

Wildlife Program – Bi-weekly Report

April 1 to April 15, 2019

GAME DIVISION

HERE'S WHAT WE'VE BEEN UP TO:

1) **Managing Wildlife Populations**

Statewide Black Bear Workshop & Population Monitoring: Carnivore section personnel hosted a two-day black bear workshop in Ellensburg to discuss bear monitoring strategies and management. The workshop was attended by 39 district biologists, regional wildlife program managers, conflict section staff members, and enforcement captains. Biologists Beausoleil and Welfelt presented findings from ongoing research and how this research was used to create survey methods that will be implemented across the state. This workshop involved several days of effort including presentation preparations, travel, attendance and write-up of workshop notes. Carnivore section staff members also followed up with district biologists to begin planning for black bear monitoring in summer 2019, which will likely occur in districts 1, 3, and 17.

Statewide Cougar Workshop and Population Monitoring: Carnivore section personnel hosted a two-day cougar workshop in Ellensburg to discuss research and management. The workshop was attended by 27 staff members from the Game Division, Science Division, regional wildlife program managers, conflict section personnel, and enforcement captains. Biologists Beausoleil and Welfelt presented on how 20 years continuous research was used to create the current management structure as well as harvest statistics over the past 10 years. This workshop involved several days of effort including presentation preparations, travel, attendance and write-up of workshop notes.

Scientific Manuscripts: Carnivore section staff members made revisions to a manuscript submitted to the Journal of Wildlife Management regarding black bear density and habitat relationships. Biologist Welfelt wrote code to integrate bear GPS collar data with mark-recapture data and ran several additional analyses. Biologist Beausoleil worked on a cougar density manuscript, using over 10 years of cougar research in Washington, and incorporated co-author comments. Section staff members received results from the WDFW genetics lab for 1,300 cougar DNA samples submitted for individual and sex identification and coordinated with personnel from the American Museum of Natural History for further analysis and manuscript preparation.

Cougar Harvest Management: Biologists Beausoleil and Welfelt collaborated with Biologist Jenkerson to maintain the cougar hunter-kill database and administered the hunter kill-reporting hotline, and updated the agency website with population management unit (PMU) closures. They coordinated with regional program managers and district biologists to obtain regional recommendation for closures. Section staff members also had meetings with the Science Division and Game Division to discuss tooth data, mortality envelopes, and electronic cougar harvest reporting.

Region 2 and Region 4 – North Cascades Black Bear Project: Bear and Cougar Specialists Beausoleil and Welfelt visited winter dens on the east and west slopes of the North Cascades December through March. In western Washington, valuable assistance was provided from Biologist Smith in District 12. This season, they hiked into 77 dens where they immobilized and worked up the bears to replace radio collars, collar any yearlings denning with their mother, and obtain measurements of immobilized bears, and/or place cameras outside of the den to monitor reproduction (dens with newborns are not disturbed). Some dens were challenging to reach due to steep, rocky terrain and the onset of inclement weather conditions. Secondary visits were necessary in many cases to find a safe route in. Staff members will return to dens where they placed cameras after bears emerge later in the spring. Staff members also spent considerable time with data entry from den work-ups and associated camera work, and provided Washington State University with blood samples for research monitoring for salmon poisoning.



Biologists Beausoleil and Smith finish recollaring an adult female black bear that was tracked to her den with her two yearlings, not pictured (upper left). Bear den in an excavated old-growth stump in which multiple generations of female bears have occupied during the East-West Black Bear Project (upper middle). Biologist Welfelt with a yearling female bear that was immobilized and radiocollared along with her male sibling and mother in the den behind (upper right). An immobilized adult female bear in her winter den with plenty of room for her and her two yearling cubs, not pictured (lower left). An immobilized three and a half year old black bear being recollared-next time she is collared she will have her first litter at five years old.

2) Providing Recreation Opportunities

Nothing for this reporting period.

3) Providing Conflict Prevention and Education

Human-Bear Conflict Response: Carnivore section staff members responded to reports of a family group of bears getting into unsecured attractants in Leavenworth. Karelian bear dog (KBD) Indy treed all three bears, but they were too far up the tree to safely capture. Biologist Beausoleil and Welfelt hazed the bears out of the tree, cleaned up the garbage in the area, knocked on doors and provided information to help prevent further conflict. Carnivore section staff members also provided assistance and advice to WDFW Enforcement for cougar conflict response.

WDFW Bear-Cougar Response Guidelines: Biologist Beausoleil made revisions to the Statewide Bear-Cougar Response Guidelines document assembled by 23 staff members from the Wildlife, Enforcement, and Conflict Programs in 2017. It was distributed to personnel attending the statewide bear and cougar meetings mentioned above. The document went through a couple senior staff revisions but is now complete and available to staff members.



A family group of bears treed by Karelian bear dog Indy (top left). Biologist Beausoleil and Indy under the tree (middle) and the unfortunate attractants provided by people and made accessible to bears (right). Five bags of trash were collected and removed by Biologists Beausoleil and Welfelt and the bears have not been seen since. Unsecured garbage in Leavenworth continues to be a considerable concern.

Presentation on Human-Bear Conflict Prevention: Biologists Beausoleil and Smith and KBD Indy gave an educational presentation to about 40 members of the public in Snoqualmie this month. The meeting was organized by Snoqualmie City Council and included a presentation by Waste Management. Prevention of the “Big 3” (garbage, bird feeders, and fruit trees) were

addressed. Using GPS data from radio collars on bears in the area, we discussed areas of concern. After 30 minutes of presentation, we answered questions from the public for over an hour.

4) **Conserving Natural Landscapes**

Nothing for this reporting period.

5) **Providing Education and Outreach**

Nothing for this reporting period.

6) **Conducting Business Operations and Policy**

Nothing for this reporting period.

7) **Other**

Nothing for this reporting period.

HUNTER EDUCATION

HERE'S WHAT WE'VE BEEN UP TO:

1) **Managing Wildlife Populations**

Nothing for this reporting period.

2) **Providing Recreation Opportunities**

ADA Assistance: Region 5 Hunter Education Coordinator Elliott worked with an instructor who was holding a private class for a student with Americans with Disabilities Act (ADA) needs. In addition to needing all materials read to him, he suffers from significant test anxiety when around others. The class was an online field skills evaluation where the student scored 100 percent on the quiz and performed live-fire with a 20-gauge shotgun in addition to the handling skills. The instructor was very impressed with the student and said he would hunt with him any day. It is wonderful to be able to give the necessary attention to ensure our students are able to succeed.

3) **Providing Conflict Prevention and Education**

Wildlife Hazing: Region 6 Hunter Education Coordinator Montgomery worked with Conflict Specialist Blankenship to provide assistance with hazing elk in the Olympia area.

4) Conserving Natural Landscapes

Master Hunter/Volunteer Projects: Region 6 Coordinator Montgomery worked with Biologist Butler to recruit volunteers for building the western pond turtle enclosure and pond.

5) Providing Education and Outreach

Hunting Clinics and Mentored Hunts: Region 6 Coordinator Montgomery assisted marketing team members Ryle and Biswas at a turkey-hunting clinic in Puyallup.

National Hunting and Fishing Day: Region 6 Coordinator Montgomery has been constantly updating and recruiting non-governmental organizations for participation at this year's event. The latest partner organization to be added is 4-H.

Activities with Partner Non-governmental Organizations: Coordinator Montgomery attended the Pheasants Forever banquet, giving the members information on WDFW hunting clinics and thanking them for the support of these activities. Other recently-attended banquets include Friends of NRA, Safari Club International, and Mule Deer Foundation. Thanking our partners for their continuous support of our hunting clinics and National Hunting and Fishing Day is critical. Montgomery also assisted Youth Outdoors Unlimited with helping a disabled youth practice at the rifle range before his spring bear hunt.



New Hunter Education Venues: Region 1 Coordinator Whorton is working with several new instructors to find appropriate venues for new hunter education classes.

Region 5 Coordinator Elliott worked with a new instructor to hold the first class at SureFire Indoor Shooting Range in Camas. This town has not had a regular hunter education class. The range is excited to have us there and has requested that we put together a regular schedule of classes to host at their location. We have had three new instructors in that area become certified so the team will be easy to put together.

Hunter Education Instructor Support: Region 1 fielded multiple calls from instructors for coordination and use of the hunter education trailer. As word has gotten out, the trailer is being used consistently.

Instructor In-service Trainings: Region 3 Hunter Education Coordinator Garcia and Coordinator Whorton conducted first eastside in-service training for hunter education instructors in Benton City. Fifteen instructors attended and presentations ranged from wolf management,

Region 3 and 4 efforts, WDFW Lands Program, and WDFW Enforcement Program hunting incident investigation processes. All presentations were well received, with a few strong opinions on wolf management, which was expected. Region 6 also held its first instructor in-service training at the Olympia Natural Resources Building with 70 instructors in attendance. The same topics were presented. Many thanks to staff members Redmond, Thorson, Whipple, and Montgomery for the event.

Coordinator Visits to Hunter Ed Classes: Region 6 Coordinator Montgomery visited the Cosmopolis hunter education team. He presented Chief Instructor Willet with the 2018 Regional Field Coordinators Award, given out annually to instructors that meet critical needs in the local area. Willet was unable to attend last year's statewide in-service training in Wenatchee.



Instructor Willet accepting her Regional Field Coordinators Award

Hunter Education Instructors: Region 6 held its second pre-service training, certifying six new instructors in Puyallup. Four of the attendees were under 30 years old. It is great to get some younger instructors, along with a female instructor, to help with the increasing number of females taking the class.

Instructor Teaching Team Evaluations: Region 4 Coordinator Dazey visited three teaching teams this reporting period. Dazey visited the teams that teach at the Nile Shrine center, Cascade Pistol and Rifle, and the Muckleshoot Phillip Star building. All three teams are doing an excellent job presenting hunter education. The Muckleshoot team teaches tribal youth and not only needs to present DFW content but also tribal rules and regulations and make sure students are aware when each applies.

Region 5 Coordinator Elliott evaluated the Randle team who held a 2-day intensive traditional class over spring break.

Bowhunter Education: Long time Region 1 Archery in the Schools Program Director Ed Forslof passed away after a long battle with cancer. Mr. Forslof was a gentleman in the first degree, and was a monumental force in youth participation in archery sports. Ed was a long-standing advocate for hunter education, archery programs, and the Washington Department of Fish and Wildlife.

6) Conducting Business Operations and Policy

Wildlife Program Firearm Policy: Hunter Education Coordinator Dazey assisted in the training required to certify Wildlife Conflict Supervisor McCanna as a certified department firearm instructor. Dazey taught several Basic Instructor Training, and Basic Rifle Instructor Training sessions. After three days of intensive instructor training, McCanna is now a certified rifle and shotgun instructor. This gives the Wildlife Program three instructors in eastern Washington and three instructors in western Washington, better enabling the program to provide this necessary training to new and seasonal hires who are required to utilize firearms in their jobs.

