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EDIBLE & MEDICINAL PLANTS

any of our North Idaho plants have some edible or medicinal value. This guide highlights any historical importance to Native Americans and early explorers in the plants's edible and medicinal properties. The narrations also give a basic description of the plant and its habitat.

Please note that these edible and medicinal values are furnished as historical information only and we are not encouraging any harvesting of native plants for food and/ or medicine for several reasons:

A positive identification of a plant must be made before tasting it. There are many poisonous plants that are very similar in appearance to edible species.

Plants found along the roadsides may have been sprayed with chemicals or may contain possible toxic lead fumes from motor vehicles.

Widespread collecting or harvesting our native plants, with the human population as large as it is today, can place plant populations at serious risk of becoming overused, possibly to the point of extinction.

Native plants should be used for food only in an emergency situation and only if you can make a positive identification of the plant.

We would like to emphasize the importance of not picking or collecting wildflowers. Several of our wildflowers are rare or sensitive species or are at risk of becoming threatened. Appreciating these exquisite forms of nature can be accomplished in many ways besides collecting such as: drawing, painting, photographing, or just enjoying their aesthetic beauty in their natural habitat.

It is our hope that this guide may stimulate an interest and awareness of what Nature has to offer and make a trek through the North Idaho forests a more enjoyable experience.

https://www.fs.usda.gov/r01/idahopanhandle/animals-plants/edible-and-medicinal-plants-north-idaho

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ON THE COVER

Ronni Torres and her first ever Steelhead caught on the Clearwater River in Ahsahka, ID!

Photography by Rick Fullerton









PUDDLES RETURNS TO FIGHT INVASIVE MUSSELS

ON LAKE ROOSEVELT IN EASTERN WASHINGTON

AKE ROOSEVELT: Washington Department of Fish & Wildlife (WDFW) welcomes back its original invasive mussel-sniffing dog, Puddles, after her retirement a year ago. Puddles, alongside her handler, Sgt. Pam Taylor, has rejoined the mission through Mussel Dogs, a company specializing in training dogs to detect invasive mussels on watercraft. WDFW has contracted them as "roving inspectors" to monitor Lake Roosevelt for zebra and quagga mussels.

Puddles and Pam will be conducting inspections at random watercraft launches on Lake Roosevelt over eight days in August and September. Their efforts are supported by a grant from the Lake Roosevelt National Park Service. In addition to Puddles, WDFW employs another mussel-detection dog named Fin and is actively seeking an additional rescue dog to strengthen the team.

To share insights into this crucial work, WDFW is launching a bi-monthly blog detailing the efforts to protect Washington's waters from invasive species. The first post is expected at the end of August. Keep an eye out for Puddles and Pam if you're visiting Lake Roosevelt, and stay tuned for updates on WDFW's ongoing initiatives.

©



Puddles with a sign saying AIS detection canine on duty. WDFW

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Prevention is the BEST way to keep a water body clean of zebra mussels. Sophie Koch

What are They?

Zebra mussels (Dreissena polymorpha) are small, freshwater, bivalve shellfish that were likely brought to the U.S. as stowaways in the ballast water of ships. They are native to the Caspian and Black Seas south of Russia and Ukraine, and have since become widespread in both Europe and the U.S.

They are easy to identify, with a distinct, flat-bottomed 'D' shape to their shells that allows them to sit flat against a solid surface, and black, zigzag stripes against a cream background that earned them their name. They grow around two inches long at most, and are microscopic in their larval stage, which is known as a "veliger." They are

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short-lived (between two and five years), and begin reproducing at two years of age. Each female can release up to a million eggs per year.

Economic Impacts

"Biofouling," or the accumulation of adult zebra mussels on surfaces put in the water, is one of the more notable impacts zebra mussels can have on a local economy. Zebra mussels are armed with rootlike threads of protein, called "byssal threads," that allow them to firmly attach themselves to hard surfaces such as rocks, native mussels, docks or boats.

