ODFW Field Reports

Oregon Fish and Wildlife Commission
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East Region

Nick Myatt, Region Manager

Mule deer research update

The East Region Wildlife Research program is currently conducting a large-scale, multi-year research project to investigate reasons for declining mule deer populations in eastern Oregon. The research will focus on the role of nutrition, habitat, and predation on mule deer populations. Research began in the winter of 2022-2023 outside of John Day and expanded in the winter of 2023-2024 to include a second study site outside of Lakeview.

ODFW Research staff processing an adult female mule deer in the Murderer's Creek herd range.

Each winter, ODFW research staff capture adult female mule deer, measure their body fat levels and insert a vaginal implant transmitter (VIT). Following the birth of a fawn in summer, the VIT gives an alert which allows researchers to locate newborn fawns and fit them with an expandable radio-collar to monitor survival. Researchers will determine the role that habitat plays in nutritional condition of adult females and then link survival of fawns and adult females back to nutritional condition and habitat used by adult females.

A mule deer fawn hides as researchers approach it to collar and collect data, May 2023. ODFW photo.

Additionally, researchers will assess the role that variation in carnivore abundance on the landscape influences survival and the degree to which predators influence mule deer populations. Results from the research will identify key management actions that will benefit mule deer populations in Oregon.

Learn more about ODFW's mule deer nutrition study and fawn capture work in this short video: https://youtu.be/G2D4eVlYSYE

Crane Prairie Redband Trout diet sample project

Crane Prairie Reservoir features a popular fishery that supports a catch-and-release opportunity for wild Redband Trout and a harvest fishery for hatchery-origin trout. ODFW stocks over 100,000 "Cranebow" strain fingerlings each year that are marked with an adipose fin clip and are triploid so that they cannot spawn with the wild native trout.

Crane Prairie is also a stronghold for one of the largest remaining populations of Oregon spotted frog (OSF), a species listed under the Endangered Species Act. A Biological Opinion (BiOp) is in place with the U.S. Fish and Wildlife Service (FWS) that affects fish stocking and management in Crane. In this BiOp, the supplementation of fish, including Redband

Trout in Crane Prairie, is identified as potential threat to spotted frog.

Local guide Brett Dennis with a hatchery-origin Crane Prairie “Cranebow” Redband Trout. Note the clipped adipose fin.

Included in the BiOp are requirements for ODFW to report the species, numbers, and sizes of fish out planted each year and consult with the FWS to make changes. The FWS on their end conducts annual egg-mass counts for OSF that feeds into the species status assessment portion of the BiOp which contains triggers to re-engage in consultation if OSF counts decline to certain thresholds. If frog numbers continue to decline, it could impact ODFW’s ability to actively stock, manage, and maintain several important fisheries. Due to the potential predation concern, we initiated a study to better understand if native Redband Trout are in fact a major predator of OSF.

The study began in April 2023 and involves collecting stomach samples from hatchery-origin Redband Trout and uses environmental DNA (eDNA) to test for the presence of OSF (eggs, tadpoles, and adults) in the diet. Despite significant time and effort on behalf of ODFW staff over the spring and summer to collect fish for diet samples using electrofishing boats and trap nets, we were only able to collect 40 samples, putting us well behind reaching our sample size goal.

ODFW staff extract stomach samples from hatchery Redband Trout for diet analysis.

The solution? A fishing derby! District staff decided to put the call out for passionate anglers to help collect samples and incentivized the program by providing a unique a post-season angling opportunity and an assortment of prizes based on the number of fish collected.

The two-day derby hosted on November 2-3 ended up a huge success. After figuring out the logistics and budgeting for prizes, paid for by the Salmon and Trout Enhancement Program, we spread the call for volunteers via the ODFW recreation report page and an email blast to local angling groups. Interest came pouring in immediately, most volunteers were local to Central Oregon, but folks did travel from as far Seattle. The only stipulations were a valid angling license, ODFW volunteer sign-up, angling was restricted to certain times/areas and artificial flies/lures, submission of whole fish and a catch form to ODFW staff, and no retention of wild Redband Trout or bycatch.

Anglers return to the Quinn River boat ramp to turn in fish at the derby on Nov.3.

More than thirty participants came out over the two-day event and were able to collect an additional 100 stomach samples from hatchery Redband Trout with minimal ODFW staff time and helped us reach our sample goal for 2023. The current stomach sampling protocol is lethal

and trout carcasses were donated to the High Desert Museum to feed otters and raptors.