Legislation: Hunter Education Division Manager Whipple has been involved with Senate Bill 5148, which was signed into law April 19, 2019. The new law requires the Fish and Wildlife Commission to adopt rules allowing hunters to wear fluorescent hunter pink in addition to, or in place of, fluorescent hunter orange. Whipple is working with others in the agency to implement the new law prior to the modern firearm seasons this fall, including developing rule language and outreach materials.

7) Other

Nothing for this reporting period.

LANDS DIVISION

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Section 7 Consultation: After a few rounds of edits with Section Manager Dahmer, Rangeland Ecologist Burnham completed preparing the draft biological assessment for grazing permits on Pittman-Robertson (PR) wildlife areas and submitted the draft to U.S. Fish and Wildlife Services personnel for their consideration in the consultation process.

2) Providing Recreation Opportunities

Shane Belson, the department representative on the Recreation and Conservation Office (RCO) Boating Program Advisory Committee, participated in two days of 2018 Boating Facilities Program (BFP) grant application presentations and received during this reporting period the preliminary ranking results. Of the 12 BFP grant applications submitted by state agencies, WDFW submitted 10 totaling \$6.281 million. The top scoring BFP project was *Region 6 Boating Access Site Improvements*, submitted by Jesse Reeves. Due to robust funding in BFP, all 12 state projects are expected to be funded. These results brings WDFW's BFP haul during the past two biennia to \$13.127 million (24 projects). It has been another fine year for the department's boating constituents!

3) Providing Conflict Prevention and Education

Nothing for this reporting period.

4) Conserving Natural Landscapes

Wildflower (Forb) Transplants Checked: Vegetation Ecologist Merg checked plots within prescribed fire units on the Sinlahekin Wildlife Area for survival of forb plugs planted last fall. Restoration of forbs from seed has been very challenging, so Merg prescribed forb plugs in addition to forb seed for this project aimed at augmenting habitat value for pollinating bees. Merg will compare recruitment of forbs from seed and from the plugs. It is still too early to determine what proportion of the forb plugs that Merg saw, will flourish.

Prescribed Fire Program Orientation: Orientation for new staff members was conducted April 1-5 in Okanogan. This orientation covered topics of communication, leadership training, mission, values, expectations, and policy. The prescribed fire teams visited the Trout Rx Unit on the Sherman Creek Wildlife area to review impacts of the 2018 Boyd wildfire and where it came in contact with prescribed burning completed earlier that spring. Noticeable differences were seen both on the ground and in the tree canopies. Harsher impacts on vegetation are visible where no treatment has occurred. In certain areas, tree canopies are completely consumed with little chance of recovery. Shrubs and ground cover also burned hot and will take longer to recover. In the areas where Rx fire occurred, the intensity of the wildfire was much less and caused little damage. Suppression forces were able to control the fire much quicker in the locations of both Rx fire treatment and where commercial harvest took place. When Rx fire is used on the landscape, it is applied with less intensity and at a slower rate than when a wildfire occurs thereby reducing damage and providing the desired outcome.

Training: Training continues for Rx fire program members. Equipment operation training will greatly improve safety and efficiency. Chainsaw training operations and maintenance was the focus for the Rx fire team in the Yakima, while in Okanogan the team focused on fire effects and unit preparation training.

2019 Spring Prescribe Burn Season: Spring rains and snowmelt are effecting timing for conducting prescribed burning. Units are slowly coming into prescription. Once fuels are to a point that will sustain fire and meet unit objectives, burning will start. Each unit has a set of objectives to meet which can be different on each site. In some locations, residual logging slash is present and the intent is to consume up to 70 percent of the material on the ground leaving only the larger woody debris from logging. Other sites may require a lighter burn to reduce natural vegetation build up. The intent is to re-invigorate natural vegetation like shrubs and grasses to stimulate growth to enhance forage for wildlife and reduce potential damage from future wildfires.

Sherman Creek and LeClerc Creek Reforestation Projects: Forester Ashiglar conducted preliminary work and contract inspection for planting projects on the Sherman Creek and LeClerc Creek wildlife areas. Approximately 1,000 larch trees were planted over 30 acres on the Sherman Creek Wildlife Area. The Boyd fire in August 2018 killed much of the overstory adjacent to Highway 20. Reforestation efforts will supplement expected natural ponderosa pine

regeneration and add to tree species diversity. The LeClerc Creek Wildlife Area was thinned and burned with prescribed fire in 2017 and 2018. Fire and thinning efforts removed thickets of small-diameter lodgepole pine and created gaps in the canopy. Approximately 1,800 western larch and white pine seedlings were inter-planted in these openings to ensure these desirable species would be onsite in the future.



Larch seedling planted in area burned by the 2018 Boyd fire (Lake Roosevelt in the background)

Weigh Station Forest Inventory: WDFW Foresters Ruggirello and Pfeifle along with Washington State Parks Forester Bass conducted a timber inventory or cruise on a satellite unit of Lake Easton State Park on Tuesday, April 9. The property is located directly south of the Department of Transportation (DOT) weigh station at the Suncadia exit from Interstate 90. The purpose of the inventory was to collect data and develop a thinning prescription for the state park ownership. Foresters Ruggirello and Mize conducted a timber inventory of the WDFW ownership located directly north of the DOT weigh station in March to develop a thinning prescription for the WDFW property. A joint forest restoration project between Washington State Parks and WDFW is proposed. The purpose of the restoration project will be to improve forest health and resiliency, enhance wildlife habitat, reduce fire risk in the Cle Elum/Suncadia urban interface, and improve overall ecological integrity of the project area. This is a great example of how agencies can work together to restore forest landscapes. These projects would probably not be viable as stand-alone projects.

5) Providing Education and Outreach

Yakima Area Arboretum Arborfest: Rangeland Ecologist Burnham helped finalized preparations at an internal work session, and then joined a handful of regional colleagues to staff the department's booth. Attendance seemed respectable despite some rain and breeze.

6) Conducting Business Operations and Policy

Mitigation funding for wildlife areas: Kurt Merg attended a meeting with Bonneville Power to coordinate mitigation funding to WDFW. Previous commitments from Bonneville Power Administration (BPA) for additional funding for wildlife areas appear to be on track. Merg prepared for BPA a concise summary of our spending plan for wildlife area funding.

Senate Bill 5996: Division Manager Wilkerson and Section Manager Dahmer coordinated with legislative staff members, other state agencies, and representatives on the Forest Health Advisory Committee to support the bill with proposed revised language with the goal to provide greater certainty for future state funds for forest health activities that would come from a wildfire surcharge on certain insurance policies.

7) Other

Nothing for this reporting period.

SCIENCE DIVISION

1) Managing Wildlife Populations

Makah Copper Status Review: Biologists Potter, McMillan, and Jenkerson have been doing an assessment of the Makah copper. They researched and incorporated internal and external sources of Makah copper data and made changes to the database to reflect new subspecies designations for June's and Cascadian coppers.

Northern Leopard Frog Survey 123 Form Updates: IT Specialist Simper reworked the previous year's survey forms used for northern leopard frog surveys to be easier to use, edit, and interpret (including creating new forms for new surveys).

2) Providing Recreation Opportunities

Nothing for this reporting period.

3) Providing Conflict Prevention and Education

Nothing for this reporting period.

4) Conserving Natural Landscapes

Nothing for this reporting period.

5) Providing Education and Outreach

Nothing for this reporting period.

6) Conducting Business Operations and Policy

Nothing for this reporting period.

7) Other

Nothing for this reporting period.

DIVERSITY DIVISION

1) Managing Wildlife Populations

White-nose Syndrome/Bats: Biologists Tobin and Holman installed bat guano collection traps under a bridge in Lewis County for white-nose syndrome (WNS) surveillance. This site tested positive for the fungus that causes WNS in 2018, but it is unclear which species roost under this bridge and are thus vulnerable to WNS. Therefore, guano from these traps will be tested not only for the fungus that causes WNS, but also for species identification. This information will inform the department's WNS response strategy.

Northern Leopard Frog Recovery: Biologists Hallock and Grabowsky spent several days surveying for northern leopard frogs at the Potholes Wildlife Area. Egg masses were the survey target and two egg masses were found. Approximately 150 eggs from each mass were collected and transported to Oregon Zoo for head starting. The overall goal for this year is about 600 eggs/tadpoles. After metamorphosis, the head-started frogs will be released at a reintroduction site in the Columbia Basin. Leopard frogs once occurred at this site but were extirpated by the 1990s. Northern leopard frogs were listed in Washington as an endangered species in 1999 when only two populations could be found. Today, the species occurs only in the Potholes Reservoir area. Reintroducing the frogs to more areas is important for reducing vulnerability and recovering the species. This project is funded by a Competitive State Wildlife Grant (C-SWG) that was awarded for northern leopard frog conservation and recovery in Washington, Idaho, and Canada.

2) Providing Recreation Opportunities

Nothing for this reporting period.

3) Providing Conflict Prevention and Education

Nothing for this reporting period.

4) **Conserving Natural Landscapes**

Nothing for this reporting period.

5) **Providing Education and Outreach**

Nothing for this reporting period.

6) **Conducting Business Operations and Policy**

Nothing for this reporting period.

7) **Other**

Nothing for this reporting period.

REGION 1

1) **Managing Wildlife Populations**

Channeled Scablands Waterfowl Survey: Private Lands Biologist Gaston completed a survey for migratory waterfowl within the channeled scablands. The route ran from the Tyler area to south of Ewan. Hundreds of ducks and geese were counted as the migration is going strong. Species observed included: tundra swans, cinnamon teal, ruddy ducks, northern pintails, and many more.



Cinnamon teal drake on a pothole in the Channeled Scablands

2) Providing Recreation Opportunities

W.T. Wooten Wildlife Area Lake Fishing: Wildlife area staff members along with Access Manager Greg Heimgartner have been spending quite a bit of time maintaining campgrounds and lakes on the Wooten Wildlife Area. Local spring break from schools brought many families down to fish for trout and camp. Planned application of gravel to the west dam of Rainbow Lake and south end of campground three still has not been completed. The gravel vendor informed WDFW they could begin making deliveries the week of April 22.

Wildlife Area Winter Closures: Entry closures to many WDFW wildlife area lands in Asotin County were lifted April 1. Asotin County requested keeping South Fork Road and Cougar Creek Roads closed to vehicles to prevent roadbed damage beyond April 1. The road closures generated a fair amount of controversy from the public. All questions regarding the road closures were routed to Asotin County. Effective April 15, all roads have been re-opened.

Shumaker Access Sites: Wildlife Area Manager Dice and Access Manager Heimgartner met with Terry Elson from CAMP on April 10 to look at planned access site improvements at Shumaker and Snyder bar. CAMP is planning on spending \$160,000 to install two CXT toilets and application of gravel to access site roads. These are huge improvements we have waited years for.