Typically, this isn't a problem for boats that are only in the water for short trips, but boats, docks or intake pipes that are left in the water for a long period of time can become encrusted and be very difficult to clean. If a boat owner also fails to drain the water from his or her motor, any veligers floating in the water will root themselves and clog the machinery as they reach adulthood.

Environmental Impacts

Biofouling is a problem in the ecological world as well. Zebra mussels will attach to native mussels much like they do docks, and in large enough numbers can prevent the natives from moving, feeding, reproducing, or regulating water properly. The zebra mussels also outcompete the natives for food and space, and because of their fast reproduction can quickly overwhelm a water system.

The feeding habits of zebra mussels can also have a drastic impact on an infested lake. Zebra mussels are filter feeders that siphon particles of plankton from the water. They are highly efficient at this, and a large population of mussels can quickly clear the water of almost all floating particles. This change can cause shifts in local food webs, both by robbing food from na-

Continued on page 10

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Continued from page 8

tive species that feed on plankton and also by increasing water clarity and thus making it easier for visual predators to hunt.

Where are they now?

Zebra mussels were first discovered in the U.S. in the late 1980s. The first established population was discovered in 1988 at Lake St. Clair, which straddles the border between the U.S. and Canada and which connects to Lake Erie and Lake Huron. They quickly spread across the Great Lakes, and are now present in the Mississippi and St. Croix Rivers as far north as Stillwater. Human transport has now spread them to the west coast of the U.S.

How do we stop them?

Once a population of zebra mussels has become established in a water body, there is very little to be done to remove them.

Prevention, therefore, is the best way to keep a water body clean of zebra mussels. Because they reproduce by spewing veligers into the water, zebra mussels are dependent on a current to spread their populations. This means that they can only move downstream in a river, and need a ride if they are to move further upstream.

Humans often aid them in their spread by transporting water from place to place. The microscopic veligers are invisible to the naked eye, and infected water transported in the bottom of a boat, inside a motor or via a livewell can readily become a new infestation if released into an otherwise clean river or lake. To prevent this, boaters must take care to drain their boats, motors and livewells before leaving a lake or river, wash their boat and trailer thoroughly, and allow it to dry for at least five days (the amount of time a zebra mussel can survive out of water) before taking the boat out again.

Since 1992, the National Park Service at the St. Croix National Scenic Riverway has led the efforts designed to halt or slow the spread of zebra mussels. Public education and information, access management, monitoring, and research are all tools in this effort. These tenacious animals have colonized the St. Croix River from the Mississippi upstream to the city of Stillwater. Threats from colonies in lakes near the Namekagon River are worrisome. Boats must take precautions to prevent further infestation. ©



Courtesy of NPS | www.nps.gov/articles/zebra-mussels.htm



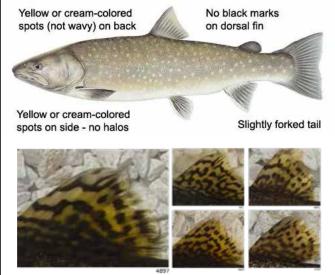


TROUT IDENTIFICATION GUIDE

This guide is used to identify *bull trout*, *brook trout*, and their *hybrids* that are at least 125 mm in length. The guide uses only color patterns in the dorsal fin to distinguish these three kinds of fish. Therefore, observers should disregard all other features and focus only on the dorsal fin when making identifications. It may be easier to see the color patterns in the dorsal fin if the fish is submerged in water.

BULL TROUT

Dorsal fin lacks light or dark markings. Some fish may have a few light markings along the base of the dorsal fin. Note the light markings along the base of the dorsal fin.

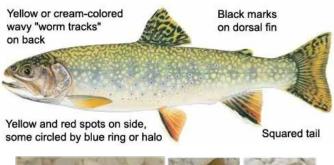


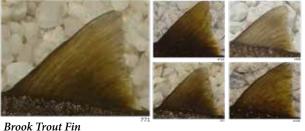
Bull Trout Fin - note the light markings along the base of the dorsal fin



BROOK TROUT

Dorsal fin has solid black markings with distinct edges.