Oregon wolves introduced in Colorado

ODFW Wolf Program staff along with Colorado Parks and Wildlife collaborated this month on capturing 10 grey wolves in northeast Oregon and relocating them to Colorado. The goal of the reintroduction in Colorado is to release 10 to 15 wolves by March 2024 and eventually at total of 30 to 50 wolves over a five-year period.

Colorado Parks and Wildlife released five gray wolves onto public land in Grand County, Colorado on Dec. 18, 2023. Pictured is wolf 2303-OR. CPW Photo.

In 2020, Colorodans voted on an initiative to reintroduce wolves by Dec. 31, 2023, and to maintain a viable, self-sustaining wolf population in the state while managing interactions with people and livestock. Wolves were extirpated from Colorado by the 1940s.

CPW's news release about the historic reintroduction is available along with video here: https://cpw.state.co.us/aboutus/Pages/News-Release-Details.aspx?NewsID=4003

WEST REGION

Chris Kern Region Manager

Weather event causes landslides on North Umpqua and Coos watersheds

A powerful atmospheric river hit western Oregon in early December.

In the North Umpqua watershed, rain on snow caused landslides and debris flows in some areas of the 2020 Archie Creek Fire, including the Rock Creek watershed where ODFW staff have been restoring fish habitat since 2006 as mitigation for PacifiCorps' hydropower relicensing.

While creeks were not at flood stage and water levels were less than a five-year flood event, the volume of burned trees and logs moving downhill through the watershed demonstrates the significant, landscape-level impacts of fire into the future. To some extent, the debris flow impacted fish habitat restoration work in the watershed by removing some log structures (though large boulder structures remain in place). Infrastructure, including culverts and one bridge are at risk as burned trees continue to fall into creeks. While these events can be dramatic in a near-term context, they can also contribute to improved fish habitat in the long-term by adding channel complexity.

The U. S. Forest Service's Burned Area Emergency Response team predicted approximately two inches of rain would cause landslides resulting in debris flow. These predictions were based on soils and steepness of the slopes. Late on November 30 and early December 1, rain levels climbed. The snow level rose on December 2, and debris flow was seen early the next morning. There are over 20 landslides in the North Umpqua watershed at various stages of failure.

In the Coos watershed, heavy rains plugged the Fall Creek fish ladder (on Weyerhaeuser lands) with logs and debris. This area had no large fires; the storm mobilized logs from stream margins.

Weyerhaeuser reported the jam to the Charleston field office as no water was passing down the ladder, preventing coho and steelhead from accessing this South Fork Coos River tributary. Fish district staff used chainsaws to clear enough debris to get the ladder running. Fish were able to squeeze through one side above the ladder to get upriver at flows at the time.

There is concern lower flows will again block passage as heavy equipment is needed to clear larger logs and debris. Weyerhaeuser is clearing more debris from the upper entrance area and

will assess what large equipment needs may be necessary.


Landslide at Stoney Creek in the Rock Creek watershed.

Aerial view of the Stoney Creek slide, courtesy of Roseburg Tracker.


Stoney Creek turbidity entering Rock Creek.


The Fall Creek fish ladder plugged with debris was preventing fish passage in the Coos watershed.

Siletz refuge restoration project

Habitat staff conducted a post-project monitoring site visit on the U.S. Fish and Wildlife Service (USFWS) Siletz refuge estuary restoration project along Drift Creek. Large woody debris and berm removal appears to have been successful and the tidal flow is providing more estuarine habitats for fish and wildlife. Partners will be planting some of the berm removal areas later this winter.


Successful estuarine habitat created by large woody debris and berm removal.

Staff to provide technical support for meadow project in Siuslaw National Forest

North Coast Watershed District staff were invited to participate in a field tour in December with our partners at the U.S. Siuslaw National Forest. The U.S. Forest Service is proposing a 27-acre early successional meadow project in the Siuslaw Drainage and is looking for our technical experience, cooperation, and support. The site is currently an alder stand that will be harvested in the next few years and staff will be assisting with planting design, coordination, and implementation.


Siuslaw National Forest meadow project area.

Elk damage survey mailed to landowners in Polk and Benton counties [BQ1]

The South Willamette Watershed District office mailed a survey (online or mail option) to 285 landowners in southeast Polk County and northeast Benton County. This survey will improve understanding of the extent of elk damage problems in the area and the tools being utilized by landowners to reduce conflicts while also providing information about the suite of DFW programs available to landowners to address damage by elk. The survey was a collaborative effort with Polk County, USDA-Wildlife Services, and Oregon State Police.

