U.S. Fish & Wildlife Service

Kk'oonootne Tene

Kanuti National Wildlife Refuge

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Weirs allow biologists to determine fish escapement, run timing, and the age, sex and length composition of the migrating population. (USFWS)

Henshaw Creek Chum Run Breaks Records!

Henshaw Creek, a major tributary flowing into the Koyukuk River drainage within Kanuti Refuge, provides spawning habitat for chum and Chinook salmon. The large run of summer chum from Henshaw Creek contribute to the mixed stock subsistence and commercial fisheries occurring in the Yukon River drainage.

Yukon River salmon stocks, especially chum salmon, began to decline in the late 1990s. A few years later, in the middle of the past decade, the Yukon River Chinook runs also began to decline. Fortunately, this happened just as the chum started to recover. Over the years, these declines led to harvest restrictions and complete fishery closures. Salmon are managed according to goals intended to ensure that a sustainable number of adults return to their place of birth to spawn. These goals are called "spawning escapement."

Unfortunately, for many years chum escapement, especially some of the fall chum runs, was below the levels that could sustain the populations, so harvest restrictions were necessary. Similarly, in recent years Chinook runs failed to meet escapement, so more restrictions were necessary along the Yukon River. However, we are lucky that the 2012 Henshaw Creek chum numbers were record-breaking, and contributed to drainage-wide good escapement for summer chum. Allakaket resident Steven Bergman commented, "The water was high most of the summer but I still caught chum."

The Henshaw Creek weir has been in operation since 2000. The weir site is approximately one mile upstream from the mouth of Henshaw Creek. A gated chute similar to a fish trap is installed near mid-channel which allows salmon and resident fish species such as longnose suckers,

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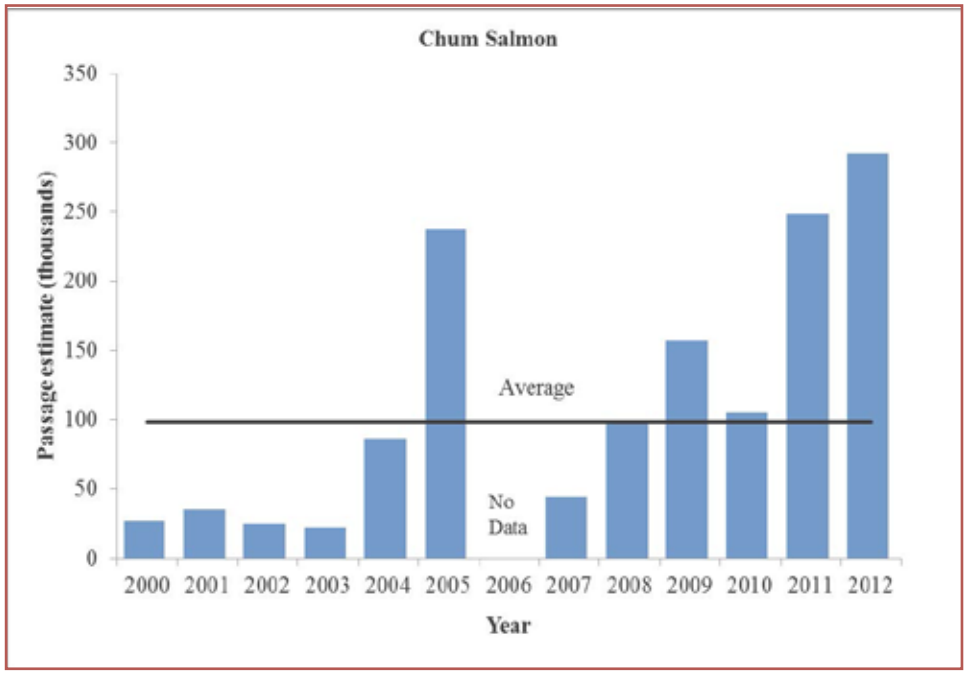
Henshaw Creek Chum Run Breaks Records! (continued)

whitefish, Arctic grayling, and northern pike to be recorded as they pass through the weir.

Since 2006, the weir has been operated by Tanana Chiefs Conference (TCC), under a cooperative funding agreement with U.S Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program. This year TCC operated the weir from June 24 to August 4.

Former Allakaket resident Johnathan Henzie has worked at the weir since 2007. This past summer when Refuge Manager/Pilot Mike Spindler flew Johnathan over Henshaw Creek he remarked, " That's the first time I had a chance to see the spawning from the air. It was incredible to see how many chum are in the stream spawning, and how far upstream they go…I had no idea there are so many bears feeding on them too."



Record numbers of chum salmon were observed during the 2012 season with approximately 292,082 chum salmon counted. The peak of the chum run was July 20 with 19,950 chum passing through the weir.

Clinic Inspires Future Trappers

In late October, Allakaket resident P.J. Simon led a trapping clinic for the public at the Tribal Building in Allakaket. Over thirty people of various ages attended the event. The food was delicious, the information was interesting, and P.J.'s stories kept all participants entertained. Several different types of traps that are used in interior Alaska were on display. After discussing trap-line setup and trapping methods, participants were shown a demonstration on how to set spring-loaded traps. P.J. also demonstrated how to make and set snares. With supplies donated by Kanuti National Wildlife Refuge, each participant was given the opportunity to make several wolf snares and smaller furbearer snares. The clinic was a success in that it inspired more people and future generations to take up the art and science of trapping.

