FRONTIERS

News about Bureau of Land Management (BLM) Public Lands in Alaska • Issue 120 • Spring/Summer 2014

DISCOVER YOUR PUBLIC LANDS

Nanuqsaurus hoglundi
Illustration by Karen Carr

BLM

Alaska

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ISSUE: 120

what's inside

4 New Dinosaur Species discovered

6 40th Anniversary of Outdoor Week

8 25th Anniversary of Tripod Flats Cabin

10 Seward Peninsula REA Completed

11 Foresters: The Next Generation

12 Keeping Seeds Native

13 ANCSA 14(c) Surveys

14 Frontiers Flashes: News From Around the State

Back Cover
What's Happening in the NPR-A

Very proud sixth grader holds her finished fly-fishing hook at Outdoor Week.

Welcome to Frontiers!

Welcome! We are pleased to present this spring-summer issue #120 of BLM-Alaska Frontiers! It is turning out to be a busy year for BLM-Alaska.

The National Petroleum Reserve in Alaska has an oil and gas lease sale this fall, the NPR-A's first development project is in process, there is ongoing interest concerning the Legacy Wells, and we're learning about exciting paleontological discoveries from the Colville River area. This year is the 25th anniversary of the building of the Tripod Flats Cabin on the Iditarod National Historic Trail. The first of four planned Rapid Ecoregional Assessments in Alaska is now complete for the Seward Peninsula in Western Alaska.

These are just a few of the stories we are bringing to you, along with news flashes from around the state. We encourage you to continue to visit our BLM-Alaska website and social media pages to learn about our news as it happens.

Karen

Karen J. Laubenstein
Editor

@BLMAlaska

Social Media Update

Laura Vachula

The latest BLM Alaska public service announcement video, "Thanks for Being a Good Example," is now available for viewing on YouTube. The video features Alaskan children from Nome and the Copper River Basin. In the video, kids thank various family members for teaching them four-wheeler safety, and talk about what they've learned. The kids talk about wearing helmets, checking the weather, bringing safety kits, and more. This public service announcement reminds adults that kids learn from what they see and to teach kids to be safe while traveling by off-highway vehicle. The video was created as part of a series of public service announcements encouraging trail ethics and promoting the safe use of off-highway vehicles. Through a partnership with the Student Conservation Association, the BLM hired intern Laura Vachula, who produced "Thanks for Being a Good Example."
http://youtu.be/-q0COA5cWjE

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calendar

August

4 iTREC! teacher Summer Institute in Girdwood

The teacher workshop includes sessions on the history of the Iditarod National Historic Trail, place-based service learning, and ways to use the outdoors as a teaching tool. Contact: Luise Woelflein, 907-267-1269

6 Nature Photography

Wonder how to capture the beauty of Alaska through photography? Learn tips & tricks for camera settings for wildlife, auroras, night sky, and landscapes. Starts at 7 p.m. at the BLM Campbell Creek Science Center. Call 907-267-1247 for details.

7 Tolsona Mud Volcano Hike

Take a short hike in Tolsona with the BLM and Wrangell Institute for Science and the Environment and learn about mud volcanoes. Call WISE at 907-822-3575 for details.

9 Weed Smackdown in Anchorage

We need volunteers! Come to Valley of the Moon Park in Anchorage from 10 a.m.-2 p.m. to pull weeds and make that local ecosystem better.

September

10 Water Discovery Day

Free all-outside program for Anchorage-area 4th graders. Students learn more about aquatic macroinvertebrates, salmon, and healthy creeks and watersheds. Contact: Hannah Brewster, 907-267-1241

27 National Public Lands Day

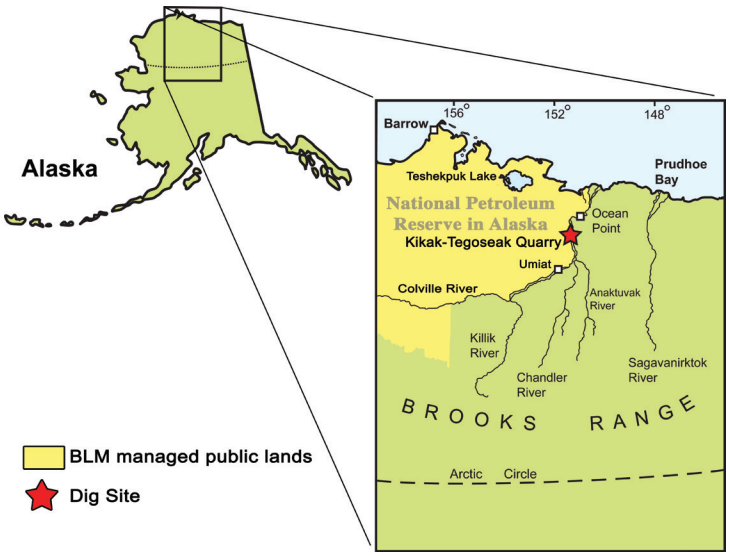
Registration is at 8:30 a.m., project work is from 9 a.m.-12 p.m. Lunch will be provided for volunteers. BLM Campbell Creek Science Center Open House starts at 1:30 p.m.

INTRODUCING NANUQSAURUS HOGLUNDI!

NEW DINOSAUR SPECIES DISCOVERY ON ALASKA'S NORTH SLOPE

Meet the smallest carnivorous tyranosaurid dinosaur yet discovered. It likely had a strong sense of smell to aid in the hunt of its prey, like *Tyrannosaurus rex (T. rex)*. Half the size of T. rex, this dinosaur is about 20 feet long with a 2-foot skull, compared to T. rex at up to 45 feet long and a skull measuring up to 5 feet.

