

Backpacking

Course 118



Instructor: Shane Watts, Troop 585





Goal: Enable you to lead an outstanding backpacking program in your unit.

Focus: Backpacking principles, techniques and gear.

The background of the slide is a photograph of two hikers with large backpacks and trekking poles, silhouetted against a warm, orange-hued sunset sky. They are walking along a mountain ridge. The sun is visible on the right side of the horizon, casting a bright glow. The hikers and the mountain landscape are reflected in a body of water in the foreground.

This course has four parts...



Program

Program

Skills



Program

Skills

Gear



Program

Skills

Gear

Location



Program

Skills

Gear

Location





Backpacking in *your* program

- Buy-into the virtues of backpacking
- Wilderness First Aid certification
- Start small
- Go light
- Skills over gear
- Destinations and activities
- Conditioning program
- Marketing

Day 3 of our 50 miler...



Program

Skills

Gear

Location





Backpacking Skills

- Pack your backpack
- Adjust the fit of your backpack
- Place and pitch your tent
- Stay reasonably dry in the rain
- Hang a bear bag
- Select and prepare food
- Make and break camp systematically





Skill: What goes where?

- Weight high, close and centered
- Frequent use items on top/outside
- Food above fuel
- Break down larger items
- Stuff the spaces
- Weight loaded:
 - OK – 25-30% of your body weight
 - Better – 20% of your body weight
 - Best – 15% or less of your body weight



Skill: Adjust the fit of your pack

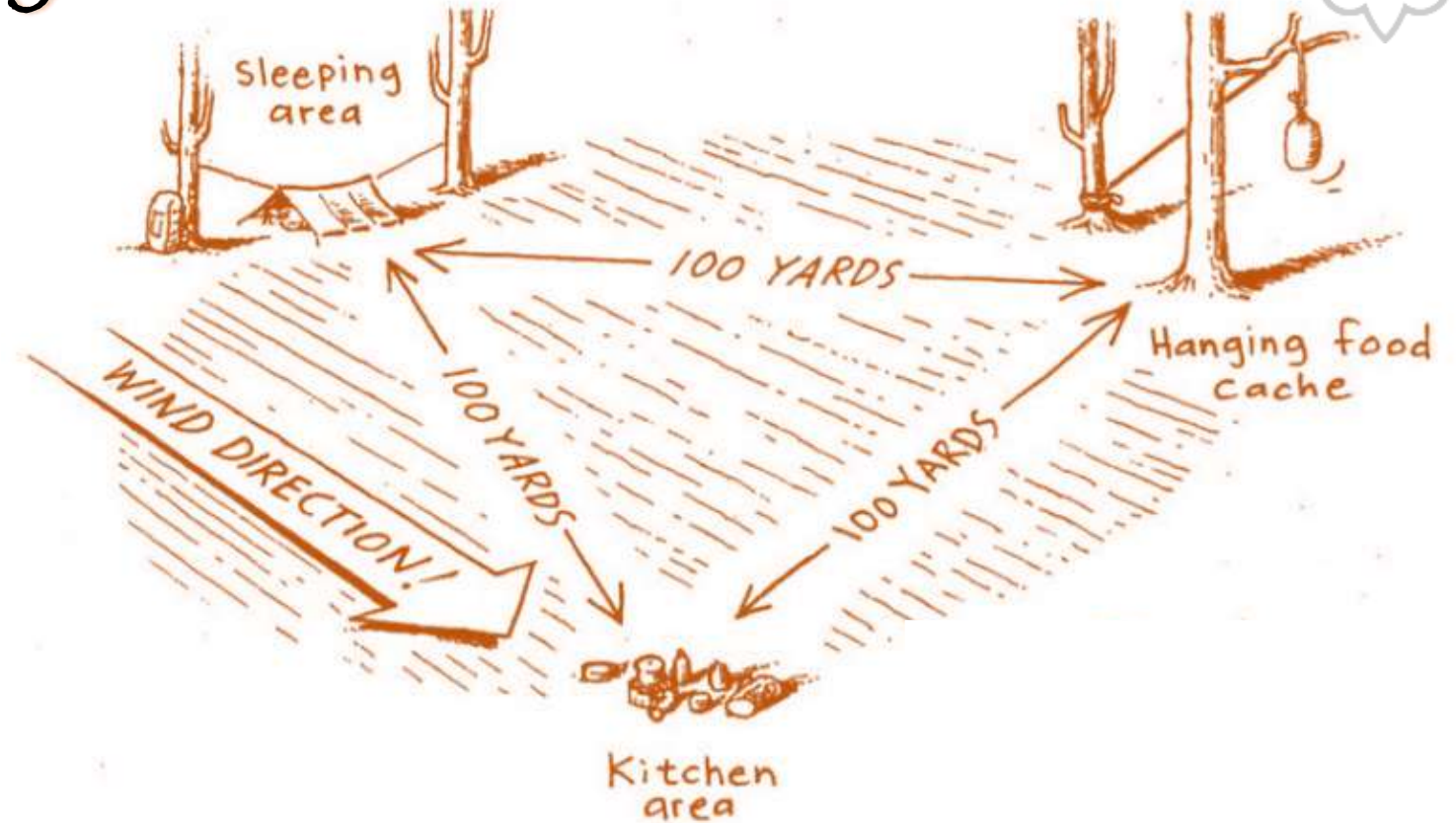
Most scouts begin to care about the adjustment of their pack straps when pain and fatigue begin to set in—usually around mile 3-4. Even then, they only care if they realize that adjusting pack straps can alleviate their suffering.



