

Wildlife Program

Week of March 17-23, 2014

SCIENCE DIVISION

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

New Publication:

Arid Lands Initiative. 2014. Spatial Conservation Priorities in the Columbia Plateau Ecoregion: Methods and data used to identify collaborative conservation priority areas for the Arid Lands Initiative.

Several Washington Department of Fish and Wildlife (WDFW) staff (past and present) were contributors of the report. The Arid Lands Initiative (ALI) and the U.S. Fish and Wildlife Service (USFWS) collaborated to assess the Columbia Plateau Ecoregion and identify priority conservation areas. The members of the ALI/USFWS partnership developed methods and data to assess and identify collaborative conservation priority areas. Information is available at <https://www.sciencebase.gov/catalog/folder/52050595e4b0403aa6262c64>.

New Publication:

Tree-Nesting by Peregrine Falcons in North America: Historical And Additional Records, Journal of Raptor Research. 2014.

Author(s): Buchanan, Joseph B, Keith A. Hamm, Lori J. Salzer, Lowell V. Diller, and Sal J. Chinnici

Abstract: Peregrine Falcons (*Falco peregrinus*) in North America breed primarily on cliffs (White et al. 2002), and less often in other settings, including buildings, bridges, industrial sites, road cuts, rock quarries (White et al. 1988, Cade et al. 1996, Ritchie et al. 1998) and the ground (Pagel et al. 2010). Among the unusual breeding locations for this species are trees, which have been infrequently reported in North America (e.g., Bent 1938, Campbell et al. 1977, Whitman and Caikoski 2008), but more frequently in parts of Australia (Pruett-Jones et al. 1981, Hurley 2009) and in central and eastern Europe, where use of tree nests was formerly quite common (Kleinstauber et al. 2009, Mizera and Sielicki 2009, Sielicki and Sielicki 2009). In North America, Campbell et al. (1977) and Whitman and Caikoski (2008) documented the most recent examples of tree-nesting by Peregrine Falcons, in British Columbia and Alaska, respectively. In this paper we summarize published records of tree-nesting by Peregrine Falcons in North America and report nine additional records of tree-nesting in California and Washington.

WILDLIFE DIVERSITY DIVISION

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

Oregon Spotted Frog Genetics: Biologists Tirhi, Tyson, Hallock and staff finished collecting Oregon Spotted Frog tissue samples for a conservation genetics study that will examine connectivity of five subpopulations in the Black River drainage. Based on current knowledge of Oregon Spotted Frog movement, the assumption is that the distances between subpopulations are too far for frogs to move on a regular basis. It is possible, however, that infrequent exchanges occur or that unidentified subpopulations occur between the known occurrences. This information has important implications for management of the species in this drainage. This is a cooperative study of WDFW, USFWS and Washington State University.

Oregon Spotted Frog Habitat Use Study: Biologist Hallock set traps in the Black River floodplain to capture Oregon Spotted Frogs for a radio-telemetry study looking at habitat use by adult female frogs. The trapping was originally planned to capture females as they left breeding areas but high flood waters prevented placing the traps during this period. Twenty-one Oregon Spotted Frogs were captured in the first six days of trapping. However, all the frogs captured were either adult males (76%) or frogs too small to carry a transmitter. This is a cooperative study of WDFW and USFWS.

Oregon Spotted Frog Egg Mass Surveys: Biologist Hallock conducted Oregon Spotted Frog egg mass surveys in the Dempsey Creek drainage and along the Black River floodplain.

Pygmy Rabbit Recovery: This week we continued trapping and releasing adult males at Sagebrush Flats (SBF) to reduce population density in the enclosures. Trapping occurred at the large enclosure over two days. The total number of individuals captured was 21 (5 females, 16 males). At least one female appeared to be nursing. All 16 males were released to wild, and all females retained for breeding. Big thanks to volunteers Judy and Monte Olson, Dan Jackson, Technician Hastings, and Biologists Duvuvuei and Gallie for all their help. The remainder of the week was spent on husbandry and putting netting over the nurseries in preparation for the upcoming kit season.

Northern Spotted Owls: Section Manager Wilkerson and Natural Resource Scientist Buchanan attended a webinar that investigated future climate and management scenarios for spotted owl habitat in coastal Washington. The project was conducted through the Integrated Landscape Assessment Project run through Oregon State University. You can view the recorded webinar via <http://oregonstate.edu/inr/ilap-webinars>. The project compared no action, with and without incorporating climate change and current management action, with and without incorporating climate change, and a set of resilient management action with climate change to produce information about the impact on spotted owl habitat. The results indicated that no management actually had a more beneficial effect on spotted owl habitat. Overall, all scenarios indicate that sustaining current spotted owl habitat is not possible. The calculation of what previously uninhabitable lands may become habitable was not conducted, although it was mentioned that

this scenario did exist. There was a major conclusion that we have a limited window of opportunity to facilitate functional adaptation.

REGION 1

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

Lincoln County Prairie Grouse Project: WDFW biologists and researchers met with Bureau of Land Management (BLM) staff assembled at the Swanson Lakes Wildlife Area (SLWA) shop to practice placing new harness-style Global Positioning System (GPS) transmitters on two domestic chickens (roosters). This is so they will know how to place the items on male sage grouse next week. BLM contributed funds for the purchase of 20 of these transmitters, which are too heavy for placement on female sage grouse.



Golden Eagle Surveys: Biologists Annemarie Prince and Dana Base carried out ground-based surveys at three golden eagle nesting territories in District 1 this week to help determine occupancy. Biologists Ferguson and Hansen surveyed for Golden Eagle Occupancy for historic nests along the Columbia River in District 2 including nest sites at Sterling Cliffs, Whitestone, Hell's Gate, Meeker, and Fergie Welch Creek.



Golden eagle nest with adult golden eagle incubating.

Wildlife Areas

Grouse tracking: Seasonal Technician Nathan Lester and volunteer Dr. Kim Thorburn have been busy tracking grouse this week. Two pairs of volunteers also came out to Swanson Lakes Wildlife Area (SLWA) and vicinity to track grouse and survey one sharp-tailed grouse lek. Lester tracked Monday through Thursday, and Thorburn tracked on Tuesday (with Audubon Society volunteer Lindell Haggin) and Saturday. Lester left for southern Oregon this weekend to help the sage grouse trapping crew capture birds for translocation to SLWA next week.

On Tuesday, Haggin counted at least 13 male sage grouse busy displaying on their lek. Thorburn noted two female sage grouse fairly close to a sharp-tailed grouse lek, but found no male sage grouse there. She believes there were at least three, perhaps four, sharptails on this lek. Thorburn also observed a coyote eating a male sage grouse near a lek. Thorburn inspected the very fresh kill remains afterward; no radio collar was located. Thorburn and SLWA staff is looking into options for short-term coyote control in this specific area, as up to 40 disoriented sage grouse are due to arrive at the lek next week.

