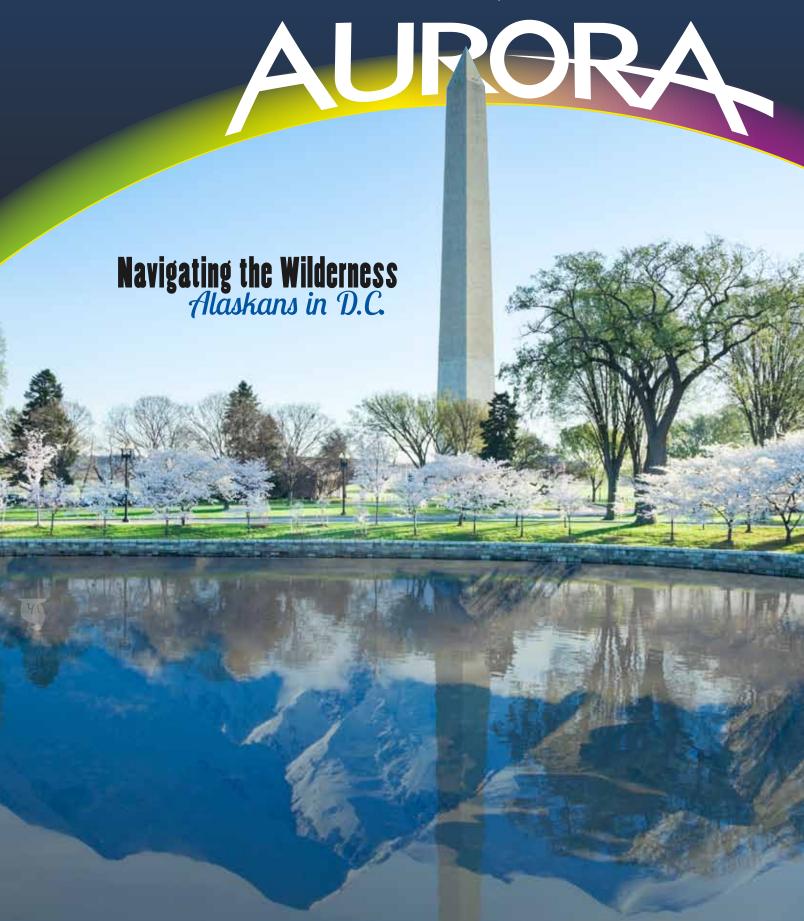


# CENTENNIAL 1917 VIENNIAL 2017 VIENNIAL 1917 VIENNIAL 1917



Photo courtesy of University Relations Collection, 91-187-449, Archives, University of Alaska Fairbanks.

Pictures from the past record our history, counting down the years to the centennial, 1917 - 2017. Politics in Alaska can be as fleeting as a snow sculpture in April. This rendition of Uncle Sam, created on the Fairbanks campus in 1976 to celebrate our nation's bicentennial, shows a patriotic — if cheeky — spirit, alive and well in the Far North. Read about how politics led several Alaskans to the political quagmire of Washington, D.C., and how they cope, starting on page 14.







Volume 5 No. 1
Published twice a year
for alumni and friends of the
University of Alaska Fairbanks





#### FEATURES

A day in the life at UAF — May 4, 2012

Photos by UAF students, faculty and staff around the state
We asked, you answered — and showed us how
UAF Sees the Day.

Our ancestors did not know criminals

By Jenn Wagaman

Steven Sumida, '96, works with villages to blend traditional justice with Western justice.

Cover story: Campaign wishes and salmon roe dreams

TBy Libby Casey

How do Alaskans survive inside the beltway after leaving their home state's wide open spaces? Very carefully.

Blood may be thicker than water but it isn't always red

In the oceans of Antarctica swim the icefishes, whose cold blood runs milky white. What clues do they hold about our own bodies?

#### DEPARTMENTS

- Around Campus
- 为 Nanook Nook
- 29 Class Notes



Look for this icon for enhanced content online.

 Opinions expressed are those of the authors and do not necessarily reflect official positions of the University of Alaska Fairbanks.

Send comments or letters to the editor to aurora.magazine@alaska.edu or to P.O. Box 757505, Fairbanks, AK 99775, or call 907-474-6726. We reserve the right to edit for grammar and length. Visit us on the web at www.uaf.edu/aurora/.

The University of Alaska Fairbanks is accredited by the Northwest Commission on Colleges and Universities. UAF is an affirmative action/equal opportunity employer and educational institution. UAF photos by Todd Paris, '83, unless otherwise noted. *Alumnus* section photos provided by alumni unless otherwise noted. 09/2012





### **Medaling in London**

Not saying they won medals because they went to UAF.





But they went to UAF. And they won medals.

Photos © Sommer Wood/www.thecmp.org

Alaska rifle alumna Jamie (Beyerle) Gray broke two Olympic records en route to a gold medal in women's 50-meter three-position rifle. Gray clinched gold on her final shot with a near-perfect 10.8. Gray shot for the Nanooks from 2002 – 2006, during which time she won two individual NCAA National Championships and was a part of three of Alaska's NCAA Championship teams (2003, 2004, 2006). Matt Emmons, '03, added a bronze medal to his Olympic collection for his performance in men's three-position rifle. Emmons won a gold medal in the 2004 Olympic Games and a silver in the 2008 Olympics, both in men's 50-meter prone. While at UAF, Emmons won four NCAA individual titles and helped the Nanooks to four straight NCAA Championship teams (2000 – 2003).

### Students take first with zero

Zero emissions, that is. Student engineers in the UAF chapter of the Society of Automotive Engineers designed and built an electric snowmachine that won first place in the zero emissions category at the 2012 Society of Automobile Engineers Clean Snowmobile Challenge, held at Michigan Tech last spring. In its best finish ever, the UAF team won first place for the best design, most improved snowmachine, draw bar pull, cold start and for its design paper. The team included co-captains Isaac Thompson and Michael Golub, Adam Burnette, Russell Carroll, Christin Davis, Craig McKenzie, Amanda Mertes, Ben Neubauer and Karlin Swearingen.

# Now that's Italian!

Naples

Eduard Zilberkant, chair of the Music Department, traveled to Italy in January 2012 where he conducted the Orchestra del Teatro di San Carlo in the Teatro di San Carlo opera house. It is the oldest opera house in Europe, built in 1737. Scottish virtuoso percussionist Evelyn Glennie performed with him.



Photo courtesy of UAF Music Department.

EXPORTING PEONIES

Eleven years ago, Pat Holloway, horticulture professor and director of Georgeson Botanical Garden, learned that Alaska might have a market

advantage with peonies sold as cut flowers because Alaska's peonies blossom when those in the rest of the world are all done. She began a research project that demonstrated that Alaska growers can produce high-quality, fresh-cut peonies starting in Fairbanks in July and ending in Homer in September; such a time frame supplements the October through June availability from New Zealand, Chile, Israel, China, Europe and the Lower 48 states.

In 2011, more than 20,000 fresh-cut peonies were exported from Alaska to markets in the contiguous United States, Hawaii and Japan. Seven Alaskans have commercial-scale cut flower farms, and more than 150 growers are planning future acreage to fulfill an annual demand for one million stems. Holloway is currently researching other flowers with similar timing differences to diversify Alaska's blooming market.



# Award for Heroism recipient heads polar security center

Harry Bader counted trees in Afghanistan, no small task in a land of tangled topography and treacherous politics. Counting trees was part of his job as co-leader of a joint military/civilian program that used natural resources management (yes, really) to weaken the strength and influence of insurgents. Among other things, Bader's counterinsurgency cell in Afghanistan cataloged valuable natural resources like timber and gems the Taliban sells to raise money for arms and recruiting soldiers.

His innovative project and personal risk won the 2011 Award for Heroism from the U.S. Agency for International Development.

Bader is now at UAF to develop a program that integrates academic, civilian and military entities, and promotes science in security planning and operations. The program will focus specifically on the Arctic and Antarctic, and on the natural resources there that provide essential ecological, social and economic services.

### COLD STUDY EARNS HOT AWARD

Margaret Darrow wants to know how frozen ground reacts to temperature changes in the environment.

What would happen if a gas line were buried in the Arctic's permafrost-laden soils? How would the soils react? How would climate change affect the ground around the pipe? How would it affect the ground under roads and infrastructure throughout cold regions of the world?

With an award from the National Science Foundation's Faculty Early Career Development Program, also known as CAREER, Assistant Professor Darrow has embarked on a five-year study of water that remains liquid at subfreezing temperatures in frozen ground. She hopes her work will lead to better predictions of frost heaving and permafrost's response to climate change. The research could have many applications to construction and planning in Alaska and other circumpolar regions.

"If we can understand this, there are so many directions I could take it," Darrow said, listing things like frost heaving, landslides in frozen soils, building pipelines and bridges and other infrastructure, and planning for roads. "It plays into all different elements of frozen-ground engineering. It is like the nexus."

The CAREER award is one of NSF's most prestigious honors. It recognizes early-career faculty members who exemplify the role of teacher-scholar and show strong potential to be leaders in integrating education and research in their fields. Other UAF researchers who have received CAREER awards include Anna Berge, Bert Boyer, Hong Liang, Zhongguo John Ma, Marvin Schulte, William Simpson and Kristin O'Brien. (Read more about O'Brien and her work on page 18.)

# Every day closer to completion.

The new Life Sciences Facility gleams in the August sunshine on Troth Yeddha'.

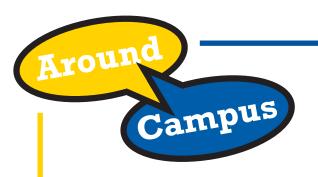


# History moving in

The Western History Association has settled in at UAF. In a nationally competitive process, the WHA selected UAF as its institutional sponsor and the

new location for its office. Under the terms of the five-year renewable agreement, which began July 1 of this year, History Department Chair and Associate Professor John Heaton will serve as the association's executive director. Founded in 1961, the nonprofit organization is composed of 1,400 scholars and teachers devoted to the study of the history of the North American West.





# Are invasive plants threatening Alaska's native perries?



That's what UAF ecologist Christa Mulder wants to find out. She suspects climate warming is allowing invasive plants to take hold in Alaska, possibly luring pollinators away from native berries.

Blueberries and cranberries are a major part of many Alaskans' lifestyle, both directly, by providing berries for eating, and indirectly, by providing forage for animals that people eat. But Alaska's native berries share similar habitats and pollinators with invasive plants such as sweet clover.

"If bees and other pollinators abandon native berries for invasive plants like sweet clover, we could see a lot fewer fruits on these plants," says Mulder, a research professor at the Institute of Arctic Biology. She leads a project studying whether the presence of sweet clover can alter the production of bog blueberries and mountain cranberries.

Above: Mulder measures and records the growth and fruit production of blueberry and cranberry plants in a boreal forest near Fairbanks as part of her research project, Are Alaskan Pollinators Abandoning Native Berries for Exotic Clover?



Learn more about Mulder's project at **www.bit.ly/UAFIABMulder**.



### UAF adds sustainable village to housing options

There's a new dorm in town.

In partnership with the Cold Climate Housing Research Center, UAF built a sustainable village this past summer on campus property near the CCHRC in Fairbanks.

The development features innovations in cold climate construction — with super-insulated building envelopes to minimize heat demand — as well as experimental approaches to energy, ventilation and wastewater treatment. The four homes will serve not just as student residences but also as housing prototypes, building-science labs and teaching tools.

Students helped CCHRC develop the concept for the homes through a design contest. They also helped with construction and will conduct research on the village.