HYBRID

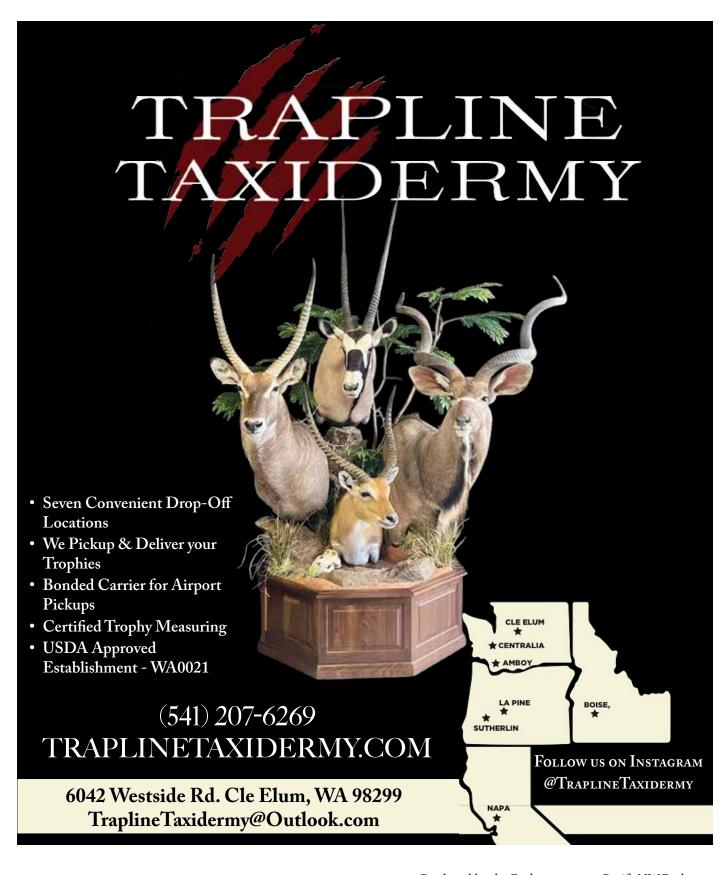
Dorsal fin has light or dark markings but dark markings are not solid black and lack distinct edges. In some fish less than about 175 mm the markings may be very faint.



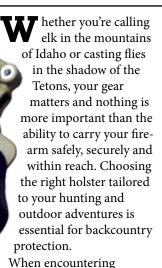
Hybrid Fin - note the dark colored bands, which are not solid black and lack distinct edges

This guide was prepared in a joint effort between the USDA Forest Service and Idaho Department of Fish and Game. For more information about this guide please contact Bart Gamett at bgamett@fs.fed.us or (208) 588-3420 or Matt Campbell at mcampbell@idfg.idaho.gov or (208) 939-6713.

Courtesy of Oregon Department of Fish & Wildlife https://myodfw.com/articles/bull-trout-identification-guide



THE RIGHT HOLSTER FOR BACKCOUNTRY PROTECTION



predators or navigating rugged terrain, your safety depends on the firearm location and draw speed – and Alien Gear Holsters has many inside-the-waistband (IWB) or out-side-the-waistband (OWB) options. Built in North Idaho and made for those who carry in a multitude of different environments, Alien Gear offers durable, intuitive holster solutions designed for hunters, anglers, campers, ATV riders and outdoor professionals alike.

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If OWB belt carry is your go-to, Alien Gear's Rapid Force Level 2 retention holster should be your first choice. Its slim profile and locking belt slide make it ideal for rugged terrain, ensuring your holster stays locked in place – combining the adjustable passive retention with an active thumb swipe release.

- Perfect for hunters, hikers and OWB everyday carry.
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- Modular design: Detach from your belt and holster directly to your ATV or vehicle using a secure Surface Mount system.

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- Hundreds of fitments available, including revolvers.
- Lightweight comfort and readily accessible.
- Excellent for cross-draw access when seated or wearing a pack.