3) Providing Conflict Prevention and Education

Three Calves Killed Near Starbuck: Wildlife Conflict Specialists Rasley and Wade investigated three depredations on calves in the Starbuck area. Rasley and Wade located the carcasses with the assistance of the ranch manger and completed the depredation investigations. Due to the conditions of the carcasses and poor tracking conditions, the depredations were attributed to an unknown predator.



Conflict Specialist Wade inspecting a dead calf

4) Conserving Natural Areas

Habitat Development Projects: Biologist Baarstad spoke with four landowners interested in habitat developments for quail, forest grouse, and deer on properties in districts 1 and 2. Baarstad scheduled meetings with each of them in the next few weeks. Baarstad visited all sites in Lincoln County scheduled for spring habitat development and found that all sites have dried out enough to begin fieldwork next week. Biologist Baarstad met with Biologist Gaston at a Hunt by Written Permission property, in Whitman County, to examine a three-year-old tree planting funded by the Mule Deer Foundation. Deer have heavily browsed the deciduous shrubs, but the conifer plantings are establishing well. Baarstad delivered equipment to the Revere Wildlife Area that Pheasants Forever will use for habitat developments this spring.

Meeting: Biologists Gaston and Baarstad attended the Palouse Local Work Group meeting with farmers and several partner agencies to set Fiscal Year 2020 funding priorities for the Environmental Quality Incentives Program (EQIP).

Sherman Creek Wildlife Area Rx Burning Orientation: The WDFW prescribed burn crews visited the Sherman Creek Wildlife Area for an orientation day as part of pre-season training. Details of past prescribed burn activities were discussed, as well as how the 2018 Boyd's Fire interacted with past thinning and prescribed burning treatments. This year's prescribed burn activities will concentrate on the Trout Lake Road portion of Sherman Creek Wildlife Area.



High Water on Wildlife Areas and Access sites: Assistant Wildlife Area Manager Dingman documented high river flows on the Tucannon and the Walla Walla rivers. The Grande Ronde River reached moderate flood stage on April 9. Access sites such as Boggan's and Cougar Creek had water flowing through them. Access Manager Greg Heimgartner reported damage to Rogersburg road on the Chief Joseph Wildlife Area from the Grande Ronde. Additionally, Joseph Creek flooded and scoured an access site near the old school house. A fiberglass toilet on the site was flooded and will have to be pumped.



Boggan's access site to the Grande Ronde River on April 9



High water pushing the bank at the Cougar Creek access site on April 9



Tucannon River behind Campground 10 (left) and ATV crossing on Hartsock Unit (right)



Touchet River at Dodd Road Water Access Site on April 11



High water mark inside fiberglass restroom along Joseph Creek

5) Providing Education and Outreach

Nothing for this reporting period.

6) Conducting Business Operations and Policy

Firearms Instructor Training: Supervisor McCanna traveled to Snohomish to attend the National Rifle Association (NRA) firearms instructor training to be certified to teach the courses. The training was extensive, from 7:00 a.m. to 10:00 p.m. on Friday and Saturday, and concluded on Sunday.

Asotin Creek Wildlife Area: Natural Resource Technician Meisner and Natural Resource Worker McGee completed fabrication of a new utility trailer for the wildlife area. The trailer was painted black by a local vendor and is ready for use.



New utility trailer painted black

Asotin Creek Wildlife Area: Natural Resource Technician Stallcop made little progress towards completing fieldwork due to excessive rain and wet conditions. He did manage to spray three fields at Joseph Creek with glyphosate and another at Asotin Creek. The field near the shooting range will be seeded with grass and other fields at Joseph Creek will be seeded with wheat, weather allowing.

4-O Ranch Wildlife Area: Natural Resource Technician Meisner and Natural Resource Worker McGee began work on a boundary fence issue on Hanson Ridge on April 8. The fence will keep private property owners livestock apart in a location near the top of Hansen Ridge.

7) Other

Nothing for this reporting period.

REGION 2

HERE'S WHAT WE'VE BEEN UP TO:

1) **Managing Wildlife Populations**

Northern Leopard Frog Surveys: Biologists Grabowsky, Rowan, and Hallock spent time visiting areas known to host northern leopard frogs (NLFs). NLFs are known to initiate breeding activity when water temperature reaches about 50 degrees Fahrenheit. Breeding conditions have been ideal and approximately 30 NLFs were spotted during surveys, and several males were heard calling.

These ideal conditions lead to Biologists Grabowsky and Hallock finding the first two egg masses seen in Grant County in the last several years. Because the NLF reintroduction and translocation efforts involve rearing young frogs for release, several hundred eggs were collected

and transported to Oregon Zoo. The zoo will raise the frogs in controlled conditions in order to increase survival and then WDFW staff members will release those frogs at Columbia National Wildlife Refuge. Although there is currently no breeding program for NLFs at Oregon Zoo, several other zoos have successfully bred and raised leopard frogs. Calgary Zoo hosts a breeding program for NLFs as part of the British Columbia Northern Leopard Frog Recovery Team. Frogs raised in the Calgary Zoo are released at the last surviving populations in British Columbia. In addition, Phoenix Zoo in Arizona runs a successful Chiricahua leopard frog breeding program. By following husbandry advice from successful institutions, Oregon Zoo has developed a NLF rearing protocol that will decrease mortality of the eggs and tadpoles and increase the chances of establishing a new population.



Male northern Leopard Frog



Northern leopard frog egg mass

Pygmy Rabbit Breeding Enclosure Management: Coordinator Gallie, Biologist Zinke, two Nature Conservancy volunteers, and several regional staff members assisted with removing all the existing adults from the Sagebrush Flat 10 and six acre breeding enclosures. For the first time since their creation, they are empty. The moment was bittersweet, as the two enclosures were the foundation of the reintroduction project and produced over a thousand kits that were released into the wild. However, their condition has been in steady decline, with the vegetation needing rehab and burrow sites need to be unoccupied to break the coccidia cycle present.

We captured the last three adults and relocated them to the last remaining occupied permanent breeding enclosure. We consolidated 17 adults (all two to three years old) into the Dormaer enclosure last fall and this spring. We expect a minimal kit production from this group due to their age and high coccidia infection rate.

Pygmy Rabbit Release Pen Breaching: Coordinator Gallie and Biologist Zinke breached all the occupied release pens in Beezley Hills and Burton Draw recovery areas. Occupied with wild and enclosure kits planted there last summer, have had run of the place since heavy snow drifting collapsed portions of the walls in February. Tracks indicated they were in and out, likely

interacting with nearby free-ranging kits that escaped the pens months ago. With the snowmelt, we breached the pens in several locations to ensure access to their burrows and mates, both inside and outside the pens. Our mini “wildlife underpasses” were not only used by the rabbits, but also Washington ground squirrels and songbirds. Pens will be fully relocated to new sites next week.



Ground squirrels using the release pen breach



Songbirds using the release pen breach



Pygmy rabbits using the release pen breach

Mount Hull Bighorn Sheep Herd: Biologist Heinlen continued to monitor the Mount Hull herd due to the presence of pneumonia. To date, 11 bighorn sheep, mostly rams with one ewe and one lamb, have been found dead. The majority of these are mature rams. Five sheep (four rams and one ewe) have been sampled, with all results being positive for the bacterium *Mycoplasma ovipneumoniae* (M. ovi). M. ovi is the bacterium that triggers pneumonia outbreaks in wild sheep herds. There has not been a new mortality reported since March 30. As the herd's range has greened up with the spring, they are also moving higher up in elevation and becoming less visible during ground monitoring. WDFW had issued one ram and two ewe permits for this herd but have now removed all permits due to this disease outbreak.

Sharp-tailed Grouse Management: Biologist Heinlen continued to work with Olympia and Science Division personnel to coordinate the logistics for the upcoming sharp-tailed grouse trapping effort. WDFW intends to trap 40 sharp-tailed grouse in British Columbia for release into Scotch Creek and Tunk Valley in Okanogan County. Biologist Heinlen and Research Scientist Schroeder conducted a scouting trip to British Columbia to determine access conditions and sharp-tailed grouse breeding behavior. Everything looked good, with most all roads passable and birds actively in breeding display.



Research Scientist Schroeder points to a new sharp-tailed grouse lek in British Columbia, Canada – Photo by J. Heinlen

Spring Mule Deer Surveys: Biologists Fitkin and Heinlen conducted annual spring mule deer composition counts. To date, around 1,300 mule deer have been classified. Data analysis is not complete, but it looks like the estimated over-winter mortality rate will be at or below average.



Radio-collared mule deer seen during spring surveys – Photo by S. Fitkin



White-tailed doe on spring green-up – Photo by S. Fitkin

Rattlesnake Monitoring: Biologist Fitkin collaborated with U.S. Forest Service Biologist Rohrer to continue annual surveys to identify hibernacula for Northern Pacific Rattlesnakes. We discovered two new winter den sites in the Black Canyon watershed, and encountered some other reptiles along the way.



Adult and neonate Northern Pacific rattlesnakes – Photo by S. Fitkin



Western Fence lizard – Photo by S. Fitkin



Western fence lizard ventral markings (male) – Photo by S. Fitkin

2) Providing Recreation Opportunities

Bird Watching: Spring migrants are still arriving in full force around the basin providing many opportunities to go out and observe or photograph a great diversity of bird species. Snow geese have started to slowly leave the basin but white-fronted geese are filtering in and been using the Winchester area and east of Potholes Reservoir.



White-fronted and snow geese off M Road feeding - Photo by C. McPherson

Rocky Ford Creek Memorial Bench Dedication Ceremony: Assistant Manager Bechtold has been collaborating with the Overlake Fly Fishing Club since 2017 regarding the installation of a basalt memorial bench at Rocky Ford Creek. The bench itself was installed last September by several members of the club, Bechtold, and Mike Ellis of MBE Construction. At the time, the club decided to delay the installation of the plaque containing the names of the members to be memorialized. The plaque was affixed to the bench during a dedication ceremony held at Rocky Ford Creek on April 13, at which, Bechtold briefly spoke the agency's involvement, management of the area, and the club members he had the pleasure of working with on the project.



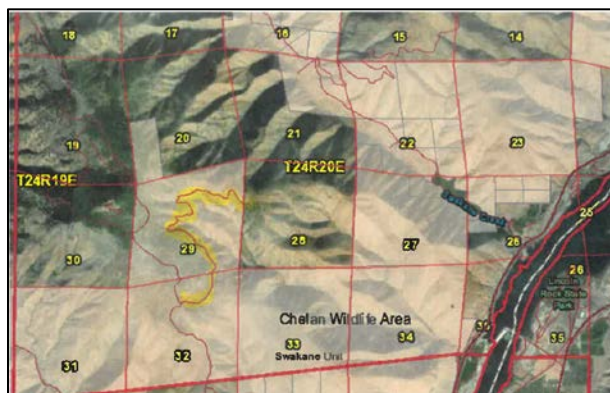
Overlake Fly Fishing Club President Bill Courshon addressing attendees – Photo by Bechtold

3) Providing Conflict Prevention and Education

Nothing for this reporting period.

