ODFW Field Reports

Oregon Fish and Wildlife Commission
December 11, 2020

EAST REGION

Mike Harrington, Region Manager

Klamath Hatchery Fire

On September 8, the Two-Four-Two fire near Chiloquin ignited and forced the evacuation of Klamath Hatchery. All staff living on site secured the facility and packed up what they could, not knowing if the hatchery would remain after they returned.

On the morning of September 9, the hatchery manager tried to approach the facility, but was only able to view it from a half mile away as the fire raged on the hillside above the hatchery. Smoke began billowing out of the hatch house/office complex as he watched and he contacted 911. Unfortunately, fire resources were exhausted in the area and only a few volunteer fire fighters were able to help. The fire fighters had limited equipment; they used hatchery water pumps to pull water from fish rearing ponds and used the facility tractor to remove brush and establish a fire line around other structures.

While these efforts were commendable, the 100 year-old hatchery building ignited quickly and was fully engulfed within a few minutes. The fire department then focused efforts on protecting the other outbuildings and employee residences. The fire fighters sprayed down the remaining structures with water and used the tractor to push fuels away from the remaining buildings. Their efforts likely saved the rest of the facility from being completely lost.

The main hatchery building was a total loss, but the rest of the facility has little to no damage. The fish in the outside raceways were unaffected by the fire. However, 50,000 brown trout fry were lost in the hatchery building troughs. Oregon Department of Fish & Wildlife (ODFW) staff is shifting trout production to other facilities to accommodate the loss of egg incubation capacity at Klamath Hatchery. The outside raceways are still fully functional and the future of trout stocking from Klamath Hatchery will be largely unaffected. However, other hatcheries will incubate and hatch many of the trout and then move them to Klamath Hatchery as fingerlings for final rearing and release.

Klamath Hatchery office and hatch house engulfed in flames

Current status of the Klamath Hatchery office and hatch house

The Department is drafting plans to rebuild the main building by using Federal Disaster Aid and state insurance funds. The estimated cost to rebuild the structure is not expected to exceed $5 million dollars. Cleanup of the debris left behind is ongoing, but is expected to be complete by the end of the year. We hope rebuilding of the hatch house commences as early as summer of 2021.

The staff at Klamath Hatchery and all of ODFW would like to thank the Chiloquin and Keno Fire

Departments and the Oregon Department of Forestry for their efforts in saving the remaining structures at the hatchery.

Sun Creek Restoration and Recolonization
Sun Creek flows south out of Crater Lake National Park, coursing through a steep canyon of ancient ash deposits before reaching the fertile Wood River Valley. Unfortunately, historic agricultural demands back in the late 1800's led to alterations of the natural watercourses. The alterations included diverting Sun Creek in its entirety through irrigation ditches and eventually into Annie Creek. The lower two miles of Sun Creek were diverted, severing the connection to the Wood River and Agency Lake.

Bull trout. Photo credit: Dave Hering, National Park Service

A robust bull trout population historically occupied Sun Creek, but surveys in the late 1980s estimated as few as 150 bull trout confined to just over a mile of stream. This discovery precipitated intense restoration efforts by state, federal, and non-governmental agencies to remove competing brook trout. These efforts were successful at restoring bull trout to the upper reaches of Sun Creek within the park and down onto state forest land.

In continuation of restoration efforts, project partners turned their focus to restoring the historic connection of Sun Creek to the Wood River. Their goal was to facilitate recovery of migratory behaviors integral to bull trout and other native fish communities in the basin. This effort culminated in 2017 with the realignment and reconnection of the lower two miles of Sun Creek to Wood River; it had been over a century since fish were able to move between the Wood River and Sun Creek.

Project partners have since been working together to monitor nearly all aspects of this monumental restoration project. They are particularly interested in the recolonization of fish as they migrate out of the Wood River and upper Sun Creek into the unoccupied habitat in Sun Creek. Slender sculpin and brook trout were the first fish to recolonize, bull trout and redband trout had not been documented in monitoring through 2019. However, a crew of ODFW and Trout Unlimited biologists collected three bull trout on September 30, 2020 in the new habitat. These fish were measured, PIT tagged and released so they can continue to provide invaluable information on this monumental restoration project.