REGION 2

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wolf Conservation and Management

Okanogan Wolf Work: Biologist Fitkin assisted Biologist Heilhecker and Officer Treser in investigating a report of two wolves attacking a domestic dog in the Twisp River area. On site evidence indicated wolves were most likely responsible for the attack. Fortunately the dog's injuries were not severe and the pet is expected to make a full recovery.

Wildlife Management

Inland Avian Predation Management – Biologist Finger participated in an Inland Avian Predation Working Group conference call to learn about the current status of efforts at Goose Island. Most of the dissuasion materials (pier blocks, poly rope, and yellow flagging) are in place, but ring-billed gulls have begun nesting within it bringing about concerns that terns may follow suit within the outer periphery.



Goose Island, Potholes Reservoir showing newly installed dissuasion (note the yellow flagging) as part of the U.S. Corps of Engineers Inland Avian Predation Management Plan.

Photo by R. Finger

Washington Ground Squirrels – Biologist Finger dropped by the Soda Lake translocation site to check on badger activity which has been heavy since this winter. The Washington ground squirrel population appears to be taking a big hit and only about 10 active burrows were observed with no sign of active individuals above ground. Though disappointing, this is the inevitable part of the cycle that will hopefully provide burrowing owl habitat in the coming years. Further translocations are planned for seven additional, adjacent habitat patches, which hopefully will reduce the predatory burden on this relatively small but once dense population.



This small portion of the Soda Lake ground squirrel reintroduction site has had extensive badger activity since winter.

Photo by R. Finger

Wolverine Research: Biologist Fitkin and U.S. Forest Service (USFS) staff serviced two wolverine camera run-pole sites and responded to two closed trap signals that ended up as non-target species captures (bobcat and marten). The capture season will be wrapping up in the next week or two. However, we're still hopeful for an additional capture or two given the recent wolverine activity near our sites.

Wildlife Areas



Burn Team Field Tour –

Thursday the team implemented the first prescribed fire of 2014 on the Sinlahekin Wildlife Area and accomplished 41 acres. Weather conditions were favorable again Friday and the team burned another 29 acres on the Sinlahekin. Both of the units had been black-lined this past fall to reduce burnable fuels near the containment lines, which made the actual implementation of the burns this week much more expedient and cost effective.

Prescribed Burn Team ignites the Farm 4 Burn Unit – Sinlahekin Wildlife Area. Photo by Ray Guse

Private Lands/Access

Greater Sage-Grouse:

Biologist Comstock assisted Biologist Gallie in surveying Greater sage-grouse leks in southern Douglas County. Biologist Comstock was trained in WDFW lek search and feather collection protocols. Biologist Comstock will assume responsibility for surveying the leks south of Hwy 2. Biologist Comstock reviewed the Draft Multi-Species General Conservation Plan for Douglas County. Private



Photo by Eric Braaten

Lands Biologist Braaten spent most of the week searching grouse leks on private/public lands in Douglas County. This week 20 sage grouse and 5 sharp-tailed were observed.

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

Wildlife Areas

Knowles access road gate: Maintenance Mechanic Ed Pierson and Natural Resource Technician Brad Zabreznik completed installation of a new gate on the access road to the Knowles Area of the Entiat Unit. At long last, the gate will replace an old cable gate that provided seasonal closure of the area for wintering mule deer and to prevent damage to the road during spring thaw.



Above: Sparrow spotted on the Chiliwist Wildlife Area. Photo by Justin Haug

REGION 3

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

Conflict Specialist Landowner Contacts: Conflict Specialist Wetzel talked with Cindy McMeans several times and discussed elk near her property. We talked about ongoing elk hazing on adjacent properties (Elkhorn Ranch). We discussed the night hazing that would start this week and coordinated times that she also would be conducting hazing.

Wildlife Areas



Colockum Wildlife Area: Manager Pete Lopushinsky and Gina McCoy drove into Stray Gulch and Tekison Creek to look at stream channel conditions and concerns related to erosion, the Colockum-Tarps Fire and the proposed road building project.

The creek in Stray Gulch runs down the abandoned Stray Gulch Road.

Colockum Wildlife Area staff worked with Enforcement on the ongoing issue with Wanapum Dam. We are still excluding people from the shoreline and posting new signs. During the past weekend there were as many as 15 vehicles parked on Tarpiscan Road as visitors wanted to get a closer look at the reservoir drawdown.



Sunnyside/Snake River Wildlife Area: Wildlife Area staff spent most of the week dealing with the damage from a wildfire that burned onto the Sunnyside HQ Unit last Sunday. A controlled burn was lit in windy conditions on a private hunt club located on the south side of the Yakima River. Due to the strong winds the fire jumped the river and burned 250 acres of habitat, one shop, one flatbed truck, and miscellaneous tools and equipment. Robby rode around the outside perimeter of the fire to collect total acreage within the fire, met with the responsible party that started the fire and their insurance agent, and worked on getting a list put together of items that were lost or damaged in the fire. An electrician to get power restored to bulk gas and diesel tanks that were rendered unusable after the fire and staff met with Pacific Power so they could fix the downed power lines and replace the burnt power poles in order to restore the power to the HQ's office and other buildings.



Left: Sunnyside shop, post-fire. Right: Phillip trapped and removed a nuisance beaver from Mesa Lake, Pigeon Pond area.

Wenas Wildlife Area: Manager Morris and Jody attended the contractor pre-bid meeting for the FY14 Wenas elk fence rebuild. We had a good turn out with six companies attending.



Pre-bid field tour meeting of the Wenas elk fence rebuild – Mellotte section.

REGION 4

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

North Cascades Elk Herd Population Surveys:

Biologists Danilson and DeBruyn conducted the first of two rounds of aerial surveys for elk in Skagit and Whatcom counties. A total of 610 elk were observed during the eleven survey hours it took to complete this initial survey. The compositions of the population based on these observations are a calf:cow ratio of 32:100 and a bull:cow ratio of 34:100. With exactly half of the available radio collars observed during the survey (19 of 38), the preliminary population estimate for this survey is approximately 1,200 elk within the area surveyed. While these are “preliminary” results, they are indicative of a healthy growing population that continues to approach the desired population objective identified in the management plan for this herd.

