Glacier Bay

Glacier Bay National Park
Glacier Bay National Preserve
Alaska

National Park Service
U.S. Department of the Interior

Wildness: Remote, Dynamic, and Intact

And so we arrive in Glacier Bay, a land reborn, a world returning to life, a living lesson in resilience. If ever we needed a place to intrigue and inspire us, to help us see all that's possible in nature and in ourselves, this is it. Glacier Bay is a homeland, a natural lab, a wilderness, a national park, a United Nations biosphere reserve and a world heritage site. Not a bad resume for a young land, a new sea. Just 250 years ago, Glacier Bay was all glacier and no bay. A massive river of ice, roughly a hundred miles long and thousands of feet deep, occupied the entire bay. Today, that glacier is gone, having retreated north. Fewer than a dozen smaller tidewater glaciers remain. Impressive in themselves, sequestered at the heads of their inlets in the upper bay, they flow from tall coastal mountains to the sea, and calve great shards of ice that bejewel cold waters with diamond-like bergs. They are witnesses to change, these rivers of ice. They invite us to slow down and breathe deeply of the cool ice age air, and to imagine, if only for a day, the way things used to be.

Margerie Glacier in Tarr Inlet
©ALASKA STOCK

Forest near Bartlett Cove
NPS

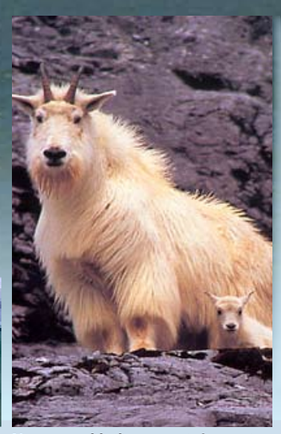
Kayaker on Glacier Bay
NPS

©ALASKA STOCK

New forests now cloak parts of the bay *(far left)* since the glaciers retreated. Elsewhere some glaciers still flow into the bay. Retreating glaciers leave barren land behind. Humpback whales *(tail above)* may top the list of things you hope to see here.

Sea star
©ALASKA STOCK

Pigeon guillemot
©MARK KELLEY



Nanny and baby mountain goat
©MARK KELLEY

Tidewater Glaciers

Glaciers fed by heavy snow extend to the sea and calve icebergs from their face. Sediments may accumulate at the face of a tidewater glacier *(right)*, providing a protective shoal from the seawater, allowing the ice to advance into deeper water.

If a glacier loses its shoal, retreat begins. If conditions become favorable, the cycle may begin again with the advance of glaciers.

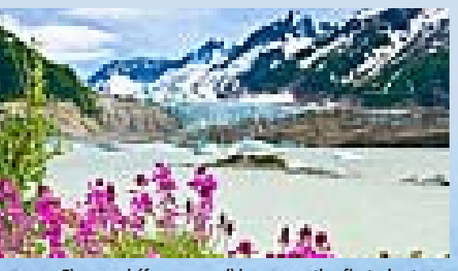
ILLUSTRATION NPS/JAIME QUINTERO

Glaciers *Discovery* *Plant Succession* *Science Studies* *Preserving Wilderness* *Cultural Connections*

Chocolate lily
©MARK KELLEY

Connections with the Land

A journey through Glacier Bay is more than a journey through geography. It's a journey through time. We begin in the modern age and finish in the ice age, traveling north from the forested lower bay to the rocky, icy upper bay (roughly 65 miles). We pass through hundreds of bold changes and subtle transitions where plants and animals pioneer new ground and surprise even the most seasoned observers of nature. A bear crosses a glacier.



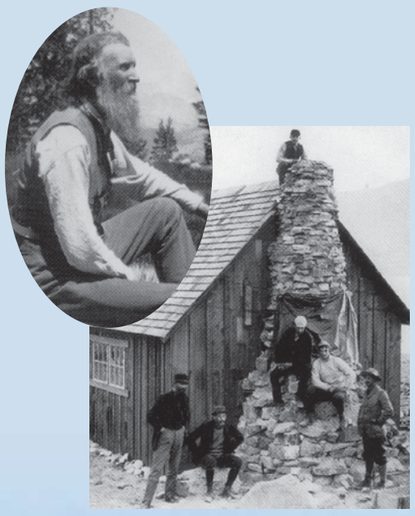
Fireweed *(foreground)* is among the first plants to pioneer the recovery of bare, disturbed land left behind when glaciers retreat. ©ALASKA STOCK

A moose swims an inlet. A seedling spruce emerges from granite, reaching for the sky. Life is tough and tenacious here. No wonder Glacier Bay holds powerful stories, and attracts scientists, preservationists, and travelers from around the world.