"The thing that's unique about this project is it's engaging students for the first time in the development of sustainable housing," says Michele Hébert, who heads the Office of Sustainability. "Our hope is that this will lead to more young people learning how to live sustainably and be future leaders in sustainability."

The 1,500-square-foot homes have an R-50-60 envelope and use a mix of solar power, biomass and conventional fuel. A 14-kilowatt photovoltaic array was funded by a university sustainability grant.

The project will demonstrate that a highly energy efficient, four-bedroom home can be built in Fairbanks without breaking the bank. The budget is approximately \$200,000 per home. Rent will be similar to the mortgage of an equivalent new home in the Fairbanks area and be competitive with dorm rates.



Watch the Sustainable Village's progress at www.bit.ly/UAFSustainableVillage.



### **Room to grow in Bethel**

The Center for Alaska Native Health Research opened its new clinical research facility at the Kuskokwim Campus in Bethel last May. The 1,378-square-foot research space includes rooms for long-distance teleconferencing, physical activity measurements and nutritional data collection. The Bethel facility has a second site on the Fairbanks campus, also operated by CANHR.

The National Institutes of Health gave UAF a \$7.5 million grant to create the new spaces. About \$3.8 million was used to build the Bethel facility.

CANHR is part of UAF's Institute of Arctic Biology. Its investigators study obesity, cancer, substance abuse, nutrient and contaminant levels in subsistence foods, stress and coping, suicide intervention and prevention, among other things. Over the past 10 years, much of CANHR's research has focused on the people in the Yukon-Kuskokwim Delta.

"The new facility will provide a physical space where Alaska Native people may go to help find solutions to many of the health problems our people face," says Mary Pete, director of the Kuskokwim Campus. "This means so much to our people."

### Longtime botanist honored on the trail

A nature trail on the Fairbanks campus was dedicated to Les Viereck this past summer. The half-mile walking/running trail, located north of the Georgeson Botanical Garden, has signage identifying trees, shrubs and other plants typical of the northern boreal forest

biome. Viereck was a respected Fairbanks
botanist and forest ecologist who died in 2008.
He was an affiliate professor with the School of
Natural Resources and Agricultural Sciences,
worked for the USDA Forest Service and was
the first president of the Alaska Conservation
Society. He founded the Bonanza Creek
Experimental Forest research program in
the mid-1980s and retired as principal
plant ecologist from the Forest Service's
Institute of Northern Forestry in
Fairbanks in 1996, but continued
as an emeritus scientist.

## Austin Post glacier photos document change

Science magazine celebrated the launch of a new project led by the Institute of Northern Engineering's Matt Nolan. Data Rescue of the Austin Post Air Photo Collection, a project funded by the National Science Foundation, will digitize, preserve and extend scientific access to a collection of large-format photographs that document the size and topography of glaciers in Alaska, Canada and Washington from 1960 to 1995.

"Photographs are data in disguise," says Nolan.

Post's photography can show the rate, mechanisms and evolution of glacier change and its effect on sea-level rise during an important and largely undocumented time. There is no more effective glaciological data set than a pair of repeat photographs to demonstrate an unambiguous change, Nolan says. Through this project, the Post photos and new photo comparisons will be available online through several scientific archive sites and several publicly accessible sites.

Nolan, a research professor in INE's Water and Environmental Research Center, studies glacier-climate interactions and the impacts of shrinking glaciers on downstream ecosystems. He spends several months a year in the field, collecting digital images, making photogrammetric and laser measurements, extrapolating ground measurements to the broader arctic landscape, and laying down baseline transects to assess future change.



Learn more about Nolan's research at http://ine.uaf.edu/werc/people/matt-nolan/.

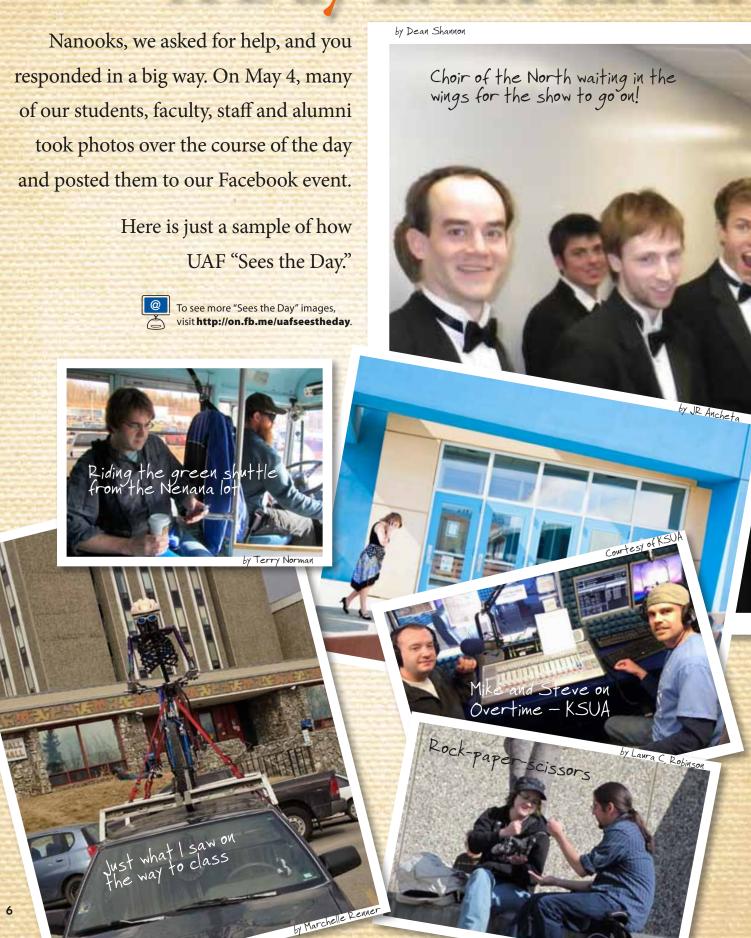




This pair of photographs, taken by Post, document the advance of the Variegated Glacier in Southeast Alaska during a surge in 1965. Post's annual photo flights captured the state of hundreds of glaciers in Alaska from the early 1960s through the mid-1990s, giving glaciologists at that time an excellent source of information, exceeding that provided by satellites.



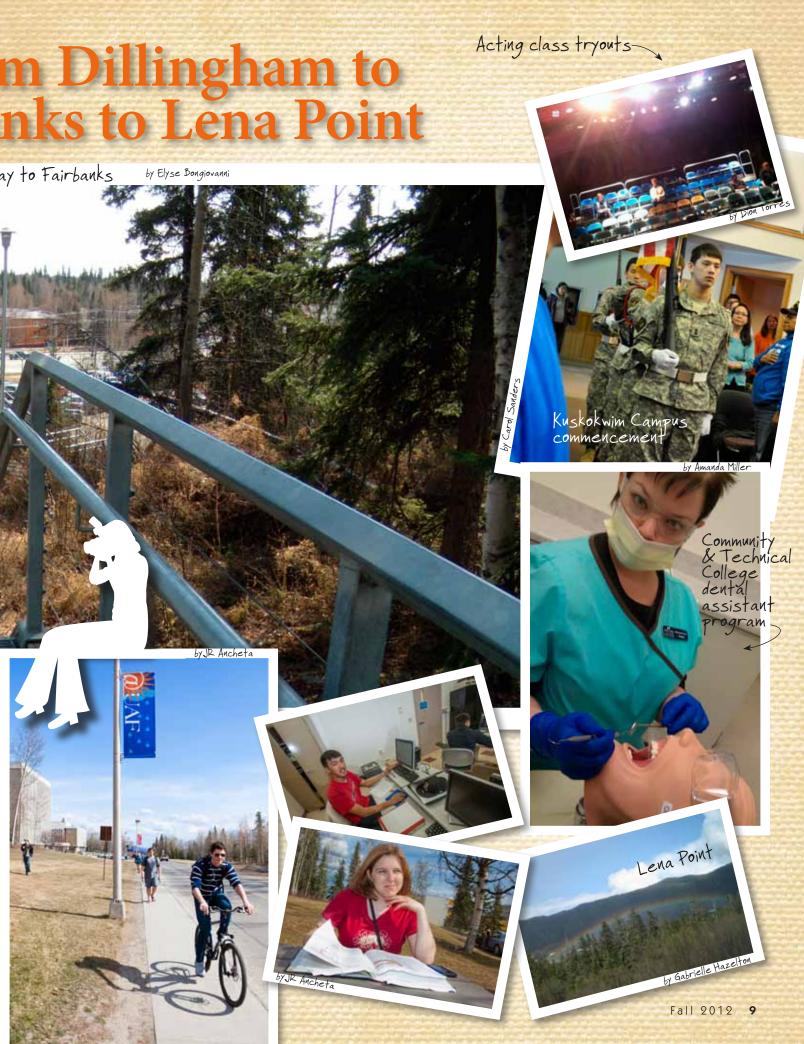
# A Day in the Life at

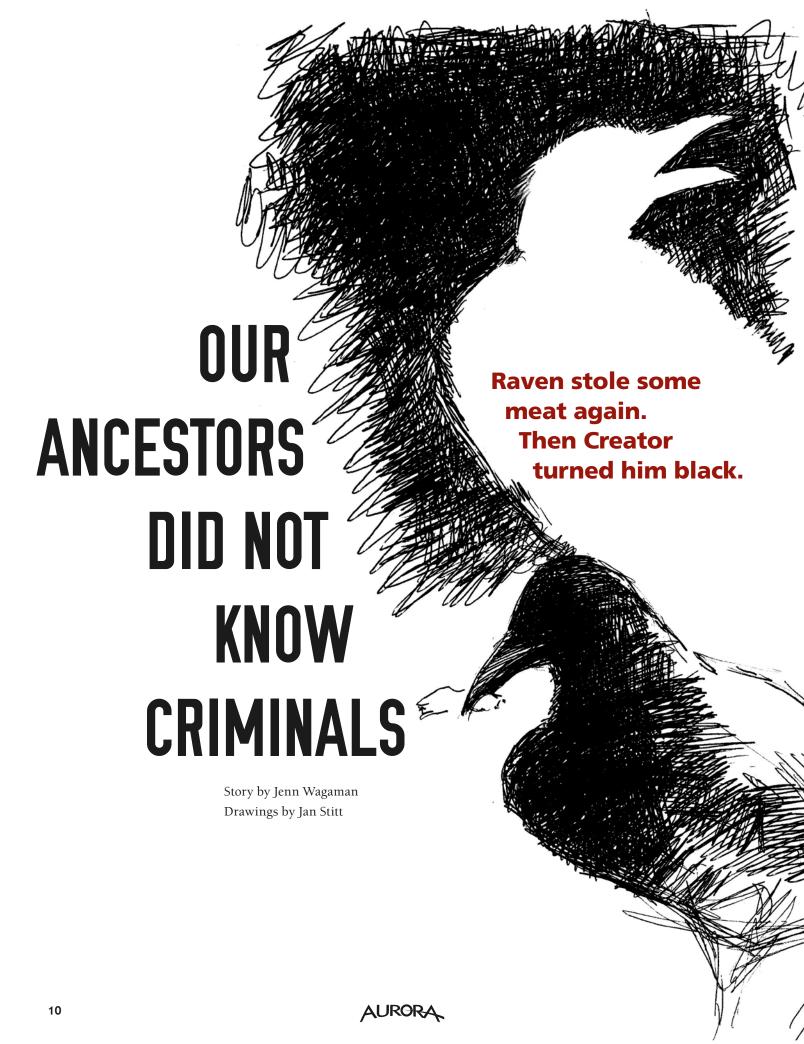


6

**Sees the Day** Reindeer research technician Erin Carr at work with newborn calves by JR Ancheta Study Film at UAF Student art show I slow down for a good shot! www.uaf.edu/film by JR Ancheta Multifitness class at CTC Kuskokwim Campus commencement







When Steve Sumida conducts a traditional justice training, he includes the story of how the raven turned black. There are many such stories in Alaska Native cultures. This particular one was told by a Mekoryuk traditional council elder at one of Sumida's trainings:

Long ago when the Earth was young, Hunter caught a caribou. As he knelt in the snow and began cutting up the caribou to feed the village, Raven hopped up behind him. In those days all of the animals in the Arctic were white. Raven snuck up around Hunter and stole some meat. Hunter continued to cut up the caribou for his village. Raven snuck up behind Hunter again, darted in and stole some meat again. Hunter continued to cut up the caribou. Raven came back a third time and stole again. Then Creator turned him black.

