

# Wildlife Program

Week of January 4 – January 10, 2016

## **WOLF ACTIVITIES**

### **Region 1 Wolf Activities**

**OR-29:** Biologist Earl and Natural Resource Technician Wade kept busy this week monitoring the movements of the Oregon wolf (OR-29) as he moved throughout Columbia, Garfield, and Asotin counties. Earl and Wade contacted cattlemen as he moved across winter ranges and calving areas.

**Wolf Near Livestock:** Wildlife Conflict Specialist Rasley received a call from a cattleman regarding a lone black wolf spotted within 200 yards of his livestock in Columbia County. Advice was given on what he was able to do to protect his livestock.

### **Region 2 Wolf Activities**

**Livestock Depredation Investigation:** Biologist Heinlen and WDFW Enforcement Officer Trautman investigated a report of an injured cow. As the cow was being moved from an open range pasture the owner noticed lacerations to the hind legs, side, and above the right eye. The cow was transported to a holding facility and the injuries were reported. A representative for the owner and a local veterinarian observed the injured animal with Biologist Heinlen and Officer Trautman. An additional small laceration to the inside front leg was noticed, but none of the lacerations were large or life threatening. Although the injuries were likely caused by a predator, no species verification could be made.

## **REGION 1**

### ***GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDIFE***

#### **Wildlife Management**

**Northeast WA Moose Project:** Biologists Lowe, Oyster, and Hansen flew one day of moose survey transects this week in the northeast portion of District 2. Snow conditions have been excellent for the surveys, but fog has kept the crew grounded on most days. The project's goal is to use aerial mark-recapture distance sampling to produce population estimates for moose in northeast Washington.



*Cow and calf pair (left) and one-antlered bull (right) observed during an aerial survey west of Mt. Spokane*



**Golden Eagle Monitoring:** Assistant District Biologist Vekasy assisted Research Biologist Watson with trapping migrant eagles in the Tucannon valley. We were able to capture and tag a subadult female and immature male, both receiving GPS transmitters.

*Assistant District Biologist Vekasy with subadult female golden eagle*

### **Winter Conditions**

**Winter Weather at Swanson Lakes Wildlife Area:** A small amount of snow has fallen this week, totaling about two inches. Skies have been either cloudy or foggy. Daytime temperatures have ranged up to about 40 degrees Fahrenheit and dropped to as low as the upper teens at night. Some of the snow on the ground has also melted off, and as of 7:00 a.m. on January 11, snow accumulation at Swanson Lakes Wildlife Area was approximately five inches.

**Blue Mountains Winter Conditions:** Temperatures warmed up a bit this week and most snow disappeared from the lower elevations.

**GOAL 3: PROMOTE A HEALTHY ECONOMY, PROTECT COMMUNITY CHARACTER, MAINTAIN AN OVERALL HIGH QUALITY OF LIFE, AND DELIVER HIGH-QUALITY CUSTOMER SERVICE**

**Wildlife Areas**

**KFES Forest Health Expedition:** The Kettle Falls Elementary School fourth graders made their final Forest Health Expedition visit to the forest study unit at Sherman Creek Wildlife Area headquarters this week. The students learned three different perspectives of management for the unit from WDFW, Department of Natural Resources (DNR), and Hancock Forest Management. Back in the classroom, the students will be divided into small groups, assigned a perspective,



develop their own management plan for the unit, and present their management plan in a multimedia presentation.

*A few students checking out a cavity in a Ponderosa pine tree, at Sherman Creek Wildlife Area*

**4-O Ranch Wildlife Area:** Wildlife Area Manager Bob Dice and Forester Sara Ashiglar looked at forest stands in the Mountain View area on Thursday. While there, Dice posted “No Snowmobiling” signs on the entry gates. Elk and deer were present throughout the unit, especially

around livestock salt sites. Some trees were down across the roads and snow depths varied from six inches to 12 inches. We had some problems with a finicky chainsaw throughout the day. No snowmobile tracks or other signs of problems were encountered.

*Forester Sara Ashiglar at the 4-O Wildlife Area on Thursday*



**Private Lands/Wildlife Conflict**

**HWY 26 DOT Cameras:** Biologist Lewis checked Department of Transportation trail cameras set up in the Lacrosse area to monitor underpasses designed for cattle to see if deer will use the underpasses. The area has sustained a significant amount of deer-vehicle collisions. No deer have been photographed using the underpasses, most likely due to the small size of the corrugated steel tunnels (six foot five inches tall and five feet wide). Other species (quail, coyote, raccoon, and bobcat) have been photographed using the tunnels, but no deer.

Lewis is assisting the Department of Transportation (DOT) State Wildlife Biologist with checking the four cameras.



*Highway 26 trail camera photos*

## **REGION 2**

### ***GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE***

#### **Wildlife Management**

**Washington Ground Squirrel:** Biologist Finger coordinated with USFWS on available materials for a translocation to Columbia National Wildlife Refuge into a large (~3.5 acre) enclosure. Finger will look into the availability of t-posts in the compound to assist in this effort. Additionally, Finger intends to remain the lead on captures and interaction with Sage Hills Golf Course staff members. USFWS will provide the infrastructure and the bulk of the monitoring.

**Pygmy Rabbit Husbandry Activities:** Over the last few weeks the snow has made it difficult to reach the breeding enclosures. On December 31, the last time we were able to get to the Dormaier enclosure (barely made it out by going to Jameson Lake), we discovered that the snow and age had caused significant damage to two locations in the fence. Biologist Wisniewski patched them with what she had on hand. The fence will need more permanent repairs as soon as possible. Wildlife Area Manager Peterson arranged for the county to clear the road, and we are hoping to be able to get in there early next week. Although we have been able to get into the Sagebrush Flat site, it was becoming difficult and would have been problematic for getting volunteers in to conduct surveys. Maintenance Mechanic Rios cleared that road. As for the Beezley Hills enclosure, we were able to get to there on Thursday after not being able to reach it since before Christmas. The county plowed the road. Biologists Gallie and Gibbs, along with Volunteer Mikkelsen, continued to conduct snow surveys for active pygmy rabbit burrows on the Beezley Recovery Area to determine the distribution and survival of kits released during the 2015 breeding season. Snow conditions have provided several challenges to date, and 12-16 inches of snow (plus drifts up to three feet) have made access to release sites difficult. Plus, this

deep snow slows down the number of transect miles we are able to complete in a day. We have not located any active burrows on this portion of the release area yet. In response to the difficult survey conditions, the PYRA regional team discussed aerial surveys to locate tracks and burrow systems if conditions do not change.

Biologist Gallie also provided comments on two pygmy rabbit recovery proposals (WDFW and University of Idaho) for the USFWS Restoration and Recovery Grant Program.



*An image of snow conditions at the intersection of Baird Springs Road and Road J on the way to the Beezley Hills enclosure*



*A little too much of a good thing, as Gallie looks at a three foot deep snow drift near the Beezley PYRA release area*

**Sage Grouse GPS update:** Biologist Gallie continues to monitor uploaded locations from eight GPS-collared male sage grouse, looking at habitat utilization and connectivity movements in Douglas County. Finally getting a respectable winter snow load, birds have localized in wintering areas of tall sage brush cover. This is not unexpected, but what was unexpected is that some of these wintering areas turned out to be in Okanogan and Grant counties. A collared male has localized in Beezley Hills (Grant) for the past month on private land, and one collared male (plus two other sage grouse) have spent the past two weeks up on Bridgeport Point, on the Colville Indian Reservation. These collars continue to display movements and connectivity patterns that challenge our assumptions on their behavior and limitations.