This smaller, diminutive dinosaur roamed northern Alaska nearly 70 million years ago. This land was then part of an ancient subcontinent called "Laramidia." Laramidia experienced cold weather and long periods of darkness and light. Daylight was limited or even nonexistent during the winter months. For the animals living there, food was probably scarce during the dark periods.



The *Nanuqsaurus hoglundi* or "Polar Bear Lizard," is yet another in a series of exciting discoveries in paleontology over the past 30 years, and the second new dinosaur species discovered by paleontologist Anthony R. Fiorillo, Ph.D., and his team from an excavation on BLM-managed lands at the Kikak-Tegoseak Quarry. The Quarry is near Alaska's Colville River on the North Slope. [See Issue 116 BLM-Alaska *Frontiers*, "A New Dinosaur Discovery on BLM-Alaska Lands: *Pachyrhinosaurus perotorum*."]

The world learned about this new species of dinosaur in March 2014. That's when Fiorillo first published his findings on *Nanuqsaurus* in the scientific journal, PLOS One. Fiorillo is Curator of Earth Sciences at the Perot Museum of Nature and Science in Dallas, Texas.

Although Fiorillo's team excavated the site that revealed hundreds of dinosaur bones in 2006, it took years of painstaking lab work and studies of the jumbled and fragmented materials to learn what they had. The Alaska *Nanuqsaurus* discovery is a partial skull in three parts from the Late Cretaceous Prince Creek Formation (which dates to about 69.1 million years ago).

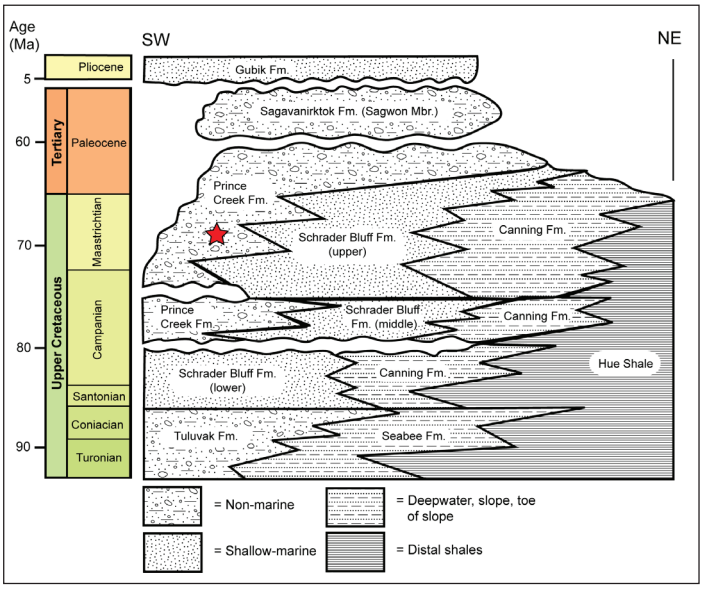
The *Nanuqsaurus* specimens were embedded in three associated loose blocks that Fiorillo's team shipped from Alaska in 2006 to the Perot Museum of Nature and Science's paleontology lab. The three separate pieces of the *Nanuqsaurus* skull were in close proximity to each other, including part of the right maxilla (upper jaw), a section of skull roof and

braincase, and the rostral part of the left dentary (lower jaw). The researchers glued the broken parts together and created silicone rubber molds of the specimens. They also used computed tomography (CT) to scan a partial tooth. The Perot Museum of Nature and Science curates these specimens under the terms of Fiorillo's BLM excavation permit.

Fossils collected legally and scientifically under a BLM paleontological resource use permit remain in a permanent repository (in this case, the Perot Museum) and are available to researchers and the public. Under the Paleontological Resources Preservation Act, the BLM requires these permits before a qualified paleontologist and research team can collect or disturb fossil resources on BLM-managed lands. The permitting process helps the BLM use scientific principles to manage and preserve paleontological resources on public lands.

For information on fossils on BLM-managed public lands, contact your local BLM office or go to http://www.blm.gov/paleontology for more information. For information on Nanuqsaurus, visit http://www.perotmuseum.org/explore-the-museum/research/projects/nanuqsaurus-hoglundi.html.

Citation: Fiorillo AR, Tykoski RS (2014) A Diminutive New Tyrannosaur from the Top of the World. PLoS ONE 9(3): e91287. doi:10.1371/journal.pone.0091287



Stratigraphy as exposed along Colville River, North Slope, Alaska, USA. Approximate level of the Kikak-Tegoseak Quarry within the Prince Creek Formation is indicated by a red star.