The elder told this story to a young man who had committed minor offenses in his community. Together with the elder, Sumida was helping the community apply traditional ways of dealing with such offenses. The story illustrates an important concept of Alaska Native culture — that people live not for themselves, but for the whole. Each member of a community is part of a web that carefully supports each other part. When you don't work for the whole, the whole will not work.

In the Mekoryuk legend, Raven was turned black so people would know him. But as the Mekoryuk elder admonished the youth, "You do not have to put on the clothes of a thief" — you do not have to be Raven. Instead of punishing the young man, the elder quietly encouraged him to change his ways and come back to the community.

In Alaska Native communities stories convey ideas and values to others. Sumida incorporates these and other ideas into his traditional justice training program — a unique way to approach legal issues in rural Alaska communities. The program is funded through a grant from the U.S. Department of Justice.

Sumida travels into a community, sits down with the members of the tribal council and talks with them about how they used to deal with small infractions and major crimes — anything that could hurt individuals or the entire community. Then he helps them find ways to use those traditional methods of justice and peace making within the Western legal system.

> Sumida believes that rural Alaska's high rates of suicide, domestic violence and assaults are the result not just of insufficient Western governmental infrastructure, but also the loss of respect for cultural government. When

community members are empowered by cultural traditions and beliefs, the result is a safer, healthier community.

#### A new approach to an old problem

Sumida himself is not Alaska Native, though he could probably pass for such at a glance in his fur-lined parka, casual Alaskanesque comfort and quiet demeanor. The felony trial lawyer grew up in Washington and Montana with a strong familial draw toward minority justice. His father was a Nisei — a firstgeneration American born to Japanese immigrant parents. He lived on the West Coast during World War II, when he was relocated to an internment camp. He made sure the young Sumida knew what that meant.

Sumida worked in community organizing early on, even before law school. Once in Alaska, he spent a lot of time in remote communities. (Sumida has a master's degree in rural development from UAF.) Village names that would baffle a townie roll off his tongue with ease, and his devotion to Alaska Native rights is apparent.

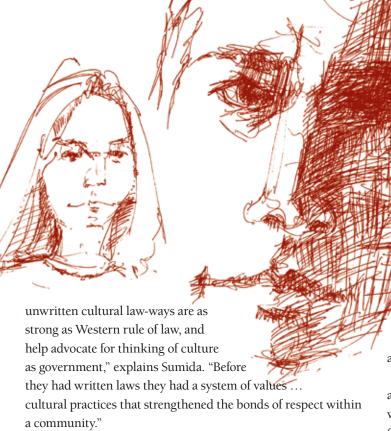
"Akiachak, Atmautluak, Nanwalek, Ugashik. These are all on the state's list of economically distressed communities," he says. "Do people even know this is happening?"

Sumida's experience in Alaska's remote communities has helped him understand what makes them tick. Through his program, he is trying to help community leaders protect traditional ways and leverage them to make their communities more successful.

"I help communities recognize that traditional values as



www.uaf.edu/aurora/



It was this system of respect that provided the checks and balances that kept communities safe and functional.

"Today, kids see Miranda rights on TV all the time. Even in the villages," says Sumida. "In [the Western] system you have a right to be presumed innocent until you get provided an attorney, a judge and a jury." But those systems are not as accessible in rural Alaska.

Most remote communities in Alaska do not have sworn police on site, or even a community service officer. They are often on their own for misdemeanors and civil offenses. If a serious crime happens, residents can wait for days for state officials to travel to the community.

Traditional systems do not require Western justice infrastructure to make a community safe. "I say to them, did you used to have police? Courts? Was it safe then?" says Sumida.

#### Thinking it through

For instance, suppose a remote community has someone who is illegally gambling. The behavior of this person is causing strife within the community, and is tied to other problematic behaviors such as alcohol consumption. Under the current Western system, the community could ask Alaska state troopers to come in and arrest the person facilitating the gambling activities. That person, depending on the level of the offense, would then be tried in a Western court and face fines or imprisonment.

Sumida argues that the Western method of justice doesn't make sense in a Native cultural context. In traditional Native culture, you are the one responsible for your own actions and for

ensuring that your actions are in line with your community's values. Western legal systems based on judges, courts, fines, jail — even guilt and innocence — don't make sense, because punishment grounded in the idea of the individual does nothing for the whole.

Sumida reminds communities that in a traditional justice system, practices such as shaming or shunning taught people a value system, and that it was their responsibility to live within that system.

People abided by these unwritten laws because they believed strongly their actions would follow them wherever they went. If everyone in the village knows you are the one who steals snow machines, no one will question who stole the snow machine when it happens. It is up to you to change your actions and ensure that people no longer see you as that person.

"Several years ago there was a woman in King Cove who was angry," says Sumida. "She took to hanging out at the post office where she would nag and pester people with her sour attitude. One day the men got together at the modern equivalent of the men's house and they said, 'Someone in this community is being disruptive and making the community an uncomfortable place to be."

The men never openly discussed or identified the woman, but they began talking casually and generally with their neighbors about the shared community value of harmony. It worked.

"I arrived in the village several days after this discussion," Sumida says. "I was told that for the last week the village was just the best place to live, ever." It seems the shrew and her friends had been trying very hard to prove they were not the perpetrators of strife within the community.

Sumida shows communities that these traditional ways can work, even for modern issues like drugs, illegal alcohol or gambling.

"Using the Western way made [offenders] mad and made them yell," says Heather Mael, a former rural traditional court clerk who was trained by Sumida in her village. "Using our Yupik values made them stop and think about why not to do it again. The traditional way is to have meetings with the elders and have them talk about the past and how they did it back then. Then have them spend time with the elders — shovel their snow or clean out their house. Or they could go out hunting and do Yupik stuff."

Sumida's hope? That by implementing these forms of justice, cultural systems can be maintained and reinforced, rather than broken down and depleted — that communities can use their own ways of instilling respect and empowerment to instill harmony.

#### **Protecting children**

An important aspect of Sumida's work relates to the role of the state in child welfare decisions. Currently, the Indian Child Welfare Act is supposed to protect Native children who are brought into state custody. But what if communities could intervene before the state's assistance was even required?

"The elder-youth connection is essential to Native life," says Sumida. Meaning, it was not unusual historically for children to be given to elders to be raised. Sumida helps tribal councils develop ways to easily formalize these kinds of arrangements in the Western context to meet requirements for social services, residency, birth certificates and inheritance.

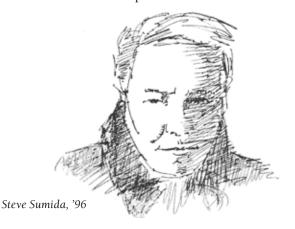
"Suppose a community knows there is a family whose children are in danger," says Sumida. "The elders in that community need to feel empowered to walk over to that house and say, 'In this community we keep our children clean and safe. You are not doing this, so we are taking your children to a home where they can be safe."

This kind of enforcement of values would be recognized by the state as culturally appropriate and safe for children, possibly preventing them from being moved out of their home villages and placed in foster care.

#### The man behind the program

Sumida started his work in rural Alaska years ago, helping an Alaska Native allotment claimant win rights to his traditional hunting lands.

"I was working in Barrow, and this elder called me and asked if I could help him appeal the denial of his Native allotment application. He needed to prove to a judge in the Lower 48 that he used and occupied several different parcels of land independent of his parents and siblings at the time the land was drawn, in 1942. He would have been 13 at the time he needed to prove he was subsisting on this land, so I told him there was no way," Sumida recalls, thinking that proving to the federal government that a child was subsisting on his own in remote Alaska would be next to impossible.



But later, Sumida thought about the case more and did something not many lawyers would do. He packed up his things and moved into a rustic hotel called the Waldo Arms, on Kaktovik's Barter Island, near the Canadian border. Once he was there, says Sumida, he was able to see that the case wasn't as farfetched as he thought.

In the comfort of his own home, the elder told Sumida his stories and talked to him about the way his people had lived on the land. Through these stories, Sumida gathered enough information to win the case, proving to the federal government that indeed the man had maintained a series of active trap lines, even at a very young age.

The experience taught Sumida the value of stories in a Native context. Now, when he is working with a community, he says, he just keeps breaking the issue down into smaller and smaller pieces until the stories start coming out. This helps people take a different look at their community issues, and think about what they used to do to deal with such issues in the past.

#### **Taking it further**

Sumida's program is gaining attention on a national level. He has taken his training to New Mexico and Arizona to teach social service practitioners in other Indian Country communities. The program won national recognition with the 2011 National Criminal Justice Association Outstanding Criminal Justice Program Award.

Sumida is also well-respected in Alaska.

"He's a good man," says Edward Nicholai, tribal administrator for the village of Atmautluak. Nicholai recently worked with Sumida on a training in his community.

"I appreciate what he's doing. Now we've got our elders working for us. They do home visits and talk to people about our traditional ways. Our elders, they've got all the knowledge to educate us. He is doing a good job of waking people up."

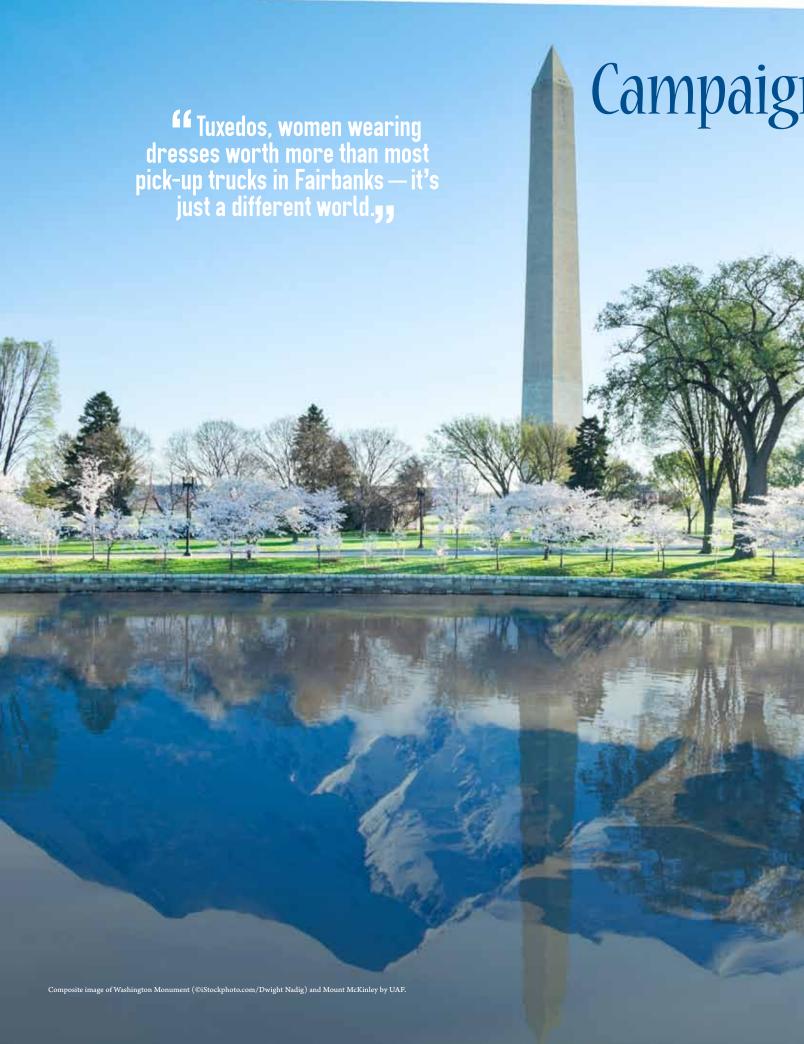
Sumida hopes to continue working with communities to use the power of the old ways in combination with the new ways. And he continues to collect stories from people and share them, slowly strengthening the web that holds together rural Alaska.



