

Wildlife Program – Bi-weekly Report

Mar. 1 to 15, 2020

DIVERSITY DIVISION

HERE'S WHAT WE'VE BEEN UP TO:

1) **Managing Wildlife Populations**

Bats and White-Nose Syndrome: Washington Department of Fish and Wildlife (WDFW) biologists Tobin and Anderson assisted undergraduate students from the University of Washington complete a bat monitoring project in the North Bend area of King County using acoustic detectors. This project will use the acoustic data to characterize bat activity in this area during early spring as way to assess bat species vulnerability to white-nose syndrome.



Acoustic detector deployed by undergraduate students from University of Washington for a bat monitoring project that WDFW advised on

2) **Providing Recreation Opportunities**

Nothing for this installment.

3) **Providing Conflict Prevention and Education**

Nothing for this installment.

4) **Conserving Natural Landscapes**

Nothing for this installment.

5) **Providing Education and Outreach**

Nothing for this installment.

6) **Conducting Business Operations and Policy**

Nothing for this installment.

7) **Other**

Nothing for this installment.

GAME DIVISION

Nothing for this installment.

HUNTER EDUCATION

1) **Managing Wildlife Populations**

Nothing for this installment.

2) **Providing Recreation Opportunities**

Nothing for this installment.

3) **Providing Conflict Prevention and Education**

Master Hunter Permit Program: Hunter Education and Volunteer Coordinator Elliott from Region 5 worked with Wildlife Conflict Specialist Jacobsen to get assistance in Klickitat County from master hunters. Due to low elevation snow levels, coyotes had moved down near the local cattle ranches. Depredation was causing landowners to take significant losses in their calving operations. Several master hunters were deployed, and the landowners were thankful for the assistance.

Elliott also met with a local master hunter to brainstorm ideas he has for utilizing master hunters. He regularly works with our conflict specialists on damage hunts and was one of the responders to the coyote depredation in Klickitat County. He feels strongly about the program and wants to offer help in any way he can.

Hunter Education and Volunteer Coordinator Montgomery from Region 6 coordinated a volunteer project for WDFW staff members, where two disabled master hunter volunteers spent a week working on WDFW small game surveys.

4) Conserving Natural Landscapes

Hunter Education and Volunteer Coordinator Garcia from Region 3 coordinated with two master hunters and Mountain to Sound Greenway Trust on a project to build tool storage at the Kittitas tool cache.



Master hunters proudly display their volunteer work, which will last a very long time

5) Providing Education and Outreach

Hunting Clinics and Mentored Hunts: Hunter Education and Volunteer Coordinator Garcia from Region 3 communicated with 75 people that are signed up for spring turkey hunts. Additionally, Garcia assigned mentors to 42 participants and contacted additional mentors intending to have mentors assigned to all participants by April 15. Garcia also met with Biologist Westerman to discuss properties for mentored hunts. They report that all the feedback from the landowners has been positive thus far. Coordination continued with the National Wild Turkey Federation regarding the upcoming Women in the Outdoors and Jakes event on May 4 and 5.

Partnering with Non-governmental Organizations: Hunter Education and Volunteer Coordinator Dazey from Region 4 met with members of the Washington Waterfowl Association and the Twin Cities Shotgun Club to discuss a partnership opportunity for recent hunter education students. The two groups are looking to host recent hunter education graduates to a fun day shooting trap at the range. Providing this opportunity for recent graduates from hunter education will hopefully continue to build an interest in shooting sports and provide fun opportunities to hone their shotgun skills. Graduates would also get to meet members of the Washington Waterfowl Association and learn of further mentor opportunities in waterfowl hunting.

Dazey also coordinated with [Washington Backcountry](#), a non-government organization whose mission is to encourage and mentor new hunters who have not had the advantage of growing up in a hunting family. These late entry hunters often end up discouraged and frustrated as they try to learn the ropes without any guidance from experienced hunters. The founders of Washington Backcountry became interested in hunting as adults and feel passionate about passing on their knowledge and experiences to new hunters. By becoming mentors, they also become ambassadors for the sport of hunting.



Washington Backcountry founder Johnny Mack presents to the crowd at the meet up

Loowit Chapter of the Rocky Mountain Elk Foundation: Region 5 Hunter Education and Volunteer Coordinator Elliott provided materials to the Region 5 Master Hunter Advisory Group (MHAG) members George Dennis (chair) and Keith Pfeifer who set up an informational table at the banquet on Saturday, March 9. The focus was on engaging with the Rocky Mountain Elk Foundation (RMEF) membership to recruit WDFW volunteers and master hunters. The booth was visited by several RMEF members in attendance, one of which applied to become a volunteer hunter education instructor, and another will apply. Six others signed WDFW Volunteer Application forms. Also, George and Keith answered many general questions, especially regarding elk hoof disease. The event was considered a success! This was the second event of its kind. In February, Elliott and MHAG member Pfeifer set up a booth at the Vancouver RMEF banquet with similar results.



Master Hunter Advisory Group members George Dennis and Keith Pfeifer

National Hunting and Fishing Day: Region 6 Hunter Education and Volunteer Coordinator Montgomery has been working on National Hunting and Fishing Day (NHFD), getting non-governmental organizations and sponsors committed. Some of the sponsors are longtime partners, and some are first year. One of the biggest sponsors this year is Tacoma Sportsmen's Club. They have donated their clubhouse and ranges for this year's event. Montgomery presented an NHFD presentation at the club's general membership meeting, explaining what NHFD was about and recruiting several volunteers. Some new sponsors and partners include Washington State Parks, Department of Natural Resources, Pierce Conservation District, South Puget Sound Salmon Enhancement, Get Hooked Foundation, Ducks Unlimited, and many others. Safari Club International has raised \$2,000 towards their goal of a fishing rod and reel for every attendee. Returning partners will include the Mule Deer Foundation, bringing their air rifle trailer and the ever-popular antler headgear for kids to look at.

The Washington Hunter Education Instructor's Association has secured a grant from Friends of the National Rifle Association for a new laser shot system, which is a great tool for teaching youth and adults how to shoot and hunt. Additionally, the laser shot system can be used at many outreach and education events.

Career Day at Orting Middle School: Region 6 Hunter Education Coordinator Montgomery attended a career day where he talked to students about the range of careers within WDFW.

New Hunter Education Venues: Region 1 Hunter Education Coordinator Whorton is working to locate a new hunter education class venue in the greater Spokane area. The Spokane Trap Club is in the process of being closed due to encroachment of the city, which will mean the elimination of a teaching venue for one of the larger hunter education teams in the Spokane area.

Hunter Education and Volunteer Coordinator Dazey from Region 4 met with representatives of the West Coast Armory in Bellevue to preview the venue for its suitability as a hunter education classroom and field course. Dazey was approached by the management of the West Coast Armory and after the site visit not only found it to be suitable but also recruited one of the range safety officers to apply to become a hunter education instructor. This will strengthen the tie to the range and provide a facility in the Bellevue area where one has not recently existed. Classes had been held at the West Coast facility several years ago and we are glad to be given the opportunity to resume classes there.

Hunter Education Instructors: Region 1 Hunter Education Coordinator Whorton conducted a pre-service training session for applicant hunter education instructors, where six applicants were trained and moved on to the next step in instructor certification. Whorton also certified four new hunter education instructors in regions 1 and 2.

Region 5 Hunter Education and Volunteer Coordinator Elliott held a traditional hunter education class locally. Twenty-one students participated with an age range of 9-53. Three instructor applicants who recently took their pre-service training attended and taught with the team to complete their certification requirements.

Hunter Education Coordinator Dazey conducted pre-service training at the Boy Scout Camp Pigott in Region 4 where nine new instructors completed the certification process and were certified as hunter education instructors. The certification process involves the applicant first passing a background check, then attending a classroom session where agency policy and teaching tips or techniques are covered. Following the first session, the applicants are divided up into teaching teams and then grouped with experienced instructors. The applicants with the help of the experienced mentors are then required to teach an actual hunter education class. This practical exercise is followed by a debrief and if the applicant has satisfactorily completed all the pre-service requirements then certification.



Students are taught to safely cross an obstacle either with a partner or if hunting alone



A young student learns how to safely carry his firearm when in the field

Instructor Teaching Team Evaluations: Hunter Education Coordinator Dazey traveled to Custer to visit the hunter education team that teaches there. Each Coordinator is responsible for visiting the teaching teams in their region. These regular visits ensure that department policy, instruction syllabus and content are being correctly followed. These regular visits also allow the coordinator to observe any new and innovative techniques that the team has developed to deliver the class content and then to share these innovations with other teams. The team that teaches at the Custer gun range is filling a vital need for hunter education in Whatcom County and is much appreciated for the quality job they do.



Live fire is always the most popular part of the class especially when conducted by a certified range safety officer



Student learning the different firearm actions

In addition to the Custer team visit, Hunter Education Coordinator Dazey also visited one of the two teams that teach at Black Diamond Gun Club (BDGC). The team at BDGC was teaching a traditional hunter education class where all the instruction is provided in the class sessions which usually last a total of fifteen to eighteen hours spread over several sessions. Classes use a set of inert firearms or orange guns to safely learn each skill before handling live firearms.