*Collared male and two other sage grouse in Okanogan County* – Photo by Schroeder/Peterson

**Wildlife Areas**

**Sharp-tailed Grouse:** Surveyed sharp-tailed grouse winter habitat a couple times this week. Biologist Olson observed 12 birds below the HQ at Scotch Creek, and 22 birds flying over the same area the day before. None were observed in the Tunk Valley riparian areas.

*Sharp-tailed Grouse in the Birch Trees, Scotch Creek Wildlife Area* – Photo by Jim Olson



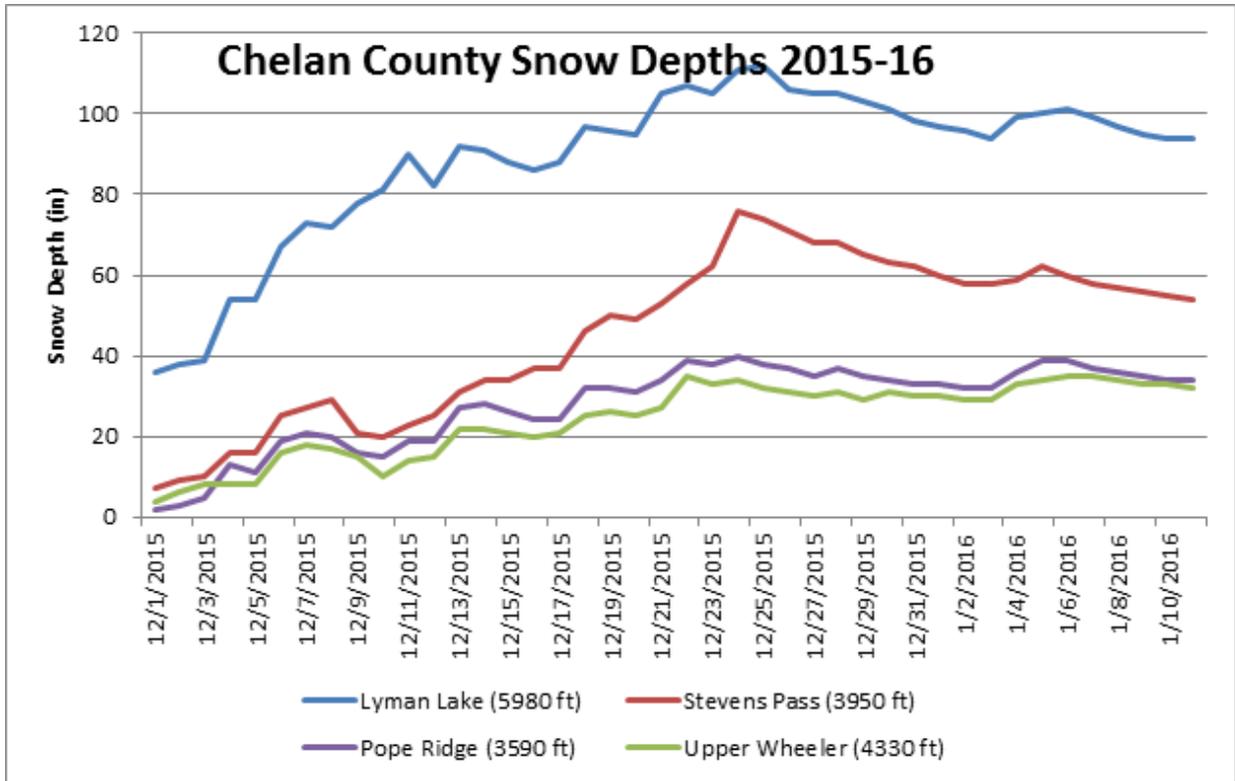
**GOAL 3: PROMOTE A HEALTHY ECONOMY, PROTECT COMMUNITY CHARACTER, MAINTAIN AN OVERALL HIGH QUALITY OF LIFE, AND DELIVER HIGH-QUALITY CUSTOMER SERVICE**

**Wildlife Areas**

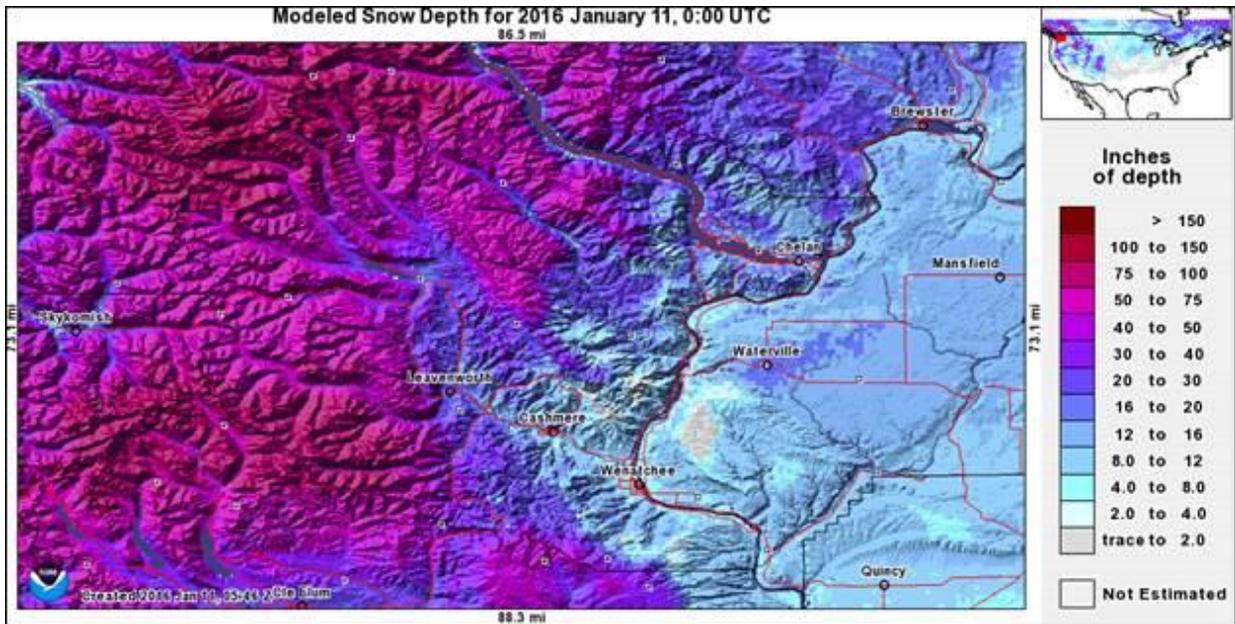
**North Central Washington Forest**

**Health Collaborative:** In addition to Program Manager Andonaegui and Habitat Biologists Hofmann and Barg, Manager Swedberg attended the North Central Washington Forest Health Collaborative meeting. A great deal of discussion focused on a proposal for a pilot project to be presented to Regional Forester and State Lands Commissioner. The North Central Washington Forest Health Collaborative is the lead on the section being forwarded to the regional forester. The remaining sections to be forwarded to State Lands Commissioner had different leads.

**Weather Conditions:** Snow depths peaked in Chelan County on December 26. Since then, snow depths have declined with warmer weather. Depths remain deep enough to keep deer on winter ranges, and to have moved elk into orchard areas. Deer collisions have increased on Highway 97A north of Entitat, an area that typically holds high concentrations of mule deer during winter. We have received a number of calls from citizens with deer in their yards, and from others with concerns about deer surviving winter conditions. Calls have come from Douglas and Chelan counties.