Skill: Place and pitch your tent

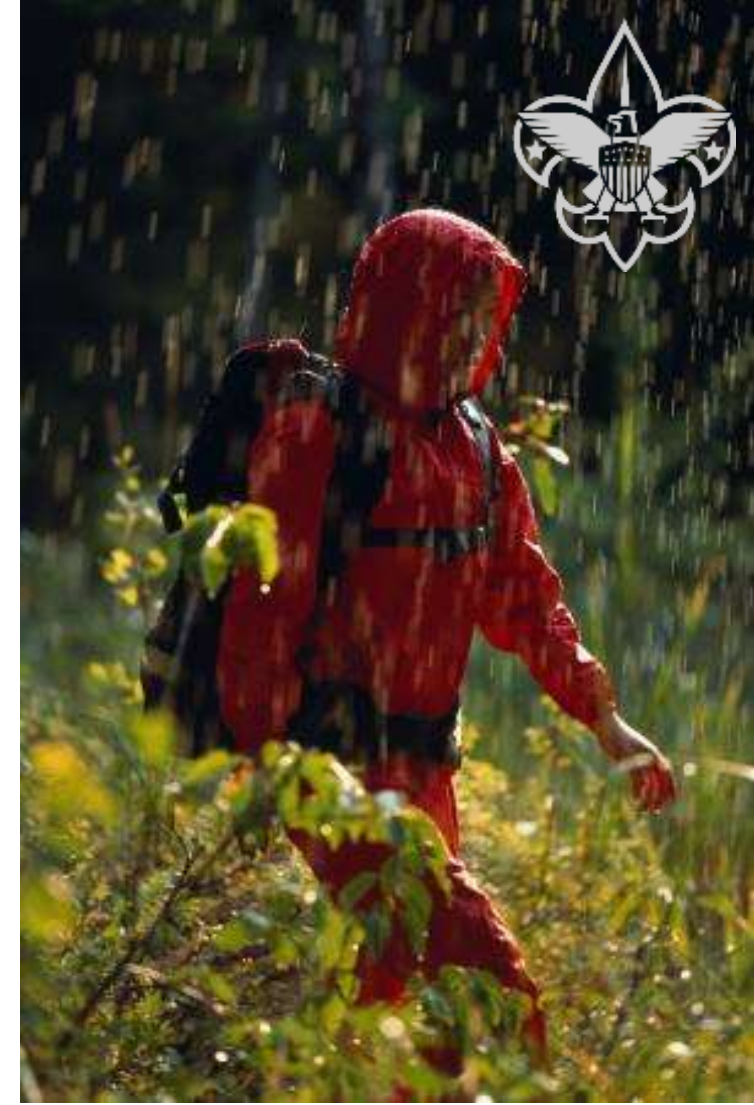


- Five W's
- Bugs and temperature
- "Bearmuda" triangle
- Tight with an air barrier
- Ventilation
- Pitching a tent in the rain

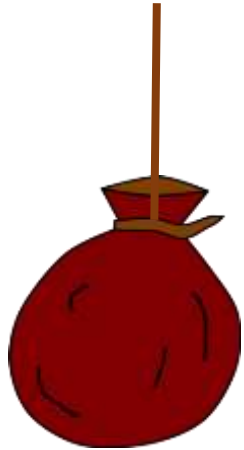


Skill: Backpacking in the rain

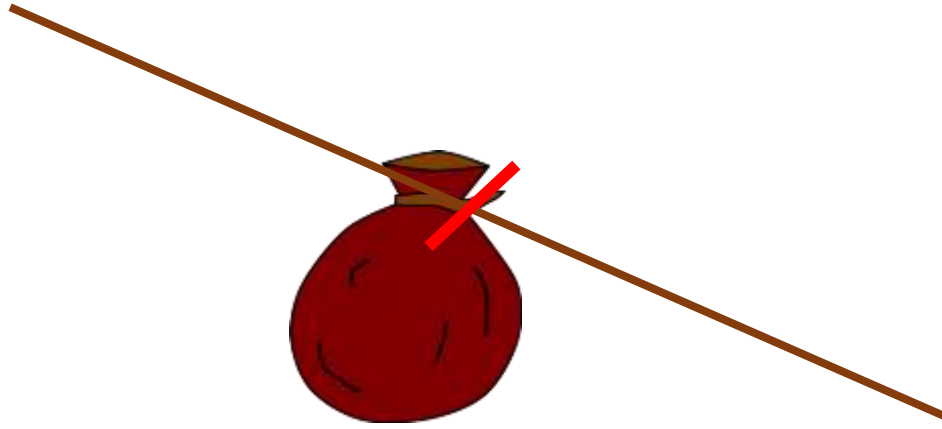
- Embrace reality
- Stay warm and comfortable, if not dry
- DWR your rain gear
- When to put on rain gear (avoid sweating)
- Shorter breaks, more snacks
- Keep your important stuff dry
- Pitch your *backpacking* tent right
- Keep wet stuff outside
- Get dry before you get into your sleeping bag



Skill: Hang a bear bag



One tree model



PCT style

PCT How To Video: <https://youtu.be/yAhWqbt2p0>





Skill: Select and prepare food

- Your food philosophy
- Freeze dried vs. regular
- Cook vs. non-cook
- Don't carry water in food
- Practice stove and meals at home
- Eat heavy/bulky food first
- Calorie-dense, durable foods
- 2,500-3,000 calories per day (1.5-2 lbs per day)



Skill: Backpacking systems



- Have a system
- Pack the same every time
- Practice, practice, practice
- Duty roster
- Promote performance





What's in your backpack?

- 10 essentials (+ extra food, clothing)
- Sleep system
- Tent (part)
- Cooking system
- Water purification system

Don't pack your fears.

Plan for the possible, but pack for the probable.



Backpacking Checklist

Items in **red** are will be on your body, not in your pack.



Personal Equipment: Clothing (NO COTTON!!!)

