focus on hazing, Specialist Heilhecker talked with Hunter Education and Volunteer Coordinator Dazey regarding service opportunities for master hunters to haze elk at night, even though it would be a temporary solution. Coordinator Dazey sent an email to the only two master hunters in the area. One has reached out to Specialist Heilhecker. She also issued kill permits to landowners with signed damage prevention cooperative agreements. Meanwhile, WDFW Enforcement officers talked to landowners who expressed interest in killing the herd and letting them lay. Regional Director Brown coordinated with Colville Confederated Tribe personnel to assist with harvesting elk, which will provide food to their members for ceremonial purposes. Specialist Heilhecker and Okanogan Lands Manger Haug also discussed future funding opportunities for fencing thru a federal grant. The Okanogan Conservation District and a nonprofit group would apply for the grant with WDFW support.

Conserving Natural Landscapes

Douglas County Fence Marking – Sharp-tail and Sage Grouse: Private Lands Biologists Braaten and Hughes scouted areas in the field that still need fences marked near sharp-tail and sage grouse leks. Fence markers provide heightened visibility of barbwire fence that help grouse avoid collisions.

Braaten continues checking on fences near leks in Douglas County to identify critical fences near leks. Biologist Braaten is working with private landowners to gain permission and access to mark fences prior to active lekking this spring. Private Lands Biologists Braaten and Hughes checked on several fences to determine any access issues. Snow depth may delay getting to some areas.

State Acres for Wildlife (CRP-SAFE): Private Lands Biologist Walker continued working on developing new, precipitation and soil type specific CRP-SAFE forb and grass seed mixes. Biologist Walker's goal is to create species mixtures that will perform best in specific precipitation zones (5"- 7", 7"- 9", 9"- 11", 11"- 13", and 13"- 15") and soil types (gravelly/sandy, silt/sand loam, clay/clay loam; loam; wetland; and alkaline). Several of these mix combinations will contain significant if not complete overlap which will likely result in around 10 seed mixes. Biologist Walker hopes to experiment with some of these mixes by planting them this fall in experimental plots.

Determining Whitetop Infestations on the Methow Wildlife Area using ArcGIS Analysis: Assistant Manager Brasier spent time working on his whitetop (*Lepidium draba) aka Hoary Cress* detection model in ArcGIS. Whitetop is a very troublesome invasive weed. Brasier added additional tools to weed out smaller polygons, which mostly represent noise in the image. The remaining polygons are then simplified and aggregated to create an output that has a manageable number of features (e.g. 750 polygon instead of 175,000). In addition to making the map easier to read, reducing the amount of data being processed is necessary to prevent the software from crashing when the tool is run. Brasier also worked on properly organizing the file directories, which his GIS files are stored. Many needed to be moved from the server storage to the hard drive of the remote desktop, which improves system performance. The rest simply needed to be grouped into files to make it easier to navigate the directories.

Providing Education and Outreach

Douglas County Grouse Presentation: Private Lands Biologist Braaten gave a PowerPoint presentation to the Grand Coulee Chamber of Commerce regarding Private Lands outreach involving Farm Bill programs and grouse conservation projects.

Conducting Business Operations and Policy

Keeping the Regional Office Open During Inclement Weather: Natural Resource Technician Steele and Natural Resource Worker Thompson ensured the regional office was operational and safe for public visitation before business hours begin by plowing snow and laying down large amounts of salt. This is critical to provide public and staff members safe access to our office.

Jake Steele making sure the Ephrata Regional Office is open for business

Other

Inland Northwest Wildlife Council's Ann Faast Award: The Inland Northwest Wildlife Council held their annual appreciation and award banquet in Spokane last Saturday. Conflict Specialist Joe Bridges received the Ann Faast Memorial Award. This award is presented to a member of the Department of Fish and Wildlife or Fish and/or Wildlife Commission who has accomplished a work effort over and above the normal call of duty in the field of wildlife. This award was established in 1983 in memory of council member, Ann Faast, "a very special person." Ann was a fly-fisher, bird hunter, big game hunter, outdoor photographer, and the first woman president of the council and was a president of the Spokane County Sportsmen's Association. She was well known by and worked closely with the Department of Game and the Game Commission. Ann worked at the political level and wildlife habitat projects as a liaison in the acquisition of habitat acreage as well. Ann passed away of cancer in 1983 at the age of 43. Regional Director Brown presented the award to Joe and did an outstanding job explaining why Joe was being acknowledged.

Alex Bell's Bug Blog: Nearly every lowland stream, pond, or marginal area of a lake is home to at least one species of dragonfly. These the adults of these large and captivating insects are often brilliantly colored and their complex flight capabilities rank them as one of the most powerful and agile of all flying insect families. However, all members of Odonata (the taxonomic group containing both damselflies and dragonflies) have an aquatic (or semi-aquatic) nymphal stage prior to the colorful and easily recognized adult form. The nymph pictured is in the genus *Anax*, which is in the family Aeshnidae. Members of this family are commonly known as Darners (named for the needle-like anatomical bit used by females to insert eggs into aquatic vegetation). There are about 39 species in this family, with four species in the genus *Anax*, and they are widespread throughout North America.

Most aeshnids larvae primarily hunt prey by slowly prowling in submerged vegetation and debris. Like other odonates, aeshnids possess long lower jaws that can be rapidly ejected to capture and consume their prey. Next time you have a moment, look up footage of dragonfly nymphs hunting. Words cannot accurately describe the otherworldly speed and ferocity of the process to the uninitiated. Because of their large size, aeshnids are able to capture many of their aquatic invertebrate peers, as well as some species of small fish or amphibians. Indeed, the chemical cues released by larval dragonflies can significantly alter the behavior, life history (i.e. development and reproduction), and morphology of many tadpoles. Because of this, and the fact that they are relatively easy to rear in laboratory conditions, dragonfly larvae are commonly used in lab experiments, investigating predator-prey interactions, toxicology, and more.

Scotch Creek New Equipment Storage Shed: Bosco Construction out of Spokane won the bid for constructing the equipment shed on Scotch Creek. This replica is identical to the building lost in the Okanogan complex fire in 2015. Thanks to Federal Emergency Management Agency (FEMA) funding, we were able to replace this loss with a new building. FEMA also allowed us to move the shed from the remote fire prone area where it burned, to the Scotch Creek complex headquarters, where we can concentrate equipment in one location. Bosco Construction did an outstanding job, and worked through some of the harshest weather of this winter. Wind chills to negative 20 degrees and blowing snow made working conditions treacherous, and construction equipment difficult to start or keep running. No snow day for these folks, they worked through it all and completed the structure on Feb. 8.

