

Q'E'YMINN HE 'ULHNSIKWE'N WATERSHED WRAP

*The Watershed Wrap is now the q'e'yminn he 'ulhnsikwe'n. The translation in the Coeur d'Alene language is, "about the Watershed". The term for watershed means literally everything belonging to the watershed: the water, people, plants, fish, wildlife, cultural uses and air, as well as the impact of our activities!

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Semi-annual newsletter from the Coeur d'Alene Tribe's Natural Resources programs describing watershed management efforts. Offering readers food for conversation and paper for wrapping.

Updates on northern pike suppression in Lake Coeur d'Alene

By Jon Firehammer, Fisheries Research Biologist

During the annual transition from sit.sitkw to setqaps (the terms for winter and spring on the Coeur d'Alene calendar), cutthroat trout figure prominently as they stage to make their migrations to spawning grounds in the streams and rivers around Lake Coeur d'Alene. This year, in particular, as the long winter began to give way to spring thaw, a quite excitement began to grow within the ranks of the Coeur d'Alene Tribe Fisheries Program. Following four years of removing pike from Windy Bay there were great expectations for a strong showing from cutthroat in the Lake Creek watershed - and they didn't disappoint!

Cutthroat population rebounding

In fact, cutthroat trout in Lake Creek continue to respond favorably to the northern pike suppression efforts that are being implemented in Windy Bay where the creek enters Lake Coeur d'Alene. Juvenile trout that have out migrated from Lake Creek in 2016 and 2017 have returned from the lake to spawn at rates of 4-6%, which is a four- to six-fold increase

The number of adult cutthroat that ascended Lake Creek numbered between 450 and 500 fish, which is nearly five times that recorded three to four years ago.



Tribal fisheries technician, Arron Penny, retrieves a northern pike that was caught in a gillnet this fall near Chatcolet Lake.

over the rates observed prior to pike removal. Indeed, the greater survival rates that have recently been observed in Lake creek fish have in turn produced a large spawning run this spring – the number of adult cutthroat that ascended Lake Creek in 2019 numbered somewhere between 450 and 500 fish, which was nearly five times that recorded three to four years ago and among the largest returns over the last several decades.

With this large number of spawners, more juvenile fish can be produced that will move out to the lake, and under these survival rates the number of adults annually ascending Lake Creek should continue to climb.

Northern pike, a non-native fish illegally introduced into the Coeur d'Alene Basin back in the 70's, have been shown to be a serious threat to

recovery of native trout populations in the basin due to their highly predatory nature. Pike have become well established in Lake Coeur d'Alene, and prey on cutthroat trout that leave reservation streams to rear to adulthood in the lake. What makes pike a highly efficient predator is that no size of trout is immune to their voracious appetite - a two to three-foot pike can consume a fish up to two thirds its size. To remove this problematic 'toothy' predator, the Tribe's Fisheries Program has been deploying gill nets in Windy Bay since 2015 during the spring when pike are concentrated in shallow, spawning habitats. By reducing the number of 'hungry mouths' roaming around in Windy Bay and furnishing cutthroat more hospitable surroundings, especially when entering and exiting Lake Creek, we expect this population will rebuild.

Pike suppression efforts ramped up

The success of the Windy Bay pike removal efforts has prompted an expansion of the suppression program to the southern end of Lake Coeur d'Alene to benefit native trout populations, like those that originate from Benewah Creek, which utilize this area of the lake as a migratory corridor or seasonal rearing habitat. Effectively controlling pike, however, will require a greater degree of effort than that expended in Windy Bay. Shallow weedy pike habitat is much more widespread across the southern end of the lake than in Windy Bay, and consequently pike are distributed from Hidden Lake north of the bike trail to the eastern extents of Round and Benewah Lakes. Accordingly, pike are also substantially more numerous in the southern end than in Windy Bay, likely exceeding 2500 fish in any given year (an estimate of the population size generated from the angler research reward program that was conducted from 2015 to 2018).

