

Current Environmental Issues

In this section, you will find a brief review of several current environmental issues in the region. You will also find resources to stay up-to-date as these issues continue to evolve.



Climate Change

Alaska is warming twice as fast as the rest of the country

- Over the past 60 years, Alaska has warmed more than twice as fast as the rest of the United States. Average annual temperatures have increased by 3 degrees Fahrenheit and average winter temperatures by 6 degrees Fahrenheit.
- Alaskans are already seeing earlier spring snowmelt, widespread glacier retreat, drier landscapes, and more insect outbreaks and wildfires because of climate change.
- Entire systems are thrown off course, everything from glacier melt to phytoplankton to salmon are effected by warmer temperatures. We are seeing shorter winters with more rain than snow and fewer below freezing days in winter.
- Arctic summer sea ice is receding faster than previously projected and is expected to virtually disappear before mid-century. Sea ice is important for many reasons, most importantly it acts a a giant reflector of the suns solar heat. When it is gone, the ocean absorbs that heat, therefore causing more melt. This is called a positive feedback-loop.
- Arctic residents, especially Alaska Natives, have adjusted the timing of activities to respond to changes in seasonality and safety of land, ice, and snow travel conditions.
- Record water temperatures in 2019 caused Kuskokwim River salmon to die from heart attacks



Climate Change (continued)

- Some climate impacts are already unavoidable while there is still a lot we can do to curb worst case scenarios. Villages of Newtok, Shishmaref, and Teller in Western Alaska are working to move locations due to rising seas and lack of sea ice, which protects the shorelines during winter storms. Lack of sea ice also alters food availability for many who rely on traditional foods
- Summer 2019 was the hottest and driest on record, Southeast Alaska saw temperatures in the 90s and was in draught - even a severe draught in some places – in a temperate rainforest!
- Climate change is non-linear, meaning it is hard to predict what and how systems and species will be effected
- Below are a few references to use to understand what is happening here, as well as a link to how people are talking about it around the world:



Newtok Alaska

Audubon Alaska <https://ak.audubon.org/map/climate-in-alaska>

Alaska's Changing Environment: <https://uaf-iarc.org/our-work/alaskas-changing-environment/>

NPS: <https://www.nps.gov/subjects/aknatureandscience/hi-latclimatechange.htm>

<https://www.nps.gov/klgo/learn/nature/climatechange/klgo.htm>

A year of talking about climate change: <https://www.thecut.com/2020/01/a-year-of-talking-about-climate-change.html>

Relocation of Newtok:

<https://www.adn.com/alaska-news/science/2019/06/29/relocation-of-erosion-threatened-alaska-village-progresses-to-sprint-pace-this-summer/>

How do we talk about Climate Change?

We found this article helpful when determining how to approach a conversation with someone about climate change:
<https://hbr.org/2020/01/a-better-way-to-talk-about-the-climate-crisis>

Some highlights from the article:

- One of the most important things we can all do to help solve climate change is to simply talk about it with people we know. But that doesn't mean we all should have the same approach when we strike up a conversation. It's important to be authentic and figure out what works for you.
- There's an easy rule of thumb to follow: Don't start with fear, judgment, condemnation, or guilt. And don't start with just overwhelming people with facts and figures. Do start by connecting the dots to what is already important to both of us, and then offer positive, beneficial, and practical solutions to engage in.
- Though you may not have personally witnessed dramatic examples of climate change while in Alaska, there is lots of great reporting and a variety of AK issues that connect back to climate change.
- The best thing you can do is keep yourself informed and have a base of understanding of what is happening so that if questions do come up, you are prepared to speak to what you know.