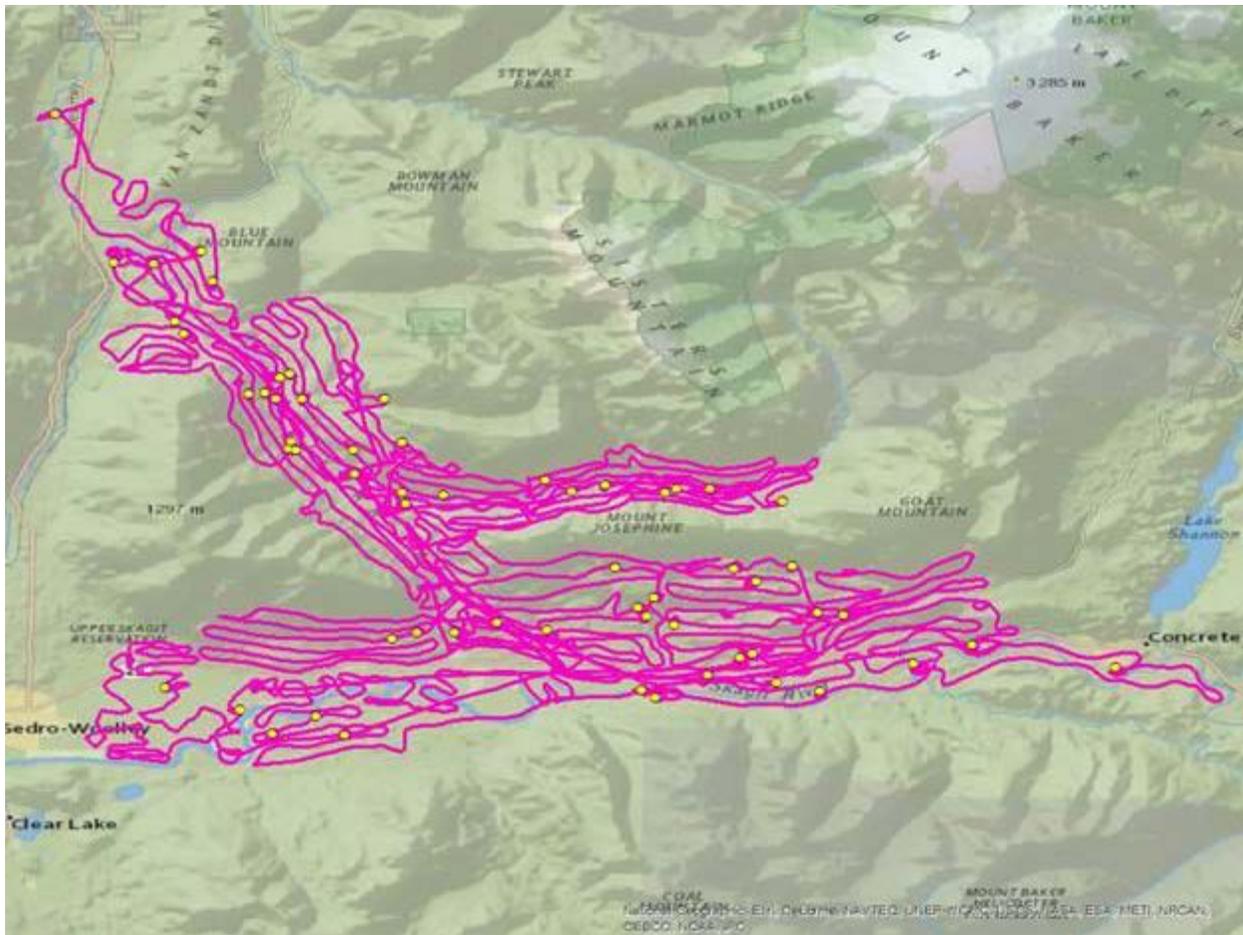


Bull elk observed during survey grazing in field in Skagit Valley.

These surveys are conducted in partnership with the Point Elliott Treaty Tribe, with tribal staff participating in the surveys and the tribes covering 50% of the costs. The second survey is scheduled to occur during the week of March 31.



A group of elk observed along the Nooksack River in Whatcom County.



Map showing track log and waypoints from first round of North Cascades elk survey flights.



Elk group observed in clear cut in Whatcom County.

Swan Mortality and Morbidity Study: WDFW staff and collaborators recorded two trumpeter swan mortalities in Whatcom County. These mortalities consisted of one whole carcass and one feather pile. Surveys for swans in roosting and feeding areas were continued this week in addition to responding to reports of sick, dead and injured swans on the swan and nutria hotline. This observed decline in mortalities coincides with the seasonal migration of swans for the upcoming breeding season as was the low number of swans collected during the past three weeks.

Table 1 Swan Mortalities

	Skagit	Snohomish	Whatcom
Powerline suspect	19	6	16
Lead suspect	20	8	see unk
Aspergillosis suspect			See unk
Trauma suspect	1	2	1
Unknown	24	1	168
Feather Pile	9	4	28
TOTAL	73	21	213

Elk Clover Trapping: Biologist DeBruyn continued working with a cooperative of members from the Point Elliot Tribes to establish and operate large live traps to collar elk. Work this week included establishing and monitoring bait sites and relocating traps. The effort is part of ongoing work to monitor population levels of the North Cascades (Nooksack) elk herd.

Annual Bellevue Master Naturalist – Urban Ecology and Wildlife Management Class: Biologist Anderson provided his annual training course to the Bellevue Master Naturalist 2014 group. The group went through general urban ecosystem patterns and processes, life history of common mammal, avian, amphibian, reptile and invertebrate species, habitat enhancement techniques, effects of humans on wildlife, conflict reduction techniques, legal areas that are related to wildlife management, and finally the new citizen wildlife observation app and website for use in documenting wildlife of management concern for the state. Bellevue has a very intensive and well-rounded volunteer naturalist program. It is a pleasure to assist them in training stewards. Read more at <http://www.ci.bellevue.wa.us/volunteer-master-naturalist.htm>.

Washington’s East-West Bear Research Project: Biologist Smith assisted Carnivore Specialist Maletzke with locating the den of one of the marked study bears in the eastern portion of King County. The den was located by snowshoeing in steep terrain. Only basic den characteristics were collected at this time as to not disturb the bear from the den. There were a total of 29 collared bear dens to visit (to document den characteristics and reproduction) within the study area (both sides of the state). Three additional bears have been collared during the winter. This portion of the project entails locating dens; placing cameras to document emergence and cub numbers; recollar/adjust collars on sub-adult males; and potentially collar yearling cubs. Work where newborn cubs are known to be present is limited (camera placement only) to avoid den abandonment. Activities have occurred on both sides of the state and will continue into April with male den checks and camera pickup.

Cackling Canada Goose Mark-resight Survey: Biologists Anderson and Smith participated in the second round of surveys of cackling Canada geese. The surveys occur in all areas these geese inhabit fall to spring from California to British Columbia with the goal of observing marked and un-marked individuals during established survey periods. Although marked individuals were documented in King County during the annual midwinter waterfowl surveys, no marked individuals were documented during this week's surveys. These surveys provide data used to estimate abundance of cackling Canada geese, and also assess survival rates and movement patterns.