4) Conserving Natural Landscapes

Lena Canyon Road, Swakane Unit: In the aftermath of the 2018 Rocky Reach fire, while Manager Fox was doing assessments with Forest Service Biologist Cerro-Timpone, it was realized that what was considered a WDFW road was actually a Forest Service road. To complicate matters, WDFW had maintained a year round closure of the road since the 1990s while the Forest Service classified the road as open to vehicle travel. The original WDFW closure was made to prevent vehicle access to a sizable area of nice bighorn sheep habitat and mule deer winter range and for general habitat protection. The Forest Service was amenable to close the road if a rational justification could be provided. Manager Fox enlisted the help of District Wildlife Biologists Volsen and Comstock and produced a letter with the justification. Lands Complex Manager Finger carried the justification forward and had numerous discussion with the Forest Service about the road's history and justification for closure. A successful conclusion occurred six months after the start of this adventure with Forest Service accepting WDFW's justification for the closure. Manager Fox has initiated cultural resource review and the Wild Sheep Foundation will supply a gate and volunteers for its installation.



Lena Canyon Road (highlighted yellow) on Burch Mountain, Swakane Unit

Scotch Thistle Treatments at Chiliwist Unit: Maintenance Mechanic Boulger and Manager Wehmeyer were able to start noxious weed treatment of scotch thistle at the Chiliwist Unit. They used ATV sprayers along with backpack sprayers to cover approximately 350 acres of the Chiliwist Unit. During this early treatment, the rosettes are quite small but the aqua blue color of the rosettes makes them easy to find in the landscape. They will be continuing treatment throughout the spring.



Chiliwist Unit of the Sinlahekin Wildlife Area - Photo by Nathan Wehmeyer

Coordinated Resource Management Meetings in the Methow Valley: Okanogan Lands Operations Manager Haug continued to meet with various grazing permit holders to update them on new conflict guidelines to be included within future permits. Methow Wildlife Area Manager Troyer and conflict specialist Heilhecker also attended most the meetings as well as representatives from the Washington Department of Natural Resources and U.S. Forest Service. The meetings are facilitated by the Okanogan Conservation District. In addition to these new conflict measures, the group discussed this coming seasons grazing rotation and various action items needing addressed. These meetings are intended to coordinate management across jurisdictions and address issues or concerns as a group to betterment of each permitted area.

5) Providing Education and Outreach

Nest Box Program: Assistant Manager Brasier joined volunteers to finish maintenance and the installation of the last few nest boxes. Despite the cold, persistent rain, volunteers had a great time working on the project, which now handles monitoring and maintenance of 93 boxes spread between three sites. Volunteer Hovis took a small group to Bear Creek Road, where they relocated five nest boxes that had been overrun by house wrens during the last nesting season. Daniel Senner and Johnnie Duguay from the Methow Conservancy played a major role in organizing the event and led the group working on the rendezvous. Their group relocated 10 boxes that did not have nests in them last year, and installed two wood duck boxes and a kestrel/owl box near Riser Lake. Brasier took the last group to the Cottonwood Trail on the Methow River where they relocated five boxes that did not have nests in them last year and

installed two waterfowl boxes near the river that will hopefully provide nesting habitat for mergansers or goldeneyes. Several people expressed an interest in helping monitor boxes during the nesting season, so we should have some great data on how our boxes are being used. Many thanks to all those who participated, and especially to everyone who was instrumental in planning, organizing, and leading the event!



Volunteers work along the Cottonwood Trail installing waterfowl boxes to provide nesting habitat for mergansers and goldeneyes that spend summers on the Methow River. The red plastic band beneath the box prevents raccoons and rodents from preying on the birds – Photos by Brasier

Lewis Butte Shrub Plantings: Assistant Manager Brasier spent time preparing for and hosting a volunteer event to plant 100 shrub seedlings at Lewis Butte. After a good species composition for the site was determined, Brasier and Troyer worked with Derby Canyon Natives to order the plugs. Getting plant protectors and tubes for the seedlings proved to be much more difficult, but eventually a supplier was found. On Thursday afternoon, Brasier met a group of six volunteers at the Lewis Butte trailhead and worked with them over the next three hours to get all 100 shrubs planted and protectors installed. The shrubs were planted all along the old Lewis Butte trail, which was closed when the new trail was completed last summer, to help speed up the restoration of the scar left behind. It is anticipated the plantings will discourage visitors from using the old trail, which is still heavily eroded. The timing of the event turned out to be perfect. While we had warm, sunny weather that afternoon, that evening a storm rolled in providing ample moisture for the newly planted shrubs.



Clockwise from top left: Volunteers getting started on shrub plantings at Lewis Butte. Volunteers nearing the end of the workday. The finished product, a restored section of old eroded trail that was replaced with a new trail last year. Lastly, the first signs of spring in the valley – bluebells blooming on Lewis Butte - Photos by Brasier

Grouse Habitat Mystery Solved: Private Lands Biologist Braaten collected sharp-tailed grouse droppings from a lek in north Douglas County 10 years ago containing a grain type seed and again recently found the same seed in some grouse droppings at the same lek. The grain or seed appeared to be like wheat but upon closer inspection there were differences. Biologist Braaten began to search for the plant that the seeds the sharp-tailed grouse were eating. Private Lands Biologist Braaten reached out to professionals at U.S. Department of Agriculture and Natural Resources Conservation Service (NRCS). After some dead ends, a plants specialist from NRCS was able to identify the seed. Turns out the seed found in sharp-tailed grouse droppings was that of Douglas Hawthorne tree. An interesting discovery.



Grouse droppings containing Douglas Hawthorne tree seed

6) Conducting Business Operations and Policy

Nothing for this reporting period.

7) Other

Nothing for this reporting period.

REGION 3

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

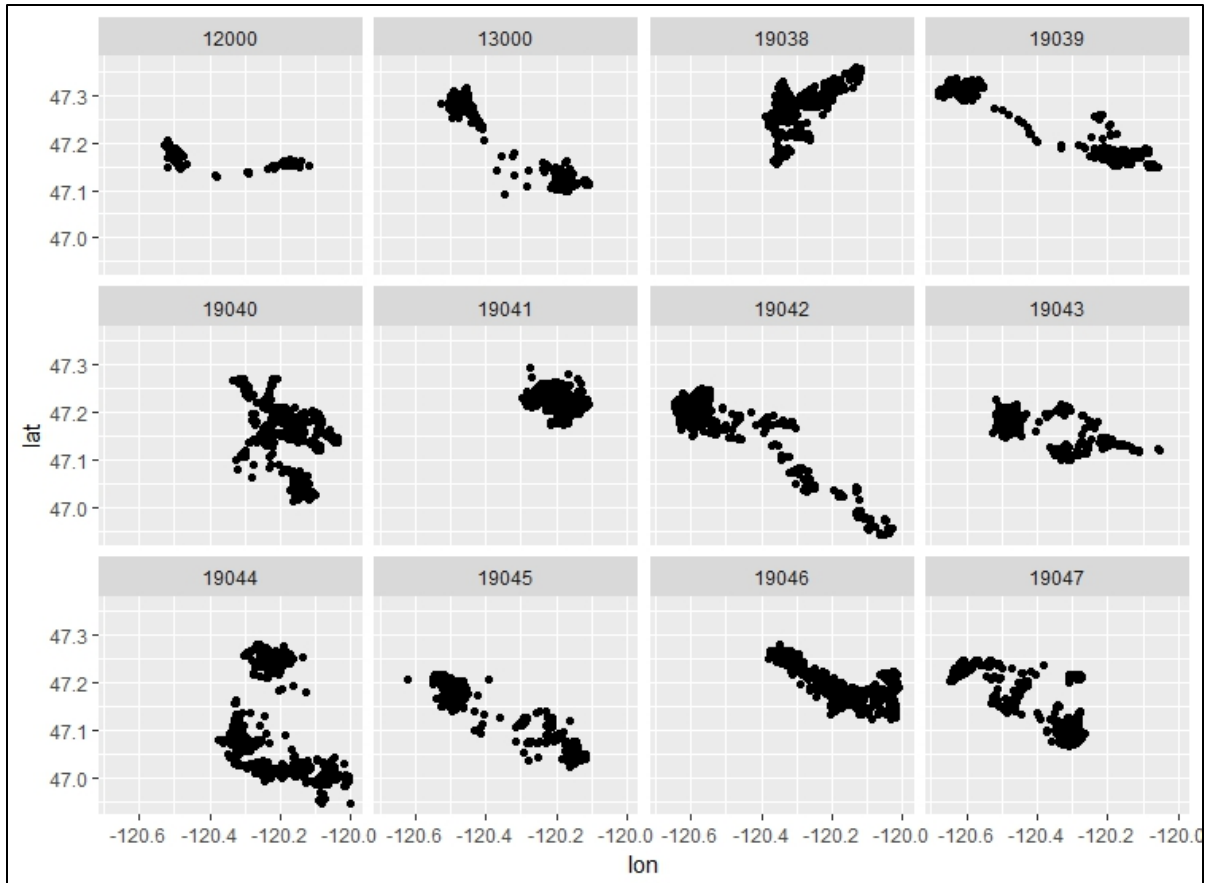
Biologist Moore completed Colockum elk surveys with help from Manager Lopushinsky, Natural Resource Technician Leuck and Biologist Bernatowicz. Colockum elk continued a long-term decline and the herd is now below objectives. Low recruitment combined with excessive antlerless harvest is expected to keep the herd low into the near future. Good snow pack push adult bulls into the survey area, combined with low cow numbers, resulted in a high bull: cow ratio. The elk were obviously getting low on energy reserves, but few winter mortalities were noted.

Colockum Elk Population Estimates 2015-2019								
	Total	Cows	Calves	Spike Bulls	Adult Bulls	Total Bulls	B:100C	C:100C
2015	6103	4275	1344	221	264	485	11	31
2016	5087	3530	1007	171	379	550	16	28
2017	4672	3528	676	113	355	468	13	19
2018	4289	2987	879	127	279	406	13	29
2019	4133	2895	731	117	390	507	17	25
Goal	4500	3200				440		



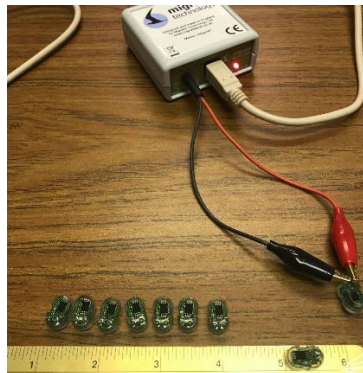
A large group of elk enjoying greenup on the Whiskey Dick Wildlife Area

Biologist Moore finished editing the bull elk dataset collected from 2013-2017. Two collar vendors were used during the study and this resulted in dissimilar output files that needed to be transformed to a single format. Moore also coerced timestamps to the appropriate time zone and omitted all pre-capture and post-mortality observations. The goal is have a report out on the study by the end of 2019.



