



# Kk'oonootne Tene

## Kanuti National Wildlife Refuge

### Fall 2014

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*Tina Moran assists the Migratory Birds Management crew with tundra swan captures near the mouth of the Noatak River. The study was testing for avian flu. Tina was selected as the Kanuti Refuge Deputy Manager in September. (USFWS)*

## Kanuti Welcomes New Deputy Manager

We are happy to announce Tina Moran was selected as Kanuti's Deputy Refuge Manager. As the new deputy she will help oversee activities on the refuge, maintain the budget, and play an instrumental role in the biology program.

A Massachusetts native, Tina has over 21 years experience working in Alaska as a biologist and manager. Her first Alaskan experience began in a summer volunteer position at the Alaska Maritime National Wildlife Refuge where she surveyed seabirds one year after the Valdez oil spill. In 1991 Tina earned a bachelor's degree in wildlife management from The University of Massachusetts, Amherst. Within a couple weeks, she returned to Alaska and started working at the Yukon Delta NWR in Bethel as a biological technician focusing mainly on spectacled eider nesting ecology. After 10 years at Yukon Delta Refuge, Tina earned her

master's degree in wildlife biology from the University of Alaska Fairbanks in 2000.

In 2001, Tina moved to Kotzebue and became a refuge biologist at the Selawik National Wildlife Refuge. As a biologist, her main interests were waterfowl, but she worked with several wildlife species ranging from moose to pintails. After only a couple years, Tina moved into a supervisory biologist role. In 2010, Tina became the Deputy Refuge Manager for Selawik Refuge and has been the Acting Refuge Manager there for the past year.

Tina looks forward to returning to Fairbanks in her new position as the Deputy Manager. Her hobbies include hiking with her dog, cross country skiing, traveling, photography, and playing hockey.

### Kanuti Staff

**Refuge Manager**

Mike Spindler

**Deputy Refuge Manager**

Tina Moran

**Avian Wildlife Biologist**

Christopher Harwood

**Fire Management Officer**

Peter Butteri

**Assistant Fire Management Officer**

Brian Haugen

**Administrative Assistant**

Grace Sommer

**Interpretive Park Ranger**

Kristin Reakoff (Wiseman/Coldfoot)

**Visitor Services Intern**

Allyssa Morris

**Maintenance Worker**

Bradley Storm (Bettles)

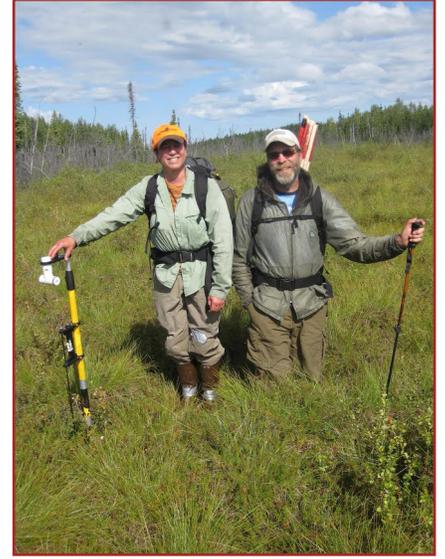
## Programs Join Forces to Monitor Post-Fire Ecology

Fish and Wildlife Service personnel ventured to remote locations in Kanuti Refuge in June and July to gather information about the response of birds and vegetation following a large wildfire that occurred 10 years ago. The 2004 Clawanmenka Lake Fire burned 108,580 acres of the Refuge. One year after the fire, intensive bird, vegetation, and burn severity surveys were conducted at multiple locations to document immediate post-fire effects. As luck would have it, the former wildlife biologist for the Refuge, Lisa Saperstein, initiated the original project and is now the regional fire ecologist and in a perfect position to orchestrate return visits.

Two sites were revisited in 2014, with more to follow over the next few years. Getting to the sites is no easy task. Each consists of 12 points separated by 0.3 miles of what is often challenging walking terrain: downed dead trees, thick regrowth of shrubs and young trees, and ankle-twisting tussocks – tall, solid tufts of sedges that feel like walking on a field of wobbly basketballs. Bird crews visited the sites in June,

identifying birds by sight and sound. The vegetation crew followed in July and early August. The data have yet to be analyzed, but they will provide insight about changes in species composition of plants and birds and changes in vegetative cover as a result of successional change.