Equipment storage building destroyed in the Okanogan complex fire 2015 - Photo by Jim Olson

New equipment storage building completed at Scotch Creek headquarters - Photo by Jim Olson

Swakane Canyon Shooting Range Grant: Manager Fox put the final changes on a grant presentation and was made final preparations for the Feb. 13 presentation in Olympia. However, it did not come to pass due to inclement weather closures and cancelations. Presentations will be rescheduled in March or April. Chelan Wildlife Area Manager Fox has put a significant amount of work into planning and grant writing to create a safe shooting range in the Swakane Canyon to provide a safe and comfortable place for people to shoot.

REGION 3 HIGHLIGHTS

HERE'S WHAT WE'VE BEEN UP TO:

Managing Wildlife Populations

L.T. Murray Wildlife Area Manager Babik assisted District 8 Wildlife Biologist Moore with elk counts at Joe Watt and Robinson elk winter feed sites. Elk numbers at Watt were 656, and Robinson had 592 elk. Bull to cow ratios on the feed sites were at objective but calf numbers were very low.

District 4 Wildlife Biologist Fidorra coordinated the biennial pronghorn survey and worked with Yakama Tribe and Safari Club International partners to complete the flight survey over two days. Despite cold temperatures delaying the plane from starting and snow conditions impacting ground crews and making spotting animals surprisingly difficult, 246 pronghorn were counted from the plane with another 13 located only by ground crews. This is the largest count since the Yakama Nation began introductions in 2011, and most animals were on the reservation.

Sun and snow during the pronghorn flight survey in Benton County

Snow conditions made pronghorn detection very difficult: around20 pronghorn running across this photo

District 4 Wildlife Biologist Fidorra reached out to local nature enthusiasts through the Tri-cities Birders Facebook group to find volunteers willing to sew bird bags for burrowing owl banding. Two willing volunteers came forward and Fidorra picked up 10 bags to use this spring.

District 4 Wildlife Biologist Fidorra worked with volunteers who are signed up for the short-eared owl surveys. Surveys will start in mid-February. Fidorra is covering, organizing, and assisting volunteers with questions while Olympia personnel are on leave. This is the second year of the survey and all but two of the 40 sites in Washington have been signed up for by volunteers thus far.

District 4 Wildlife Biologist Fidorra coordinated with United States Fish and Wildlife Service (USFWS) personnel at McNary who requested his assistance for a bird banding demonstration at the refuge for their Winter Birds Festival. Fidorra will assist with public mist-netting and banding demonstrations during the Feb. 23 event.
District 4 Wildlife Biologist Fidorra coordinated with Biologist Tobin on dates for the white-nosed syndrome sampling of bats at Hanford. Fidorra will coordinate with Department of Defense (DOD) and contractors to coordinate the April event.

Yakima Canyon Bighorn Sheep Project: District 8 Wildlife Biologist Bernatowicz checked both bait piles after the first snow and found all bait had been consumed. The cameras are not functioning consistently, but the few pictures indicate deer and not sheep use. Snowdrifts eliminated truck access to one site after a weekend with 50 mph winds.

Elk Surveys: District 8 Wildlife Biologist Bernatowicz helped survey the Mellote, elk off the sheep company road, and compiled surveys from other feed sites in preparation for aerial surveys (delayed due to weather). All indications are that the calf ratio will be very low this year. Currently (n=5300), the ratio is 26 calves per 100 cows. Prior to 2017, the ratio averaged 37 and never went below 30/100. The last three years, the ratio has not exceed 30/100. Arial surveys still need to be flown, but it is unlikely the ratio will change significantly given the large sample to date. Low recruitment will mean reduced opportunity for hunters.

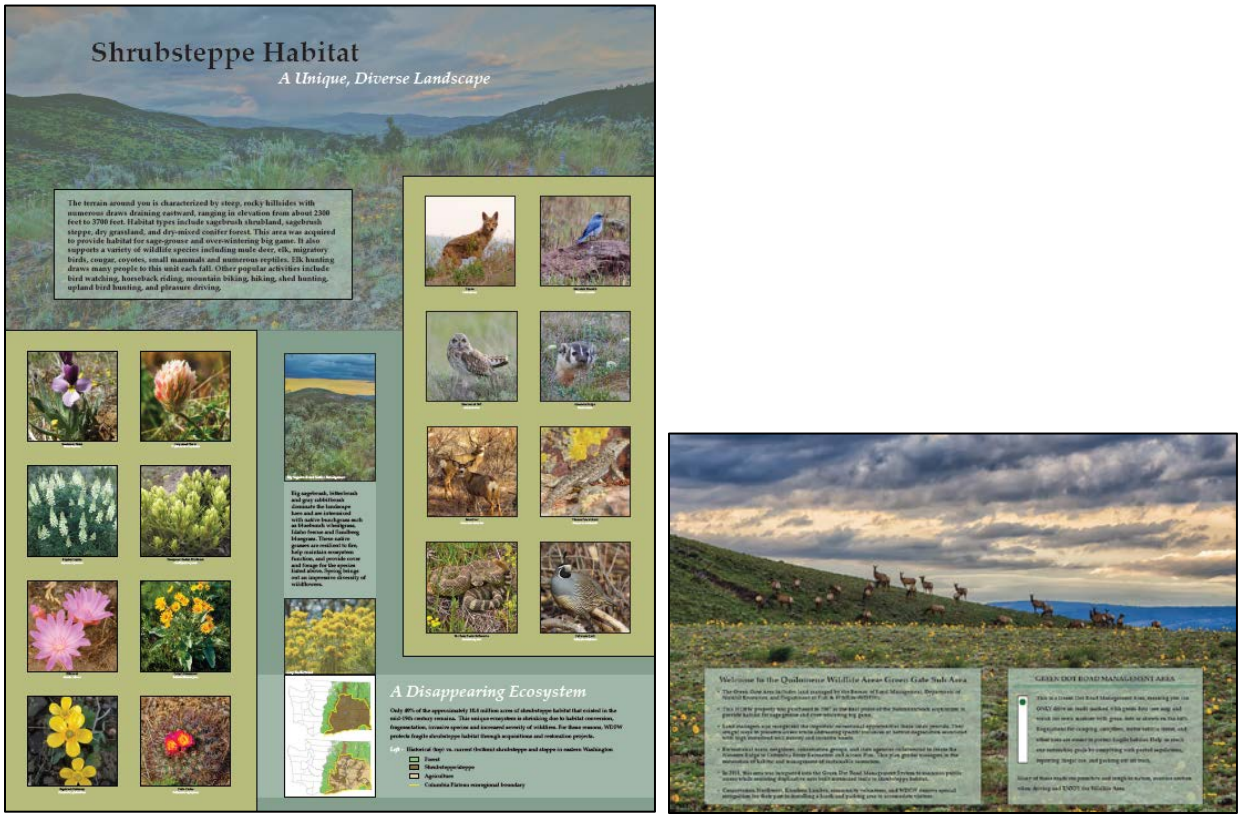
Bighorn Sheep Trapping: District 8 Wildlife Biologists Bernatowicz and Moore have been helping Region 2 with finishing their trap for a trapping event at Chelan Butte. Weather delayed trapping, as roads were not safe for travel.