Initial check of each animal for GPS location outliers

Geolocator Study on Wood Duck Movements Begins this Year: The Richland Rod and Gun Club through private donations and Aquatic Lands Enhancement Account (ALEA) grant funding will work with WDFW biologists to mark nesting hen wood ducks with tiny geolocator tracking devices. This will add to the already impressive outreach and education completed by the club on their Wood Duck Nest Box Project, plus provide data for state researchers. The geolocators need to be collected in following years in order to download the data, so hens returning year after year to one of the 400 nest boxes in the project will be ideal targets.



Tiny geolocators to be placed on the legs of nesting wood ducks near Tri-Cities will track movements and migration over the coming years

Burrowing Owl's Using Artificial Burrows, Ready for Another Season: District 4 Wildlife Biologist Fidorra and a volunteer completed maintenance and occupancy checks of artificial burrows installed for breeding burrowing owls. The late snow was hard on males that chose to over-winter and some signs of mortality were found at some burrows, but many more were occupied. The project is part of an ongoing research and mitigation project partnered with the Global Owl Project. Banding and monitoring of nests will take place in early summer.



A surprised burrowing owl located in an artificial burrow during pre-season maintenance



Cached food items collected by a male owl to help attract a mate. Twenty rodents of four species, American robin wing, Jerusalem cricket, and a rarely documented tiger salamander

Ferruginous Hawk Working Group Takes Flight: An internal team of WDFW staff members partook in an initial meeting to create a task force of internal and external partners working on conservation solutions for the state listed ferruginous hawk. District biologists from the Columbia Basin where the species breeds participated in the meeting with Olympia Wildlife and Science Division biologists, with intentions to expand the group in the works.

Wildlife and Habitat Funding Available to Landowners through Natural Resources

Conservation Science (NRCS): District 4 Wildlife Biologist Fidorra attended the South-Central Natural Resource Conservation Service Working Group to discuss allocation and priorities for funding available to landowners through the six conservation districts in Benton, Yakima, and Klickitat counties. Fidorra discussed the Blackrock/Silver Dollar landscape and priorities related to fire prevention. The group discussed the need to apply funding towards fire prevention related management activities, but for the most part current funding is geared towards restoration post-fire, and not prevention such as installation of green-strips. Funding levels for wildlife and habitat projects remain at six percent of allocated funding, and WDFW staff members, especially Private Lands Biologist Hulett, will work to alert landowners of the available funds.

2) Providing Recreation Opportunities

L.T. Murray Wildlife Area staff members and Department of Natural Resources (DNR) personnel coordinated to order materials and replace the guardrails on the Joe Watt Bridge. The bridge surface is scheduled for replacement next year.



New rails on bridge across Kittitas Reclamation District canal in Joe Watt Canyon

L.T. Murray Wildlife Area Assistant Manager Winegeart attached a map of the Teanaway area on the kiosk at the Teanaway Unit parking lot.



New map mounted on center panel of Teanaway kiosk. An interpretive panel will be added later

3) Providing Conflict Prevention and Education

Cost-Share Fencing Project to Protect Crops from Hanford Elk Materializes: Following several months of paperwork and processing, District 4 Wildlife Conflict Specialist Hand inspected the delivery of fencing materials for a fencing project near Rattlesnake Mountain. All the metal posts, wire, and hardware arrived in excellent condition. According to the vendor, the wood posts will be delivered next week. Materials were provided as part of the cost-share project by WDFW, whereas the producer will cover installation and labor.

4) Conserving Natural Landscapes

Oak Creek Wildlife Area Forester Hartmann sent out fee requests to pre-approved contractors for the Bald Mountain Pre-commercial Thin Project. Forester Hartmann also conducted stream-typing surveys on the Cougar Canyon underburn, participated in the south-central prescribed fire team's chainsaw training class on Oak Creek, and attended Arborfest at the Yakima area Arboretum.



Measurement site evaluating channel characteristics of a stream on the Cougar Canyon Underburn Project. Project prep work will include replacing damaged culverts to improve instream flow throughout the year

Wet Winter Brings High Hopes for Wildlife Seeding. Region 3 Private Lands Biologist Hulett spoke with three landowners about Farm Service Agency's (FSA) State Acres Wildlife for Enhancement (SAFE). Two landowners spoke about to Hulett about how to manage their newly seed fields, as well as questions about cost-share payments. Hulett scheduled days in May to meet with these landowners, inspect their fields and come up with a strategy if weed pressure is too high. All questions pertaining to payments were deferred to FSA. A third landowner Hulett spoke with was looking for information about the SAFE program and the possibility of enrolling his fields once a new signup is announced. Hulett ran through the program and described how it differed from the general Conservation Reserve Program (CRP).

5) Providing Education and Outreach

Oak Creek Wildlife Area Manager Mackey has responded to many informational requests about the winter closures in place until 6 a.m. May 1. All of the requests have involved parties interested in collecting shed antlers. Manager Mackey also attended the annual Green Dot Update public meeting in Ellensburg. The public turnout was relatively low and there was little inquiry or feedback on the unchanged Oak Creek area green dot system.

6) Conducting Business Operations and Policy

Nothing for this installment.

7) Other

Nothing for this installment.

REGION 4

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Island Marble Butterfly: District 13 staff members attended the annual meeting for public and private partners who are dedicated to recovering the island marble butterfly. This highly imperiled insect now occurs only on San Juan Island. Conservation efforts include captive rearing, experimental plantings to construct a technique that creates butterfly habitat, and public outreach. District staff members also met with homeowners near San Juan Islands National Historical Park to discuss steps they can take to protect the butterfly.

White-Nose Syndrome Surveillance in Snohomish and Skagit Counties: District 13 personnel set out substrates to collect bat guano from selected maternity colonies. We will return in a few weeks when all bats have returned from their winter sites to collect guano that will be tested for the presence of PD, the fungus that causes white-nose syndrome, the condition that has killed millions of bats in eastern North America.

Sharp-tailed Snakes in the San Juan Islands: Our note summarizing documentation of this species' occurrence on San Juan Island just came out in the Spring 2019 edition of *Northwestern Naturalist*:

Sharp-tailed snakes are secretive, spending most of their lives beneath the soil duff layer or beneath substrates such as downed woody materials, or in rocky voids. They have a characteristic point on their tails and black and white "piano key" patterns ventrally. So far, only 12 have been found in the San Juan Islands, the most recent found in fall, 2018 at Young Hill in San Juan Islands National Historical Park, where we documented three snakes in 2016.



Sharp-tailed snake in the San Juan Islands

Index Town Wall Peregrine Falcons: Biologist Hamer met with representatives from the climbing advocacy group - Access Fund, the Seattle Audubon, and local rock climbers to discuss peregrine falcon nest monitoring efforts on the Town Wall at Index. The Town Wall cliffs are very popular for rock climbing, but peregrine falcons also nest on the cliff ledges during the spring and early summer. Monitoring efforts and climber reports help to locate falcon nests. Once a nest is located, WDFW works with Washington State Parks and the climbing community to implement temporary climbing closures in the immediate nest area. The climbing community and Access Fund have been very proactive and supportive of this management strategy, which helps to maintain climbing access while protecting falcon nests during the breeding season.

Ebey Slough White-nose Syndrome (WNS) Surveillance: Biologist Hamer began collecting bat guano at the Ebey Slough bat colony site as part of the ongoing WNS surveillance effort.

2) Providing Recreation Opportunities

North Skagit Spring Bear Hunt: Region 4 Private Lands staff members hosted a pre-hunt meeting for north Skagit spring bear hunt permit holders. The purpose of the meeting is to educate the permit holders about the spring bear hunt and provide a venue for partner landowners to talk about how they view the bear hunt. Hunters signed vehicle access permits and received the gate code for the combination locks. The meeting was well attended by the hunters and partner landowners including Sierra Pacific Industries, Washington Department of Natural Resources, and WDFW Region 4 Enforcement staff members. Region 4 Private Lands personnel toured several areas of the north Skagit spring bear hunt unit to assess road conditions and look for early bear sign. No bear sign was observed, but many roads were blocked by fallen trees through the winter.



A fallen tree blocking the road in the north Skagit spring bear hunt unit

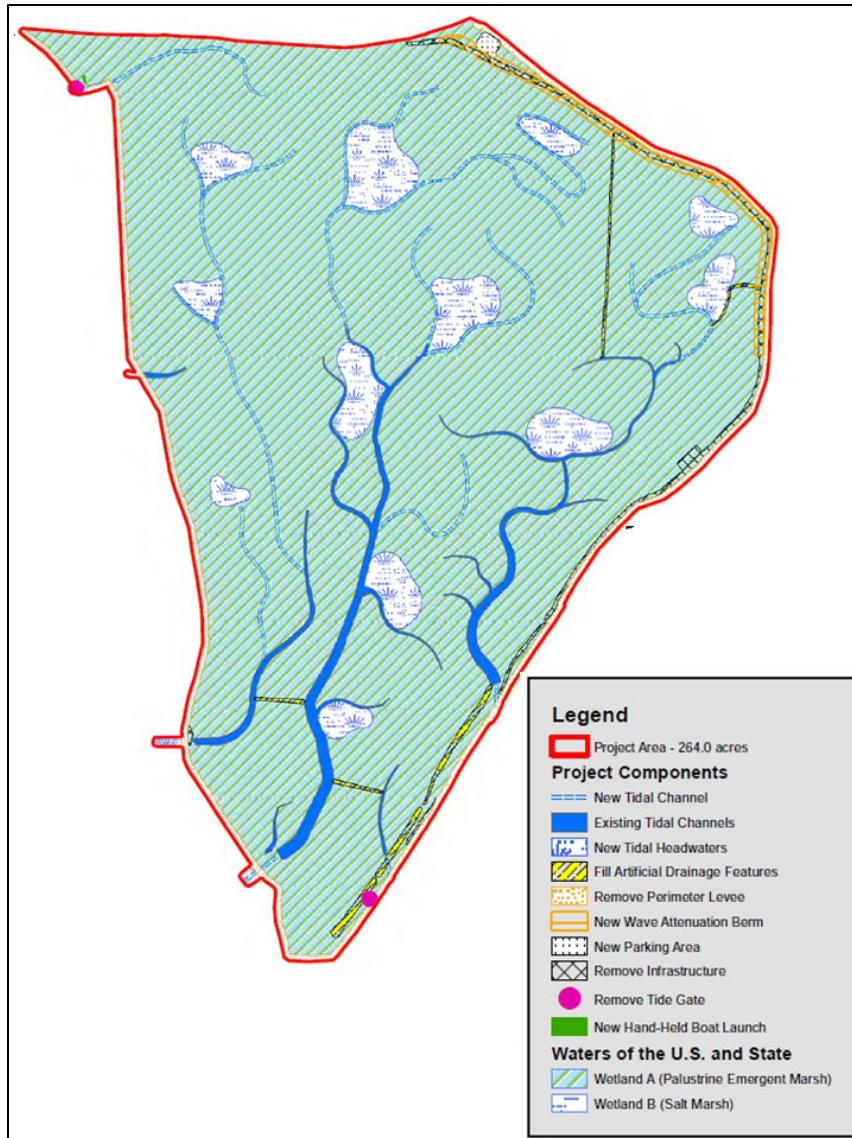
Orcas Island Women’s Hunt Group: Biologist Milner presented a talk on overpopulation of black-tailed deer in the San Juan Islands to a group that is interested in learning about, and harvesting deer on Orcas Island. Deer populations in the islands are very high and consequently are having negative impacts to a variety of native plants, insects, and birds that are native there. The group offered suggestions to Milner’s presentation that will help tell the story of what happens when too many deer browse too many plants in an island setting.