Polk County officials have primarily expressed concern with agricultural damage caused by elk but also have safety concerns around elk on roads. This herd or herds of elk are concentrated around the Oregon State University Soap Creek Ranch just northwest of Adair. The main herds in the area group up in the winter and easily number 300+ elk, with some additional surrounding herds outside the immediate area of around 70-100 elk. ODFW recently expanded the General Season Antlerless Elk Damage hunt boundaries to incorporate much of the private agricultural properties that these herds utilize. Survey results will help inform staff on the level of familiarity landowners have with currently available management tools.

Friend or foe? West Region Research investigates interactions between fishers and fox

The West Region research team is capturing fishers (Pekania pennanti) and gray fox (Urocyon cineroargenteus) within the Applegate Wildlife Management Unit (WMU) to fit them with GPS-telemetry collars. The goal is to deploy a total of 30 collars to evaluate the degree of competition between species, determine causes of mortality, assess habitat selection, and document spatial and temporal activity patterns for the two species across the landscape.

To date, seven fishers and seven gray foxes have been collared with a fairly even distribution of males and females for both species. In addition to a GPS-collar, which gathers location data every three hours, the research team is also collecting morphometric data such as weight, body length, approximate age, and general body condition. Tissue, hair, and scat samples are also being taken to compare to genetic data gathered from seasonal non-invasive surveys in the area and to assist other researchers in documenting genetic markers for improved laboratory analysis.

Fishers are an Oregon Conservation Strategy species and the Klamath Mountain ecoregion, partially located within the Applegate WMU,

hosts the only known native population of fishers in the state. Historically fishers also occupied both the Coast and Cascade ranges, but their present distribution is limited to southern Oregon which includes the Northern California-Southern Oregon Distinct Population Segment and an introduced population in the southern Cascades.

Gray foxes are thought to be one of the primary competitors of fishers within the region, and little is known about the degree of impact fox populations may have on potential recovery and expansion of fishers into purportedly suitable habitat in southern Oregon. Spatial data collected from collaring efforts will allow ODFW to better address multiple data gaps listed for fishers within the Oregon Conservation Strategy.

This research is funded by a grant utilizing Pittman-Robertson Wildlife Restoration Act dollars.

Technician administers reversals to bring male fisher out of sedation prior to release.

Left - male fisher poses to show off new collar. Right - newly collared male fox is released after processing.

Record number of wild coho in Willamette and Clackamas rivers; strong returns to Umpqua

A whopping 40,000 coho (29,000 adults and 11,000 jacks) passed Willamette Falls this year—a record since counts began in 1954. Coho runs set records elsewhere too, including to the Clackamas River, where the early run wild coho return to North Fork dam was over 16,000 fish, compared to the prior record of 9,400 from 2021.

Coho salmon were documented passing above Leaburg Dam on the McKenzie River for the first time ever this year. The first coho passed October 4 and at least 50 were observed through the month.

With the record run of coho above Willamette Falls, staff have received an uptick in notifications from landowners in the Tualatin Basin about salmon spawning in small tributaries on their properties. Some members of the public are excited to see these fish spawning, many of which have never witnessed this activity on their land before, and they are questioning what it may entail for future management of the landscape.

In the Umpqua River wild coho counts at Winchester Dam were over 7,000 fish through November, the third highest count on record.

Oregon State Police

Captain Casey Thomas, Fish & Wildlife Division

Trophy buck poached at night with the aid of spotlight.

A Fish and Wildlife Trooper observed a subject boiling out a deer skull alongside his residence. The Trooper contacted the subject and found he was an aspiring taxidermist doing European skull mounts. A taxidermy check was conducted, and a large mule deer buck with fresh meat and hide was found. The taxidermy record only had a name on it and no tag information. A check with the ODFW Electronic Licensing System showed the responsible party did *not* have a deer tag for 2023. The deer was seized, and the Trooper went to the suspect's address to obtain an interview. The subject admitted to shooting the large buck at night with the use of a spotlight. The buck was killed several days prior to Thanksgiving with the assistance of a friend running a 12v spotlight out the window of his truck. The two subjects then cut the head off the buck and left the body to waste. The two subjects were criminally cited for ***Unlawful Take Buck Deer*** and ***Hunting with the Aid of Artificial Light***.

