ODFW Field Reports

Oregon Fish and Wildlife Commission
June 18, 2021

East Region

Nick Myatt, Region Manager

Elk habitat use in late summer in the Blue Mountains

The spatial distribution of elk has become an increasing concern for wildlife managers throughout the western United States, including Oregon. Shifts of elk from public to private lands is typically a long-term process where over time, elk spend increasing amounts of the year on private lands or become exclusively resident. These distributional shifts contribute to two major management issues: 1) damage to private land agriculture and 2) loss of wildlife viewing and hunting opportunities on public lands. Developing an understanding of landscape features that increase elk use will assist in future land management planning to ensure elk reside primarily on public lands during summer.

Oregon Department of Fish and Wildlife (ODFW) research biologists in collaboration with the U. S. Forest Service and Pacific Northwest Research Station, developed landscape level models to predict habitat use of elk in the Blue Mountains. The predictive model was developed for late summer use, which is a time period of high nutritional stress for elk due to the energetic demands of lactation. This is also the time of year that many elk begin to increase their use of private lands, particularly agricultural areas. We investigated a suite of landscape features that may influence habitat use by elk that included features that could (e.g., canopy cover and open roads) and those that could not (e.g., slope or aspect) be altered by land managers. Our model indicated that elk were most likely to use areas with the highest nutritional resources and vegetation productivity, on north and east facing slopes, at moderate overstory forest canopy cover (30-40%), and further from roads open to motorized vehicle use. The model proved to be very effective at predicting GPS location data of elk in other study areas, suggesting the model can be used to predict elk habitat use throughout the Blue Mountains.

The model results have strong implications for land management actions that could be conducted to improve elk habitat. One of the primary determinants of elk habitat use in late summer is available nutritional resources, which can be improved through vegetation treatments that open overstory vegetation cover to increase light penetration to the forest floor. The model results suggest intermediate levels of forest canopy cover (30-40%) would provide the greatest benefit to elk. However, these vegetation management projects should be coupled with strategic road closures (either seasonally or permanent), as elk strongly avoid areas within 0-0.5 miles from a road. The predictive maps developed can help land managers identify areas where vegetation management coupled with strategic road closures would provide the biggest benefit to elk and encourage elk to reside on public lands in the Blue Mountains.

Cow and calf elk grazing in the Blue Mountains.

White River fire –update

On August 17th, 2020, the White River fire was discovered in the White River drainage approximately eight miles west of Rock Creek Reservoir and the White River Wildlife Area (WRWA). Full fire containment was eventually reached on September 28th, 2020. The fire perimeter encompassed a total of 17,442 acres, with approximately 3,600 acres on WRWA.

Fire severity across the 3,600 acre burn area varied from fast moving grassland fire to extreme stand replacing fires. Post fire disturbed areas have created an avenue for invasion of unwanted annual invasive grasses, as well as bark beetles that attack the surviving pine stands. Although the potential habitat threats exist, proper and timely methods to improve these ecosystems are also possible. WRWA has taken measures to address these threats and improve habitats for wintering big game as well as a suite of other species.

As noted in the original White River Fire report to the Fish & Wildlife Commission, much of the high severity burn area was previously targeted for mechanical treatment, to create early seral habitat for wintering deer and elk. This natural fire essentially created what had already been planned through forest habitat management efforts, but additional work was required to prevent unwanted outcomes. Timber salvage was initiated in late October and included 750 acres of standing dead timber.

To combat annual invasive grasses from establishing in the timber salvage operation area, a reseeding effort was implemented this spring. Application of 45,000 pounds of grass and legume seed mix was aerially applied to 1,500 acres of WRWA lands, and 750 acres of neighboring private lands. Funds were secured through Access and Habitat grant funding.

Burned areas with lesser quality soils and areas that are poor candidates for successful aerial seeding applications were aerially treated with herbicide that target annual invasive grasses. This treatment covered 1,200 acres of previously dense medusahead rye grass and will be closely monitored to evaluate native grass recovery over time.

As the area recovers the benefits to wintering deer and elk will outweigh the current year's habitat loss by providing early successional habitats that increase forage quality and availability.

Forest on White River Wildlife Area burned during the 2020 fire.

Helicopter contractor preparing to aerially apply herbicide targeting invasive annual grasses.