Flock of Canada geese in a partially flooded pasture in King County during the spring cackling Canada goose survey.

San Juan Islands Terrestrial Managers Workshop: Biologist Milner attended the annual meeting with others from various organizations to catch up on projects and interests and to discuss potential initiatives and partnerships.

Diversity Species Assistance: Biologist DeBruyn drafted a response letter to Washington Department of Natural Resources (DNR) regarding a Forest Practice Application (FPA) for a proposed timber harvest project on Fidalgo Island in Skagit County. The timber sale is being opposed by residents and a local environmental group (Evergreen Islands) because of potential impacts to a suite of critical habitats and species, including peregrine falcon aerie. Evergreen Islands has appealed Skagit County's State Environmental Policy Act determination on these grounds and has acquired records from WDFW (obtained via public records disclosure) to try to support their position. The FPA filed with DNR is the most recent element to this controversial Skagit County project.

Biologist Anderson fielded requests and issued alternative management plans, where appropriate, per Growth Management Act. Anderson also provided guidance to DNR in regards to an old golden eagle nesting site from the late '70s and early '80s.

Wildlife Areas

Island Unit: Staff toured the Island Unit with Washington Waterfowl Association Northwest Chapter representative Reb Broker to monitor water and field conditions and discuss management and volunteer opportunities. High river levels continue to inundate lower fields.



Island Unit: Fireman's fields show the conditions with leaking tide gate structure during high river conditions.

Samish River Unit: Manager Rotton and Restoration Projects Coordinator Loren Brokaw responded to comment letters for the county permitting process. Manager Rotton prepared a map of the identified drainage infrastructure on the site from information provided by Dike District #5 representatives.

Leque Island Alternatives Analysis and Design Project: Projects Coordinator Brokaw and Biologist Milner had a conference call with Ducks Unlimited staff to discuss next steps to secure funding to monitor habitat, wildlife, and fish on and near Leque Island. The project partners would like to secure funding to monitor these parameters before and after construction of the project that will be identified in the design alternatives analysis. With robust monitoring, effects of the future project can be documented. It is possible that funding in a grant that has already been awarded to Ducks Unlimited could work; however, a detailed monitoring plan and justification must be submitted to the funding agency.

Fir Island Farm Final Design Project: Projects Coordinator Brokaw continued working on the project monitoring and adaptive management plan. Weed Management Biologist Dave Heimer provided information to include in the plan that involves monitoring and managing noxious weeds and non-native plants before and after project construction.

Stillwater Revetment Removal Project: The Wild Fish Conservancy submitted a report of as-built conditions for the project, which is along the Snoqualmie River on the Stillwater Unit in the Snoqualmie Wildlife Area, and on an adjacent private property. This report documents that the major project elements were constructed as designed, including removal of 2,100 linear feet of rock revetment along the river to restore natural sedimentation processes to benefit salmon habitat.



Excavation was in progress last August to remove the rock revetment on the Snoqualmie River at WDFW's Stillwater Unit. Photo courtesy of Wild Fish Conservancy

Whatcom Wildlife Area Water Controls: Natural Resource Tech Deyo checked and monitored the water controls on the Intalco Unit. The beaver deceiver pipe that was installed last week is working good, keeping the water flowing and the beavers have not figured it out yet. Manager Kessler coordinated with Ducks Unlimited on the replacement of the collapsed water control in Rainbow Pond on the Lake Terrell Unit. We are proceeding with an emergency purchase to get this water control replaced as soon as possible. We currently have no control of the water level in the pond, and there will be less water available in the Lake Terrell, Terrell Creek water system. We need adequate flows to keep water flowing in Terrell Creek throughout the summer. Natural Resource Tech Deyo used the John Deere 6400 Tractor to make drainage ruts in the agricultural

fields at the Lake Terrell Unit. These tire ruts will help drain water from the fields and help dry out the fields quicker, and allow prep work to begin for this year's barley crop.

Intalco Unit Dike Maintenance and Repairs: Manager Kessler and Natural Resource Techs Deyo and Otto worked to remove all Alder and Willow trees from the Intalco Unit dike. The trees were cut down, bucked up, and limbed. A chipper was used to chip up all the limbs and smaller trees, with the wood chips placed on a very muddy access road on site. With the removal of the trees, further repair work can be done on the dike. Muskrats and beavers have dug holes in the dike that will be filled with clay materials in the future.



Lake Terrell Wood Duck Boxes: Natural Resource Techs Deyo and Otto installed new wood duck boxes, and maintained older boxes on the Lake Terrell Unit. Twelve new boxes were installed and another 10 were repaired and maintained. The new boxes were made using materials purchased with Duck Stamp funds.

View of a newly repaired wood duck box on the Whatcom Wildlife Area.

Crescent Lake Unit: Snoqualmie Wildlife Area Manager Brian Boehm coordinated with two volunteers to continue spreading mulch on the access roads within the unit. The mulch was donated by Snohomish County and a tractor and loader was donated by one of the volunteers for the task.

Snoqualmie Wildlife Area: Snoqualmie Wildlife Area Manager Brian Boehm prepared five Capital Project Request Forms for the 2015-2017 budget cycle. These include two for access improvements for the Ebey Island Unit, a pedestrian bridge for the Stillwater Wildlife Area, replacing the boardwalk at the Crescent Lake Unit, and replacing the barn at Cherry Valley.

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

Wildlife Management

Cackling Goose Survey: Biologists Anderson and Smith spent time afield in coordination with Waterfowl Manager Kraege to survey for banded Cackling Geese. Both biologists noted Cackling Geese (Smith had hundreds in some of the east and south valleys – Anderson was in the Lake Sammamish areas west towards the urban core). However, no banded individuals were seen.

Ebey Island Acquisition Grant: Biologist Milner worked with Biologist Bails to review a draft write-up for the project. Bails and Milner toured a nearby spruce forest owned by Snohomish county to get an idea of what the WDFW property probably looked like at one point in history and to get photographs and ideas for Bails presentation to the Recreation and Conservation Office (RCO) later this summer.

Wildlife Areas

Samish River Unit (Welts) Access Facility Funding: Projects Coordinator Brokaw began preparing information for a grant application and capital funding request to construct access facilities on the Samish River Unit; including a parking area, turn-around pad for a portable toilet, and fencing.

Wildlife Area Access: Skagit Wildlife Area staff repaired a broken railing on the footbridge cleaned at the Jensen Access. Staff spoke with GIS personnel about creating maps in the near future. It was suggested to start by editing GoHunt maps. Staff began reviewing the GoHunt maps for changes to better reflect area boundaries.

Skagit Headquarters: Manager Rotton worked with Lands Agent Kye Iris regarding potential trespass issues on Skagit Bay Estuary and Cottonwood Island and boundary line dispute on DeBay's Slough.