One of those scientists was a plant ecologist from Minnesota, a quiet man with an easy smile who studied relationships. He came to Glacier Bay in 1916, and over several decades returned many times to make careful observations. His name was William S. Cooper. What he found so inspired him—a wild land, undefiled, untamed, returning to life in the wake of glacial recession—that he shared his findings with colleagues at the Ecological Society of America. Might it be possible, they asked, to preserve Glacier Bay? To keep it wild; as a place where nature can unfold in ways that will teach and enlighten us forever? Cooper knew the history of Glacier Bay. Tlingit people had occupied the area for countless generations, living in the shadows of glaciers, prospering from the bounty of the land and sea. Captain George Vancouver had sailed the area in 1794, and created a rough map that showed the bay filled with a single great glacier. Eighty-five years after Vancouver, naturalist/preservationist John Muir had visited the bay by canoe, and found the glacier receding as fast as a mile per year. Muir wrote about Glacier Bay with such lyrical heart—his words like music—that he changed America's national perception of Alaska from one of daunting cold to enchanting beauty.

Like the little plants he studied, William Cooper was tough and tenacious. Like John Muir, he found in Glacier Bay a power that inspired him to become something more than what he had been. He wrote letters, made personal appeals, and suffered criticism. No great act of public lands conservation is made without a fight. It paid off in 1925 when Glacier Bay became a national monument. Fifty-five years later, President Jimmy Carter signed the Alaska National Interest Lands Conservation Act that created Glacier Bay National Park and Preserve.

It would have made William Cooper smile and John Muir sing.



John Muir *(inset)* and friends built this cabin near Muir Glacier in 1890 as a base for studying the glaciers. Muir championed the new theory, developed in Europe's Alps, that California's Yosemite Valley had been carved by glaciers and not caused by the Biblical flood.
MUIR, LIBRARY OF CONGRESS; CABIN, NPS

For 50 years ecologist William S. Cooper *(top right)* studied post-glacier plant succession here. Near the park visitor center *(top left, boardwalk)* the plant life has now recovered enough to support moose *(above)*. Forests become younger as you travel up the bay, tracing the massive glacier's retreat.
BOARDWALK, ALASKA STOCK; WILLIAM S. COOPER, UNIVERSITYOF MINNESOTA ARCHIVE; MOOSE, ALASKA STOCK

Park science staff and other researchers conduct field studies to guide the park's management. Traditional Tlingit knowledge contributes to their understanding of these lands and waters. NPS

Haa aani a ya
This is our homeland...

In the late 1600s near present-day Bartlett Cove, an extended family of Tlingit harvests salmon at a summer fish camp, their winter village visible in the distance. From spring through fall they travel widely, harvesting the resources they need to sustain them through the long winter. Their landscape is very different from today's marine bay—it was a grassy valley coursing with salmon-rich streams and scattered forests. Looming in the distance, a great glacier sits dormant, pausing before the cataclysmic advance that will force these people from their homes around 1750. But the Tlingit have proven resilient. They returned as the ice retreated and today claim Glacier Bay as their spiritual homeland.

ILLUSTRATION NPS/RICHARD SCHLECHT

Compact Atlas of Glacier Bay

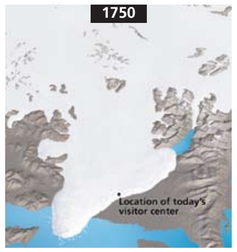
Glaciers Advance, Glaciers Retreat

Until 10,000 years ago, continental-scale ice sheets came and went many times for seven million years. During this Great Ice Age these ice sheets would reach as far south as the upper Midwest of the United States.

Glacier Bay today is the product of the Little Ice Age, a geologically recent glacial advance in northern regions. The Little Ice Age reached its maximum extent about 1750.

Some glaciers are retreating here, others are advancing—unlike in some mountains in the contiguous United States where glaciers may soon be a thing of the past.

At Glacier Bay you can witness geologic processes and change usually barely noticed in the span of a human life. Compare this diagram with the 1680 Huna Tlingit scene on the other side. There was no Glacier Bay then, only a broad valley with a glacier moving down it.



The Little Ice Age came and went quickly in geologic terms. By 1750 the glacier reached its maximum, jutting into Icy Strait, but 45 years later, when Capt. George Vancouver sailed here, the glacier had melted back five miles into Glacier Bay, which it had gouged out.

When conservationist John Muir came here in 1879 the glacier had retreated 40 more miles up the bay since Vancouver's visit. A renowned author, Muir captured the public's imagination about Alaska, attracting tourists to Glacier Bay. Like most people today, they came by ship.

Today you must travel 65 miles up the bay to view tidewater glaciers—a far cry from the glacier's 1750 maximum shown at left. Northern regions respond to changes in climate at faster rates than southern regions do. How will Glacier Bay change in your lifetime?

Visiting the Park

West of Juneau in Southeast Alaska, the park and preserve are reached by boat or plane only. Park headquarters is 65 miles from Juneau at Bartlett Cove. It is 55 more miles from there to the tidewater glaciers. To learn about safety, access, trip planning, lodging, backcountry use, services, activities, river permits, or companies that offer services in the park, contact the park. The free park newspaper *The Fairweather* also offers this information.