The Roadless Rule and the Tongass National Forest

- The 2001 Roadless Rule establishes prohibitions on road construction, road reconstruction, and timber harvesting on 58.5 million acres of inventoried roadless areas on National Forest System lands. The intent of the 2001 Roadless Rule is to provide lasting protection for inventoried roadless areas within the National Forest System in the context of multiple-use management.
- The Tongass National Forest was included in the 2001 Roadless Area Conservation Rule passed by Bill Clinton. This rule prohibits tree harvest and road construction within inventoried roadless areas with certain exceptions, according to the U.S. Forest Service.
- In October 2019, the U.S. Forest Service announced plans to repeal Roadless Rule protections across more than 9 million acres of the Tongass National Forest, enabling logging interests to bulldoze roads and clear-cut trees in areas of the Tongass that have been off-limits for decades.
- “The millions of ancient trees across this temperate rainforest serve as the greatest carbon sanctuary in the U.S. national forest system, helping us all as a counterweight against the climate crisis,” Earthjustice Managing Attorney Eric Jorgensen.
- The public comment period just ended in mid December, 2019. We are waiting to hear from Secretary of the Interior, Sonny Perdue.
- The Skagway Assembly passed a resolution in support of keeping the Roadless Rule on the Tongass. Thousands around the country, including local tribal governments, municipalities, and non-profits, sent in comments. There was strong media presence in favor of keeping the Tongass intact. Stay tuned.

USDA Forest Service: <https://www.fs.usda.gov/roadmain/roadless/2001roadlessrule>

Skagway News: <https://skagwaynews.com/2019/12/16/skagway-speaks-against-proposal-to-eliminate-tongass-roadless-rule/>

Southeast Alaska Conservation Council Toolkit: https://www.seacc.org/roadless_rule_toolkit



The Palmer Project

- Constantine Metal Resources, a Canadian mining company, is in the advanced exploration stages of a large-scale copper, zinc, gold and silver mine near the headwaters of the Chilkat River.
- Large-scale high sulfide mines pose significant risks to water quality and fisheries habitat. Some mines contaminate downstream waters for thousands of years.
- The Chilkat River drains to the ocean in Haines, and flows in front of the Native village of Klukwan, the Chilkat hosts all 5 species of Pacific salmon.
- The Palmer Project raises serious concern among local residents, fishermen and conservationists because of the acid mine waste and heavy metals that could leach into the groundwater. A tailings pond or dry stacking of the toxic waste will require maintenance for centuries after the mine closes, and with the frequent earthquakes and heavy rains in the region, residents fear a disaster like what occurred at British Columbia's Mount Polley Mine in 2014, when the tailings pond breached the dam and poisoned Polley Lake and the Cariboo River watershed.
- The Alaska Department of Fish and Game published harvest data which shows more than 90% of Chilkat Valley residents rely on salmon for subsistence, and more broadly, Alaska's global export of salmon was roughly 114 million fish in 2018.
- [Patagonia](#) is helping to maintain the clean water of the Chilkat Valley by financially supporting storytelling and conservation efforts through films and educating the public on the potential damage of this type of mine.
- Southeast Alaska Conservation Council and Lynn Canal Conservation Council are working hard to keep us informed of the process and progress.
- Check out the film Rock Paper Fish to learn more! www.rockpaperfish.com



Lynn Canal Conservation: <https://www.lynncanalconservation.org/mining>

Alaska Public Media Coverage:

<https://www.alaskapublic.org/2019/12/09/the-palmer-project-a-mining-exploration-outside-haines-could-transform-into-a-large-scale-operation/>

