

The essential Glacier Bay reference.  
Everything you need for a successful trip.

# Volume 3

Exceptionally thorough, this beautiful three-volume guide covers every inlet of Glacier Bay's spectacular 760-mile-long wilderness coast. Find practical paddling logistics, campsites, extensive maps, and vital tips for dealing with 25-foot tides, brown bears, and icebergs. Ample photography helps each visitor locate stunning glaciers, emerald rainforests, and unsurpassed wild-life. While reading in the tent, dive into Muir's "glacier gospel," discover Huna Tlingit history, and learn how to spot the mythical Silent City, a mirage that swirled around Victorian-era steamships. Unearth fossils transplanted from Siberia, find glaciers that slipped on metaphorical banana peels, hunt "monstars," and revel in the science of whale's earwax, suck muck, blue bears, and more.

**DAVID BAHR** is a glaciologist and photographic artist. He was the 2013 Artist-in-Residence at Glacier Bay.

- ★ **VOLUME 3 COVERS** the entire west side of Glacier Bay, from the Margerie Glacier to Berg Bay
- ★ Includes the popular Johns Hopkins and Reid Glaciers
- ★ 135 photographs and illustrations
- ★ 15 maps
- ★ 129+ campsites
- ★ Engaging science and history for each inlet, including Muir's crazy canoeing pace, the Ibach's mining cabin, bald eagles, and for extra fun, how to transform a glacier into a computer (some assembly required)



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*Mount Cooper with edible seabeach sandwort in the foreground.*

## 39. Tarr Inlet

### DIFFICULTY

Advanced

### LOCATION

59°0'0" N and 136°58'0" W  
West Arm. Northernmost branch of West Arm

### DISTANCE

8 nmi (9 mi, 15 km)

### TIME TO TRAVERSE

2 hours 45 minutes. One- to two-hours faster when violently blowing your direction of travel

### TYPICAL NEXT DESTINATIONS

*Southeast:* Russell Island, Johns Hopkins Inlet, Lamplugh Glacier, Reid Glacier

### HIKING OPPORTUNITIES

*Excellent.* Try either margin of the Grand Pacific Glacier (sometimes difficult, but superb) and some alluvial fans

### SUMMARY

Welcome to Canada, almost. If you could paddle any further, you'd have to whip out a passport. The Grand Pacific Glacier teeters just on the border, and with a mere half mile retreat will become a wholly owned subsidiary of British Columbia, nestled firmly in neighboring Tatshenshini-Alsek Provincial Park. Over the last couple of decades, the terminus has been rotting away, mostly inactive and dirt covered, so barring any sudden surges or unlikely recoveries from climate change, the Grand Pacific's terminus will inch its way backwards onto foreign soil, as it did in the 1930's before advancing

ever-so-slightly back to the US side of the border. The current slow retreat and decay is fascinating, and you'll love climbing around on the dying ice margins, but this is at best a side show. The Grand Pacific pales in comparison to the mighty calving Margerie next door, quite literally about 100 feet to the left, so close that sometimes the two glaciers kiss and briefly merge together.

Ah, yes, the beautiful Margerie Glacier. For most visitors to the park, this is The Ultimate Goal, most definitely in capital letters and on the "must see check list" either by cruise ship, daily tour boat, kayak, dirigible, unicycle, hoverboard, camel, pelican, or something, anything, just get me there, please. Nobody will paddle halfway up the inlet and stop shy of the TUG saying, "whatever, good enough let's camp just out of view." People want to see, hear, and feel the rumbling ice. Until Johns Hopkins Inlet opens each July after the harbor seal pupping season, this glacier is the biggest show in the park and every bit as satisfying as a volcanic eruption. The raw power of nature doesn't get any more personal and in your face.

Except when it doesn't. Cursed souls can spend an entire day in Tarr without a single calving event, not even an ice cube. Utter silence. Desperate seagulls and kittiwakes will circle and circle, waiting and hoping for the big splash and sonic boom that concusses fish and brings them unconscious to the surface for easy lunch. Karmatically afflicted kayakers might even think about leaving but that practically guarantees the most whopping calving event in the history of the national park, so like everyone else, they sit there and watch the pot, hoping for a boil.