<input type="checkbox"/>	1 Rain shell	Waterproof (not merely water resistant)
<input type="checkbox"/>	1 Rain pants (optional)	Recommend DriDucks (if you don't already have rain pants). No heavy plastic/rubber rain pants.
<input type="checkbox"/>	1 Insulating layer	e.g. fleece or down sweater. Avoid heavy windproof fleece—blocking wind and rain is the job of your rain shell, which can be placed over this insulating layer.
<input type="checkbox"/>	1 T-shirt	Synthetic
<input type="checkbox"/>	1 Long sleeve trekking shirt	Lightweight synthetic
<input type="checkbox"/>	1 Pants with zip-off legs (best) or 1 pair shorts	Lightweight synthetic fabric
<input type="checkbox"/>	2 Underwear (one worn)	Synthetic—no cotton; should be a dark color
<input type="checkbox"/>	2-3 pairs of socks (one worn)	Light-to-mid weight synthetic running or hiking socks—no cotton
<input type="checkbox"/>	1 set sleeping clothes	1 light thermal top and bottom; 1 lightweight knit cap
<input type="checkbox"/>	1 Hat with a brim	
<input type="checkbox"/>	1 pair shoes	Trail runners. In good condition. This should be the only pair of shoes you bring on this trip.
<input type="checkbox"/>	1 pair running gaiters (optional)	Not required but highly recommended to keep bits of gravel out of your shoes.
<input type="checkbox"/>	1 pair lightweight gloves or mittens	Synthetic, lightweight—glove liners work.
<input type="checkbox"/>	1 Dry bag for clothes	Roll-top silnylon bag is great. If you opt for a trash bag, make it a trash compactor bag.
<input type="checkbox"/>	1 Bandana	Yes, this one item may be cotton.



Backpacking Checklist (cont.)



Personal Equipment: Sleep System

<input type="checkbox"/>	1 Sleeping bag	Lightweight summer bag 20-35 degrees EN rating. Down or synthetic fill are fine.
<input type="checkbox"/>	1 Dry bag for sleeping bag	Roll-top dry sack made of silnylon-type fabric, just big enough to fit your sleeping bag *Alternatively, you can line the inside of your pack with a trash compactor bag and put your sleeping bag in a stuff sack.
<input type="checkbox"/>	1 Sleeping pad	Recommend insulated inflatable pad
<input type="checkbox"/>	1 inflatable pillow (optional)	If you choose to bring a pillow, please bring an inflatable pillow that weighs only a few ounces and takes little space.



Backpacking Checklist (cont.)



Personal Equipment: Gear

<input type="checkbox"/> Backpack	45-65 Liters, 2-3 lbs empty
<input type="checkbox"/> 2 Water containers	Must equal 2-3 liters capacity. Don't bring a single 3 liter container—you'll want one 1 liter container for holding flavored drinks, which must then be bear bagged at night.
2 trekking poles (set)	Optional. Carbon fiber or aluminum. Adjustable length.
<input type="checkbox"/> 1 Personal hygiene kit	Should fit in a Ziploc sandwich bag. Includes: Small soap (unscented Dr. Broners can double as toothpaste), Small toothbrush, Personal medications (prescription meds need labels)
1 Toiletry kit	One roll of toilet paper and one small hand sanitizer in a gallon-size Ziploc freezer bag
<input type="checkbox"/> 5 one gallon Ziploc freezer bags	Make sure they are freezer bags, not the thinner sandwich bags.
<input type="checkbox"/> 1 Spoon	Long handle
<input type="checkbox"/> 1 Small knife	Must be folding knife with <3 inch blade. Smaller is better.
<input type="checkbox"/> 1 Headlamp	Make sure it has fresh batteries
<input type="checkbox"/> 1 Compass	
<input type="checkbox"/> 1 First aid kit	(very) Small--should fit in a Ziploc half-sandwich bag
<input type="checkbox"/> 1 Sunscreen	Recommend repackaging into smaller container. A good hat and long sleeve shirt can alleviate the need to take too much sun screen.
<input type="checkbox"/> 1 Sunglasses	Polarized is a bonus, but recommend keeping it cheap here.
<input type="checkbox"/> 1 Lip Balm	Chapstick or similar with SPF of 25+
<input type="checkbox"/> 1 Bug repellent	Small, or repackaging into smaller container. Head nets also work well.
<input type="checkbox"/> 2 Fire starters	Small lighter, magnesium striker or waterproof matches



Backpacking Checklist (cont.)



Food

<input type="checkbox"/>	5 Mountain House dinner	Pro-Pack preferred
<input type="checkbox"/>	5 Breakfast-in-a-bag	A hearty/granola cereal in a Ziploc freezer bag with three table spoons of powdered milk
<input type="checkbox"/>	6 lunches	First lunch will be eaten at the trailhead Monday and does not need to be packed away.
<input type="checkbox"/>	6 days of snacks	Should be packaged and labeled per day. Good variety. 1,200-1,500 calories per day.



Backpacking Checklist (cont.)