Pebble Mine

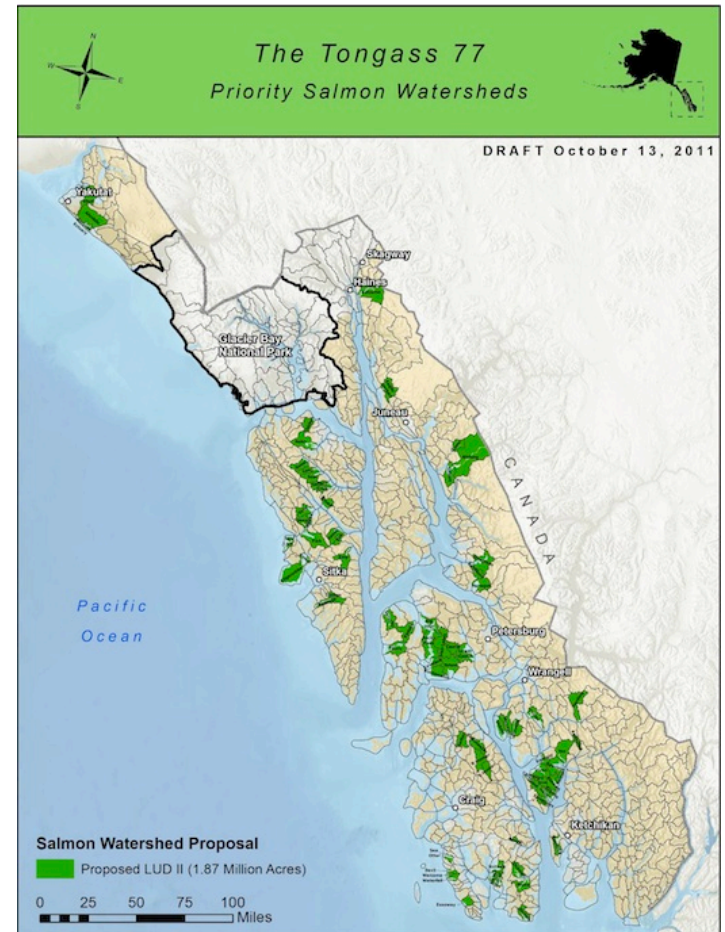
- The Pebble deposit holds copper, gold, and molybdenum the headwaters of the Kvichak and Nushagak Rivers, two of the eight major rivers that feed Bristol Bay
- Because of its size, geochemistry and location, Pebble runs a high risk of polluting Bristol Bay, the world's most productive sockeye salmon strongholds that supports a \$1.5 billion commercial and sport fishery. Bristol Bay is the largest wild sockeye salmon run in the world (40 million fish annually) and generates between \$300million and \$500million annually
- Bristol Bay's economic, social, cultural and ecological well-being is structured around wild salmon. There are more than 30 Alaska Native Tribes in the region that depend on salmon to support their traditional subsistence ways of life
- If built, Pebble Mine would be the largest mine in North America, and one of the largest in the world, covering about 28 sq. miles, with an extraction pit 4,000 ft deep and 3.2 miles wide
- In 2019, we saw a rushed permitting with the release of a Draft Environmental Impact Statement that many contend contained incomplete information pertaining to the potential risks of the project, and a comment period where more than 685,000 people from across the country weighed in in opposition to Pebble.
- 2020 is a critical year for further development plans – keep watch at www.savebristolbay.org



- Wild Salmon Center Report, http://www.wildsalmoncenter.org/programs/north_america/pebblemine.php
- Pebble Science, <http://pebblescience.org/>
- The Pebble Partnership, <http://www.pebblepartnership.com/>
- Felt Soul Media, "Red Gold", <http://www.feltsoulmedia.com/thewire/redgoldfilm/>

Tongass 77

- Scientists and stakeholders in Southeast have identified over 70 areas within the Tongass National Forest that are the most important to salmon and trout populations. The rivers and streams that make up these areas are currently open for development activities that could significantly impact salmon and trout habitat.
- The Tongass National Forest is the country's largest and wildest national forest. It's a rare temperate rainforest representing less than three percent of all forest cover on Earth. The Tongass contains nearly 18,000 miles of rivers, lakes and streams which produce tens of millions of salmon and trout each year. The Tongass is America's only salmon forest that remains biologically healthy for these unique fish.
- Salmon and trout support 11% of regional jobs and contribute nearly \$1 billion to the economy annually
- 65 percent of salmon and trout habitat in the Tongass National Forest is not protected from development at the watershed scale. The Tongass 77 aims to have the US Forest Service designate the 77 best salmonid watersheds as LUD II; that is, managed preferentially for fisheries
- Logging and development are the primary threats to salmonid habitat
- The Tongass 77 would provide permanent Congressionally-designated conservation measures for these important watersheds.



- Trout Unlimited, American Salmon Forest, <http://americansalmonforest.org/faqs/>
- USFS, Tongass Land Management Plan, <http://www.fs.usda.gov/detail/tongass/home/?cid=stelprdb5367364>
- SEACC, TLMP, <http://seacc.org/healthy-forests/tongass-land-management-plan-tlmp-1/tongass-land-management-plan-tlmp>
- The Nature Conservancy, Conservation Assessment, http://home.gci.net/~tnc/HTML/Consv_assessment.html

“The Road” (is it really dead?)