Jenn Wagaman, '96, '00, has a master's degree in communication and is an adjunct English instructor at UAF. When she isn't writing, she works at a local nonprofit advocating for families and children affected by fetal alcohol syndrome.

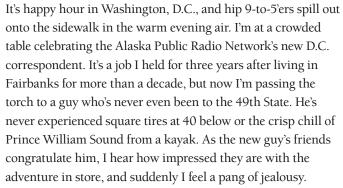


Learn more about Sumida's Traditional Justice Model Project at **www.traditionaljustice.com**. See more of Jan Stitt's art at **www.alaskanravenstudio.com**.



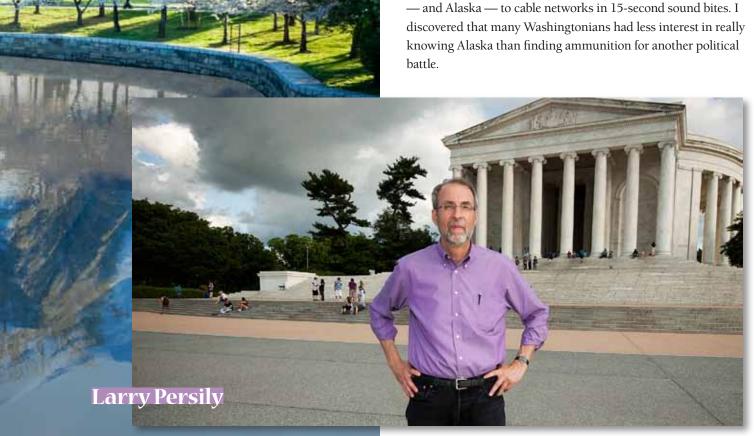
# n wishes and salmon roe dreams

Story by Libby Casey People photos by Sanjay Suchak



I've just switched to a new job in D.C. with a national network, and while I have spent the last few years living in Washington, working for Alaska Public Radio meant Alaska was still a huge part of my life. My job was to send stories home from the nation's capital, the place that decides the federal dollars and policies affecting communities big and small. Alaska may be dependent on Washington but it's also mistrustful, and some of my Alaska radio colleagues acted like I'd volunteered to serve a life sentence in Gomorrah.

At the same time I was trying to dispel myths of D.C. through my dispatches home, my job became interpreting Alaska for Washington. One month into my move Gov. Sarah Palin was a national sensation, and suddenly I was trying to explain Palin — and Alaska — to cable networks in 15-second sound bites. I discovered that many Washingtonians had less interest in really knowing Alaska than finding ammunition for another political battle



Even though I was overwhelmed, years of covering the Yukon Quest Sled Dog Race for public radio in Fairbanks had already taught me everything a journalist needs to know. I learned compassion from experiences like interviewing a musher whose fight with cancer has left him too tired to finish his dream. I learned not to be intimidated by a stinky grump who hasn't slept in three days — an attitude similar to a congressman embarrassed about earmarks. I knew not to give up when your plane strands you on the frozen Yukon. Above all, file the story, even if the small town's Internet dies and you find yourself banging on the hotel room door of drunk Japanese businessmen who look on astounded — in their underwear — as you file over their phone.

And I learned to find my people, namely, Alaskans.

#### Carhartts and cocktails

**Larry Persily,** the Obama Administration's gas pipeline coordinator, says he can don a coat and tie but a D.C. socialite he is not.

"Tuxedos, women wearing dresses worth more than most pick-up trucks in Fairbanks — it's just a different world," says Persily.

It's not like he wears animal skins and Carhartts, but like many Alaskans, Persily has his own style. The lanky 60-year-old cuts a sharp figure in saddle shoes and the type of casual slacks you see in Juneau state offices. It's Persily's job to both coax along and muscle through an Alaska natural gas pipeline, a project that just a couple of years ago looked promising until federal funding to his office was slashed by 75 percent this year, forcing him to

shrink his D.C. staff to an army of two. It's an example of the constant tension between Washington and Alaska.

Persily is one of many Alaskans in D.C. pushing for what he believes will help the state, sometimes against long odds. For those in exile there's a group called the Alaska State Society. Its president is 31-year-old **Michael Tubman**, originally from Anchorage. He describes the group as a nonpartisan social club of 350 members, with a touch of the classic Washington survival tool: networking.

Tubman says despite Alaska's size, its politics and people are intimate.

"You learn everything from retail politics and door knocking to the high-level stuff," he says, recalling his first break in Washington as an intern in the Alaska governor's D.C. office. Now he has a prestigious job at the Center for Climate and Energy Solutions.

"If you grow up in California, to work for a governor's office when you're 18 would be darn near impossible unless your parents are major donors, but in Alaska you can pretty much just walk in and ask," he says.

That accessibility helped 29-year-old **Megan Alvanna-Stimpfle**, who grew up in Nome but worked for years in D.C. for Sen. Lisa Murkowski and on the Senate Indian Affairs Committee.

She says a summer before college spent at UAF's Rural Alaska Honors Institute helped prepare her for the rigors outside Alaska. Alvanna-Stimpfle is soft-spoken but projects a calm confidence. She was under the microscope when she first came to D.C. because she's Inuit and was many Washingtonians' first glimpse



of "an Eskimo." But she didn't mind being an Alaska ambassador.

The curiosity went both ways. Alvanna-Stimpfle describes her amazement at sitting in college classes next to Muslims in headscarves. "Going from a small town on the Bering Strait to the nation's capital, I was in culture shock," she says.

I experienced my own shock when I moved to Washington four years ago. Despite growing up on the East Coast, I'd lived in Fairbanks a long time and was comfortable there. And I looked like it. My first week in D.C., a friend nominated me for the TV makeover show *What Not To Wear*. I owned one wool suit and a jacket from Fred Meyer, and all my pants were roomy enough for at least one layer of long underwear, maybe two. I grudgingly packed away my award for Best Hairy Legs in the Yukon and started shaving. I bought *Congress for Dummies* and plunged in.

Megan Alvanna-Stimpfle may have stood out more than I did, with her Alaska Native features and childhood stories of sea ice and trips to Russia, but she adapted faster, finding friends who worked at high-flying places like the World Bank and Goldman Sachs. Despite that, she decided two years ago to leave D.C. for Anchorage. She loved Washington's heady energy, but ultimately the workaholic lifestyle wasn't what she wanted.

"In D.C. there aren't mountains to climb and an ocean to boat, and so you find yourself working nonstop until a happy hour rolls around and then going back to work or doing the same thing the next day," she says.

Alvanna-Stimpfle's Facebook page now shows her grinning after a 20-mile Friday-night bike ride, holding her arms up in delight in front of the Girdwood mountains as if to say, "See? *This* is living."

#### The real Alaskans of D.C.

For some Alaskans, their homespun qualities shine brightest when contrasted against a backdrop such as Washington. Like Alaska's at-large **Rep. Don Young**.

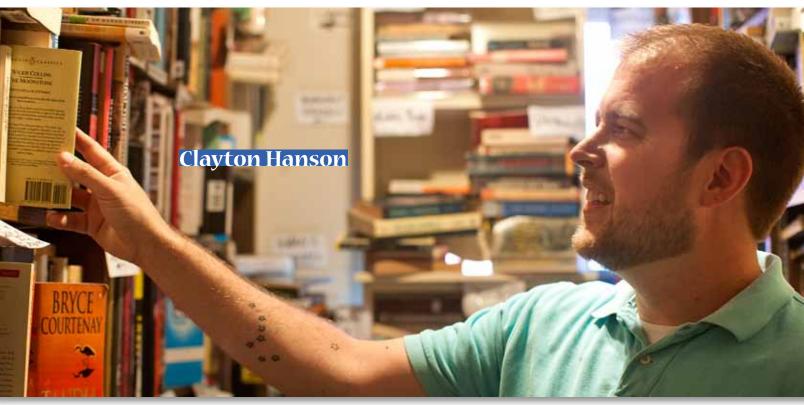
As regular as the cherry blossoms, springtime in D.C. means a flurry of black-tie dinners where journalists mix with the political elite and build relationships by hobnobbing with officials. When I had tickets a couple of years ago, I invited Rep. Young, and even though his staff said he hadn't been to a Washington gala in a dozen years, he was game.

I had no idea where to start the conversation as the congressman and I awkwardly milled among the cocktail set, but I'd heard he carries a knife with him everywhere, and figured it was as good an icebreaker as any.

"That's right," he says, "because Washington won't let you pack a gun!" And before I knew it, the 79-year-old congressman was wagging a closed-blade knife in the air. He used my gown-clad back to teach me how to disarm a man with just the handle — a skill, he said, every woman should know.

Rep. Young uses the Alaska brand to seem larger than life. A 10-foot grizzly pelt greets visitors to his congressional office; he's waved an oosik, or walrus penis bone, at federal officials to make a point, and he relishes fighting with anyone who disagrees with him. He gets away with it because his colleagues treat him like he's an irascible old bear himself. Sometimes it backfires when his audience fights back, like last year's shouting match in a House hearing with presidential historian Douglas Brinkley.

Continued on page 32



# Block may bethicker than water bift it isn't always







A gyotaku, or Japanese fish print, made from a species of icefish, Chaenocephalus aceratus, by Kristin O'Brien.

By LJ Evans

ristin O'Brien grew up fishing with her dad near their home in Saratoga Springs, N.Y. Even as a 10-year-old kid, her interest was a harbinger of the future.

"I liked cutting out the guts better than I liked fishing," she says with a chuckle.

O'Brien still examines fish innards, but in a completely different setting. In laboratories at UAF and in Antarctica she studies the peculiar icefish — family Channichthyidae, suborder Notothenioidei — the only vertebrates in the world whose blood is milky white.

"Icefish are a wondrous physiological phenomenon," O'Brien says. Biologists have been fascinated with icefish since early British whalers discovered them in the Antarctic Ocean in the late 1800s; Norwegian scientist Johan Ruud first described them in the scientific literature more than 50 years ago.

Icefish occupy the coldest marine environment on earth, constantly near the freezing temperature of seawater. Icefish and their relatives are by far the most plentiful fish in the waters surrounding Antarctica.

In most animals, hemoglobin in the blood transports oxygen from the lungs (or in fish, from the gills) to tissues in the body. Muscles and organs need oxygen to convert energy stored in food into the chemical energy they can use. Not having hemoglobin means that the total oxygen-carrying capacity of icefish blood is only about 10 percent that of red-blooded fishes. Icefish adapted by developing special physiological processes to survive without hemoglobin.