Allakaket resident P.J. Simon demonstrates how to make and set snares. (USFWS)

Huge Rock Slide Discovered on the Jim River

It was a beautiful summer day when we launched our inflatable kayaks on the Jim River from the Dalton Highway. Our plan was to float down the Jim River to the South Fork Koyukuk River and then on down to the main Koyukuk River, a seven day trip across a portion of the Kanuti National Wildlife Refuge. The purpose of the trip was to survey the rivers for nesting Northern Goshawks. We would also search for invasive plants since Refuge personnel fear that eventually weeds from the Dalton Highway, which is thoroughly infested, will invade the rivers on the Refuge.

Floating is a great way to monitor invasive plants and collect information on wildlife because the current speed on these rivers is generally slow (2 -3 mph) which allows close scrutiny of the nearby shorelines and a silent approach to wildlife. Floating is also an economical method to access the Refuge; this is a major consideration during tough economic times when budgets are declining for resource work on public lands.

During the first 20 miles or so, the Jim River is winding and slow, with alternating patches of old growth spruce on the cut banks and willows on the sand bars. We spotted a Bald Eagle near a nest, one of the few nests located north of the Arctic Circle in Alaska, but thankfully, no weeds!

Eventually the character of the river changes as it cuts though a set of tall hills, creating a deep, narrow canyon, full of cliffs, and a series of rapids. We were surprised when, midway down the canyon, the current began to slow dramatically, and the rapids we anticipated disappeared. We were no longer in a rushing river; we were in a lake! As we anxiously paddled along, we noticed a high watermark on both sides of the river that was littered with logs and sticks, while below it all of the vegetation was dead. The trees that were still standing below the waterline were abraded where ice had likely rammed into their trunks with great violence. This "bathtub ring" got higher as we descended the river, until it was nearly 30 feet above the current water surface – obviously, the water level of this "lake" had been much higher sometime in the past.

The rock slide caused an entire debris field to fall onto the opposite bank. (USFWS)

We paddled along for a mile more, and soon began to hear the faint sound of water crashing over rocks ahead. The sound got louder as we continued downstream. Finally, we reached a sharp turn in the river, right where the sound was at its loudest. We anxiously put ashore to scout ahead and what we found was startling. A huge rockslide, literally half a mountain, had broken off and slid into the river. We gingerly climbed our way through a 200-yard wide maze of boulders and tree trunks. It soon became clear that the rockslide had plugged off the entire river, creating a lake. This lake had eventually become deep enough to flow over the top of the natural dam and started cutting back down through the rubble to its present level. One huge tree trunk was located below the fastest part of the rapids and a foot above the water. This "strainer" was too low to go under, but too high to go over. With no hope of going back upriver or rescue in this remote setting, we were on our own.

The strainer was held suspended in the air by a huge boulder on our side of the river. With great effort, many grunts, and by using another log as a lever, we managed to push the tree off the boulder. My partner went back upstream to run the boats, one at a time, through the rapids. I waded out into the water, just above the tree, and pulled the boats ashore before they got to the strainer. This worked very well and after we had both kayaks safely past the tree, we lined the boats down through the remaining rapids and out into the regular river channel.

It is unknown when the slide occurred on the Jim River. The area is very remote and few people travel the river except for occasional hunters. Because the slide was not reported last fall, we suspect it occurred after hunting season and the evidence, particularly the trees with cuts in their bark, indicate it probably occurred after ice-up. Records kept by the National Earthquake Information Center (USGS) show that an earthquake did occur in the area on March 26. Did that earthquake trigger the slide? We will never know for sure. One thing is sure, wilderness travelers should approach the area with caution in the future because the river will be changing each year as it cuts through more debris and the lake lowers.

[Written by Tim Craig, Wildlife Biologist for Kanuti Refuge]

iPads Help Staff Manage Fires and Study Wildlife

Wildlife Biologist Tim Craig prepares his iPad for the raptor nest survey. Loaded onto the iPad was a detailed GPS map of the Refuge, complete with rivers, topography and 30m pixels of old growth timber patches. (USFWS)

During the summer of 2012, Refuge biologists were surprised to see adult eagles in several locations that were far from known nest sites. Wildlife Biologist Tim Craig and Refuge Pilot/Biologist Lester Dillard planned to fly surveys along several rivers as soon as the leaves fell from the trees to see if they could spot any new Bald Eagle nests.

When assigned to help manage a wildfire on the Boise National Forest last summer, Fire Management Officer Peter Butteri noticed firefighters toting smart phones and tablets on the fireline. Compasses and maps, once standard tools for field navigation were now considered inconvenient and obsolete. Peter was determined to acquire an iPad to map his own district fires.