Vessel permits are required before entering Glacier Bay from June 1 to August 31. Contact the park at 907-697-2627 or VHF radio—KWM 20 BARTLETT COVE. Reservations are recommended. Some areas are closed or restricted because of bears, nesting birds, humpback whales, or other wildlife activity. Guard against hypothermia even in summer: rain gear, hat, gloves or mittens, and waterproof footgear are essential.

Brown/grizzly and black bears and moose roam the park. Ask a ranger about traveling and camping safely in bear country.

More Information
Glacier Bay
National Park and Preserve
P.O. Box 140
Gustavus AK 99826-0140
907-697-2230
www.nps.gov/glba
email glba_administration@nps.gov

Alaska Geographic sells books, maps, charts, and videos by mail. Contact the park for a list. Your purchases help support programs offered by the park.

Visit www.visitglacierbay.com for information on Glacier Bay Lodge.

The park and preserve are part of the National Park System, which includes over 390 parks. To learn more about national parks visit www.nps.gov.

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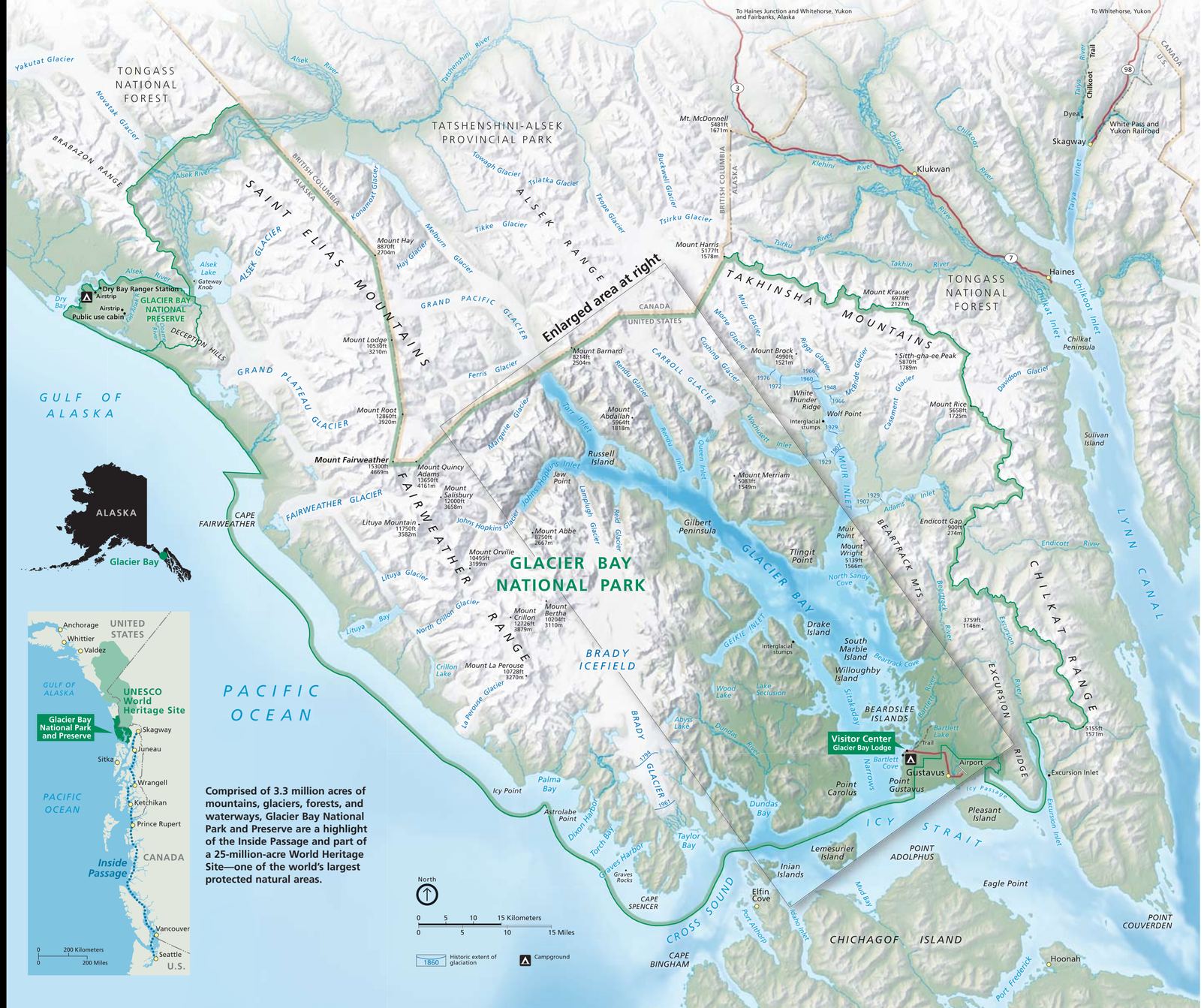

Comprised of 3.3 million acres of mountains, glaciers, forests, and waterways, Glacier Bay National Park and Preserve are a highlight of the Inside Passage and part of a 25-million-acre World Heritage Site—one of the world's largest protected natural areas.