The project was also a poster-child for cross-program cooperation within the Fish and Wildlife Service. Funding was primarily provided by the regional Branch of Fire Management, but five Service programs in Alaska cooperated to make this project possible. Vegetation surveys were conducted by the regional fire ecologist, the fire management officer for Kanuti Refuge, a biologist for the Arctic Landscape Conservation Cooperative, and a volunteer. Bird surveys were conducted by the Kanuti avian biologist and a volunteer at one site and Migratory Bird Management biologists at the other, with funding partially provided by the regional Inventory and Monitoring program. 🐾



*Fire ecologist Lisa Saperstein (left) and Volunteer Bob Usgaard (right) demonstrate the depth of tussocks. Tussocks are compact mounds of sedge found throughout the tundra in Kanuti Refuge. (USFWS)*

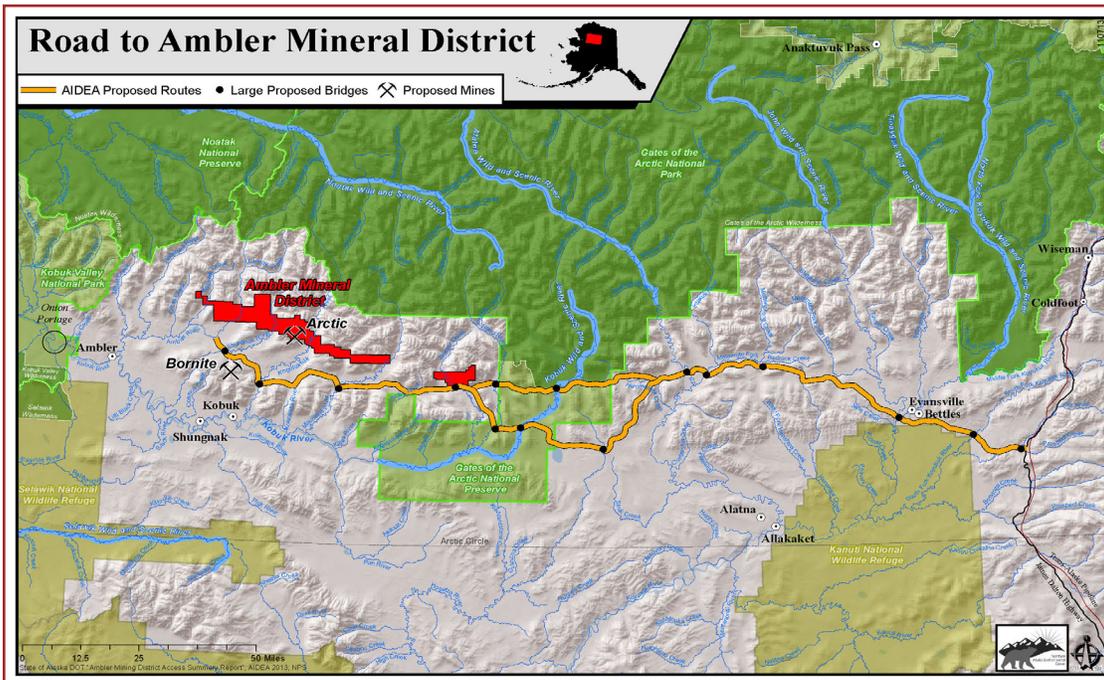


*Little vegetation was found at the site in 2005, one year after the fire. (USFWS)*



*Ten years post-fire dense willows, paper birch, and other plants occupy the same site. (USFWS)*

# Kanuti Refuge Responds to Proposed Mining Road



The Alaska Industrial Development Export Authority (AIDEA) will submit a permit application to several federal agencies to begin the review process. The U.S. Fish and Wildlife Service, along with other federal agencies, will review the application and begin the environmental review process. The map shown to the left displays a proposed route to the Ambler mining district (Map retrieved from [www.ambleraccess.org](http://www.ambleraccess.org)).

Proposed by the Alaska Industrial Development and Export Authority (AIDEA), a potential 200-mile road from the Dalton Highway would provide access to the Ambler Mining District. The road has the potential to skirt or cross the refuge and may result in a number of environmental consequences.

The federal National Environmental Policy Act (NEPA) was established to guarantee that information about environmental effects are available to agency decision makers and the public. NEPA requires an Environmental Impact Statement (EIS) to ensure that a full and fair discussion of all significant impacts occurs. The EIS considers a full range of alternatives and specifies best management practices to avoid or minimize impacts to fish and wildlife resources.

Kanuti staff alongside the FWS Alaska Refuges Planning staff and the Northern Alaska Ecological Services, Branch of Conservation Planning Assistance (CPA) have teamed together to represent the Service at all agency meetings regarding the Ambler road EIS. CPA's main role is to evaluate potential impacts of

development proposals upon wildlife, fisheries, and endangered species in northern Alaska. If the route across Kanuti Refuge is selected to become an alternative, the team will provide representation of FWS as a cooperating agency working with the U.S. Army Corps of Engineers and other agencies in the planning and evaluation of an Environmental Impact Statement.