When learning about the eagle survey, Peter instantly saw it as a perfect chance to use his new iPad – after all, he reasoned, there was no difference between mapping hotspots from a helicopter and mapping eagle nests from a small airplane. Peter decided that getting Tim to successfully use the device would help to validate its use for field data collection by folks in Alaska's fire community.

To convince Tim that it would work, Peter built a training map, loaded it into the iPad with a free mapping program ('App'), and coached Tim through a walk-around in the office parking lot. A few turns around the building, navigating with the iPad, storing GPS coordinates, and attaching photos of cars and trees to that data was enough to convince Tim to try the new technology during the aerial survey. "It was the blue ball that caught my attention," Tim said; referring to the moving icon on the map that mimicked his path as he walked around the parking lot. "Knowing that I was the moving blue ball on the map was enough to induce me to try the iPad. If that worked in field conditions, it would be a great way to see where I was at any given time in relationship to whatever habitat features we put on the map in the machine."

iPad in hand, Tim climbed aboard the Refuge's airplane with Les. Conditions were excellent with clear skies, calm winds, and no leaves on the trees. Stick nests built by Bald Eagles, Osprey, Harlan's Hawks and Northern Goshawks were easily spotted, and so were wildlife. In addition to raptors and nests, they recorded moose, wolves, bears, swans, and sharp-tailed grouse.

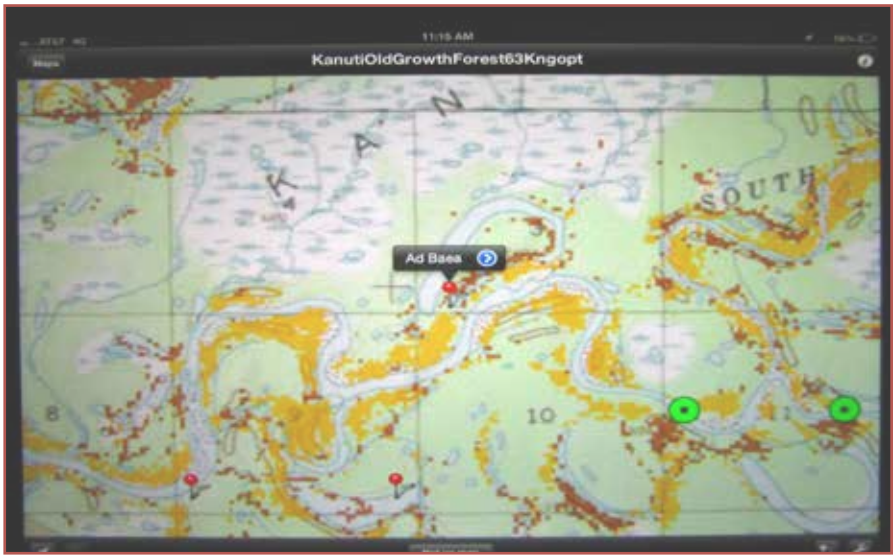
With each observation, Tim merely touched the screen to call up a dialogue box in which he recorded information about the site. Like magic, the iPad with its internal GPS, automatically located the data at the exact latitude and longitude and placed an icon on the screen at the correct spot on the map. Tim even took pictures of some of the nesting areas with the iPad's integral camera. The photos were automatically associated with the waypoints and archived with the data.

As Tim foresaw, one of the more useful things about the iPad was the ability to preload a custom, geo-referenced map and data-entry form that allowed the backseat observer to locate nearby blocks of habitat, plan strategies to survey them efficiently, and actually see the airplane's real-time location in relationship to the boundaries of the habitat. After the first few hours, Tim never looked at his paper map again, although he did record waypoint data on his paper data sheets… "Double redundancy, just like NASA" he quipped.

All in all, the trio rates the trial as a success. Use of the iPad was easy to master even in the cramped confines of the plane's back seat, and Tim managed not to delete his map and/or data in the middle of the survey. Tim's experience with the iPad has encouraged him to seek additional opportunities to use it on field mapping projects.

iPads Help Staff Manage Fires and Study Wildlife (continued)

Helping Tim modernize aerial survey data gathering has better prepared Peter to use the device himself, whether on his next fire assignment or in teaching other fire managers to use the new technology.



Map as seen on the iPad for a raptor nest survey; topography, old-growth forest patches and a bald eagle observation (BAEA) are displayed. The brown patches are closed mixed spruce/broadleaf and the yellow are closed broadleaf. (USFWS)

Coming Soon: Kanuti Facebook page!

Are you a Facebook user?
Be sure to look for our new page to be launched in January 2013!

This photo of a fox taken inside the refuge will soon become Kanuti's Facebook profile picture. (USFWS)

Like

Upcoming Event: Allakaket Outreach Event

Come to the Allakaket school for an evening of fun!
March 7, 2013

- Meet Kanuti Refuge staff
- Learn more about the Refuge
- Join us for pizza and games

Allakaket Students met the National Wildlife Refuge Blue Goose in 2011. (USFWS)

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Happy Holidays from the staff at Kanuti Refuge!

Red Fox from northern Alaska have the most valued pelts in the world because they are the silkiest. This rather tame cross fox from Kanuti Refuge allowed close photography in spring 2011. (USFWS/Ronan Dugan)