It turns out that living in icy cold water helps make that possible. The amount of oxygen that can dissolve in water goes up as the temperature goes down. The waters of the Antarctic Ocean, which hover around freezing year-round, contain considerably more dissolved oxygen than seawater in warmer climes. This means there is more oxygen available for icefish gills to extract and transfer into their blood. It also means their blood plasma — composed mostly of water — is able to transport more oxygen. In addition, icefish have adapted to the lack of hemoglobin by having larger hearts, more blood and bigger blood vessels than similar, red-blooded species. In organs that need a lot of oxygen, such as the retina of the eye, they have more blood vessels per square inch.

Another peculiarity of icefish is that some species have no myoglobin in their heart muscle. Myoglobin, a protein with some similarities to hemoglobin, binds and stores oxygen within muscle tissue. Myoglobin also contains iron and is the molecule responsible for making muscles red.

Hemoglobin and myoglobin both bind an atom of iron at the core of the protein. Iron is a highly reactive element that, if too abundant and running around loose, promotes formation of free radicals. In living organisms free radicals can be associated with cell destruction, as is seen in Alzheimer's and Parkinson's disease. O'Brien and her co-principal investigator, Lisa Crockett of Ohio University, are comparing icefish with fish that are closely related but have red blood.

"We are building knowledge concerning a group of animals that have evolved in an extreme environment," Lisa Crockett







Untracht. Photo by Kristin O'Bries

said in a phone interview. "We want to know if there is an advantage in not having hemoglobin as far as being a protective mechanism against oxidative stress [the effects of free radicals]."

How do icefish get away with these radical biochemical adaptations? O'Brien and her colleagues will continue to study

icefish for information that might shed more light on how these systems work in other animals.

It may be a long shot, but basic research has led to major discoveries in medicine in the past, Crockett points out.

"They weren't looking for an antibiotic when they discovered penicillin," she says.

#### Working in the Antarctic: It isn't for everyone

Live icefish don't travel well. They're too fragile, O'Brien says. She and Crockett organize field trips to Antarctica every other year with their team of researchers and grad students to catch the bottom-dwelling icefish and conduct their studies.

"It's so much fun. It's like summer camp for scientists," O'Brien laughs, a hint of glee in her blue eyes. When she is on campus at UAF, the 44-year-old associate professor of biology spends most of her time writing, teaching, and mentoring graduate and undergraduate students. She rarely gets to work in her own lab.

When the team is "on the ice" in Antarctica the situation is vastly different, involving many days of long hours, sometimes round-the-clock, to catch the fish and conduct experiments.

O'Brien and her colleagues head for the tip of South America with the support of grants from the National Science Foundation. They stage for departure in Punta Arenas, Chile.

An NSF contractor stockpiles supplies shipped south for Antarctic field trips. There is a wall in the warehouse where

> a sample of practically every item of clothing you need to be comfortable in a bitterly cold place is numbered and tacked up on display. Wool socks and balaclavas, neoprene gloves and poly-

propylene turtlenecks, down parkas, hardhats and heavy-duty insulated boots — everything hangs on that wall.

"You go up to a counter and tell an attendant how many of what you need and the items are checked out to you, like library books," O'Brien says. When the researchers come back from a field trip, they return the items to be cleaned, reconditioned and readied to go out with the next group of scientists or support staff.

"You can pack a bag with just your underwear" to go on a research trip to Antarctica, O'Brien says. Most people like to have at least some of their own clothes, and at the research station where O'Brien works there's a little store where you can buy toiletries. But otherwise workers pick up all their gear in Chile before they leave.

When weather and the seas allow, it takes about four and a half days aboard the 230-foot U.S. Antarctic Research Supply Vessel *Laurence M. Gould* to make the trip from Punta Arenas,

Top to bottom, left to right on previous spread: The ARSV Laurence M. Gould at the dock at Palmer Station, Antarctica. A juvenile icefish. Kristin O'Brien and Irina Mueller unload fish to transfer to the Palmer Station aquarium. O'Brien and Devin Devor of Ohio University draw blood from a red-blooded notothenoid. Lisa Crockett extracts icefish blood. Vials of icefish blood (right) and blood from a related, red-blooded fish.

"It's like summer

camp for scientists."



through the Straits of Magellan and across Drake Passage to Palmer Station.

"The trip is always exciting, regardless of the sea state,"
O'Brien said in a College of Natural Science and Mathematics
newsletter last year. "The four-plus days provide us with an
opportunity to finalize research plans and get to know the other
scientists and support crew on board, many of whom have
become good friends over the years."

Palmer Station, owned and operated by the United States since 1968, is on Anvers Island, off the western shore of the Antarctic Peninsula. The station's main building houses labs, dorms, a dining room, kitchen and offices; other structures hold generators, boats, more dorms and labs, a lounge and even a small gym. About 50 researchers and support crew can be accommodated there. When the ARSV *Gould* arrives, everyone piles out to welcome the new arrivals, put down the gangway and unload the ship. There might be several different research groups at the station at any one time, with scientists and graduate students collecting data on projects as diverse as the ecosystems of Antarctic fjords to a species of worm that lives strictly in whale carcasses.

"We are always there in May and June," O'Brien says. "That's the beginning of summer in Alaska but leading right into the Antarctic winter in the Southern Hemisphere."

The day O'Brien's team arrived at Palmer last year, they split into two groups. The less seaworthy among the group stayed "on station," unpacking and setting up the lab. The more avid

fisher folk, O'Brien among them, departed on the *Gould* for a four-day fishing trip.

"We fish 24 hours a day in two shifts of 12 hours each," O'Brien says. It takes 20 minutes for a net to reach the bottom, they trawl for 20 minutes, and then it takes another 20 minutes to bring the net back aboard.

"We fish in an area where we know the bottom is smooth [so the net won't tangle]. We run a pass in that area, and then we turn around and go back."

Frantic activity ensues when the net's contents are disgorged on deck. Scientists and crew transfer the fish into tanks filled with circulating cold seawater, and return any unwanted or invertebrate species to the water.

On average they fish for 72 hours — about six shifts — or until the tanks are full. Then they head back to the station to process the catch.

Once at Palmer, a crane operator slings the tanks from the ship's deck to the dock. O'Brien and her crew scoop up the fish with nets and move them to seawater tanks inside the lab or on a deck outside.

That's when the real work begins. Over subsequent days, the scientists remove fish from the tanks for study. Some are anesthetized and their blood collected, some are sacrificed for organ or tissue samples. Though a lot of the lab work is done at Palmer, some tissue samples are frozen for analysis at UAF or other sites.

Occasionally, once all the sampling is done, an icefish might end up as the main course at dinner.



The ARSV Laurence M. Gould at Palmer Station. The LMG is the primary means of transporting cargo and personnel between Palmer Station

•



"They don't taste like much of anything. They need lots of butter and garlic!" says O'Brien.

The bland flavor of whitefleshed fish is related to the lack of myoglobin, O'Brien says. "That richer taste when you're eating meat comes partly from the presence of myoglobin."

#### Don't forget anything

Conducting research at such a remote and difficult location presents immense challenges. Enormous planning goes into every detail.

"If you discover when you get there, 'Oh, I forgot the hydrochloric acid' — guess what? You don't get any hydrochloric acid!" O'Brien says. "It can be a show-stopper. It can end your field season that you've spent years preparing for."

In 2009 her team discovered that the wrong pumps for circulating seawater in the tanks had been delivered to Palmer Station.

"We found out after the ship had already left the dock [in Punta Arenas]." Fortunately, the support staff at all the NSF-funded Antarctic stations are highly skilled, highly trained, resourceful individuals, O'Brien notes.

"With their help you can repair things or come up with an alternative," she says. When the wrong pumps were delivered,

"[The fish aren't]
warm and fuzzy, but
understanding how
climate change will affect
them is no less important."

the support crew was able to adapt some older pumps already at the station.

If what they need is available in Punta Arenas and the ARSV *Gould* is at the dock there, it might be possible to get the item in only four and a half days.

"But the problem is, the ship doesn't always go. It could

be halfway into your field season before [the item] arrives," O'Brien says.

Sometimes other research groups working at Palmer Station have equipment or chemicals that can be borrowed, kind of like borrowing a cup of sugar from your neighbor. O'Brien can ask to use something from that team's stash, then replace it later or compensate with something else.

One way or another, the work gets done.

### Rising temperatures, commercial fishing bode ill for Antarctic fishes

A major project for the 2011 field trip was to try to understand why icefish respond so poorly to rising water temperatures. Earlier research already confirmed the critical thermal maximum for icefish — the temperature at which they start to go belly up — is 55.4 F (13 C), whereas for their red-blooded brethren it is 60.8 F (16 C). For comparison, fish species from more



temperate climates can survive temperatures of between 60.8 – 86 F (20 – 30 C).

To the surprise of O'Brien and her team, the reduced oxygen-carrying capacity of their blood is not the reason icefish are more sensitive to elevations in temperature. Researchers are still trying to figure it out.

Regardless of the mechanism, sensitivity to rising water temperatures is worrisome because western Antarctic surface waters are one of the most rapidly warming regions on earth, O'Brien says. Studies show that the upper water column temperature has increased by 1.8 degrees F (1 degree C) since 1950. This matters because the creatures that live in the ocean there are adapted to very narrow temperature ranges.

"We don't know how they will adjust to the increase in temperature," O'Brien says. Her team and other researchers have been able to do tests on just a few species, and of those, only adults. "We don't know what this will mean to reproduction or to the larval stages of these animals."

Another reason for urgency is an increase in commercial fishing activity, according to Crockett. Because of overfishing in the world's oceans, fishermen are going after species they haven't targeted before. Even in some areas of Antarctica, fish populations have been decimated.

"It's important that we continue to learn about the organisms that we co-inhabit the planet with," Crockett says. She compared the situation with the Antarctic fishes to that of the polar bear.

"[The fish aren't] warm and fuzzy, but understanding how climate change will affect them is no less important. In this case we're not talking about a resource in the sense of fish meat. It's a resource for scientific knowledge and gaining better understanding of how animals work."

#### **Academic genealogy**

The path that led O'Brien to a career studying Antarctic fish at UAF began with her fishing trips with her dad, led her through a BS in zoology at Duke University, and after several more twists and turns — including a two-year stint as a National Marine Fisheries Service fisheries observer in Alaska — took her to doctoral studies at the University of Maine, in Bruce Sidell's laboratory.

She had heard Sidell give a talk just after she graduated from Duke.

"His research on lipid metabolism of Antarctic fishes was fascinating, but equally enthralling were his photographs of the



Kristin O'Brien, Chicago high school teacher Paula Dell and Lisa Crockett take a break while out fishing on the LMG.

Antarctic and his clear passion for the place," O'Brien says. A few months later she applied to study in Sidell's lab. It was the start of a 17-year collaboration and friendship.

In a 2009 interview about icefish in *The Antarctic Sun*, an online publication of the U.S. Antarctic Program, Sidell said, "I just want to figure out how these critters work. We get a chance to ask some questions with these [animals] that you can't ask with any other animals on the planet."

"He had a big influence on my life," O'Brien says. "He was my academic father in every sense of the word." She says Sidell often mentioned that one of his greatest pleasures as a professor was mentoring graduate students.

Sidell asked O'Brien to collaborate on an NSF grant while she was a postdoctoral fellow at the University of Colorado, which launched her career working in the Antarctic. While she was on her way to her faculty position at UAF, Sidell asked if she'd write an icefish research proposal with him.

"I may have paused as long as 10 seconds before replying with a resounding 'YES!'" she says. O'Brien calls Crockett, who was also a graduate student under Sidell, her "academic sister."

"When you work that closely with a person a lot rubs off," Crockett says. "Bruce's greatest influence on me has been probably more about life than about science. I think both Kristin and I try to emulate some of those qualities that were so superlative in Bruce. He knew how to get right to the heart of things."