Group Gear (to be divided among patrol members)

<input type="checkbox"/>	Tent	Tent part to be divided with your tent mates
<input type="checkbox"/>	Stove	Lightweight backpacking stoves (1 stove for every 3-4 people)
<input type="checkbox"/>	Fuel	Canister fuel. 20 oz for 12 people for 5 dinners
<input type="checkbox"/>	Water Filter	1 high quality pump filter +1 Sawyer Squeeze as backup per patrol
<input type="checkbox"/>	Pots w/lid	One 4 liter pot and one 2 liter port per patrol
<input type="checkbox"/>	Trowels	1 per patrol
<input type="checkbox"/>	Bear bags + line	3-4 per patrol
<input type="checkbox"/>	Detail maps	Coated; 1 per patrol member
<input type="checkbox"/>	Group First Aid Kit	1 per patrol
<input type="checkbox"/>	GPS tracker	1 per patrol



Program

Skills

Gear

Location

Backpack

Sleep system

Tent

Clothing

Footwear

Stove

Water purification



Backpack

- Price: Depends, but generally mid-range
- Volume: 45L-65L
- Weight: 2-3lbs
- Torso length: Fits or is adjustable
- Nice features: External mesh, diagonal pockets, hydration port
- Know how to pack and wear it



Backpack Baseline Sample

- Gregory – *Denali 100*

www.gregorypacks.com

- Volume: 100 liters
- Weight: 6 lbs 10 ounces
- Recommended max load: 60+ lbs
- Three torso and hip belt sizes
- Bells and whistles
- Price: \$400



NOT RECOMMENDED



Backpack - Top 5 Picks



Gossamer Gear
Mariposa



Osprey
Exos 58



ULA
Circuit



Granite Gear
Crown2 60



Hyperlite Mtn Gear
Junction 3400



Backpack – Top 5 Picks



Pack	Differentiators	Vol.	Material	Weight	Price
Gossamer Gear - Mariposa	Simplicity, 3 torso & hip belt sizes	60 L	Nylon	2 lb	\$255
Osprey – Exos 58	Comfort, AirSpeed back panel	58 L	Nylon	2 lb 10 oz	\$220
ULA Equipment – Circuit	Big, custom options (straps, belt, color)	68 L	Nylon	2 lb 9 oz	\$235
Granite Gear – Crown2 60	Affordable, durable, adjustable hip belt	60 L	Nylon	2 lb 2 oz	\$199
Hyperlite Mountain Gear – Junction 3400	Light, bombproof, nearly waterproof	55 L	DCF	2 lb	\$345



Sleep System

Sleeping bag

- Fill: Synthetic or down?
- EN rating: 20-35 degrees
- Weight: 2-3 lbs

Sleeping pad

- Type: Air or foam?
- R-value: 2.5–5
- Weight: 1–2 lbs



Sleeping Bags - Top 5 Picks



REI
Magma 15



REI
Igneo 17



Kelty
Cosmic 20



NEMO
Disco 15



Enlightened Equipment
Revelation 20



Sleeping Bags – Top 5 Picks



Sleeping Bag	Differentiators	EN Rating	Fill	Weight	Price
REI – Magma 15	Great value, warmth-to-weight	10°	Down 850	1 lb 12 oz	\$369
REI – Igneo 17	Duck down = lower price, footbox	17°	Duck down	1 lb 15 oz	\$299
Kelty – <i>Cosmic Down 20</i>	Great budget down bag, heavier	20°	Down 600	2 lb 13 oz	\$160
Enlightened Equipment – Revelation 20	Quilt, versatility, lightweight, comfort	20°	Down 850	1 lb 4 oz	\$285
NEMO - Disco 15	Roomy comfort, vents, heavier	15°	Down 650	2 lb 11 oz	\$xx



Sleeping Pads – Top 5 Picks



Nemo
Tensor Insulated



Sea To Summit
Comfort Light Insulated



Big Agnes
Insulated AXL



Therm-a-rest
Z Lite Sol



Klymit
Static V Ultralight SL



Sleeping Pads – Top 5 Picks



Pad	Differentiators	Packed	R-Value	Weight	Price
Nemo – Tensor Insulated	Comfortable, quiet, light	9.5 x 4	10°-20°	14 oz	\$160
Sea To Summit – Comfort Light Insulated	Dual-chamber, fast inflate/deflate, comfortable	9 x 4.5	4.2	1 lb 6 oz	\$170
Big Agnes – <i>Insulated AXL</i>	Super light, comfortable, expensive	6.5 x 3	n/a	12 oz	\$180
Therm-a-rest – Z Lite Sol	Cheap, light, bulky, not so comfortable	20 x 5 x 5	2.6	14 oz	\$45
Klymit – Static V Ultralight SL	Price, thick materials, durability	8 x 5	4.4	1 lb 4 oz	\$68



Tents

- Type: Backpacking (dome or hybrid)
- Quality: Mid-to-high
- Size: 2-3 person
- Weight: ~ 2 lbs per person
- Nice features: Air vents, double side entry, roomy vestibules, vertical walls
- Fly: Full-length (no toupee tents!!!)

WARNING: *Tents must be unpacked, dried and cleaned after each use!!!*



Backpacking Tent



**Summer Car
Camping Tent**



Tents - Top 5 Picks



REI
Half Dome 2 Plus



MSR
**Hubba Hubba
NX 2**



Tarptent
Stratospire 2



Big Agnes
Copper Spur HV UL2



Marmot
Tungsten 2P UL



Tents – Top 5 Picks



2 Person Tent	Differentiators	Floor	Packed	Weight	Price
REI – Half Dome 2 Plus	Great value, roomy, vertical walls	36 sq ft	20 x 7	4 lb 14 oz	\$255
Big Agnes - Copper Spur HV UL 2	Lightweight, interior space, expensive	29 sq ft	20 x 4	2 lb 12 oz	\$450
MSR – Hubba Hubba NX 2	Lightweight, packs small, durable	29 sq ft	18 x 6	3 lb 7 oz	\$400
Marmot – Tungsten 2P UL	Price-to-weight ratio, interior space	32 sq ft	18 x 7	3 lb 4 oz	\$300
Tarptent – Stratospire 2	Uses trekking poles, sleeps 2+, light, huge vestibules, packs small	36 sq ft	16 x 4	2 lb 12 oz	\$359



Clothing

- No cotton!
- Shell: waterproof with sealed (taped) seams
- Layers: base, mid and outer
- 1-2 sets
- Laundering clothes on the trail