3) Providing Conflict Prevention and Education

Nothing for this reporting period.

4) Conserving Natural Landscapes

Leque Island Estuary Restoration Project: Projects Coordinator Brokaw and the WDFW and Ducks Unlimited Project Team coordinated several times to prepare for summer of 2019 construction for the Leque Island Estuary Restoration Project. Brokaw gave a presentation to the Sound Water Stewards (a local Camano Island based group of citizen scientists) on the project, briefed the Region 4 management team on the upcoming construction phase, submitted two grant reports, and applied for a National Pollutant Discharge Elimination System (NPDES) permit.



The Leque Island Project, planned for construction this summer, will restore 250 acres estuary habitat by reintroducing tides from Port Susan and Skagit Bays to the project area and will include a 0.7 mile long elevated berm that will also serve as a trail along with two parking areas and a hand-held boat launch

San Juan Islands Terrestrial Managers Meeting: Biologist Milner attended the annual meeting of partners who are engaged in conservation projects throughout the San Juan Islands. This year's topics included discussions of forest health relative to warming weather. Many forests in the San Juan's are tightly stocked with understories that are heavily browsed by deer. This makes them susceptible to fires, which is a concern in forests throughout western Washington.

5) Providing Education and Outreach

Oak Talk on SJI:

Lecture Series: Garry Oak Prairie, a Unique Habitat

Posted on [February 26, 2019](#)

— from Katherine Dietzman —



What are Garry Oaks and how do Garry Oak habitats support the ecology of the San Juan Islands and the Pacific Northwest? Join experts from San Juan Island and beyond March 8, 15, 22 and 29 at the San Juan Island Grange to learn about the history of Garry Oaks in the Pacific Northwest, their extraordinary ecological significance in the San Juans, and steps the steps you can take to promote Garry Oak habitat in your very own backyard!.

6) Conducting Business Operations and Policy

Restoration Pathway Coordination: Projects Coordinator Brokaw met with the regional management teams in Region 5 and Region 6 to discuss the project management process WDFW uses to implement habitat restoration projects. He is drafting updates for each region's process to clarify decision-making responsibilities and balancing recreation and habitat goals.

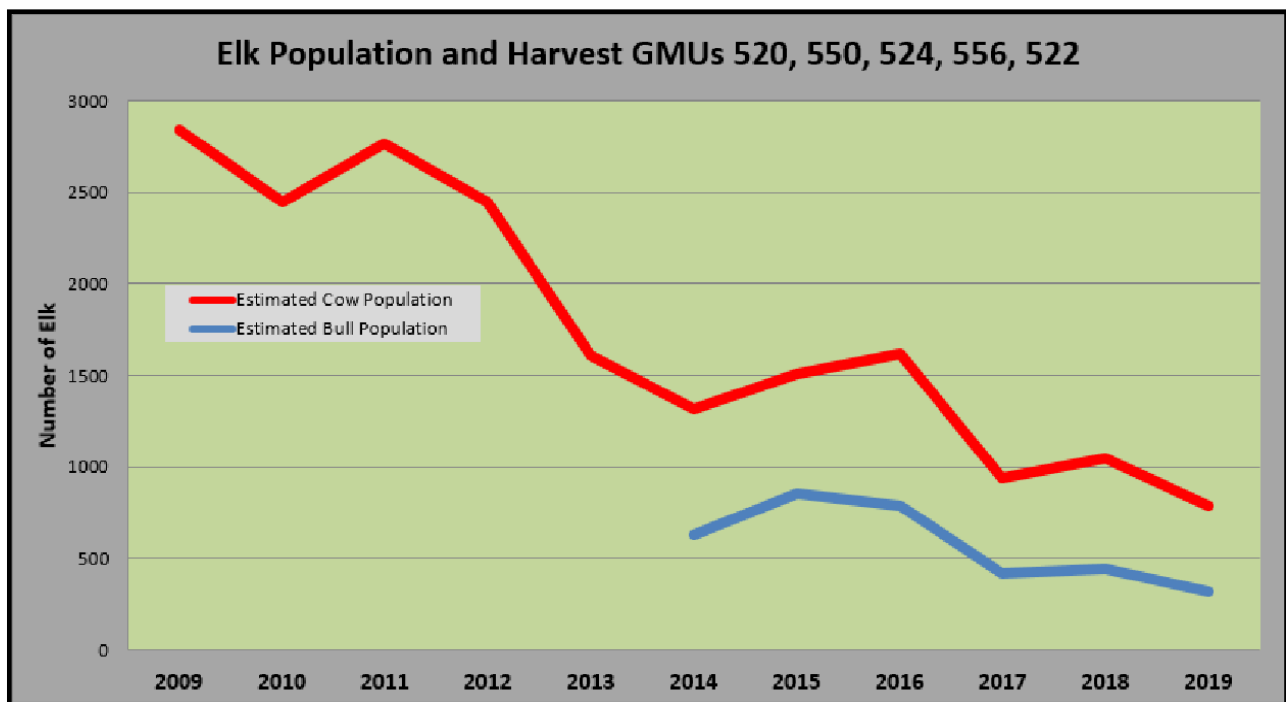
7) Other

Nothing for this reporting period.

REGION 5

1) Managing Wildlife Populations

Summarizing Mount St. Helens Elk Population Surveys: Biologist Stephens entered the data and developed the sightability corrected estimates for the 2019 Mount St. Helens elk population surveys. Two-hundred and four groups of elk were located during the survey with 1,319 elk observed. Unfortunately, this represents a population low-point for the Mount St. Helens elk herd since this method of monitoring was implemented in 2009. See the figure below for a graphic illustration of the estimated population of elk in the “Core” Mount St. Helens herd area. Calf to cow and bull to cow ratios among the Mount St. Helens elk remain strong at 35 calves to 100 cows and 40 bulls to 100 cows. For more information on the Mount St. Helens elk herd, see the annual status and trend report: <https://wdfw.wa.gov/publications/02058>



Mount St. Helens elk population estimates 2009-2019

Mudflow Elk Count: Mount St. Helens Wildlife Area Assistant Manager Wildermuth conducted the monthly elk count on the Mudflow Unit. There were 58 cows, 28 bulls, and 15 calves observed for a total of 101 elk.

Counts are conducted monthly from December through April and observations are made from the Forest Learning Center off the Spirit Lake Highway (Highway 504). It is typical for the total number of elk on the Mudflow Unit to peak in late winter when snow accumulation is highest

and then decrease in the spring as the elk start to move back up into higher elevations.

Klickitat Wildlife Area Deer Survey: Biologists Wickhem, Bergh, Burlingame, Wildlife Area Manager VanLeuven, Assistant Manager Steveson, and Officer Nelson conducted the annual road survey for mule deer on the Klickitat Wildlife Area. A version of this survey has occurred on the wildlife area since 1960, with the same driving routes being used since at least 1980. While road surveys are not a scientific way to estimate a population size, they are still useful at documenting trends in the population and gathering fawn to adult ratios, which are an indicator of winter fawn survival. Unfortunately, the crew counted only 177 deer, one of the lowest counts ever. The population is likely still recovering from the outbreak of adenovirus hemorrhagic disease in 2017 (<https://wdfw.wa.gov/news/states-first-case-ahd-deer-confirmed-southcentral-washington>) and from the severe winter of 2016-2017. In addition, mule deer in this part of the state are quickly losing their wintering habitat to development, agriculture, and energy projects. Despite the low count, fawn to adult ratios were above the 30-year average, which is a sign that a high percentage of fawns likely survived the winter.



Assistant Wildlife Area Manager Steveson glasses the hillside for deer during the 2019 road survey on the Klickitat Wildlife Area

Oregon Spotted Frog Egg Mass Survey: Biologists Wickhem and Burlingame conducted a follow-up Oregon spotted frog egg mass survey at sites in the Trout Lake Valley this week. The biologists were able to find 68 egg masses on this visit, up from only two egg masses found at these same sites only a week ago. That means the breeding season is well underway, and we are on track to conduct a comprehensive survey of the watershed in two weeks. This comprehensive survey will allow WDFW to calculate a population estimate for this federally threatened species.

For more information on Oregon spotted frogs, please visit: <https://wdfw.wa.gov/species-habitats/species/rana-pretiosa> on our new website.



Biologist Burlingame searching for egg masses



Oregon spotted frog egg mass

Biologists Bergh, Wickhem, Burlingame, Private Lands Biologist/Conflict Specialist Jacobsen, and two volunteers conducted searches for Oregon spotted frog egg masses on private land in the Glenwood valley adjacent to Conboy National Wildlife Refuge where there is a large population of Oregon spotted frogs. No egg masses were found compared to 39 in that area in 2018. Egg masses on adjacent refuge land were close to hatching out and one was partially hatched out, so it is possible that the survey was conducted too late.



Oregon spotted frog surveys in the Glenwood Valley

Monitoring White-nose Syndrome in Washington's Bats: Biologist Holman joined Biologist Tobin to deploy traps designed to capture bat guano in Lewis County. The collected guano is then submitted for disease testing associated with white-nose syndrome. For more information on white-nose syndrome see: <https://wdfw.wa.gov/species-habitats/diseases/bat-white-nose>.

Western Gray Squirrel Survey: Klickitat Wildlife Area Manager Van Leuven and Assistant Manager Steveson worked along with volunteers to survey property owned by a conservation organization for presence of western gray squirrel nests. The Columbia Land Trust has property adjacent to the Soda Springs Unit of the Klickitat Wildlife Area, which they manage for both conservation of western gray squirrel habitat and for forest health. They have done innovative forest management work including thinning of overstocked conifer stands, while maintaining mature cone-bearing trees and canopy connectivity and protecting oak trees. They monitor the property to document the results of their management efforts, and this year's survey data will add to a series of western gray squirrel surveys done since the thinning project was done approximately eight years ago. The Land Trust's work offers an important opportunity to learn what forest management measures are compatible with retention of habitat for this state-listed species. Washington Department of Fish and Wildlife has taken note of their results and crafted similar forest management projects to be undertaken on state land.