Middle Fork John Day River Watershed Monitoring 2017-2020: using lessons learned to focus new research and habitat restoration actions

In the Middle Fork John Day River (MFJDR), nearly two centuries of land management practices have contributed to the decline of federally threatened Mid-Columbia summer steelhead (*Oncorhynchus mykiss*) and non-listed spring Chinook salmon (*Oncorhynchus tshawytscha*). Research has shown habitat restoration is a key component of management goals addressing limiting factors that hinder salmonid recovery in the Pacific Northwest, including in the MFJDR (Haskell 2019). Intensively Monitored Watersheds are long-term research projects designed to deepen our understanding of how fish populations respond to habitat restoration. The Middle Fork John Day

River Intensively Monitored Watershed (MFIMW) (Figure 1) is a collaborative effort established in 2008, with partners including federal, state, tribal agencies and private landowners, with the Oregon Watershed Enhancement Board and Pacific States Marine Fisheries Commission providing funding.

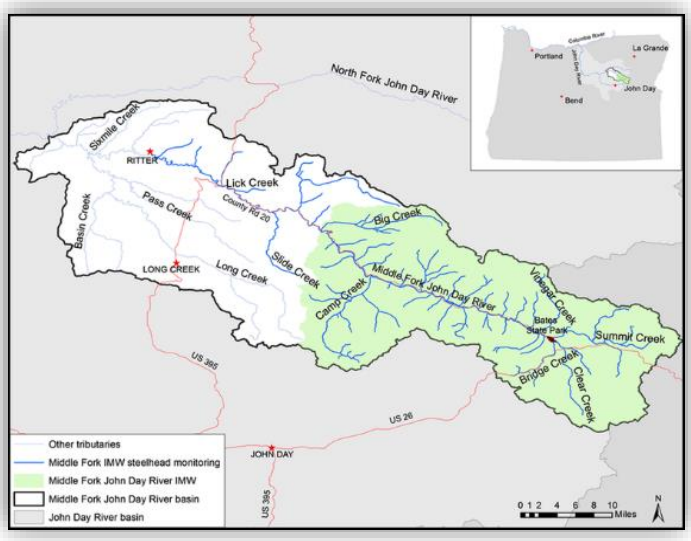


Figure1: Map of the Middle Fork John Day Intensively Monitoring Watershed in relation to the Middle Fork John Day River and the John Day Basin.

ODFW staff at the East Region Fish Research Office conduct the majority of fish research in the MFIMW, serve as the MFIMW coordinator, and are active contributing partners to many MFIMW teams.

In 2017, MFIMW partners completed a 10-Year summary report detailing monitoring and, restoration from 2006-2016, resulting in a long list of lessons learned and future recommendations. Accomplishments and adaptations from 2017-2020 have recently been summarized in a Fact Sheet. Highlighted projects include: 1) Implementation of over 25 major restoration projects including improving or protecting riparian habitat,
removing or replacing fish passage barriers, and initiation of a Riparian Planting Team to focus and prioritize riparian planting efforts; 2) Assessment of spatial patterns in adult Chinook salmon spawning showed a higher density of redds in restored areas after major restoration occurred; 3) Development began on a predictive model for water temperature which will provide data allowing restoration practitioners to target projects in areas of highest impact; 4) Tracking movement and survival of juvenile salmonids within restored and un-restored areas (Figure 2) to evaluate habitat use and types of restoration needed to improve summer survival; 5) Using genetics to monitor dispersal of Chinook salmon

Figure 2: Snorkelers look for juvenile salmonids. Data from snorkel surveys is utilized to assess juvenile salmonid distribution and habitat use.

fry from redds to better understand early life stage movement and habitat use, and examine how restoration actions such as floodplain reconnection influence movement, growth, and survival of juvenile salmonids.

As restoration implementation efforts continue, ongoing research to assess shifts in movement patterns, reach use, and ultimately survival of salmon and steelhead in relation to specific locations and types of restoration will be key for determining effectiveness and guiding implementation of restoration projects within the MFIMW and across the Columbia Basin.

Haskell, C.A., A.L. Puls, K. Griswold. 2019. Key Findings and Lessons Learned from Pacific Northwest Intensively Monitored Watersheds. Pacific Northwest Aquatic Monitoring Partnership. 63 pages. Available at https://www.pnamp.org/document/15052.