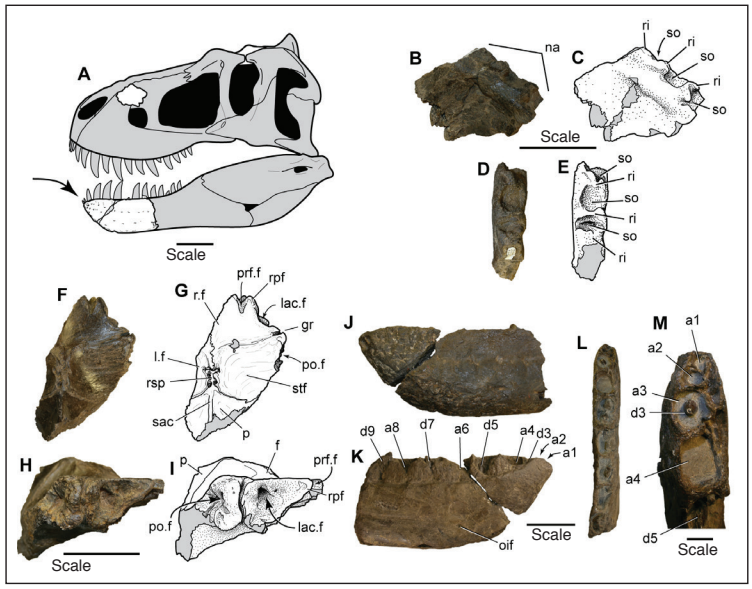
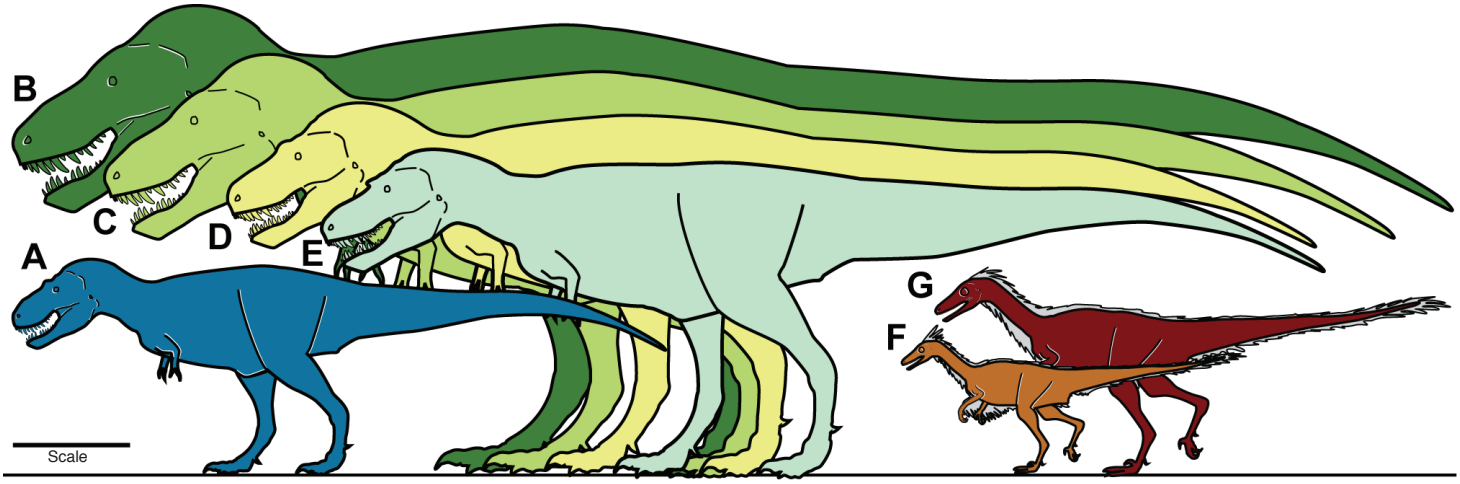


Figure A is a reconstruction of a generalized tyrannosaurine skull, with preserved elements of fossils shown in white. Arrow points to autapomorphic, reduced, first two dentary teeth. Figures B–M are photographs and interpretive line drawings of fossils in two different views. Gray fill indicates missing bone or broken bone surfaces and cracks. Scale bar in A equals 10 cm. Scale bars in B–L equal 5 cm. Scale bar in M equals 1 m.



Silhouettes showing approximate sizes of representative theropods. A, Nanuqsaurus hoglundi; B, Tyrannosaurus rex, based on FMNH PR2081; C, Tyrannosaurus rex, based on AMNH 5027; D, Daspletosaurus torosus; E, Albertosaurus sarcophagus; F, Troodon formosus; G, Troodon sp. Scale bar equals 1 m.

All images courtesy of Dr. Anthony R. Fiorillo and the Museum of Nature & Science in Dallas

40 GLORIOUS YEARS BRINGING KIDS OUTDOORS

Sixth graders learn what discharge is and why it matters from USGS staff before measuring Campbell Creek discharge for themselves.

Traveling Science Center Drive to the Campbell Creek Science Center, your vehicle crunches on a gravel road dappled with shadows from the surrounding boreal forest. You glimpse paths among the sheltering trees and can't help searching for skittering movements of wildlife or birds. Butterflies flitter. Wildflowers add bright splashes of color. Above the trees on the horizon, rugged Chugach Mountain peaks are stoic sentinels for the BLM-managed 730-acre Campbell Tract.

You climb out of your vehicle and are engulfed by smells of spruce and rich earth. A soft breeze caresses your face as birch leaves flutter. Bird calls and insect music surrounds you. You realize you have truly escaped the city of Anchorage, though you are still within the city limits. You are in a wilderness refuge, an outdoor classroom unlike any other.

BLM-Alaska State Director Bud Cribley says it humbled him to watch about 1,700 sixth graders experiencing this natural world firsthand the second week of May. Over the last 40 years, at least 80,000 Anchorage School District students have made the journey to Outdoor Week, and experienced this natural world. It was Outdoor Week that spurred development of the Campbell Creek Science Center by the BLM and its partners.

During Outdoor Week, students learn how to pan for gold, tie flies, fly fish, and be bear aware. They learn about water flow, boating safety, insects, and archaeology. They also experience the mental, physical and environmental benefits of being outdoors. They experience a place for investigation, exploration and social interaction as they discover this special world around them.

To commemorate Outdoor Week's 40th anniversary, folks committed to ensuring future generations care about public lands in Alaska gathered in the great room of the Campbell Creek Science Center. At the podium, Cribley talked about Interior Secretary Jewell's newly launched initiative to inspire young people to play, learn, serve and work outdoors. He spoke warmly of the BLM staff and volunteers who make Outdoor Week and other Science Center programs happen. Cribley recognized BLM's partners for Outdoor Week and the development of the Science Center over the decades.

Sixth graders follow BLM instructors on how to pan for gold after a science lesson in specific gravity of materials and minerals.