Students learning to remove firearms safely from a vehicle



Selecting the correct ammunition for the firearm, loading, and unloading safely, and learning to work each type of action

Hunter Education Instructor Recognition: Hunter Education Coordinator Dazey completed the nomination for the 2018 Terry Hoffer Memorial Firearm Safety Award recipient Bob Palmer to the International Hunter Education Association (IHEA) as the IHEA instructor of the year for 2018. Washington State has previously had two instructors awarded this prestigious award. Most recently Steve Mills (Region 5) and Cathy Lynch (Region 4). It is a great honor for Washington State to be represented in the list of top instructors. It shows the value of the hunter education program in Washington and the quality of our instructors. It is this quality level of instruction that will ensure our hunting heritage is passed on to the next generation of safe, legal, and ethical hunters.

6) Conducting Business Operations and Policy

Master Hunter Advisory Group Selection: Hunter Education Division Manager Whipple and Hunter Education Division Specialist Thorson met with the Master Hunter Advisory Group Selection Subcommittee. During the meeting, recommendations for the appointment of six members to the MHAG was discussed. The recommendations were presented to Director Susewind for an appointment to the group. Hunter Education Division Manager Whipple also briefed the director on the Master Hunter Permit Program, its membership, and the current budget situation.

7) Other

Nothing for this installment.

LANDS DIVISION

Nothing for this installment.

SCIENCE DIVISION

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Predator-Prey Project and Ungulate Research: Research Scientist DeVivo, Region 1 personnel, and University of Washington capture crews continued white-tailed deer capture work. As of March 15, they have deployed 58 collars on adult does. Additional young-of-the-year deer have been captured and collared. Capture teams will continue to deploy collars through next week. The weather has significantly changed with warmer days slowing but not halting capture success. Due to weather conditions and other tasks that need attention before April 1, capture work will conclude March 22.

Predator-Prey Project and Cougar Research: Research Scientist Kertson continued capture efforts in GMUs 117 and 121 in support of cougar research as part of the Predator-Prey Project. The season is quickly coming to end, but he and his team managed to successfully recapture an adult female and swap out her bad collar for a new one that is working correctly. They also captured a 12-14-month-old male cougar during this session – the 50th cougar that has been captured and marked in the northeast study area for the project. To date, 29 cougars have been outfitted with a GPS radio collar. With spring just around the corner, the winter 2018-2019 capture season will conclude later this month.

Lynx Decision Support Package: Biologist Blatz is finalizing the development of map and tabular data products for delivery to U.S. Fish and Wildlife Service (USFWS) in response to the proposed federal delisting of Canada lynx. Analyses focus on quantifying and mapping significant habitat loss due to the increasing extent and severity of wildfires in key lynx habitat in Washington and British Columbia over the past 28 years. Work has been performed in coordination with Biologist Lewis who is the species lead in the Diversity Division. Draft products will be sent out for peer review in the coming week and the package will be delivered to the USFWS in a couple of weeks.

Western Pond Turtle Recovery: Veterinarian Haman met with partners at the Woodland Park Zoo to discuss recovery and conservation efforts for the western pond turtle. Though recovery of this state-endangered species has been successful over the past two decades, the recent discovery of a disease that affects the shells of western pond turtles in Washington may be limiting this recovery. Ongoing research using CT scans to investigate the extent and severity of the shell disease indicates that the prevalence is over 85 percent. Considering this, WDFW led research collaborations with partners such as the Woodland Park Zoo, Oregon Zoo, Shedd Aquarium, University of Washington, and the University of Illinois are invaluable.

Winter Mule Deer Mortality: Veterinarian Mansfield and Wildlife Health Technician Cole have been receiving an increase in reports of dead mule deer in eastern Washington. To date, necropsies and laboratory testing indicate that the deer are in a state of chronic negative energy balance, likely a result of prolonged winter weather and deep snowpack. At least one deer had a severe stomach ulcer, which usually indicates that the deer had been eating inappropriate feed such as corn, grain, or wheat. A deer's digestive system cannot handle the sudden addition of these feeds to their diet in the winter. When eaten, they ferment in the stomach, producing large amounts of acid, which cause ulcers and enter the bloodstream, usually resulting in death.

Wildlife Health Monitoring: Wildlife Health Technician Cole managed biological samples collected from winter research captures of mule deer, white-tailed deer, bighorn sheep, and elk. These archived samples are invaluable for conducting retrospective health evaluations and for sharing with collaborators conducting various wildlife health investigations.

Veterinarian Haman coordinated with Biologist Fidorra on a large (>100) American robin mortality event in the Tri-cities area. Initial necropsy and laboratory results revealed emaciation in all submitted birds. Further diagnostic testing is pending.

Veterinarian Haman began the initial planning, with Research Scientist Pearson, for a health assessment on rhinoceros auklets. This research is funded by a small grant received from UC Davis's Oiled Wildlife Care Network. WDFW will conduct this work later this spring and summer.

Veterinarian Haman participated in a monthly call with [Partners for Amphibian and Reptile Conservation Disease Task Team](#). This group recently wrote a manuscript for peer-review that highlights specific biosecurity and decontamination concerns when conducting fieldwork at sites that are of high risk for pathogen exposure and transmission between wildlife populations.

Veterinarian Haman is the lead author on this paper, which is currently in review at Herpetological Review.

Veterinarian Mansfield participated in a call with Olympic National Park and Northwest Trek staff members to continue planning for mountain goat captures and translocations scheduled for this summer.

Big Game Harvest Estimates: After completing the preliminary analysis of harvest data, Biometrician Keren and IT Specialist Whelan provided draft information to regional biologists for quality control review. Whelan and Keren responded to several inquiries received from staff members. The feedback indicated the results were being closely scrutinized. The redesigned HEIDI (Harvest Estimation from Irregular Data Inputs) framework continues to show our analyses are robust, data integrity is strong, and overall, we have high confidence in the results. The codebase is looking good after working with Licensing and JMT Technology Group on several WILD system nuances, making improvements, and undergoing several rounds of questions and answers. When completed, we feel the suite of products derived from our harvest estimates will give decision-makers and the public the most accurate picture possible of Washington's big game harvest in 2018.

2) Providing Recreation Opportunities

Nothing for this installment.

3) Providing Conflict Prevention and Education

Problem Moose Re-sightings: Wildlife Health Technician Cole followed up with several members of the public that called to report sightings of ear-tagged moose. Most of these are moose that have been darted and removed from suburban areas in and around Spokane. People are often curious to know the history of the moose they had seen. Many send in pictures caught on game cams etc. Cole records these re-sightings into our moose database and provides a brief history to callers of why the moose have tags etc. Citizens seem to appreciate the information and learning about our work with the moose, and information on where and when they are observed informs our understanding of outcomes of relocating problem moose.

Habituated Wildlife: Veterinarian Mansfield traveled to Yakima to conduct a physical exam and testing on a tame elk that will be transferred to the Woodland Park Zoo.

Staff Training: Veterinarian Mansfield and Wildlife Health Technician Cole began to make arrangements for annual agency chemical immobilization training later this spring, which staff members must complete before they can legally possess or use drugs to capture wildlife.

4) Conserving Natural Landscapes

Nothing for this installment.

5) Providing Education and Outreach

Citizen Scientist Training: Research Scientist Vander Haegen trained 14 Audubon volunteers working on the cooperative Sagebrush Songbird Survey on how to enter bird observations using ArcGIS Online and the Survey123 application. Audubon volunteers are conducting bird surveys primarily on public lands, but also on private lands where the landowner has granted permission. Whereas project volunteers enter data collected on public lands into the online site [eBird](#), a global database used by birders and scientists to store bird observation records, survey observations collected on private lands will be stored in a secure WDFW database to provide a measure of privacy to the landowners who granted access to their lands.

Wildlife Health Education: Veterinarian Mansfield presented a webinar on treponeme-associated hoof disease (TAHD) of elk as a contribution to the Animal Determinants of Emerging Disease (ADED) Seminar Series, hosted by the Centre for Coastal Health in Nanaimo, British Columbia.

Wildlife Health Outreach: Veterinarian Mansfield provided veterinary input into agency outreach material on the Chelan Butte bighorn sheep capture, winter feeding of wildlife, and TAHD. Also, she answered questions from an outdoor reporter who is doing a story on TAHD.

6) Conducting Business Operations and Policy

Nothing for this installment.

7) Other

“Data-Driven” Website Content: IT Specialist Trewella continues to participate in an interdisciplinary technical team comprised of staff from Public Affairs, Information Technology Services, and Lands Division. This team has prototyped a robust and integrated framework of GIS, data management and web technologies for effectively delivering WDFW web-content directly from authoritative databases, which are managed by subject matter and business experts within Wildlife Program. This new framework will be deployed at the end of March and will continue to be refined and expanded to include more data-driven content and interactive mapping capability to showcase the recreation and conservation opportunities on WDFW managed lands. This technological framework modernizes and streamlines internal content management and improves content delivery.