Yakima Elk Aerial Survey: District 8 Wildlife Biologist Moore prepared for an aerial survey of the Yakima elk herd, but poor weather conditions have delayed the effort.

Colockum Elk Study: District 8 Wildlife Biologist Moore has entered and formatted all the GPS relocation data collected during the study and is in the process of editing non-relevant GPS locations.

Providing Recreation Opportunities

L.T. Murray Wildlife Area Manager Babik sent final revisions to the graphic designer for the Green Gate interpretive panels. A huge thank you to Conservation Northwest for funding the design and construction of these signs.

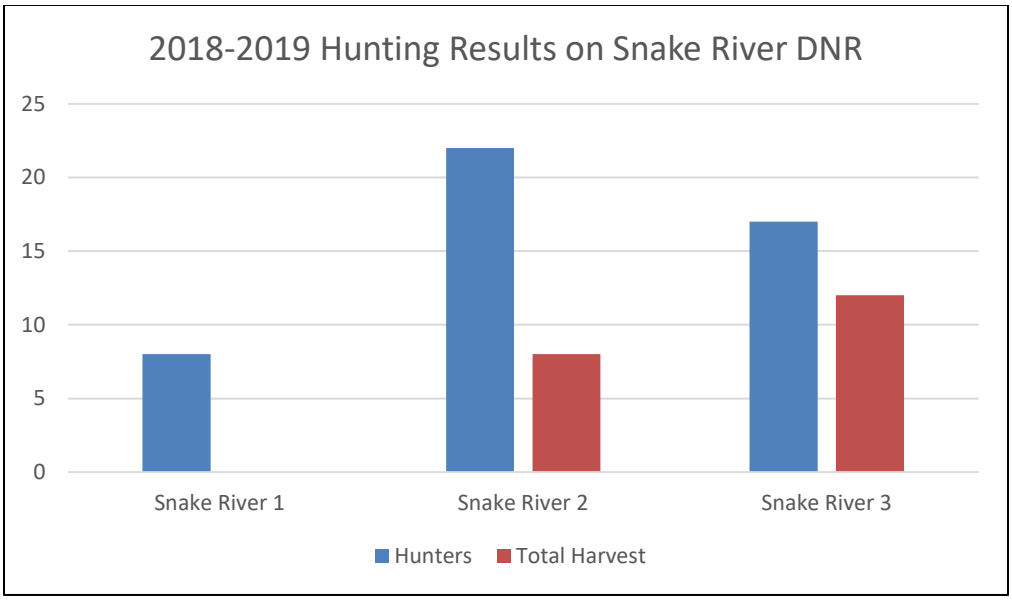


Interpretive signs to be installed at Green Gate in the Quilomene Wildlife Area

District 4 Wildlife Biologist Fidorra compiled data from pheasant release sites in Benton and Franklin counties. Over 1200 registration cards were collected and reviewed. Hunter success was 30 to 40 percent at sites. Fidorra will be summarizing this first year of registration and harvest records from the District 4 pheasant release program to plan for next season and sharing this info with U.S. Army Corps of Engineers (USACE) who owns three of the release sites.

Private Lands Biologist Hulett assisted three hunters interested in gaining hunting access on areas enrolled in the Hunt by Written Permission program. Hulett informed the hunters that the area they were interested in had been hunted hard the last few weeks and suggested a few other areas that could be more successful.

Private Lands Biologist Hulett organized and reviewed hunting data from the Department of Natural Resources (DNR) Hunt by Reservation fields along the Snake River. Results were sent to DNR for their records. The data show that success was greater in the fields closer to the Snake River.



Providing Conflict Prevention and Education

District 4 Wildlife Conflict Specialist Hand patrolled winter wheat fields on Rattlesnake Mountain for elk activity. Multiple landowner contacts were made to coordinate damage prevention permit late season hunts and hazing efforts. The majority of elk observations continue to come from the Hanford side of Rattlesnake Ridge.

Wildlife Conflict Specialist Hand reviewed questions that were developed to conduct a public survey of the Landowner Hunting Permit (LHP) program.

Wildlife Conflict Specialist Hand followed up and coordinated master hunter deer hunts occurring on winter wheat crops in the Kahlotus area.

Wildlife Conflict Specialist Hand continued to work on updating Damage Prevention Cooperative Agreements that need to amended or renewed.

District 8 Wildlife Conflict personnel continued to monitor for elk in the Thorp area several days this week. Visibility has been poor, but several sets of elk tracks were noted in the area. One elk

was located in a problem area and hazed out. Road access to some areas has become precluded by snow, so patrols on the tracked quad have increased.

District 8 Conflict Technician Leuck and Conflict Specialist Wetzel herded elk in the High Ranches area several days this week. Elk gates and return gates were used to move elk to the correct side of the elk fence. Currently about 60 elk are still out, and about 15 elk were returned this week. The WCC crew helped herd elk one day last week and having more herders helps.

Elk had damaged the elk fence in the Heart K area and the Washington Conservation Corps (WCC) crew repaired the area this week. Thanks to the quick work by the crew.

Damaged portion of Heart K fence

Elk along the Heart K fence

A landowner in the Tampico area called to report elk continuing to access his haystack and feeding area. Heavy tarps were delivered to his location to protect hay stores.

Tampico location where elk have been eating hay stores

District 8 Wildlife Conflict Specialist Wetzel dealt with an elk in the Wenas Valley this week. Wenas staff members and volunteers helped get the elk back into the safe area.

An elk herding gate was left open by a recreationist, and over 100 elk entered the Wenas Valley. Several farmers with haystacks called to complain about elk. Conflict Specialist Wetzel spent a day trying to get elk back into the wildlife area, but deep snowdrifts and steep terrain will create significant difficulties trying to get elk back to the other side of the fence. A few more days will be needed to try to get elk back through the fence.

Elk herd moving away from open herding gates

Conserving Natural Landscapes

Nothing for this reporting period.

Providing Education and Outreach

L.T. Murray Assistant Manager Winegeart met a group of Boy Scouts from Republic for their third season with assisting the elk-feeding program at Joe Watt and Robinson. Winegeart gave a talk covering the feeding program, the elk, and the wildlife area.

Boy Scouts from Republic looking at hides and antlers at the Joe Watt barn

L.T. Murray Manager Babik gave the Ellensburg Advanced Placement (AP) Environmental Science class a tour of the elk feeding program and showed them some interesting pelts.

Ellensburg AP Environmental Class touring the elk feeding program at Joe Watt

Conducting Business Operations and Policy

Nothing for this reporting period.

Other

Nothing for this reporting period.

