



The FAIRWEATHER

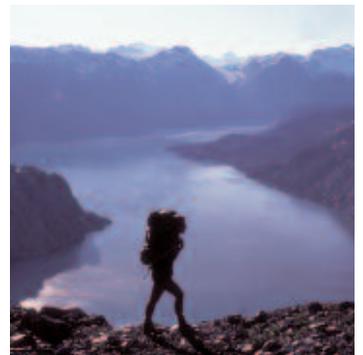
VISITOR GUIDE



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Welcome to Glacier Bay National Park and Preserve, one of America's premier natural wilderness areas administered by the Department of the Interior, National Park Service. This park is one of 16 national parks in Alaska and over 385 nationwide.

In 1925, President Calvin Coolidge used powers granted him by the Antiquities Act to set aside Glacier Bay National Monument to: protect the scenic beauty of glaciers, geologic landforms and diversity of life that is so abundant here; provide for scientific research; allow you, the park visitor, to experience and learn about this special place.

Through an act of Congress in 1980, it became a national park. Preserve lands were added. Today's national park and preserve totals almost 3.3 million acres. In addition to its abundant wildlife, glaciers, and unsurpassed scenery, Glacier Bay is acknowledged as having a world-class marine ecosystem. It has received international recognition as both a World Heritage Site and Biosphere Reserve.

This guide offers many ideas for exploring the park. We welcome your questions and comments, and appreciate your interest and help in caring for this wilderness area. It is, after all, your national park.

Have a wonderful visit!



Tomie Patrick Lee
Superintendent

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Fairweather

Produced and Designed by:



Park Coordinator: Rosemarie Salazar

Writer: Ingrid Nixon

Contributors: Fawn Bauer, Bill Eichenlaub, Chris Gabriele, Scott Gende, Margaret Hazen, Fritz Koschmann, Mary Kralovec, Tania Lewis, Gus Martinez, Ingrid Nixon, Rosemarie Salazar, Maya Seraphin, Arch Thompson, Rusty Yerxa.

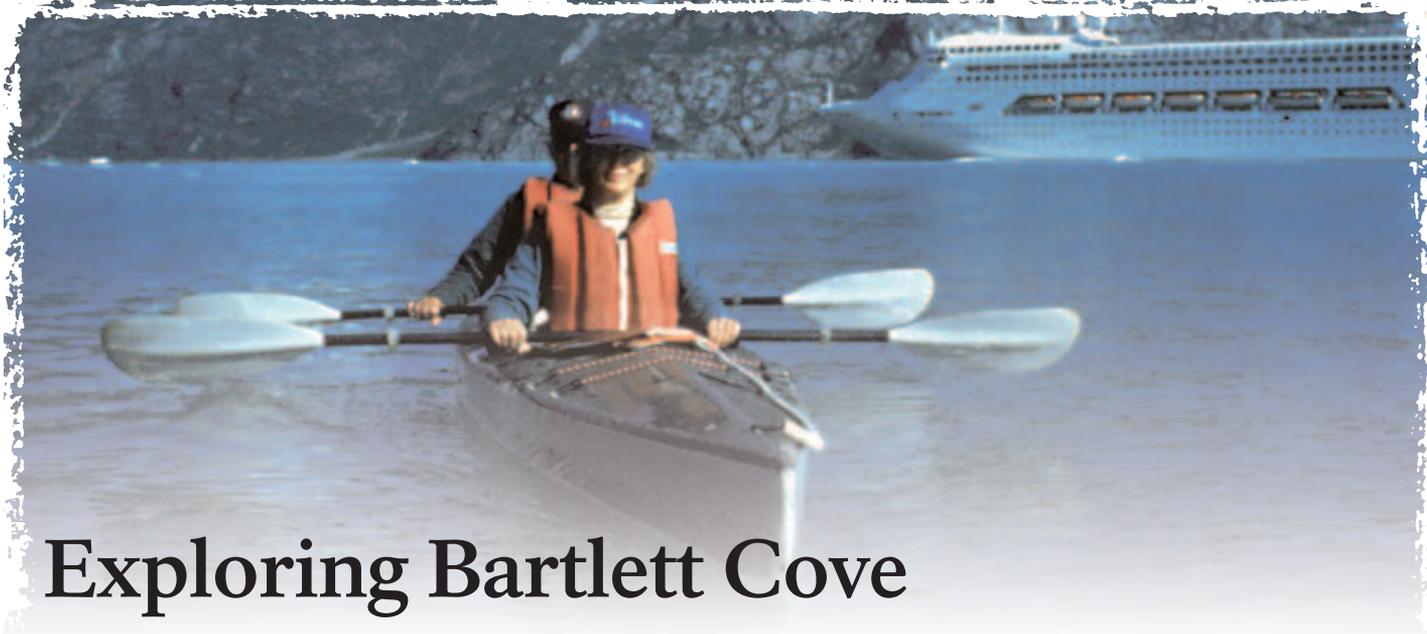
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Exploring Bartlett Cove

If you just have a few hours...

Visit the National Park Service Visitor Center: On the second floor of the Glacier Bay Lodge, you will find the NPS Information Desk and a variety of exhibits that explore the wonders of Glacier Bay. The Information Desk is open daily. During that time books and educational materials from the Alaska Natural History Association are available for purchase.

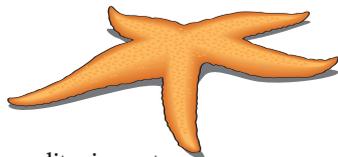
Catch a Film: The National Park Service shows several different films daily in the Auditorium.

- 2 p.m. Treasures of the Great Land:
Alaska's National Parks (22 min.)
- 5 p.m. Glacier Bay: Forever Wild (18 min.)
- 7 p.m. Glacier Bay: Beneath the Reflections (28 min.)

Walk the Forest Loop Trail: Go on your own or with a ranger. Daily ranger-led walks meet in the lodge lobby and depart at 2:30 p.m. for this 1.5-hour walk. See trail details, page 28.

Go for a Beach Walk:
See trail details, page 28.

Take in an Evening Program: Join a ranger in the auditorium at 9 p.m. for a presentation about the park.



If you have a half day...

Hike to the Bartlett River: See trail details, page 28.

If you have a full day...

Cruise the Bay: This all-day boat trip up to the glaciers should not be missed! See the lodge front desk for details and to purchase your ticket. Binoculars, extra film, and warm clothing are highly recommended.

Hike to Bartlett Lake: See trail details, page 28.

Go for a Paddle: There are several options for kayaking around Bartlett Cove. Take a guided kayak trip with Alaska Discovery (advanced reservations appreciated), or rent a kayak from Glacier Bay Sea Kayaks and paddle your own. Experience Glacier Bay up close. You never know what you might see!

Become a Junior Ranger: Kids can visit the ranger at the NPS Information Desk to pick up their free Junior Ranger Activity Book. See page 31 for details.

Get the Latest Schedule of Events

Please see the NPS Information Desk or the bulletin board in front of the Glacier Bay Lodge for updates, desk hours, and evening program topics.

Managing for Wilderness

The overwhelming majority of visitors to Glacier Bay come in boats —both large and small. Park managers define how many boats should be in the bay and how they should operate in a manner that protects the park resources, wilderness character, and visitor experience.

The park began to manage vessels in the late 1970s, when concerns arose that marine traffic might adversely affect endangered humpback whales that feed in the bay during the summer months.

In 2003, the National Park Service completed an environmental impact statement that looked at vessel numbers and potential impacts. Private citizens, scientists, business operators, state and local governments as well as other federal agencies took part in the process, which determined how vessels would be managed for the next 10 to 15 years in Glacier Bay National Park. A Record of Decision, signed in November 2003, documents the decision to modify vessel numbers and operating requirements. New regulations implementing these changes are currently being promulgated and are expected to be in place by this summer.

Some issues decided in the process include:

- Cruise ship, tour boat, and charter vessel operations will continue as in the past with specific quotas. The number of cruise ships permitted to enter the bay will stay at no more than two per day. The total number of ships allowed entry June through August could increase from 139 to 184. Such a decision, however, would only be made based on recommendations by a science advisory board comprised of experts in such areas as the marine environment, air quality, wilderness values, noise levels, and recreation.
- New regulations will reflect changes regarding vessel speeds and travel restrictions when significant numbers of humpback whales are in the bay.
- Private boaters should find the vessel permitting process much simpler with a larger allocation of permits available on short notice, and more flexibility with entering and exiting the park.



Management of national parks is an ongoing process. We encourage you to talk to a ranger or visit our website for more information on issues affecting Glacier Bay National Park and Preserve. Get involved. After all, this is your national park. www.nps.gov/glba

Glacier Bay as Homeland

Imagine that you can hold Glacier Bay in the palm of your hand. It is smooth and round, about the size of a large egg. It is heavy, precious. Slowly you begin to peel back its layers, its meanings. The first layer, world heritage site, comes off. Next, you peel away the layer for the biosphere reserve. You are now looking at the layer for the national park and preserve. Gently you peel that away. Naked and vulnerable, wilderness trembles in your palm. As you marvel at the beauty, the fragility, something catches your eye. You realize that by holding the land up to the light just so, you can see another image distinct yet intangible as the morning mists. This new image reveals the essence of life for a group of people, the Hoonah Tlingit.

To the Hoonah Tlingit, Glacier Bay is not only the place where they once lived, hunted, fished, collected eggs and berries. It is the center from which they gain their identity as people — their spiritual homeland.

The modern village of Hoonah is in Port Frederick on Icy Strait. Traditionally, four Hoonah Tlingit clans occupied territories in and around Glacier Bay. When Glacier Bay became a national monument in 1925, its borders encompassed much of the traditional Hoonah Tlingit homeland. New federal laws severely curtailed Native activities within the monument boundaries. So began a painful period of Hoonah Tlingit and National Park Service relations.