Sidell's academic lineage continues through the students O'Brien supervises at UAF. Her most recent success story is Irina Mueller, initially an exchange student from Germany who came back for advanced work in O'Brien's lab. Mueller was awarded a PhD at commencement last May but couldn't attend the ceremonies. She was already at Palmer Station, preparing to spend the Antarctic winter working with a scientist from

Northeastern University researching bone development in icefish.

"I started working in Kristin's lab during my [2005 – 2006] exchange year to supplement my income," Mueller said in an email interview. When the offer to be a grad student came from O'Brien and included the opportunity to spend the 2011 season in Antarctica, she leapt at the chance.

"By the time I signed on as her PhD student we knew each others' personalities, working approaches and expectations, which made my years as a student in her lab a very positive experience."

#### Pursuit of a life in science

O'Brien went "down to the ice" for research expeditions in Antarctica twice while in graduate school, and has returned as an NSF grantee four times since. On all but the 2011 expedition, Sidell was a major force.

Bruce Sidell died in February 2011, after a lengthy bout with cancer. A remembrance by colleagues and friends noted that "Bruce's approach to science ... not only helped to shape the career approaches of his many graduate students but also served as an exemplar ... of how best to pursue a life in science."

Sitting in her office about a year after Sidell's death, O'Brien chokes up as she tries to explain how important his influence has been on how she goes about the business of being a scientist. Sidell was so respected by other Antarctic researchers that they gave his name to a geographic feature in the region where he did most of his work. After lengthy discussion they chose an outcropping on the western shore of Brabent Island.

"One of the most memorable moments during the [2011] field season was our visit to Sidell Spur," O'Brien says. "The day began as a cloudy one, but as we approached and the sun shone through, illuminating the face of the spur, I couldn't help but think that Bruce was with us at that moment."



LJ Evans is a writer and editor for UAF Marketing and Communications.



Learn more about Kristin O'Brien's icefish research and her work with Chicago high school students and their teacher at **www.uaf.edu/aurora/**.





 $Sidell\ Spur,\ in\ Antarctica,\ named\ to\ honor\ Bruce\ Sidell's\ many\ years\ of\ Antarctic\ research.\ Photo\ by\ Kristin\ O'Brien.$ 



The Nanook Nook is a place where we showcase the talent of our alumni and students. If you have an original poem, essay, short story, artwork or photograph(s) you would like to share with our readers, contact aurora.magazine@alaska.edu for submission guidelines.



### "Live your life with reverence for life itself"

#### Lessons of gratitude and respect from a Yukon River village

Story and photos by John Lyle

olden birch leaves set against a slate-blue sky and formations of geese move me to reflect on another passing season, on not only how people in our lives may come and go and then come back again, but how seemingly different events and encounters — even those separated by many years — are interwoven.

A recent phone call from an old friend, Philip "Tucker" Semaken, was a prompt to dig out photographs from time spent living and teaching in the middle Yukon River Koyukon Athabascan village of Kaltag. It's always heartwarming to hear Tucker's distinctive voice and hearty laugh. As we spoke I gazed at the photos, many of former students. In one, smiling skiers pause atop a bluff with the mountains behind them. Many are now parents or grandparents, and, sadly, some have passed. Yet the strength of their characters is very much alive in their faces.

I first arrived in the Kaltag in late August 1980. On the mail plane from Galena I sat next to Marylene Esmailka, whose kind eyes spoke of hope and acceptance. "You'll like Kaltag," she said. "It's a beautiful place. You'll see."

Near the end of the flight Marylene touched my arm and raised her eyebrows, looking toward the front of the plane. Appearing on the horizon was the Yukon River, and perched above it on the bluff was the village. Beyond lay dense forests and the Kaltag Mountains, which captured the brilliant fall colors in the late afternoon light.

Kaltag is an Athabascan village perched on the west bank of the Yukon River in the Yukon-Koyukuk region of Alaska.



Soon after arriving, I was invited to dinner by Edgar Kallends, a former riverboat captain and a veteran of the original, 1925 Nome serum run. He and his wife, Virginia, operated the post office and a small general store. Over moose soup and fish strips they shared stories about Kaltag in earlier times, when riverboats took passengers and supplies to villages along the river. Edgar recounted the massive amounts of wood used to fuel the steam engines and the attention to detail needed to pilot boats up and down continually changing river channels.

Mentioning the high attrition rate of rural teachers, I asked Ed and Virginia for guidance. "It's pretty simple," Ed said with a smile. "Love the children, help the elders, laugh at yourself."

Like many rural teachers I prepared for numerous classes spanning multiple grades each day. Most subjects were of personal interest, such as Alaska Native land claims, health and nutrition, child development, and world geography. But just as important was what I'd learn as a student myself.

After school, students would run or ski, not so much to train for competition as for the love of exploring the backcountry.

And later on, to prepare for ski treks to the Bering Sea.

In 1980, four students in the Alaska Native land claims class proposed a cross country skiing field trip to Unalakleet. They set a goal of skiing 500 miles to prepare for it. Tommy Neglaska, Peter Nickoli, Jerry Nicholas and John Allan "Jake" Semaken inscribed each day's skiing mileage on a wall chart in the ski closet. When they added up the figures, the students realized

they'd far surpassed their goal, which only increased their resolve to succeed.

The motivations for the field trip were many: to test physical limits; to feed a desire for exploration; to step into a new cultural experience; and to learn by experience some of the challenges and insights gleaned by the elders from years past. And not insignificant was that students simply hoped to have an awesome adventure in beautiful, wild country.

 Philip "Tucker" Semaken drives his dogs to the start of a sled dog race in Kaltag in 1981. Tucker and his dog team, and another person pulling a sled by snowmachine, gave us critical support, allowing us to ski the 90 miles in three days. Our route was the Iditarod Trail over the Kaltag Mountains to the Unalakleet River, and then into the Inupiaq village of Unalakleet. Rugged, exposed terrain tested our mettle with overflow on the Unalakleet River, powerful headwinds crossing the flats and whiteouts near the Whale Back Mountains. On the third day a chance encounter with Alan Soosuk boosted our spirits. Soosuk, from Unalakleet, was ice fishing on the Unalakleet River when we came upon him. The sharing of a much-needed meal with the fisherman set the stage for the last hard push to Norton Sound.

"You come a long ways but you still have a ways to go," he said. "I'll let them know you're coming!"

None of the students had been to Unalakleet or to any Eskimo village before and didn't quite know what to expect. The final day was tough on all of us, dogs included. As we neared the crest of the last bluff with not much energy left we were greeted by a rising orange moon in the evening and a long string of lights and lanterns lining the way into town. As students approached their cheering hosts they were filled with new-found sources of energy. They looked like Olympic champions.

The first to welcome the group was Allan Soosuk, on his snowmachine. He shook our hands and led us back to his house, where we stayed the night.







▲ Godwin Semaken, a village elder in Kaltag.

Now, as Tucker and I spoke on the phone I asked him what stood out from those trips.

"Those boys were strong, and they didn't give up. I respect them for that," he replied.

#### Spokes of a wheel

Tucker then went on to describe the stick dance held in Kaltag this past March.

"It was beautiful — hundreds of people in that community hall, people from all over. We were honored," he recounted.

The significance of this generations-old tradition is immense. Family and friends from all corners of Alaska come to honor the lives of loved ones who've passed. Before the potlatch elders welcome visitors, then everyone sits together on the floor and shares bowls of moose soup, platters of king salmon, freshly baked breads and rolls, caribou, Indian ice cream and several types of berries. Visitors from the Bering Sea bring gifts of muktuk and seal oil. Almost all the food comes from the surrounding land, air or water, a reminder of how people depend on subsistence.

At the last stick dance I attended several years ago there was an unexpected surprise. Someone came into the octagonal log community hall and announced, "Two guys out there just skied down from Fairbanks." Outside the hall appeared two frost-burned faces with trail-weary smiles. It was Ned Rozell and Andy Sterns, who just happened to stop by on their way to Nome.

"Good to be here," said Ned. "An understatement," quipped Andy.

Later, Ned returned to the hall for the stick dance. We watched as blurred lines of singers and dancers revolved armin-arm around the hall like spokes in a wheel.

For many folks who grow up in small, isolated towns or villages and then abruptly move to the city, the transition can be traumatic. In the village a person knows how everyone is connected, but in a city one can become lost in a sea of strangers. Going back for stick dance narrows the gaps and renews important extended family connections.

As Tucker reflected on old times, I leafed through photos and spotted a faded copy of a handwritten note dated June 8, 1984. Taped to the note was a black-and-white image of students dressed in clothes they'd made for the Festival of Native Arts, held at UAF. I'd carried the photo with me on a trip to Montana to visit old friends before flying to the Midwest to see family. The note was written during an eastbound flight out of Billings.

As I boarded the airplane, I had noticed a passenger reading a French newspaper. Clearing my throat and rustling my ruck-sack caused the paper to lower, revealing a gentleman in wire-rimmed glasses and a green flannel shirt with patches on the elbows. His jeans were faded and worn. With wide eyes I raised my hands as if to say, "What in the world are you doing here?"

Smiling, he shrugged his shoulders as if to reply, "But of course!"

Stunned, I continued down the aisle and found my seat next to a man in a three-piece suit.

"You'll never guess who's on this plane."

"And just who would that be?" he sarcastically replied.

"Jacques Cousteau."

"Jack who?" he snapped.

"Oh, never mind," I said. "Sorry to bother you."

As the plane taxied down the runway I considered approaching Cousteau. He probably wanted to be left alone, but then again it would likely be my only chance to meet him and thank him for his lifetime of work in ocean studies.

After the plane reached its cruising altitude, I took out the photograph of my students. On the back were their names, along with a sketch of Alaska showing Kaltag and the Yukon River. Taking a deep breath I walked up to Cousteau, introduced myself and handed him the photo.

He smiled and motioned to the empty seat next to him. "Please, sit down."

Cousteau said he had been in Montana studying Missouri River paddlefish and was returning to France. However, he was most interested in knowing about the young people in the photo dressed in handmade beaver-trimmed mittens, fur-lined moose- and caribou-skin boots, and colorful ruff-rimmed parkas. They were students from Kaltag, Alaska, I explained.



Despite their relative isolation, they knew who Jacques Cousteau was and enjoyed watching his 16-mm films whenever we received them from the state film library in Juneau.

Cousteau closely examined the photo and smiled. "I know Kaltag. I visited many years ago, and I'll never forget it." He then took out a pen and pad of paper and wrote:

Dear Friends.

I just met John Lyle and he gave me a picture of his students - you - in Kaltag, Alaska. I look at all your happy, smiling faces and I sincerely wish that you can live your life with reverence for life itself, all the way to serene happiness. I love you,

Jy Cousteau

Speaking with Tucker and seeing the old photos of students was a poignant reminder of the dynamic and powerful bond which connects people living together in rural villages across the state. It's a bond based on respect, and it's precious. It's the respect people have for the natural world and ways it sustains their lives. The respect students experienced from the power of the elements. The respect that comes from honoring those who've passed. And as one man put it so eloquently, respect for life itself.



**John Lyle, '87**, lived and taught in Kaltag from 1980 – 1985. He then moved to Fairbanks where he completed studies in counseling and guidance at UAF and worked as an elementary school counselor for 15 years. He's presently working as gardener in residence at The Center for the Study of Something, which at first may seem trivial but upon closer inspection takes on global significance.

Kaltag in 1980. Today new houses have replaced some of the older log cabins.



Wiew more photos from John Lyle's years in Kaltag at www.uaf.edu/aurora/.