REGION 4 HIGHLIGHTS

HERE'S WHAT WE'VE BEEN UP TO:

Managing Wildlife Populations

Puget Sound Assessment and Monitoring Program (PSAMP) Surveys: The PSAMP survey team, comprised of Specialist Evenson and Biologists Murphie, Hamer, and Moore, continued extensive aerial surveys of Puget Sound and Salish Sea avian and marine mammal populations. Areas surveyed during early February include the Strait of Georgia, the San Juan Islands, the eastern Strait of Juan de Fuca, and southern Puget Sound. The survey is conducted from a deHavilland Beaver flown at an altitude of 200 feet. During the survey, Specialist Evenson coordinates routes, aids navigation, and documents environmental conditions. Biologists Murphie, Hamer, and Moore serve as observers. Using a voice recorder the biologist observers dictate all avian and marine mammal observations (species and count) that occur within their fixed-width transect. The extensive survey is almost complete with just a few transects remaining in the San Juan Islands.

"Maggie" – The primary deHavilland Beaver flown during PSAMP surveys

Fisher Reintroduction: District Biologists Milner, Hamer, Moore, and Waddell attended a release of six wild fishers into the North Cascades. Other department staff members, project partners, and members of the public were there to witness the exciting event. Fishers are members of the weasel family and were once abundant in Washington. Because of their valuable fur, fishers experienced heavy, unregulated trapping pressure into the early twentieth century and have been absent in the Cascade Mountain range for more than 70 years. The Washington Department of Fish and Wildlife is working with the National Park Service (NPS), Conservation Northwest (CNW), and other key partners to reestablish a self-sustaining population of fishers to the species' historical range. To date, 24 fishers (13 females and 11 males) have been released at two different locations in the North Cascades.

A young boy blows in the transport box to encourage a reluctant fisher to exit - Photo by Robert Waddell

District Biologist Milner watches as a fisher leaves the transport box - Photo by Robert Waddell

East/West Bear Project: District 12 assisted Bear and Cougar Specialist Beausoleil and Assistant Bear and Cougar Specialist Welfelt with ongoing bear den work. This portion of the project entails locating dens, placing cameras to document emergence and cub numbers, recollar/adjust collars on adult females, and potentially collar yearling cubs. Work where newborn cubs are known to be present will be limited (camera placement only) to avoid den abandonment.

Bear and Cougar Specialist Beausoleil and Assistant Bear and Cougar Specialist Welfelt attempting to locate a hibernating bear

Pair of yearling bears during the East/West Bear Project

Providing Recreation Opportunities

Extreme Snow Event at Lake Terrell: Whatcom Wildlife Area Manager Kessler and Natural Resource Technician Brad Otto spent two days clearing four foot deep snow drifts from completely blocking Lake Terrell Road. Lake Terrell has been completely frozen for over a week, so the majority of snow that fell on the lake blew off and onto Lake Terrell Road in deep drifts. They used the tractor to pull out two vehicles that became stuck in the snow, and plowed the road out to the main road so people could safely access the wildlife area.

Snowplow at Lake Terrell Wildlife Area

Lake Terrell extreme snow event

Goose Management Area 1 Late Snow Goose Hunt: Private Lands Access Program staff members in Region 4 provided 25 Waterfowl Quality Hunt Program sites in Skagit and Snohomish counties for hunters during the late snow goose hunt. Many hunters have taken advantage of this new opportunity.

Snow Geese circling a field in Skagit County

Crescent Lake Access: Manager Boehm cleared portions of three parking lots to allow public access at the Crescent Lake Wildlife Area. Approximately 18 inches of snow fell during the past week making access nearly impossible. People are starting to venture out and we are open for business.

Providing Conflict Prevention and Education

Elk Conflict Management: Wildlife Conflict Specialist Witman checked several agricultural properties after the recent snowstorms. While checking a newly constructed elk fence on one property, a herd of elk was observed a short distance away.

Elk group observed outside a newly constructed elk fence

Region 4 (District 12) conflict: District 12 staff members met with landowners with concerns of ungulate damage to pasture, vegetable crops, and fencing in the Green Valley and Enumclaw areas. Hunting and fencing options were discussed. Staff members also discussed fencing options with a landowner in North Bend who is considering growing vegetables in an area frequented by large numbers of elk. A meeting to visit the site and discuss concerns and options in more detail will occur in the near future.

Conserving Natural Landscapes

Nothing for this reporting period.

Providing Education and Outreach

Island Marble Butterfly Update: The island marble butterfly is a highly imperiled species that occurs only on San Juan Island. District 13 personnel teamed up with a U.S. Fish and Wildlife Service endangered species biologist to meet with the board of a local homeowners association on the island who are interested in signing up for a Candidate Conservation Agreement with Assurances (CCAA). This is a formal agreement that allows landowners security from take under the Federal Endangered Species Act (ESA) in exchange for implementing conservation actions that will benefit the butterfly. The Island Marble Butterfly will likely be listed in spring of 2019. The board passed a formal resolution to enroll in the CCAA.

The following day, we attended the San Juan County Agricultural Summit. This annual event brings farmers together to discuss a variety of subjects relative to agriculture in the islands. We provided information on the island marble butterfly's basic life history and explained how landowners might consider enrolling the CCAA.

Annual Tennant Lake Swan Watch: Whatcom Wildlife Area Manager Kessler and Swan Technician Daniel Zimmerman attended the annual swan watch that was held by the Friends of Tennant Lake and Hovander Park. In this event, the public is invited to Tennant Lake at dawn to watch native swans take off the lake and head to local farm fields to feed. Unfortunately, due to the extremely high winds, people were not able to climb the viewing tower safely. Technician Zimmerman gave an informational slide show talk on the status of swans in the region.

Conducting Business Operations and Policy

Nothing for this reporting period.

Other

Nothing for this reporting period.

Natural Resource Technician Otto plowing a road at Lake Terrell Wildlife Area in Whatcom County