For the past two decades Kanuti Refuge staff have gathered baseline data on select terrestrial wildlife and habitats in the northern third of the refuge near the road routing. Information on aquatic species and habitats, however, is limited. Refuge Manager Mike Spindler asked the Fairbanks Fisheries Program to conduct several initial fisheries assessments, including the sampling of fish, aquatic invertebrates, and water quality. To determine the extent of sheet-flow dynamics, a river gaging trip was completed by a Yukon Flats hydrologist and the Regional Water Resources Branch. This information will add to the wealth of water quantity and quality data the team has been gathering over the last few years, including more than 30 measured variables, at the South Fork

Koyukuk River and eight other gaging stations on or near Kanuti Refuge.

All of this information will be useful as specifications, various alternatives, and courses of evaluation are developed for an environmental impact statement that land-managing agencies will be requiring. 🐾



Photo of upland habitat that can be found along the northwestern boundary of the Refuge, where one possible route alternative of the Ambler mining road enters. (USFWS)

## Spaghetti Tags Track Chum Salmon on Koyukuk River

OK, we're not really talking about pasta, but we do want to describe a very important project happening on the Koyukuk River using "spaghetti tags". Biologists use these tags, which resemble spaghetti to track fish populations. Summer chum salmon (*Oncorhynchus keta*) stocks from the Koyukuk River drainage make up one of the largest contributors to the Yukon River summer chum population, yet accurate information on their overall abundance and distribution is lacking. The reliance on Koyukuk River stocks as a subsistence resource for people along the Yukon River upriver along the Koyukuk River has likely increased during the last five years. This has occurred as some other major stocks of Yukon River chum have experienced decreasing returns.

Overall, returns throughout the Yukon River drainage have remained relatively constant, but summer chum runs returning downriver to the Anvik River have declined in recent times, while Koyukuk River tributaries have experienced an increase in escapements over the past 12 years. It isn't understood why these shifts are occurring. Recent changes in commercial fishing policies within the Yukon River Basin will likely increase commercial and subsistence chum harvest opportunities during years of low Chinook salmon abundance, potentially increasing harvest pressure on certain stocks of chum salmon.

Koyukuk River stocks are encountered during the first half of the run as they pass Russian Mission, a time when subsistence fishing is traditionally near peak. An increase in harvest on the first half of the summer chum run in the lower Yukon River may increase the harvest of chum bound for the Koyukuk River drainage. Current subsistence harvest estimates show a minimum of 8-15% of the entire summer chum harvested in the lower and middle Yukon from the mouth to Koyukuk (districts 1-4) come from the Koyukuk River drainage. Those estimates are only from villages on the Koyukuk River and do not include subsistence harvest outside of that drainage.

A project that began in January of 2014 and will run through July 2017 will use radio telemetry to estimate the proportional distribution of chum salmon throughout the tributaries of the Koyukuk River. The project will also estimate the abundance of chum salmon entering the Koyukuk system with mark recapture sampling using the "spaghetti tags". The project will hopefully help identify critical chum spawning grounds and will provide detailed information on run timing in the Koyukuk drainage. Kanuti Refuge really appreciates the timing of this project as it may help address potential Ambler Road impacts.

Radio tracking will be conducted by fixed station logging receivers located at strategic locations throughout the drainage to record signals as the fish swim past. Aerial telemetry will also be used to search the majority of the drainage to record fish in spawning locations. Kanuti NWR has agreed to help fly the upper drainage aerial surveys to support the project. Tanana Chiefs Conference (TCC) is also partnering with the project and hopes to hire seasonal employees from local communities.

The results of this project will provide fisheries managers with critical information needed to assess the effects of environmental changes and possible management actions on summer chum salmon in the Koyukuk River drainage.