- Juneau is the largest city in North America not connected to a continental highway; currently access is only by boat or plane
- The proposed Juneau Road would stretch 50 miles North toward Skagway, to a proposed ferry terminal on the Katzehin River (just South and across the fjord from Haines); from there travelers could take a short ferry to Haines or Skagway
- The route would travel through 61 avalanche chutes and significantly reduce salmon, bald eagle, Stellar sea lion, and brown bear habitat; avalanches and land slides would close the road for an estimated 34 days per year
- Proposed benefits include increased connectivity for Juneau, increased tourism, and increased access to healthcare for Skagway and Haines
- A 2011 estimate put the construction cost at \$480 million
- In April 2013, the Alaska House Finance Committee restored \$10million in funding for the project
- In 2018, then Governor Walker killed the proposal but it could easily flare up under new state leadership
- Known locally as “The Road”



•Juneau Empire, <http://juneauempire.com/local/2011-12-18/alaska-pushes-ahead-juneau-road-extension>

•Alaska DOT, http://dot.alaska.gov/sereg/projects/juneau_access/index.shtml

•Juneau Empire, <http://juneauempire.com/state/2013-04-14/committee-restores-access-road-funds-capital-budget>

ADN: <https://www.adn.com/alaska-news/2018/07/20/feds-officially-kill-juneau-road-extension-that-walker-previously-halted/>

Peel Development

- The Peel River watershed, located in the north of the Yukon Territory, is one of the largest undeveloped areas in the world (28,000 sq. miles, or larger than West Virginia)
- Chevron's large Crest iron deposit and oil and gas exploration are the main draws for development
- Peel watershed is home to Porcupine caribou herd, the same herd currently protected in Alaska by ANWR
- Proposed development could also include an \$11 billion railway to Haines (unlikely); otherwise trucks would transport ore to Skagway
- A 2013 release of comments on the Peel Watershed Plan showed about 95% of commenters opposed development
- In December, 2017, the Supreme Court of Canada overturned a previous Yukon Government decision to open the watershed to development, a massive win for conservation and the rights of the First Nations in the area.
- In 2019 Leaders from the Governments of Yukon, Tr'ondëk Hwëch'in, the First Nation of Na-Cho Nyäk Dun, Vuntut Gwitchin First Nation and the Gwich'in Tribal Council gathered in Mayo, Yukon to officially sign the plan and celebrate their shared accomplishment. Catherine McKenna, Minister of Environment and Climate Change Canada also joined in the historic signing ceremony, which took place on the traditional territory of the First Nation of Na-Cho Nyäk Dun.