REGION 5 HIGHLIGHTS

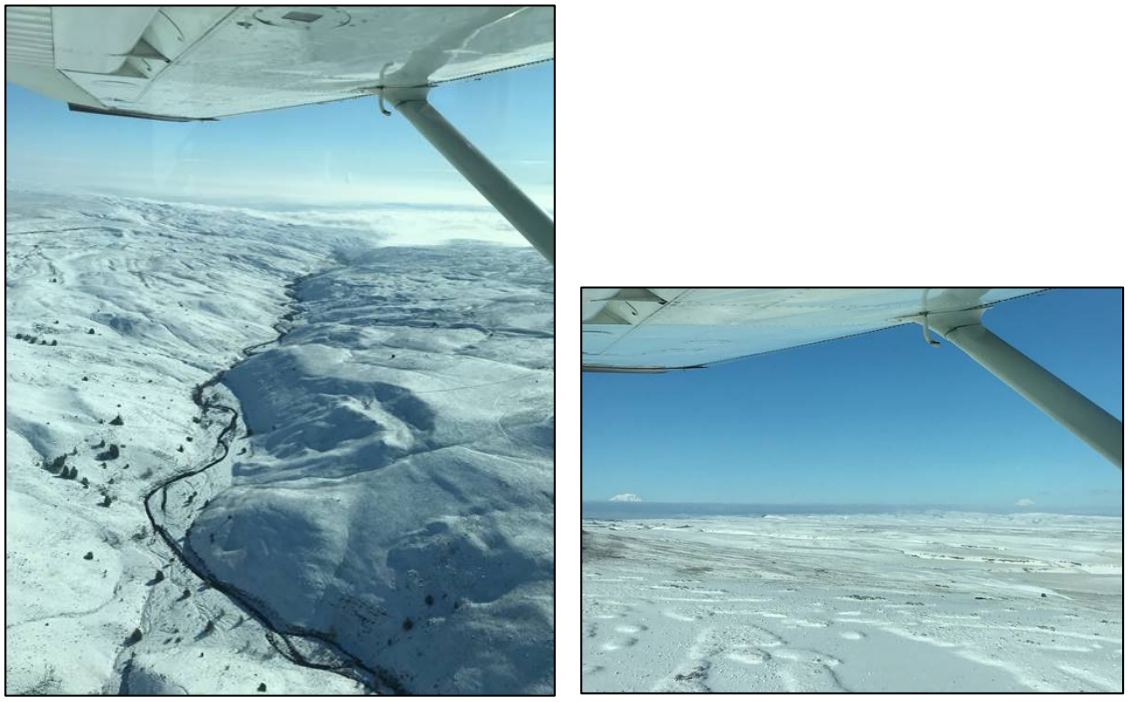
Managing Wildlife Populations

February Mount St. Helens Mudflow Elk Count: Biologist Stephens conducted the monthly winter elk count on the Mudflow Unit of the Mount St. Helens Wildlife Area. One hundred seventeen elk were observed, which included 48 bulls, 53 cows, and 16 calves. Despite the chilly temperatures, three elk were observed leisurely crossing the chest-deep North Fork Toutle River.

Dusky Canada Geese: Biologist Burlingame surveyed areas in Clark, Cowlitz, and Wahkiakum counties for dusky geese. Several flocks of duskies were blown in with the inclement weather, including 14 duskies with red neck collars. Collar re-sights aid in determining survival and distribution of duskies that overwinter in southwest Washington. Large flocks of cackling, taverners, and snow geese were observed as well.

Elk with Hoof Disease: Wildlife Conflict Specialist Jacobsen received a report from a landowner of elk with treponeme-associated hoof disease (TAHD) in his yard in Clark County. The landowner inquired about permits to euthanize the elk, but Jacobsen told him that that was not an option in this situation and explained WDFW's protocol for handling elk with varying degrees of hoof disease and body condition.

Pronghorn Survey: Biologists Wickhem and Bergh participated in one day of aerial survey flights for pronghorn in eastern Klickitat and western Benton counties. Unfortunately, after seven hours of flying, they did not observe any pronghorn. However, they were treated to sunny skies, zero wind, and several deer and coyote sightings. WDFW and Yakama Nation biologists counted approximately 250 pronghorn on the second day of the survey, which covered the Yakama Nation Reservation and central and eastern Benton County. The purpose of the survey was to reassess the status of the population and to provide information that will guide management of pronghorn in the future. In winter, pronghorn tend to congregate in large groups, making them much easier to find and count from the air. Pronghorn are native to Washington, but have been extirpated from the state since the early 1900s. In 2011, the Yakama Nation began a series of reintroductions, capturing pronghorn in Nevada and releasing them on the Yakama Reservation. Yakama Nation Biologists have frequently recorded pronghorn moving off-reservation to the south and east, and have also documented successful reproduction since the initial translocation. In recent years, the Colville Tribe has also translocated pronghorn onto their reservation in Northeastern Washington. Thanks to WDFW Biologist Fidorra for organizing all aspects of the flights, to Inter-State Aviation for smooth and safe flying, to Yakama Nation Biologist Blodgett for providing collar locations and updates on pronghorn movement off-reservation, and to the volunteer ground survey crew for locating some off-reservation pronghorn groups.



Pronghorn survey

Dusky Canada Geese: Biologist Burlingame surveyed areas in Clark, Cowlitz, and Wahkiakum counties for dusky geese. Several flocks of duskies were observed, including four duskies with red neck collars. Collar re-sights aid in determining survival and distribution of duskies that overwinter in southwest Washington. Large flocks of cackling, taverners, and snow geese were observed as well.

Providing Recreation Opportunities

Joint Projects with Vancouver Wildlife League: Wildlife Area Manager Hauswald and Assistant Manager Hawk met with a member of the Vancouver Wildlife League to talk about upcoming projects that the group would like to complete on the Shillapoo Wildlife Area. The project that generated the most discussion was the proposal to create an archery range in the Vancouver Lake Unit. The proposed range would be a 20 by 120 yard fenced area for bow and arrow shooting only. There has been much concern recently with dog owners wanting to protect their pets from running into and stepping on lost arrows. By designating an area for archery shooting and fencing it off from dogs, this will hopefully elevate pet owner's fears. Funding for supplies and construction would be completely donated by the Vancouver Wildlife League. Other projects discussed included blackberry control, hunting blind replacement, and new signage in the Vancouver Lake Unit.

Southwest Washington Goose Management Area 2-Inland: Biologist Burlingame was out checking late season goose hunters in order to collect bag composition data and check for any unlawfully harvested duskies.

Southwest Washington Goose Management Area 2-Inland: The goose season in GMA 2-Inland opened on Saturday, Feb. 9. Biologist Burlingame was unable to check hunters on Saturday due to the snowy weather conditions, but checked eight cacklers harvested on private land on Sunday, Feb. 10. The late goose-hunting season is open Saturdays, Sundays, and Wednesdays until March 9, during which WDFW wildlife areas and national wildlife refuges are closed to goose hunting.

One private land hunter called in to report hunting activity on Shillapoo Wildlife Area, which is currently closed to goose hunting. The report was forwarded to Officer Moats of Enforcement who was able to contact and cite the unlawful hunters.The late goose-hunting season is open Saturday, Sunday, and Wednesday until March 9th, during which WDFW Wildlife Areas and National Wildlife Refuges are closed to goose hunting.

Turkey Hunting: Wildlife Conflict Specialist/Private Lands Biologist Jacobsen provided advice to a turkey hunter who wanted to take his son out for turkeys during the spring season. Information was provided about properties enrolled in the Private Lands Access Program with turkey hunting opportunities.