West Region

Bernadette Graham Hudson, Region Manager

Basking structures created for northwestern pond turtles

ODFW's Conservation Program provided technical support for a turtle basking log project in Powers County Park. Northwestern pond turtles are uncommon in the Coast Range, and the Coquille River system is one of the few

places they are consistently found. The park is located near the South Fork of the Coquille River.

In late April, Coos County Parks, the Coquille Watershed Association and contractors, the Coquille Indian Tribe, the Southwest Region Conservation Biologist, and Charleston District Wildlife staff partnered to construct and then install 10 turtle basking structures. The newly designed basking structures were three logs, eight to 10 feet in length and bolted together.

The project went smoothly and turtles are reportedly already using the structures. Turtles at Powers County Park face many threats due to proximity to developed areas, recreation and fishing pressure, roads, and other invasive turtles. Monitoring at the site begins this summer and will help better document the number of turtles using this site, their condition, as well as use of the area by invasive species such as red-eared sliders.

Log rafts were assembled offsite. The 10 rafts were 8 to 10 feet in length and compact enough to fit on a single trailer.


Rafts were placed on the far side of willow trees to create warm sunny basking sites that are also sheltered from view to minimize disturbance to turtles.


Each basking structure is made of three logs, bolted together so that the central log is submerged on one end ("turtle on-ramp") and elevated on the other end to provide perches for turtles.

Progress on curbing Rogue Canyon bear conflicts

The Rogue Wildlife District has been working with the Rogue River-Siskiyou National Forest (National Forest), the Bureau of Land Management (BLM), USDA Wildlife Services, and Oregon State Police with increased effort since 2019 to discuss ways of managing conflict between bears and people in the Wild and Scenic portion of the Rogue River. The black bear population in this portion of the canyon is dense and conflicts arise yearly between people and bears, particularly during the high use that occurs spring through fall. Rafters float the Wild and Scenic section year-round but are required to get a permit through a lottery system during the busy season (May 15-October 15). There is also a popular hiking trail that is used year-round, with activity peaking in the summer.

A black bear watches rafters float the Rogue River in the Wild and Scenic portion.

ODFW and our partners are in the process of updating a Memorandum of Understanding and formalizing an annual operating plan. The agencies wrote a new script for the video that permit rafters must view before launching. The video will show rafters how to secure food and waste from bears and other practices to keep themselves safe and avoid habituating bears. The video was to be updated in 2020, but due to the pandemic, filming was delayed and will occur this season. The National Forest and BLM committed to deploying portable electric fences prior to the start of the permit rafting season. Rafters use the fences to store food and waste to help prevent bears from raiding campsites.

Recently, the Rogue District was invited to participate in a meeting with the National Forest, BLM, and the Humane Society. The conversation focused on non-lethal techniques to deter bears, public education, and the discussion of a food storage order by our federal partners. The Humane Society is encouraging our federal partners to adopt a food storage order mandating rafters and hikers to take personal responsibility for managing their food and waste through the use of bear resistant coolers or canisters, hanging food, and handling waste appropriately. The order would make river users be responsible for securing their food and waste as Oregon's current statutes related to feeding wildlife cannot result in citations. Food storage orders are becoming more common throughout national forests and parks in the western U.S., but require significant work, a detailed public process, and are at the discretion of our federal partners.

Invasive removal project continues at Gail Achterman Wildlife Area

Biologists with the Willamette Wildlife Mitigation Program are entering the fourth year of invasive aquatic and terrestrial vegetation treatments at Gail Achterman Wildlife Area (GAWA). Staff are planning to continue use of chemical treatments this year and one additional year. By then, the site should be stable enough to conduct more localized spot treatments.

Over 100 acres (of the 290 acre site) have been cleared of invasive plants and prepared for native tree and shrub installation. This past winter, more than 50,000 plants went into the ground and appear healthy thus far, although there is concern of potential impacts due to lack of rainfall. Site conditions this spring are similar to what is typically seen in later summer. Another 75,000 plants will be planted this coming winter. Funding for invasive plant removal through 2023 is provided by the Oregon Watershed Enhancement Board, Meyer Memorial Trust, and the Bonneville Power Administration.

A six-acre area that was prepared over a three-year period for native plant installation. The site contained six to eight-feet tall reed canary grass and blackberries. In fall 2020, the area was seeded with native grasses and forbs, followed by installation of 6,400 trees and shrubs over the winter.