Manager Rotton took a field tour with Habitat Biologist Brian Williams to look at the spur dike problems on the Headquarters Unit. Brian suggested consulting with the permitting agencies to determine what sort of permits the proposed repair work would trigger.

Staff received wood duck boxes from local bird enthusiast Richard Stewart and installed them at Headquarters and the Island Unit, as well as re-hanging an old box on the Island that fell during the winter.

Wiley Slough Restoration: Manager Rotton, Lands Agent Kye Iris and Habitat Biologist Brian Williams met with Dike District #22 Commissioners and neighboring land owners to discuss drainage issues and potential resolutions to this issue. Region 4 staff will continue to assist with permitting questions related to the potential resolutions of the issue.

Private Lands/Access

Spring Bear Hunt Coordination: Biologist Caldwell, DNR Forester Hurd and Technician Otto updated and created new spring bear hunt access maps for the Monroe and Upper Skagit areas. Several access gates need to be updated in the North Skagit area. DNR Forester Hurd and Biologist Caldwell will follow up to fix this problem. Technician Otto prepared hunter packets for the April 12 meetings in La Conner and Mill Creek.

Waterfowl Quality Hunt Site Enrollment: Biologist Caldwell followed up with a land owner/farmer in Skagit County regarding potential enrollment in the 2014 Waterfowl Quality Hunt Program. Biologist Caldwell discussed access, hunting and migratory bird habitat project

options regarding their lands. As a result of this meeting 20 acre and 30 acre lands were identified as being acceptable for the program. Many different crop options were discussed including corn prices. Biologist Caldwell and the farmer agreed to discuss payment matters with other parties and reconvene on the week of February 24, 2014, about the results.

Western Washington Pheasant Release Program Review and Summary: Biologist Caldwell continued working on the Western Washington Pheasant Release Program Review and Summary report for upper management. This document is close to being finalized. Biologist Caldwell will conduct research pertaining to land ownership and reasons for not enrolling in the program in the coming weeks. Upon completion, the summary report will be submitted for upper management review.

Dike Repair at Lake Terrell Wildlife Area: Technicians Otto and Deyo performed Dike repair and maintenance at Lake Terrell Wildlife Area. The recorded damage was a result of Beaver habitat manipulation. Status updates will be followed up by Lake Terrell staff.

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

Wildlife Management

Skagit County Elk Conflict: Conflict Specialist Griffith facilitated the eighth meeting of the North Cascades Elk Damage Committee this week. The meeting was well attended by local landowners and Tribal representatives. The committee was able to finalize the wording of the four elk damage related objectives of the North Cascades Elk Herd Plan. Griffith is working on preparing the finalized objectives for presentation at the upcoming work group meeting to be held on April 10.

Seattle City Light (SCL) Wildlife Research Program (WRP): Biologist DeBruyn reviewed grant proposals asking for funds from SCL's WRP. Three final proposals were reviewed and results will be discussed with the full committee next week.

Migratory Bird Habitat Enhancement Program Summary: Biologist Caldwell compiled and summarized Migratory Bird Habitat Enhancement Program money and enrollees from 2012-present. Biologist Caldwell will use this summary to allocate funds for the upcoming 2014 season and present it to upper management for review prior to contacting landowners about potential payment options in 2014.

Waterfowl Quality Hunt Site Breakdown Update: Technician Otto continued performing quality hunt site breakdowns in Whatcom County. These sites have been difficult to remove due to heavy rain water and muddy conditions.

Volunteer Coordination for Hunter Harvest/Success Monitoring: Biologist Caldwell coordinated with Hunter Education and Volunteer Coordinator Steve Dazey to meet and review a prototype survey box. Cost estimates, design, and a timeline for completion were discussed. This

project is approaching the final phase. Follow up will be conducted in the coming weeks to finalize the project.

Forage Needs for Waterfowl: Biologist Caldwell conducted research (contacted officials from Canada and local Duck Unlimited agencies, reviewed scientific publications, compared local and Canadian disturbance frequencies, analyzed current carrying capacity data and reviewed the foraging ecology of local waterfowl species) to verify and calculate the forage needs for waterfowl that use the Skagit Delta. Upon completion of this analysis, carrying capacity and foraging ecology dynamics for Puget Sound waterfowl species appears to be fairly complex and likely depends heavily upon annual agricultural practices. Discussions will follow regarding competition for resources, habitat utilization, and the overall needs of migratory waterfowl utilizing the Skagit Delta.

Biologists Anderson and Thompson met with Conservation Assessment Section Manager Thompson to discuss Wildlife Permitting efforts, workload, and potential options to streamline. Anderson continues to work with area municipalities to provide for their legal request to allow WDFW volunteers to survey on their public park lands.

Biologist Anderson responded to a survey request from a PhD candidate at Utah State regarding urban coyote ecology and management in Seattle. The student is examining urban coyote ecology across the lower 48 and Canada.

Wildlife Areas

Intalco Unit Archery Course: Manager Kessler coordinated with the Custer Sportsmen's Club representative on the Archery Course on the Intalco Unit. The club held another work party to get the archery course ready to officially open for the season next weekend.



Intalco Unit archery course work for the season opener.

Samish River Unit (Welts) Wetland Restoration Project: Projects Coordinator Brokaw completed response letters to comments received through the Skagit County Special Use permit process and responded to a request from the county to identify any known wells within the project vicinity. Additionally, Natural Resources Conservation Service (NRCS) and WDFW fiscal staff had a conference call to review edits needed to an invoice that was submitted the previous week.

REGION 5

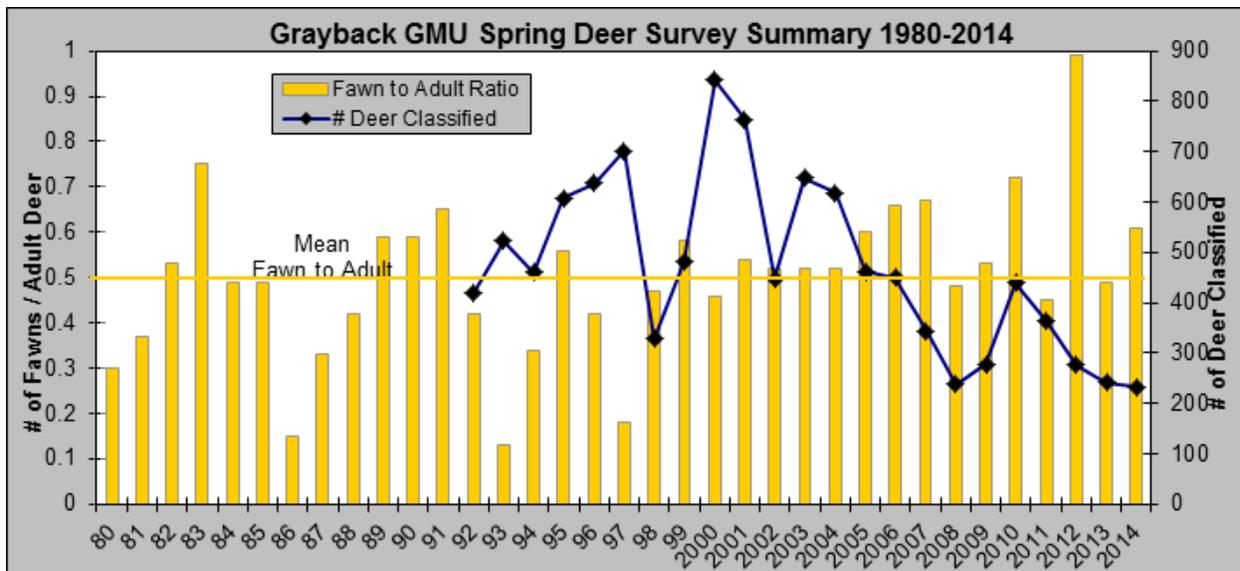
GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