Providing Conflict Prevention and Education

Coyote Depredations: Wildlife Conflict Specialist Jacobsen continued to work with a livestock producer who has been losing calves to coyotes nightly in his calving pasture. The producer has removed several coyotes, but the depredations continue. Advice was given regarding husbandry, and fuse ropes were deployed to help deter the coyotes. The inflatable air dancer/strobe light elk deterrent that Jacobsen recently constructed was also deployed to help deter coyotes. Jacobsen will continue to work with this producer to reduce coyote predation on calves.

Trapped Deer: Wildlife Conflict Specialist Jacobsen received a call regarding a deer that had been trapped on a porch for an extended period during a snowstorm. At the end of the storm, there was approximately 4 feet of accumulated snow, which prevented the deer from being able to leave the porch. The reporting party dug their way through the snow to rescue the deer, but at that point, the deer had laid down and refused to get up. Jacobsen responded to the scene and was unable to get the deer back on its feet. Unfortunately, the deer had to be euthanized.

Cougar Concerns: Wildlife Conflict Specialist Jacobsen spent a considerable amount of time on the phone with a concerned Clark County resident. The homeowner's horse had been chased through a fence during the day, and the horse received scratches on his face from the fence. The landowner was adamant that a cougar was to blame, and needed to be killed. The landowner believed that no cougars should be allowed to occupy the rural area of the county where she was living. After speaking with the landowner, there was no evidence that this event was caused by a cougar. Advice was given regarding livestock husbandry, though the homeowner was not too interested in applying the advice to her operation. Jacobsen explained to her WDFW procedures regarding cougar conflicts, and informed her of what she could legally do if she or her livestock were threatened by a cougar.

Depredation: Wildlife Conflict Specialist Conklin investigated a report of something that had killed an adult pregnant cow. An investigation of the scene and the cow revealed that it was unlikely killed by a predator however, secondary predation wounds were found on the face of the cow.

Elk: Wildlife Conflict Specialist Conklin deployed a youth hunter to farmland in Wahkiakum County and a disabled hunter to property in the Randle area. Both hunters are hunting elk causing damage on commercial agricultural lands.

Living with Wildlife Presentation: Wildlife Conflict Specialist Jacobsen gave a presentation on Living with Wildlife at the Goldendale Library as part of their Simcoe Mountain Speaker Series. The presentation was well received and well attended with over 50 members of the public in the audience. Topics covered during the presentation included wildlife identification, wildlife damage and damage prevention, and information related to identification and interactions with small mammals, deer and elk, bobcats, cougars, bears, and wolves.

Canine Observation Reports: Wildlife Conflict Specialist Jacobsen received two different reports of large canines being observed in parts of Klickitat County. Jacobsen worked with Officer Nelson to investigate. Coyote tracks were found at the location of one of the reported sightings. A trail camera was deployed at the location of the second reported sighting.

Elk Damage: Wildlife Conflict Specialist Conklin deployed a youth hunter to a farm in Wahkiakum County where he was successful in harvesting an elk.

Successful youth hunter

Conserving Natural Landscapes

Mount St. Helens Wildlife Area Forest Management Site Visit: Mount St. Helens/Shillapoo Wildlife Area Manager Hauswald and Biologist Holman visited the Hoffstadt Unit of the Mount St. Helens Wildlife Area to evaluate forest management activities conducted during the fall of 2018 and check contractor compliance on thinning conducted earlier this year. Several forest management areas within the broader Hoffstadt Unit received forest management. The primary goals of these activities were to thin stands of trees that had complete canopy closure, diversify monospecific stands, plant forage crops and install gates to better manage motorized public access. The forest management activities turned out well and two groups of elk were located feeding and resting in the newly managed forests.

Mount St. Helens Wildlife Area Volunteer Work Parties: Assistant Manager Wildermuth finalized purchasing supplies for upcoming work parties. Volunteers will be joining wildlife area staff members to assist with tree plantings, tree cages, and invasive weed treatment. This is a great opportunity for anyone interested in helping out and learning more about the work we do to protect and enhance habitat. For more information including dates and locations, please visit the WDFW volunteer page at https://wdfw.wa.gov/about/volunteer/. The upcoming Mount St. Helens Wildlife Area opportunities are listed as "ELK HABITAT ENHANCEMENT." The wildlife area staff members would like to thank all the volunteers that have helped in the past!

Shillapoo Wildlife Area Tree Planting: After a week of delay due to freezing temperatures, Wildlife Area Manager Hauswald and Assistant Manager Hawk planted trees this week in the Shillapoo North Unit. The focus of this year's plantings was to complete the Chapman riparian planting and to replant in areas where trees did not survive in past planting efforts. Approximately 3,600 trees and shrubs will be planted in total this year, with most of them requiring weed mats and tree tubes placed around them for protection from rodents and reduced completion from unwanted vegetation. The majority of the trees planted this year were black cottonwood, Oregon ash, and red osier dogwood.

Vancouver Lake Water Control Structure Maintenance: Wildlife Area Manager Hauswald and Assistant Manager Hawk met with biologists and engineers from Ducks Unlimited (DU) to discuss replacing three water control structures in the Vancouver Lake Unit that have begun to leak from the culverts corroding. These structures regulate water levels on over 60 acres of wetlands and help control reed canary grass, while enhancing native vegetation and providing waterfowl hunting opportunities. How to fund the replacement of the structures was discussed along with the general need and priority of each of the structures. DU engineers will provide Hauswald with an estimate for the replacement that can be used for funding proposals.

Soda Springs Unit Patrol: Assistant Manager Steveson checked roads and camping areas on the Soda Spring Unit. He collected trash and dismantled several fire rings that were found outside of designated campgrounds.

Providing Education and Outreach

Portland Sportsman's Show: Biologist Bergh worked the WDFW booth at the Pacific Northwest Sportsman's Show in Portland. The volunteers and staff members working the booth answered a variety of questions about hunting and fishing as well as distributed information on topics ranging from elk hoof disease to white-nose syndrome in bats.

WDFW booth at the Pacific Northwest Sportsman's Show in Portland

Other

Snowmobile Training: Mount St. Helens/Shillapoo Wildlife Area Manager Hauswald and Biologist Holman checked all snowmobile equipment and practiced with the snowmobiles. The pair visited the Mount St. Helens Wildlife Area where several feet of new snow has accumulated in the past couple of weeks. Those interested in increasing or refreshing their knowledge of safe snowmobile operation should visit the following link to on-line training materials: http://www.saferiderssafetyawareness.org/index.html.

Klickitat Wildlife Area Snow: After this week's snow, the Klickitat Wildlife Area should be in better shape as far as summer water supply goes. There are about 17 inches of snow on the ground at the Klickitat Wildlife Area office.

Assistant Manager Steveson cleared the driveway and parking area at the Klickitat Wildlife Area of snow twice this week. He also plowed around the shop building and shoveled snow away from behind a vehicle that needed to be used as well as off the steps and ramp leading to the office door and the ADA parking spot.