Unit C of the GAWA after planting with native species.


Native plants installed in Unit C at the GAWA.

Turkey damage in Corvallis

South Willamette Watershed District Wildlife staff participated in a video conference with the Corvallis Police Department to discuss turkey nuisance and damage. The district receives far more turkey complaints from Corvallis each year than any other municipality in the district. The topic was also presented and discussed at a recent city council meeting. The city continues to enforce its no-feeding ordinance but has ceased requesting turkey kill permits because it does not feel it is safe to shoot turkeys inside of city limits.

Outside of city limits, the district has been taking advantage of the new Hunt By Reservation program which coordinates turkey hunting on smaller properties for interested landowners. Hunt By Reservation coordinator, Brandon Dyches, has initiated conversations with some larger landowners, including Oregon State University, to allow turkey hunting on properties hosting some very large flocks around the district.

The group is exploring the logistics needed for Wildlife Services to remove turkeys from inside of city limits. Staff also informed the city of the recent rule change, which allows wildlife control operators to work on turkey issues. As edible wildlife, any euthanized turkeys would need to be donated according to administrative rules. Trap and transplant is also an option, but requires more staff time than is currently available. Staff coordinated on a few other minor wildlife and communication topics. The city reports their main wildlife issue remains turkeys. All parties appreciated the coordination.

South Umpqua spring Chinook update

The South Umpqua River run of wild spring Chinook salmon is a unique population that has always faced tough conditions. To survive to spawn, these fish must get above Tiller and spend the summer holding in a limited amount of deep pools where they are susceptible to predation, poaching, and warmer water temperatures. Over the past two decades, yearly returns averaged about 200 fish, which is below the 600 fish goal set in the 2014 Coastal Multi-Species Conservation and Management Plan.

In 2018, just 29 wild spring Chinook returned to the South Umpqua, 64 returned in 2019, and 120 returned last year. With returns lower than average in the past few years, ODFW has taken steps to help these fish. A temporary rule that prohibited harvesting wild spring Chinook in the mainstem Umpqua between February 1 and June 30 was enacted both in 2020 and again in 2021 to help protect the population.

Poor ocean conditions have affected salmon runs on most coastal rivers and the Umpqua is no exception. In addition, low flows and warmer water have also impacted this unique population.

Several years ago, ODFW began partnering with other agencies to identify and address possible limiting factors by analyzing their individual data sets to explore actions that might benefit these fish.

Information and Education

Roger Fuhrman, Information and Education Administrator

Pop-up booths lure new anglers

A parent and child are walking in a park near a pond when they notice a pop-up shade with people milling around. They go closer to investigate. Five minutes later the parent has a fishing rod in their hand, casting a weight at targets on the lawn. And the child has her first trout on the line while a volunteer coaches her through the process. A day in the park has turned into the beginning of a lifelong passion.

ODFW Angler Education staff and volunteers are making that scenario come true with a new program called "Pop-Up Fishing Booths." These unannounced events feature volunteers and ODFW staff setting up fishing gear, informational materials and educational games at parks and waterbodies to lure in passersby and introduce them to fishing.

Objectives:

- Retain new anglers and support beginners
- Provide advanced information to seasoned anglers
- Reach people already recreating in popular public areas
- Provide an ODFW presence over the course of multiple days
    - Have more active participation in a new anglers' journey
    - Be more than a 'one day of entertainment' for the family
    - Provide a more hands-on and personalized experience to participants

The events, in multiple Portland locations, Albany and Tillamook have been a major success. ODFW staff and volunteers run the booth and teach beginner fishing, knot-tying, rigging, and casting to participants of all ages (many participants are youth under 12).
All COVID guidelines are adhered to and customer feedback has been enthusiastic.
As these events become more successful and more groups take this project on, we plan to collect contact information from participants so that we can assist consumers over the long term in their angling journey, as well as asking them questions that will help us refine our R3 (recruitment, retention and reactivation) strategies.

Ron Pockrus teaches a family to cast. Ron is a volunteer ODFW Angler Education Instructor and member of the Mid-Valley Chapter of the NW Steelheaders. Minutes later, the child fought a trout almost to the bank and was thrilled despite "early release" of his first fish.