*Snow depths at four sampling sites in Chelan County*



*Modeled snow depths on mule deer winter range in Chelan County*



***Research Scientist Mike Schroeder documenting the location of his triple birdie at Gamble Sands – Photo by Dan Peterson***

***Tunk Valley Turkeys – Photo by Jim Olson***



*Structure on Patterson Lake for ice fishing*

– Photo by M. DeHart



*Snow piling up at Patterson Lake Access site*

– Photo by M. DeHart

## **REGION 3**

### **GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE**

#### **Wildlife Areas**

**Oak Creek Wildlife Area:** Oak Creek staff members continued feeding operations at all five feed sites. Things are going pretty smoothly, with no major issues. The cattle guard in the elk fence on Cowiche Mill Road has been plowed full of snow and some elk are beginning to cross it. Staff members will work with the county to get it cleared.

**LT Murray Wildlife Area:** Elk issues dominated the week. Grant County PUD called for advice regarding a cow elk that died under a carport at one of their access sites. Several concerned citizens called to report problem elk, while others requested WDFW feed elk in more places. WSDOT closed I-90 for a short while on Thursday to deal with elk on the road and remove an elk that had been hit. Jessie Major, reporter for the Daily Record, would like to do a story on the LT Murray elk feeding, and requested a ride along next week to take pictures for the article.

**Elk Fencing:** A section of elk fence on the LT Murray fell over. This stretch of fence crosses over a rock outcrop, so the support posts are all very old rock jacks, not posts dug into the ground. It is estimated that 150 elk crossed onto private land through this gap, joining the other 150 elk already on the wrong side of the fence. A portion of the down fence was propped back up Friday, although more work will be required next week to keep it standing. Several other holes farther down the fence line will also need repair. As has been stated many times before, large portions of this fence line are old and desperately need replacement.

**Elk Relocation:** Assistant Manager Hunt joined Volunteer Craig Schnebly, District Biologists Moore and Bernatowicz, and Conflict Specialist Wetzel in attempting to relocate five problem bull elk causing damage to hay stacks at two agriculture sites in the area of Brick Mill and Colockum roads. Thursday was not a fruitful attempt, but Friday they successfully relocated one bull to Joe Watt. Since then, one of the other four bulls had to be dispatched after breaking his neck going over a tall steel panel (on his own at night, not under pressure). This is not an easy year for a conflict specialist in Kittitas County, so we're trying to help when we can.

**Wenas Wildlife Area:** Elk numbers continue to increase on the feed site, with mid-elevations still covered by snow, although the snow is now heavily crusted.

**Hazing:** Assistant Manager Taylor flew on Monday, herding about 200 elk off private land. Using the helicopter, and gentle pressure, they were able to push the majority of the group all the way to the Mellotte feed site, which is almost five miles to the west.

**Elk Conflict:** Within a few days, another 100+ elk had shown up on the same private land. The number may now have grown to as high as 300 animals. In addition, 50+ animals have shown up in the orchards along the Naches-Wenas grade. We believe these are elk that have been wintering on the east face of Cleman Mountain, and with this year's snowfall, it's been much easier for them to push through the elk fence and downhill a half mile to the cattle ranches rather than travel five miles, through several deep canyons, to the Mellotte feed site. Staff members will continue to work with Conflict Specialist Wetzel to address problems as weather and elk feeding allows.

### **Wildlife Management**

**Ferruginous Hawk Survey:** District Biologist Fidorra contacted volunteers at the Tri-Cities Christmas Bird Count regarding assistance on the upcoming Ferruginous Hawk surveys in 2016. Seventeen people expressed interest, and Fidorra sent them information and a questionnaire to assist in planning. Fidorra also reviewed parcel data for landowners.

**Wood Duck Project:** Fidorra met with the Richland Rod and Gun Club Wood Duck project lead to discuss the upcoming nesting season. Waterfowl Specialist Wilson also attended the meeting and discussed long term project outlook and the potential for graduate student assistance with the program. Over 400 wood duck nest boxes will be checked and maintained by Gun Club volunteers in the coming weeks. Fidorra will be providing supplies and supervision regarding the banding of western screech-owls, as a large number (~40) are encountered in the boxes. This is a valuable opportunity to gain ecological data on this little studied species.

**Winter Waterfowl Flight Status:** District Biologist Fidorra prepared equipment and data for the winter waterfowl flights, which were expected to occur this week but were pushed back each day due to weather. Fidorra hopes to conduct flight surveys next week.

**State Wildlife Grant 2013-2015:** District Biologist Fidorra completed portions of the State Wildlife Grant 2013-2015 final report related to the monitoring of White Pelicans and Burrowing Owls. Data collected by OSU shows that the Badger Island pelican colony is continuing to grow.

In the 2015 breeding season, 3,267 adult pelicans were counted at the colony — a 33% increase from the 2014 count. 2015 was also a great year for burrowing owls and occupancy of artificial nest sites increased from 37% in 2014 to 45%. Banding recoveries in 2015 also illustrated population connectivity between Canada, Oregon, and Washington, and that chicks born at WDFW artificial sites are being recruited into the breeding population.

**Elk Damage Issues:** Biologist Bernatowicz spent much of the week dealing with elk damage complaints. Elk are pushing through fences and finding hay stacks throughout the district. Arrangements were made to try to dart three large bulls in the Kittitas Valley. Unfortunately, the bulls had become very spooky and nocturnal. Two other bulls in the same vicinity were regulars at a hay stack and one was eventually darted and moved to the Joe Watt feed site. The 17 miles between the original barn and Joe Watt would not be adequate in most circumstances to keep an elk from returning. However, it was hoped the elk fence and feed site might mitigate the short distance.

***Relocated bull on Joe Watt feed site***

**Winter Feeding:** Biologist Bernatowicz responded to a fair number of calls from people concerned about the winter conditions on wildlife. People were interested in feeding deer, turkey, and quail. All were advised of the potential problems, as well as the best food options.



**Colockum Bull Elk Study:** Biologist Moore continued preparations for the final Colockum bull elk capture.

**Conflict Assistance:** Biologist Moore worked with Conflict Specialist Wetzel, as well as LT Murray staff members, to immobilize and translocate a bull elk that was consistently in a hay barn on the valley floor. The operation went smoothly and the bull was released behind the elk fence in the Watt Canyon area.

***GOAL 2: PROVIDE SUSTAINABLE FISHING, HUNTING AND OTHER WILDLIFE-RELATED RECREATIONAL AND COMMERCIAL EXPERIENCES***

**Wildlife Management**

**Hunt by Reservation Praise:** District Biologist Fidorra received a phone call from a local hunter wanting to compliment Private Lands Biologist Stutzman, Resource Technician Kaelber, and other WDFW staff members on the implementation of the Hunt by Reservation system. The

caller was a waterfowl hunter who uses the new system and feels that not only is the program valuable, but the execution, including the information available to him and the overall website functionality, has impressed him. Congratulations to those who have worked hard to get that program off the ground and keep it running.

**Private Lands Transition:** Private Lands Biologist Stutzman worked on the PSE Wild Horse Wind Farm's transition to Hunt by Reservation from Hunt by Written Permission. Stutzman worked through numerous questions and details with PSE staff members both in person and over the phone throughout the week. Stutzman also reviewed and commented on the new PSE Hunting Plan and wrote up a detailed summary of how the system will be implemented on the wind farm.