But time has brought some healing. In recent years, the National Park Service has maintained an open dialogue with the Hoonah Tlingit and has actively encouraged them to return to the park to carry out traditional activities that are compatible with current regulations, such as berry picking. The park has sponsored boat trips for Hoonah school children and elders to come into the bay so the youths may learn traditional ways of knowing in the very place that figures so prominently in their spiritual lives. Scientific studies are also underway to determine if it is possible to allow the Hoonah Tlingit to resume harvesting gull eggs, seals, and mountain goats within the park without adversely impacting populations.

You will find the Hoonah Tlingit presence in and around Bartlett Cove. The sea otter hunting canoe on

display next to the Visitor Information Station was carved in the park in 1987 by a team of Native carvers. Look for two Tlingit trail markers carved into living spruce trees near Glacier Bay Lodge; one on the trail leading down to the dock from the lodge and the other along the Forest Loop Trail. Depicting an octopus and an eagle respectively, these carvings are modern renditions of markings originally used to show clan ownership over trade routes. Today, they serve as reminders of ancient ties to the land.

Ultimately, we will all carry within us slightly different versions of the essence that is Glacier Bay. We may guard it carefully. From time to time, we can take it out to hold in our palm, to admire and share with others. Carefully peeling back the layers of our experience, we will rediscover the wonders we found to be sacred. And if we hold it up to the light just right, it might reveal something more.



A visitor pauses during a walk along the Forest Loop Trail to admire the Tlingit trail marker that was carved into a living spruce tree.

Glacier-Making Weather

Glacier Bay has a maritime climate, heavily influenced by ocean currents. The result is mild winter temperatures and cool summer temperatures near sea level. Summer visitors can expect highs between 50°-to-60° F (10°-15° C). Winter temperatures rarely drop into the single digits, with average nighttime lows in the mid-20s and highs in the upper-30s.

Bartlett Cove receives about 70-75 inches of precipitation annually. You may find yourself thinking it's all coming down during your visit. April, May, and June are usually the driest months of the year, while September and October tend to be the wettest. All this moisture helps to create the lush temperate rain forests of the lower bay.

Keep in mind, these are weather conditions at sea level. Up in the mountains, conditions are more severe with colder temperatures and more precipitation that takes the form of snow. It's all that snow falling year after year that goes into creating the magnificent glaciers we love to see.

What to Wear?

The weather in Glacier Bay can change quickly over the course of the day, especially if you are traveling into the bay. Dressing appropriately will enhance your trip by allowing you to stay out in the elements and make the most of wildlife and glacier viewing. Remember: it's usually cooler on the water and near glaciers.



Reduce, Reuse, Recycle

Inevitably, conducting business in this modern world requires using resources. Operating a national park is no different. Through creative planning and cooperative efforts, however, park managers are seeking ways to reduce the impacts that come with operations.

Park managers are working closely with the Gustavus Community Landfill to come up with a holistic waste management plan for the area to recycle, share resources, and avoid duplicating efforts.

To facilitate the process, park offices and housing areas are provided with separate receptacles for papers, plastics, metals, glass, compostables, and non-recyclables.

Receptacles for campers, boaters, and other park users are located near the Visitor Information Station. This initial separation helps make it possible for up to 65 percent of waste generated in day-to-day park operations to go on to another life.

Over 95 percent of the park's solid waste is sorted and shipped to Juneau for processing. Aluminum, paper products, steel, and #1 and #2 plastics go on to recycling centers. Locally, food waste from the park and the lodge, wood chips and brush from downed trees and clearing are composted into topsoil for the community. Composted sewage sludge is used as fertilizer. Any glass you throw away in the park will be pulverized into small non-sharp particles and used to stabilize roadbeds.

How can you help?

Please separate your waste into the appropriate bins near the Visitor Information Station.

Thank you!



Tides

The tidal fluctuations in Glacier Bay can be as high as 25 feet.

This means that one moment you may be standing on the beach looking at mud flats stretching out for 100 yards and hours later the water is lapping at your toes. Or worse: one minute you've pulled your kayak up on shore so you can enjoy lunch, but you wake up 30 minutes later from your post-lunch nap to see your kayak floating away.

Tides result from the gravitational pull between the sun and the moon, and their relationship to the earth. As these three celestial bodies are constantly in motion, the amount of gravitational pull varies and the tide levels

You hardly need to spend more than six hours in Bartlett Cove to realize that there is something interesting going on with the tides.

change. Because it's closer, the moon has the strongest influence on the tides. Its gravitational attraction causes the water surrounding the earth to bulge. It bulges on the side closest to the moon due to gravitational pull. The bulge on the opposite side of the earth is due to centrifugal force.

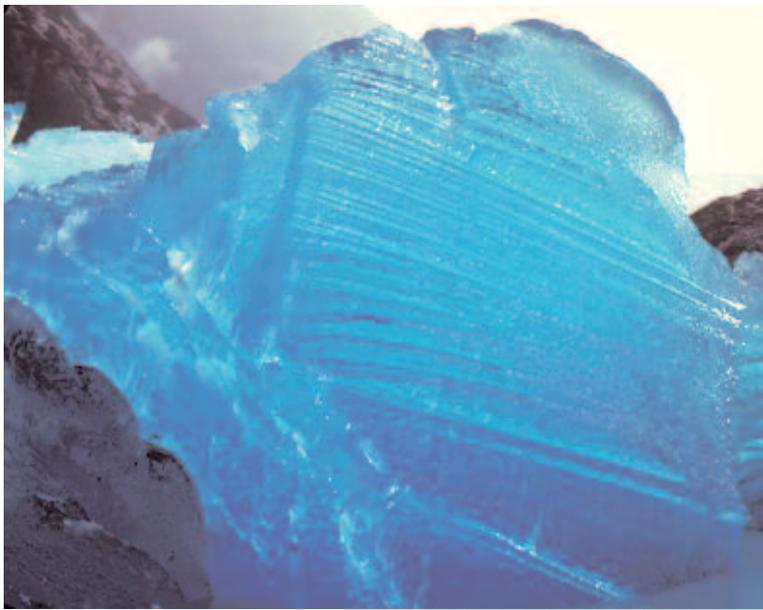
There are usually two high and two low tides daily on the West Coast. The times for highs and lows shift about 50 minutes later on consequent days. This means if high tide is at 9:00 a.m. one day, it will be high at about 9:50 a.m. the next day, around 10:40 a.m. the next, and so on. Local conditions, such as topography, also influence the tides and the currents they generate. The entrance to Glacier Bay is narrow, yet a great deal of water must rush through that opening twice daily, creating currents in Sitakaday Narrows as strong as seven knots.

To see this incredible force in action, walk down to the water's edge about an hour after high or low tide. Fix your gaze on a shell or a piece of seaweed and watch how its proximity to the water's edge changes in just minutes. Be sure to keep that in mind when you decide to enjoy an after-lunch nap on your next paddling adventure.



“The Master Builder chose for a tool, not the thunder and lightning to rend and split asunder, not the stormy torrent nor the eroding rain, but the tender snowflake, noiselessly falling through unnumbered generations.”

— John Muir



Blue Ice, White Ice

If you've ever played with a prism in the sunlight, you know that natural light is made up of all the colors of the rainbow.

Each color of light has a specific wavelength and certain amount of energy. Colors such as red and yellow have long wavelengths and consequently low energy. But blue, with its short wavelengths, has high energy.

Glacier ice is made up of large, tightly packed ice crystals. When sunlight hits glacier ice, the ice acts like a prism and separates the light according to its wavelength. Low energy colors like red and yellow are absorbed by the ice. Blue has enough energy to reflect out to our eyes.

If the surface of the glacier ice becomes weathered or if the ice contains many air bubbles, the blue light becomes diffused. The ice appears white.

Rivers of Ice

A glacier is born high in the mountains, where the only precipitation that falls is snow, and the snow that falls does not melt. A slight depression on the mountainside catches this snow. Year after year, the snowflakes pile up. Soon the sheer weight of this vast accumulation presses down on itself. The snow compresses. The flakes change shape and fuse into ice. Eventually, the weight of the ice is too much for the depression to hold against gravity and the ice begins to flow downhill seeking equilibrium. Now that it's moving, it's a **glacier**.

Like a river, the glacier flows down the mountain choosing the path of least resistance. As it moves, it incorporates rocks into its lower layers. These acquired rocks grind away at the bedrock. In time, the glacial ice will carve deep valleys in the mountainside.

When the ice reaches lower, warmer elevations, it begins to melt. Eventually the loss through melting is greater than the supply of ice flowing down the mountain. The glacier ceases to make further progress, though the body of ice is still moving down the mountain. At this point, the glacier is like a one-way conveyor belt moving ice out of the mountains into the valleys.

Glaciologists have identified different types of glaciers based on their characteristics. For example, a glacier that remains confined within valley walls is a **valley glacier**. If it flows out of the valley and spreads out, it's a **piedmont glacier**. If it simply drops out of the valley, it's a **hanging glacier**. But the type of glacier most folks in Glacier Bay are interested in is the type that ends in the sea: the **tidewater glacier**.

Compared to glacial ice, seawater is warm and highly erosive. Waves and tides work away at the unstable glacier face, causing huge chunks to **calve** or break off into the ocean.

Barring significant climate changes, a glacier is in a constant state of renewal. New snow will continue to fall in the mountain basin to replace the snow that has compacted into ice and begun to flow downhill. The length of time it takes for a snowflake that falls in the mountains to emerge at the end, or **terminus**, of a glacier varies, depending on the speed at which the glacier is flowing. Scientists estimate ice you see at the face of the park's glaciers to be around 200 years old.



Glaciers: They are a-changin’

It has been said that you cannot step twice into the same river. In a sense, the same holds true for rivers of ice that we call “glaciers.” A glacier is always growing, melting, moving, or calving somewhere. You don’t need to linger long at the face of a tidewater glacier to get a sense of the drama. Calving occurs year-round. The glacier face you see today could change significantly by tomorrow, let alone 20 years from now.