2) Providing Recreation Opportunities

Southwest Goose Management Area 2 (GMA2): Biologist Burlingame completed the annual report for goose harvest checks in GMA2. In total, 894 geese were checked by WDFW personnel, the Ridgefield National Wildlife Refuge check station, or self-reported by hunters. Of the geese checked, cacklers made up approximately 55 percent, taverners and westerns each accounted for roughly 12 percent, and dusky geese made up 1.8 percent with 16 harvested. These numbers will be used in conjunction with mandatory reporting data to help the agency get a better picture of overall goose harvest in GMA2.

Cowlitz Wildlife Area Storm Damage Clean-up: Acting Cowlitz Wildlife Area Manager Vanderlip worked on clearing downed trees and broken limbs blocking the Clevenger Road on the Kosmos Unit. This gated road sees a lot of pedestrian traffic. The public was walking over branches and through ditches to get around the debris. The road is accessible now but more work is needed to dispose of the material that is now stacked along the sides of the road.



Storm damaged trees and debris before, during, and after clean up on Clevenger Road

Modrow Bridge Access Site: Access Manager Rhodes discovered a burned car at the Modrow Bridge access site. Rhodes notified WDFW Law Enforcement who had the car removed the same day. Rhodes also worked with the Department of Ecology for help with the additional cleanup as well as the Ecology Spill Response Team to cleanup any chemicals on site.



Burned car at the Modrow Bridge access site

3) Providing Conflict Prevention and Education

Elk Hazing: Wildlife Conflict Specialist Jacobsen deployed a portable wildlife-hazing device to a farm in Klickitat County. This is one of the first deployments of the portable wildlife-hazing device. Hopefully, the device will work to keep elk out of the new alfalfa growth and will be an effective tool in other hazing situations as well.

Cougar: Wildlife Conflict Specialist Conklin responded to a report of a cougar that had been hanging around a neighborhood, playing with pets, and entering homes through pet doors. The reporting party also stated there was a house cat missing. Conklin interviewed the reporting party in addition to others in the neighborhood and investigated the site. After gathering all of the facts, it appears the reporting party was confused about what actually occurred. The cougar did not enter the house or play with pets. The cat the reporting party said was missing was found sleeping on the bed in the house. Conklin installed a camera to monitor the neighborhood.

Elk: Wildlife Conflict Specialist Conklin responded to a report of an elk that was in a yard in the Kelso area. The reporting party stated the elk had been there all day and had not moved. Conklin determined the elk had treponeme-associated hoof disease and the elk was euthanized.

Deer: Wildlife Conflict Specialist Conklin responded to a call about a deer that had been hit by a car in the Silver Lake area. The reporting party was concerned the deer was still alive and suffering. Conklin arrived on scene but could not locate the deer.

Ducks: Wildlife Conflict Specialist Conklin responded to a report of ducks that were killed. Conklin surveyed the scene and determined the ducks likely were killed by a domestic dog.

Bear: Wildlife Conflict Specialist Conklin responded to a report of a bear getting into garbage cans in the Glenoma area. Conklin provided advice to the landowner.

4) Conserving Natural Areas

DNRs 20-year Forest Health Strategic Plan Meeting: Biologist Bergh attended a meeting hosted by the Department of Natural Resources (DNR) regarding wildlife habitat values in their 20-year Forest Health Strategic Plan. The goals of the plan include management and restoration treatments in priority areas to increase forest resilience, reduce wildfire risk, enhance economic development through forest restoration, and development of a forest health resilience-monitoring program. The forest health activities will occur on DNR, U.S Forest Service (USFS), and private lands in priority areas across eastern Washington. Wildlife and habitat biologists from DNR, USFS, and WDFW met to review the strategy to incorporate wildlife habitat values into the plan and outline the process going forward all the way to including individual key wildlife species habitat needs into forestry prescriptions in the future.

Mount St. Helens Wildlife Area Off Highway Vehicle Use: Manager Hauswald and Assistant Manager Wildermuth found evidence of off highway vehicle (OHV) use on parts of the Hoffstadt Unit. The area is open to non-motorized public access for hunting, fishing, hiking, photography, birding, etc., but no motorized use is permitted. Measures were taken to block future OHV use to protect the area from disturbance.

Klickitat Wildlife Area Fire Hazard Reduction: Volunteers from Portland's Lewis and Clark College, plus a master hunter from Goldendale, gathered debris left from a forest thinning project on the Soda Springs Unit on the Klickitat Wildlife Area and piled it for burning later. The forest management work in fall 2018 resulted in more slash broadcast over the ground than anticipated, so to reduce the risk of wildfire volunteers were mobilized. The 12 workers gained plenty of exercise as they collected limbs and treetops along Soda Springs Road. Assistant Manager Steveson cut long pieces down to manageable size with a chainsaw, and five substantial stick piles were built in about three and a half hours. Many thanks to this enthusiastic group for their assistance with this project!



Pile number five surrounded by Lewis and Clark College volunteers

5) Providing Education and Outreach

University Presentation: Biologist Bergh gave a presentation to a class at the University of Portland on the history and modern science of wildlife management in North America, along with current wildlife issues and the role of state agencies like WDFW. She also highlighted several species that WDFW works on in southwest Washington as a case study in wildlife management. The students had many very insightful questions.

Mount St. Helens Institute Volcano Naturalist Presentation: Biologist Holman gave a presentation to 15 members of the St. Helens Institute as well as their program coordinator. The presentation featured information on the mountain goats and elk of Mount St. Helens as well as hoof disease and the fisher reintroduction project.

Upon completion of their training, the institute members are termed volcano naturalists. The volunteers help operating sites on and near the Mount St. Helens National Volcanic Monument as well as participating in volunteer activities. For more information on the St. Helens Institute, see their website at: <https://www.mshinstitute.org/>.

Living with Washington's Large Carnivores: Wildlife Conflict Specialist Jacobsen gave a presentation on living with Washington's large carnivores as part of the White Salmon Library's Wild About Nature series. The presentation was well attended.

6) Conducting Business Operations and Policy

Nothing for this reporting period.

7) Other

Nothing for this reporting period.

REGION 6

NOTES FROM THE COAST, WEST-CENTRAL CASCADES, SOUTH SOUND AND OLYMPIC PENNINSULA:

1) Managing Wildlife Populations

Taylor's Checkerspot Release: Late and lingering snow and cold temperatures prevailing into mid-March, severely impacting growth of host plants, and had Biologist's Linders and Randolph scrambling to prepare sites for release of postdiapause Taylor's checkerspot larvae. Larvae are typically released the first week of March, but host plants were still suffering from frost and struggling to break dormancy at that time. This also impacted the rearing facilities, which were challenged to provide sufficient food from beds surrounded by nearly two feet of snow. As biologists repeatedly combed the field sites in search of fresh growth, declining food quality in captivity began to impact larval survival across institutions as time to release increased. These

observations, lend additional support to likelihood that food quality as the explanation for the high diapause mortality observed at the zoo in recent years. In the field, we used berry baskets with lids and wind breaks of thatch to encourage plant growth at release locations. Ultimately, about 6,550 caterpillars were released between two Joint Base Lewis-McChord (JBLM) sites on March 10, 15, and 17. These added to 5,175 prediapause larvae released from the same cohort in June 2018, makes this the largest annual release of Taylor’s checkerspots to date. The abundance of larvae are the result of excellent conditions in spring 2018 and the expanded rearing space built at Mission Creek Corrections Center with funding from the U.S. Fish and Wildlife Services. Field efforts benefitted enormously from many dedicated volunteers in JBLM’s Fish and Wildlife internship program, which provides environmental education and training opportunities to college students and military personnel transitioning out of service. All releases occurred under ideal conditions, with temperatures ranging from 45 to 68 degrees Fahrenheit, sunny to partially sunny skies, and no precipitation.



Host plants top-killed by frost and struggling to break dormancy, 13 March 2019 - Photo by M. Linders



Julia Low (Oregon Zoo) assists with release of Taylor’s checkerspot larvae – Photo by K. Curry



Larvae basking in the warm microsite offered by an inverted berry basket – Photo by M. Linders

Larva amidst a smorgasbord of native and exotic spring foods – Photo by L. Randolph



Biologists from WDFW, Oregon Zoo, JBLM, TESC-SPP and NRCS collaborating on release

Taylor’s Checkerspot Larval Monitoring: Biologists Randolph and Butler teamed up to monitor six 4x4m pre-diapause plots at JBLM’s Training Area 15. Since caterpillars were released in June 2018, we want to better understand how well these early-stage animals survive in the wild, and to assess their developmental condition. We employed double-observer methodology, which maximizes our ability to reconcile counts of individual caterpillars observed between two surveyors. From these data, estimates of abundance and survival can be produced, and later compared with results of post diapause release animals.

Flight Season Surveys - Taylor's Checkerspot: Biologists Linders and Cook led multiple work parties to set up sampling grids at six survey areas in the Puget lowlands. Work was completed just in time for the flight season with help from the Joint Base Lewis-McChord (JBLM) Fish and Wildlife internship program, which provided outstanding personnel! In addition, Biologists Olson and Linders conducted annual distance estimation training to Biologists Cook, Randolph and JBLM Biologist Richardson. The training examines underlying assumptions of this statistically robust methodology, such as imperfect detectability and exact distance estimates, along with search strategy tips to align thought processes and improve data quality. Biologist Randolph prepped field equipment, organized surveys documents, and compiled other needed forms used to allocate survey effort, and track weather conditions and site access.

Opening flight season surveys, completed at Ranges 76 and 50 on Monday April 15, revealed that the first checkerspots had emerged with counts of 21 and three, respectively. Once the snow finally passed, relatively warm and dry conditions advanced the phenology of both plants and animals back toward a normal or even slightly early timing. Many wildflowers are already in bloom, although conditions vary widely among sites.

JBLM Mitigation: Biologist Linders and Section Manager Anderson met with USFWS personnel to discuss parameters for a credit-debit program proposed by the Army. The program would provide credit for restoration and reintroduction of Taylor's checkerspot on off-base sites, that could be used to restore training on JBLM lands that are now restricted as a result of the federal listing.

Taylor's Checkerspot Distance Point Count Survey Preparation: Two occupied Taylor's checkerspot sites west of the Elwha River are monitored by WDFW using a distance point count method. This method was initiated in 2018, surveyed by two field personnel, Biologist McMillan and Biologist Ament. The 2019 season will include two additional surveyors, Biologist Bell and Biologist Murphie. Work began at preparing the survey routes including revising the routes on the southern site, with rainy weather deterring the effort.

Oregon Spotted Frog: Biologist Tirhi and volunteer Terry completed spotted frog surveys for 2019. The team did double surveys at two known oviposition sites, a survey at one known oviposition site, and extensive search surveys at five additional areas. The team discovered one likely new oviposition site and collected eggs for genetic verification.



Hatched Oregon spotted frog egg mass with tadpoles (black center). Air bubbles are oxygen produced by tads and algae.