#### 1960s

Sandy Jamieson, '69, presented the first lecture, Predator Control and Other Alaska Political Commentary, in the 2012 Ester Library Lecture Series. He was the 2003 Distinguished Alumnus Award winner and is a well-known local artist, pilot, guide and log builder.

Jerry Colp, '71, was named the 2012 Engineer of the Year by the Fairbanks chapter of the Alaska Society of Professional Engineers. He has worked for the city engineering department for 37 years.

Sarah Crawford Isto, '71 — "The University of Alaska Press just published my latest book, Fur Farms of Alaska: Two Centuries of History and a Forgotten Stampede. It took four years of research to gather photos and material for what I hope is an entertaining account of this slice of Alaska history. I am retired from medicine and living in Juneau with my husband, Gordon Harrison."

John Duling, '71, is serving as interim pastor for the First Presbyterian Church in Newton, Iowa.

Barbara Smith, '71, was named a 2012 BP Teacher of Excellence. She teaches at Chinook Montessori Charter School in Fairbanks.

Rebecca Hanson, '72, celebrated her 40th wedding anniversary with her husband Robert, Matric., in January 2012.

Dave Ferree, '74, '82, retired last spring after nearly 30 years with the Fairbanks North Star Borough School District. He began as a contracts manager in 1984 and retired as the assistant superintendent of

**Joyce Mann, '74** — "It is with great sadness that my husband, Kurt Pfitzer, '75, and I share the tragic news of our son's death one year ago. Adrian Paul Pfitzer was born in Fairbanks on June 9, 1977. He died in Tucson, Ariz., on May 15, 2011, a few weeks shy of his 34th birthday. We are blessed that our grandson, Adrian's 11-year-old boy, Dustin, lives nearby. Our daughter, Ursula Taina, has been living in Seattle the past five years."

Jo Michalski, '76, is vice chair of the UA Foundation Board of Trustees.

#### 1980s

**Jerry Foster, '82** — "I'm the reservoir engineering discipline manager for PetroSkills in Katy, Texas. All three of our kids are attending Texas A&M University in College Station, Texas, which is about 1.5 hours from our new home. After 11 years overseas, we're very happy to be living back in the

James Gibson, '83 — "I was just promoted to colonel in the U.S. Army. Am currently deployed in Kuwait with the 364th Expeditionary Sustainment Command from Marysville, Wash. I am the chief of plans for the 364th."



Norm Davis, '84, and Kim Davis, Matric., along with the rest of their clan, welcomed the addition of Bogalay in May to their family — "He's an energetic 9-year-old who loves dogs and soccer, so he fits right in with the rest of us." Their other children are Norm Jr., Michael Ana, '12, Ty, Chay, Frances and Nanauq. Besides Michael, the three oldest are all current students at UAF.

Frank Paskvan, '85, is a trustee of the UA Foundation and works at BP as the viscous oil renewal team leader.

Kathleen Norris, '86, a professor at Plymouth State University's College of Graduate Studies, received PSU's Distinguished Graduate Teaching Award for 2011 - 2012. Read more about her and the award at www.plymouth.edu/news/ psu-announces-2012-distinguished-teachers/.

Kate Wattum, '87, is serving as interim director of public affairs for the University of Alaska system.

Billy Brown, '88, celebrated his retirement from the military in January 2012.

Brian Hove, '88, married Marilyn Romano, former publisher of the Fairbanks Daily News-Miner and current regional vice president for Alaska Airlines.

Nancy Russell, '89, '96, was appointed to the State Vocational Rehabilitation Committee.

#### 1990s

Karen Dullen, '90, was named a 2012 BP Teacher of Excellence. She teaches at Woodriver Elementary School in Fairbanks.

Peggy Asbury, '91, was appointed to the State Historical Records Advisory Council.

**Toby Preston, '91**, is the founder and president of McKinley Mortgage Company and Alaska Financial Company. He grew up in Homer and was involved in commercial fishing until receiving funds from the Exxon Valdez oil spill, which prompted him to start

#### President's column

By **Jim Dixon, '90, '91** 

he best way to start my term as the UAF Alumni Association president was to stand on the stage at commencement and welcome all those graduating as new alumni of UAF. It is an experience that I look forward to doing again as often as the opportunity comes my way.

I hope many of our alumni were able to participate in the summer activities sponsored by your alumni association. I enjoyed meeting many of our Northwest-based alumni at the Seattle Mariners-Texas Rangers game and those who attended UAF Day with the Alaska Goldpanners. Both events were a great success, as they have been in the past, and, I hope, in the future.

A great way to keep in touch with the alumni in your area is to participate in chapter activities. From the Southcentral chapter's welcoming picnic for incoming Anchoragebased students, to the golfing events sponsored by the hockey chapter, to raising scholarship funds at the Fairbanks chapter's burger booth at the Tanana Valley State Fair, there are many ways for you to connect with other alumni in your area.

Last but not least are the big doings for Nanook Rendezvous Weekend, Sept. 20 - 22. The traditional awards luncheon is being replaced with a gala on Saturday evening. Come celebrate reunion with your fellow alumni, and help make the inaugural event a success!



Learn more about Nanook Rendezvous at www.uaf.edu/alumni/reunion/.

**ALERT!** We are reprinting the alumni directory for spring 2013. Please expect, and accept, a call soon from Harris Connect, our alumni directory vendor, to update your information and provide photos for your fellow alumni to enjoy.



**Glen Weaver, '91**, was promoted to vice president of finance and CFO for Usibelli Coal Mine.

**Stephen Atwater, '94, '08**, is the superintendent for the Kenai Peninsula Borough School District.



Steven Amstrup, '95, chief scientist for Polar Bears International, received the 2012 Indianapolis Prize for animal conservation. The \$100,000 award, presented by the Indianapolis Zoo every other year and funded by the Lilly Foundation, is given to the nation's top scientists and researchers who advance the cause of animal conservation. Read more at http://indianapolisprize.org.

**Paul Sander, '95**, is running for Kittitas County Superior Court judge. He lives in Ellensburg, Wash.



David Natcher, '96, co-edited Settlement, Subsistence, and Change Among the Labrador Inuit. Read more at http://uofmpress.ca/books/ detail/settlement-subsistence-andchange-among-the-labrador-inuit.

**Benjamin Seekins, '96, '97**, was appointed a Fairbanks District Court judge by Gov. Sean Parnell in January.

Joe Hayes, '97, executive director of the UAF Alumni Association, received the 2012 Make Students Count Award for UAF for his service to students. Staff members representing each main campus are nominated by their peers, and winners are selected by local governance groups.

Michele Stalder, '97, was named dean of the Community and Technical College in July 2012.

Michelle Booth, '98, '99, was named a 2012 BP Teacher of Excellence. She teaches at Academy Charter School in Palmer.

**John Chase, '98**, starred with Drew Barrymore and John Krasinski in Hollywood's *Big Miracle*, a film inspired by the true story of a family of whales trapped by encroaching ice in the Arctic.

**Kelly Lawson, '99**, is a Kenai associate district attorney.

**Leilani Sauer, '99**, was recognized in the "Friend of Nursing" category of the Alaska Nurse of the Year award.

#### 2000s

Aaron Hines, '00, '02, a commercial loan officer at Denali State Bank, was named Officer of the Year at the bank and also became president of the Kiwanis Club of Fairbanks.

Teisha Simmons, '00, '03, received one of six First Lady's Volunteer of the Year awards for her work assisting families who lose loved ones to suicides, with a support group known as the "Angel Team." She is the director of UAF's Interior-Aleutians

Emily Coleman, '01, was chosen last May to speak to her graduating class at Portland State University, where she received an MS in the visually impaired learner program. She is a teacher of the visually impaired for the Washington State School for the Blind, which works with students ages 3–21 in nine school districts.

**Kameron Hurley, '01**, won the Kitshie Award for her first novel, *God's War*, a science fiction work published by Night Shade Books.

Pat Race, '01 — "I recently completed a minidocumentary commissioned by the Rasmuson Foundation on their 2012 Distinguished Artist Award recipient, Kes Woodward. Kes lives right there in Fairbanks, and he's an incredible visual artist and

a professor emeritus at UAF. The film also includes collaborative poetry by Peggy Shumaker, Alaska Writer Laureate, and instrumental compositions by Marian Call." Watch the minidocumentary at www.youtube.com/watch?v=ClgUGZMJqmU.

Russ Kelly, '02 — "I have been hired by a major New England utility company, Northeast Utilities, as communications and corporate relations manager for a hydro transmission project called The Northern Pass. The transmission line would take hydro power from Canada (a company called Hydro-Québec) and run along 180 miles of New Hampshire before connecting to the New England grid. When completed, the Northern Pass will supply 1,200 megawatts of reliable, competitively priced, clean energy to the six-state region of New England. The Northern Pass transmission project will create a new connection between Hydro-Québec's world-class hydroelectric resources and the New England 'power pool' that supplies electricity to all customers in the region — including New Hampshire. The heart of this project is the construction of a direct current (DC) transmission line that will bring up to 1,200 megawatts of hydroelectric power into the region, providing much-needed fuel diversity, lowering energy costs, and lessening our reliance on fossil fuels. Learn more about it at www.northernpass.us."

Michael Campbell, '04, '05, has been selected for the U.S. Army Pacific Region Mentoring Program.

**Allison Luettel, '04,** was named Employee of the Year for the Maryland Department of Natural Resources Fisheries Service.

Christopher McLain, '04, '05, is a magistrate in Galena

Dave Sexton, '04, former Skagway police chief, is the executive director of the Alaska Police Standards Council. The council is in charge of certifying and de-certifying sworn officers in the state, as well as providing training to maintain standards of performance. Read more at http://juneauempire. com/local/2012-03-28/ex-skagway-police-chiefleads-police-standards-council.



**Jason Gootee, '05** — "Robert Francis Gootee, born March 30 at 7:47 a.m. Six pounds, 4 ounces, 19.25 inches. He should make a fine Nanook blueliner in 18 to 20 years."

#### 2012 - 2013 UAF Alumni Association Board of Directors

#### **President**

Jim Dixon, '90, '91.....dixon@ieee.org

#### **Vice President**

Wayne Donaldson, '80.....wkdonaldson1@gmail.com

#### Secretary

Tania Clucas, '95, '08.....tania.clucas@gmail.com

#### Treasurer

Sam Enoka, '95....sam@enoka.com

#### **Board members**

Bill Abbott, '98, '00......bill\_abbott21@hotmail.com
Dani Carlson, '06......alaskadani@gmail.com
Teresa Flores, '03......misstflowers@yahoo.com
Lisa Hall, '04......lafielder@alaska.edu
Heath Hilyard, '96.....heathedward@gmail.com
Chad Hutchison, '02......chadh@alaskalaw.com
Rhonda Widener, '01......rlwideneruaf@hotmail.com
DeShana York, '95.......deshana.york@alaska.edu

#### **Executive Director**

Joe Hayes, '97 .....uaf-alumni@alaska.edu



www.uaf.edu/alumni/



#### **Cooking lessons with traditional foods**

A webcast of Traditional Foods, Contemporary Chef features Ann Fears and chef Flora Deacon, both of whom have completed the occupational endorsement in the Rural Nutrition Services Program. The webcast is one of a series produced by the Alaska Native Tribal Health Consortium's wellness and prevention leaders, Dr. Gary Ferguson and Desiree Bergeron Simeon, a registered dietitian and instructor for RNS.



Learn one way to prepare bison at

www.youtube.com/watch?v=9GXxji\_f6fE

Leah Swasey, '05, was nominated for the Alaska Nurse of the Year award.