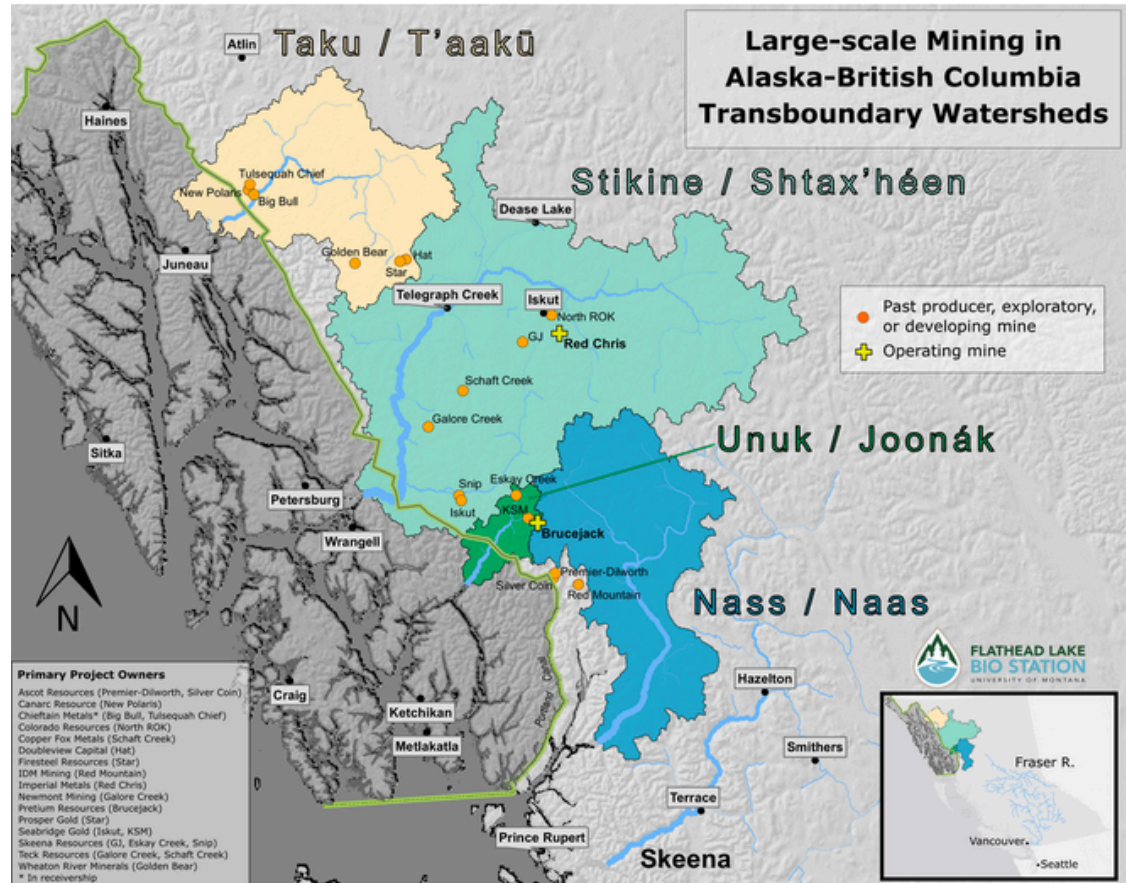


• Peel Watershed Planning Commission, <http://www.peel.planyukon.ca/>

• Protect the Peel, <http://protectpeel.ca>

• Yukon News, Cost of Peel Protection is uncertain, <http://yukon-news.com/news/cost-of-peel-protection-is-uncertain/>

Transboundary Rivers



- Transboundary rivers are exactly as they sound, rivers that cross boundaries (the Canada/Alaska border in this case). Activities that happen upstream can have severe impacts to those living downstream.
 - The Taku, Stikine, and Unuk Rivers originate in British Columbia, and flow into Southeast Alaska. Each river supports significant commercial, sport, and customary and traditional fishery in Southeast Alaska and B.C.
 - Sacred Headwaters is an area of northern British Columbia that gives rise to three of the region's great rivers: the Skeena, the Nass, and the Stikine.
 - In Northwest British Columbia, a modern-day gold rush is underway that could threaten B.C.'s and Southeast Alaska's salmon, rivers, fishing and tourism jobs, and unique way of life.
 - Currently, there are no enforceable policies in place to safeguard our wild salmon and clean water, and the jobs they support, from upstream large-scale developments in British Columbia.
 - Alaska's congressional delegation, and several dozen Alaska municipal governments, tribes, commercial and sport fishing organizations, NGOs and businesses have so far called on the U.S. Department of State for action under the Boundary Waters Treaty to protect the water and ecosystems
- Salmon Beyond Borders: <https://www.salmonbeyondborders.org/whats-at-risk.html>
- Forest Ethics,

<http://forestethics.org/news/shell-withdraw-development-plans-british-columbia%E2%80%99s-sacred-headwaters-local-communities-and>

ALASKAN ENVIRONMENTALISTS

In this section, you will find background on a few key figures who have worked to protect Alaska's natural beauty for us and for future generations.