On other occasions the darn glacier won't turn off, making everyone wonder if this is the Margerie's

## MARGERIE CROWDS

Every tour vessel in the park visits the Margerie. Every private yacht visits the Margerie. Every cruise ship in the park zooms up here and stops to spin, literally rotating round and round for an hour to afford all 2,000 passengers a 360-degree view and plenty of time to witness the calving show while spewing exhaust in all directions. According to the Park Service, over 600,000 visitors will gaze upon the Margerie every year between the months of May and October. Solitude is not in the forecast.

Sadly, the near-constant boat traffic diminishes everything else in the inlet. This is not wilderness. It's more like a busy Fourth of July fireworks display with thousands of cheering fans. A visit is still worthwhile but demands some adjusted expectations, an awareness that this is a shared space. If a cruise ship blocks your view, paddle a little left or right. Or instead of competing for space directly in front of the glacier, check out the large waterfall and huge, 10,000-bird, kittiwake colony in the shore-side cliffs south of the Margerie, a calmer

spot where tour vessels rarely patrol but tufted puffins congregate. Enjoy the occasional brown bear that pads along the Grand Pacific headed to who knows where in Canada. Take a seat by some deep magenta fireweed and spend hours marveling at the icebergs grounded on the beaches, coming and going with each cycle of the tide. Just remember, you must share. The secret to happiness is opening your arms wide to embrace the madding crowd.

Besides acquiescence, there's a second secret to peaceful coexistence with the park's busiest attraction: outlast the competition. During the busy morning and middle of the day, park your kayaks on either side of the Grand Pacific and go for a looong hike. Make it a leisurely stroll, wander up to some cascades, carefully climb onto some ice, and take a picnic lunch for your brief sojourn into Canada (oops, you didn't do that). The cruise ships and other tour vessels will putter around for a few hours and then vacate the premises. Tarr Inlet is not a safe harbor, and nobody but a fool anchors for the night. Return from your hike when they leave.

grand finale, that climactic moment when the fat lady sings and the terminus waves goodbye to rapidly retreat around the corner. The pace is scary, the inlet chokes with ice, and you'll stay up half the night to take in the hypnotic show. Oohs and ahhs by all around. Hooray!

But with or without calving, the huge peaks looming behind the Margerie will impress and dazzle. Wait for a break in the clouds and enjoy the magnificent scene. But—and this is a significant caveat—the clearest days also tend to be the windiest, generating katabatic winds that roar down the Grand Pacific. The inlet's razzle-dazzle makes a little trouble worthwhile, but even intermediates will feel queasy about battling huge wind-driven

waves when combined with drifting icebergs and choppy wakes from multiple tour vessels that punch simultaneously from every direction.

## CAMPSITES

Only one of these sites see regular use because nobody wants to stop short of the Margerie. If the wind and waves pick up—nearly inevitable on clear days—the three-mile-long bight on the southwest side of the fjord has the best protection.

### *Fresh water*

Rivers and small streams enter the inlet at regular intervals along both sides. Look for good sources at



*Spectacular Margerie Glacier.*

any of the obvious alluvial fans. Almost all campsites are within easy walking distance of a stream. Only the two *pocket beach* campsites are dry, but in both cases reliable water is a short half-nautical mile away.

***The unloved southwest part of the fjord, from south to north***

39.1 **Favorite.** 58°58'17" N and 136°56'48" W.  
*First protected pocket beach.* After a two nmi paddle up the west side of the inlet, the first opportunity for landing is a wonderful little pocket with a very clean cobble and pebble beach. There's room for two tents on the beach, and two more in the alder.

The southeast facing campsite protects your evening from soul-stealing katabatic winds.

39.2 58°58'23" N and 136°57'7" W. *South end of bight.* Just around the corner from the pocket sits a clean gravel beach with a perfectly placed raised bench at the top. Two rocky islets are accessible at low tide. This camp is at the southern end of a mile-long beach and the long, obvious bight. If coming from the south, it's the second place you can land. Though less protected than the nearby pocket beach (see above), there's a stream for fresh water, many tent sites, and great beach hikes. Nowhere along



*Lamplugh Glacier and Mount Cooper.*



*Impressive Mount Wilbur.*

Hopkins Inlet location and plopping it on top of the Fairweather Glacier.