Irrigon Wildlife Area Wetland Restoration Project
ODFW accepted management of the Irrigon Wildlife Area from the US Army Corps of Engineers (USACE) in 1971. The wildlife area supports a variety of waterfowl and upland game bird species and is one of few places with public access for hunters and recreationists in the Columbia Basin. However, since ODFW began cooperatively managing the area, it has struggled with water management on the property. Control of water has been hindered by lack of infrastructure. All of the wildlife area water comes from an irrigation districts tail water returns. There is currently little infrastructure to manage that flow through and across the wildlife area. This makes it difficult to manage unwanted vegetation and water conveyance through the wildlife area.

In 2014, ODFW staff initiated discussions with Ducks Unlimited to identify possible projects to improve water control, wetland habitat, and access on the wildlife area. Morrow County Soil and Water Conservation District, the Oregon Watershed Enhancement Board, the US Fish and Wildlife Service, USACE, ODFW, Ducks Unlimited and the Kingery family all agreed to contribute to a restoration project.

This restoration project includes several tasks. The contractor will install or replace eleven water control structures to allow for better control of water levels. Six swales will be excavated to facilitate water flow within the wetland complex. The contractor will also raise one section of road and rebuild numerous levees to ensure proper function of the water control structures. Once completed, this project will enhance wetland habitats and function as well as recreational opportunities for the public. Without the

considerable cooperation from all partners, this project would not have been possible.

Kingery Pond on Irrigon Wildlife Area

In the fall of 2020, ODFW put the project out to bid and selected a contractor to perform the work. The project is scheduled to be complete in late December of 2020. The project will increase wetland acreage, increase open water habitat, and improve access for hunters.

WEST REGION

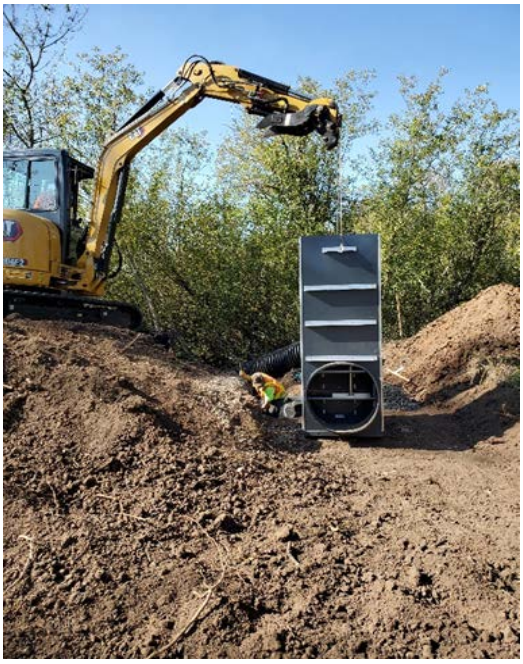
Bernadette Graham-Hudson, Region Manager

Water management improves at Fern Ridge Wildlife Area

In partnership with Ducks Unlimited (DU), seven water control structures are now installed in the Willamette Wildlife Mitigation Program (WWMP) funded South Coyote Unit at Fern Ridge Wildlife Area. Located within a series of wetland cells constructed by a former duck club approximately 60 years ago, ODFW now has the ability to manage water levels, improving wetland habitat conditions for a variety of wildlife species.

In addition to wood ducks, wintering waterfowl, and migratory shorebirds, the following Oregon Conservation Strategy species documented on the property will benefit from the project: northern red-legged frog, dusky Canada goose, and the western pond turtle. Through the control of water levels, non-native reed canary grass can be more effectively managed, resulting in native emergent wetland plant species.