Oregon State Police

Captain Casey Thomas, Fish & Wildlife Division

Foul-hooked Chinook salmon, unlawfully retained by subject and seized by OSP Fish and Wildlife Trooper.

A Fish and Wildlife Trooper was watching morning salmon anglers at Waterloo Falls, located on the South Santiam River. One subject hooked a salmon and walked it downstream some distance to where he was isolated from the other anglers. Unbeknownst to the subject, the Trooper was approximately 10 yards away, hidden in the brush. The hatchery fish was foul hooked in the side and the subject quickly landed the fish, looked around, and took possession of it. The subject was contacted and issued a criminal citation for Take/Possession of Foul Hooked (snagged) Fish-Chinook and his fishing

pole was seized. The salmon was also seized and donated to the Lebanon Soup Kitchen.

OSP Fish and Wildlife Trooper investigating pink shrimp landing.

Fish and Wildlife Troopers from the Marine Team, as well as those assigned to the Astoria and Newport offices spent two days investigating two separate commercial pink shrimp cases. Legal size for pink shrimp across all days fished is an overall average of 160 shrimp/pound. The first issue was originally detected by an ODFW sampler from a boat making a landing in Astoria. The next day in Newport, both ODFW and the fish plant contacted OSP regarding another boat that had small shrimp. Enforcement action is pending.

Conservation Program

Andrea Hanson, Oregon Conservation Strategy Coordinator

OCAMP Update

The Oregon Connectivity Assessment and Mapping Project (OCAMP) has been making significant progress assessing existing habitat connectivity for 54 of Oregon's wildlife species. Connectivity for these species, selected as surrogates to represent specific habitat associations and structural habitat characteristics, will be evaluated across each species' range in the state.

Ultimately, models will be combined to create a map of priority movement and migration corridors for Oregon's wildlife. Modeling connectivity for each species is an intensive process with multiple, iterative steps. The first step is to create a model to highlight how the landscape facilitates or impedes species movement. Factors included in this model can include things like habitat quality, proximity to water and areas that given species is expected to avoid, such as roadways or development. Once drafted, these habitat permeability maps are provided to species experts for their input. Species experts, both from within ODFW and from organizations including the U.S. Fish and Wildlife Service, U.S. Forest Service, BLM, and United States Geological Survey, are providing critical feedback to help improve habitat permeability models. Thus far, habitat permeability models have been completed for Pacific marten, Pacific-slope flycatcher, northern red-legged frog, Columbia spotted frog, and western rattlesnake.

The next step in the process is model validation, during which empirical data on species presence will be used to evaluate how well the models align with where each species is actively using and avoiding different landscape features, and to make changes to the model if necessary. Once validated, these habitat permeability models will form the foundation of the connectivity assessment for each species. We expect to have draft connectivity maps completed for these first species within the next couple months.

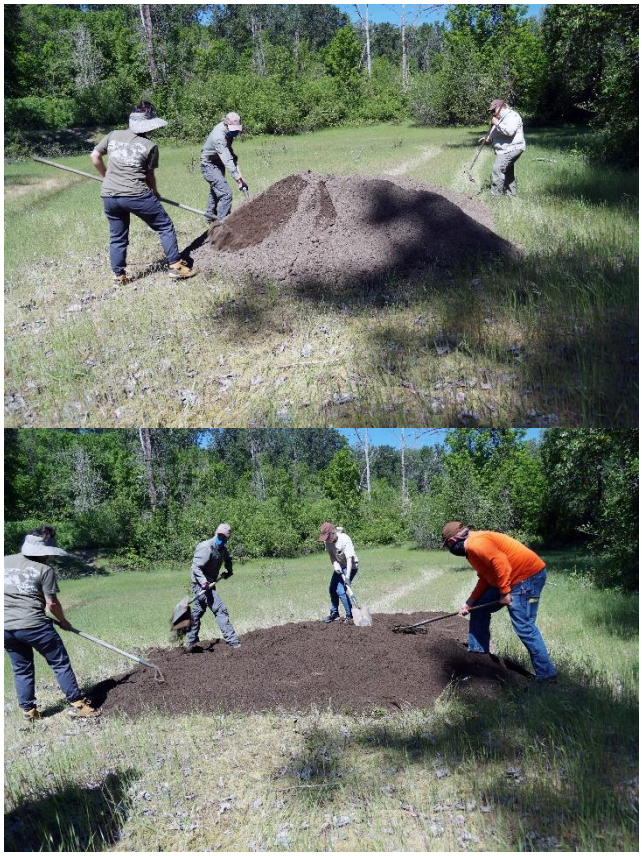
As the project continues, we will continue to develop habitat permeability models for the remaining 49 species and these models too will be reviewed and validated prior to drafting connectivity maps. OCAMP is a multi-year, collaborative effort with an expected completion date of December 2022.