Backcountry Protection Requires the Right Setup

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With Alien Gear's modular Quick Disconnect System (QDS), your holster can adapt with your hunt. Effortlessly transition from belt carry to backpack or surface mounts in your vehicle – all without having to remove your firearm from its holster.

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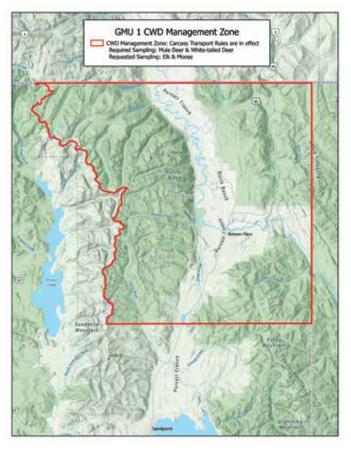
2024 IN REVIEW: CHRONIC WASTING DISEASE IN UNIT 1 IN THE PANHANDLE REGION

anaging against chronic wasting disease requires playing the long game.

Throughout the course of the 2024 hunting season, three additional white-tailed deer in Unit 1 tested positive for chronic wasting disease, bringing the total number of positive detections to six since the initial detection in July 2024. The three additional positives came from deer harvested by hunters within the bounds of the Unit 1 CWD management zone.

Timeline

- July 2024: CWD was first detected in Unit 1 roughly three miles outside of the town of Bonners Ferry.
- August 15, 2024: Idaho Fish and Game Commission approved a CWD surveillance hunt in a portion of Unit 1 to determine the initial prevalence of the disease.
- August 20, 2024: CWD Community Chat open houses began each Tuesday evening in Bonners Ferry.
- September 27, 2024: Sample results from the CWD surveillance hunt yielded two white-tailed deer that tested positive for CWD. Both deer were harvested within less than one mile of the original CWD detection.
- October 1, 2024: A CWD management zone was established in the portion of Unit 1 within Boundary County and east of the Selkirk Mountains crest. The establishment of the CWD management zone enacted mandatory CWD testing of all hunter-harvested mule deer and white-tailed deer.
- November-December 2024: Idaho Fish and Game worked with hunters to gather as many CWD samples from within the CWD management zone as possible, resulting in three additional positive detections from white-tailed deer harvested within the management zone.

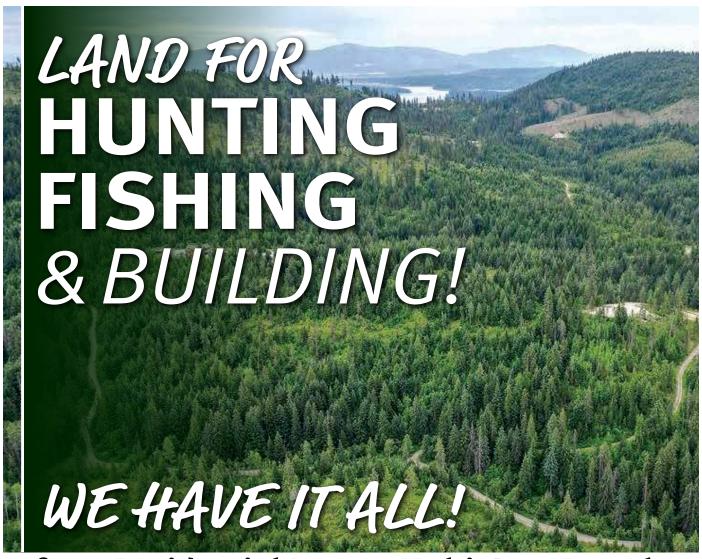


Takeaways

A total of 936 white-tailed deer was sampled within the Unit 1 CWD management zone during the 2024 regular deer season, representing a drastic increase from 2023. Fish and Game would like to genuinely thank hunters for their contri-

Continued on page 18





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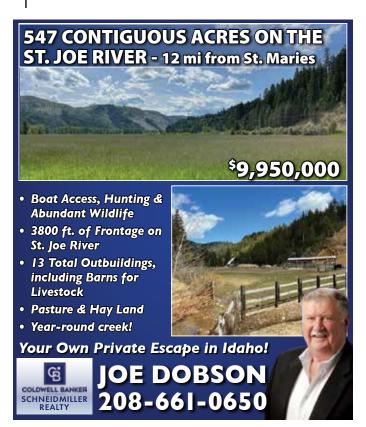
2024 IN REVIEW: CONTINUED

butions of samples and therefore a better understanding of CWD in Unit 1.