For more information about this project, contact Frank Harris, at U.S. Fish and Wildlife in Galena (907-656-1231). Stay tuned for future updates on our Facebook page at <https://www.facebook.com/Kanuti.Refuge>. 🐟



*This chum salmon, sporting a spaghetti tag and ready to be released back into the river, will help us learn more about summer chum runs in the Koyukuk River drainage. (USFWS)*

## Just for Kids

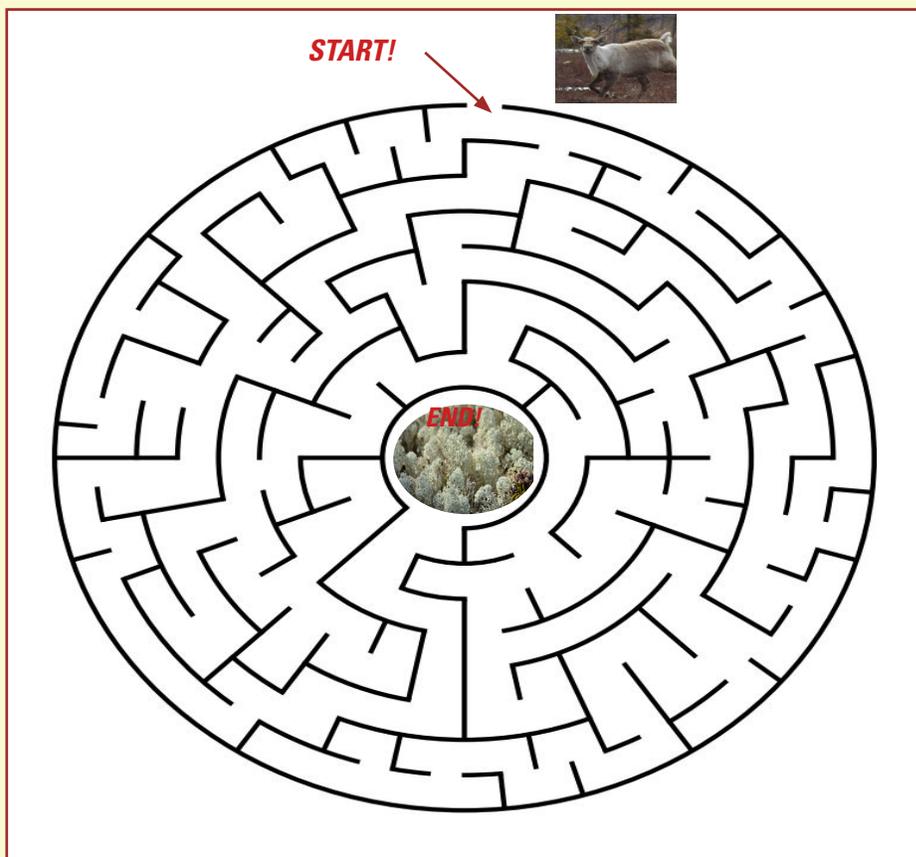
Did you know caribou eat lichen as a main food source? Help this caribou navigate the maze to find lichen. Good luck!



(USFWS)



(USFWS)



## Update: Jim River Rockslide



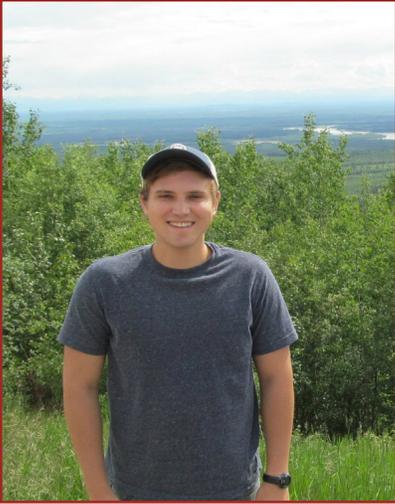
(USFWS)



(USFWS)

The Jim River experienced a substantial rock slide in 2013. This past summer, conditions improved slightly. Travelers were advised to scout the rapids for any lodged trees or debris and to portage around the area. Another recommended option was to line one's rafts, which requires skilled maneuvering from alongside the rocky banks. 🐾

## View from the Field



*Kanuti Refuge Student  
Conservation Association Intern  
Tim Lamendola*

My Student Conservation Association (SCA) internship with Kanuti Refuge has given me the opportunity to travel to Alaska and participate in invasive weed pulls and many other great initiatives. Working in the field with Kanuti's incredible staff and volunteers has been an enjoyable and educational experience. I had the opportunity to present an interpretive program to guests at the Arctic Interagency Visitor Center in

Coldfoot, Alaska. My presentation was about the Dalton Highway weed pull project and the effects of invasive weeds on Alaska's environment.

In mid-July I was given the opportunity to work on a non-native weed monitoring project in Fork Yukon. My flight out of Fairbanks to Fork Yukon was only the second time I've even been in a single engine airplane. For three days I drove 4-wheelers around Fort Yukon counting non-native weeds. We worked on controlling white sweet clover in the area. This involved many hours of weed whacking. I really enjoyed learning how to identify Alaska's non-native weeds.