Construction and materials totaled $49,474 and were funded through a North American Wetlands Conservation Act (NAWCA) grant that DU received. DU worked with partners to implement this and other projects throughout the Willamette Valley. DU staff also provided engineering design and construction management assistance. All other tasks including acquiring water rights, site



Water control structure being installed at Fern Ridge Wildlife Area.

preparation, contract administration, and post-construction seeding were funded through the WWMP and managed by WWMP staff. This portion of the South Coyote Unit will be closed until site stabilization occurs.

Water control structure post-installation

Jewell Meadows cancels public winter elk feeding tours

With concerns for health and safety of staff and visitors, ODFW cancelled the public elk feeding tours at Jewell Meadows Wildlife Area this winter. These popular tours typically occur December 1 through February 28, and reservation spots fill up within days if not hours.

Tours were cancelled due to COVID-19 restrictions and the difficulty in maintaining social distancing on the tour wagons. Staff will continue supplemental elk feeding to provide public viewing opportunities on weekends. Staff is asking visitors to maintain social distancing, wear face coverings, and take the usual precautions against the virus.

Pre-COVID 19 elk feeding tour at Jewell Meadows Wildlife Area

Radio tagging chum salmon

A few chum salmon passed upstream of Willamette Falls this year. The passage timing at Willamette Falls appears to track closely with chum passage at Bonneville Dam.

Chum salmon in the Willamette Falls counting window

The North Willamette Watershed District fish staff received NOAA-Fisheries authorization to handle these fish, should more be encountered. Few chum salmon return to the Oregon side of the Columbia River, so these observations of fish crossing over Willamette Falls represent an incredibly unique opportunity to identify spawning sites for recolonizing this federally threatened species.

Biologists hope to capture any chum passing through Willamette Falls during routine ladder maintenance, radio tag the fish, and take biological samples. Staff would then attempt to track fish with the goal of identifying spawning areas, then shift focus to monitoring, protection, and habitat restoration work. A new higher resolution camera, installed at the counting window during recent upgrades will also help biologists document chum passage.

To implement this plan, coordination is occurring between Chum Reintroduction Program, Watershed District, and Columbia River Management staff. Portland General Electric graciously donated the radio tags.

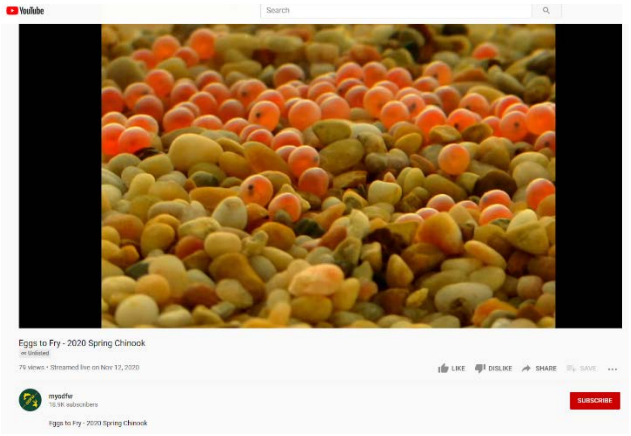
Chum salmon on spawning grounds

Alternatives to in-person educational STEP programs

With many schools in Oregon conducting distance learning, Salmon Trout Enhancement Program (STEP) biologists are finding creative ways to continue their educational programs.

The Springfield STEP biologist has been working with the McKenzie Watershed Council to create video alternatives to the Salmon Watch Field trips that so many folks are missing out on due to COVID-19. With support from ODFW's Information and Education (I&E) staff, five videos were filmed at Whittaker Creek: Introduction, Water Quality, Riparian, Macroinvertebrates, and Salmon Biology. The videos will be available on the ODFW YouTube page in the next coming weeks, creating an excellent alternative to the field trip while also highlighting some place-based learning for those that tune in.

In the North Willamette Watershed District, the STEP biologist also worked with I&E to livestream a Fish Eggs-to-Fry aquarium using YouTube. The link will be shared with teachers soon and be livestreamed from 9 a.m. – 2 p.m. most weekdays.