**Bird Monitoring:** Natural Resource Technician Kaelber monitored corn stubble access sites for hunter and bird use throughout the week. Kaelber switched out the registration books at the corn stubble and Register to Hunt access sites as needed. Mesa Lake is iced over, but Worth Pond at the Windmill Ranch still has some open water and is being used by both ducks and hunters. Most of Scootenev Reservoir is iced over, but there are a lot of ducks remaining on the few open patches of water. Lots of fog throughout the week limited the number of birds that were flying and affected hunter success.

***GOAL 3: PROMOTE A HEALTHY ECONOMY, PROTECT COMMUNITY CHARACTER, MAINTAIN AN OVERALL HIGH QUALITY OF LIFE, AND DELIVER HIGH-QUALITY CUSTOMER SERVICE***

**Wildlife Management**

**Deer and Elk Conflict:** Wildlife Conflict Specialist Hand monitored for deer and elk damage at a newly planted block of high density apple trees on Rattlesnake Mountain. No elk sign was observed. Two deer were hazed from the area and one LP gas cannon was set up to provide nonlethal hazing.

**Elk Damage Claim:** Wildlife Conflict Specialist Hand met with a landowner who had submitted an elk crop damage claim for Fuji apples in the Prosser area. Crop harvest information has been sent to Olympia to accompany the report from the crop adjuster working on the claim.

**Silver Dollar LHP Complaint:** Wildlife Conflict Specialist Hand met with the hunt manager of the Silver Dollar LHP program to discuss a complaint from a LHP permit holder of not getting a quality opportunity to hunt. The permit holder had been given the first hunt of the season, after several days of scouting had located elk on the ranch. The permit holder's father later admitted that they had located fresh elk sign but did not see any elk.

***GOAL 4: BUILD AN EFFECTIVE AND EFFICIENT ORGANIZATION BY SUPPORTING OUR WORKFORCE, IMPROVING BUSINESS PROCESSES, AND INVESTING IN TECHNOLOGY***

**Wildlife Areas**

**Oak Creek Wildlife Area:** Manager Huffman coordinated with our internet provider on a loss of internet service. The solar powered tower that provides internet finally went down after a couple weeks of issues. The provider did not currently have equipment to use to access the site and recharge the batteries, so Huffman drove them into the remote site. A generator was set up and solar panels were cleared of snow. Unfortunately, that has not fixed the problem and internet continues to go down each night. The provider is working to remedy the situation and will hopefully have equipment to access the area soon.

**LT Murray Wildlife Area:** Assistant Manager Hunt completed email and phone exchanges with the local John Deere sales representative at Washington Tractor, and received an initial quote on a new tractor, loader, and implements. He also drafted a statement of need, and we'll be pushing the information up the chain as per Section Manager Dahmer's suggestion. Thanks for additional input from both Wenas and Oak Creek staff members.

**Sunnyside Wildlife Area:** Natural Resource Technician 2 Medina and Assistant Manager Sak met with Access Manager Garcia at the Granger boat ramp to evaluate needed repairs after a recent flood event. Access Manager Garcia received needed approval and plans to begin repairs, which are slated for the week of January 13.

**REGION 4**

***GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE***

**Wildlife Management**

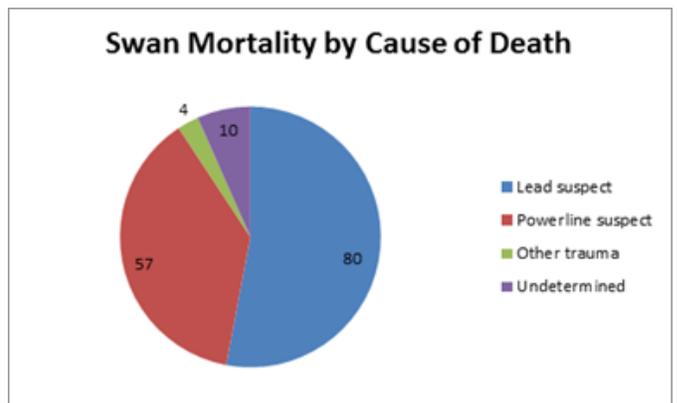
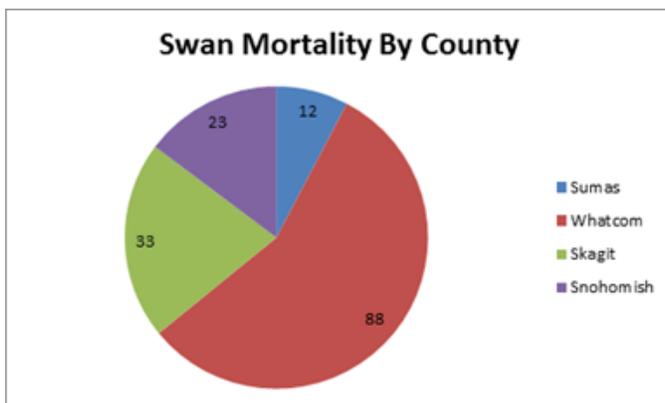
**Tribal Coordination & Elk Monitoring Efforts:** Wildlife Conflict Specialist Witman assisted Biologists Yarborough and DeBruyn with moving an elk trap in Skagit County to prepare for upcoming trapping and collaring efforts. Witman and Tulalip Tribal Biologist Sevigny located a potential elk trapping site and installed a camera to monitor elk activity. Wildlife Conflict Specialist Witman and Biologist Sevigny surveyed several properties for consideration of upcoming elk fencing projects. Several recent elk movements towards the State Route 20 corridor were identified and the areas were noted and discussed for potential collaring efforts.

**Oregon Spotted Frogs:** Biologist Yarborough attended the annual Oregon Spotted Frog Working Group meeting in Nisqually.

**High Path Avian Influenza Sampling:** Biologist DeBruyn and Technician Trejo collected samples from hunter harvested birds to be tested by USDA for the presence of the avian influenza virus.

**Swan Mortality and Morbidity Study:** Science Technician Trejo continued to collect sick and dead swans. The total for the year has now reached 144. The number of lead suspects has now passed the number of powerline suspects. The majority of swans captured this week came from gravel pits throughout Whatcom County, where large numbers of swans roost. These swans were captured after showing signs of lead toxicosis. On this date last year, the number of swan mortalities was 122. The extra 22 mortalities this year create an 18.03% increase in swan mortality compared to the 2014-2015 season.

<b>TRUS Weekly Mortality Report (as of Jan 11, 2016)</b>						
	<b>Lead suspect</b>	<b>Powerline suspect</b>	<b>Other trauma</b>	<b>Undetermined</b>	<b>Feather Pile</b>	<b>Total</b>
Sumas	7	1	1	1	2	12
Whatcom	56	25	1	4	2	88
Skagit	13	13	2	4	1	33
Snohomish	4	18	0	1		23
	80	57	4	10	5	156
Percents	51.28%	37%	3%	6%		



**Waterfowl Survey:** Biologist Smith completed District 12 waterfowl surveys for some priority and secondary areas. Data entry remains to be completed over the coming days. Numbers were sporadic, possibly due to lingering ice conditions at some locations and birds being spread out.

*Mixed flock of diving ducks on Lake Wilderness in District 12*



**Marine Waterfowl Surveys:** Biologist Tom Cyra, along with District 15 staff members and the marine waterfowl specialist, continued flying the 2015-2016 marine waterfowl surveys. These multi-species marine aerial surveys cover the entire shoreline and majority of open water of the Puget Sound and are the longest continuous dataset of their kind. Information is used to inform marine sea duck harvest guidelines, as well as provide trend data for game species and diversity species, such as western grebe and harbor porpoise. Despite foggy weather, four days of surveys were performed. When not flying, data transcription of the survey data was performed.