Region 5 Deer Management: Biologists Holman and Stephens, Klickitat Wildlife Area Manager Van Leuven, Wildlife Conflict Specialist McDonald, Resource Technician Davis, Fisheries Biologist Cady, and volunteer Ihrig completed the annual survey of deer on and around the Klickitat Wildlife Area. Survey conditions were less than favorable with cold windy weather on the March 17 evening survey, but the March 18 morning survey was clear and calm with bright skies.

A total of 260 deer were observed during the effort, with 233 classified. The fawn to adult ratio was 61 fawns per 100 adult deer, slightly above the 35-year average of 50 fawns per 100 adults. The total number of deer classified (233) is among the lowest counts observed since 1992 when this metric began to be recorded. The average number of deer classified has been 470 during this 23-year time span. Additionally, prevalence of the hair-loss syndrome was quantified during the survey. Hairloss was observed in just 2% of the classified animals and as usual, was most common in fawns.

Collectively, the survey indicates a relatively mild winter in the southern Cascades and Klickitat County. The low total count of deer is likely due in part to the mild conditions with deer widely scattered through their range as well as windy weather during part of the survey. However, counts over the past several years have been below the historic average and may reflect a decline in overall numbers. Please see the attached figure illustrating the metrics related to the Klickitat Spring Deer Survey from 1980 to 2014.



Cackling Canada Goose Surveys: In cooperation with U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, California Department of Fish and Game as well as British

Columbia, Region 5 wildlife biologists conducted surveys for cackling Canada geese. The survey involves locating flocks of cacklers and examining the birds for neck collars. Cackling Canada geese were captured and marked on their breeding grounds in western Alaska's Yukon/Kuskokwim National Wildlife Refuge during the summer of 2011, 2012 and 2013. The survey protocol involves two repetitions of the effort and will contribute to a survival estimate for the total population of cackling Canada geese.

WDFW staff including Biologists Miller, Bergh, George, and Natural Resource Technician Doorly contributed a total of approximately 31,500 geese to the overall survey effort. Thirty-nine marked birds were noted among these individuals and many of the collar characters were observable. Most of the geese were located in Clark County. Population estimates generated from past year's efforts have resulted in a total of approximately 250,000 cackling Canada geese.

The small Canada geese are of particular management concern because they are used extensively for subsistence by the native peoples of western Alaska, provide recreational hunting in Washington, Oregon, and California but also cause extensive damage to agricultural crops. For more information on the Alaskan breeding grounds of the cacklers visit the USFWS website at <http://www.fws.gov/alaska/nwr/yukondelta/index.htm>.

Mount St. Helens Mountain Goat Coordination: Goat, Sheep, Moose and Pronghorn Section Manager Harris and Biologist Holman met with Biological and Recreational staff from the U.S. Forest Service (USFS) as well as Biological staff from the Cowlitz Tribe to discuss the initial planning of surveys for mountain goats on and near Mt. St. Helens. Goats were largely eliminated from the area surrounding Mt. St. Helens in the 1980 eruption but have returned to the area. WDFW, USFS and the Cowlitz Tribe will develop a survey protocol incorporating the use of citizen volunteers associated with the USFS to quantify the goats. Currently the goats are thought to occupy the Mt. St. Helens crater area and multiple areas in the Mt. Margaret Backcountry.



Mountain goats in the crater of Mt. St. Helens were observed during a 2007 U.S. Geological Survey flight.

Black-tailed Deer Research Project: The Region 5 portion of the black-tailed deer research project is ongoing. The 2014 study does are being monitored by a combination of remote (satellite) and field (VHF) methods. The does are located in two study clusters concentrated within the Washougal (568) and Coweeman (550) Game Management Units (GMUs). During 2014, eight does have been captured in GMU 550 and six have been captured in GMU 568.

These study-does will be monitored and fawn captures will be attempted in May and June. During the effort in 2013, six fawns were captured from four does in the Washougal cluster. Fawn monitoring is currently being conducted. To date, three 2013 fawns remain alive in the Washougal study cluster. Biologist Bergh checked on all of the 2014 Coweeman study does and picked up all but one of the GPS collars from the 2012 study does. One of the 2014 collars is not transmitting to the satellites and one is sending a low battery signal. All eight of the 2014 study does remain alive along with the lone remaining collared fawn from 2013.

Oregon Spotted Frog Survey: Biologist Bergh conducted a survey for frogs at Dry Creek on the border of Lewis and Thurston counties. This drainage contains appropriate habitat within the historic range of Oregon spotted frogs and is nearby the Mima Creek known site. No frog egg masses were seen, but lots of waterfowl were enjoying the high water from this month's rain.



Trout Lake Natural Area Preserve Oregon spotted frog survey.

The Wildlife Area manager and Technician Davis went to the Trout Lake Natural Area Preserve to see whether Oregon spotted frogs had begun oviposition, and count any egg masses found. The water was higher than usual, which caused the frogs to utilize somewhat different areas than is usually seen. Locations were recorded of approximately 538 egg masses.

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

Private Lands/Access

Public Access: Conflict Specialist McDonald and a WDFW volunteer repaired roofs on three information signboards and removed trash at private timberland public access sites in east Klickitat County.



Signboard before (left) and after (right) the roof was repaired in Klickitat County.

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

Wildlife Management

Wildlife Conflict: Conflict Specialist Conklin contacted an organic farmer in the Boistfort Valley about a potential fencing project to deter elk and deer damage. Unfortunately, most of the fields used to grow his crops are leased and therefore would not be the best application for the project. Conklin also met with landowners in the Castle Rock area experiencing heavy damage on their fields from elk. The owners will be signing a Damage Prevention Cooperative Agreement and will be the first candidates to use the recently purchased propane cannon.