One strategy for focusing our efforts and increasing the efficiency of the suppression program is to identify areas in the southern end of the lake where pike tend to congregate during different times of the year. To accomplish this, we implanted radio-tags into twenty-five pike in late fall of 2018, and have been tracking their movements to evaluate seasonal behaviors (See the Fall/Winter 2018 edition of the Watershed Wrap for a brief description of how radio-tags work). From December through March, 80% of the fish overwintered in Lake Chatcolet with a few more staying put in Benewah Lake. In spring, however, virtually all of the fish that were found in Chatcolet moved out and headed east; some fish were

located in the shallow, weedy eastern extent of Round Lake while a larger group of tagged fish was found in Benewah Lake. These apparent spawning centers were supported by our gillnetting efforts this spring; the highest catch rates of pike were documented in Round and Benewah Lakes. Another large group of tagged fish was found to move into Hepton Lake, an old large farm field flooded by a levee breach several miles up the St. Joe River. This result was unexpected but not surprising for this area has been reported to be a favorite spring pike fishing spot by local anglers. What was alarming, however, was that one fish was located thirty miles up the St. Joe River in a backwater slough. Thus, the radio-tagging data suggest that, unlike Windy Bay where spawning pike are concentrated in a small manageable area, spring spawning centers are widely distributed in the southern end of the lake and are even present in off-channel habitats and backwater sloughs up the St. Joe River.

Obviously, suppression tactics need to be adjusted in the southern end to effectively control pike numbers. First, it is necessary to better understand the behavior of pike that are using habitats up the St. Joe River for spawning and rearing. Accordingly, the Fisheries Program implanted more radio tags this summer into pike captured by fishing slackwater reaches of the St. Joe River to evaluate where these fish go during the fall and winter. If these fish are found to move back downriver and overwinter in the lake, then they can be effectively controlled with fall suppression netting. In fact, given the observation that many of the radio-tagged fish were found concentrated in Lake Chatcolet during fall and winter periods, supplementing spring efforts with additional gillnetting in the fall may be a highly effective strategy to keep this pike population in check. Another idea we are pursuing is the deployment of a fyke net in Hepton Lake during the spring to capture pike that are ascending the St. Joe River to access these spawning grounds. Unlike a gill net which entangles fish, a fyke net is designed with a series of 'mesh funnels' that guide fish to a holding area where they can be extracted.

In summary, the first year of pike suppression in the southern end was a learning experience. We were able to remove a total of 720 pike, which is a good start but which will need to be ramped up in order to put a significant dent in this population. We will begin netting again this fall in October when the lake levels start to drop and the water temperatures start to decline. Just like during our spring removal

efforts, we will again be distributing many of the captured pike to the Blue Goose sporting goods store in St. Maries, so be sure to check their facebook page this fall to find out when these ‘toothy’ deliveries will arrive. ↑



Tribal fisheries technicians retrieve a gillnet during fall pike suppression work on Lake Coeur d'Alene. Pike management efforts were expanded to the southern end of the lake beginning this year.

Lake Management welcomes Coeur d'Alene Tribal member Justin Hendrickx

By Justin Hendrickx, Senior Recreation Technician

Hello, my name is Justin Hendrickx and I'm the new Senior Recreation Technician for the Recreation Management Program. I'm excited to start a new chapter in my professional career with the Coeur d'Alene Tribe Lake Management Department. I have spent the last 16 years with the Tribe's Fire/Fuels Management Program, serving in different roles from crew member to supervisor and leaving as the Assistant Fire Management Officer/Fuels Specialist. I am forever grateful for my time there. I'm looking forward to the new challenges I have ahead in my new position.

I was raised here on the Coeur d'Alene and the Colville Reservation. I graduated from Lakeside High School here in Plummer. I'm married to my wife, Marquette, and we are busy raising our 6 kids, ages 4-16. I enjoy watching my children play sports and supporting them in anything they do. ↑

College intern and summer youth help to collect crayfish data

By Cameron Heusser, Wildlife Program Manager

A'yqh is the Coeur d'Alene language word for crayfish or crawdad. It was an important food item in the past and there are even place names on the map of the traditional cultural territories that point to the best sites for gathering. For example, Hn'a'yqhn translates as the “Crayfish Place”. Despite the importance of this traditional food, not much is known about the status of a'yqh.

Idaho has one native crayfish species, the signal crayfish (*Pacifastacus leniusculus*), and reports of non-native crayfish are becoming more common in the region. The northern virile crayfish (*Faxonius virilis*) is a larger species that is able to outcompete the signal crayfish and can even impact local fish populations in some instances. It is typically introduced into an area by fishermen that are using it as bait to catch warmwater fish species such as bass. There have been documented reports of this species nearby, and the Wildlife Program wanted to know if populations of this species existed on the Reservation.

During the summer field season of 2019, Isaac Matt, who is a freshman at the University of Idaho this year studying Natural Resources, worked as an intern for the Fisheries and Wildlife Programs of the Coeur d'Alene Tribe. One of the projects that he helped out on was an investigation into the distribution of crayfish on the Reservation. The two Wildlife Program summer youth, Sammy Allen and Maddy Clark, also contributed to the project.