ESRI GIS Developer Summit and Workshops: IT Specialists Wiersma, Trewella, Simper, and Whelan attended the annual GIS Developer Summit, sponsored by [ESRI](#). This weeklong workshop was comprised of hands-on training in extending and customizing mobile and web-based GIS applications for data collection, analysis, visualization, and reporting. New and emerging GIS technologies were presented at the conference related to the ArcGIS Pro, ArcGIS Online, Portal, Insights, Survey123, Explorer, and Collector. New Javascript tools for web map creation, new software tools like the Tracker mobile app and enterprise Jupyter notebook integration for collaborating on data analysis were also showcased.

WSDM Code Enhancement Project: IT Specialist Christopher began the long transition of migrating legacy .NET applications into scripting or browser-based options. In the future, this will make the applications (such as the Denormalizer) easier to maintain and help stay abreast of the latest versions of ArcGIS software. The browser-based development efforts will make the code more accessible to a larger group of WDFW staff members.

REGION 1

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Prairie Grouse and Raven and Raptor Surveys: Biologists Atamian, Lowe, and Schroeder, along with Jason Lowe, Bureau of Land Management (BLM) biologist, and Kim Thorburn WDFW have begun conducting sage grouse and sharp-tailed grouse lek surveys and searches, as well as, running the spring raven and raptor surveys in and around the Swanson Lakes Wildlife Area and BLM Twin Lakes Recreation Area. The sage grouse lek in Lincoln is still active, but down to only four males. The sharp-tails are just starting to show up and dance a little on the leks. The ravens and raptors are doing well, with a large contingent of rough-legged hawks still hanging around the area, they should head north here soon for nesting. Also observed in the area was a herd of roughly 50 elk, mostly cows (28) and calves (19), but three spike bulls were also hanging with the group.



Part of a group of 50 elk on the Swanson Lakes Wildlife Area, observed on the way back from sage grouse lek surveys



Greater sage grouse taking advantage of new growth in a restored ag field on BLM in Lincoln County - Photo by Kim Thorburn

Wolf Population Monitoring and Surveillance: Wildlife Conflict Specialist Samsill, Statewide Wolf Specialist Maletzke, Public Affairs Specialist Lehman, and Spokesman Review outdoor writer Francovich performed a winter wolf survey in the Wedge pack territory. This survey was organized to satisfy a request from Regional Conflict Supervisor McCanna to get Spokesman Review outdoor writer Francovich out in the field on a winter wolf survey.



2) Providing Recreation Opportunities

Nothing for this installment.

3) Providing Conflict Prevention and Education

Conflict Prevention: Samsill responded to a report of wolves recently captured on a trail camera adjacent to a small calving pasture. The reporting party (RP) also stated that he recently saw wolf tracks within his calving pasture. Samsill initially issued three Foxlights to the RP and later determined that fladry would be the best deterrent for this operation. Later that week, Samsill and Private Lands Technician Fish deployed a strand of fladry around the perimeter of the RP's calving pasture and removed three Foxlights.



Pilot Deterrent Projects: Wildlife Conflict Specialist Bennett continued to work with WDFW headquarters staff members and external stakeholders on development and deployment on several pilot projects to address locations of chronic depredations in northeast Washington.

Elk: Natural Resource Technician McGee continued to coordinate with producers in the Cloverland area and monitor elk activity. McGee also spent time checking other areas in Garfield and Asotin Counties for elk activity as the snow recedes and elk start to move from their wintering areas. McGee located one set of wolf tracks in the Peola area while checking for elk activity.



Wolf track located in Peola

4) Conserving Natural Areas

Palouse Prairie State Acres for Wildlife Enhancement (SAFE) Conservation Reserve Program (CRP): Private Lands Biologist Gaston assisted a landowner most of the week with directing a planting crew for planting 20,000 Wood's Rose on his property. The landowner hired a crew to finish installing the final component of his SAFE CRP stand. The planting crew worked to plant the 20,000 plants and finished almost all of them in a single week. They will need one more day next week to complete the task.



The planting crew installing 20,000 Wood's rose in a SAFE CRP field

5) Providing Education and Outreach

Spokane: Biologist Lowe gave a backyard wildlife habitat presentation for the Spokane Conservation District's Backyard Conservation Stewardship Program. Lowe also spoke to an upper level biology class at Whitworth about preparation for graduate school and a career in natural resources.

6) Conducting Business Operations and Policy

Nothing for this installment.

7) Other

Nothing for this installment.

REGION 2

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Washington Predator-Prey Project (mortality follow-up): Biologist Heinlen investigated a radio-collared mule deer mortality finding a classic cougar predation with the deer cashed under vegetation and the cougar still on site. The cougar ran off and Biologist Heinlen conducted a necropsy of the deer confirming cougar predation.



In the foreground of the photo is the deer cashed under grass (ears sticking out to the left and hoof to the right). Notice the “raked” area around the deer where the vegetation was used to bury the deer – Photo by J. Heinlen

Bighorn Sheep (Sinlahekin Herd): Biologist Heinlen received a report from the public of a dead bighorn sheep that had a radio collar. Heinlen investigated and found the remains of an ewe and the radio collar. This ewe had been released in 2003 to increase the genetic diversity of the herd. That would make the ewe about 17 years old, a good long life.



In the top left of the photo is the ewe thought to be the recovered mortality – Photo by J. Haug

Pygmy Rabbit Recovery: Several staff members traveled to southern Idaho and Nevada as part of a team of biologists participating in a translocation effort led by statewide Pygmy Rabbit Specialist, Jon Gallie. In collaboration with the United States Department of Fish and Wildlife (USFWS), Bureau of Land Management (BLM), Idaho Fish and Game, and Nevada Fish and Game.



Pygmy rabbit habitat in Idaho's Lehmi Valley - Photo by Emily Jeffreys

Once a rabbit was captured, a health assessment was performed and appropriate precautions were taken to ensure only healthy pygmy rabbits would be safely transported to the Washington state population in Douglas County, to reverse recent declines in Washington's pygmy rabbit population.



A pygmy rabbit captured on Bureau of Land Management land outside of Fairfield, Idaho in a single door Tomahawk trap - Photo by Emily Jeffreys



Biologist Hughes and USFWS Biologist Veverka getting a pygmy rabbit out of a tomahawk trap

Short-eared Owls: Biologist Comstock spent a day with WDFW Raptor Research Scientist Jim Watson searching for wintering short-eared owls on Big Bend Wildlife Area in Douglas County. The goal was to deploy two GPS transmitters on migrating birds to learn more about short-eared owl migration routes and timing. Very little is known about short-eared owls in North America and the data gained from these telemetry units would complement the work being done through the Western Asio flammeus Landscape Study (WafLS) to determine occupancy and distribution. Unfortunately, no short-eared owls were detected on this day. Given the mild winter, it may be that winter migrants have already returned south, and breeding pairs are beginning to return to territories.

Black Bears: Biologist Comstock accompanied statewide bear and cougar specialists Rich Beausoleil and Lindsay Welfelt as they attempted to relocate a previously collared bear in her den site. Each year, biologists Beausoleil and Welfelt attempt to relocate previously collared bears while hibernating to collect health data, assess fecundity and cub survival, and measure den characteristics. Despite intensive searching, no signal was received from this particular sow's VHF collar. Multiple former dens were searched and biologists attempted to relocate the sow at her last known location before hibernation. This bear was originally collared in 2013 and is estimated to be 12 years old.



Beausoleil (left) and Welfelt (right) look at the most recent GPS locations of a collared black bear - Photo by Devon Comstock

Greater Sage-Grouse: Biologists conducted counts of greater sage-grouse males at leks this week. Attendance continues to be steady at leks north of Highway 2, while leks south of Highway 2 have been more sporadically attended. The presence of a bald eagle in the middle of the Badger Mountain lek likely explained the lack of birds dancing there when it was first checked in early March, as a subsequent lek survey performed on March 8 by statewide Grouse Specialist Mike Schroeder recorded 27 males at Badger Mountain. A mix of interseasonal birds have been observed around the leks in recent days, with mountain bluebirds and Say's phoebe returning to the area and snowy owls moving back north. A gyrfalcon and a small flock of snow buntings were also found this week.



Photo by Rowan

Washington Ground Squirrels: Biologists Jeffreys and Comstock participated in a conference call to begin planning the 2020 Washington ground squirrel distribution surveys in Douglas County. Unlike the fixed plotted surveys completed in 2012 and 2017, this effort will focus on trying to broadly define species distribution by performing occupancy checks in new areas of potentially occupied habitat. Multiple partners, including the BLM, USFWS, the Yakima Training Center (YTC), and volunteers will participate in surveys this year. A regional training is planned for March 26.