### **Wildlife Areas**

**Corson Preserve:** Snoqualmie Wildlife Area Manager Brian Boehm met via phone conference with other WDFW staff members to discuss a Right of Entry agreement for a construction project scheduled for this coming summer.

**Tennant Lake Wetland Enhancement Project:** Manager Kessler received the latest status report from the Port of Bellingham, which is managing the wetland enhancement project on the Tennant Lake Unit. This wetland enhancement project is improving 35 acres of monoculture reed canary grass with open water swales and planted riparian areas as mitigation for construction impacts at the Bellingham International Airport. The project is being completed in two phases. Phase one is 15 acres and phase two is 20 acres. Phase two is on schedule to be started in 2019. Manager Kessler coordinated with the Port managers on this year's planned activities, which include the mowing of reed canary grass in the phase two area.

**Hovander House Bat Colony:** Manager Kessler coordinated with the Whatcom County Parks Manager and Bats Northwest on the possible placement of new bat roost boxes near the Hovander House in the Hovander County Park. This year, the county replaced the roof on the house in an attempt to prevent the large bat colony from reentering this year. Whatcom County is fully supportive of the addition of new roost boxes.



*Manager Kessler, the Whatcom County Parks Manager, and Bats Northwest are looking into placing new bat roost boxes near the Hovander House in the Hovander County Park. The one shown here was installed approximately 15 years ago.*

### **Private Lands/Access Management**

**Migratory Bird Enhancement Project Proposal Development:** Supervisory Biologist Caldwell and Private Lands Access Biologist Wingard began drafting and editing new Migratory Bird Enhancement Project Proposals for Region 4. Several new projects have been identified. Private landowner outreach, coordination and participation confirmation work will occur next week.

### ***GOAL 2: PROVIDE SUSTAINABLE FISHING, HUNTING AND OTHER WILDLIFE-RELATED RECREATIONAL AND COMMERCIAL EXPERIENCES***

### **Wildlife Management**

**North Puget Sound Waterfowl Survey:** Biologist DeBruyn flew his final waterfowl survey of the winter, a count of dabbling ducks in marine waters of Snohomish, Skagit, and Whatcom counties.

Aerial Waterfowl Survey - Port Susan to Drayton Harbor					
1/4/2016	Pilot: Jeff Plane:QQ		Observer: Paul DeBruyn		
Weather:32-35 F N wind 0-10 p.Cloudy		Tide @ Beginning: 7.2		Tide @ End: 8.5	
Location	Mallard	Northern Pintail	American Wigeon	Green-Winged Teal	total
Port Susan Bay	8450	1200	2450	3400	15500
Livingston Bay	930	155	165	810	2060
Skagit Bay	66250	23750	11100	17200	118300
Fidalgo Bay	100	300		75	475
Swin. Reserve	200	1200	600	125	2125
Padilla Bay	8560	18100	19640	1360	47660
Samish Bay	19920	20970	16920	5640	63450
Nooksack Delta/Portage	1200	360	175	185	1920
Lummi Bay	900	5900	4000	800	11600
Birch Bay	125	75	75	0	275
Blaine/Drayton Harbor	100	525	300	0	925
<b>Totals</b>	<b>106735</b>	<b>72535</b>	<b>55425</b>	<b>29595</b>	<b>264290</b>

*Frozen fresh water led to a large number of dabblers resting on the saltchuck leading to the highest count of the year. Skagit Bay held the highest number of ducks, mostly mallards.*

### **Brant Season Hunter Harvest**

**Sampling:** Biologist DeBruyn, Waterfowl Specialist Wilson, and Technician Trego checked brant shot by hunters on one of the three days the season will be open in Skagit County this year. Twenty-six birds were examined, most of which were juveniles from the western high arctic population.



*Brant on the shores of north Puget Sound*

### **Wildlife Areas**

**Waterfowl Season:** Cosgrove monitored public use, waterfowl use, and water levels on the Island Unit. Water levels are lower in most places due to the low river. Hunting and waterfowl use was good throughout the week.

Cosgrove monitored waterfowl use on Milltown Island from the Island Unit and Milltown boat launch. A number of ducks were seen landing in the area. Cosgrove will be exploring the area in the coming weeks to better understand where ducks use the island and how future salmon

enhancement projects could improve waterfowl habitat and public access. Meis and Cosgrove met with a representative from the local chapter of the Washington Waterfowl Association to discuss a duck stamp proposal for new duck blinds on the Samish, Johnson/DeBay's Slough, and Island units.

**Trail Life USA Service Projects:** Manager Kessler coordinated with leaders from a local Trail Life USA scout troop on new service projects they will be able to perform this year on the wildlife area.

### **Private Lands/Access Management**

**Waterfowl Quality Hunt Site Monitoring:** Natural Resource Technician Deyo and Private Lands Biologist Wingard conducted use surveys of Waterfowl Quality Hunt sites in Whatcom, Skagit, and Snohomish counties, taking notes and resolving any issues regarding the sites.

**Public Comment and Questions:** Private Lands Access Biologist Wingard and Supervisory Biologist Caldwell responded to public comments and questions regarding private land access and hunting for waterfowl species. Information was provided on habitat conditions, waterfowl use, hunting success, and web-based access options for reserving and viewing private land access sites across the state.

**Americans with Disabilities Act (ADA) Access Meetings:** Private Lands Access Supervisory Biologist Caldwell and Private Lands Access Biologist Wingard met with ADA Program Manager Noyes at a private property in Skagit County to discuss the possibilities for making the site ADA accessible. Several options were discussed and will be presented to the landowner in the coming weeks. Supervisory Biologist Caldwell, Biologist Wingard, and Manager Noyes also met with Washington Waterfowl Association staff members to discuss ADA hunting ideas and future actions.

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### **Wildlife Management**

**Wildlife Conflict Monitoring & Management:** Wildlife Conflict Specialist Witman met with several Skagit County livestock owners to discuss elk fencing options to mitigate future elk damage. Witman and Natural Resource Technician Cogdal worked in Day Creek installing additional fence posts and braces. Old barbwire fencing will be removed next week and smooth wire electric fence will be installed.

**District 12 Elk Damage:** Biologist Smith used a trail camera to monitor intermittent nocturnal elk activity on agricultural properties. Smith also discussed nonlethal and harvest options with landowners. In addition, Smith met with volunteers in the Enumclaw area who were interested in opportunities to assist landowners with potential ungulate damage on agricultural properties.

**Master Hunter Assignments:** Wildlife Conflict Specialist Witman contacted two Master Hunters for assignments to properties in the Acme Valley that have been experiencing a large number of elk utilizing agricultural lands.

**Skagit Valley College Advisory Committee:** Biologist Yarborough met with the Environmental Chair at Skagit Valley College to discuss serving on the Wildlife Advisory Committee. This committee will help make recommendations to changes to the curriculum, help students find capstone projects, and provide guidance in addressing current issues related to the local area in the coursework.

### **Wildlife Areas**

**Spencer Island Unit:** Snoqualmie Wildlife Area Manager Brian Boehm met with a Boy Scout to discuss an Eagle Scout project at Spencer Island.

**Cherry Valley Net Pen:** Snoqualmie Wildlife Area Manager Brian Boehm prepared the net pen for a volunteer-based “clean up the pen” work party. The volunteers provided a pressure washer and labor to clean the pens, feeders, and loading chutes over the weekend.