Minnow traps were set out in streams and Coeur d'Alene Lake and baited with cat food, bacon or fish. These traps were allowed to sit overnight giving the bait a good chance to attract as many crayfish as possible. Rocks were also overturned at each site and any crayfish encountered were collected, identified and measured.

Most of the surveyed streams contained crayfish populations, and all of the crayfish collected were the native signal crayfish. No evidence of the invasive northern virile crayfish was found. One puzzling piece of information was that no crayfish were caught or seen in Coeur d'Alene Lake itself. Many of the lake's tributaries contained healthy populations however. It is unknown whether this could be related to habitat, water quality or fish species present, but it may be an area worth additional study in the future. ↑



Summer intern, Issac Matt, shows off the catch during the recent inventory of a'yqh (crayfish) that was conducted on the reservation this past summer.

Wildlife program helps young ospreys take flight

By Nathan Albrecht, Wildlife Biologist

Every spring, adult ospreys migrate back to Lake Coeur d'Alene in order to build their nests, breed, and raise their young. While they are here, they encounter a variety of threats to this process. For young ospreys that have not yet learned to fly (fledge), one of these dangers is falling out of their nest and not being able to get back. This happens relatively frequently, as wind storms, predators, and humans disrupt nests that are on the tops of pilings, poles, and trees. This summer, the CDA Tribal Wildlife Program decided to make it easier to get them back into the wild.

Since young ospreys that fall from their nests cannot yet fly, they are helpless while on the ground or water, and unfortunately most of them die. However, some are found by people, and often are taken to raptor rehabilitation facilities. The primary

facility in our area is Birds of Prey Northwest (BOPNW). If the young ospreys are healthy, BOPNW works to get them back into the wild. The challenge is that since they can't fly, they need to be housed for a while until they are big enough, but you don't want them to get accustomed to being around humans and being artificially fed by them. This is called "imprinting". An osprey that is imprinted on humans is a danger to itself as well as the public.

The ideal situation for these orphaned ospreys is to have a temporary nest that keeps them safe until they are ready to fly. This is the idea behind a hack tower. A hack tower is an enclosed nesting platform that is built in the bird's natural environment. It is built in such a way that we can feed the osprey chicks without being seen. Once they have acclimated to their new surroundings and have grown enough, we open one side of the enclosure so they can take their first flight. The hack tower continues to serve as their home nest as they learn to fly and feed themselves. Once fully independent, they leave the hack tower sight, and eventually migrate south with the rest of the adult ospreys.

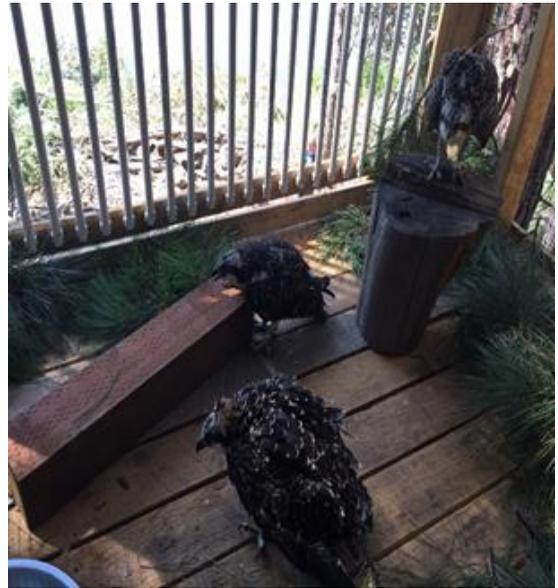
Until this summer, BOPNW did not have a hack tower for ospreys. The primary method they used was bringing the chicks up into existing osprey nests, in hopes that the adult osprey would serve as a surrogate. While this often was effective, the logistics involved in climbing up to these nests were difficult and often dangerous. Therefore, BOPNW's capacity to take in young osprey was limited. In order to help out, the Tribal Wildlife staff designed and built a hack tower on BOPNW property, on the shore of Round Lake.

The hack tower was completed in early July, and was already housing ospreys within a couple of



A structure known as a hack tower was recently built by Wildlife Program staff to house and rehabilitate ospreys.

days. Over the course of the next several weeks, BOPNW staff successfully fledged 6 ospreys from the hack tower. With this increased capacity to bring these young birds back to the wild, we are hoping to reduce osprey mortality into the future. ↑ ↓



Several juvenile ospreys lounge inside the safety of the Hack tower that will serve as their “nest” until they are able to take their first flight and become fully independent.