Wolf Field Surveys: Specialist Bridges has spent three days conducting surveys for wolves in the Entiat River basin and the north shore of Lake Chelan. During one of the surveys, Specialist Bridges and Biologist Spence checked a couple of trail cameras and had a lynx show up on the camera!





Sunrise during early morning pygmy rabbit trapping in Castle Rocks, Idaho - Photo by Hughes

2) **Providing Recreation Opportunities**

Nothing for this installment.

3) **Providing Conflict Prevention and Education**

Nothing for this installment.

4) **Conserving Natural Landscapes**

Nothing for this installment.

5) **Providing Education and Outreach**

Nothing for this installment.

6) **Conducting Business Operations and Policy**

Nothing for this installment.

7) **Other**

Nothing for this installment.

REGION 3

HERE'S WHAT WE'VE BEEN UP TO:

1) **Managing Wildlife Populations**

Elk Populations: Elk feeding at Watt and Robinson has concluded. The feed season started Jan. 14 and ended March 6 and was very short compared to previous years. Elk numbers were also very low, with a maximum of approximately 750 at Watt and 400 at Robinson. Despite the short feeding season, we were able to provide more than 50 people the opportunity to experience viewing these majestic animals up close as they assisted with the elk feeding. Assistant Manager Winegeart assisted with elk counts for the Colockum elk herd.



Approximately 400 Elk remaining at Watt site Feb 12, 2020



Surveying elk on the Quilomene Wildlife Area

Elk left the Mellotte feed site at the beginning of the month, but cold weather and snow brought roughly 250 animals back in this weekend (March 13-15). Some hay was provided, with the expectation that they will disperse across Cleman Mountain again with the shift back to warmer weather.

Assistant Manager Taylor arranged for hay to be delivered to Mount Vale. Six loads have been brought in and tarped. Additional hay deliveries in the coming week will fill the Mellotte barn, with the remainder stored and tarped at the Mount Vale stackyard.

Wenas Wildlife Area Manager Confer Morris and Biologist Daling met with Habitat Biologist Downes and Forester Pfeifle to discuss enhancing spotted owl habitat through forest management on Heart of the Cascades parcels acquired with USFWS Section 6 funding.

Volunteers Help Create Homes for Burrowing Owls: District 4 Wildlife Biologist Fidorra and volunteers met to repair artificial burrows for burrowing owls at a local winery. Five burrows were dug up and replaced while a sixth burrow was found to be functioning and housing a burrowing owl, the first documented use at this site since created eight years ago! WDFW manages 120 artificial burrows for owls in the Tri-cities area. The Lower Columbia Basin Audubon Society and Richland Rod and Gun Club provided volunteers and assistance on the project.



WDFW volunteers replacing an artificial burrow for owls



WDFW volunteers pose near a repaired artificial burrow created for burrowing owls

Mortality Investigation in Deer Study: District 4 Wildlife Biologist Fidorra assisted Region 1 Game Division staff members by investigating a collar mortality signal in Walla Walla County. The collar was located a few 100 meters from the apparent kill site.



Deer collar and carcass remains from mule deer study in Walla Walla County

Preparations for Surveys for Ground Squirrels: District 4 Wildlife Biologist Fidorra coordinated with USFWS on upcoming surveys for both Townsend's and Washington ground-squirrels. Volunteers and staff members will conduct surveys for new colony locations on public lands in April and May. Fidorra prepared survey maps and reached out to volunteers in preparation.

Sunnyside Wildlife Area Assistant Manager Ferguson received eight wood duck boxes and eight bat houses from a master hunter for partial fulfillment of the required 40 volunteer hours. The boxes and houses were built from recycled materials donated to the wildlife area by another master hunter last fall. The duck boxes and bat houses will be installed at locations in the Sunnyside Unit by a Selah Alternative High School students on a field trip planned on April 29.



High quality bat houses and wood duck boxes built from recycled materials and donated by a master hunter

Sunnyside Wildlife Area Manager Kaelber and Assistant Manager Rodgers installed six wood duck nest boxes at the Bailie Memorial Youth Ranch Unit.



Assistant Manager Rodgers showing off a new wood duck nest box



One of six wood duck nest boxes installed at the Bailie Unit

Manager Kaelber spent an afternoon cleaning out wood duck nest boxes at the Sunnyside Unit with members of the Richland Rod and Gun Club. Fifteen boxes were identified, repaired, and cleaned out before the nesting season. These boxes will be revisited this spring to determine nesting success and possibly band nesting ducks. Thank you, Richland Rod and Gun Club, for the work and expertise performed by providing habitat and maintenance for nesting wood ducks.



A western screech owl getting a leg band during a wood duck nest box check. Screech owls also like to nest in wood duck boxes.

Assistant Manager Rodgers and Natural Resource Technician Byers have conducted sandhill crane counts at the Windmill Unit and adjacent private property. The past two weekly counts have shown 276 for the week of March 9 and 319 for the week of March 16. Sandhill cranes will be in the area for a few more weeks.

Ungulate Specialist Moore, Colockum Wildlife Area Manager Lopushinsky, Assistant Manager Winegeart, and Conflict Technician Leuck completed Colockum elk surveys. The population continued to decline and is now estimated at 3742 within the survey area. All age and sex classes except for spike-bulls declined. Adult bulls are known for being unpredictable in the survey area, so their numbers are likely much higher than shown below.

					Spike	Adult	Total			
		Total	Cows	Calves	Bulls	Bulls	Bulls	B:100C	C:100C	
2015	SM	6103	4275	1344	221	264	485	11	31	
2016	SM	5087	3530	1007	171	379	550	16	28	
2017	SM	4672	3528	676	113	355	468	13	19	
2018	SM	4289	2987	879	127	279	406	13	29	
2019	SM	4133	2895	731	117	390	507	17	25	
2020	SM	3742	2749	683	119	192	310	11	25	
	Objective	4500	3200	860	130	310	440	14	27	

Biologist Bernatowicz responded to a report of a waterfowl die-off in the lower Yakima Valley. A total of 122 dead ducks have been found over five days, with most being mallard. The pond has a large number of diving ducks, geese, and a few swans which showed no signs of sickness. The initial field necropsy on a few birds didn't find any obvious cause of death. Six specimens were shipped to the National Wildlife Health Center (NWHC), but no obvious cause of mortality was found on the initial necropsies. Bernatowicz checked surrounding water, including a property 2.5 miles away where the landowner feeds thousands of ducks. To date, the only mortalities found are on one pond, which is fairly deep and gravel/rock (not dabbling habitat). The best guess is that the die-off has to do with corn, which was in the crop of most birds and dark color. Unfortunately, few live dabblers have been seen on the pond during visits, so following birds to a source was not possible. More tests are pending at NWHC.



Deceased mallards



Ponds with thousands of live mallards

District 8 Conflict Technician Leuck and Conflict Specialist Wetzel attempted to recover a deer mortality in the mid-Brushy Creek area. Road conditions and distance delayed recovery until next week.



A road in the Brushy Creek area...only about eight miles of this to go

2) **Providing Recreation Opportunities**

Nothing for this installment.

3) **Providing Conflict Prevention and Education**

District 4 Wildlife Conflict Specialist Hand checked orchard and row crop fields near Basin City in Franklin County that have received deer and elk damage in the past. No major damage concerns were observed at this time. While in the field several snow goose hunters were contacted. Although they only had limited hunting success, all were appreciative of the new late-season opportunity.

Hand also participated in the monthly wildlife conflict conference call. Topics discussions included Damage Prevention Cooperative Agreements, bear timber damage, wolf range rider contracts, program staff vacancies, and staff member updates from around the state.

Additionally, Hand reviewed deer and elk harvest information from Headquarters data analysis from hunter reports and compared with the known harvest from damage permit hunts, special permits, and general season known harvests. It seems clear we are missing hunter information being reported through the mandatory hunter reporting system.

District 8 Wildlife Conflict Specialist Wetzel and Technician Leuck patrolled the Thorp, Kittitas, Badger Pocket, and Umptanum areas for elk activity. Leuck located a large group of elk and will continue to monitor them as shed hunting and green up continues.



Elk group on private land

District 8 Wildlife Conflict Specialist Wetzel hazed a group of bulls off private land and back onto public land.



Bull group hazed off private land

4) Conserving Natural Landscapes

Wenas Wildlife Area personnel field reviewed areas seeded after the 2019 Pipeline fire. Native forbs and grasses that survived the fire are emerging and greening up, respectively. However, the majority of green-up is from non-native bulbous bluegrass. No sign yet of native seed germinating and minimal cheat grass was found. Soil is quite dry and good spring rains are going to be needed for new plants to establish.