Eggs-to-fry livestream on ODFW YouTube channel

The Umpqua STEP biologist is participating in the Douglas County Partners for Student Success/Science, Technology, Engineering, Arts and Math (STEAM) Hub by contributing videoed interviews on fish biology and lifecycle, hatchery programs, and education/career path information. STEAM Hub is a venue for teachers in the county to access videos and information on science, technology, engineering, artistic innovation, and mathematics. The Rogue District STEP biologist delivered eggs to a local middle school teacher and is contributing information to her salmon life cycle YouTube channel.

INFORMATION AND EDUCATION

Roger Fuhrman, Information and Education Administrator

Stop Poaching Campaign Picks up Speed

The Stop Poaching campaign continues forward with three objectives: Increase detection, enforcement and prosecution. Outreach and communications are a big part of the effort, with recent publicity coming on top of ongoing intensive media coverage. Recent successes include:

- **Three videos with OSP Fish & Wildlife Division.** Coming soon to YouTube, the videos paint the picture of how OSP operates in the field. The first details some of the behind the scenes work by OSP mechanics to customize trucks for use by troopers in the field. The second joins troopers on a Wildlife Enforcement Decoy operation. The third follows the OSP Marine Fisheries team out onto the ocean in their enforcement watercraft, The Guardian.
- **New partnerships.** The Stop Poaching stakeholder group now includes the Confederated Tribes of Grand Ronde, the US Forest Service, and the Cascade Raptor Center. Additional supporting partners include representatives of Scoggins Valley Park & Henry Hagg Lake, and Jackson Bottoms Wetlands. Sportsman's Warehouse and Leupold and Stevens have also agreed to support the campaign.
- **Creation of a tri-state campaign.** ODFW, Washington Department of Fish and Wildlife, and Idaho Department of Fish and Game are teaming up with Bi-Mart to combat poaching. Bi-Mart commissioned its advertising agency, Capelli and Miles, to create digital and print media for all 80 Bi- Mart stores. Beginning in October, the Turn In Poachers TIP Line numbers and a looped video of Conservation K9 Buck began playing on all video monitors in Bi-Mart stores across Oregon. Starting in November, the TIP Line numbers for each state will be printed on Bi-Mart grocery bags in all three states, at no cost to the campaign.
- **Extensive media coverage.** Two wolf poaching cases raised the profile of the campaign. News articles on poaching received at least 210 media mentions in October and early November, plus numerous Facebook and Twitter postings. Additional media coverage included two interviews on KTVZ (Bend) in October and November and three mentions on KXL radio. Upcoming interviews are planned with Jefferson Public Radio, the NPR affiliate for Southern Oregon and Northern California, the Jefferson Exchange, and Hooked on Oregon (formerly Oregon Outdoors).
- **Increased donations for rewards.** Immediately following news releases regarding recent poaching cases, groups and individuals pledged nearly $23,000 to increase rewards on those cases. These unsolicited donations, increasing stakeholder involvement and nearly 200 media mentions of poaching incidents and rewards, are solid indications of public interest in the Stop Poaching campaign.

OREGON STATE POLICE
Captain Casey Thomas, Fish & Wildlife Division

A Fish and Wildlife Trooper received a call of a hunter requesting help in getting permission to retrieve his elk which made it onto private property. The hunter said he'd shot and wounded a 6 point bull on the National Forest in the Fossil Unit and then it went onto unfenced private property. The bull jumped into a private lake and couldn't get out. The land agent was contacted and permission was granted to the hunter to retrieve his bull. The Fish and Wildlife Trooper assisted the hunter retrieve the bull by winching it out of the lake.

Fish and Wildlife Trooper assists with the recovery of a 6 point bull elk

OSP Aircraft help catch poachers around the state:

Southwest Region – At around midnight, a Fish and Wildlife pilot spotted a vehicle casting a light out of the driver and passenger side in the Butte Falls area. Two other Fish and Wildlife Troopers were the first to catch up to the vehicle. The back passenger had a loaded .22 sitting in his lap. They explained that they were just up checking their trail cameras (at 1 in the morning) and with the full moon they wanted to drive around without headlights. The driver and back passenger were cited for Casting Artificial Light While Armed.