**Skagit Headquarters:** Manager Rotton, Meis, and Cosgrove attended a site tour in the South Fork Skagit River estuary with Weed Crew Supervisor Dave Heimer and USFWS personnel to observe cattail control work in the Deepwater Slough restoration site. Heimer is working with other agency partners to identify additional funding for the project.

Manager Rotton attended a substantial completion tour of the Wiley Slough tidegates with CAMP construction, IMCO staff and Dike District #22 representatives. Tidegates are installed and dike backfill is underway. WDFW – CAMP staff members checked specs on the backfill and adjustments on the tidegate seal. The final aspects of the project are scheduled to occur during the week of January 10.

### ***WDFW and Dike District #22 check tide gate seal on the Wiley Slough tidegate repair project***

Cosgrove coordinated with Dike District #22 personnel to continue operating pumphouse pumps during the ongoing Wiley Slough tidegate replacement project. Manager Rotton discussed the planting plan for the Samish River Unit with NRCS Project Manager Kathy Smith, and the decision was made to complete planting during 2017 to allow time for contracting process and funding revisions. Manager Rotton is coordinating with WDFW contract staff members on the barge agreement for the Island Unit.





***Meis and Cosgrove did a swan count at the DeBay's Unit***

**Skagit Access Site:** Cosgrove visited the Jensen, Fir Island Farms, Samish, Milltown, Big Ditch, and Leque Island units to monitor public use and pick up litter. Wildlife area staff members toured the Big Ditch and Leque Island sites to examine the potential for improved boat access features for the next round of RCO grants.

**Island Unit:** Meis met with Plats Plus personnel and a local stakeholder regarding the Barn Field Tidegate Project. Wetland Restoration LLC has proposed donating services for the repair project and Plats Plus would be completing the work. Company representatives wanted to visit the site to look at the scope of work and logistical issues for this project. Plats Plus personnel will provide WDFW a list of duties/services they would provide for the project.

**Private Lands/Access Management**

**Private Land Elk Hunting Access:** Natural Resource Technicians Otto and Deyo disassembled the GMU 407 Private Land Access elk hunting site in Acme.

**Hunter Education/Volunteer Coordinator**

**Hunter Education Support:** Hunter Education Coordinator Steven Dazey activated 18 new hunter education classes for Region 4. Dazey ordered supplies for a new hunter education instructor to start teaching his 2016 classes. Dazey also answered an instructor's question on conducting traditional hunter education classes as opposed to the online evaluation. The instructor has taught many online classes and is interested in including a traditional class in his schedule this year. Dazey assisted two students to find classes. Dazey assisted a student who had not received his hunter education card after waiting for several weeks. The student was a walk in to a class and had inadvertently been left off the closing report. After checking with the instructor and verifying that the student had attended the class and turned in the required paperwork, the student was shown in Kalkomey as a pass so that he could receive his card. Coordinator Dazey sent out one new instructor applicant packet. Applicants to become a hunter education instructor have a training process to complete to ensure they receive the support and tools to become good instructors. This is also a process where the field coordinator can evaluate the applicants and ensure they have the skills to become certified hunter education instructors.

***GOAL 4: SUPPORTING OUR WORKFORCE, IMPROVING BUSINESS PROCESSES,  
AND INVESTING IN TECHNOLOGY***

**Wildlife Management**

**Additional Resources Proposal Review:** Wildlife Conflict Supervisor Caldwell began updating and expanding upon a proposal for additional resources for District 12 and Elk Area 6014 Wildlife Conflict staff member needs. Supervisor Caldwell plans to contact Region 6 and Region 4 staff members soon to discuss timelines and logistics associated with each region's needs.

**Computer Migration:** District 13 staff members continued with the work of obtaining software and hardware permissions and accessories to ensure that new computing resources meet field and survey needs.

**Staff Meeting and Instructor Advisory Committee:** Coordinator Dazey attended the hunter education staff meeting in Ellensburg and the Instructor Advisory Committee meeting (IAC). The IAC is composed of instructors around the state and acts to advise the hunter education division on instructor issues and act as a conduit to get that information back to the instructors in their region.

**REGION 5**

***GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE***

**Wildlife Management**

**Western Pond Turtles:** Biologist Anderson met with a local design and engineering firm to evaluate work needed to enhance wetlands on a new 65-acre land trust property purchased in the Columbia River Gorge. This new acquisition secures an important private inholding surrounded by US Forest Service land and one of the more important areas for western pond turtle recovery in Washington. A follow-up site visit will take place this spring to further evaluate options for securing a water diversion used to maintain pond habitat used by western pond turtles.



*Evaluation of water control structure*



*Winter conditions at the new western pond turtle acquisition*

### **Midwinter Waterfowl Inventory**

**District 9:** Biologists Anderson, Bergh, and Butler, along with Volunteer Johnston, completed four days of waterfowl surveys in District 9 as part of the nationwide USFWS Midwinter Waterfowl Inventory. Over 10,000 ducks and geese were observed by WDFW staff members in non-federal wildlife refuge areas mainly along the Columbia River. Conditions were generally good for the survey, with many shallow water areas partially frozen, even in Clark County. An exceptionally large number of bald eagles were seen along the river this year. Two other species of note were a white-winged scoter and a Eurasian widgeon.

*Approximately 7,000 scaup at the St. Cloud area in Skamania County*



**District 10:** Biologists Stephens, Butler, Vanderlip, and Holman, along with Scientific Technician Miller, completed annual waterfowl surveys as part of the nationwide Midwinter Waterfowl Inventory. Butler conducted surveys in Cowlitz and Clark counties, Vanderlip worked on and around WDFW's Cowlitz Wildlife Area, Miller surveyed in Wahkiakum County, and Stephens and Holman teamed to survey extensive areas in Lewis, Cowlitz, and Wahkiakum counties. Collectively, the effort located thousands of ducks, geese, and swans utilizing the varied wetland, upland, and riverine habitats of southwest Washington. Data will be compiled and submitted to Olympia Game Management staff members for submission to the US Fish and Wildlife Service.



### *Midwinter Waterfowl Survey effort*

**Dusky Canada Goose Survey:** Biologist Butler and Scientific Technician Miller conducted a dusky Canada goose survey this week in Clark, Cowlitz, and Wahkiakum counties. Areas surveyed included Shillapoo Wildlife Area, Woodland Bottoms, Kalama, Willow Grove, Puget Island, and areas near Grays Bay. Due to the recent cold snap, a high percentage of the wetland areas were frozen during the survey. Dusky Canada geese were observed near the Shillapoo Wildlife Area. In addition, several large flocks of cacklers were counted, four snow geese were observed in the Gray's River Valley, and nine were observed near the Shillapoo Wildlife Area.

**Juvenile Bald Eagle Report:** Biologist Anderson followed up on a report and photo taken of a bald eagle seen on the east fork of the Lewis River this week. The bald eagle had a patagial tag on its wing, a common method used to mark raptors for future identification. As it turns out, the eagle was a juvenile male produced at a nest on Santa Rosa Island off the coast of southern California. It is common for first year juvenile bald eagles to travel great distances in search of food following the nesting season.



***Juvenile Bald Eagle in East Fork Lewis River*** – Photo Bryce Michaelis, USFS

### **Mount St. Helens Wildlife Area**

#### **Bear Creek Riparian**

**Enhancement:** As part of the Bear Creek Riparian Enhancement Project occurring on the Mudflow Unit of the Mount St. Helens Wildlife Area, staff members have begun efforts to install cages around young conifer saplings located on the banks of Bear Creek to protect them from browse damage. A total of about 200 ‘volunteer’ trees

will be caged in addition to 500 more conifers that will be planted this spring. Due to the heavy rains that occurred last month, it was found that many of the already existing ‘volunteer’ trees have been washed away or partially buried under mud and debris from the creek during high water events. Attempts will be made to dig those trees out of the mud and replant them.