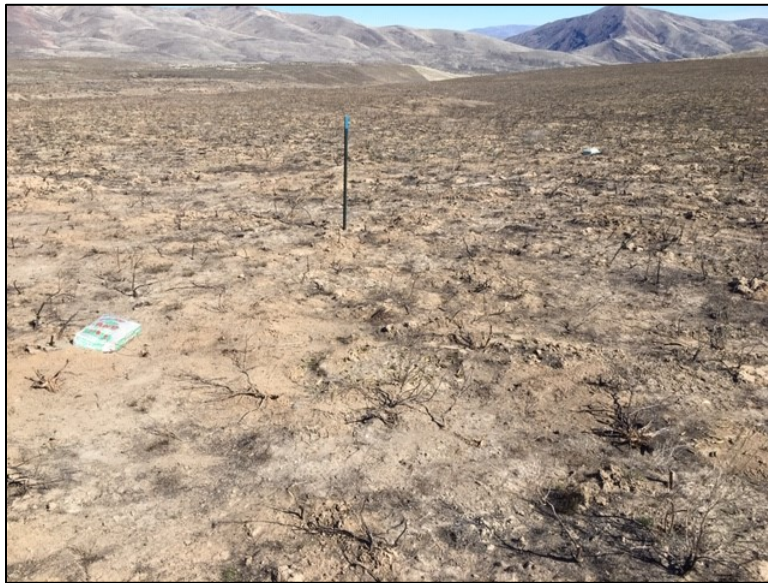
Staff checking green up after 2019 Pipeline Fire





Forbs emerging

While reviewing green up on the Pipeline fire, WDFW staff members found three t-posts set up delineating 100 and 200-yard distances that someone is using to hang targets for shooting. A vehicle was driven off-road to install the t-posts.



One of three t-posts set up for target shooting

5) Providing Education and Outreach

Wenas Wildlife Area Manager Confer Morris and Biologist Daling attended the public green dot meeting at the Selah Civic Center on March 4. Huffman presented updates planned for the coming year, including shifting the green dot access from Mellotte to Hardy Canyon road. He also discussed the planned closure this spring of the Sheep Company shooting area for improvements, with the Durr Road site improvements occurring after that. Wenas Wildlife Area staff members were then available to answer the public's questions during the breakout session.

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

Elk Survey: District Biologists Waddell and Moore worked with Point Elliott Treaty Tribe staff members to conduct the annual survey of the North Cascades Elk herd. The survey is conducted via helicopter in established survey units in Skagit and Whatcom Counties. Staff members in the helicopter search for elk and count the total number of elk in each group and attempt to classify as many members of the group into age and sex categories, including adult and juvenile bulls, adult cows, and calves. The data will be analyzed to estimate population size for the survey area, as well as estimate a sex ratio (number of bulls per 100 cows) and age ratio (number of calves per 100 cows).



Elk herd counted during the annual North Cascades elk herd survey





District Wildlife Biologist Moore removes a blindfold from a darted elk. All darted elk were given a reversal drug and were quickly on their way

Elk Capture: District biologists Moore and Waddell assisted the Swinomish Tribe with helicopter captures of elk in the North Cascades elk herd. Helicopter capture and processing crews captured and fitted 24 cow elk with GPS satellite collars. The collars will allow biologists to collect accurate and regular location and movement data for cow elk that will better inform management decisions for this elk herd.



An Oregon spotted frog in Whatcom County

Oregon Spotted Frog Survey: District Biologist Moore contacted several landowners in Whatcom County along the Samish and South Fork Nooksack rivers in hopes of gaining access to their property for Oregon spotted frog egg mass surveys this spring. Her presence was well-received, and access was granted at all four sites. Egg mass surveys will be carried out on all four properties over the next few weeks. These surveys are important because they provide biologists with an estimate of the total population of adult frogs based on the fact that each egg mass represents one breeding female and one breeding male.

2) **Providing Recreation Opportunities**

Nothing for this installment.

3) **Providing Conflict Prevention and Education**



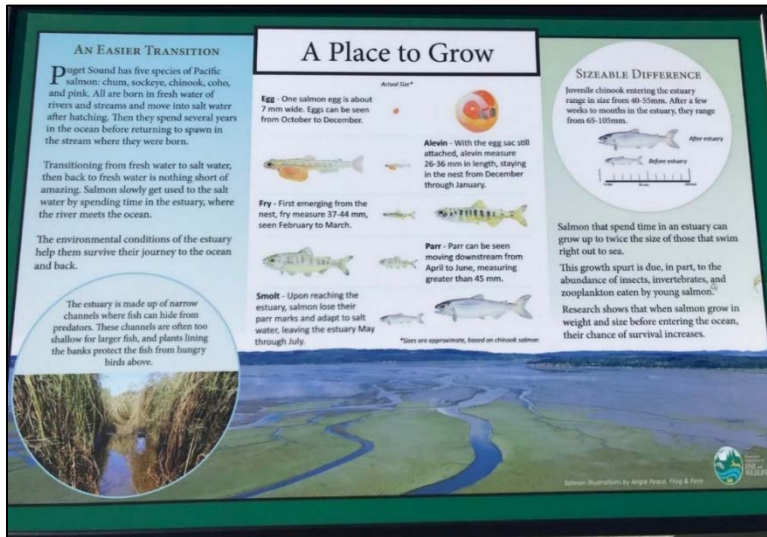
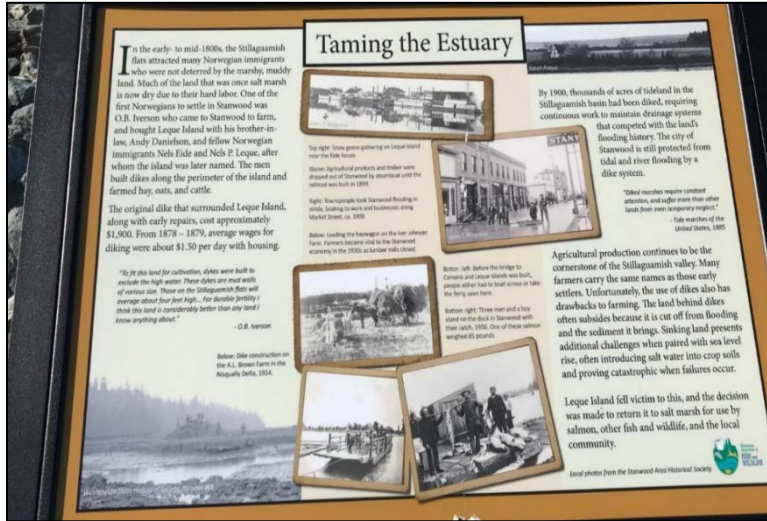
Conflict Prevention: Conflict Specialist Seitz worked with enforcement to remove a raccoon caught in a net.

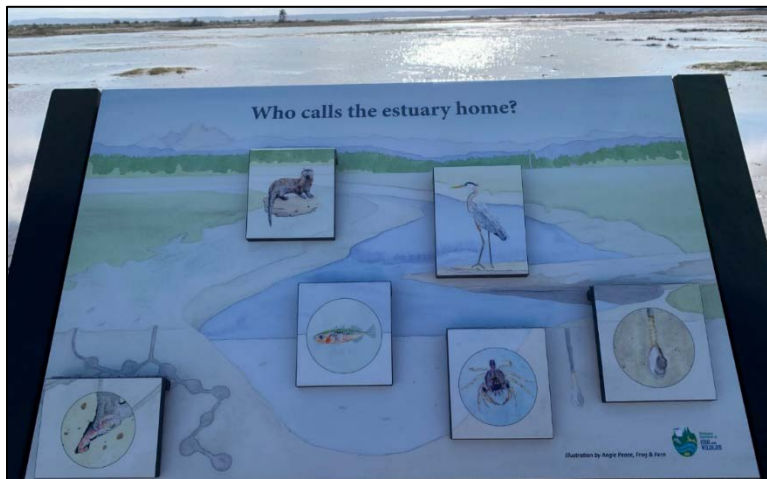
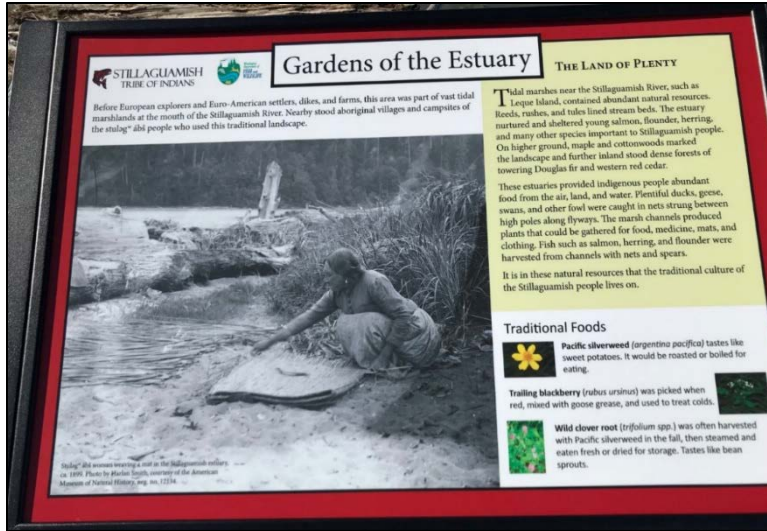
4) **Conserving Natural Landscapes**

Nothing for this installment.