Researchers are interested in these glacial dynamics and their causes. Scientists at the U.S. Army Cold Regions Research and Engineering Laboratory (CRREL) continue to conduct long-term glaciological research on present and past glacial activity in the region. Photographic surveys of the ice margins to document the long-term changes in the bay’s glaciers began in 1927.

Changes in glaciers and ice fields could reveal changes in weather patterns and climates on a local, regional, and perhaps even global scale.

Dr. Dan Lawson of the CRREL provided the glacier dimensions below.

<i>Glacier</i>	<i>Height</i> Above and Below Waterline	<i>Width</i>	<i>Length</i>	<i>Flow Rate</i> (in feet)	<i>Status</i>
Grand Pacific	60-180 feet above 0-60 feet below	2 miles	35 miles	1-4 feet / day 350-1,200 feet / year	Receding/ Thinning
Johns Hopkins	250 feet above 200 feet below	1 mile	12 miles	10-15 feet / day 4,000 feet / year	Advancing/ Thickening
Lamplugh	150-180 feet above 10-40 feet below	.75 miles	16 miles	2-3 feet / day 1,200 feet / year	Stable to Receding
Margerie	250 feet above 50-100 feet below	1 mile	21 miles	6-8 feet / day 2,000 feet / year	Stable
McBride	200-250 feet above est. 300 feet below	.5 miles	13 miles	15-20 feet / day 5,000-7,000 feet / year*	Rapidly Receding
Muir	30 feet above 0 feet below	.5 miles	13 miles	.5 feet / day 150 feet / year*	Receding/ Thinning
Reid	>20-130 feet above 0-10 feet below	.75 miles	10 miles	1-3 feet / day 800 feet / year*	Receding/ Thinning
Riggs	20-90 feet above 0 feet below	.75 miles	15 miles	1-2 feet / day 600 feet / year*	Receding/ Thinning

*Estimated figures

A Brief Timeline of Glacier Bay

Prehistoric to present: Tlingit Indians and their ancestors had both permanent and seasonal settlements in much of what is now Glacier Bay National Park and Preserve. Several hundred years ago at the end of the Little Ice Age, advancing glaciers forced the Tlingit people to abandon their villages and move to Hoonah, across Icy Strait from Glacier Bay.

Today, many Hoonah Tlingits still regard Glacier Bay as their ancestral home, and feel a special connection to it. See page 5.



1877 Lieutenant C.E.S. Wood hired Tlingit guides to hunt mountain goats in the St. Elias Mountains. Convinced instead to hunt in Glacier Bay, he encountered Tlingit seal hunters encamped in several places. Wood was the first outsider to record a detailed account of native life, wildlife and scenery.

1778 Captain James Cook of the H.M.S. *Resolution* names Mt. Fairweather. His crew includes George Vancouver and William Bligh.

1750

1800

1850



1750 The Little Ice Age is ending and the glaciers begin to retreat.

1794 Captain George Vancouver of the H.M.S. *Discovery* and Lt. Joseph Whidbey describe Glacier Bay as "a compact sheet of ice as far as the eye could distinguish." The "bay" is a mere 5-mile indentation in the coastline.

1786 Captain Jean-Francois de Galaup de Lapérouse's party of the *Boussole* and *Astrolabe* while in Lituya Bay described the native peoples they met there, and the cartographers created the first detailed maps of park landforms. The expedition met tragedy on July 13 when 21 sailors were lost in the tidal bore at the mouth of Lituya Bay.



1879 Guided by Tlingit Indians from Fort Wrangell, John Muir enters the bay in a dugout canoe accompanied by a Presbyterian missionary named S. Hall Young. Glacial ice has retreated into the bay 40 miles since 1794.

1890 Muir makes his third visit to Glacier Bay, this time constructing a cabin at the base of Mt. Wright. He makes extensive observations of glaciers and explains the interglacial tree stumps.

1900

1953 Canadian Pacific Steamship Company brings the first modern cruise ships into the area.

1916 William S. Cooper, ecologist from the University of Minnesota, arrives in Glacier Bay to begin a study of plant succession. He returns five more times between 1921 and 1966.

1950

1992 Glacier Bay National Park and Preserve — together with Wrangell/St. Elias National Park (Alaska), Kluane National Park Reserve (Canada) and Tatshenshini-Alsek Provincial Park (Canada) — becomes part of a 24-million-acre World Heritage Site.

1980 The Alaska National Interest Lands Conservation Act is signed into law. Glacier Bay becomes a national park. Preserve lands are added. The new park and preserve total almost 3.3 million acres.

2000

1899 On September 10 a tremendous earthquake centered in Yakutat Bay causes rapid and extensive calving in Glacier Bay, leaving the waters ice-choked and impassable to ships.

1884 Captain Carroll pilots the side-wheel steamer *Ancon* to Muir Glacier, which will become a popular tourist destination until the 1899 earthquake.

1880 Guided by a Tlingit Indian named Tyeen, John Muir and Young return to visit Taylor Bay, Dundas Bay and what will become known as Muir Glacier. Stickeen, a small dog, is part of the expedition.

1939 A presidential proclamation by Franklin Roosevelt doubles the size of Glacier Bay National Monument.

1925 President Coolidge establishes Glacier Bay National Monument on February 26.

1922 Cooper suggests national monument status for Glacier Bay to the Ecological Society of America.

1966 Glacier Bay Lodge opens.

1986 Glacier Bay National Park and Preserve, along with Admiralty Island National Monument, is designated an International Biosphere Reserve.

1995 The National Park Service and Hoonah Tlingits sign a Memorandum of Understanding, establishing a working relationship.

1998-1999 Congress passes legislation regarding the management of commercial fishing activities in Glacier Bay National Park.

2005 About 350,000 people visited Glacier Bay National Park and Preserve.

Science in the Park



Harbor Seals

If you visit Johns Hopkins Inlet, or kayak through the Beardslee Islands, chances are that you will see a harbor seal hauled out on an iceberg or a small beach, or perhaps even have one pop up next to your boat. Glacier Bay, which historically supported one of the largest harbor seal breeding populations in Alaska, is now experiencing a decline greater than any other location in the state. A multi-year study is underway to more fully understand the

possible factors contributing to the decline. As part of this effort, harbor seals are captured and fitted with one of several types of instruments, including surgically implanted VHF transmitters to estimate survival rates, externally attached time-depth recorders to record dive profiles, or satellite tags to determine seasonal movements.

The most prominent instrument, and one that you may see on a seal in the park, is external VHF 'headmount' transmitter. These transmitters track the location and foraging behavior of seals. Once found, a 'souped up' fish finder is used to estimate quantities and types of prey that seals are feeding on. Researchers are hoping this information will help determine if there are management actions that can be taken to slow or reverse the population decline.

Principal Investigators: Scott Gende, Jamie Womble, NPS
Principal Collaborators: Gail Blundell, ADF&G
National Marine Fisheries: Mike Sigler

Bear Habitat and Campsite Risk Assessment

The shoreline of Glacier Bay is a popular place for kayakers and for bears. Kayakers camp and take rest breaks on beaches, while bears travel and forage along the shore. How can they both share the beaches with minimal disturbance to the other?

In recent years, a study has been underway in Glacier Bay to try to predict where people are most likely to encounter bears. Researchers surveyed beaches and analyzed potential camping areas looking at such factors as quality of bear forage in the area, animal travel corridors, visibility, and bear sign.

In 2004 and 2005, researchers used time-lapse photography and collected shed-hair samples to find out how many and how often bears use certain areas of concern. The data will help biologists understand how bears use these sites, and provide park managers with recommendations on how to reduce bear/human conflicts and minimize displacement of bears from key habitats. Park managers can then more effectively manage backcountry areas for both people and bears.



Principal investigators: Tom S. Smith, USGS
Park Liaison: Tania Lewis, NPS



The Acoustic World of Whales

Besides the whoosh of a whale's "blow" as it exhales or the sharp whap of a flipper slap, humpback whales may seem like silent creatures living in a silent world. Yet, they are vocal animals that make a variety of sounds, from eerie moans and grunts to elaborate songs. Whales and other marine mammals rely on sound cues for many things: navigation, finding food, detecting predators, and socializing. They live surrounded by natural sounds such as the sizzle of rain hitting the surface of the water. Increasingly, their underwater world includes human-caused sounds, such as the whine of small boat motors and the throb of cruise ship engines.

Though researchers have been studying whale populations in Glacier Bay since the 1970s, little was known about the bay's underwater soundscape in which the whales live. Now, with the aid of an underwater listening device called a hydrophone, park scientists eavesdrop into the underwater world of whales, opening up a new dimension to consider when planning for the protection of this endangered species.

In May 2000, Glacier Bay National Park staff and U.S. Navy acousticians installed the hydrophone near the entrance to Glacier Bay. The hydrophone transmits underwater sounds through a cable to a computer workstation at park headquarters. Data collected about underwater sounds, especially human-caused sounds, helps park managers evaluate vessel

management policies to ensure minimal disturbance to the marine mammals that live here.

For example, since humpback whales do not eat when they are on their winter breeding grounds, they make up for it by feeding continuously on small forage fish during summers in Southeast Alaska. Yet research suggests that whales may move away from preferred feeding areas when disturbed by vessel sounds and that vessel sounds can prevent them from hearing vocalizations of other whales. This study has determined that the underwater world of Glacier Bay is a quieter place when vessels are required to travel at 10 knots rather than at 20 knots.

Underwater listening has already yielded unexpected recordings of male whales singing their mating songs while here in Glacier Bay. Until that time, it was believed males only sang in their winter breeding grounds near Hawaii. More discoveries about underwater sounds may await us. To hear live underwater sounds from Glacier Bay hydrophone visit one of the real-time listing stations in the Visitor Center or Visitor Information Station. You can also listen to recorded Glacier Bay whale sounds at the park website.