Rain Shells – Top 5 Picks



*Marmot
Precip*



*REI
Drypoint GTX*



*Arc'teryx
Beta SL*



*Outdoor Research
Foray*



*Patagonia
Stretch Rainshadow*



Rain Shells – Top 5 Picks



Rain Shell	Differentiators	Barrier	Weight	Price
Marmot - Precip	Good value, lots of colors	NanoPro	11 oz	\$65
REI – Drypoint GTX	3 layer durability, breathable, very stormworthy	3-layer Gore-Tex	10.5 oz	\$250
Arc'teryx – <i>Beta SL</i>	Stormworthy, range of motion, expensive	Gore-Tex PacLite	11 oz	\$290
Outdoor Research - Foray	Ventilation, versatility	Gore-Tex PacLite	11 oz	\$215
Patagonia – Stretch Rainshadow	Light, stretchy, packable, comfortable	H ₂ No	10.4 oz	\$200



Footwear

- Boots vs. Shoes
- Weight
- Wet feet and blisters
- Expense
- Socks
- Gaiters
- Orthotics





Boots vs. Shoes

- Weight (biomechanics)
- Comfort and blisters
- Water
- Support
- Trail debris
- Cost





Blisters & Friction Injuries

- Causes: Shoes, toenails and trail debris



Too small
Too big
Too stiff
Too narrow in the toe box
Too wet for too long



- Prevention: Socks and shoes that fit well and are well suited to hiking

Socks

- No Cotton!
- Wool or synthetic
- Light-to-mid weight
- Form fitting
- Toe socks





Foot Aches & Pains

- Supportive shoes
- Orthotics
- Carry less weight
- Foot maintenance



- Elevate your feet during breaks
- Swap-out dirty wet socks
- Keep toenails trimmed
- Chill your feet in streams
- Cover hotspots as they occur (athletic tape)
- Keeping your feet clean
- Keeping trail debris out of your shoes
- Use balm or wax



Top 3 Trail Runner Picks



#1 Altra
Timp



#2 Brooks
Cascadia



#3 Merrell
Moab 2 Ventilator



Footwear	Type	Weight	Price
Altra – Timp	Trail runner	11 oz	\$130
Merrell – Moab 2 Ventilator	Hiking shoe	31 oz	\$110
Brooks - Cascadia	Trail runner	11 oz	\$130

Stove

- Liquid fuel vs. Canister
- No alcohol stoves
- What are you cooking?
- How big are your pots?
- What will the temperature be?
- How important is weight?
- How far are you going?
- How careful are your Scouts?



Top 3 Stove Picks

#1 MSR

Pocket Rocket Deluxe

2.9 ounces

\$75



#2 Kovea

Spider

6 ounces

\$51



#3 Jetboil

Flash

13.1 ounces

\$99



- cation
- 



Top 3 Water Filter Picks



#1 Katadyn
BeFree 3L
3.5 ounces
\$55



#2
HydroBlu
Versa Flow
2 ounces
\$20



#3 Katadyn
Hiker
11 ounces
\$69



Resources



○ CleverHiker.com



○ OutdoorGearLab.com



○ BackpackingLight.com



○ darwinonthetrail.com



Program

Skills

Gear

Location

Quick & Easy

More Adventurous

50 Milers





Where to go backpacking

- Quick & easy backpacking trips
- More adventurous backpacking trips
- 50 mile backpacking trips



Find your own hike

www.WTA.org

Three Fingers

North Cascades

LOCATION

North Cascades --
Mountain Loop Highway
View map below ▾

LENGTH

15.0 miles, roundtrip

ELEVATION

Gain: 4200 ft.
Highest Point: 6854 ft.

RATING

★★★★★
(13 votes) Log in to rate



⚠ Road Washout: Trailhead inaccessible by car, road walk or mountain bike required

The screenshot shows the Washington Trails Association (WTA) website. The header includes the WTA logo, navigation links (Find a Hike, Hiking Resources, Blog, Take Action, Volunteer, Membership), and a search bar. The main content area features a map of Washington state with numerous hike markers. A sidebar on the right provides details for the 'Umtanum Creek Canyon' hike, including a description, roundtrip distance (6.5 miles), elevation (700.0 ft), gain, features (Fall foliage, Wildflowers/Meadows, Wildlife), and recent trip reports. A 'DONATE' button is visible above the map.

WASHINGTON TRAILS ASSOCIATION

Find a Hike Hiking Resources Blog Take Action Volunteer Membership

Home » Find a Hike » Hike Finder Map

Find your next hike! Use your mouse to explore the map and click the icons for more details. Search WTA's Hiking Guide or filter results using the panel at right. **Zoom in from the statewide view to see many more results.** The map only displays hikes with trail coordinates. Happy Hiking!

Note: Do you like this website? Please consider donating to WTA. [DONATE >](#)

Umtanum Creek Canyon

Begin with a walk over a bouncy suspension bridge above the trout-rich waters of the Yakima River. This trail meanders up an ever-narrowing canyon, bu... [Read more](#)

Roundtrip 6.5 miles
Elevation 700.0 ft
Gain

Features Fall foliage, Wildflowers/Meadows, Wildlife

Read the [full description in our Hiking Guide](#) including directions.