Northwest Region – A Fish and Wildlife pilot guided Fish and Wildlife members to a subject that was actively spotlighting for deer east of Tillamook at approximately 10:30 pm. The subject had three loaded rifles in the seat beside him. One rifle was a semi-auto .223 with an activated red dot scope and a ten round magazine. The subject stated that he was looking for deer, but was not going to shoot anything at night. The subject was cited for Casting Artificial Light from a Motorized Vehicle and Hunting Prohibited Hours. The rifles and two flashlights were seized. When asked if he was headed home after the Trooper cited him, the subject stated that he might as well since he didn't have any more guns.

CONSERVATION PROGRAM
Andrea Hanson, Oregon Conservation Strategy Coordinator

Bat Monitoring in 2020 - Demobilizing Gear

ODFW Midcoast District Wildlife Biologist Jason Kirchner and Emily VanWyk, ODFW Strategy Species Coordinator demobilized bat monitoring equipment on the Siuslaw National Forest on October 29, 2020. The bat monitoring equipment collects acoustic data and records it to a memory card which is powered by battery and charged via

solar panel. The Midcoast biologists placed the equipment at different sites to determine species distribution in varying forest habitats such as early-stage seral as well as late-successional to old growth. Video available on YouTube: https://youtu.be/nGLDL_VZlsk

iNaturalist Project Underway

The Conservation Program launched the Oregon Wildlife Conservation iNaturalist project, where we are asking the public to submit their observations of all birds, mammals, amphibians and reptiles seen across the state. Within a week we received more than 15,000 'research grade' observations.

We are hoping to take advantage of this great citizen-science tool to collect more information on the distribution of our wildlife species statewide, with a particular interest in collecting data on Strategy Species, Data Gap Species, and the Oregon Connectivity Assessment and Mapping Project (OCAMP) Species. This data, which will be filtered to 'research grade' data only, will be made accessible to staff, and also used to update various statewide analyses such as the Compass Reporting Tool, Crucial Habitat Assessment Tool, and the Conservation Opportunity Area profile pages within the Oregon Conservation Strategy.

Non-native Turtle Removal On-Going Efforts

Conservation Program (CP) staff responded to a report of hatchling common snapping turtles emerging from their nest that was received during the week of October 19th. One hatchling was captured and contained by the reporting party. CP staff learned nesting occurred on June 20. Staff excavated the nest and collected data on the nest as contents were removed. Clutch size totaled 31 eggs with seven eggs hatched and 24 undeveloped or dead. Only three live hatchlings were found so it is assumed the other four live hatchlings made their journey to the nearby wetland located approximately 50 meters away or were intercepted by predators or yet-to-be known people.

Oregon Conservation & Recreation Fund Reviews 2nd Round of Proposals

The Conservation and Recreation Advisory Committee is reviewing scores on 65 proposals received for the next round of funding. ODFW staff from across the state helped provide fast feedback on the project proposals. Also, the Oregon Community Foundation has committed $10,000 to the Fund.

OCEAN SALMON AND COLUMBIA RIVER PROGRAM

Tucker Jones, Ocean Salmon and Columbia River Program Manager

Debating the Consequences of Juvenile Bypass

Juvenile salmon migrating to the ocean from interior basins of the Columbia River must make their way past several Columbia and Snake River hydroelectric dams. Juvenile salmon have several options for passing these dams. They can go through the turbines, through elaborate juvenile bypass systems (and then either collected for barging past the remainder of the dams or returned to the river), or they may pass over the dam via the spillways.

Whether juvenile salmon and steelhead that encounter the bypass systems return as adults at lower rates than those that use spillway routes has been debated for decades. There is a wealth of information that suggests that mechanisms associated with using the juvenile bypass system affects early ocean survival (i.e., delayed mortality) and ultimately rates of adult return. Despite this, some contend that route of dam passage has little effect on adult returns.