Chinook salmon eggs that were donated to the Tribe from the Leavenworth National Fish Hatchery are being raised in the Tribe’s ‘nik’wln facility in Plummer. The facility is part of a larger educational program that compliments the salmon passage and reintroduction efforts that are gaining momentum in the region. An estimated 2,600 fish – currently 3 ½-4” long, or 53 fish per pound - are housed in the facility and are scheduled for release in early May 2020. Some of the fish will likely be donated to the Spokane Tribe who will PIT tag around 800 fish for fish passage studies on the Spokane/Columbia rivers. The remaining will be released into Hangman Creek.

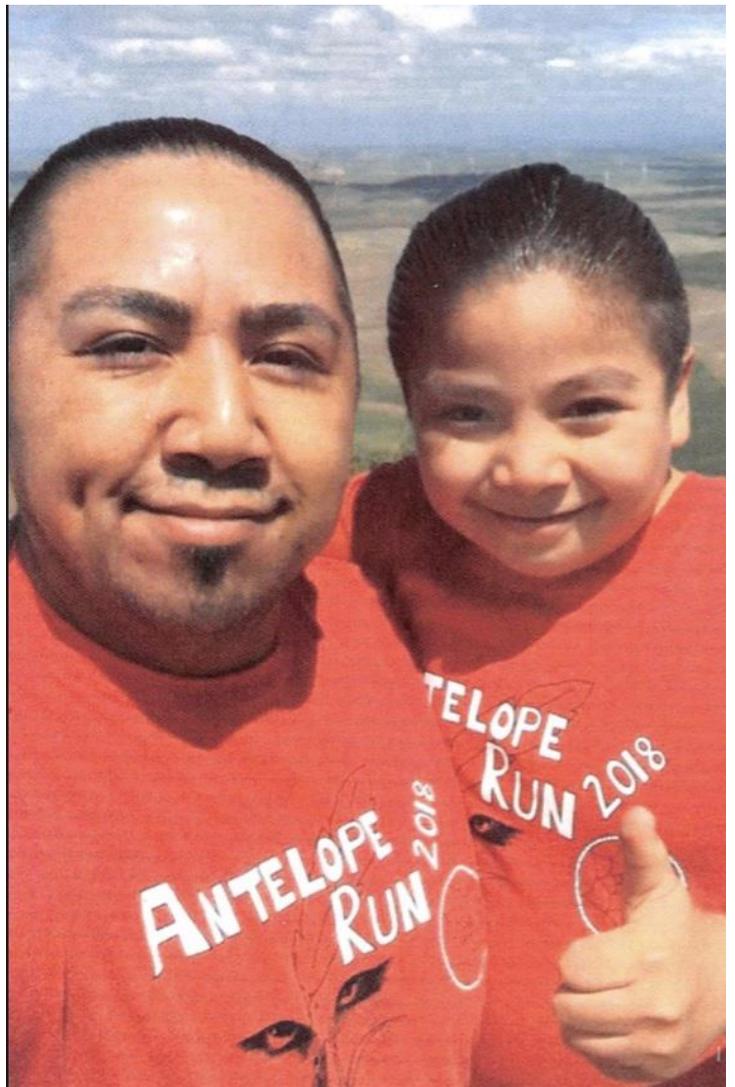
Natural Resources honors life of fellow employee Michael George Jr.

By Scott Fields, Water Resources Program Manager

On August 17, 2019 the Water Resources Program received the devastating news that Michael T George (Jr), our long time Water Resources Technician, friend and all-around great guy had lost his life in an auto accident. Michael was an incredibly kind, funny, thoughtful and intelligent young man. He was a kind and caring father to his son Michael and loving partner to his longtime girlfriend and soulmate Stephanie. We had the good fortune of getting to work alongside Michael for the last 9 years, watching him mature into a great employee, father and friend. Michael was naturally reserved and quiet but in our thousands of hours of field work (often on the boat) we had the honor of listening to countless stories about his youth, his friends and family which allowed us to know him in a way many did not. Michael was a man of principles and morals, he often stood up for those who needed it and could always be counted on to help out anyone in need.