After the speeches, partner recognition and photo slideshow of Outdoor Week over the years, the Denali Montessori School Choir filled the Science Center with several songs, including *America the Beautiful.*

Friends of the Campbell Creek Science Center, through generous grants from Municipal Light & Power and the National Environmental Education Foundation, provided bus funding for nearly 1,000 students to attend the event. That's 60 percent of all the kids attending! Through a generous grant from BP, the Friends of the Campbell Creek Science Center also provided funding for the celebration luncheon.

To close out the luncheon, the great room rafters were filled with the uplifting sounds of about twenty 2nd through 6th grade voices as the Denali Montessori School Choir sang.

Bud Cribley summed it up best. "This," he said, indicating not only the Science Center, but the beautiful surroundings beyond, "is a really special place."

All photos by Karen Laubenstein

A happy sixth grader after a perfect cast.

Outdoor Week partners

- Anchorage School District
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- Alaska Geographic
- Alaska Miners Association
- Alaska Public Lands Information Center
- Alaska Zoo
- Anchorage Audubon Society
- Anchorage Museum
- Bird Treatment and Learning Center
- Bureau of Ocean Energy Management
- Chugach Gem and Mineral Society
- Friends of the Campbell Creek Science Center
- Gold Prospectors Association of America
- Matanuska-Susitna Borough
- National Park Service
- National Weather Service
- Natural Resources Conservation Service
- North America Outdoor Institute
- University of Alaska Fairbanks Cooperative Extension Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

25 YEARS!

BLM SHELTER CABIN ON THE IDITAROD NATIONAL HISTORIC TRAIL

It was 1988 when a Kaltag elder recommended a site for the BLM's new public shelter cabin on the Iditarod Trail, about 25 miles into the uninhabited 85-mile passage between the villages of Kaltag and Unalakleet. The area is known for its whiteouts, deep snow, and open water—conditions that have proven treacherous for more than one trail user.

"The Tripod Flats cabin saved [at least] six different people," recalls Richard Burnham, a long-time Kaltag resident and member of the BLM partner group Kaltag Sportsman's Association.

Construction of the Tripod Flats Public Shelter Cabin was a partnership effort, like much of the work that keeps the 2,400 mile Iditarod National Historic Trail system open and vital today. Kaltag residents cut and gathered log poles in the winter of 1988 from a recent nearby fire. Six BLMers from the Anchorage and Glennallen field offices flew by helicopter to the site in June 1989 to build the cabin. These six employees worked for 20 days to build the Tripod Flats Cabin, its furniture, and a privy in the midst of clouds of mosquitoes and an occasional curious bear.

The Tripod Flats cabin quickly became a popular place for local residents traveling between Kaltag and Unalakleet and visitors from far away, such as competitors in the Iditarod Sled Dog Race and Iditarod Invitational Ultramarathon. They appreciate the sunny, south-facing site and the stories found in the decades-old cabin log book.

The Tripod Flats cabin is one of a dozen public shelter cabins along the trail that were developed or restored over the past two decades. Five of these cabins are on BLM-managed public lands, and are now part, along with the Iditarod National Historic Trail, of BLM's National Landscape Conservation System. Unlike many other cabins managed by the BLM in Alaska, the Iditarod Trail cabins are for non-exclusive use, do not require fees or reservations, are open to all for the purpose of public safety, and can be used for stays up to seven consecutive days.

During the heyday of the old gold and mail trail between Seward and Nome, "relief" cabins — as they were called — were the common overnight resting place for trail users, who typically traveled only 20

—continued on page 12

Tripod Flats Cabin in the summer.

Lead Carpenter Remembers Tripod Flats

Dean Littlepage, the Iditarod National Historic Trail Coordinator at the time, asked me if I could build a log cabin. In a moment of deeply misguided bravado, I told him that I never had, but that I was absolutely sure that we could figure it out...

We were ready to begin notching the support logs, so we unpacked the four chainsaws we had brought out with us. The first saw fired up and promptly died... never to be re-started. The other three refused to even start at all. In that era, the BLM had a limited and aging number of chainsaws. Fortunately, the helicopter was still in Unalakleet, so we had replacement saws in hand the next day.

Notching logs with

Kevin Keeler

chainsaw.

Towards the end of the trip, I was awakened in my tent by the sound of metal being banged around about thirty feet away. The rattling stopped, replaced by the unmistakable snorting and sniffing of a bear scouting for food. The sound suddenly turned into a shadow where the bear was pressing his nose into the fabric of the tent fly. I kicked the bear in the nose with my mummy-wrapped feet, said "Scat!" in my harshest "bad-dog" voice. I grabbed the shotgun to chamber a round. I lay there for a few seconds, gratefully listening to the fading footfalls of that bear galloping away, and then yelled, "bear in camp!"

—Ken Higgins,
former BLM Safety Officer

Ben Seifert Remembers: Building the Tripod Flats Cabin 25 Years Ago

When I had the opportunity, I jumped at the chance. I was in my second season as a GS-5 BLM Outdoor Recreation Planner working with five employees out of the Anchorage Field Office: Ken Higgins, Kevin Meyer, Dean Littlepage, Bruce Giffen, and Carl Persson.

We flew into Unalakleet on a commercial fix-winged aircraft and bumped out to the cabin site in a Bell 205 Huey helicopter also known as the "fire ship" out of Galena.

Villagers from Kaltag had skidded some fire-killed logs to the project site from a more recent fire scar nearby. Kevin handled many logistical issues. We took a long hike one day halfway through, led by Littlepage, and walked up to a nearby ridge, which was a great reprieve. I recall the bugs at times were atrocious and we often wore head nets.