## NATURAL HISTORY — SCIENCE

### ***Glacier basics***

If dropped off at Ptarmigan Beach by the daily tour boat, the Lamplugh might be your first encounter with a glacier. See the chapter *Riggs Glacier, Vol. 2* to find out what makes these icy beasts flow and tick.

### ***The Johns Hopkins iceberg machine***

For many decades in the late 1800's and early 1900's, the stunning Johns Hopkins Glacier retreated steadily, earning the inlet its Tlingit name Tsalxaan

T'éidí Wool'éex'i Yé, or Inlet That Moves Toward Mount Fairweather. But for the last half century, the Johns Hopkins has been reluctant to part ways with the Gilman Glacier, tenuously wobbling back and forth like a nervous high school prom date. The two glaciers dance about each other, periodically kiss, then part, kiss again, then part again.

Though everyone loves to talk about the Johns Hopkins Glacier as a wonderful exception to climate change—hooray, it's not retreating—the ice has in fact been thinning and melting upstream of the terminus, just like all the other glaciers in the vicinity, including the Lamplugh, Reid, Brady, Margerie, etc. Ultimately, the Johns Hopkins will march backwards again, unless an unlikely surge pushes the terminus forward (see surging glaciers

in the *Rendu Inlet* chapter), but that would be a temporary cure at best. Climate change does not discriminate and will eventually kick-start a furious retreat of the Johns Hopkins that lasts some number of years before reaching shallow water, about one mile west of the Gilman Glacier. At that point, given current climate change trends, the Johns Hopkins will wobble back and forth over its grounding line for a while before retreating permanently onto dry land.

A 2018 satellite study found that ice near the terminus moves at a phenomenal velocity of approximately seven feet per day, though this is not uniform across the entire width, and glaciers always flow fastest in the center. Friction from the valley walls slow the velocity somewhat to the sides and along the bottom. Nevertheless, if we assume this is roughly the velocity across the entire 5,800-foot-wide terminus and that the glacier is roughly 250-feet high above the water and 200-feet deep at the waterline, then we can estimate how much ice calves off the front of the glacier every day.

The terminus is more-or-less stable at present (don't hold your breath, that could change any day), so the glacier must calve away seven feet of ice per day—the equivalent of its velocity—or it would advance forward. Therefore, the volume of calved ice is a total of 450 feet vertical by 5,800 feet wide by seven feet long, or 18,270,000 cubic feet of ice per day. This is a back-of-the-envelope-style calculation, but it's going to be approximately correct to what scientists call "an order of magnitude," or the number of digits in the calculation. That's a whopping huge eight-digit number. So, we're looking at *tens of millions of cubic feet of ice per day* calving into Johns Hopkins Inlet. And at 57 pounds per cubic foot of ice, that's over *a billion pounds of ice per day*. Wow.

### **A Lamplugh Glacier transformation**

Although the Lamplugh is retreating slowly, everything about this glacier got infinitely more

interesting after a massive mountain crumbled and collapsed onto the glacier's surface on June 28, 2016, creating one of the largest landslides in Earth's recorded history. If that slide had reached the bay, the resulting tsunami would have flipped cruise ships, destroyed Russell Island, and annihilated those of us who happened to be kayaking in the neighborhood. Instead, it stopped about three miles short of the terminus.