John Muir

- Born in Scotland in 1838; family emigrated to Wisconsin at age 11
- Became naturalist in Yosemite Valley, known for guiding and story-telling skills
- Correctly developed theories of glaciology in Glacier Bay and Yosemite that contrasted with accepted knowledge of the late 1800's
- Co-founded Sierra Club
- Credited as “Father of the National Parks”, primarily responsible for Yosemite National Park and Glacier Bay National Park and Preserve
- First traveled to Alaska in 1879; famously accompanied E.F. Harriman's scientific Alaskan expedition in 1899
- Regarding Alaska, Muir said, “To the lover of pure wildness, Alaska is one of the most wonderful countries in the world”
- Muir detested Skagway and the greed of the stampedeers, calling Skagway “a nest of ants taken into a strange country and stirred up by a stick”
- Muir believed in spiritual quality of natural world that conflicted with Gifford Pinchot's idea of conservation: responsibly using natural resources
 - The two eventually split and led two separate factions of environmentalists: Muir the preservationists, Pinchot the conservationists



Celia Hunter

- Born in 1919 in Washington state; died in 2001
- Joined Women Airforce Service Pilots (WASPs) during World War II as a pilot, flying fighter planes from factories to training centers
- Women were not permitted to fly farther north than Great Falls, MT; after the war, Hunter and her friend and fellow pilot Ginny Wood moved to Fairbanks, curious to see the beautiful north described by male pilots
- Hunter and Wood acquired land via the Homestead Act and established Camp Denali, a tourist camp on the then-western boundary of Denali Park
- In 1960, founded the Alaskan Conservation Society to support creation of ANWR and fight Rampart Dam (a proposed hydroelectric project NW of Fairbanks that would have created a reservoir the size of Lake Erie) and Project Chariot (a proposed artificial harbor on the North Slope using nuclear bombs)
- Became President of the Wilderness Society in 1976, making Hunter the first woman to lead a national environmental organization; worked to pass ANILCA
- In 1980, founded Alaska Conservation Foundation with Denny Wilcher
 - **ACF is a major recipient of Sockeye's water bottle donations**
- Awarded the highest awards by both The Sierra Club and The Wilderness Society



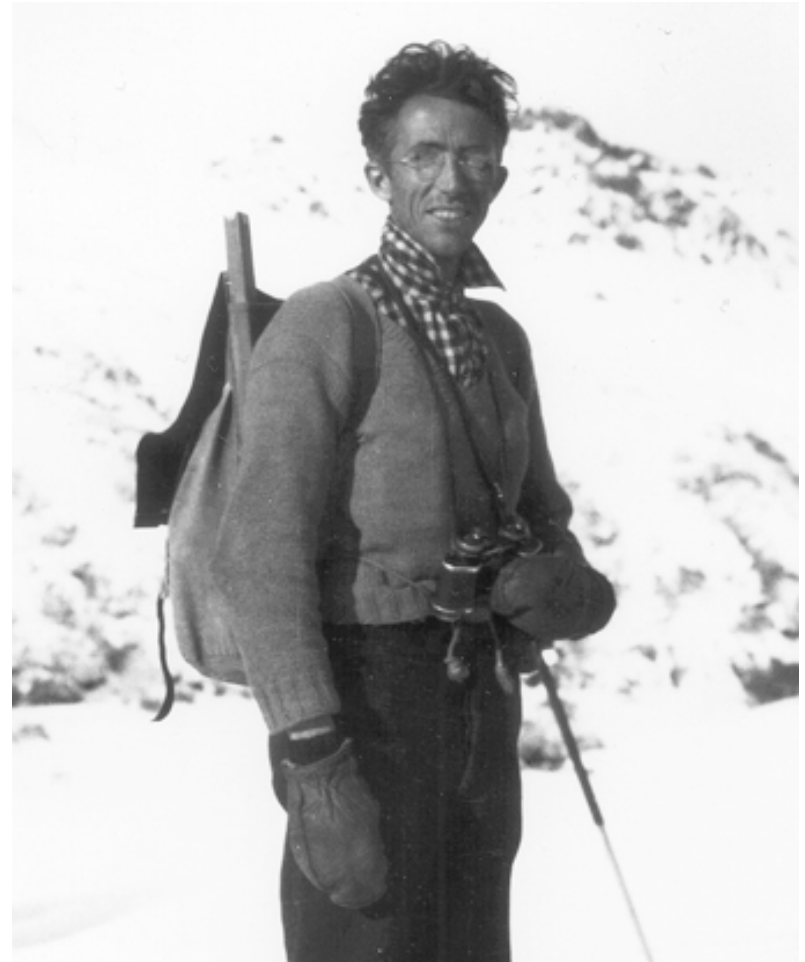
[Alaska Conservation Foundation, Celia Hunter, 1919-2001 \(link\)](#)