Snow Shoveling: Wildlife Conflict Specialist Jacobsen and Biologists Bergh and Wickhem spent a good portion of two days shoveling work vehicles out of the snow. Over the week, roughly 30 inches of snow had accumulated on top of the vehicles. After shoveling them out of the snow, another 4 inches fell the following day, which required additional shovel work!

Reader Board Construction: Assistant Manager Steveson built two more reader boards for the Soda Springs Unit this week. There are now four of them ready to install at key entry points. Steveson also sent a request for maps to be printed and laminated and will be mounted on the reader boards to help visitors orient themselves on the wildlife area. Extra maps will also be made available to the public as handouts.

Reader boards in progress

REGION 6 HIGHLIGHTS

THE SNOW DIDN'T KEEP US FROM:

Managing Wildlife Populations

Bat Surveys and Disease Data Collection, JBLM: Biologists Tirhi and Tobin met with Joint Base Lewis McChord (JBLM) biological personnel to plan bat survey and data collection for white-nose syndrome (WNS) at JBLM colonies for 2019. The group discussed surveys protocols, reviewed colony locations and access and decided which would be surveyed. They discussed personnel needs, equipment loans, and which colonies guano and environmental samples would be collected from for ongoing WNS testing. JBLM has 15 known bat colonies and likely more unknown colonies. JBLM has been an important partner in monitoring bats, in particular with the emergence of WNS. They completed surveys at each of their 15 colony locations in 2018 and collected WNS samples at one. For more on WNS visit https://wdfw.wa.gov/conservation/health/wns/.

Taylor's Checkerspot Reintroduction Planning: To increase our understanding of the historical distribution and topographic setting for Taylor's checkerspot in the Puget lowlands, Biologists Linders and Randolph have been reviewing and mapping historical records. An accurate map of historic sites with place names has not previously been produced, but will aid in selecting new reintroduction sites relative to current and historic occupancy. This work is a first step in evaluating site context, topographic variables, and dispersal potential, factors important to site selection, especially for sites that lack historical records.

Taylor's Checkerspot Captive Rearing: Biologist Linders conferenced with Oregon Zoo and Mission Creek rearing facilities to plan for the upcoming rearing season. Larvae were highly active in mid-January but have gone back to sleep in response to the snow. As in 2018, snow fall and persistent cold temperatures following a warm January, has altered the timing from a very early spring to one with a more average timing. Discussion included the number and distribution of maternal lines for mating, condition of host plants for feeding, procedures for bringing the new greenhouse at Mission Creek online, including environmental monitoring and contingencies, staffing of the new facility and loss of experienced technicians, and integration of new graduate students at Mission Creek, with the potential for some new captive rearing research at the Oregon Zoo.

Western Gray Squirrel Habitat Assessment: Biologist Linders met with headquarters staff members Cotton, Vander Haegen, Keren, Cosentino, and Bell to review the results of a pilot study aimed at verifying the amount of change in western gray squirrel habitat availability between 1993 and 2017. Reviewers were in relatively good agreement on habitat change, but varied more widely on interpretation of tree cover. In addition, reviewers detected change and no change at high rates relative to the Landsat Change Monitoring System (LCMS) annual disturbance layer (1986-2017) at least for the extreme change class (75 to 100 percent removal). Agreement between reviewers on the magnitude of change in other categories was more variable, but in most cases was good enough to suggest the methodology is worth pursuing.

Western Gray Squirrel Pre-season Survey Call: Biologist Linders coordinated a conference call among district biologists and headquarters personnel to discuss potential changes to the hair snag methodology for western gray squirrel occupancy surveys. Topics included definitions and techniques to address censored tubes (i.e., those that are moved, dirty, or otherwise out of commission), habitat definitions and additional data collection, when and how to adjust site placement to insure tubes are in the appropriate habitat, survey timing, and the inclusion of nests as an indicator of occupancy.

Dusky Canada Goose Surveys: Biologists Michaelis, Sundstrom, and Novack continued their bi-monthly surveys for geese in Pacific and Grays Harbor counties. The specific objectives are to track collared dusky geese that were captured during the summer months in Alaska. Overall goose numbers and species are tracked in conjunction with this effort. Goose numbers at the beginning of February were the highest recorded for the season.

1/30/19 **Location**	**Cackler**	# Banded	**Aleutian**	# Banded	**Tav/Lesser**	# Banded	**Dusky**	# Banded	**Western**	# Banded	**Wusky**	# Banded	**GWF**	**Snow**	**Unknown/Other**	**Totals**
Grays Harbor County	188	**0**	0		580	**0**	292	**0**	671		0	**0**	38	15	132	**1,916**
North Pacific County	141	**0**	0		315	**0**	1,157	22	0		0	**0**	0	0	8,300	**9,913**
South Pacific County	739	**0**	0		128	**0**	1,089	22	3	0	14	5	0	0	117	**2,090**
Totals:	**1,068**	**0**	**0**	**0**	**1,023**	**0**	**2,538**	**44**	**674**	**0**	**14**	**5**	**38**	**15**	**8,549**	**13,919**

Table: Goose survey numbers by species and county location. (Jan. 30, 2019)

During the Feb. 14 survey, Biologist Michaelis observed a group of resident dark geese (wusky) near the community of Nahcotta. None of these wuskies were collared though birds marked in Region 5 have been observed at this location in prior years and, five collared Wuskies were observed during the previous survey on Jan. 30.

Providing Recreation Opportunities

South Puget Sound Wildlife Area Sign: Biologist Butler assisted Wildlife Area Manager Lowery with installation of the new South Puget Sound Wildlife Area sign. The previous sign was taken down to be repaired in 2017, but was unfortunately lost in a fire. Biologist Tirhi worked with a volunteer to build this new sign, which now proudly hangs at the entrance of the wildlife area. Biologist Butler will touch up the sign with some more sealant once the weather cooperates.

GMU 654 Deer: Biologist Tirhi had a lengthy discussion with a concerned deer hunter about declining deer populations in this GMU. The hunter requested increasing antler restrictions and potentially closing the GMU to deer harvest for several years until populations rebounded. Tirhi discussed harvest data trends for that GMU for both sexes, hunter success rates and comparisons to west side GMU trends. On behalf of the hunter, Biologist Tirhi drafted an email to both the Region 6 Wildlife Program manager and the deer and elk section manager in headquarters expressing his concern and asking that the potential for a questionnaire be sent to GMU 654 hunters. Tirhi also strongly encouraged the hunter to attend one of the future Wildlife Commission meetings to voice his concerns. https://wdfw.wa.gov/commission/meetings.html.

Goose Hunter Field Checks: Biologists Sundstrom and Michaelis continue to conduct field checks of goose hunters. Michaelis conducted three days of goose hunter contacts and checking of harvested Canada geese. Earlier in the month, weather was mild then, rapidly deteriorated into atypical snow and cold. During the last day of the extended coastal goose season, the hunters Michaelis contacted appeared to have greater success.