Relative to many other states, the current estimated prevalence rate (less than 1%) of the disease in the management zone is low. Low prevalence rates suggest that Fish and Game in collaboration with hunters detected the disease early. Early detection of CWD is critical, as it creates opportunities to take action to slow the rate of spread of the disease. Recent studies in Wisconsin and Wyoming, states where CWD has been present for longer periods of time, have begun reporting major declines in big game herds, underscoring the potential risks of CWD in Idaho.

The Future

Recent studies have found that hunting can help keep CWD rates of spread and prevalence in check for the long haul. As such, during the 2025-26 Big Game Season Setting process, Fish and Game staff in the Panhandle Region proposed five new controlled hunts for white-tailed deer in the Unit 1 CWD management zone. All five hunts were well supported by the public; therefore, they were recommended to and adopted by the Fish and Game Commission at their March 2025 meeting.





The intent of the new hunts is to reduce CWD transmission and spread, consistent with Fish and Game's 2021 CWD management strategy. The new hunts numbers are 1115, 1116, 1120, 1121 and 1122 in the Idaho Big Game 2025 Seasons and Rules book.

Between the addition of 100 extra antlered white-tailed deer tags, addition of 1,000 extra antlerless white-tailed deer tags and reduction of 750 antlerless white-tailed deer tags in Unit 1, there is a net increase of 350 extra deer tags available in Unit 1, with a targeted focus to increase harvest within the CWD management zone.

Unit 1 is a popular hunting destination for many white-tailed deer hunters, with almost 7,100 Idaho hunters harvesting more than 2,900 white-tailed deer in Unit 1 in 2023. Fish and Game needs hunters' help to learn more about CWD to help keep white-tailed herds healthy in north Idaho.

Fish and Game's goal is to maintain healthy big game herds by slowing the spread of CWD and keeping the prevalence rate low. Achieving this goal is not possible without assistance from hunters.

Please contact the Panhandle Regional office at (208) 769-1414 with any questions. Follow the Panhandle Region Facebook page for regular news and updates.

Courtesy of Idaho Depatment of Fish & Wildlife





SMOKED VENISON JERKY

Cook time: 3-4 hours + marinating time



his savory jerky recipe includes garlic and black pepper to complement the wood-smoked flavors. I prefer to use tender roasts from the hindquarter (like eye of round or top sirloin), but any large hunk of red meat will do. These pieces should be sliced across the grain and marinated for two days to maximum flavor.

Wood type is the dealer's choice. Mesquite gives the strongest flavor and is my favorite for venison. Hickory, oak, and pecan are a little more subtle, but still offer plenty of taste. Sweet pellets like cherry and apple are the most mild. They're better for things like turkey, hog, and fish.