Trophy buck poached in wrong unit, with rifle during archery season.

A Fish and Wildlife Trooper received information regarding a large Mule Deer buck that had possibly been shot in the Whitehorse unit by a male subject with a Beatty's Butte unit archery tag. Troopers interviewed the witnesses and reporting individual who came forward and turned the case over to OSP. The male subject was located working on a ranch in Harney County. He initially denied shooting the buck unlawfully, but ultimately confessed to not only shooting the trophy buck in the Whitehorse unit, but also shooting it with a rifle to put it down so it would not run onto private property and die. The head/antlers, meat, bow/arrows, and rifle were seized for evidence. The male subject was issued criminal citations to appear for ***Unlawful Take/Possession of Buck Deer, Hunting Outside of Unit Boundaries,*** and ***Hunting Prohibited Method***.


Oregon State Police patrolling the December 16 crab opener.

The commercial Dungeness crab season opened south of Cape Foulweather to the Oregon/CA border on December 16. Marine Fisheries Team Troopers conducted patrol both on the water and dockside.

- A Trooper on the south coast performed two ocean boat patrols in Curry County during the Commercial Dungeness Crab Opener. Compliance was high and no enforcement actions were taken.

- During commercial crab hold inspections in Port Orford, a Trooper cited two commercial skippers for ***Failing to Maintain/Submit Commercial Crab Logbooks*** for the 2022-2023 season. Both skippers failed to turn in any logbook pages for the season.

- A Sergeant was on an ocean patrol out of Newport and found a vessel that started pulling their gear prior to the 9am start time. The vessel was boarded and they said they thought the start time was at 8am. The captain was instructed to pump out the hold and all crab retained prior to the opening of the season were returned

back into the ocean. The captain was cited for ***Commercial Fishing Closed Season.***

OCEAN SALMON AND COLUMBIA RIVER PROGRAM

Tucker Jones, Ocean Salmon and Columbia River Program Manager

A new forecasting approach for hatchery coho salmon to begin in 2024.
Fishery biologists at ODFW will employ a new modeling approach this February that predicts the ocean abundance of Oregon hatchery coho salmon from the Columbia River, Oregon Coast, and Klamath Basin. Coho fisheries are managed by the Pacific Fishery Management Council (Council), and the Oregon stocks are the largest coho stock they manage. The change in methodology came after a vigorous review and approval by the Council and its technical advisory bodies in November 2023.

This change in forecast approach is the first modification to forecast methodologies to Oregon hatchery coho in over two decades. The renewed interest was triggered by forecasts becoming less precise through time, at least partly due to the lack of environmental variability being included in the model and changes in the proportion of the jacks in the population through time.

ODFW, together with biologists from the Washington Department of Fish and Wildlife explored autoregressive integrated moving average (ARIMA) model structures to evaluate potential modeling approaches. This ARIMA approach incorporated ~1,500 individual models with unique combinations of smolt and jack metrics, and nine marine conditions known to affect salmon survival, to hindcast Oregon hatchery coho abundance over the past 15 years.

The top preforming models for the 15-year period always included some of the nine environmental conditions, however the conditions changed through time. This demonstrates the adaptability of the ARIMA model structure to environmental changes, a characteristic that is expected to allow for flexibility in a changing environment while still maintaining low forecast error.

The best preforming model within the ARIMA framework reduced forecast error by approximately 40 percent compared to the prior methodology (Figure 1) and should help the Council manage these important fisheries.

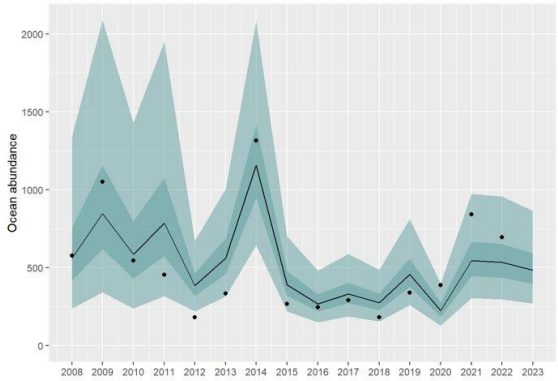

Figure 1. One-year-ahead predictions (black line) of Oregon hatchery coho abundance from the updated model relative to observed abundance (black dots) with 50% (dark blue shading) and 95% (light blue shading) confidence intervals

For further details of this analysis can be found on the Council's website, here.

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