Principle Investigator and Park Liaison:
Chris Gabriele, NPS

For more information on these and other research projects going on in the park, visit:
www.nps.gov/glba/go/projects.htm
www.absc.usgs.gov/glba



Wildlife Viewing

By Land



Moose

Alces alces

The largest member of the deer family is a recent newcomer to the bay. The first moose was spotted here in the late 1960s. Despite their tremendous size (bulls can weigh 1,600 pounds and cows

1,300 pounds), they can appear and disappear in thick brush with surprising stealth. Moose are usually solitary, except for cows with calves and during the fall rutting season. Cows give birth in the spring to one or two small, reddish calves, though usually no more than one survives. A calf will stay with its mother for two years before the cow drives it off as she prepares to have more young. Their diet includes willow leaves, grasses, herbs, and aquatic vegetation. Only bulls grow antlers.



Porcupine

Erethizon dorsatum

You may find this prickly member of the community high up in a cottonwood tree nibbling tasty tender leaves. Except for their footpads and nose, porcupines are completely covered with

yellowish fur and quills, which are actually modified hairs tipped with barbs. A threatened porcupine will turn its back-end toward the source of trouble to present an intimidating display of quills that firmly suggests the would-be predator reconsider its dinner plans. This large rodent (second largest in North America behind the beaver) performs a broad repertoire of grunts, whimpers, and screams. Listen for them in the evenings “talking” to no one in particular.

Mountain Goats

Oreamnos americanus

Arguably the most dapper of Glacier Bay’s mammals, mountain goats sport thick white coats of hollow hairs (that keep them warm in extreme weather), accented by black horns and hooves.



Goats may have been among the first land animals to recolonize Glacier Bay after the ice retreated, coming over the mountains from Lynn Canal to the east. They are at home on the steep rocky cliffs in the mid-to-upper bay. The special shape and design of their hooves allows them to leap nimbly from ledge to ledge in search of grasses, herbs, and low-growing shrubs. Seen at a distance, they are often mistaken for Dall sheep, which are found in the Interior.

Red Squirrel

Tamiasciurus hudsonicus

If you see a little red flash zipping up a tree trunk or leaping nimbly among the branches, chances are it is a red squirrel. These agile rodents spend their summer preparing for winter by collecting and storing green spruce cones in their underground caches. Like forest alarms, they chatter unrelentingly when a threat—like you—is near. They are a comedy tour de force when they harvest dandelion seed heads or go out on a limb for a savory green alder cone, and it is worth your time to stop and enjoy.



When the ice retreated in Glacier Bay, it left behind a scoured landscape of rocks and mud. In time, plants returned to the seemingly sterile land. Eventually, animals returned to the land and waters within the bay. Today, a wide variety of creatures call Glacier Bay home for at least part of the year, and the number could grow as more creatures find their way to this evolving landscape. As you explore Bartlett Cove or as you cruise up the bay, keep your eye out for some of these more frequently seen members of the community.

By Sea



Steller Sea Lion

Eumetopias jubatus

Like all members of the eared seal family *Otariidae*, Steller sea lions can support themselves on their flippers while ashore, and their rear flippers pivot, allowing them to get around with surprising

speed. In the water they become fluid, executing a seemingly endless series of underwater flips, turns, and rolls. Mature males can weigh almost 2,000 pounds, but females average only 600 pounds. During mating season, large bulls compete at established rookery sites on Glacier Bay's outer coast to collect harems of females. Unsuccessful and immature males often congregate at haul-out areas like South Marble Island. Though the number of sea lions is growing in the bay, the population in Western Alaska has decreased by 80 percent since the late-1970s leading to that portion of the population's current listing as endangered.

Harbor Seal

Phoca vitulina richardsi

Harbor seals have a dappled gray coat that can be highly variable between individuals. A thick layer of fat allows them to keep warm in otherwise chilling conditions.

Unlike the sea lion, harbor seals have no external earflap and when out of the water, cannot support themselves on their flippers. On ice floes, they resemble plump sausages that move around by scooting on their ample bellies. In the water, they display admirable grace as they hunt for fish. About 1,700 seals converge on Johns Hopkins Inlet each summer for pupping and mating. On-going research in the park indicates that the population in the inlet has declined 50 percent in the past decade.



Harbor Porpoise

Phocoena phocoena

At five feet long and about 120 pounds, harbor porpoise are the smallest cetaceans in Alaska waters. Often seen in groups of two to ten throughout the bay, they announce themselves by

offering a brief glimpse of their small triangular dorsal fin cutting slowly through the water's surface when they come up to catch a breath. Harbor porpoise are generally dark gray with a slightly pointed face. They do not ride bow wakes, like their relative the Dall's porpoise, which are larger (6.4 feet and 300 pounds) and resemble small orca in their black and white coloration. Though Dall's porpoise can be seen in the bay, they are more often near the entrance and in Icy Strait.

Sea Otter

Enhydra lutris

The sea otter population in the bay has grown from zero to over 1,200 in the last decade. Voracious eaters of things like crabs and clams, they exert a strong influence on their environment and scientists

anticipate dramatic changes will take place in the underwater world of Glacier Bay. Sea otters perform many of their daily tasks such as eating, bathing, and sleeping while floating on their backs. Lacking a thick layer of blubber, otters instead have the densest fur of any mammal with up to one million hairs per square inch. Generally dark brown, their faces get whiter as they age.



Life's No Picnic

You are picnicking alone on an idyllic beach when a boat roars up out of nowhere. It stops just offshore from you. Its wake washes the beach, taking away half your lunch. People on the boat laugh and talk loudly. They click their tongues to get your attention. Camera flashes explode. You drop your egg salad and dash off into the underbrush, anything to get away.

You've just experienced what happens to wildlife when thoughtlessly approached by humans. The effects can be devastating. Steller sea lions tumble over one another as they stampede from haul-outs to get into the water, risking injury and expending valuable energy. Breeding birds flushed from nests leave eggs vulnerable to cooler temperatures and predators. Female harbor seals lose their newborn pups among the ice floes when they become separated before their maternal bond has been established.

To reduce disturbance to wildlife and protect sensitive areas, the park has regulations that define the minimum distance you must keep from animals in Glacier Bay. Some critical habitats are closed to humans and vessels for all or part of the year to allow animals to go about their business.

During your visit, you can help to protect wildlife by doing the following:

- Know and observe all minimum distances and closures. See Boating Guide, page 24.
- When viewing wildlife, approach and depart slowly and cautiously, which allows the animal to adjust to your presence.
- Use binoculars or a camera with a telephoto lens so you can view from afar.
- Avoid sudden movements or loud noises, which may startle animals.
- Don't approach large rafts of birds. Marine birds tend to gather in large groups for protection during periods when they are molting and flightless.

Remember that even if you maintain a legal distance, if the animal is reacting to your presence in any way you are too close. Move away and if the animal continues to react, you should leave the area.

As you admire Glacier Bay's wildlife, keep in mind that every day they struggle to find what they need to eat, reproduce, protect their young, and prepare for winter as they avoid becoming food for others. Indeed, life is no picnic for the wildlife of Glacier Bay.



Bears

Glacier Bay National Park is home to brown (grizzly) bears, *Ursus arctos*, and black bears, *Ursus americanus*. Black bears are found primarily in the forested regions near the mouth of the bay, including Bartlett Cove, while brown bears live mainly in the more open regions closer to the glaciers.

Telling the difference between the two species can be tricky. Simply looking at color doesn't help. Black bears can be black, brown, blonde, even blue-gray—as is the case of the rare color phase found in Southeast Alaska called the “glacier bear.” Brown bears can be any shade from honey blonde to black. A few key physical characteristics can help clarify which type of bear you have spotted:

Black Bears

- Straight facial profile
- No shoulder hump
- Prominent ears
- Short, curved claws
- 3 feet at the shoulder
- 125 to over 300 pounds



Brown Bears (also called “grizzlies”)

- "Dish-shaped" facial profile
- Prominent shoulder hump
- Long, straight claws
- 3.5 feet at the shoulder/up to 9 feet when standing on hind legs
- Average 500 to 1000 pounds



Fishing in Bear Country

- If a bear approaches while you have a fish on the line, cut the line.
- Clean fish in the river discarding remains in the mid-channel current.
- Keep your catch with you at all times in a backpack to allow for quick retreat from approaching bears.
- Never yield your catch or other food items.



Bears

Be a Smart Camper

Both campers and bears frequent the beaches of Glacier Bay. Bears only have six to eight months to acquire the calories and fat reserves needed for the entire year, and the shoreline is essential for food and travel. The following guidelines will minimize your disruption of bears and help keep them wild.

Cooking and storing food

- Cook and eat in the intertidal zone at least 100 yards from your tent and food storage area.
- Wash cooking gear in marine waters.
- Be prepared to quickly stow all food should a bear suddenly approach.
- Keep all food, trash, and other scented items in a bear-resistant food container (BRFC).
- At night, store BRFCs and clean cooking gear in brush or behind rocks away from animal trails 100 yards from camp, not in your boat.

Choosing a campsite

- Avoid areas with bear sign including an abundance of scat, animal trails, and chewed or clawed trees.
- Avoid active salmon streams.
- Pull your kayak and pitch your tent clear of the beach.
- Select a site that would allow bears room to pass at high tide.

Control your gear

- Keep gear together. The more spread out your gear is the more difficult it is to defend.
- To minimize potential bear damage to gear, consider breaking down your campsite daily.

Be aware of what goes on around your campsite.

Be Bear Savvy

While walking, hiking or camping in Glacier Bay, you may encounter a bear. The vast majority of these encounters do not result in human injury or property damage. You can help prevent injury to yourself or to the bear by taking a few basic precautions.