INGREDIENTS

3 lb. venison roast

1 cup soy sauce

1/2 tsp. Prague powder #1

3 Tbsp. brown sugar

1 Tbsp. black pepper

2 cloves of garlic, smashed or minced

1/2 cup water

2 Tbsp. red wine vinegar

1/2 Tbsp. dried rosemary leaves

• Special Equipment: Smoker

• Also works with Waterfowl

PREPARATION

- **1.** Slice the meat against the grain between 1/8-inch and 1/4-inch thick. This is easier to do when the meat is chilled in the freezer for an hour or hasn't fully defrosted. Place all the sliced meat in a large, resealable bag.
- **2.** If you have a mortar and pestle, smash the garlic cloves until you reach a rough paste. Mix the garlic with the water, soy sauce, pink curing salt (Prague powder #1), red wine vinegar, black pepper, and sugar until well blended.
- **3.** Pour the liquids into the bag with the meat and mix to coat each piece on both sides. Marinate in the fridge for at least 12 hours and up to two days, tossing and mixing the bag periodically.
- **4.** Prepare a smoker according to manufacturer's settings using your choice of wood. Pre-heat to 160 degrees.
- **5.** Remove the meat from the marinade and squeeze off excess liquid. Lay each piece of meat on a metal grid or pizza screen. If you have the time and space, let the pieces air-dry for a few hours in the refrigerator so it will absorb more smoke.
- **6.** Smoke the venison for 3 to 4 hours. It should be fully dry but still pliable. If your smoker cannot get below 180 degrees, you can opt to smoke for 1 hour to impart flavor, then switch to a traditional dehydrator set at 145 to finish. This will prevent the jerky from becoming bitter or too brittle.
- **7.** Once completely cool, store in an airtight bag for 1 to 2 months. The jerky can also be refrigerated for 3 to 6 months or frozen for a year.
- **8.** Note: Pink curing salt (also known as Prague Powder #1) is a blend of sodium chloride (table salt) and sodium nitrite. It is used to prevent the growth of botulism bacteria, impart the savory flavors of cured meat, and give it a pink color when smoked. Although it isn't required, I recommend it if you're storing the meat for more than a few weeks. Do not use more than a teaspoon per 5 pounds of meat.

Courtesy of MeatEater







DEATH OF A SALMON:

HOW DECLINING SALMON ARE AFFECTING THE ENVIRONMENT

If you were to look at the world as a living being that thinks and grows just like every other creature, then salmon would be its lifeblood. For millions of years, these magnificent fish have made their way up the veins of great rivers, bringing nutrients distilled from the Pacific Ocean along with them as they struggle upstream to spawn and eventually die. An infinite number of creatures benefit from the salmon's sacrifice, from microscopic insects to the largest trees in the world.

Humans have also benefited in countless ways from the salmon swimming in our rivers. From being a healthy and dependable food source to the enriching timber and soil needed for building civilization, we may, in fact, owe much of our very existence and continued prosperity to the salmon swimming in our rivers. Yet, at this very moment, we're standing on the brink of losing it all.

Losing a Keystone Species

Salmon populations across the Pacific Northwest are rapidly disappearing, with a few isolated populations in danger of becoming completely extinct. This is a major concern, not only for obsessive salmon anglers who depend on the fish for both food and sport, but also for the community at large as the salmon's presence in a river affect everything around it.

"Salmon are the ultimate keystone species," fisheries scientist Gary Marston, who works as a scientific advisor for Trout Unlimited, said. "The loss of salmon for these watersheds affects the entire community and the ecosystem. From the trees, which get nitrogen from the fish after they spawn and die, to the otters, bears, bobcats, raccoons, eagles, and hawks that rely on the fish for food. It's an entire community effect, and all these things suffer when salmon are not abundant."

The loss of salmon has a ripple effect, one that spreads to every tiny corner of the salmon's world and causes a chain reaction of loss. The rivers and streams that salmon migrate to are generally very infertile, making them places where life tends to struggle, so they depend on the nutrients that salmon bring with them from the ocean. Without the fish, water-borne insects like stoneflies and mayflies that rely on salmon for food don't get the same nutrients that they had in the past, which makes the insects smaller and their hatches sparse. In turn, the animals that eat the bugs, such as birds and bats, begin to struggle, and so it goes on up the line.

"I've read several studies about areas where the lack of salmon is affecting songbirds," Marston told MeatEater. "Their body conditions grow worse in areas where there were suddenly no salmon or even declining salmon. They also have smaller clutches of eggs because they lack the nutrients from the insects that feed on dead salmon. But it goes so much further than birds and bugs. These ecosystems have evolved in tandem with the salmon, so we're talking about everything from microscopic algae all the way up to vast old-growth forest communities where healthier and larger trees are being depleted by the lack of nitrogen and other minerals provided by the salmon."