District 10 and Mount St. Helens Wildlife Area Winter Conditions

Past Weather: December and January temperatures and precipitation were below normal, with little snowfall below 2,000 feet. February started off cold with 5-10 inches of snow accumulating to the valley floor. Rainfall for the month of February was above average and temperatures were below average. Temperatures have begun to moderate in March with close to normal temperatures and sunnier days.

Short-Term Forecast: Snow levels will fluctuate between 3,500 to 8,000 feet. The 6-10 and 8-14 day forecast are for normal temperatures and above normal precipitation.

Long-Term Forecast: The April forecast is for an equal chance for either above average, below average, or normal temperatures, and below normal precipitation. The three month forecast predicts above normal temperatures and below normal precipitation.

Habitat: Forage is available in lower and mid elevations, with green up starting to show signs in the lower elevations.

Snow Depths: Lower elevations are snow-free, with mid-elevation snow beginning to decrease.

Animal Concentrations: No unusual concentrations noted to date. The monthly winter elk survey was conducted on March 4 with 130 elk observed on the Mt. St. Helens Wildlife Area.

Animal Condition: Most animals observed to date appear to be in good to fair condition, with a few in poor conditions and with rough pelage.

Mortality: Wildlife Area staff observed four mortalities so far this winter on the Mudflow Unit while conducting other work.

Public Contacts: None to report regarding winter conditions.

The Public is reminded the portion of the Mt. 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, 2014, to minimize disturbance and associated energy demands on elk wintering there.

MOUNT SAINT HELENS ELK HERD
 2013/2014 WINTER CONDITIONS - SNO-PARK SNOW DEPTH,
 NRCS SNOTEL DATA, AND SNOWPACK

From web page <http://www.fs.usda.gov/activity/giffordpinchot/recreation/wintersports/?recid=31178&actid=91>
http://www.wrcc.dri.edu/cgi-bin/sno_narr3_pl
<http://www.wcc.nrcs.usda.gov/snotel/Washington/washington.html>

SNOWPARKS:								
Name	Elevation	12/6/2013	12/13/2013	12/20/2013	12/27/2013	1/3/2014	1/10/2014	1/17/2014
MARBLE MT	2,700'	No report	4" new snow	No new report	No new report	No new report	No new snow, 2" base	Slush. No new snow.
WAKEPISH	2,800'	No report		1-2" snow	1-2" snow	2" snow	2" base	No new report

SNOWTEL STATIONS:

Name	Elevation	Stats	11/30-12/6	12/7-12/13	12/14-12/20	12/21-12/27	12/28-1/3	1/4-1/10	1/11-1/17
		Avg Snow							
JUNE LAKE	3,340'	Depth (inches)	0.66	5	5.3	7	6.7	7.9	22
		Min Temp (F)	14	19	23	29	31	26	31
		Max Temp (F)	45	27	50	54	51	47	55
		Avg Temp (F)	30	22	36.2	38.3	39.5	36.7	39.8
		Year to date precipitation (inches)	27	27	27.7	30.9	31.3	36.6	43.5

Name	Elevation	Stats	11/30-12/6	12/7-12/13	12/14-12/20	12/21-12/27	12/28-1/3	1/4-1/10	1/11-1/17
		Avg Snow							
SPIRIT LAKE	3,520'	Depth (inches)	2.43	3	0.86	0.86	0	1.3	3.5
		Min Temp (F)	11	18	21	29	30	20	31
		Max Temp (F)	46	27	52	51	52	46	54
		Avg Temp (F)	29	25	36.8	36.8	39.2	36.8	38.5
		Year to date precipitation (inches)	17.5	17.9	18.3	22.1	22.7	25.5	30.5

Name	Elevation	Stats	11/30-12/6	12/7-12/13	12/14-12/20	12/21-12/27	12/28-1/3	1/4-1/10	1/11-1/17
		Avg Snow							
PEPPER CREEK	2,140'	Depth (inches)	0.31	2	0.3	0.42	0	0	0
		Min Temp (F)	14	16	24	28	29	25	29
		Max Temp (F)	48	26	46	46	51	46	51

Avg Temp (F)	31.5	22	34.5	34.8	36	35.2	37.3
Year to date precipitation (inches)	13.1	13.5	13.6	15.3	15.6	17.9	21

Name	Elevation	Stats	11/30-12/6	12/7-12/13	12/14-12/20	12/21-12/27	12/28-1/3	1/4-1/10	1/11-1/17
SHEEP CANYON	3,990'	Avg Snow							
		Depth (inches)	4		7	8.6	7.9	11.7	25.5
		Min Temp (F)	12		20	28	29	23	30
		Max Temp (F)	43		50	51	50	50	59
		Avg Temp (F)	26		35.3	36.8	38.8	35.8	39.3
		Year to date precipitation (inches)	23.1		24.4	27.8	28.4	32.5	38.5

Name	Elevation	Stats	11/30-12/6	12/7-12/13	12/14-12/20	12/21-12/27	12/28-1/3	1/4-1/10	1/11-1/17
CALAMITY	2500'	Avg Snow							
		Depth (inches)	1	5.5	0.1	0	0	0	0
		Min Temp (F)	16	18	27	32	33	30	34
		Max Temp (F)	47	27	55	52	53	48	56
		Avg Temp (F)	31	23	39.2	41.2	42.3	39.8	43.3
		Year to date precipitation (inches)	18.8	22	20.3	23.2	23.6	27.4	32.7

Snowpack % of Avg Snow Water Equivalent	12/6/2013	12/13/2013	12/20/2013	12/27/2013	1/3/2014	1/10/2014	1/17/2014
JUNE LAKE	5%		13%	21%	14%	23%	33%
SPIRIT LAKE	122%		100%	48%	33%	73%	77%
SHEEP CANYON	20%		20%	27%	22%	38%	55%

1/24/2014	1/31/2014	2/7/2014	2/14/2014	2/21/2014	2/28/2014	3/7/2014	3/14/2014	3/21/2014
No new report	No new report	6" new snow	14" new snow	No new report	No new report	No new report	No new report	3" snow
No new report	No new report	5" new snow	No new report	12" snow	No new report	24" snow	12" snow	14" snow

1/18-1/24	1/25-1/31	2/1-2/7	2/8-2/14	2/15-2/21	2/22-2/28	3/1-3/7	3/8-3/14	3/15-3/21
19.7	18.7	30.3	37.3	52.3	65.3	57.6	49.4	46.4
32	31	5	16	28	27	27	30	27
57	60	37	41	42	41	46	53	50
43	40.2	21.2	32.2	33	33.7	37	40.5	35.5

1/18-1/24	1/25-1/31	2/1-2/7	2/8-2/14	2/15-2/21	2/22-2/28	3/1-3/7	3/8-3/14	3/15-3/21
43.6	48.6	51.4	58.1	71.4	72.8	86.6	91.5	95.8