Michael's family asked me to be one of the pallbearers for Michael in his services, which was a great honor and also a blessing to finally meet all of the wonderful people in his life that we had heard so many stories about. Through this I learned that Michael was more than he appeared, he had been quietly going through his life creating a positive impact on all those around him even if they themselves didn't always realize it. Michael loved Superman and maybe, just maybe, he in his own way was a Superman because the loss we all felt was much like a superhero had passed. Michael is and will continue to be sorely missed by his coworkers, his friends and most of all his family. Rest in peace my friend. ↓

Michael Thomas George Jr.
2/18/1987 – 8/17/2019



I'm not saying I am Superman. I'm saying no one has ever seen me and Superman in a room together.

*chetchtu's'ya' (pqi'n'm sqigwts
ha'chsetq'it*

WE WILL
CELEBRATE
Water Potato
Day!"

→ Hosted by Coeur d'Alene Tribe Natural Resources
Department ←

Join us at Hawley's Landing in Heyburn State Park to
learn about the traditional foods and harvesting
practices of the Coeur d'Alene Tribe

Open to the public October 22nd,
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→ ← 9:30am-1:30pm → ←



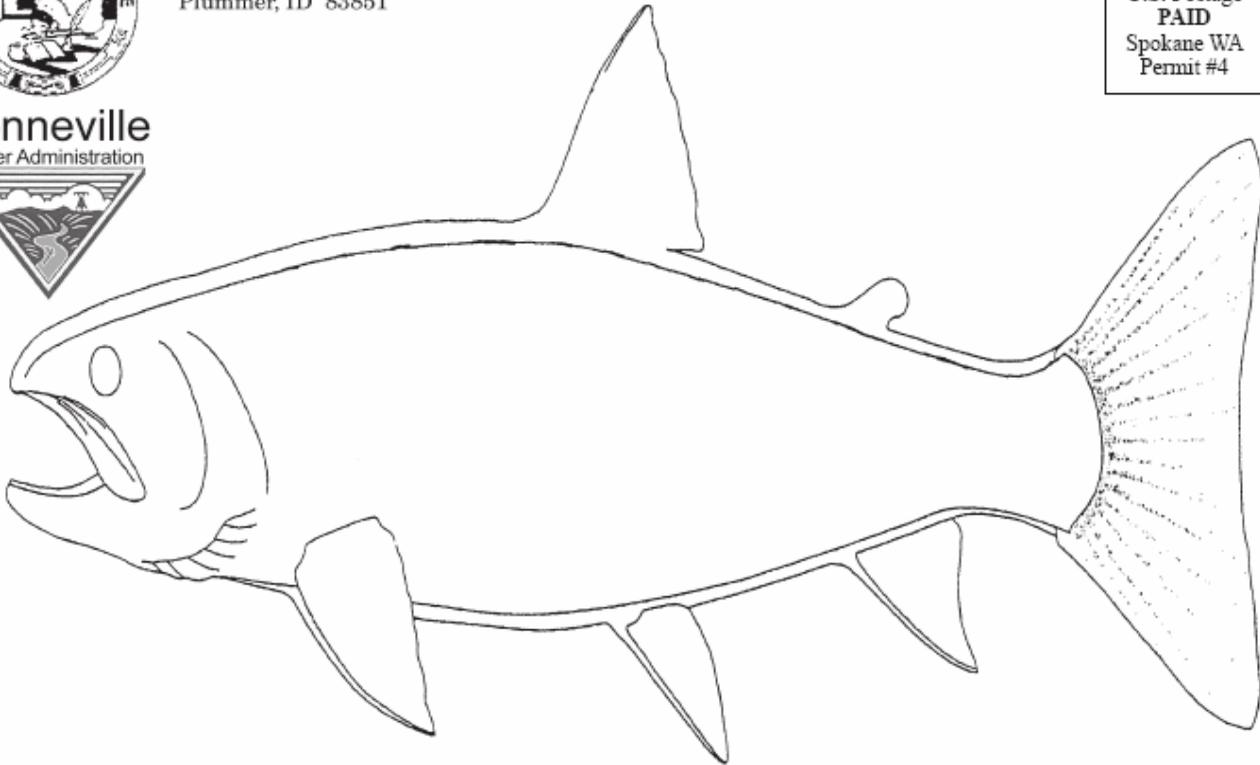
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The Coeur d'Alene Tribal Fish and Wildlife Programs work in a variety of cooperative, governmental and educational arenas in efforts to protect enhance and restore our fish and wildlife resources. This publication is intended to provide all people interested in Fish and Wildlife of the Coeur d'Alene Reservation information about our program, and to solicit your support as well as constructive criticism. Thank you for your interest.



To see more photos and to be the first to know about events happening in our community follow us on the Fish & Wildlife Facebook page @cdatribe.fishandwildlife