5) Providing Education and Outreach

Leque Island Signs: Capital Asset Management Program (CAMP) staff members completed the installation of interpretive signs designed by Habitat Program Biologist Lindsey Desmul on the new Leque Island walking trail. This was a great cross-program effort!





These are new interpretive signs installed at Leque Island along the walking berm

6) Conducting Business Operations and Policy

Nothing for this installment.

7) Other

Nothing for this installment.

REGION 5

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Oregon Spotted Frog Survey: Biologist Wickhem checked on Oregon spotted frog sites outside of Trout Lake again this week to confirm that the frogs are still active and laying eggs. She found 94 egg masses – up from 11 the previous week – and even found two of the elusive frogs in amplexus (clasped together mating)! Many of the egg masses found were very fresh, and she heard several individuals calling, so the sites were very active. Great news for the upcoming coordinated survey that will systematically survey the area and allow WDFW to estimate the population for the Trout Lake Creek watershed.



An egg mass with a view!



Mating pair of Oregon spotted frogs, next to an existing egg mass

Columbian White-tailed Deer Translocations: Biologist Holman, Wildlife Diversity Division Species Lead Azerrad, Mount Saint Helens Wildlife Area Assistant Manager Wildermuth and Region 5 Office Manager Varley joined USFWS, the Cowlitz Indian Tribe, and Oregon Department of Fish and Wildlife personnel to capture and move Columbian White-tailed deer. The deer are being relocated from Tenasillahe Island to Deer Island. Tenasillahe is a unit of the Julia Butler Hansen Refuge for the deer and Deer Island is now held partially in conservation ownership through the Columbia Land Trust. Deer on Tenasillahe are near carrying capacity while Deer Island is mostly devoid of white-tails. The overall effort is designed to see if Deer Island will support a healthy population of Columbian white-tails.

The opportunity to work directly with partners in the conservation of Columbian white-tails also allows for the exchange of ideas and collaboration with deer captures as the backdrop for the discussions. Additionally, the teamwork provides a chance to gain first-hand knowledge of multiple wildlife capture techniques including, cellphone monitored and triggered corral traps, drop nets, state of the art dart guns as well as blowguns. For more information on Columbian white-tailed deer visit the WDFW website at this [link](#) or the USFWS website at this [link](#).

Oregon Spotted Frog Surveys: Biologists Bergh and Wickhem and Herpetologist Hallock conducted surveys for Oregon spotted frog egg masses at two sites this week. The first site is on private land adjacent to Conboy National Wildlife Refuge and the biologists had the help of three fantastic volunteers to complete the survey. Water levels were very low compared to recent years and 15 egg masses were found. The second site has several breeding areas on the Trout Lake Natural Area Preserve (managed by Washington's Department of Natural Resources) and seven WDFW and Department of Natural Resources employees conducted the annual survey. Water levels there were low as well and the results of the survey are pending. During the survey, a pair of sandhill cranes were observed unison calling after their likely recent arrival back to their breeding grounds.



Oregon spotted frog survey on private land adjacent to Conboy National Wildlife Refuge with Mount Adams in the background

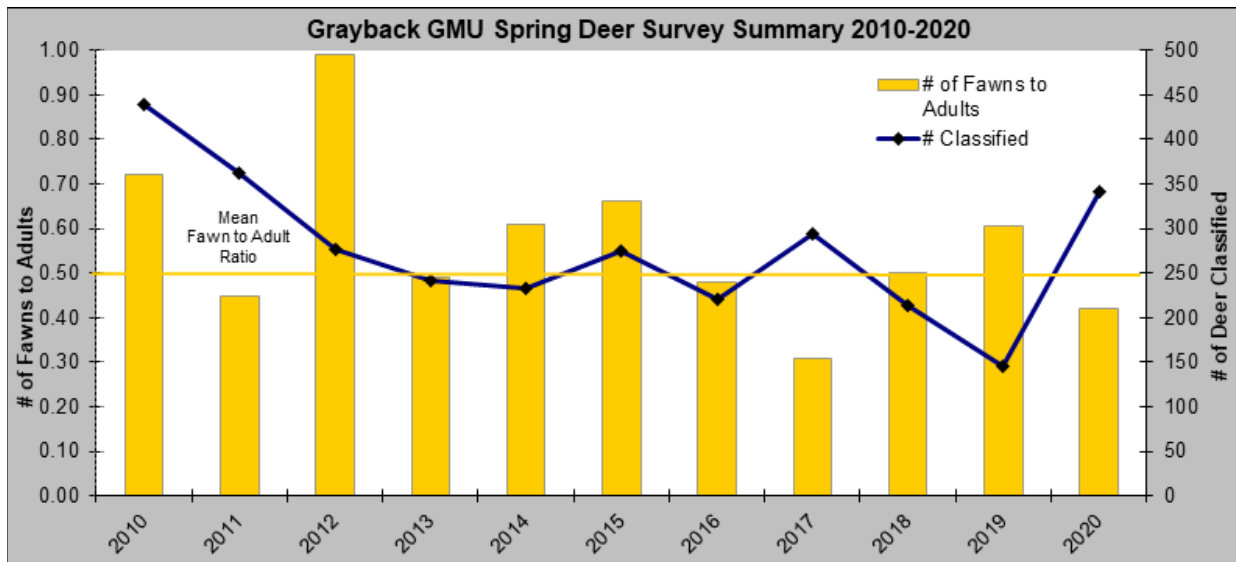


WDFW Herpetologist Hallock records data on the egg masses in front of her next to the pink flag



Sandhill crane pair in front of Mount Adams at the Trout Lake Natural Area Preserve

Spring Deer Road Survey on the Klickitat Wildlife Area: Since spring started in early March this year, biologists Wickhem and Jacobsen, Klickitat Wildlife Area Manager Van Leuven, Officer Nelson, and volunteer Cady conducted the annual road survey for deer on and around the Klickitat Wildlife Area. This year, the team observed 341 deer (194 adults, 81 fawns, and 66 unknown), more than have been observed on this survey since 2011! The fawn-to-doe ratio was slightly below average at 42 fawns for every 100 adults (the 40-year average is 50 fawns for every 100 adults). Thanks to everyone who participated in the survey!



Dusky Canada Goose Surveys: Biologist Holman conducted dusky Canada goose surveys in Wahkiakum County. The purpose of the surveys is to count dusky geese observed and read alphanumeric codes on any red collared dusks. Wildlife managers survey the geese multiple times across their primary wintering grounds and use the data to generate survival estimates. The dusky geese are collared on their breeding grounds in Alaska every other year. During the survey, dusky, cackling, Taverner's, white-fronted and western Canada geese were located and recorded. Sixty-five dusky Canada geese were located, three of which were collared. All collars were read.



Several hundred cackling Canada geese in Wahkiakum County

Dusky Canada Goose Survey: Biologist Wickhem conducted her final dusky goose survey in Clark County this week. Dusky geese are a protected subspecies of Canada goose, that breed in the Copper River Delta of Alaska and winter in the Willamette Valley of Oregon and along the lower Columbia in Oregon and Washington. During the summer, dusks are captured by biologists at their breeding grounds in Alaska and fitted with neck collars, each with a unique alpha-numeric code that can be read from a distance using a spotting scope or binoculars. When collars are sighted throughout the year, the collar number and location are reported to the USFWS, who can track the individual movements and migration routes of the collared geese. On this survey, Wickhem observed two dusky geese with red neck collars and 72 uncollared dusks. Other species observed during the survey included, Western and cackling Canada geese, sandhill cranes, American kestrels, Anna's hummingbirds, an American kingfisher, egrets, cormorants, coots, thousands of snow geese, several species of ducks, and mating bald eagles.

2) Proving Recreational Opportunities

Hunter Information: A proactive deer hunter contacted Wildlife Conflict Specialist and Private Lands Biologist Jacobsen regarding deer hunting spots and private lands hunting opportunities for the 2020 deer season. Advice was provided to the hunter on both deer and turkey hunting opportunities.

3) Providing Conflict Prevention and Education

Elk Damage: Wildlife Conflict Specialist Jacobsen checked in with several landowners around Klickitat County regarding elk damage to spring crops. In general, the landowners indicated that winter elk activity had been quiet, but that elk were starting to come around and cause damage to crops. A master hunter was deployed to one operation, while strategies to haze the elk were made with several of the other landowners.

Goat Depredation: Jacobsen and Officer Whipple investigated a report of a cougar attack on a domestic goat in Klickitat County. The landowner had been responsibly locking up all her livestock in a barn at night, but one goat was a known escape artist and managed to get out of the barn sometime during the night. A commotion was heard the next morning, and the goat was found dead shortly after daylight. Jacobsen and Officer Whipple responded, and after conducting a depredation investigation, it was determined that the pregnant goat was killed by coyotes. The landowner plans to add additional structural security measures to her barn and her pasture fence to help prevent further losses.