In 2019, researchers from NOAA's Northwest Fisheries Science Center (NWFSC) published an article (Faulkner et al. 2019) arguing that the differences in Smolt to Adult survival between fish that are exposed frequently to juvenile bypass systems and fish exposed less frequently are driven by differences in the size of fish at ocean entry, with small fish, which are inherently less likely to survive, being bypassed more often than larger migrants. Members of the Comparative Survival Study (CSS), a joint regional research group composed of state (including ODFW), tribal, and the federal biologist, do not agree with Faulkner's arguments or conclusions. In October of 2020, the group–led by OSCRP staff–published a formal, peer-reviewed, rebuttal (Storch et al. 2020).

The rebuttal focused on five major issues with the original article:

(1) Faulkner et al (2019) did not use a representative sample. Analyses in the NOAA paper relied heavily on detections of fish first tagged at Lower Granite Dam, but these fish are not representative, in terms of survival, of the overall population, and the rebuttal authors show that analyses based on these fish are likely misleading.

(2) The Faulkner paper relied on insufficient sample sizes. When the more representative group of fish tagged above Lower Granite Dam were used in analyses in Faulkner et al. (2019), sample sizes were quite small, which would make actually detecting a bypass effect, if one even exists, on this group extremely difficult. In further examination of this sample size issue, the authors of the rebuttal also conducted a power analysis which demonstrated that at the sample sizes used in the original article, the probability of detecting an effect would be exceedingly low.

(3) Faulkner et al. (2019) overlooked important factors that influence a juvenile salmon's likelihood of being bypassed. For example, when the proportion of flow being spilled is analyzed it is clear that it describes a greater amount of variation in the chance of being bypassed than length alone.

(4) Faulkner's length-based conclusions do not explain differences in survival among Columbia Basin salmon populations. Following Faulkner's premise, similar sized Snake and John Day River spring Chinook should have similar survival rates. But similar sized fish from the John Day survive noticeably better than their Snake River counterparts; a difference likely due to the number of dams (and consequently bypass systems) that are encountered by migrating juvenile salmon (three vs eight dams for John Day and Snake River fish, respectively).

(5) Fish size at ocean entry can have an effect on marine survival and adult return patterns, but it is not the sole factor in play. Despite the arguments made by Faulkner et al. (2019), analyses in the Storch et al. (2020) rebuttal show that other freshwater out-migration factors, e.g., the number of bypasses encountered and how rapidly fish move through the system during their outmigration are also important factors and continue to explain patterns in marine survival whether you include individual fish lengths in the model or not.

Storch et al. (2020), provides further support for the argument that conditions experienced by salmon and steelhead during their journey to the ocean affect adult returns and refutes the contention by Faulkner et al. (2019) and others that variation in life-cycle survival is largely an artifact of differences in size.

Contact Adam Storch (adam.j.storch@state.or.us) for either of the articles described in this report.

ODFW DIVERSITY AND INCLUSION COMMITTEE

Adam Baylor, I&E Public Information Officer and D&I Committee Member

Statewide DEI Conference Goes Virtual

This year the State Diversity, Equity and Inclusion Conference was held as a virtual event due to COVID-19 restrictions. There were five presenter blocks

throughout the three-day conference from October 27 to 29. Combined attendance was 11,858 this year, average in-person attendance in previous years has been around 2,000. ODFW attendance was good; we had approximately 33 to 47 participants enrolled in each block.

1,800 participants responded to the post-conference survey: 85% of respondents said that the Conference was Good or Excellent. 55% of respondents indicated that this was their first Diversity Conference. 838 of those respondents indicated that the virtual environment allowed them to attend this year as opposed to in-person conference in previous years.

Most of the presentations were recorded and are being added to iLearn where all state employees will be able to access them. Also, there are presenter materials on the conference website:

https://www.oregon.gov/ODOT/Pages/Diversity-Conference.aspx

END OF FIELD REPORTS FOR
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