The craftsmanship employed for construction of the stairs, door, door handle and lock, bunks, table, etc., were highlights of Ken's mastery. The weather was fair. On those days with rain, we deployed a large tarp that kept us in drier working conditions.

I remember the site had a stand of short and scraggly Aspen trees. I was told that this was one of the most westerly stand of Aspen on the continent. I also recall that, on our return, the weather kept us in Unalakleet an extra day. The jet from Anchorage flew overhead and circled, but couldn't land and returned to Anchorage. We had to fly up to Nome before catching a flight back to Anchorage.

Ben Seifert

Ken Higgins and Kevin Meyer shaking hands. They worked together to build the cabin 25 years ago.

DONE

RAPID ECOREGIONAL ASSESSMENT FOR SEWARD PENINSULA ECOREGIONS

In 2010, in response to widespread environmental influences with increasing impacts on its landscapes nationwide, the BLM started rapid ecoregional assessments throughout the West and Alaska. BLM-Alaska recently completed the Seward Peninsula-Nulato Hills-Kotzebue Lowlands rapid ecoregional assessment begun in September 2010.

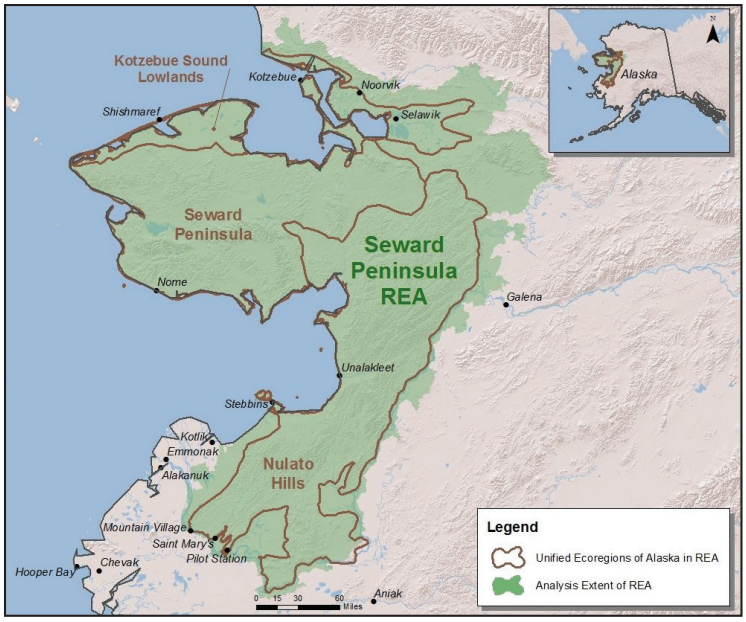
This group of three ecoregions of unique northwestern subarctic and arctic moist polar landscapes covers about 60,000 square miles, 43% managed by the BLM. These landscapes are experiencing substantial changes due to climate change. The assessment results show that climate change and its associated projected impacts on fire regimes and permafrost cover are important management concerns in this ecoregion.

The final report identifies habitats in these landscapes and gauges the potential effects from climate change, wildfires, invasive species, and development on these habitats. It especially focuses on permafrost as it is an important part of the ecosystems. The assessment can help land managers better understand existing conditions in this ecoregion, and how ongoing environmental changes or land use demands may alter those conditions in the future.

This region of Alaska is remote and largely undeveloped. Fewer than 18,000 people live within the ecoregion. Most communities are coastal, on the Bering or Chuckchi seas or along waterways. Nome and Kotzebue, the largest communities, each have about 3,500 residents. This ecoregion includes the westernmost point of the North American continent at Cape Prince Wales, only 15 miles from the Russia-U.S. sea boundary and 55 miles from Siberia.

Moose, brown bears (grizzlies), caribou, arctic fox, and hares are common. Ribbon seals and walrus comb the coastline. This area is the southernmost haunt of polar bears on mainland Alaska. Huge pink salmon ascend the Unalakleet drainage. Reindeer grazing and subsistence hunting and gathering are important. Permafrost is continuous on the coastal plains; soils are often wet, shallow, and organic. Concentrations of lakes and ponds support abundant waterfowl and nesting birds.

Climate projections for the 2050s and 2060s show a marked warming trend for all seasons compared to the 1901-1980 baseline, with most change occurring



Seward Peninsula Ecoregional Assessment area map.

in winter. Warmer temperatures may mean less precipitation falls as snow, more rain-on-snow events, and increases in evapotranspiration. This could lead to an overall drying effect. Forest species could gain territory at the expense of tundra species. Both could be encroached on by invasive species.

These events could have a strong adverse effect on caribou and reindeer, while giving moose an advantage. Recent decades of remote sensing imagery show permafrost undergoing change, decreasing surface area of lakes, and yet an increase in numbers of lakes. Permafrost thaw results in damage to water supplies, increased erosion, increased shrub density and grasses replacing lichen, and drying of soils. Fire regimes may increase as much as 5% in some areas, with more frequent tundra burning and shortened spruce forest fire cycles in areas that previously saw little fire. The U.S. Army Corps of Engineers identified communities at-risk of erosion due to losses of permafrost and shore-fast ice protecting them from storms. These include Shishmaref (currently relocating), Shaktoolik, Selawik, Deering, Golovin, St. Michael, and Unalakleet.

This ecoregion is mostly free from recent glaciations, a part of the ice-free Berengia corridor linking North America and Asia. Ice spans the seas every winter, allowing direct passage of cold Siberian air. Winters have persistent cold, windy conditions and summer fog blankets the coastlines. Vegetation is mostly tundra and shrubs, with spruce and birch woodlands at lower elevations in the hills.

BLM-Alaska's Yukon Kuskokwim, North Slope, and Central Yukon Rapid Ecoregional Assessments started later and are still in progress.