Recent Trip Reports

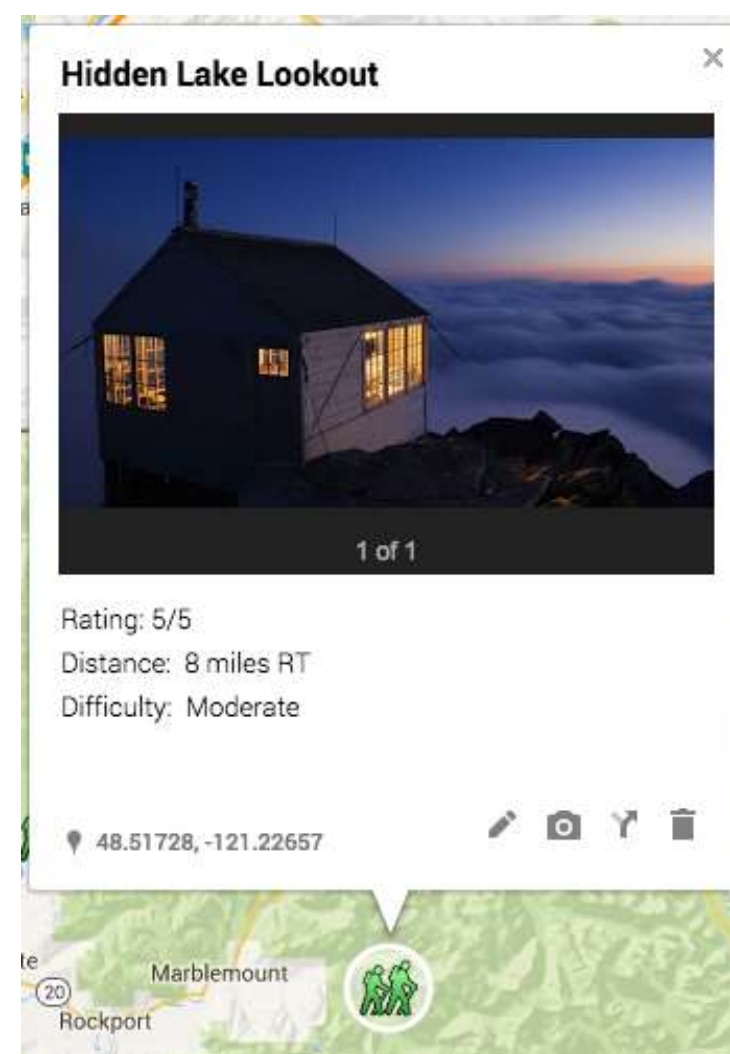
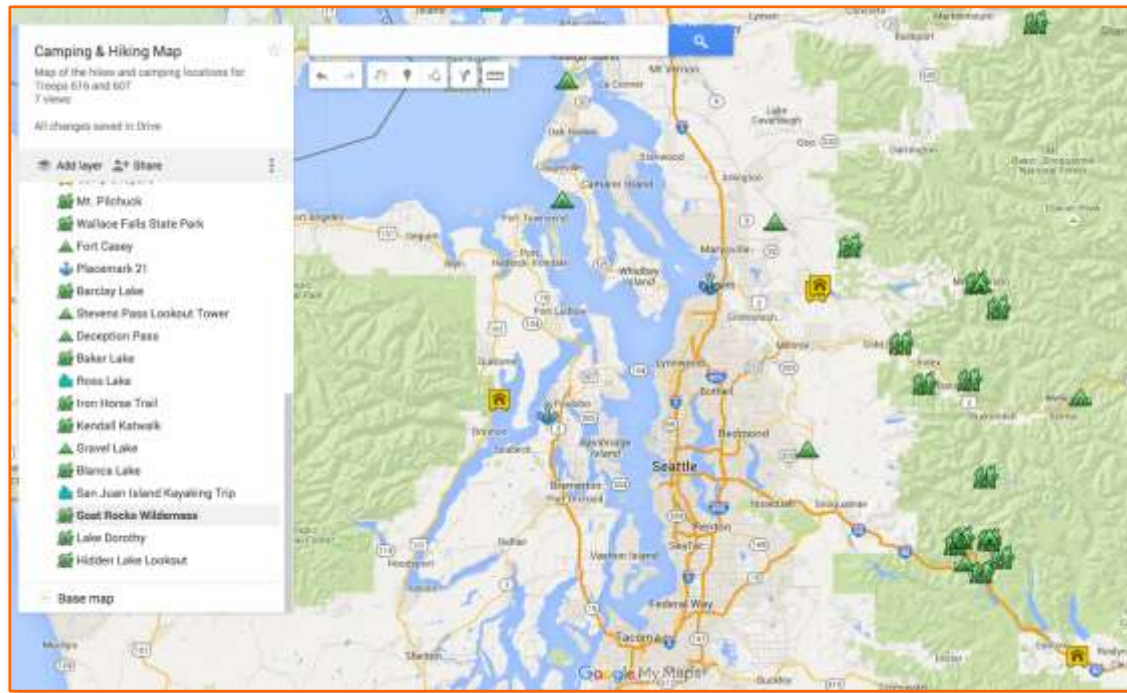
There are 170 trip reports for this hike.