Goat killed and partially consumed by coyotes

Injured Dog: A concerned landowner contacted WILDCOMM dispatch to report that a bobcat or cougar had recently attacked her dog. The landowner had already taken the dog to the veterinarian, where it received several staples to close the wounds. Wildlife Conflict Specialist Jacobsen followed up with the landowner and determined that the injuries sustained to her dog were caused by another canine, most likely another domestic dog (though coyotes could not be completely ruled out).

Nuisance Geese: Jacobsen provided hazing advice to a landowner after the landowner called to report nuisance Canada geese on his property in Skamania County.

Trail Camera Check: Wildlife Conflict Specialist Aubrey checked a trail camera left near the sight of a possible livestock attack from the previous week. The camera was left by an unrelated elk carcass near a United States Forest Service (USFS) road. There was no evidence of a cougar on the camera. Many images of coyotes, corvids, and eagles were captured, including a sequence of photos of a mature bald eagle unhappy with the presence of other birds near the carcass.





Bald eagle and carcass

Deer and Elk Concerns: Wildlife Conflict Specialist Aubrey met with a landowner who had questions about ways to prevent conflict with deer and elk on his property in Wahkiakum County. The landowner is in the process of starting up a cattle operation and would like to plant an orchard as well. Options to reduce conflict were discussed, and the process will be ongoing, with communication and advice between the landowner and Aubrey continuing as the operation gets up and running.

Lewis County Elk Damage: Wildlife Conflict Specialist Aubrey spoke with several landowners in Lewis County about elk damage. Many areas are starting to experience some level of new growth and elk are beginning to cause damage in these areas. Many landowners are utilizing permits or damage pool hunters to address these issues. Also, hazing and scare devices were issued to some landowners, while youth and master hunter damage pool hunters were deployed in other areas. Aubrey will continue working with landowners in the area to alleviate elk damage issues.

Elk Damage Issue: Wildlife Conflict Specialist Aubrey has worked closely with a producer this past week on elk damage issues. The producer has never had conflicts with elk, but recently reseeded a field that is already experiencing good growth, and the elk have been in the field nightly. Aubrey issued the producer hazing equipment, set up the “Scary Man” device built by Jacobsen, and set up two motion-activated alarms to attempt to deter elk from entering the fields. Trail cameras were also set up to monitor any activity. As of the end of the week, elk had not been seen in the fields for the previous two nights. Aubrey is working on a Damage Prevention Cooperative Agreement with the landowner, and the two will continue to work together to address damage concerns.



“Scary Man” set up near the spot where elk have regularly been entering the field



Elk crossing into producer’s field from a forested area

4) Conserving Natural Areas

Swofford Pond Trail Maintenance: Manager Vanderlip, Assistant Manager Steveson, and Tacoma Power Natural Resource Coordinator Russell performed maintenance on the Swofford Pond Trail. The trail was brushed and mowed to keep the trail clear of encroaching vegetation. Downed trees, that fell during the winter, were cut and removed from the trail. The trail is still wet and muddy in many locations, but it is ready for those intrepid hikers looking for snow-free lowland destinations.



The Swofford Pond Trail where it passes through a mature cedar forest

Cowlitz Wildlife Area Post installation: Wildlife Area Manager Vanderlip, Assistant Manager Steveson, and Tacoma Power Natural Resource Coordinator Russell installed a steel post beside the Clevenger Road gate to prevent unauthorized vehicular access. An unknown subject trespassed around the gate several times and proceeded to vandalize the forage fields by off-roading and turning “cookies” in the fields. This activity destroys the resources by damaging the vegetation, creating ruts that encourage erosion and, in some cases, may damage cultural resources.



Post to block vehicles driving around the gate



Damage from vehicle turning "cookies"

5) Providing Education and Outreach

Simcoe Mountains Unit Presentation: Wildlife Area Manager Van Leuven presented a program about the Simcoe Mountains Unit and recreation opportunities there at the Goldendale Public Library. The Simcoe Mountains Unit has grown quickly in three years, and management planning for the property is still ongoing. The attendees asked good questions and showed much interest in the property.

6) Conducting Business Operations and Policy

Nothing for this installment.

7) Other

Nothing for this installment.

REGION 6

HERE'S WHAT WE'VE BEEN UP TO:

1) Managing Wildlife Populations

Goose Hunter Checks: Biologist Sundstrom finished up the goose hunting season for Area 2 Inland on Saturday, March 7. Seventeen geese were checked in Grays Harbor County throughout the final day. Eight of the seventeen were proudly reported by a father-daughter duo who each bagged their limits, all classed as westerns. Congratulations!



Full bag limits for this father-daughter duo on the last goose hunt day in Area 2 Inland

Elk: Biologist Murphie assisted Quinault tribal biologists and others in radio-collaring cow elk in the Clearwater GMU, as part of our monitoring strategy for that area. Murphie reports collaring 25 elk from 21 groups distributed across the GMU.

Biologist Murphie also assisted Point-No-Point Treaty Council and Port Gamble wildlife biologists with collaring two bulls in GMU 621. Murphie reports that they collared one bull from the Duckabush group and one from the Dosewallips group.



Radio collared elk

Taylor’s Checkerspot Reintroduction: Biologists Linders and Randolph prepped sites for the annual spring release of Taylor’s checkerspot larvae (caterpillars). This required flagging over 1,600 release locations in seven large plots as well as sixteen small (4x4 meter) plots used for monitoring survival. Together they coordinated three separate releases totaling 6,663 Taylor’s checkerspot larvae, across two Puget Lowland sites. One site, on Joint Base Lewis McChord (JBLM), is in its third year of the program and received 4,475 larvae. A second site, Tenalquot Prairie, is a new addition to the project and received 2,188 larvae amid a lot of excitement, as 15 years of work to purchase and restore the site finally came to fruition. This site was purchased with joint funding from the United States Fish and Wildlife Service (USFWS), The Department of Defense and The Nature Conservancy. It is owned and managed by the Center for Natural Lands Management with a conservation easement held by WDFW.

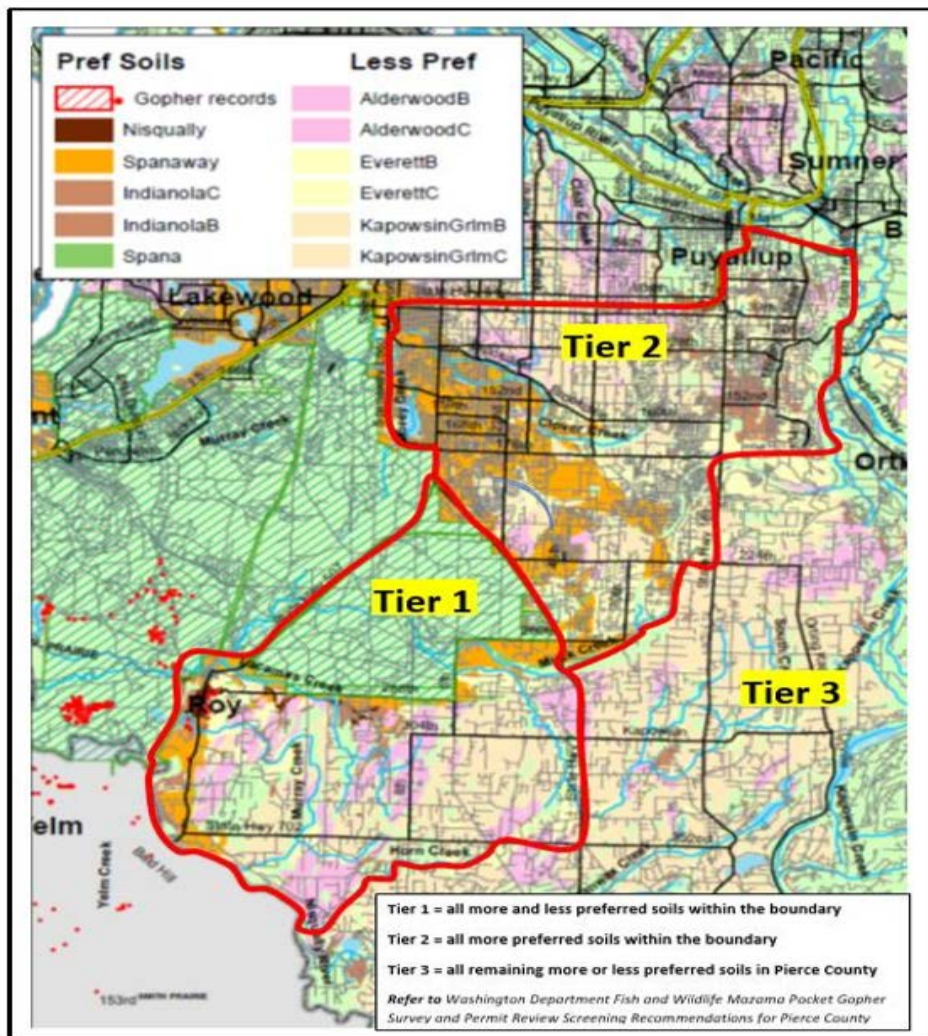
Larvae were reared at the Oregon Zoo and Mission Creek Corrections Center for Women. They are the offspring of butterflies collected from the only wild population remaining in the Puget Lowlands, on Joint Base Lewis McChord. A total of 19 volunteers assisted WDFW with the releases representing the Oregon Zoo, the Evergreen State College Sustainability in Prisons project, military and student interns from Joint Base Lewis McChord, the Center for Natural Lands Management, and private citizens, including the former owner of Tenalquot Prairie. Following the release, WDFW will conduct surveys to monitor the survival of larvae and the growth of the adult population. Additional releases are expected to occur in June, after the next batch of caterpillars hatch. In so many ways this effort is the definition of community conservation. Good for the people and the environment.