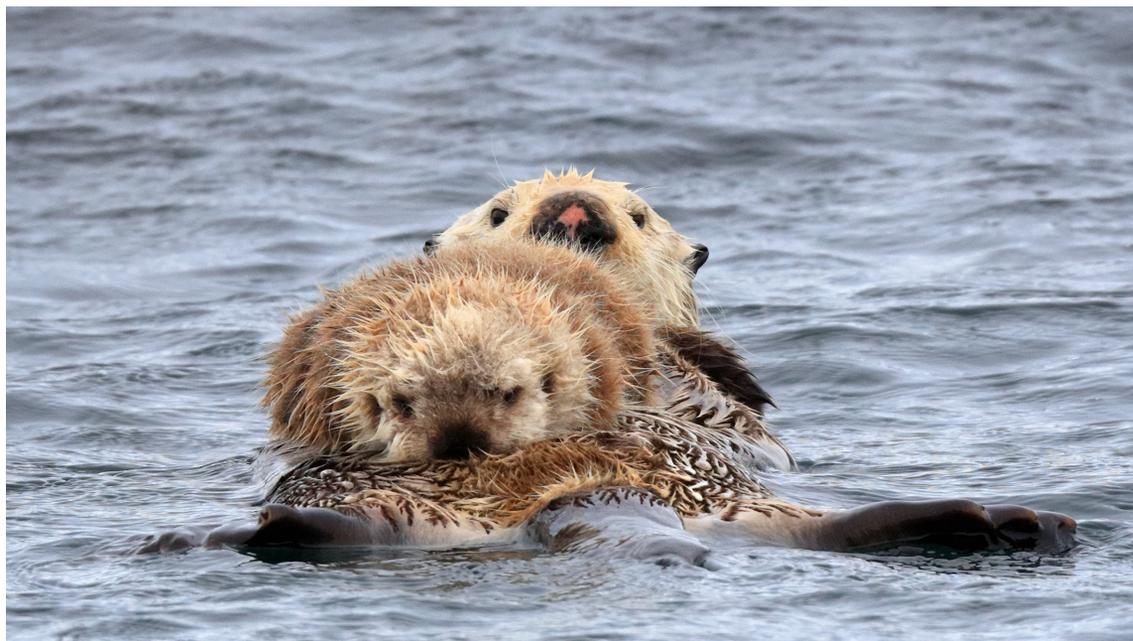
Want some impressive statistics? The slide dumped 85 million cubic yards of material onto seven square miles in under a minute, shaking seismometers around the world while traveling at over 400 miles per hour. Need another frame of reference? Take every single car in the entire *state* of New York and pile them onto the glacier, but because that's not enough, also add every single car in Chicago. That's about the right volume. Now imagine that incredible mountain of cars crushing first downwards and then outward toward the ocean at speeds faster than a bullet train. Good grief.

In addition to covering the glacier in an unsightly brown stain of thick rock, visible from space, the landslide will soon wreak havoc on the glacier's terminus. Around 2040, at current glacier speeds, that enormous pile of rock will start to reach the end of the glacier, carried along like a giant, icy, conveyor belt. An unprecedented deluge of boulders will tumble off the surface and splash into the ocean building a massive terminal moraine. Meanwhile, the blanket of rock will have spent 25 years insulating the surface from the sun like a big protective thermos, saving about 3 feet of ice per year from melting, or all total, around 75 or more vertical feet of extra ice that should have melted. The glacier is only 200 feet tall now, so just as the debris starts to dump into the ocean, the terminus will bulge upward to half again its current height. For about 30 years, a torrential rain of rock will splash down from 275+ feet above the ocean.

With all that extra thickness of ice and a protective moraine that defends the glacier from ocean



*Three-year-old teddy bear ready for a hug. (But mom is in back, so perhaps not.)*



*Sea otter pup, along for the ride. Mom putters about the inlet using her hind feet as paddles.*

frequent somersaults force bubbles into their thick fur coats which adds insulation to protect themselves from the cold—much like the fluffed up down in your sleeping bag. Unlike seals, whales and sea lions, the otters don't use fat for warmth, and rely solely on that amazing thick fur coat which sheds water. If you can view their fur with binoculars, notice how it channels water like a merging series of coalescing streams and dendritic rivers, draining the cold water away.

These gorgeous, cute-whiskered, playful, constantly grooming fluff balls might be the most easily

anthropomorphized cutie-pies on the planet. They even hold hands, a clever technique for sticking together in rough water (cue the collective “awwww”). Delightfully, you just happen to be in one of the best places on the planet to watch their charming antics. Marvel at their revitalization in Geikie—an ecosystem recovery in progress—and if sea otters are high on your list, be sure to visit the Beardslee Islands, Berg Bay, and Fingers Bay, three of their favorite homes where spellbinding rafts of hundreds are daily sights. You'll find few better ways to spend a peaceful hour.