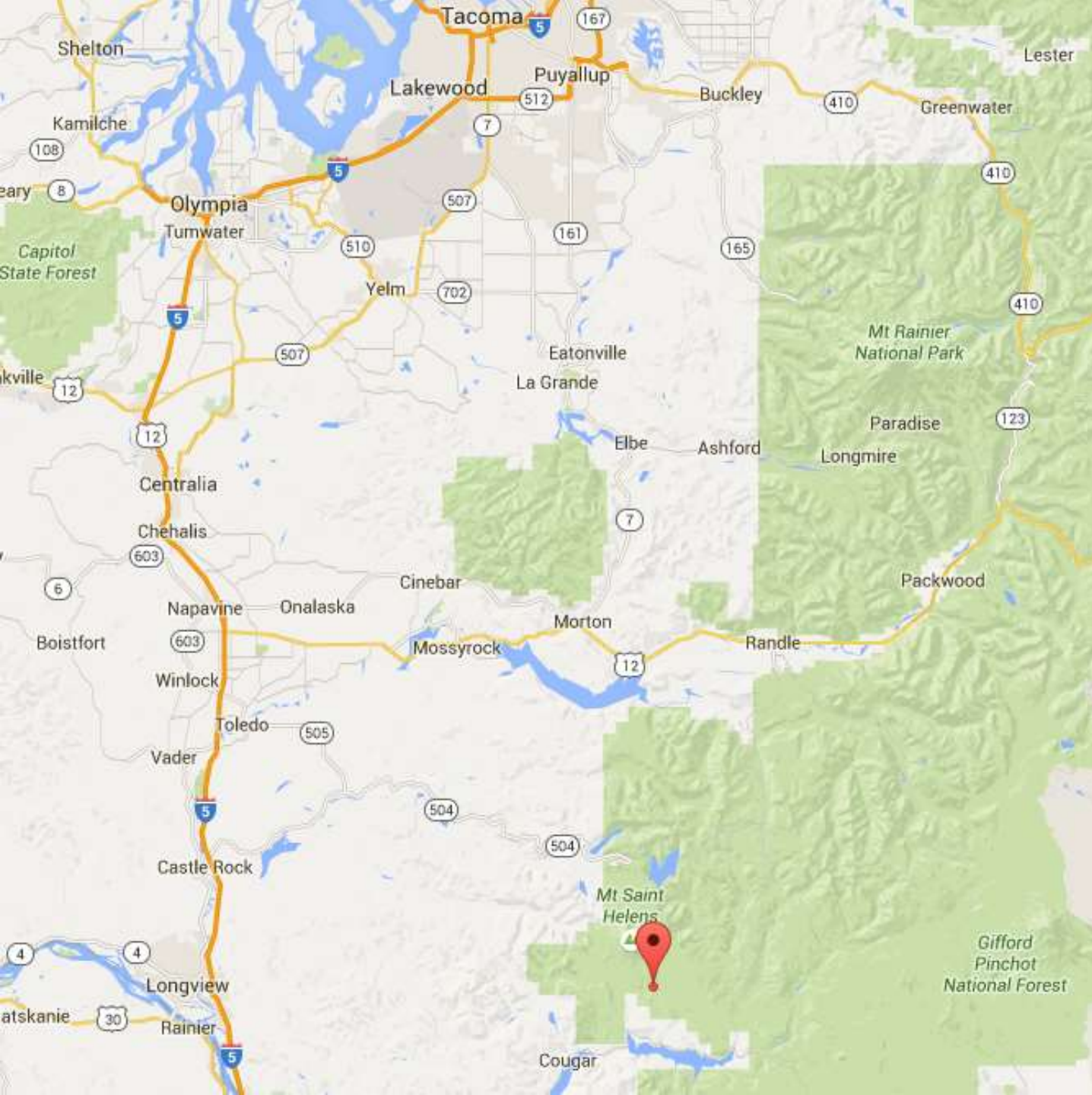
- [Sep 13, 2015, by glowingfish](#)
- [Jun 06, 2015, by LastGasp](#)
Features: Wildflowers blooming
Beware of: trail conditions
- [May 27, 2015, by mustineats](#)
Features: Wildflowers blooming
Beware of: trail conditions