- Be alert.
- Make noise, especially in wind or near rushing water.
- Choose routes that offer good visibility.
- Travel in groups of two or more.
- Keep your personal items and food within reach.
- Do not pursue or approach bears for photographs.
- Avoid streams with spawning fish.



When encountering humans, most bears will run away, approach curiously, appear to ignore the situation or act defensively. By staying alert, calm, and tailoring your reaction to the bear's behavior and species, you increase the odds of a positive outcome for both you and the bear.



Close Encounters

The Bear:	What You Can Do:
<p>May or may not be aware of you</p> <p style="text-align: center;">→</p>	<p>What is your activity and degree of mobility?</p> <p>You are hiking or kayaking (mobile):</p> <ul style="list-style-type: none"> • Change your course to avoid bear. • Monitor bear's movement. • If bear is close, talk calmly to avoid surprising it. <p>You are camping or eating (not mobile):</p> <ul style="list-style-type: none"> • Keep all gear under direct control. • Group together without blocking bear's route. • Talk calmly to make bear aware of you. • Stand your ground.
<p>Moves toward you</p> <p style="text-align: center;">→</p>	<ul style="list-style-type: none"> • Monitor bear's movement. • Stand your ground and talk calmly. • Allow bear to pass peacefully.
<p>Becomes focused on you</p> <p style="text-align: center;">→</p>	<ul style="list-style-type: none"> • Stay together and stand your ground. • Be assertive and elevate your defense: clap your hands, wave your arms, use noisemakers, such as an air horn or banging pots together.
<p>Charges</p> <p style="text-align: center;">→</p>	<ul style="list-style-type: none"> • Continue to stand your ground. • Use pepper spray if you have it. • Few charges end in contact.
<p>If a bear makes contact</p> <p style="text-align: center;">→</p>	<p>Fight back vigorously. This is likely a predatory attack.</p>

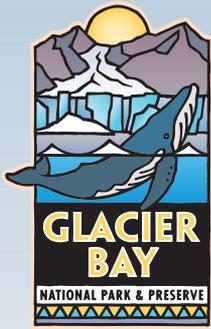
Surprise Encounters

A bear may react defensively if surprised at close quarters or defending cubs or food. Its behaviors may include snorting, huffing, jaw popping, and charging. Your safety lies in assuring the bear that you are not a threat.

Stand your ground. Talk calmly to the bear. Attempt to move away slowly. If the bear begins to follow you, stand your ground. If the bear charges, use pepper spray if you have it. If it is a brown bear and makes contact, play dead. Lie flat, face down on the ground, and place your interlaced fingers behind your head. Do not move. A brown bear will often back off once it feels the threat has been eliminated. Black bear attacks are rare and tend to be predatory, so *never* play dead with a black bear.

If you are in your tent, fight any bear that attempts to enter.

Boater and Camper Essentials



Welcome to Glacier Bay

If you intend to camp or boat during your visit, your first stop should be at the Visitor Information Station (VIS). During the summer, a free permit is required for all boating and overnight camping. Orientations, provided with the permit, are required annually for all campers and skippers. They cover the following:

- Rules and Regulations
- Resource Concerns
- Safety Issues
- Tides

Backcountry campers can also check out bear-resistant food containers (BRFC) to use free of charge during their visit.

We want you to make the most of your visit. And we want to make sure you do it safely and with minimum impact, so others who follow will be able to enjoy the wildness this land can offer. It is your responsibility to know and obey the rules and regulations of Glacier Bay National Park and Preserve. If you have any questions, please ask a ranger.



Good to Know

The following is a partial listing of laws and regulations designed to help you have a safe, enjoyable visit while protecting park resources. For further information or questions on additional regulations, please ask a park ranger.

Feeding wildlife is prohibited. All food, fish, garbage, and equipment used to cook or store food must be cached in a sealed motor vehicle, vessel (excluding kayaks), building, BRFC, designated trash receptacle, or designated food cache.

Firearms are prohibited from being carried or used in the park. They may only be possessed if they are made temporarily inoperable (broken down, barrel/bolt removed, and unloaded). Firearms may not be carried in a kayak or canoe while in the park.

Hunting is only permitted on the preserve lands in the Dry Bay area. All persons 16 years and older are required to hold a valid Alaska State Hunting License.

Harvesting the following for personal consumption or use is allowed: unoccupied seashells, all edible berries and fruits, edible mushrooms, clams and mollusks. State regulations apply. **NOTE:** Eating clams and mussels from Glacier Bay is not recommended because of the presence of a naturally occurring neurotoxin that causes paralytic shellfish poisoning in humans and can lead to sudden death.

Pets are allowed in the developed areas of Bartlett Cove and must be on a leash at all times. Pets are **NOT** permitted on the Forest Loop or Bartlett River trails. No pets are allowed ashore in the backcountry.

Sport Fishing by all persons 16 years and older requires a valid Alaska State Fishing License, available during the summer months at Glacier Bay Lodge and some businesses in Gustavus.

Hypothermia—Killer Cold

In the backcountry, good rain gear is a must. Staying dry will help you stay warm as wet clothing can wick away body heat and lead to hypothermia—the lowering of the body's core temperature. Hypothermia can kill. Prevention and early recognition are vital to safe camping. A victim of hypothermia may not realize his or her condition, and will often deny being cold or needing help.

Early symptoms: Violent shivering, changes in mood or consciousness, irritability, cool, pale skin, slow or weak pulse, slow, shallow breathing.

Advanced symptoms: Absence of shivering, unconsciousness.

Treatment: Prevent further heat loss. Provide shelter from cold, rain, wet ground, and wind. Replace wet clothing with dry synthetic clothing. Actively warm. Techniques include:

- Wrap patient in space blanket, sleeping bag, or ground cloth.
- Wrap warm water bottles in cloth and place in the sleeping bag with patient.
- Provide close contact with another warm person.
- Build a fire.
- Feed patient sugars, carbohydrates, or sweet warm drinks.
- Keep patient awake.

DO NOT: Give alcohol. Rub or massage affected area. Expose to excessive heat.

Boating Information

Permits

- Are required for private motor vessels from June 1 through August 31.
- Are free and good for seven consecutive days.
- Must be confirmed 48 hours before scheduled entry date or permit will be cancelled.

To confirm permits or to see if permits are available, call the Visitor Information Station “KWM20 Bartlett Cove” on marine band 16 or phone 907-697-2627. Permit applications are available on our website and are accepted 60 days before the intended entry date and are available at www.nps.gov/glba.

Docks

Bartlett Cove Dock:

- Vessels may dock for a maximum of 3 hours in a 24-hour period. After that, anchor out beyond the white “no anchor” buoys.
- Dinghies may dock in the designated area for no more than 12 hours in a 24-hour period. See dock bulletin board.
- Do not leave vehicles or equipment unattended on docks.
- Use only slips designated for your use. See dock bulletin board.

Fuel Dock:

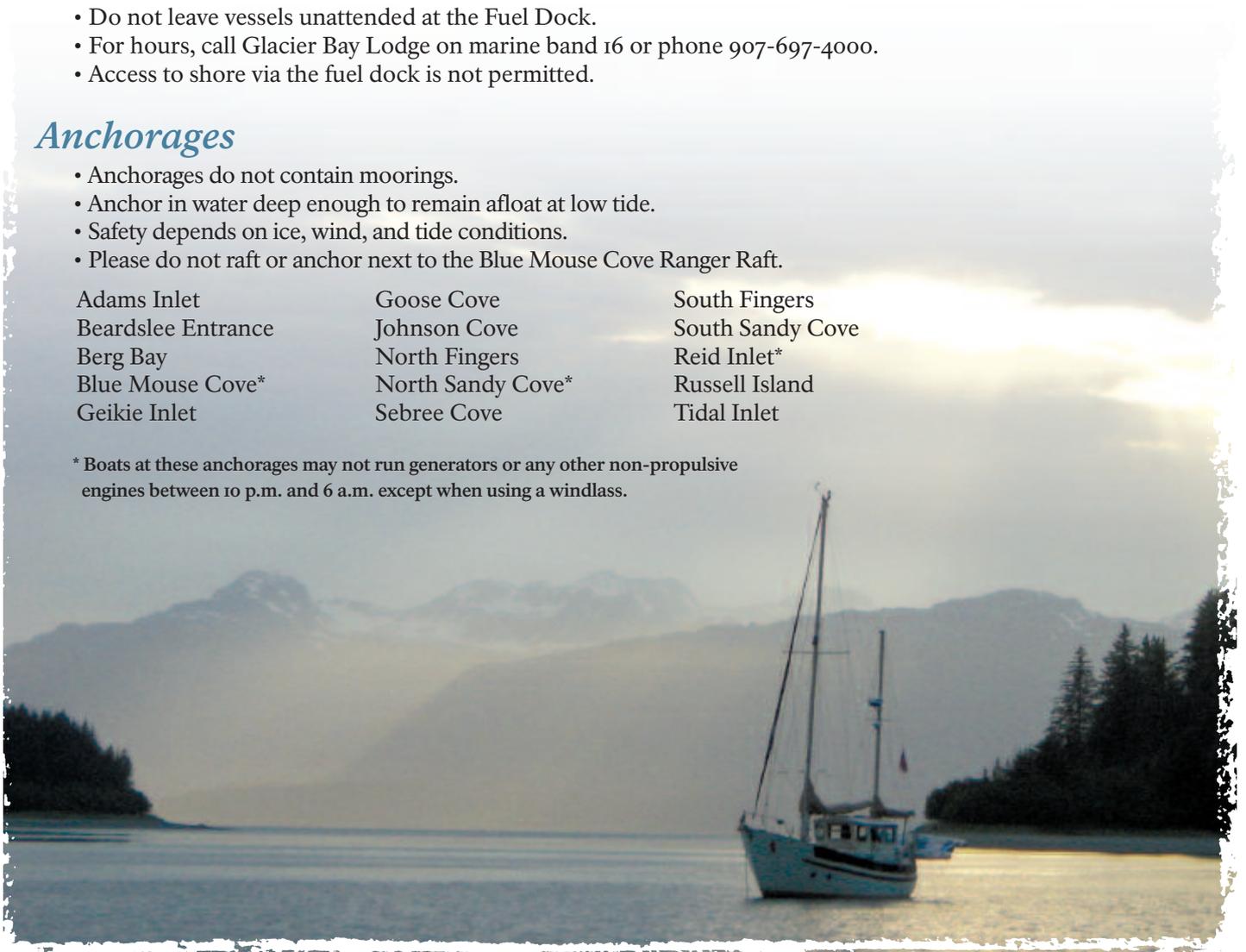
- Do not leave vessels unattended at the Fuel Dock.
- For hours, call Glacier Bay Lodge on marine band 16 or phone 907-697-4000.
- Access to shore via the fuel dock is not permitted.