My last trip was to Tok to work at the Tetlin Refuge on a bird banding study. Every day we woke up at 3:00am and had the bird nets open by 4:30am. Every thirty minutes the crew would inspect the nets for birds. This was one of the most unique experiences I had in Alaska. Helping release the birds was a blast. On my last day they let me extract a few birds from the nets and place a band on them. Bird banding was so much fun.

Overall my experience in Alaska working for the Kanuti Refuge was a great

success. I learned so much about the region and met some outstanding people whom I will never forget. I am very grateful for this opportunity and for all the kindness the Fish and Wildlife staff shared with me. 🐾

[Written by Tim Lamendola, Invasive Outreach Intern for Kanuti Refuge]



*Outreach material on Interior Alaska Invasive Plants is available at the Arctic Interagency Visitor Center in Coldfoot, Alaska. Tim created brochures and wallet-sized identification cards. (USFWS)*

## Artist Visits Kanuti Lake

In August, Kanuti hosted an artist-in-residence. Artist Sheryl Maree Reily from Ester, Alaska, visited Kanuti's administrative cabin located on Kanuti Lake. She produced a watercolor painting which is now displayed in the Refuge headquarters office in Fairbanks. We are happy the Refuge could be an inspiration to you! 🐾



*Kanuti Lake by Sheryl Maree Reily*



*(USFWS)*

## Kaunti Says Farewell, but not Goodbye

Tim Craig, Supervisory Wildlife Biologist for Kanuti Refuge, retired this past April. Tim's career began in Idaho as a seasonal biological technician, after which he became a self-employed biological consultant who specialized in raptorial birds (hawks, eagles, owls, etc). Tim then moved north to Alaska to be a wildlife biologist for the Bureau of Land Management (BLM) Central Yukon Field Office in Fairbanks where he remained for over a decade.

In 2010, Tim joined Kanuti Refuge, where he led biological studies and advised refuge leadership on biological matters. As the former BLM Dalton Highway Corridor biologist, Tim was involved in the inception and design of our interagency moose movements and distribution study. Even after retirement, Tim continues to volunteer to help review scientific papers arising from the project, and complete other field work. Last summer, because of the popularity of Tim's teaching style, he volunteered to once again provide annual bear awareness and firearm trainings to employees, volunteers, and interns at the Arctic Interagency Visitor Center in Coldfoot, AK.

Though Tim is "retired," he plans to

remain in Alaska and continue to do the kind of work he loves – wildlife biology. When asked about his career as a biologist, Tim replied, "I have wondered if some of us are hard-wired to wander, if we have some inherent predisposition to explore. If so, I must have that gene. This sense of adventure has driven me to see what is in the next wood patch, over the next ridge, and down in the next valley, everywhere I have lived -- from my natal farm in the mid-west, to the Rocky Mountains where I spent decades, right up to the present in Alaska. Wildlife biology, is one way I 'explore' new country. My sense of discovery is satisfied when I travel in wild country and find out new things about wildlife."

And when asked once about his work with Kanuti, Tim shared, "There are few places in North America, or the world for that matter, where natural processes still prevail today. Kanuti Refuge is one of them. Whenever I go out on the Refuge it is with the expectation that I might see something no one has seen before, or record a data set that will become important years from now. While some of our work may seem mundane, throughout my 40 year-long career I have seen over and over how the diligent observations of a wildlife

biologist have turned out to be truly meaningful in the grand scope of things."

Tim's professional work, and now volunteer efforts, truly are meaningful to many places, many people, and to the future of conservation. Kanuti staff look forward to working with Tim now and in the future. 🐾



*Tim Craig conducted numerous inventory and monitoring surveys of moose, beavers and raptors, and continued progress with a vegetation inventory and monitoring project. (USFWS)*

## Congratulations!



Deputy Refuge Manager Joanna Fox transferred to "our big" sister refuge, Arctic National Wildlife Refuge in August. Joanna has worked for Kanuti Refuge since 2006 and the entire staff will miss her leadership, compassion, drive, energy, organization, and huge heart. Refuge Manager Mike Spindler adds that Joanna will "always be one of us because [she] helped create who we are today."

From the entire Kanuti staff, we will miss you Joanna! Congratulations and we wish you all the best on your next chapter with Arctic Refuge! 🐾

*(USFWS)*

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Facebook: <https://www.facebook.com/Kanuti.Refuge>



*Unlike many raptors that nest in trees or on cliffs, Northern Harriers nest on the ground. (USFWS)*

## ***New Website is Live!***

Kanuti Refuge has launched a new and updated website. Visit the webpage to learn more about the Refuge.

<http://www.fws.gov/refuge/kanuti>