Report and data is available at:
www.blm.gov/wo/st/prog/more/Landscape_Approach/reas/data-portal.html

FORESTERS
THE NEXT GENERATION

On Friday, June 20, Far North Bicentennial Park was filled with the sounds of students, exploring and learning with BLM-Alaska soil and forestry specialist Eric Geisler. The students, all about to enter 9th grade, are participants of the Alaska Native Science and Engineering Program (ANSEP).

Geisler with the help from two BLM-Alaska high school interns from the Campbell Creek Science Center, spent the day teaching students about the relationship between soil and trees, and different types of data gathering. The students went to five different soil and vegetation plots, and learned to take different types of measurements. They not only measured the diameter of trees by taking core samples, but they also learned how to measure stand density (the number of square feet of wood on an acre) with just a string and a penny!

Using a 24¾ inch string with a penny tied to the end, students held up their penny-string contraptions (or "angle gauges") to their eyes, spun slowly in a circle, and looked at the trees around them. Trees wider than the penny at the end of the string were counted, but any trees blocked by the penny were not counted. In this way, students enjoyed learning how to make measurements that were relevant in the real world with a very simple tool.

"It was interesting to see the numbers they came up with," says Geisler, before adding, "I like trying to get students involved in doing natural science, and especially spiking their interests in things like soil and forestry."

ANSEP focuses on getting students from 6th grade through college excited and prepared for degrees and careers in science, technology, engineering, math fields. In addition to running the program at the University of Alaska Anchorage, ANSEP offers junior high and high school students classes to help them learn necessary skills to excel in college programs. Summer is when most middle and high school students get involved in the program, getting the opportunity to talk to and learn from people like Geisler. BLM-Alaska works with ANSEP to help educate students about what the BLM does and what types of careers BLM offers.

—Mila Lassuy
Public Affairs Intern
BLM-Alaska State Office

BLM interns helpings student with angle gauge measurements.

BLM soil and forestry specialist Eric Geisler helps student with an angle gauge as they walk the trails of Far North Bicentennial Park.

ANSEP student takes a tree core sample.

Photos by Student Conservation Association Intern Taylor Crisp

Keeping Seeds Native

BLM-Alaska forester Eric Geisler has a task that doesn't have to do with trees. He has to figure out how much native seed is needed for revegetation or restoration projects statewide over the next five years. That's about how long it takes to go from initial seed collection to processing, production, and storage for the necessary quantities.

BLM-Alaska's Seeds of Success partner is the state-run Alaska Plant Materials Center, based in the agricultural suburbs of Palmer. Three to five BLM employees, and staff and volunteers from other agencies gather the seeds every year for the program. Alaska's Seeds of Success program collects seeds from over 50 geographically distinct plant varieties each year.

These seeds also become available for long-term storage, research, federal contractors, and other federal agencies involved with the BLM's Seeds of Success program. The program goal is to have sufficient quantity of each variety for planned revegetation projects.

Geisler says the Alaska Plant Materials Center cleans, tests, stores, and refreshes Seeds of Success stocks. The Center staffers increase seed quantities by planting collected seeds in either box gardens or fields to get enough seeds to meet projected needs. For the past few years, they've also provided native seed packets for BLM-Alaska to hand out at the Alaska Sportsman Show and other events. The packets include messaging encouraging the use of native seeds rather than introducing potentially invasive species to Alaska.

Geisler visits the Alaska Plant Materials Center at least twice a year. The Center can be an interesting place to tour. Manager Brianne Blackburn, seed program manager Lyubomir Mahlev, and summer

Kim Mincer

Seeds of Success interns Charlotte Crowder and Bonnie Bernard examine seed plugs with seed program manager Lyubomir Mahlev.

Seeds of Success interns can explain unique equipment such as the seed extractor, cleaners and filters, testers, and discuss breeding techniques. They also can point out the box gardens, cultivated fields, seed storage areas, and show what a "plug" is and how they plant them. Curious about what invasive weeds are showing up in Alaska? They are knowledgeable about that, too, and can show samples.

The Seeds of Success program began when Congress created the Native Plant Materials Development Program in 2001. The program helps ensure a stable and economical supply of genetically appropriate native plant materials for use in restoration and rehabilitation efforts on public lands. BLM administers the program and promotes cooperation among agencies. Geisler is always thinking ahead about seed needs and how to promote the program.

Geisler hopes contracting specialists and program managers will plan ahead and remember to use the Seeds of Success program rather than importing seeds from outside of Alaska. It's another way to fight invasive plant species and ensure a stable and economic supply of native plant materials. In plant lingo, that's an "SOS."

Kevin Keeler

Tripod Flats during the Iditarod Sled Dog Race.

TRIPOD FLATS CABIN

—continued from page 8

miles a day.

In the 1980s when a plan was developed for the newly designated National Historic Trail, new shelter cabins were recommended to replace the old relief cabins. Most of the old cabins had crumbled into the ground after only two or three decades.

The Tripod Flats cabin, with its competent log construction, metal roof, and a new coat of log oil every two or three years, shows every sign of providing a welcome respite to Iditarod Trail users for another 25 years!

—Kevin Keeler
Iditarod National Historic Trail Administrator
BLM Anchorage Field Office

MAKING IT SO: BLM SURVEYS DEFINE LANDS

Courtesy of Al Breitzman

ANCSA 14(c) training.

Over 600 people live in the Central Alaskan Yup'ik village of Toksook (TOOK-sook or TUCK-sook) Bay on Nelson Island in Alaska. Toksook Bay came to be in 1964, established by residents of nearby Nightmute. The majority of its residents are Nunakauyarmiut ("People of Nunakauyaq") who depend on fishing and other subsistence activities.