Richard Kozinski, '06 — "I'm living in Poland for the last four years. I traveled a bit, lived with my family and now am a full-time student once more. I was accepted to med school and am in my second year of study! Life overseas has been amazing. Something completely different and an adventure. So many things to do and see here that I don't have the time to do all of it. Since I left Fairbanks, I haven't been back and kind of miss the climate and people. But on the other hand, being so far away from everything, travel being so difficult, living in Europe is a fresh breath of air. I've been traveling often to the States and hope to come back this summer for work, once more. If that doesn't pan out, I hope to do some research and work here in Poland."

Kyle Moeller, '06, was named a 2012 BP Teacher of Excellence. He teaches at Hermon Hutchens Elementary School in Valdez.

Christopher Benshoof, '07, '08, '11, was named a 2012 BP Teacher of Excellence. He teaches at Lathrop High School in Fairbanks.

Annie Titus, '07, '09, and Matthew Titus, '05, celebrated the birth of their son Kerrigan in December 2011.

Penny Gage, '08, is a staff member for Alaska State Sen. Bert Stedman.

Kelly Manning, '08, joined the Canvas Community Art Studio and Gallery team in January as interim artistic coordinator. She lives in Juneau.

Michel dos Santos Mesquita, '09 — "Since leaving UAF, I applied for a job at the Bjerknes Centre for Climate Research, Uni Research, in Bergen, Norway. I started working as a postdoc in a project related to climate change and regional climate modeling. In 2010, I was invited to lead the Global and Regional Climate Projections group at the Bjerknes Centre. This research group is composed of about 20 researchers. We have projects with several countries around the world. I have also organized large events related to regional climate modeling, both in Norway and abroad. In addition to that, I have

worked as a contributing editor to the American Geophysical Union Atmospheric Sciences Section newsletter. I am very thankful for the education I received at UAF."

#### 2010s

Greg Kahoe, '10, was named a 2012 BP Teacher of Excellence. He teaches at West Valley High School in Fairbanks.

Julia Pierson, '10, received an NCAA Postgraduate Scholarship in recognition of her achievements on the trails and in the classroom during her time at UAF. She is pursuing a doctorate in physical therapy at the University of Utah. Read more about it at http://newsminer.com/bookmark/18470325-Former-Nanook-Julia-Pierson-earnspostgraduate-scholarship/.

Michelle Risse, '11, directed the musical *How to* Succeed in Business Without Really Trying, presented by Fairbanks Light Opera Theater in January 2012.

#### **Matriculates**

Heather Cunningham was recognized in the "Rising Star" category of the Alaska Nurse of the Year award.

Gena Edmiston was recognized in the administration category of the Alaska Nurse of the Year award.

#### In memoriam

Harley D. Adamson, Matric., June 8, McCormick,

Hazel Ambrose, '94, June 11, Hughes

Catherine Attla, '07 honorary degree recipient, March 12, Huslia

Thomas R. Buhite, '72, March 14, Fairbanks

John L. Burdick, professor emeritus, April 29, Des Moines, Wash.

Roger Joseph Cahill, '65, March 7, Centerville, Mass.

Hugh H. Connelly, '88 honorary degree recipient, April 2, Fairbanks

Harry D. Curran, '70, May 23, Cordova

Carl Gilbert Davaz, '63, Feb. 17, Bellevue, Wash.

Michael A. Dillard, '75, July 5, Weatherford, Texas

Nancy Ruth Galloway, '73, March 3, Laguna Beach,

Mario Orlando Gho, retired assistant professor, July 14, Fairbanks

Bob Parvin Gray, '53, March 4, Fairbanks

Ida Greiner, former director of Financial Aid, March 31, Fairbanks

Nicolas Carl Gustafson, '08, Feb. 16, Fairbanks

Suzanne Hall, '50, March 4, Sacramento, Calif.

Wendell Everitt Lane, '56, April 21, Anchorage

Kenneth R. Lester, '69, April 4, Kodiak

Manuel I. Lopez, '80, April 30, Fairbanks

Edward Joseph Malhiot, Matric., Feb. 16, Anchorage

Catherine M. Massay, retired library assistant, April 16, Fairbanks

Karen Grill Merrill, '59, April 10, Orangevale, Calif.

Jason L. Miller, '97, '99, '11, and Financial Services employee, June 12, Fairbanks

Debra M. Moses, '98 and associate professor emeritus, April 2, Fairbanks

Mervin E. Mullins, '66, Feb. 29, Anchorage

Lois Marie Olson, '79, May 6, Juneau

Carole J. Pender, Matric., May 11, Fairbanks

Nina E. Prockish, Matric., June 21, Anchorage

Phyllis A. Stickney, '70, '72, April 15, Anchorage

Jack Townshend, '55, Aug. 13, Fairbanks

**Bruce Christopher Travis, Facilities Services** employee, June 8, Fairbanks

Robert H. Trent, former mineral engineering dean, April 5, Scottsdale, Ariz.

Joan A. Walker, '40, '42, March 28, Santa Maria,

Michael E. Williams, '80, '82, May 29, Fairbanks

Got job changes, family changes, awards to brag about, or do you want to become a member of your alumni association? Visit www.uaf.edu/alumni/ to

stay connected. Tell us your news, and we will publish it in the next issue of Aurora or the Alumnus newsletter. Send photos, too! Brinkley dished it back rather than being cowed, leading to a YouTube video that went viral and made the *NBC Nightly News*.

It's not just Alaska toughness that helps us here in Washington. Larry Persily says decades in small Alaska towns graced him with skills like patience.

"We learn in Alaska there's always tomorrow. The plane didn't arrive and you run out of milk — you can use powdered," he says. "When snow comes to D.C., they all panic. The world is coming to an end. They will never have another drop of fresh milk in their entire life. You're afraid they might start feeding on each other!"

When the storm dubbed "Snowmageddon" shut down D.C. in February 2010, **Sen. Lisa Murkowski** kept her office open, walking to work in boots and a warm coat and carrying a backpack. "Nobody would guess you're a senator, but that's the way it is," she tells me.

Murkowski grins as she talks about her husband's display of Alaska virility rescuing their neighborhood from trees felled by the storm.

"He revs up the chainsaw and all the neighbors come out, and it's a big block party as he bucks up the tree and chops it into fireplace-size pieces for everybody. He felt like the real Alaska man," she says.

There are ways to find quiet moments of man-meets-nature, too. Persily loves bicycling on the area's extensive trail system, even when Washingtonians' tendencies toward self-absorption strike.

"In Alaska you have to be worried about running into a moose on the trail. In Washington you're going to run into some guy with a Bluetooth up his ear and a Blackberry in his hand ... and he's more dangerous because the moose is looking where it's going," Persily jokes.

But he admits that strolling through the free Smithsonian museums, the archives and the monuments on the National Mall is spectacular.

"It's pretty hard not to get choked up when you go to the Lincoln or Jefferson memorials and think about what they mean, what they should still mean today," says Persily.

#### The beckoning land

Just because you're drawn to the Big City doesn't mean you really let go of Alaska. Sometimes the distance crystallizes what it means to you. **Clayton Hanson**, 34, grew up in Eagle River and now works in Washington as an editor. He just finished writing his second novel. *Ms. Remorse* is set in the Aleutians, where he spent some time, so Hanson used his memories to conjure up scenes.

"I know what it's like in my head, and my heart in a way,"

he says. "I think there's a lot of fertile ground in Alaska. It's so astounding to people who haven't been there, and it's amazing and beautiful for me, too."

Perhaps the tension of loving the place you live and longing for the place you left can create a rich life. If he hadn't left Alaska, Hanson might not be able to see it through the lens of memory. And it's easier to romanticize from far away.

We're not the first to do that. A hundred years ago poet Robert Service wrote about missing the frontier in "The Spell of the Yukon."

There's a land — oh, it beckons and beckons,
And I want to go back — and I will.
They're making my money diminish;
I'm sick of the taste of champagne.
Thank God! when I'm skinned to a finish
I'll pike to the Yukon again.

Maybe that's the best thing Alaska gives those who leave: a place to go home to.

Hanson has a constant reminder of his upbringing in a forearm tattoo of the Big Dipper with the North Star.

"It's so that I could find my way home," he says.

And does he think about it?

"Absolutely. All the time."

But just like me, Hanson is choosing to live here.



Back in the Washington bar, a friend of the new Alaska Public Radio reporter breathlessly asks me, "Have you ever seen the northern lights?" I try not to look at her like she has snow for brains.

"Yes. It is beautiful," I admit, as she leans forward to hear me over the bar's din, lost in the idea of Alaska. "No matter how many times you see it, it takes your breath away."





morning TV show
Washington Journal. She
credits living on a Nenana
potato farm for her green
thumb, and though she lives
in Washington she clings on
to her Alaska driver's license
and homemade wool hats,
and still calls Fairbanks
home.

Libby Casey is a host and

producer of C-SPAN's

Photo by John Wallace.

### Morrill Act was the birth marker of UAF

Story by Nancy Tarnai. Photos courtesy of the Archives, University of Alaska Fairbanks.

A federal act passed in 1862 affected the education of the U.S. population more than anything in history.

"It's a great thing," UAF history Professor Terrence Cole says. "It's amazing how the land grant colleges vastly expanded higher education for citizens. It revolutionized American higher education."

Before the Morrill Act, colleges focused on the liberal arts and classical studies of Latin and Greek. This medieval model, as Cole calls it, was all the country had until the 1860s. "At the time, people thought the summit of intellectual achievement was to learn Latin and Greek," Cole says.

The colleges were private and expensive, and admissions policies tended to be exclusive, all of which combined to put higher education largely out of reach of all but a privileged minority.

The Morrill Act gave states land, which they were supposed to lease, sell or use to establish and support institutions for the education of agriculture, military tactics and the "mechanic arts," which can be loosely defined as engineering.

"The act created a new branch of education that would involve the liberal arts but also agriculture and mechanical arts," Cole says. In the 1860s the U.S. was overwhelmingly an agricultural country, hence the focus on agriculture at land grant institutions, he explains.





Above: Celebrants gather for Dedication Day at the Alaska Agricultural College and School of Mines on Sept. 13, 1922, five days before classes began at the land grant college. Below: With guests and faculty seated on a platform in front of Main Building, the crowd stood in a hayfield to celebrate Dedication Day.

While the act was passed in 1862 it would be 1915 before an institution of higher education would be conceived of in Fairbanks. Alaska's delegate to Congress, James Wickersham, advocated for approval of a land grant for an Alaska college. Alaska Territorial Gov. John Strong signed the bill in 1917 to establish and pay for Alaska's land grant institution. By 1922, Fairbanks was home to the Agricultural College and School of Mines, known today as UAF.

Pointing out how Alaska is different from the other 49 states with land grant institutions, Cole calls UAF "the land grant college without much land." Alaska never got all the land it was intended to have because back then the land hadn't been surveyed.

The land Alaska received was initially called the Tanana Valley Land Grant. The acreage came to 9,000 instead of the intended 250,000 that had been authorized.

"Instead the state became responsible for financial support of the university in other ways," Cole says. Would Alaska have a university if not for the land grant?

"We'd probably have some sort of university, but it wouldn't have higher education at the level and quality we have," he says. He notes that before the establishment of what is now UAF, Alaska had the Alaska Methodist University (now Alaska Pacific University), a private, liberal arts school in Anchorage.

The Fairbanks Experiment Farm was established in 1906, so it made sense for the new college to be located nearby. "The college was created around the farm," Cole says. "The university is here because of the farm."

As for the land grant in general, Cole laments the fact that most people don't understand it or care about it, but he believes it made sweeping changes in this country.

"People don't realize how amazing it is," he says. "We assume now that everyone has the opportunity to go to college if they want to."