Purple Martin Volunteer Monitoring: Biologist Tirhi assisted City of Olympia Stream Team Ecologist Stevie with a training session for 2019 purple martin volunteer monitors. The city has been training volunteers and monitoring the Budd Inlet martin colony for many years. This program provides valuable monitoring data to WDFW and gets community members outside and connected to their wildlife. Tirhi’s presentation focused on why we monitor and how we monitor, including martin biology and ecology and differentiating martins by sex and age. For information on joining this volunteer project, go to <http://www.streamteam.info/getinvolved/monitor/martins/>



Adult male and female purple martin – Photo by K. Lee

Skokomish GMU (636) Elk Composition Survey: Biologist Murphie collaborated with Skokomish tribal wildlife biologists conducting a composition flight for elk in the Skokomish game management unit (GMU). Foggy, rainy conditions plagued this survey effort. The crew used radio-telemetry equipment to track down seven marked groups in the GMU and found one unmarked group. Of the seven marked groups, two were in heavy cover and not counted. Biologist Murphie reports a preliminary count of 206 elk and total bull to cow ratio above management objectives at 28.5 bulls per 100 cows. At 27.7 calves per 100 cows, the spring calf to cow ratio was lower than we would like to see at this time year.



Photo of one group of elk seen during the Skokomish elk flight

Western Pond Turtle: Biologist Butler along with the Sustainability in Prisons Project coordinator arranged the release of the 10 western pond turtles that underwent treatment for shell disease. These turtles were captured in the summer of 2018 and sent to PAWS for treatment. After treatment at PAWS, Cedar Creek Correctional Center inmate technicians cared for the turtles as part of the Sustainability in Prisons Project through Evergreen State College. The technicians tracked the health of each turtle through weekly pictures and tracking their weight and behavior. After months of care, the technicians released these turtles back to their natural ponds. Many of the turtles took off quickly to explore their old home, but a few chose to bury themselves in the mud just a few feet away. Beyond the release, Biologist Butler discussed shell disease, western pond turtle recovery in Washington, and habitat management.



The Sustainability in Prisons Project turtle technicians releasing the 2018-2019 treatment turtles

Biologist Butler checked the eight western pond turtle nests laid in the summer of 2108 and left in the ground to incubate at the Pierce County recovery site. Since this recovery site is located towards the northern edge of the western pond turtle's range, most hatchlings over winter within the nest chamber and emerge the following spring. Expecting emergence earlier this year, Butler began checking the nests for any sign of activity twice a week starting mid-March. However, the hatchlings had a different plan. On April 4, the first sign of emergence was finally detected and all nests were then excavated with the assistance of research scientist Vanderhaegen. Thirty-two hatchlings successfully hatched from the eight nests (56 eggs). Because these hatchlings are too small for the typical identification methods (notching or pit tagging), small identification tags were glued to the hatchling's carapace.



First hatchling to emerge



Biologist Butler excavating a western pond turtle nest - Photo by M. Vanderhaegen



Hatchling with identification tag attached - Photo by M. Vanderhaegen

2) Providing Recreation Opportunities

Garbage Patrol: Natural Resource Technician Tupen cleaned up some trash at a privately owned site where people have been illegally dumping and driving into unauthorized areas. Natural Resource Technician Tupen and Biologist Harris are working on getting the area cleaned up and placing eco blocks to prohibit people from driving vehicles into the area. This site is an important and popular wildlife viewing area in Grays Harbor County.

Private Timberlands: Biologist Harris scheduled a meeting with a private timberland manager to debrief over last hunting season and plan for the next. WDFW currently has a Feel Free to Hunt agreement on over 30,000 acres of their land and the manager wants to discuss another large block.

Storm Damage Cleanup: The water access team continues the task of cleaning up after snow and storm events on water access sites.

The Mission Lake site suffered severe damage from the snow load on trees and brush. The water access team working with two Washington Conservation Corps crewmembers spent 12 hours cutting out and chipping brush and trees hanging over the fence line and partially blocking the access road.

This 600-foot access area is now half restored to its pre-storm condition. Crews will be working next week to finish the project.



North fence line before



North fence line after



South fence line before



South fence line after

3) Providing Conflict Prevention and Education

Elma Habituated Deer: Natural Resource Technician Tupen assisted Biologist Harris with a deer capture at a nursery near Elma. Tupen and Harris have been attempting to remove this deer for the last one to two months and were finally able to move it up into timberland, where it is not as likely to cause any more conflict with humans and pets.



Getting sleepy after being darted



Checking out the new home

Satsop and Wynoochee Elk: Natural Resource Technician Tupen checked in with landowners in the Satsop and Wynoochee Valley areas to monitor elk damage and usage on their properties. As of now, the elk are staying out of trouble for the most part. The Moore Road elk almost got into trouble again. A local master hunter noticed their movements and managed to encourage them to go elsewhere.

Injured elk: Natural Resource Technician Tupen responded to an injured elk that was laying in someone's field. Upon arriving, Tupen discovered that the elk was too weak to stand up, and euthanized the elk.

Reported Cougar Depredation: Natural Resource Technician Tupen assisted Sergeant Alexander on a possible cougar depredation of a young cow. The landowner was convinced that a cougar had taken the calf. Tupen and Alexander searched the area where the calf went missing, but were unable to find a carcass or any cougar sign in the area.

South Bank Elk: Biologist Harris arranged for a master hunter to assist a dairy farm with hazing elk.

Hoh River Elk: Biologist Harris received numerous reports of a spike elk with a whirligig in its antler. A local resident took some pictures, got a close look at it, and reported that it was not hindering the elk and appeared to be just hanging on one antler. He also asked Olympic National Park personnel to take a look if they see it. They reported the same as the local resident. When this spike loses his antlers he should drop the whirligig too.



Spike elk with some antler bling

Ocean Shores Cougar: Biologist Harris and Ocean Shores Police Department, Animal Control Officer Beebe visited a home where security cameras have captured pictures of a young cougar crossing their yard. The reporting party has sent several other partial pictures of other animals. The reporting party is requesting the cougar be removed. Interestingly, they are not even in the state at this time. While there, they spoke with others in the neighborhood. All were aware of the cougar and hoping it would eat more deer. One individual provided trail camera pictures of the cougar. While in the area, Biologist Harris counted over thirty deer within a few blocks. Go cougar!

Safari Club International (SCI) Helps Out: One of the difficulties in getting meat to charities is the cost of processing for use or distribution. Often charitable organizations need the meat, but unfortunately do not have the resources to cut and wrap. Recently Biologist Harris discussed this issue with a SCI member. The SCI member recommended that he send an email request explaining the issue and need. This resulted in SCI quickly allocating \$1000.00 for the purpose of processing meat for charitable use in 2019. Additionally it was brought up that often SCI will host meals for people in need. This was good news as it gives Region 6 another option for donating meat. Not only is SCI providing funding for meat cutting, they also purchased some forage seed in 2018 to be used by volunteers on future projects in Region 6.

Orting Valley Elk Conflict Meeting: Conflict Specialist Blankenship held a meeting with farmers and nongovernmental organizations (NGOs) in the Orting Valley to discuss elk damage concerns and WDFW's Wildlife Conflict Program. Topics of concern included damage to agricultural products, fence damage from wintering elk, vehicle-elk collisions and public access. Blankenship, with the assistance of NGOs, will be working with several farmers through Damage Prevention Cooperative Agreements to mitigate damage from seasonal elk use in the Orting Valley while maintaining critical winter range and migration corridors.

Master Hunter Elk Hazing: Conflict Specialist Blankenship enlisted the help of five master hunter volunteers to assist with hazing elk out of an organic farm in Thurston County. These master hunters will be spending most mornings and evenings on this property to dissuade the group of 8 to 10 elk from damaging high dollar organic vegetable products. To date, hazing measures have been effective and no elk or elk sign have been seen on the property since hazing activities began.

Elk Damage Site Visits: Conflict Specialist Blankenship conducted several site visits to landowners in Pierce and Thurston counties regarding elk damage to their property. Many of the landowners were not agricultural producers but are situated adjacent to producers working cooperatively with WDFW through Damage Prevention Cooperative Agreements. Advice was given regarding fencing, hazing, and access during general elk hunting seasons. Blankenship will continue to work with these landowners by providing tools and equipment for nonlethal damage abatement measures.

4) Conserving Natural Landscapes

Taylor's Checkerspot Habitat Management - Scatter Creek South: Biologist's Cook and Randolph repaired more than one kilometer of triple-strand nylon fencing to protect areas occupied by high densities of Taylor's checkerspot larvae. Fence enclosures are designed to inhibit trampling by people, horses, and dogs during field trials and other recreational activities.

West Twin River 20/20 – Coastal Wetlands Grant Pursuit: Biologist McMillan toured the West Twin River Project site with Regional Wildlife Program Management Calkins, meeting with WDFW Habitat Program personnel who were conducting wetland delineation. Biologist McMillan set up a bat detector at the site to increase the number of documented wildlife species that are using the site. Being early in the season there were few detections, but enough were recorded to get this species list:

California myotis (Myotis californicus)

Yuma myotis (Myotis yumanensis)

Big brown bat (Eptesicus fuscus)/Silver-haired bat (Lasionycteris noctivagans)

Dusky Goose Survey: Biologists Michaelis, Sundstrom, and Novack surveyed portions of Pacific and Grays Harbor counties for marked dusky Canada geese and other geese.

Considerably fewer geese were observed during this survey as compared to prior dates. Geese are migrating north to their summer breeding grounds. One survey remains for this survey season.

Snowy Plover Protection: Biologists Michalis and Sundstrom constructed signs for protection of the core nesting area for snowy plovers at Midway Beach. Over 100 signs were installed along an approximately two and a half mile stretch of beach. Signs advise recreationists to stay out of the posted area to protect sensitive breeding plovers from incursions by people and their pets. Biologist Novack and Washington State Parks staff members assisted with the installation effort.

5) **Providing Education and Outreach**

Cougar Presentation at Olympia REI: Conflict Specialist Blankenship has been making the final preparations for a presentation on “Cougars in Washington” at the Olympia REI. Since the announcement that this presentation was going to be given, the public has shown great interest by reserving the number of seats at capacity within three days. This presentation serves as a way to get information out to the public regarding cougar biology and management as well as mitigating human-wildlife conflicts and reporting requirements.

Cougar Presentation in Port Townsend: Enforcement and Wildlife Program conflict staff have received several reports of a cougar near Port Townsend in Jefferson County. Although this cougar is not showing any signs of abnormal behavior, the presence of the cougar is a concern to some of the public. Conflict Specialist Blankenship has arranged to give an informative presentation on Cougars in Washington to members of the homeowners association where many of the sightings have been reported to help educate the public on cougar biology, minimizing conflicts and reporting requirements.

6) **Conducting Business Operations and Policy**

Nothing for this reporting period.

7) **Other**

Nothing for this reporting period.