Volunteers and other stakeholders out in the field doing work essential for Taylor's checkerspot reintroduction

Wolf Camera Monitoring: Biologist Tirhi and volunteer Terry spent one day attempting to recover two cameras in the White River and then mowing or checking batteries on three trail cameras in the Carbon River drainage area. The project overview is available in past bi-weekly reports. Prey continue to be varied and plentiful on cameras but, no wolf sightings yet.

Mazama Pocket Gopher-Pierce County: Biologist’s Tirhi and Still met with Pierce County Planning and Land Services staff to provide WDFW recommendations on a tiered process to conduct pocket gopher surveys and screening within the county. Section Manager Anderson was on call to answer county questions regarding the policy. The meeting was very informative and well-received. Pierce County will now take time to discuss internally including with legal personnel their decision whether to proceed with comprehensive pocket gopher surveys in the County.



Mazama pocket gopher screening recommendations for Pierce County

Oregon Spotted Frog Oviposition Surveys: Biologist Tirhi and volunteers Terry and Bartley conducted spotted frog oviposition (egg mass) surveys in Salmon Creek and the Nisqually delta over the past three weeks. Surveys involve assessing digital imagery for appropriate habitat, determining land ownership of locations deemed to have the appropriate habitat, determining access locations to habitat, and then long days of sweeps over habitat in search of the elusive spotted frog eggs. The team conducted the first of two surveys of the Salmon Creek oviposition site which has been undergoing control of invasive reed canary grass since 2014. Only three egg clusters were located during the first survey and several were laid within the previous few days demonstrating that although the spotted frog breeding season has begun, the cold temperatures have kept egg-laying to a minimum. WDFW staff members expect to see an increase in egg masses over the coming weeks. More about the spotted frog including recovery efforts can be found at this [link](#).



The team completed Oregon spotted frog surveys in the Nisqually delta. Surveyors store a copy of their survey track in the WDFW database for historical and planning purposes. Agriculture fields next to deeper water channels (in this case, Nisqually River) often flood and provide the appropriate water level and sun exposure sought by breeding Oregon spotted frogs, thus the surveys in agriculture fields.



Low emergent wetlands preferred by Oregon spotted frogs in the Nisqually delta surveys



Staff members and volunteers conducting Oregon spotted frog egg mass surveys at the Salmon Creek spotted frog oviposition site

Green areas are where invasive reed canary grass (the tall grass species surrounding the green areas) is mowed in the previous fall so that it provides short structure vegetation and shallow water levels preferred by spotted frog for egg deposition during the spring. Funding was obtained through the Chehalis Basin Strategy to pay crews in fall 2019 to conduct extensive reed canary grass mowing and the response this spring is impressive.

Streaked Horned Lark Airports and Federal Lands Working Group: Biologist Tirhi organized and led the 2020 annual meeting of this working group. This group is represented by state and federal agencies, various airfields and ports in the Puget Sound region that have lark breeding habitat, county and city personnel, and JBLM. The group has been collaborating since 2014 on means to run and grow airfields and conduct other activities while least impacting and assisting with the recovery of state and federally listed larks. The 2020 meeting provided an overview of habitat and species projects, the recently signed the Memorandum of Understanding between USFWS and Federal Aviation Administration on larks, best management practices for larks on airfields (draft) and off-airport lark breeding site potential. The group agreed that finalization of the Best Management Practices was in everyone’s interest and a subcommittee was formed to work on that.

2) Providing Recreation Opportunities

Target Shooting and Dump Sites: Biologist Sundstrom visited a popular private timberlands site known for target practicing. Recreational misuse of the area prompted the private property owners to move the Eco-blocks closer to the main road and several ditches were dug along with rip-rap barriers to reduce misuse and widespread abuse of the area. Target shooting is still being allowed and the amount of debris left behind has been reduced to a smaller area compared to previous site visits and trash pickup, but target debris, shotgun shell empties, and other general garbage persist.



Eco-block relocation at a popular target shooting location on private timberlands. Left photo: before clean-up; Right photo: after clean-up.



Ditches and rip-rap barriers at the same target shooting location beyond the main Eco-block barrier. Left photo: before clean-up; Right photo: after clean-up.

3) Providing Conflict Prevention and Education

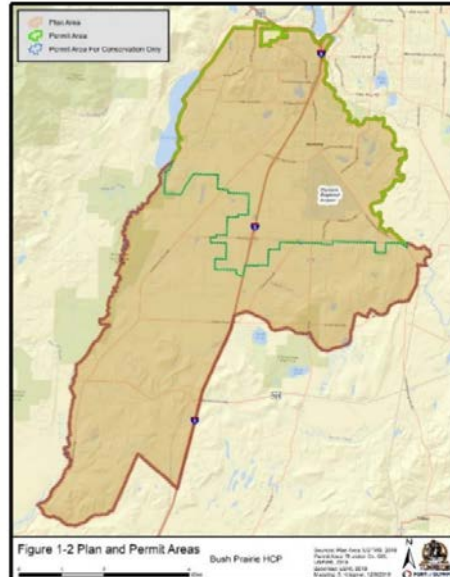
Swans and Lead Poisoning Lake Tapps Area: Biologists Tirhi and Butler completed the final sweep of the season at Lake Tapps in search of swans poisoned by lead. They successfully captured one lethargic swan who may have had symptoms of early lead poisoning. The swan was able to swim, hold its head upright, and flap its wings but could not take flight and thus was easy to capture. Staff members had been advised of another loan swan that appeared to be sick but unfortunately, the team could not capture this swan as it flew off on approach of the boat. WDFW personnel informed homeowners and asked they let us know if the swan returned; a week later one dead swan was reported which staff members collected and assumed this is the earlier sick swan. All sick and dead swans are sent to a lab near Bellingham. Tirhi and Butler also tried unsuccessfully to capture a sick swan on Lake MacIntosh in Thurston County. They were unsuccessful when the swan flew low across the lake and then hid deep in shoreline timber and vegetation and would not flush. Staff members had to return the boat to Fish Program for the field season but are staying in touch with homeowners on the health of this swan.

4) Conserving Natural Landscapes

Oregon Spotted Frog Land Acquisition: Biologist Tirhi provided a site tour for the evaluators of a grant that Tirhi submitted for the purchase of 35 acres of wetlands and creek used by state and federally listed Oregon spotted frog. The funds are being offered by the Chehalis Basin Strategy's Aquatic Species Restoration Plan. More information on the plan can be found at this [link](#). Nineteen great projects are vying for these funds.

Bush Prairie Habitat Conservation Plan (HCP): Biologist Tirhi spent considerable time reviewing the first five chapters of the draft Bush Prairie HCP. This HCP is extremely important considering the permit area is in the heart of the remaining Mazama pocket gopher occupancy for south Puget Sound, contains the second largest breeding population of streaked horned lark in the south sound, and contains several breeding/egg laying locations for Oregon spotted frog. All three of these species are both state and federally listed making this area critical to their

recovery. The fourth species covered under this HCP, the Oregon vesper sparrow, is not yet listed but a petition to list is under review. Tirhi applauds the city of Tumwater and the Port of Olympia for initiating this HCP to provide future growth potential without sacrificing these iconic prairie species of the South Puget Sound. More about the HCP can be found at this [link](#).



The Bush Prairie HCP planning and permit area map

Centralia Mine Acquisition Technical Team (CMATT): Biologist’s Tirhi and Holman (from Region 5) along with WDFW habitat and fisheries biologists met with TransAlta mining staff (owners) at the second technical team meeting on the potential acquisition of the Centralia Mine as a WDFW wildlife area. The second CMATT meeting focused on reviewing the phased acquisition map, reviewing areas of the mine that may still be available to alter reclamation plans for the benefit of wildlife and to discuss the status of other ownership locations within the mine. Several homework assignments were taken by technical team members, the next meeting is in May.

5) Providing Education and Outreach

Nothing for this installment.

6) Conducting Business Operations and Policy

Grant Amendment: Biologist Linders completed a grant amendment to The Evergreen State College to provide additional assistance during the 2020 Taylor’s checkerspot season. Staffing shortages and successful program growth increased the need for creative approaches to staffing across all program components.

7) Other

Nothing for this installment.