Anchorage

- Anchorages do not contain moorings.
- Anchor in water deep enough to remain afloat at low tide.
- Safety depends on ice, wind, and tide conditions.
- Please do not raft or anchor next to the Blue Mouse Cove Ranger Raft.

Adams Inlet	Goose Cove	South Fingers
Beardslee Entrance	Johnson Cove	South Sandy Cove
Berg Bay	North Fingers	Reid Inlet*
Blue Mouse Cove*	North Sandy Cove*	Russell Island
Geikie Inlet	Sebree Cove	Tidal Inlet

* Boats at these anchorages may not run generators or any other non-propulsive engines between 10 p.m. and 6 a.m. except when using a windlass.



Hazards

Closures: Due to animal activity or resource protection, certain areas are off limits to entry and landings for all or part of the year. In summer, some areas are off limits to motorized vessels—including sailing vessels with auxiliary motorized propulsion, even if not in use. Know and obey all closures. See Boating Guide, page 24.

Cruise Ships: No more than 2 cruise ships are permitted in the park per day. These large vessels cannot turn quickly and may take miles to stop. Do not approach them when they are stationary in front of the glaciers. Do not get in their path and do not assume they see you. Watch for large wakes, the waves of which can reach the beach over 10 minutes after the ship has passed.

Currents & Winds: Currents of 6 to 8 knots are not uncommon. Traveling with the tides, rather than against them, can help you ride or paddle easier and quicker.

Caution: The forces of tides, currents, and wind can combine in certain places to create dangerous conditions. Use caution in Sitakaday Narrows, Beardslee Entrance, McBride Entrance, and the north shore of Adams Inlet. Plan crossings of wide channels carefully. Better to change your route or wait for conditions to subside than to risk flipping your boat.

Ice: Glaciers can calve from above and below the waterline. Underwater tongues of ice can break off and shoot to the surface. We do not recommend approaching tidewater glaciers closer than 1/4 mile.

Tides: Secure boats and gear well above high tide line.

Weather: Mid-May through September, weather forecasts and satellite images are posted daily at the VIS bulletin board. Rangers broadcast the marine forecast and other important notices over marine band 16 at approximately 8:45 a.m. and 5:45 p.m. daily.



Emergency

Call rangers “KWM20 Bartlett Cove” on marine band 16. **NOTE:** radio coverage in the bay is spotty and cell phone coverage is non-existent.

If you have no radio, wave a large brightly colored item toward a passing boat. Tie this item to a stick, oar, or kayak paddle for greater visibility.

Report all emergencies to the Visitor Information Station or to the Blue Mouse Cove Ranger Station.

Maps and Charts

Topographic Maps:

Trails Illustrated Map by National Geographic 1:250,000
USGS Quadrangles 1:63,360

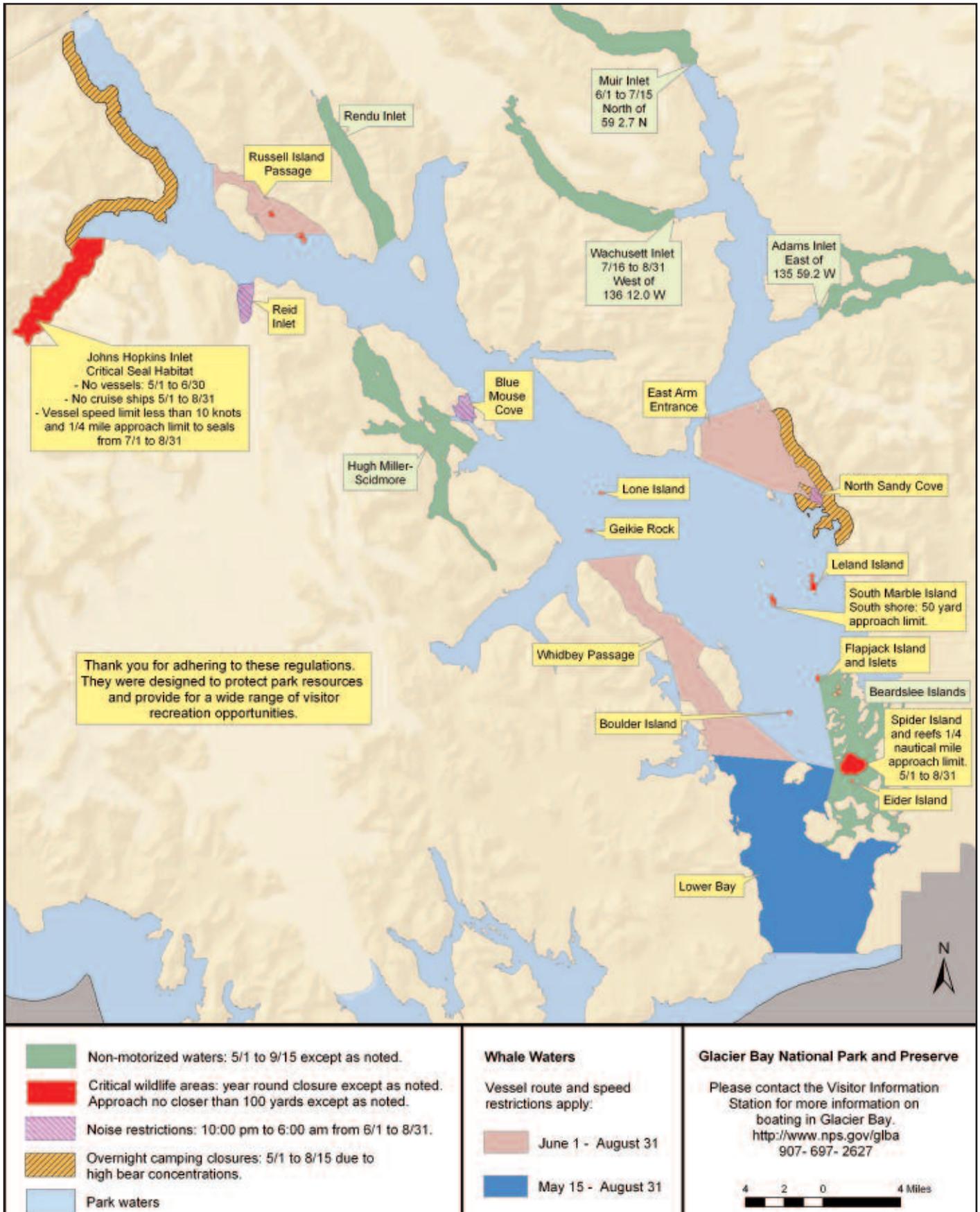
Nautical Charts:

17300 Stephens Passage to Cross Sound
17318 Glacier Bay
17302 Icy Strait and Cross Sound
17301 Cape Spencer to Icy Point
16762 Lituya Bay

To order maps and charts contact:

Alaska Natural History Association
P.O. Box 140
Gustavus, AK 99826
907-697-2635
glba_anha@nps.gov

Boating Guide



Whale Watching in Whale Waters

To minimize disturbance to endangered humpback whales, Glacier Bay National Park and Preserve has developed some of the most protective boating rules visitors will find anywhere. Because the park's mission is to protect and preserve these magnificent creatures, we maintain strict operating and speed restrictions in critical whale habitat.

Rules for All of Glacier Bay

All vessels, including kayaks, must **NOT**:

- Operate within 1/4 nautical mile of a humpback whale.
- Pursue a humpback whale by altering course or speed in a manner that results in retaining a vessel at a distance less than a 1/2 nautical mile from a humpback whale.

What do you do if a whale suddenly appears in front of you? If your vessel is accidentally positioned within a 1/4 nautical mile of a humpback whale, immediately slow your vessel to ten knots or less. Don't shift into reverse unless impact is likely. Then, carefully direct or maintain your course away from the whale until at least 1/4 nautical mile separation exists.

What are Whale Waters?

These are special areas in Glacier Bay that require additional speed and operating restrictions. These critical areas change depending on current whale activity in the bay. See Boating Guide on page 24 for areas and dates that regulations are in effect and check at the VIS for additional temporary restrictions before setting out.