Date	***Location /County***	***# of Hunters***	***✓ or phoned in***	***Feb. 2 – Feb. 16 Michaelis: Goose Hunter Checks Goose Species Reported or Recorded***								
				Cackler	**Aleutian**	**Taverner**	**Lesser**	**Dusky**	**Western**	**GWF**	**Snow**	**UK/Other**
2-2	SWPA	1	***PI***						3			
2-3	NPA	5	***PI***			1	1					
2-16	SWPA	5	✓,	7		4						1
2-16	SWPA	2	PI						8			
Totals		13		7		5	1		11			1

Table: District 17 Goose hunter field checks. NPA = N. Willapa Bay, SWPA = Riekkola Willapa NWR, Sandridge Rd., and near the town of Chinook. CPA = Areas south of South Bend to HWY 4 ✓= field checked, PI = Birds phoned in and classed as to what the hunter(s) believed them to be.

Wildlife Program personnel checked two hunters near the Raymond area who each had a limit of birds. Unfortunately, seven of the eight birds were dusky Canada geese for which the season is closed.

Three dusky Canada geese taken out of season near Raymond (Note the dark colored breast)

Providing Conflict Prevention and Education

DPCA/Permits: Natural Resources Technician Tupen delivered damage prevention permits to landowners in the Satsop and Wynoochee Valley areas. Both of these areas have large elk herds causing damage on private lands.

Brady Elk: Natural Resource Technician Tupen hazed a large group of elk near the town of Brady to try to move them further up the valley, using pyrotechnics and running them out of the fields. The elk returned the next day. Biologist Harris deployed two master hunters to harvest for charity from this group. One elk with TAHD was harvested and donated. The group moved up the valley to some other agricultural fields where they have already made themselves unwelcome.

Satsop Elk: It has now been over a week since the Satsop elk crossed the county road. They did try twice. Fortunately, a very dedicated master hunter changed their mind. One elk with TAHD was removed and donated. Master hunters have continued to haze/ herd elk when not able to harvest. One master hunter found where an elk with TAHD had recently lost the hooves on one side.

Recently dropped hooves from an elk with TAHD

East Elma Elk: Natural Resource Technician Tupen and Biologist Harris assisted with processing of two elk that were harvested by a master hunter for donation per Biologist Harris's instructions. This is not an area where normal hunting pressure can be applied. This group has a high percentage of limpers and are in a very difficult area to harvest. Both elk harvested had TAHD and a third limper was harvested a week later. Body condition on all elk was good and they were all donated.

McCleary Elk: Biologist Harris and Natural Resource Technician Tupen spent considerable time trying to locate and assess an elk that had taken up residence on a citizen's deck. The elk was observed, and it was determined that this elk would not survive much longer. They were unable to euthanize it due to the location. Later in the week, Tupen and a master hunter were able to get the elk to a safe location and euthanize it using a bow and arrow. The elk was in very poor condition and determined not to be edible.

Definitely not normal elk behavior

Wildlife Conflict personnel vehicles missing☺ Snow didn't stop them!

Oceans Shores Cougar: Biologist Harris responded to a report of a dead deer that may have been killed by a cougar. The carcass was located in a large natural area within the city. On site observations indicated that the deer was likely killed by a cougar. Due to the carcass being close to a popular trail, it was removed to reduce potential conflict. The Ocean Shores Police Department was notified of findings.

Map showing the location of the deer carcass

Wynoochee Elk (Upper): While driving up the Wynoochee, Biologist Harris noticed that one producer had more elk in his field than cows. He notified the producer who was very surprised. The producer attempted unsuccessfully to get a hold of his damage prevention permit holder and agreed it was time to deploy additional hunters and tell them first come first serve. Natural Resource Technician Tupen deployed a master hunter the next morning, introducing him to the landowners and showing him the property. The master hunter will be coordinating with the landowner to try to harvest an elk off the property this week (or longer if necessary).

McNeil Island Raccoon Conflicts: Conflict Specialist Blankenship has been working with Wildlife Area Manager Lowery to coordinate a site visit to McNeil Island to discuss preventing conflicts with raccoons at the facility on the island. From recent conversations with Department of Social and Health Services (DSHS) and Department of Corrections (DOC), raccoons have been an increasing problem at the facility for staff members and residents. Despite efforts to dissuade them from entering the facility, the raccoons are regularly observed and often nesting in the facilities buildings. Conflict Specialist Blankenship will tour the site and provide information on managing the wildlife conflicts.

Mountain View Dairy Elk Conflict: A PCC Farmland Trust representative contacted Conflict Specialist Blankenship regarding elk conflicts on a 300 acre conserved farmland in Pierce County. This property is unique as it is surrounded by a residential development and within a Pierce County shooting restriction area. The property is also one of PCC Farmland Trust's largest protected farms in Pierce County. The lessee of the property is looking to convert the property from pasturelands and expand his production of crops but the elk use on the site is a concern for him. Conflict Specialist Blankenship will be meeting with this producer in early March to discuss his goals and damage abatement strategies that could be used on the site.

Elk Damage to Hay Bales: Conflict Specialist Blankenship made a site visit to a landowner in the Orting area to discuss damage by elk to hay bales in her barn. Blankenship was able to determine that the culprit of the hay bale theft was a large, lone bull elk. Blankenship and the landowner were able to secure the bales that were left over so that the elk could no longer access them. The landowner has reported that the elk has not been seen since.

Damage Hunts: Conflict Specialist Blankenship received a few phone calls from hunters who harvested antlerless elk on damage prevention permits. The hunters were informing Blankenship of the harvest and asking questions regarding their reporting requirements.

Conserving Natural Landscapes

Scatter Creek Restoration Planning: Biologists Linders, Cook, Lowery and Randolph met to discuss future restoration planning in the wake of Biologist Hays departure from the agency. Hays was the principal coordinator for designing restoration work plans and administering seed purchase contracts for Scatter Creek and West Rocky Prairie. Randolph summarized the past three years' worth of seed purchases to help inform future purchases. Our primary seed supplier, Violet Nursery, plans to discontinue production of species exhibiting a high cost per acre, and instead focus on increasing the quantity of affordably produced species; more expensive species may be contracted out to local farmers.

Providing Education and Outreach

REI Olympia Cougar Presentation: Conflict Specialist Blankenship has been working with Region 6 and Region 5 personnel to coordinate a presentation at the Olympia REI on cougars in Washington. Blankenship is currently coordinating with staff members to make sure they have the time available and will work with REI to set up a date and time to conduct the presentation.

Other

Black Swan: A black swan had been reported in the Tokeland area and was recently confirmed. These swans are native to Australia and frequently kept as pets in the U.S. and elsewhere.

Black swan near Tokeland