When BLM's Chief Cadastral Surveyor for Alaska signed an Alaska Native Claims Settlement Act (ANCSA) Section 14(c) survey plat for Nunakauiak Yupik Corporation (the ANCSA Corporation for Toksook Bay) on Jan. 31, it completed a process that provides legal descriptions and surveyed property boundaries for the land. This milestone helps the corporation complete ANCSA transfer responsibilities.

Nunakauiak Yupik Corporation is one of more than 200 Alaska Native village corporations, each organized under one of the Alaska Native regional corporations. ANCSA Section 14(c) is a responsibility unique to Alaska Native village corporations. It requires corporations to transfer portions of their conveyed federal lands to individuals and the community. The BLM is responsible for surveying these transfers and providing legal descriptions and boundaries for the corporation. The completion of this process is an important step for each village corporation because it resolves ownership conflicts by providing boundaries and legal descriptions, and provides land for past, current, and future community projects.

ANCSA Section 14(c) recognizes four types of land uses. Sections 14(c)(1) and (2) relate to certain individual claims and nonprofit groups who can show use prior to Dec. 18, 1971. Section 14(c)(3) allows for past or present existing community uses and/or future land needs for municipalities. Section 14(c)(4) covers lands used as of Dec. 18, 1971, for airport activities.

Where is the BLM in the Section 14(c) process? As of 2013, BLM-Alaska has surveyed 111 projects to assist villages with re-conveyance obligations.

There is no deadline for a village corporation to complete this obligation, but a number of factors continue to push the corporations to move forward with the process. Completion clears the cloud of title on all village corporation lands, increases land values, and enhances development potential. It makes land available for a variety of uses. Because those with the knowledge of village history are passing, deciding which claims are valid might become increasingly difficult over time. Approval of claims may incur extra probate expenses as claimants pass on.

ANCSA 14(c) Process

1 — Village Corporation

- Establishes Policy and Procedures
- Solicits and Adjudicates 14(c)(1&2)
- Negotiates on 14(c)(3) claims with city or State in Trust

2 — Village Corporation

Submits 14(c)(1&2) final decisions and 14(c)(3) agreement along with 14(c)(4) airport agreement to BLM for survey (map of boundaries)

3 — Bureau of Land Management

- Uses corporation information to create special instructions and plan of survey
- Executes a survey that creates legal descriptions
- Gives final survey plat to village corporation

4 — Village Corporation

Uses legal description to transfer land title to individuals, cities, or the state (airports)

For more information about ANCSA 14(c) visit: http://www.blm.gov/ak/st/en/prog/cadastral/14c_surveys.html or contact BLM's ANCSA 14(c) Specialist, Al Breitzman, at (907) 271-5606 or abreitzm@blm.gov.

Craig McCaa

Meet Fairbanks artist Sarah DeGennaro, who was the first Artist-in Residence for BLM's White Mountain Recreation Area this past April.

Craig McCaa

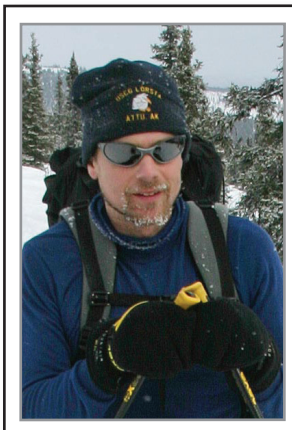
DeGennaro sketches outside the Wickersham Creek Trail Shelter. She has exhibited her art at the National Science Foundation and numerous private and group displays.

Artist in Residence on BLM Lands

Fairbanks artist Sarah DeGennaro was the first Artist-in Residence for BLM's White Mountain Recreation Area. During her mid-April residency, Sarah stayed in the small, rustic Wickersham Creek shelter cabin in the Recreation Area. The BLM provided roundtrip transportation between Fairbanks and the cabin. The 1.2-million-acre White Mountains National Recreation Area has been described as one of the crown jewels of Alaska's public lands. It offers more than 240 miles of maintained winter trails and 14 public recreation cabins surrounded by jagged limestone mountains and cliffs, high mountain passes, and broad, rounded valleys.

The BLM's Artist in residence program is open to artists working in nearly any media, including professional writers, composers, and visual and performing artists. Those selected are expected to donate the use of a piece of artwork inspired by their time on BLM lands to help promote public lands. BLM-Alaska eventually plans to offer several residencies annually in different seasons and locations. Keep checking online for more Artist in Residence opportunities.

2014 Artist in Residence: Ned Rozell



Craig McCaa

The Eastern Interior Field Office selected Fairbanks writer Ned Rozell as its first summer Artist in Residence. Rozell, the author of four books, writes a weekly science column for the Geophysical Institute at the University of Alaska Fairbanks. He will spend two weeks in the Yukon River community of Eagle in late July or early August. Due to strong interest in the residency from artists in Eagle, the Eastern Interior Field Office has enlisted Rozell to help host a "Public Lands Through Art" workshop for community members in Eagle in conjunction with National Public Lands Day. The event will include several artists from Eagle. Free workshops will help youth and adults express the history and stories of historic Ft. Egbert through prose, watercolor, photography, weaving and fabric arts. The art will be on display and shared with the Eagle Historical Society and Museums.

Kids Star in Campbell Creek Science Center video

The video that the Secretary of the Interior, Sally Jewell, told BLM-Alaska State Director Bud Cribley is "a wonderful illustration of the power of engaging children in nature," is now posted on the Campbell Creek Science Center's home page and on YouTube. The new video, "Kids Love to Learn at the BLM Campbell Creek Science Center," highlights outdoor education opportunities and the many great activities kids can do on BLM's Campbell Tract. This video was developed and produced by Student Conservation Association intern Laura Vachula under guidance from BLM-Alaska education technical Brad Fidel and president of the Board of Friends of the Campbell Creek Science Center, Amanda Smith. http://youtu.be/WvrU8K6XIlw.