Turtle nest Mounds

Conservation Program, South Willamette Watershed District, Willamette Wildlife Mitigation Program staff, Western Oregon University (WOU) and City of Salem staff participated in the creation of five turtle nesting habitat mounds at Minto-Brown Island Park.

City of Salem hauled dirt to the site at Minto-Brown that is used to provide nesting sites for native turtles.

This effort is the final habitat restoration piece of the Competitive State Wildlife Grant, Western Pond Turtle Conservation Project. ODFW will work with WOU to monitor use of the mounds by turtles as well as by potential nest predators and human trespassers.



Partners work together to rake the dirt mounds into suitable nesting habitat for native turtles and will monitor the site at Minto-Brown throughout the year.

Caspian terns

The Caspian tern colony on East Sand Island continues to struggle. Only about 2,000 individuals and less than 1,000 nest scrapes were present during the last colony survey. This represents less than 25% of the abundance called for by the U.S. Army Corps of Engineers Record of Decision. It seems increasingly likely that this colony will fail without efforts to control nest predation by gulls associated with bald eagle attacks on the colony. Overall, the number of terns within the Columbia River basin seems to be at the lowest level since at least the mid-1990s.

Pygmy rabbit surveys in Harney County

The East Region Conservation Biologist and field staff continue to conduct pygmy rabbit research. Trail cameras have already captured some unique imagery of the species. Short video here: https://www.youtube.com/watch?v=J1aZ2KiRuj0

A pygmy rabbit stands near a burrow. Trail cam photo by Ross McLean, ODFW.

MARINE RESOURCES PROGRAM

Caren Braby, Marine Resources Program Manager

Marine Mammal Program – plowing new ground

The Marine Resources Program's Marine Mammal Program (MMP) has been especially busy over the last year. In the mainstem Columbia the program is working with regional collaborative partners including the Washington Department of Fish and Wildlife (WDFW), the Columbia River Inter-Tribal Fish Commission (CRITFC), and the Idaho Department of Fish and Game (IDFG). Since August 2020, this

collaborative team has successfully developed and implemented permanent removals of Steller and California sea lions at Bonneville Dam, under new National Marine Fisheries Service authorization and sea lion management permit that was issued in August 2020. Until this date, the increasing predation on sturgeon and threatened and endangered salmonids by Steller sea lions in the Columbia River Basin has not been able to be addressed.

This newly developed work with Steller sea lions is a particular logistical challenge due to their aggressive nature and significantly larger size, compared to California sea lions. The Marine Mammal Program and partners were able to procure modified equipment for capture of these larger animals, and developed new protocols for safe and humane handling of Steller sea lions with considerations for COVID safety and policy for staff in the field. Ultimately, in protection of sturgeon and listed salmonids, a total of 20 Steller sea lions and 29 California sea lions have been removed from this area during this first year of the expanded authority. The MMP and partners have shown that this work is an effective predation mitigation tool, and is crucial to the conservation of the fish species it is intended to protect.

In addition, the MMP continues to work with and build collaborations with tribal partners including, the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Grand Ronde Community, and the Confederated Tribes of the Siletz Indians of Oregon. These collaborations include management, research, and assessment of pinnipeds in the mainstem Columbia and in the Willamette Basin. Our impact to protect listed species in the region would be greatly reduced, without the collaboration of these government partners.

In addition to predation-control work in the Bonneville Dam and Willamette Falls areas, the MMP has continued a number of coastal studies including aerial and visual surveys of pinniped populations on the Oregon coast, food habits of sea lions and harbor seals, and Unmanned Aircraft System (UAS or drones) surveys of pinnipeds in the lower Columbia River Basin (CRB). These studies are used by ODFW and partners to understand pinniped biology, ecology, and migration.

End of field reports for June 18, 2021