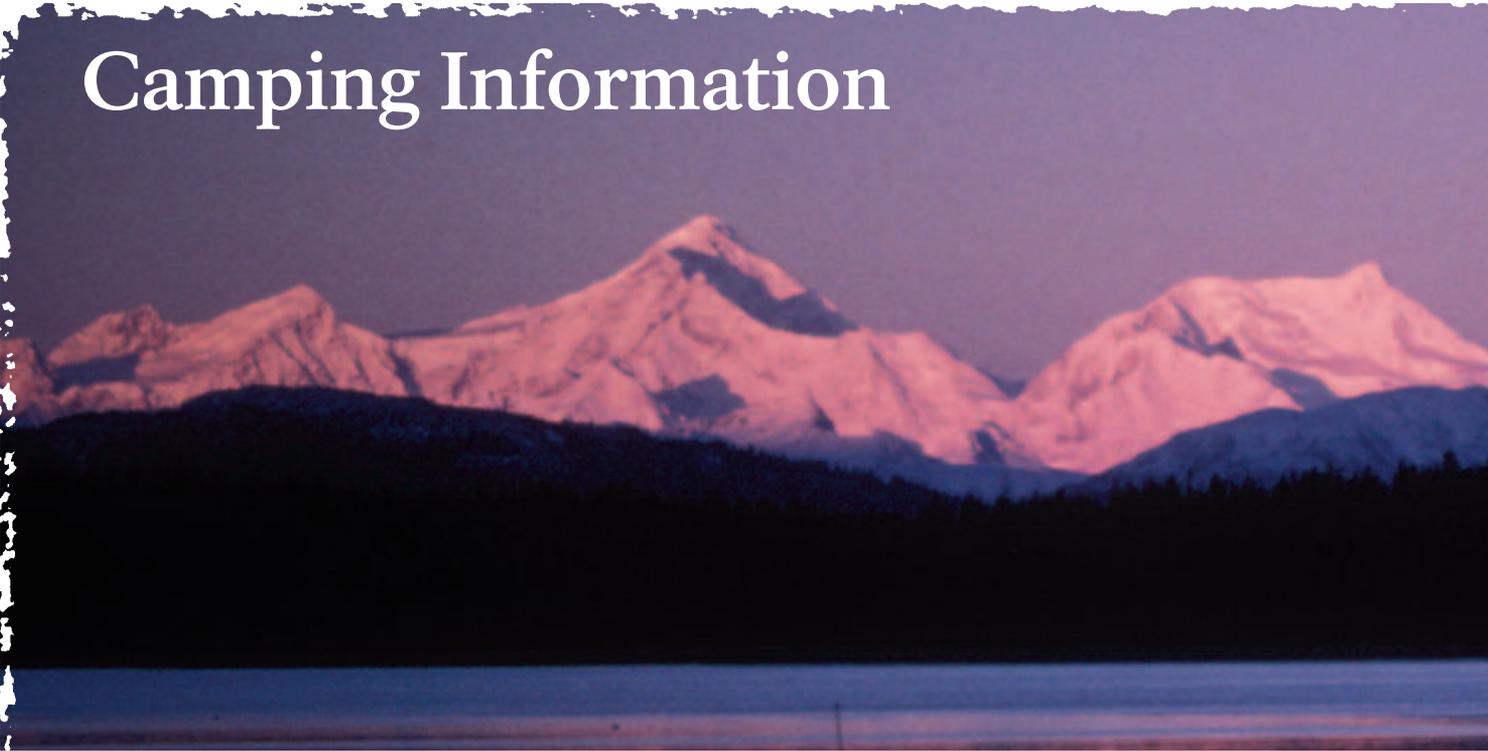
Rules for Whale Waters

Motorized vessels over 18 feet in length **MUST**:

- Maintain a distance of at least one mile from shore. In narrower areas, navigate a mid-channel course (unless fishing or operating solely under sail).
- Approach or land on shore perpendicularly, taking the most direct line to shore.
- Operate within speed restrictions. Check at the VIS for current status.



Camping Information



In Bartlett Cove

A free, walk-in tent campground is located at Bartlett Cove. You must register for a site at the VIS. Wheelbarrows are available to help haul gear between the VIS, dock, and campground. Please observe the following:

- Store all food, trash, and scented items in the caches provided in the campground.
- Cook, prepare, and eat food only in the intertidal zone next to the campground.
- Dispose of trash at the VIS.
- Fires are permitted only in the designated campground beach fire ring.

In the Backcountry

Closure Areas

- Certain parts of the bay are closed to campers either permanently or temporarily due to animal activity and resource protection. Ask VIS rangers for closure updates. You are responsible for knowing and obeying these closures. See Boating Guide, page 24.

Campsite Selection

- Choose a site that shows few signs of wildlife usage.
- Avoid camping near other parties.
- Do not camp within 100 feet of a stream or lake.
- Pitch your tent on durable surfaces.
- Try to keep your camp and activities as inconspicuous as possible.
- Leave your campsite as you found it.

Food Storage

- Cook and eat in the intertidal zone at least 100 yards from your tent.
- Do not use your bear-resistant food container (BRFC) as a cooking platform.
- At night, store all BRFCs and clean cooking gear in brush or behind rocks away from animal trails 100 yards from camp, not in your boat.
- In forested areas, use of a BRFC is still recommended. You may, however, hang your food.
- Food must hang at least 10 feet from the ground, 4 feet horizontally from the tree trunk and at least 4 feet down from the supporting branch.



Water

- All water should be boiled, filtered, or treated before consumption.
- Do not use soap directly in fresh water. Carry the water 100 feet away from the source.

Waste Disposal

- Within a 1/4 mile of shoreline, either remove human waste as trash or deposit at least 100 feet from any surface freshwater source in a hole dug at least 6 inches deep.
- Beyond 1/4 mile of shoreline, deposit human waste at least 100 feet from water sources, campsites, or within sight of trails.
- Burn or pack out toilet paper.
- Pack out all trash.

Campfires

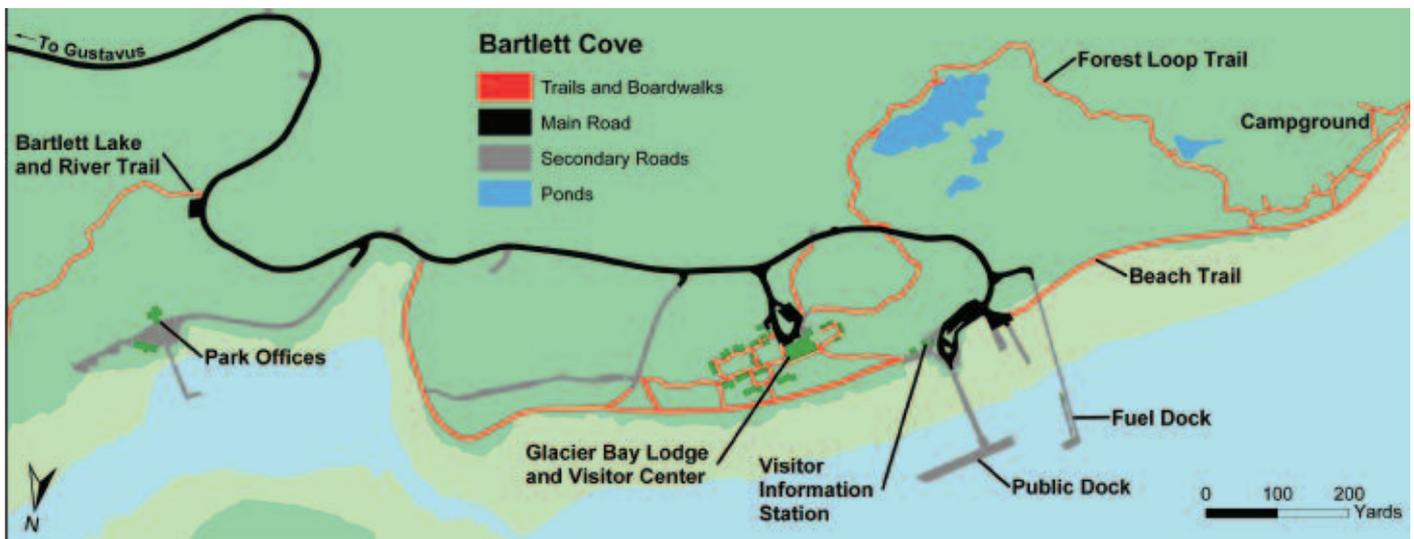
- Campers are encouraged to use camping stoves.
- Campfires are permitted below the high tide line or more than 1/4 mile from shore.
- Burn only down and dead timber. **DO NOT** burn interglacial wood, which comes from the exposed remnants of ancient forests found on certain beaches around the bay. Ask a ranger for details.

Hypothermia

- Cold can kill. Know the signs of and treatment for hypothermia. See page 21.

✓ Check In

- If you fail to return as scheduled or do not turn in your BRFC, rangers will begin to search for you starting with the areas indicated on your permit. Please check in at the VIS when you return.



These Boots Were Made for Walking

You've probably done a fair bit of traveling to get here and may have a hankering to stretch your legs. There are three maintained trails near the Glacier Bay Lodge. All offer relatively easy walking.

Forest Loop Trail

Distance: 1 mile loop

Time: 30 min.- 1.5 hours

Takes you through both the temperate rain forest and the beach environments of Bartlett Cove. Begin your walk either in front of the lodge (just off the parking lot) or south of the boat ramp between the docks. The trail surface varies between dirt, gravel, and boardwalk. Two benches and viewing platforms along the way beg you to pause and take in the sights and sounds of the spruce/hemlock forest. Rangers lead a guided walk along this trail every afternoon at 2:30 p.m. Meet near the lodge front desk.

Beach Walk

The long stretch of shoreline south of the docks allows for a pleasant stroll. Low tide reveals a myriad of intertidal life. (Please walk carefully!) It's a terrific place to see land, shore, and sea birds. Free tide tables are available at the NPS Information Desk in the lodge and at the Visitor Information Station near the public-use dock.

Bartlett River Trail

Distance: 4 miles roundtrip

Time: 4-5 hours

Meanders along an intertidal lagoon and through the spruce/hemlock forest before emerging and ending at the Bartlett River estuary. Watch for coyotes, moose, bear, and river otter along the beach. Ducks, geese, and other water birds concentrate in the intertidal area during migrations and molting. Salmon run up the river in the latter part of the summer, which attracts hungry harbor seals.

Bartlett Lake Trail

Distance: 8 miles roundtrip

Time: 7-8 hours

Begin walking on the Bartlett River Trail. About 3/4 of a mile down the trail at a signpost, the lake trail will branch off and begin to climb the moraine. This trail is less maintained so use caution to not lose the route. The chatter of red squirrels will accompany you as you wind your way over and around moss-covered boulders and lichen-covered trees before reaching the shores of Bartlett Lake. During this full-day journey, you may be richly rewarded in solitude and perhaps even the call of loons. Bring water, lunch, and rain gear.