***Conifer saplings partially buried in mud, sand, and debris from high water event from Bear Creek on Mount St. Helens Wildlife Area*** – Photos taken 1/8/2016

### **Klickitat Wildlife Area**

**Water Level Recovery at Sondino Ponds:** Volunteer Enz recorded water levels at three ponds on the Sondino Unit, finding that two of the gauges were completely submerged. At Pond B, the water gauge was under water. Only one month ago, it was possible to walk all the way out to this 123-inch tall gauge without crossing open water. The water level has risen more than 10 feet since the last reading.



### ***Pond B on Sondino Unit***

### ***GOAL 2: PROVIDE SUSTAINABLE FISHING, HUNTING AND OTHER WILDLIFE-RELATED RECREATIONAL EXPERIENCES***

#### **Wildlife Management**

**Southwest Washington Management Area 2A and 2B Goose Hunt:** The 2015-2016 southwest Washington goose hunting season continued this week. WDFW Biologist Butler and Scientific Technician Miller traveled

throughout Clark, Cowlitz, and Wahkiakum counties to monitor hunting activity in the field on both public and private land. The number of geese harvested was low this week. However, a good number of hunters were seen out hunting. As of Sunday, January 10, approximately 251 hunters have been contacted and 149 geese have been checked. There was a dusky Canada goose harvested this week, bringing the total number of dusky Canada geese known to have been harvested in the area to eight. Please let that be a reminder to always be on the lookout for dusky Canada geese while hunting.

The regular season goose hunt closes on Sunday, January 31 within Management Area 2A. The late season goose hunt will open February 10 with significant management changes from previous years. All southwest Washington goose card holders can now participate in the late season goose hunt on private lands only. Public lands are closed to goose hunting during the late season. Hunters can look for opportunities to hunt on private lands to help landowners reduce depredation on crops, but please remember it is the hunter's responsibility to acquire permission prior to hunting on any private land. More information on the late season hunt can be found within the Washington State Migratory Waterfowl and Upland Game Seasons Pamphlet at <http://wdfw.wa.gov/hunting/regulations/>

### ***GOAL 3: USE SOUND BUSINESS PRACTICES, DELIVER HIGH-QUALITY CUSTOMER SERVICE.***

#### **D-10 Wildlife Conflict**

**Elk:** Conflict Specialist Conklin escorted a Master Hunter on property in Randle to harvest elk. The Master Hunter was assisting the elderly landowner in filling a kill permit. The volunteer Master Hunter gutted and skinned the elk for the landowner, who was very appreciative.

Conflict Specialist Conklin met with a landowner in Randle. After working with them for almost two and a half years, they are ready to sign the Damage Prevention Cooperative Agreement. The landowner agreed to use disabled and youth damage pool hunters. The agreement will be finalized next week and the first hunter will be scheduled to hunt the property at that time.

**Deer:** Conflict Specialist Conklin and Enforcement responded to a tame deer call in Toutle. The deer clearly had imprinted on humans early in life and was extremely tame. Officer Bahrenburg and Conflict Specialist Conklin led the deer into a fenced dog kennel where they waited for a culvert trap to arrive. The Enforcement team picked up the deer and placed her in the well-padded culvert trap. The deer was transferred to a remote location to hopefully live her life out in a wild state.



*Tame deer*



*Left to right: Officer Schroeder, Sergeant Weaver, Officer Martin, and Officer Bahrenburg after placing the deer in the culvert trap*

**D-9 Wildlife Conflict**

**Elk:** Conflict Specialist Peterson worked with a public hunter and Klickitat County commercial fruit producer to address elk damage. With a drop in temperatures and an increase in snow depth, the producer has seen a correlating increase in elk fence and orchard damage. The hunter and Peterson walked the fence line and marked areas of elk damage, as well as a large hole caused by fallen trees. The hunter was able to locate a group of approximately 25 elk and was successful in harvesting a mature cow elk. The following day, Peterson oversaw volunteer work and the damaged fence was repaired.





*Elk damage in Klickitat County*

**District 10 & Mount St. Helens Wildlife Area**  
**Winter Conditions**

**Past Weather:** Heavy rains during the first half of December did cause some flooding throughout the district. The end of December and the first of

January have been cold, with some low elevation snow.

**Short-Term Forecast:** Snow levels will fluctuate between 2,500 and 5,000 feet during the upcoming week. The 6-10 day forecast is for above normal temperatures and above normal precipitation, and the 8-14 day forecast is for above normal temperatures and precipitation.

**Long-Term Forecast:** The January forecast is for above normal temperatures, with an equal chance for above normal, below normal, or normal precipitation. The three month forecast is for above normal temperatures and below normal precipitation.

**Habitat:** Forage is available at middle and lower elevations.

**Snow Depths:** Lower elevations currently have minimal snow cover, with snow depths increasing in the middle and upper elevations.

**Animal Concentrations:** No unusual concentrations noted to date. The December monthly elk survey was conducted on the Mount St. Helens Wildlife Area, with 87 elk being observed. The January monthly elk survey was conducted on the Mount St. Helens Wildlife Area, with 353 elk being observed.

**Animal Condition:** The majority of animals appear to be in good condition, but a couple observed have been in poor condition.

**Mortality:** No mortalities have been observed.

**Public Contacts:** None to report regarding winter conditions.

*The Public is reminded the portion of the Mount St. Helens Wildlife Area lying east of a line defined by Hoffstadt Creek, The North Fork Toutle, and Deer Creek is closed to public access through April 30, 2015, to minimize disturbance and associated energy demands on elk wintering there.*

## **District 9 Winter Conditions**

**Past Weather:** Precipitation in District 9 continued to be at record levels for this winter, with a good snowpack above 1,000 feet in the south Cascades and western Klickitat County. Current snow water equivalent data indicates that the south Cascades are 115 percent of normal. The Klickitat Wildlife Area currently has approximately eight inches of snow and 100% of the area is covered, with few exposed south facing slopes. Not much new snow fell this week on the Wildlife Area and temperatures are more on the mild end of the spectrum for January.

**Winter Severity:** Winter conditions continue to be typical of January weather in the south Cascades and Klickitat River drainage. Snow coverage goes as low as the Columbia River level in most areas of eastern Skamania and western Klickitat counties. Most high elevation areas have a good snowpack, although some south facing slopes were free of snow. There are no current concerns for big game populations in eastern Klickitat County, as most animals came into this winter in favorable physical condition.

**Habitat:** All habitats in the Columbia River Gorge this week have experienced snow conditions. Clark and Skamania counties are generally snow free or with little snow below 500 feet. There is no concern for the current severity of the winter conditions on big game populations in Skamania County and the western portion of Klickitat County in the White Salmon River drainage.

**Animal Concentrations:** Deer are bunched in normal concentrations throughout the district, with deer in Klickitat County seen more in the timber associated with recent snow depths. Deer have been noticeably absent in open areas, including agricultural areas, as snowpack increases.

**Animal Condition:** Deer and elk appear to be in good condition and no winter stress/mortality has been reported.

**Mortality:** Mortalities this week were primarily associated with road kills. There have been no reports of deer in poor condition.