1/18-1/24	1/25-1/31	2/1-2/7	2/8-2/14	2/15-2/21	2/22-2/28	3/1-3/7	3/8-3/14	3/15-3/21
0.1	2.5	7.6	3.8	12.2	15.9	5.1	0.3	3.3
34	31	7	18	28	24	28	26	28
54	60	45	48	48	42	50	54	54
42.3	39.7	21.5	34.3	33.5	35.2	39.2	41.5	36.2

1/18-1/24	1/25-1/31	2/1-2/7	2/8-2/14	2/15-2/21	2/22-2/28	3/1-3/7	3/8-3/14	3/15-3/21
30.6	33	33.4	36.8	44.6	45.4	51.6	55.5	58.6

1/18-1/24	1/25-1/31	2/1-2/7	2/8-2/14	2/15-2/21	2/22-2/28	3/1-3/7	3/8-3/14	3/15-3/21
0	0	2.1	7.7	2.8	12	11.1	4.3	0
30	28	11	17	32	30	28	29	29
56	55	38	45	44	47	48	62	57

35.8 35.5 25.5 33 34.8 36 37.5 40.5 38.2

21 22.9 23.2 27.8 35 35.4 41.1 43.3 45.2

1/18-1/24 1/25-1/31 2/1-2/7 2/8-2/14 2/15-2/21 2/22-2/28 3/1-3/7 3/8-3/14 3/15-3/21

24.1 22.8 32.2 37.6 53.4 67.4 56.6 49.8 52.3

33 30 3 18 26 21 30 27 26

54 56 37 40 41 45 46 53 46

43 40.2 20 32.8 31.5 34.5 37 38.3 33.5

38.6 42.3 43.4 49.4 60.7 62.3 73.8 79.7 84.3

1/18-1/24 1/25-1/31 2/1-2/7 2/8-2/14 2/15-2/21 2/22-2/28 3/1-3/7 3/8-3/14 3/15-3/21

0 0 1.1 1.7 2.1 2.7 0.5 0 0

32 34 9 17 32 28 28 32 32

54 54 37 39 46 46 51 56 55

43.3 42.2 24.2 26.5 35.8 35.5 41.2 44.2 39

32.7 36.2 36.7 37.3 51.2 52.1 58.5 62.5 64.7

1/24/2014 1/31/2014 2/7/2014 2/14/2014 2/21/2014 2/28/2014 3/7/2014 3/14/2014 3/21/2014

27% 29% 30% 34% 57% 55% 53% 51% 51%

42% 29% 44% 6% 107% 79% no data no data 110%

47% 44% 48% 56% 87% 78% 71% 64% 62%

REGION 6

GOAL 1: CONSERVE AND PROTECT NATIVE FISH AND WILDLIFE

Wildlife Management

Recovery of Elk Collars: Biologist Ament spent a day on the west end of the district attempting to retrieve some elk collars that were detected as mortalities during past aerial surveys and ground monitoring. Garrett Rasmussen, tribal biologist for the Quillayute Tribe, joined her for the efforts. Rasmussen knows the Sol Duc/Dickey areas well and had needed gate keys. They were hoping to recover four collars total but had to settle for one. This collar was behind a locked gate near Hill Creek and was quite close (within 360 feet) to the location noted during the aerial survey. The collar search required some crossing of blow downs and dense vegetation. The collar was found hidden in the grass



Biologist Ament retrieved an elk collar.

15 meters from some of the remaining elk bones. Cause of death was unable to be determined. The two knew one collar was actually in the Sol Duc River. They went to the spot where Garrett had last got a signal (Nov.) but no signal was detected. Biologist Ament listened for the frequency with her Omni antenna as she travelled west on Highway 101 and detected the signal near Bear Creek. Some ground monitoring was conducted. This collar had washed down river approximately 8.0 miles. High, fast water conditions in the river prevented the collection of this collar. One last collar was in the Dickey GMU. There was not enough time remaining in the day to retrieve this collar. Garrett called Biologist Ament later in the week to report that the collar must have simply had a recent malfunction. During a composition flight that morning he got a live signal and detected the elk in a different location from when he got the mortality signal.



Above: Vertebral remains from elk. Right: Garrett navigates the blow downs and dense vegetation.

Cell Tower Project – Biologist Ament conducted a site visit to the project area described last week. Ament had previously told DNR staff that the preliminary survey work should be completed but there was no evidence of any survey work at the site. She is still waiting for a response from DNR staff.



Left: One of the existing cell towers. Above: Site proposed for cell tower expansion.

Habitat Improvement Project: The Washington Conservation Corps (WCC) crew working for DNR has continued with some projects at a known Taylor’s checkerspot butterfly (TCB) site west of Port Angeles. The crew is conducting the removal of trees and shrubs at designated site areas that have been determined to be “non-habitat” at the site. Biologists Ament and Dave Hays had met with DNR staff and the WCC crew in February to outline the work to be completed. On March 21, 2014,

Biologist Ament conducted a site visit to review the project work that has been completed since her last visit in February. A few significant wind storms have occurred at the area this past month. Numerous trees were broken off and had fallen across the road. The crew had to devote time to removing these trees to



Barricades installed to prevent vehicle use on sensitive Taylor’s checkerspot butterfly (TCB) habitat.

allow required access to the cell towers. They still need to remove limbs and small trees from TCB habitat areas along the road. The crew installed some barricades with downed trees along the road at two landing sites. TCB ovipositioning has been documented at these landing areas.

Biologist Ament suggested an effort be made to prevent vehicles from pulling into these sensitive areas. The WCC crew has nearly completed work in two of the identified habitat improvement zones. Biologist Ament made an attempt to contact Brian Turner from DNR and the WCC crew leader after leaving the site. She wanted to provide them some information about her review of the site and make some recommendations but was not able to connect with them. During her site visit to the area she took some time to monitor for any peregrine activity. Unfortunately, there were low fog conditions and visibility was poor during most of the visit. However, on at least three occasions Biologist Ament heard the vocalization of a peregrine from the direction of the documented nest site west of the cell towers.



Ridge-top area cleared by the WCC crew to improve TCB habitat.



Tree and brush removed by the WCC crew along south facing ridge at known TCB location.

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

Private Lands/Access



Access Maintenance: Brian Mitchell, Natural Resource operations supervisor, had his crew and volunteers preparing Region 6 boat launches for the opener in April. Tasks include filling washouts, trimming entire fence lines, pole sawing low hanging limbs, picking up and chipping all limbs, cutting blackberries, using a blower on all black top, and pressure washing restrooms.



After the heavy rains at Luhrs Landing the access team filled the wash outs in the parking lot with 8,000 pounds of rock, cut and chipped the overhanging brush, used blowers on the black top and pressure washed the restroom.