Caution

Baneberry—Deadly Temptations

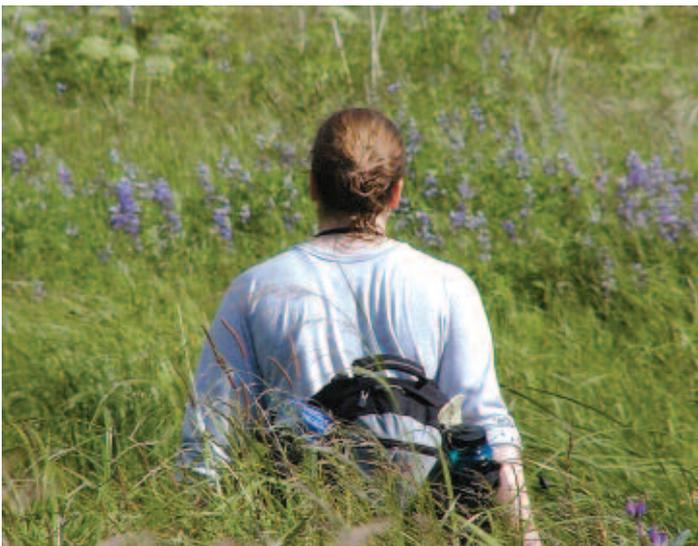
Glacier Bay has a myriad of tasty berries that ripen over the summer. But there is one berry you do not want to eat.

Baneberry, *Actaea rubra*, a member of the buttercup family, is aptly named. “Bane” is derived from an Anglo-Saxon word meaning “murderous.” All parts of the plant are toxic. It is common around Bartlett Cove on the edges of forests, along stream banks, and roadsides.

The stalk grows from two to four feet high. Its thin, heavily veined leaves have deeply toothed edges. In the spring, it produces a cluster of small white flowers above the leaves. In July and August, hard shiny berries appear. These can be either candy-apple red (most common) or white.

Mature berries have a dark spot, which has earned them the nickname of “doll’s eyes.” But there is nothing playful about this plant. Ingesting one berry can cause numbness in the mouth and tongue. The poison in three berries is enough to kill a child. Six berries will effectively shut down the respiratory system in adults.

The best rule to follow if you are sampling wild plants: if you aren’t sure what it is it, don’t eat it.



No matter where you walk, always let someone know where you are going and what time you expect to be back.

A Slip of the Foot

Due to the amount of moisture here in Glacier Bay, walking can be tricky. Wet decks, wooden walkways, logs, rocks, and tree roots can be very slippery and create tripping hazards. Muddy pathways can be slick. To minimize risk, wear sturdy shoes with good traction and use handrails wherever available. Watch where you are stepping and take your time!

Moose Musts

If you encounter a moose, use caution:

- Increase the distance between you and the moose.
- Get behind a tree.
- Change your route.

To avoid close encounters, make noise while you hike.

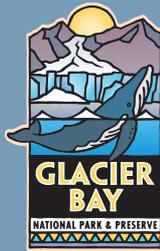
Park Partners

For more information on Glacier Bay National Park and Preserve's wildlife, geology, and history look to the Alaska Natural History Association. As the principal nonprofit educational partner of Glacier Bay, Alaska Natural History operates educational bookstores with an extensive collection of materials on the natural and cultural heritage of Glacier Bay. Your purchases support educational programs offered by park rangers, volunteer programs, this visitor guide, and other services.

Alaska Natural History partners with more than 30 public lands across Alaska to operate informational bookstores and connect people to Alaska's rich natural and cultural heritage. Members receive discounts on bookstore purchases and through Alaska Natural History's website at www.alaskanha.org



Alaska Natural History Association
750 West Second Avenue, Suite 100
Anchorage, AK 99501
907-274-8440 or toll-free at 866-AK PARKS
www.alaskanha.org



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PLANNING YOUR TRIP

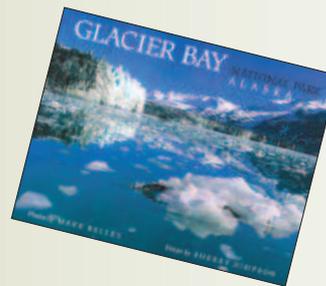
To find these publications and more, visit the Association Bookstore in the Visitor Center or order directly from the Glacier Bay branch by calling 907-697-2635 or e-mail: glba_anha@nps.gov.



Frozen in Motion: Alaska's Glaciers

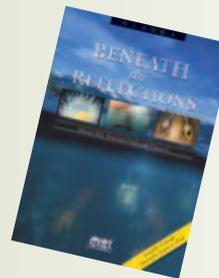
Find out why ice is blue, how glaciers gallop, and which tools scientists use to uncover ancient clues from the ice in this brand-new look at Alaska's dynamic glaciers.

\$8.95



Glacier Bay National Park Alaska
by Mark Kelley & Sherry Simpson
Color photographs and essays tell the fascinating story of the park, its wildlife and plants.

\$20.00



Glacier Bay: Beneath the Reflections

Explore the strange and intriguing underwater world of Glacier Bay in this award-winning film. As a DVD bonus, enjoy the park's classic film *Forever Wild*.

DVD 27 minutes

\$14.95



**Glacier Bay
Trails Illustrated Topo Map**
by National Geographic
Waterproof

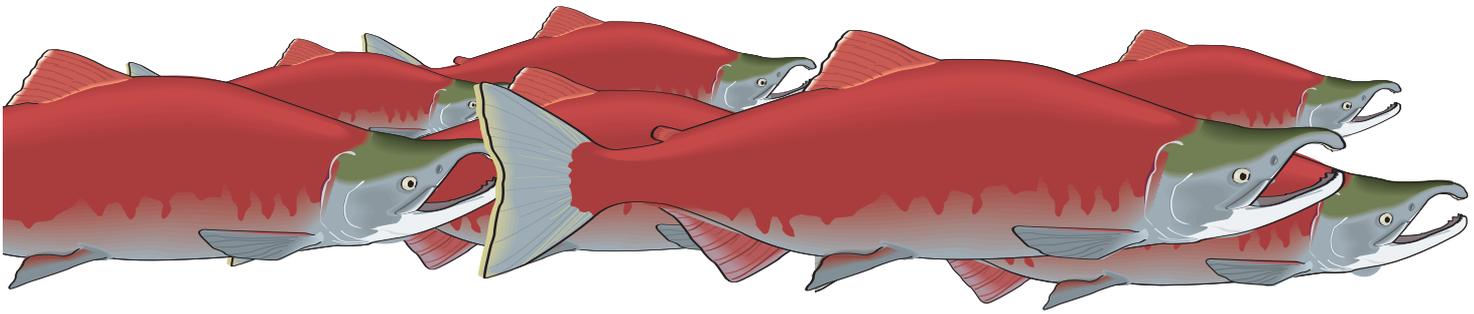
\$10.00

Also available on-line at www.alaskanha.org

Become a Junior Ranger

If you are between the ages of 6 and 12, you may want to become a Junior Ranger during your park visit. Stop by the Visitor Center on the second floor of the lodge to pick up a Junior Ranger Activity Book. When you have finished the activities, bring your booklet to a ranger and you will be awarded a special badge that makes you a Glacier Bay National Park and Preserve Junior Ranger!

Here are a few activities to get you started. If you need help with any of these activities, please ask a ranger. Good luck and have fun!



Who am I?

- ☉ I begin and end my life in a river, but spend the majority of my time in the ocean.
- ☉ I eat small fish and bugs.
- ☉ Some of my nicknames include: humpy, red, silver, king, and dog.

1) Who am I? _____

- ☉ I drink both the nectar of flowers and blood.
- ☉ I like stagnant pools of water best.
- ☉ There are more of me in the arctic than anywhere else in the world.
- ☉ When I bite you, my saliva makes you itch.

2) Who am I? _____

- ☉ I am a small member of the gull family.
- ☉ My wing tips look like they are dipped in black ink.
- ☉ I like to fish near where glaciers calve and meltwater streams meet the sea.
- ☉ In Glacier Bay, I nest in large colonies on cliffs near the Margerie Glacier.

3) Who am I? _____

Glacier Bay Word Scramble

All of the things below can be found in Glacier Bay. How many can you find? The words may be horizontal, vertical, diagonal or backward. Good luck!

		MOOSE		SPRUCE		GLACIER		
	BEAR			HUMPBACK				EAGLE
			SEAL			HALIBUT		
K	C	A	B	P	M	U	H	
S	E	A	L	R	O	T	O	
A	P	R	A	A	O	L	S	
T	O	R	C	T	S	R	T	
B	E	A	U	I	E	A	R	
H	G	L	A	C	I	E	R	
A	E	L	G	A	E	B	I	
T	U	B	I	L	A	H	N	

Answers: Who am I?

1. Salmon 2. Mosquito 3. Kittiwake



Emergency and Medical Assistance

Emergency Inside the Park:
 National Park Service Bartlett Cove
 697-2229 (summers only 8 a.m.-6 p.m.)
 697-2651 (24-hour)
 KWM20 Bartlett Cove on marine band 16

Emergency Outside the Park:
 Gustavus Emergency Response
 Dial 911

Other Medical Assistance:
 Gustavus Community Clinic
 42 Dolly Varden Lane, Gustavus
 697-3008

You are in an isolated area. The closest hospital or trauma facility is in Juneau, 30 minutes by air. Weather conditions may delay medical evacuations or other emergency transport, sometimes for days. To help ensure you have a safe visit, use caution.

- Respect boundaries, especially around construction zones.
- Watch for traffic on docks, roadways, and in parking lots.
- Report any hazardous situations to the Visitor Information Station.
- Even for short excursions, always let someone know where you are going and what time you plan to be back, then stick to your plan.