This trickle-down effect extends beyond just the lack of salmon in the rivers and streams that they spawn in and is even being felt out on the open sea. Dozens of marine predators such as sharks, seals, orcas, and even lamprey feed on

Continued on page 24



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DEATH OF A SALMON: CONTINUED

the fish during their time in the salt water and their loss is being felt. The Southern Resident killer whale population, which once thrived in the waters between British Columbia and California, is an example of this as their population has dropped alarmingly in recent years, with the whales being added to the endangered species list in 2005. Salmon are

an essential part of the whale's diet, and the drop in both the salmon population and their overall size has been one of the biggest contributing factors to the orca's collapse.

A Salmon Free Fishery is An Empty Fishery

It does seem obvious that the people suffering most from the loss of salmon are, of course, salmon fishermen. Both anglers who love hooking these giant and powerful fish on rod and reel, as well as those in the commercial industry who depend on salmon returns for their livelihood, are feeling the loss of the fish already. How-

ever, even if you're not a salmon angler and prefer fishing for other species, the salmon's disappearance can still be felt as they influence so many of the other fish around them.

"Without salmon in these waters, you won't have steelhead or trout," Pacific Trout Unlimited Communications Director Greg Fitz said. "The species are just so dependent on one another, with trout and steelhead smolt feeding on both the salmon eggs and the insects that feed on the dead salmon. Without the salmon, all the effort and time and money that we've put into restoring other species like steelhead will have been for nothing."

The symbiotic relationship between salmon and other gamefish has been well documented, but many anglers don't realize just how deep these relation-

cases, other
fish species
are almost
entirely dependent on
salmon being
in the river, and losing them could devastate
many world-class fisheries.

ships go. In many

"Throughout the different studies I participated in, we found a lot of connection between rainbow trout populations and salmon," Marston told MeatEater. "Salmon eggs make up a big part of their diet, to

the point where we've found up to 900 eggs in one rainbow, and salmon eggs are about 3 times more energy-rich than insect larvae, which allows fish to grow larger."

But the presence of salmon doesn't just mean bigger fish, it also ensures the survival of more fish.

"In addition, we saw juvenile survival rates of rainbows

increase by a huge margin compared to where there were no salmon," Marston said. "In places where pink salmon come into a river, we found that 30% of the food source for juvenile trout, steelhead, and salmon are actually sea lice falling off the pinks. It's these little things that can push the fish over the edge, give them a little bit of edge, and help them survive. In short, where the salmon were, we saw other salmonids thrive."

However, on other rivers that Marston and his team visited, the results were not always so bright. On one river, they saw firsthand what can happen to other fish

when salmon runs disappear.

Salmon

are the

ULTIMATE

KEYSTONE

Species

"By contrast, one of the most interesting things we found on one particular river we studied was that summer chum salmon actually declined pretty significantly during the study," Marston said. "We went down from a healthy run to about 100 to 150 salmon per mile. This is not a large population and a huge drop from what it had originally been. By the end of that study, we were unable to capture enough trout to even do a population estimate. The trout population had declined that much because the salmon just weren't there."

Even in areas where salmon aren't completely lost, the style and tradition of salmon fishing are often forced to change.

"I grew up in Alaska, and fishing in Alaska meant we were targeting big trout and char with eggs and flesh flies," salmon biologist and avid angler Haley Ohms said. "When I moved down to the lower 48 and started chasing trout around Oregon and Washington, those egg and flesh flies simply don't work because those big resident salmon just aren't around in the same numbers. It really drove home the losses we've experienced in the Pacific Northwest because that sort of fishing used to exist here."

The Fight for Fish

Dropping salmon populations are nothing new, as salmon stocks have been in decline for nearly 180 years. Since the 1850s, logging, mining, and overfishing combined with flooding and general mismanagement have led to many salmon stocks falling. However, in the last 50 years, the construction of dams, lack of understanding of salmon behavior,

and climate change have seen some runs reduced to less than 10% of their historic numbers, and some populations have even disappeared altogether.