**Public Contacts:** No concerns raised by the public this week related to winter conditions.

## **REGION 6**

### ***GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE***

#### **Wildlife Management**

**Sea Duck Surveys:** As part of a long-term, multi-species monitoring effort, Biologists Murphie, Evenson, and Cyra continued their annual sea duck, marine bird, and marine mammal survey effort of Puget Sound. Areas in central and northern Puget Sound, the eastern Straits of Juan de Fuca, and northern Hood Canal were covered this week.

**District 15 Midwinter Waterfowl Surveys:** Midwinter waterfowl surveys were completed at survey sites in District 15. Biologists Hamer and Annanie covered most sites, while Biologist Murphie conducted a survey of Chimacum Valley.

**District 16 Midwinter Waterfowl Survey:** Biologist McMillan coordinated waterfowl surveys in Clallam County for the week of January 4-8. Biologist McMillan conducted surveys in eastern Clallam County January 4 and 5. Biologist Ament, Biologist Rob McCoy (Makah Tribal Biologist), Biologist Kim Sager-Fradkin & crew (Lower Elwha Tribal Biologist), Biologist Tim Cullinan (Point No Point Tribal Biologist), Bob Boekelheide (volunteer), and Ivan Stocker (Graysmarsh Resource Manager) participated in waterfowl surveys this week.

Early in the week, much of the inland freshwater systems were frozen. During the week the weather warmed up to where most lower elevation water habitats had melted.

District Biologist McMillan and Biologist Ament had previously been in communications in preparation for the mid-winter waterfowl surveys proposed for last week. Biologist Ament had participated in aerial surveys for swans on December 28 and December 30. During these flights, she was able to review some of the identified survey sites in the district. She also focused on searching for any new waterfowl concentration sites. She noted the locations of several ponds that could be searched from the ground. She spent some time on January 3 reviewing her survey assignments and contacting landowners for access. Various other local biologists from other agencies and an Audubon volunteer were contacted previously and also assisted with the counts last week. Biologist Ament completed all assigned surveys of listed priority sites for the district. Weather was quite variable for the survey week. There were freezing temperatures and light snow for the early start of surveys, but a mix of sun and clouds with warmer temperatures for the remainder of the week. There was very minimal precipitation during the week, so visibility for viewing was extremely good this season. The survey team focused efforts on surveying all the known Dungeness/Sequim survey sites on January 4, 2016. Due to freezing temperatures the previous few days before the survey started, nearly all inland wetlands were frozen. No ducks were observed on ponds where ducks had been seen from the air the previous week.

Biologist Ament surveyed sites east of Sequim on January 6 and sites between Sequim and Port Angeles on January 7. Numerous ponds were still mostly frozen, but ducks and geese were seen on small areas of open water or standing on the ice. She focused her January 8 efforts on looking for new waterfowl locations. A total of four new waterfowl sites were documented during the week. Two of the sites were farm fields with geese, and the other two sites were farm ponds with a concentration of six different species of ducks. In general, waterfowl survey numbers were fairly average for the saltwater sites surveyed and inland sites that had any open water. Many farm fields that were usually dry this time of year were observed to have some open water that was frozen early in the week. One highlight for the week was when a group of 32 trumpeter swans and one tundra swan flew into a (mostly frozen) pond where Biologist Ament had never seen swans before. She will spend time early this week completing all survey results and producing maps of the new sites.



*Geese and several duck species observed on ice at survey sites*



*Pintails and wigeon at saltwater site*



*Frozen sheet water on farm field*



*Trumpeter swans observed flying into the Harvel Road pond*

**Trumpeter Swan Monitoring:** Biologist Ament contacted the volunteers that are monitoring the swans weekly in the Dungeness Valley and requested that they count swans on January 4, 2016. This was the day that was selected for surveying the Dungeness Valley for midwinter waterfowl counts. The volunteers reported the following for last week:

*We counted swans today (1/4). When we started out it was snowing (and 32 degrees), then rain, and fortunately for most of the count it was sunny (and 38 degrees). Crazy Sequim weather. We counted a total of 127 swans - all Trumpeter. There were 76 at the airport with 26 being juvenile. In the fields off Lamar Road we counted 38 with only 4 being juvenile. But the swans*

were really close to the trees and difficult to be sure we counted all of them. Then at Schmuck Road we counted 13 in the field with 2 being juvenile.

**Western Pond Turtle Periodic Status Review:** Biologist McMillan continued editing the Western Pond Turtle Periodic Status Review.

**Taylor's Checkerspot Genetics:** Biologist Linders met with Todd Seamons, from WDFW's genetics lab, and Seth Dorman, a TESC graduate student working as the liaison for the Mission Creek captive rearing facility, to scope out an approach to assessing the degree of genetic transfer that has occurred as a result of translocations between the source population at JBLM's Range 76 and the receiving site at Range 50. Because only a single source population remains in the Puget lowlands, transfer of genetic diversity is a final critical measure of reintroduction success. Biologist Linders is writing grant proposals for submission to both USFWS and JBLM's ACUB programs.

**Potential New Threat to Taylor's Checkerspot: Large Yellow Underwing Moth:** JBLM staff members conducted surveys of portions of Ranges 76 and 50 searching for larvae and feeding damage associated with *Noctua pronuba*, an exotic moth that appears to be experiencing an outbreak in the Puget lowlands this winter. Larvae feed on a wide variety of plants, including many ornamental and agricultural crops. JBLM staff members used the distance sampling transect segments to estimate vegetation consumption overall and *P. lanceolata* consumption specifically. They also counted caterpillars in a one meter wide band along the transects. Although the caterpillars were entirely in hiding due to bad weather, they could be easily found by poking around in likely hiding spots. Some areas of Range 76 are heavily impacted, but these may only be 10-20% of the overall area. These moths feed throughout the winter and into spring, and occur as both early and late-instar larvae. The degree to which they may compete with checkerspots for food will depend on how their occupancy overlaps. There were no signs of feeding at Range 50 in about 45 minutes of searching. Access to Range 76 is scheduled for January 15. Biologist Linders hopes to make a site visit that day.

***GOAL 3: PROMOTE A HEALTHY ECONOMY, PROTECT COMMUNITY CHARACTER, MAINTAIN AN OVERALL HIGH QUALITY OF LIFE, AND DELIVER HIGH-QUALITY CUSTOMER SERVICE***

**Private Lands /Conflict**

**Deer with Arrow:** A deer in Sequim with an arrow in it has been reported several times to Enforcement personnel and Conflict Specialist Blankenship. Conflict Specialist Blankenship has deployed Master Hunter volunteers to try and get a better idea of the condition of the deer and where the arrow is located in the deer. Reports on this deer have come sporadically and from a very wide area. From these reports we have gathered that the deer is still very mobile despite the arrow. Conflict Specialist Blankenship and Enforcement personnel will continue monitoring the deer as reports are made.

**Deer With Irrigation Panel:** A deer in Port Orchard with an irrigation panel stuck on its hoof has been reported to Conflict Specialist Blankenship. The deer, with a slight limp from the panel,

is still very mobile in a large area. Blankenship has made contact with the homeowner who made the report and will continue monitoring this situation with the deer.

**Elk Damage Assistance:** Conflict Specialist Blankenship met with several landowners in the Yelm, Roy, and Eatonville areas to discuss elk damage to private property. During these meetings, Blankenship discussed nonlethal techniques to prevent elk damage to property. As the winter season continues, Blankenship is beginning to see many elk herds moving down into the lowland valleys where agricultural and livestock producers are situated. With this movement into these areas, elk damage on pasture land and winter grasses becomes an issue for many of these landowners. Blankenship has negotiated terms of a damage prevention contract and will continue working with the landowners in the upcoming months.