Brinkley, *The Quiet World: Saving Alaska's Wilderness Kingdom, 1879-1960*

Haycox and Mangusso (eds), *An Alaska Anthology*

Adolph Murie

- Born in Minnesota in 1899
- First scientist to study wolves in natural habitat; also studied ecology of tundra extensively
- Counted growth rings on Dall sheep killed by wolves in Denali National Park between 1939 and 1941, discovered that wolves preyed almost exclusively on old, young, or sick/injured sheep
- Changed management policies on wolves in National Park Service to seeing wolves as an asset to maintain large herbivore populations and not a threat to be eliminated
- Interest in Alaska sparked in college with Adolph accompanied his half-brother Olaus on a trip to Denali National Park
- Also noted for extensive work in protecting and expanding ANWR, Ilse Royale, and Grand Teton National Park



Murie, *A Naturalist in Alaska*

Murie, *The Wolves of Mt. McKinley*

[Wolf Song of Alaska, Adolph Murie and the Toklat Wolves of Denali National Park and Preserve \(link\)](#)

Brinkley, *The Quiet World: Saving Alaska's Wilderness Kingdom, 1879-1960*



Teddy Roosevelt

- 26th President of the United States
- Avid outdoorsman
- Settled US-Canada boundary dispute in 1903
- Created Alexander Archipelago Forest Reserve in 1902
- Established Tongass National Forest in 1907 which expanded his earlier protection to cover most of SE Alaska
- 1903 camping trip with John Muir resulted in protection for Yosemite Valley and is widely credited with changing American conservation
- Fallout from Pinchot-Ballinger affair and Taft's repeals of Roosevelt's protection caused Roosevelt to run for President again



Brinkley, *The Quiet World: Saving Alaska's Wilderness Kingdom, 1879-1960*

Mackovjak, *Tongass Timber: A History of Logging & Timber Utilization in Southeast Alaska*



Bob Marshall

- Forester, author, wilderness activist born in 1901
- Studied tree growth at timberline of Arctic Divide for US Forest Service
- Explored central Brooks Range and coined term “Gates of the Arctic”
- Argued for preservation of wilderness areas and that wilderness is a minority right
- Founded Wilderness Society
- Writing provided impetus for Gates of the Arctic Wilderness National Park and Preserve
- Gates of the Arctic Wilderness is 3rd largest wilderness area in America
- Died suddenly of an apparent heart attack at age 38



Brinkley, *The Quiet World: Saving Alaska's Wilderness Kingdom, 1879-1960*

Marshall, *Alaska Wilderness: Exploring the Central Brooks Range*

Marshall, *The Wilderness as a Minority Right*

Nash, *Wilderness and the American Mind*



National Park VS National Forest

- National Parks emphasize the preservation and protection of wilderness or pristine natural and historic areas for future generations
 - “Park rangers work for the National Park Service (NPS) under the Department of Interior”
 - Came about in 1872 when President Ulysses S. Grant signed Yellowstone as our first Nat’l Park
 - “In 1916, the Organic Act led to the creation of the National Park Service, a bureau of the Department of the Interior, to protect all designated national park land”
 - John Muir fought for preservation and protection
- National Forests are public lands managed by the US government for the conservation and use of natural resources
 - Are considered “multiple uses” because you can log, mine, graze the land and use it as a recreational site
 - “...managed by forest rangers with the US Forest Service (USFS) under the Department of Agriculture”
 - The Forest Reserve Act of 1891 placed public land into reserves. In 1905 the Transfer Act put the reserves into the hands of the Department of Agriculture as Nat’l Forests so to regulate the land.
 - Gifford Pinchot fought for the conservation of resources on land



References:

[Great Smoky Mountains National Park, National Park vs. National Forest \(link\)](#)
[PBS, National Parks, National Forests, and U.S. Wildernesses \(link\)](#)