Laura Vachula

Kids Love to Learn at the BLM Campbell Creek Science Center video by Laura Vachula.

FLASHES

News from around the state and our field offices

Iditarod National Historic Trail has a new Park Passport Stamp

Visitors who use non-proft Traveler's Club Park Passports can now get them stamped when they learn about the Iditarod National Historic Trail at the Alaska Public Lands Information Center in Anchorage. The Iditarod is the only trail in the National Trail System administered solely by the BLM.

Campbell Creek Science Center receives appreciation award on World Refugee Day

On June 20, the Refugee Assistance & Immigration Services (RAIS) program of Alaska's Catholic Social Services gave the Science Center an award recognizing its educational outreach efforts for refugee families in Anchorage and for the financial support from the Friends of the Campbell Creek Science Center that made these efforts possible. Over the past few years, the Science Center provided bus transportation for refugee families to attend outdoor educational stations during the open house portion of National Public Lands Day. The Center also provided multi-day summer programming on Alaska's ecosystems for refugee children.

Carol Scott

North for Science students creating research transects on vast tundra.

Go North for Science — The Rush is On!

It was a science camp like no other. Eight lucky teenagers, led by Fairbanks science teacher Carol Scott, recently completed a unique expedition up BLM-Alaska's Dalton Highway Corridor to explore the subarctic and arctic ecosystems along part of the Dalton Highway.

The 414-mile Dalton Highway, is no ordinary road, and neither were the challenges it presented to these students. They encountered mud, mosquitoes, and round-the-clock daylight — which doesn't make for easy sleeping in a tent!

The BLM, the National Park Service, and cooperating partner Alaska Geographic Association sponsored this first-ever opportunity for local middle-school students to work alongside scientists performing research on BLM-managed lands in Alaska. Read more about their adventure at http://blm.gov/0yld!

USGS

U.S. Geological Survey field camp at Teshekpuk Lake.

Looking to the Future of Alaska's North Slope

Trying to predict the future can be fraught with difficulty. But when we can envision possibilities, we can make plans.

The North Slope Science Initiative (NSSI) has begun the process of developing scenarios for energy and resource development on the North Slope and adjacent seas. The Arctic is complex and its future is uncertain. But thinking creatively about plausible futures can help U.S. Arctic managers make informed decisions and assess the science needed to understand the implications of future development.

The NSSI has partnered with a research consortium formed by the University of Alaska Fairbanks and GeoAdaptive, a scenario specialist consulting group. Key stakeholders in the scenario development process include the communities of the North Slope; energy and resource extraction and related industries; academia; non-governmental organizations; and the Alaska Native, local, state and federal members of the NSSI. www.northslope.org

Legacy Wells Activity

BLM-Alaska has entered into an agreement with the U.S. Army Corps of Engineers (USACE) to conduct surface cleanup operations in the National Petroleum Reserve in Alaska (NPR-A) on three high-priority wells on the Simpson Peninsula, southeast of Barrow.

The USACE has selected a contractor for surface cleanup at the Simpson 26, 30 and 30A Core Test sites, as outlined in the 2013 Legacy Wells Strategic Plan. BLM-Alaska has also been working with the Alaska Department of Environmental Conservation to develop a sampling and cleanup program that will be satisfactory to both agencies.

The BLM is responsible for surface and subsurface management of 136 wells, test holes and reserve pits in the 22.8-million-acre NPR-A. The wells were drilled during early exploration by the U.S. Navy and U.S. Geological Survey. Responsibility for the NPR-A and these wells was transferred to the Department of the Interior in 1976.

Since 2002, the federal government spent nearly $86 million in plugging Legacy Wells and cleaning up the surface at priority sites. Last September's passage of the Helium Stewardship Act of 2013 included a provision to fund BLM's Legacy Well cleanup efforts with $50 million in funding over fiscal years 2014-2019.

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WHAT'S HAPPENING IN THE NATIONAL PETROLEUM RESERVE IN ALASKA (NPR-A)

Recently, the NPR-A has become the focus of heightened public interest, in part due to the Greater Mooses Tooth Unit 1 draft supplemental environmental impact statement (EIS) currently in process and an upcoming NPR-A oil and gas lease sale.

The draft supplemental EIS's 60-day comment period ended on April 22. BLM subject matter experts have been busy reviewing hundreds of comments on the draft and revising the EIS. They are also analyzing an additional sub-alternative for the final EIS that was not in the draft version. This analysis involves evaluating a seasonal drilling program at the Greater Mooses Tooth Unit 1 under the roadless alternative. In addition, the BLM continues to consider a preferred alternative.

As the BLM continues work on the supplemental EIS, ConocoPhillips Alaska, Inc. seeks permits for an Application for Permit to Drill and for a Right-of-Way grant for its CD-5 project. Under current legislation, the BLM has a legal obligation to process applications under BLM issued leases.

Under President Obama's May 2011 plan to increase responsible domestic oil production by conducting annual lease sales, BLM-Alaska's next annual lease sale will be mid-November 2014. The *Federal Register* published the BLM's call for nominations and comments on 873 available tracts on approximately 9.8 million acres. This sale, like the last two lease sales, will coincide with the State of Alaska's oil and gas sale for the North Slope. There are currently 207 authorized oil and gas leases totaling 1,755,863 acres in the NPR-A.

To learn more about the GMT 1 project process, go to http://www.blm.gov/ak/GMTU1.

Upcoming lease sale information: http://www.blm.gov/ak/st/en/prog/energy/oil_gas/npra/npr-a_leasing.html.

—June Lowery
Public Affairs Specialist
Alaska State Office