Now, it's not all doom and gloom as many of the struggling salmon runs are being supported by hatcheries that are at least maintaining populations. Yet, even fish hatcheries may not be enough to stop the tide of decline as they cost billions of dollars to build and maintain and simply aren't cost-effective in many places. In addition, hatchery salmon behave differently than wild salmon and often don't grow as large, which in turn has an adverse effect on the species and the environments that depend on them. These fish also compete with wild salmon for food sources and interbreed with them, causing further declines in wild stocks.

"Often the reason behind installing a hatchery is the simple reason that populations are declining, and we install them to stop extinction, maintain a population, or to keep up a treaty with a native tribe that requires a certain number of fish," Ohms told MeatEater. "While they do help in maintaining fish populations, they are certainly not a long-term solution. Hatcheries cost a lot and hatchery salmon are just different from wild fish. They return at different times than wild populations, generally earlier, and at younger ages, which means that they're smaller and are possibly not as nutrient-rich as the natural fish."

Ohms' work focuses on the evolution of salmon and their life history. She has modeled population dynamics of different species from Alaska and Oregon to Idaho, Washington, and California. Over the years, she has witnessed the decline of wild salmon populations and the worrying effects that it's having on the environment. She believes that in order to save the fish and reverse the effects, we need to act now.

"It's like the ship is sinking, and at the moment, we're almost helpless to stop it," Ohms told MeatEater. "I think we need as a culture to recognize that we're sort of at a turning point and that we really need to light a fire under ourselves to take care of the big issues like dams, salmon harvest, and hatcheries if we want to save salmon. I think we need reform, and it needs to happen now. We're in this window of time where we're losing genetic diversity, and when your diversity is so low, the fish will get on a trajectory that makes extinction inevitable."

Ohms and other experts believe that to save the salmon population, the focus needs to be on wild fish, which are better suited to reverse environmental decline as they have evolved over millions of years to do so. With a united front of communication between groups that are removing dams and improving salmon habitat to help wild fish numbers and those advocating for hatcheries and hatchery-raised fish as a subsidy to keep salmon fishing alive, we can perhaps find the ultimate solution.

"I think there are many small situations where hatcheries can be useful," Ohms said. "When you have a salmon population on the brink, a hatchery can be a way to sustain them until the



problem is fixed. However, where we go wrong with hatcheries in 99% of cases is that we use them to prop up a population entirely instead of fixing the problem. If we used hatcheries as a temporary solution until we fix A, B, and C, that would be one thing, but that's almost never how we use hatcheries, and in their own way, they're contributing to the problem of losing wild salmon."

"What we need, I think, is for all these people to decide whether or not salmon are important enough to focus on," Ohms said. "I mean, we've seen the complications that can arise from the Salmon River dams in Idaho. Yet, as a society, we all need to come together to make real changes before we start to see improvements."

One of the biggest reasons that more emphasis isn't being put into saving these wild fish populations is that it will take a lot of sacrifice and above all patience from the salmon-loving public to see any results.

"I think a big part of salmon declines is a lack of focus on all the threat factors that are encroaching on salmon," Marston told MeatEater. "We really need to focus on all the things at once, like closing fisheries and not using hatcheries, and then watching the impacts these things have on wild fish. There's been a big lack of coordination, especially when all the recovery actions take time. But it's essential that we give the salmon the time needed for changes to take effect. The average chinook salmon takes four years to return, and it may take 12 years or more for these populations to completely rebound. Yet many Washington state hatchery practices shifted and increased the number of smolt they were stocking because they weren't seeing immediate effects from fishing closures. It's going to be really hard to make improvements if we're unable to immediately see the benefits."

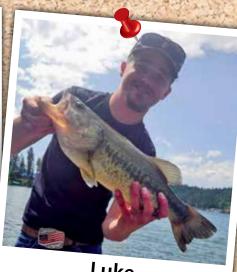
Making the Leap

Written by Kubie Brown, Courtesy of MeatEater









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