Make your own map

www.google.com/maps





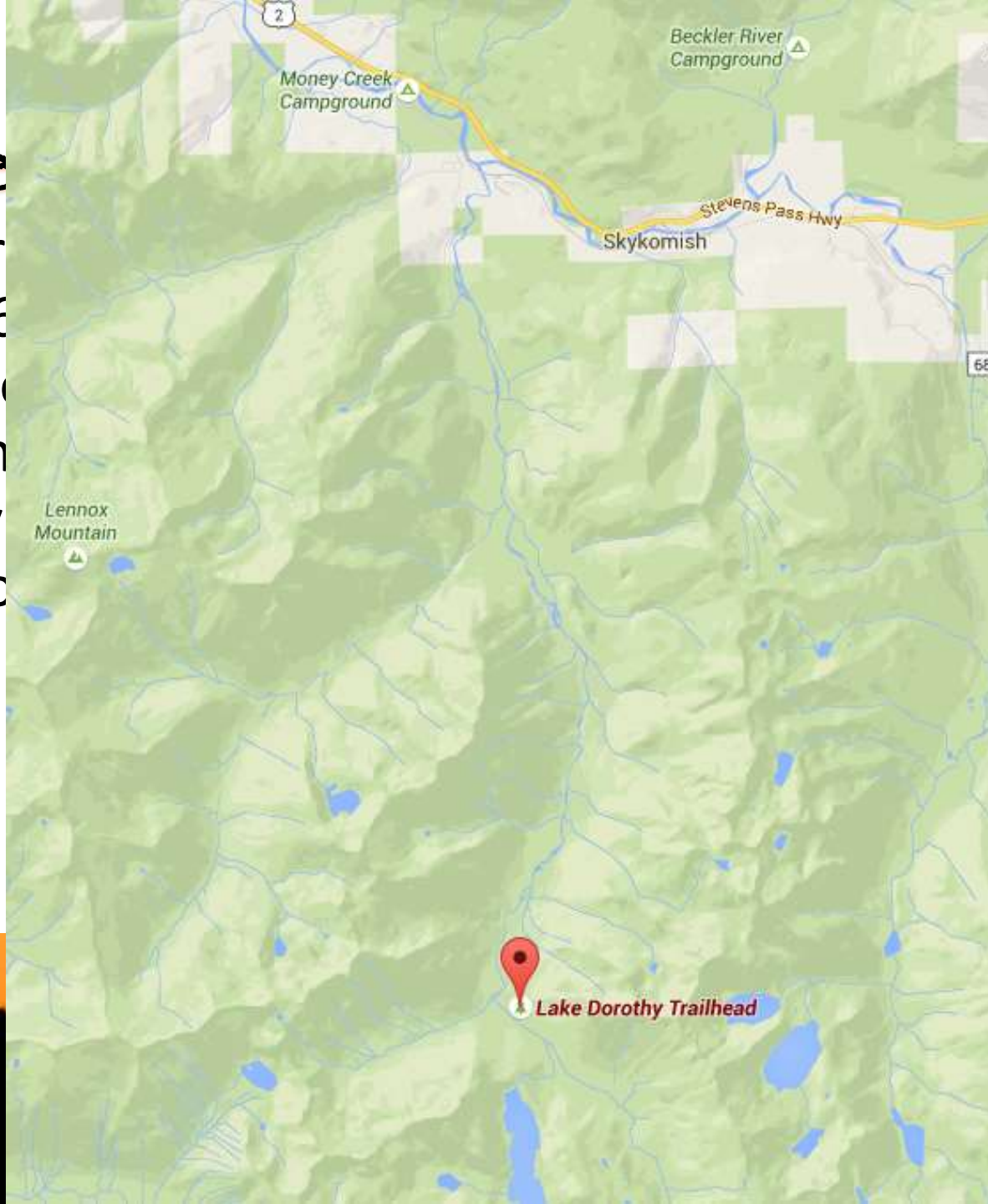




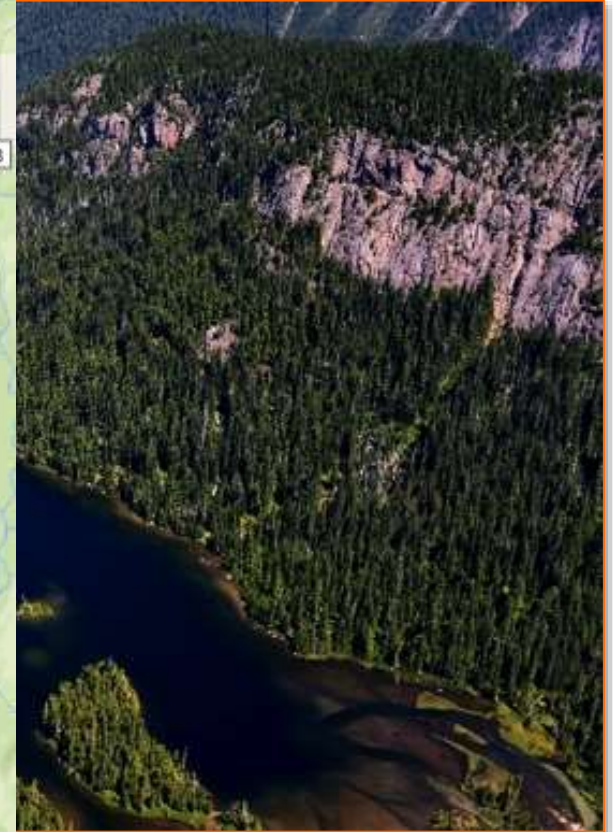


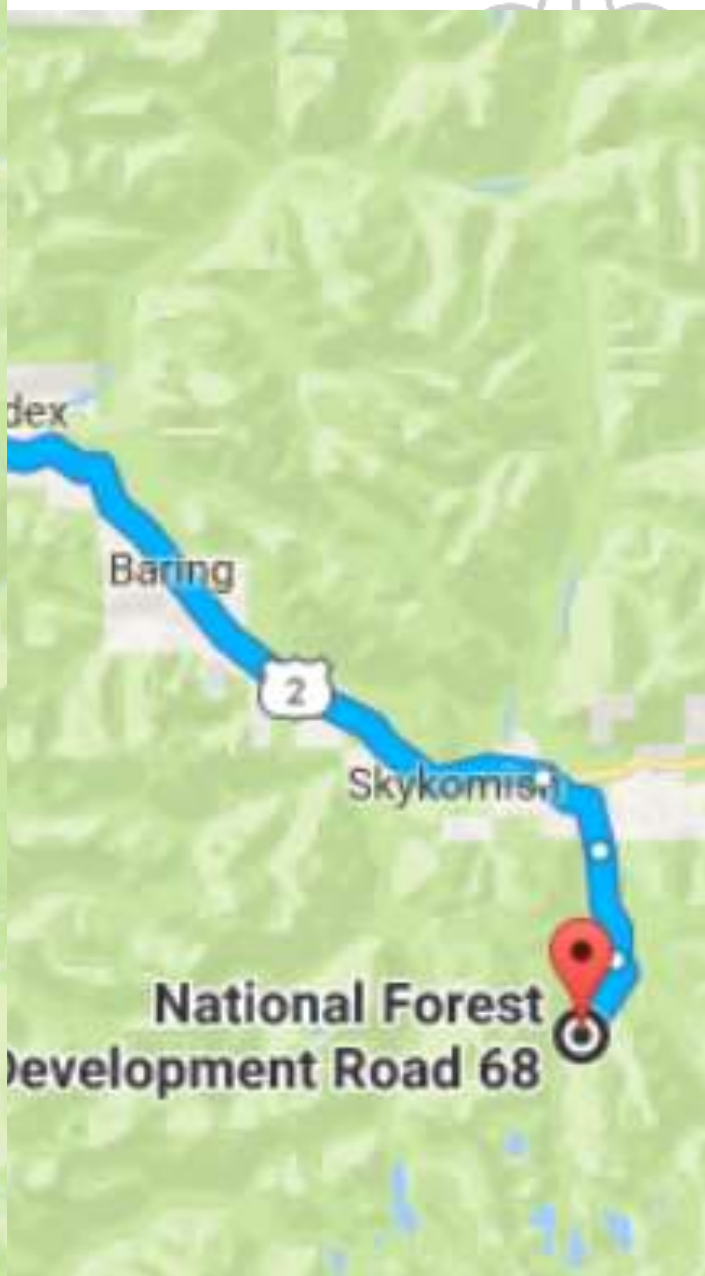
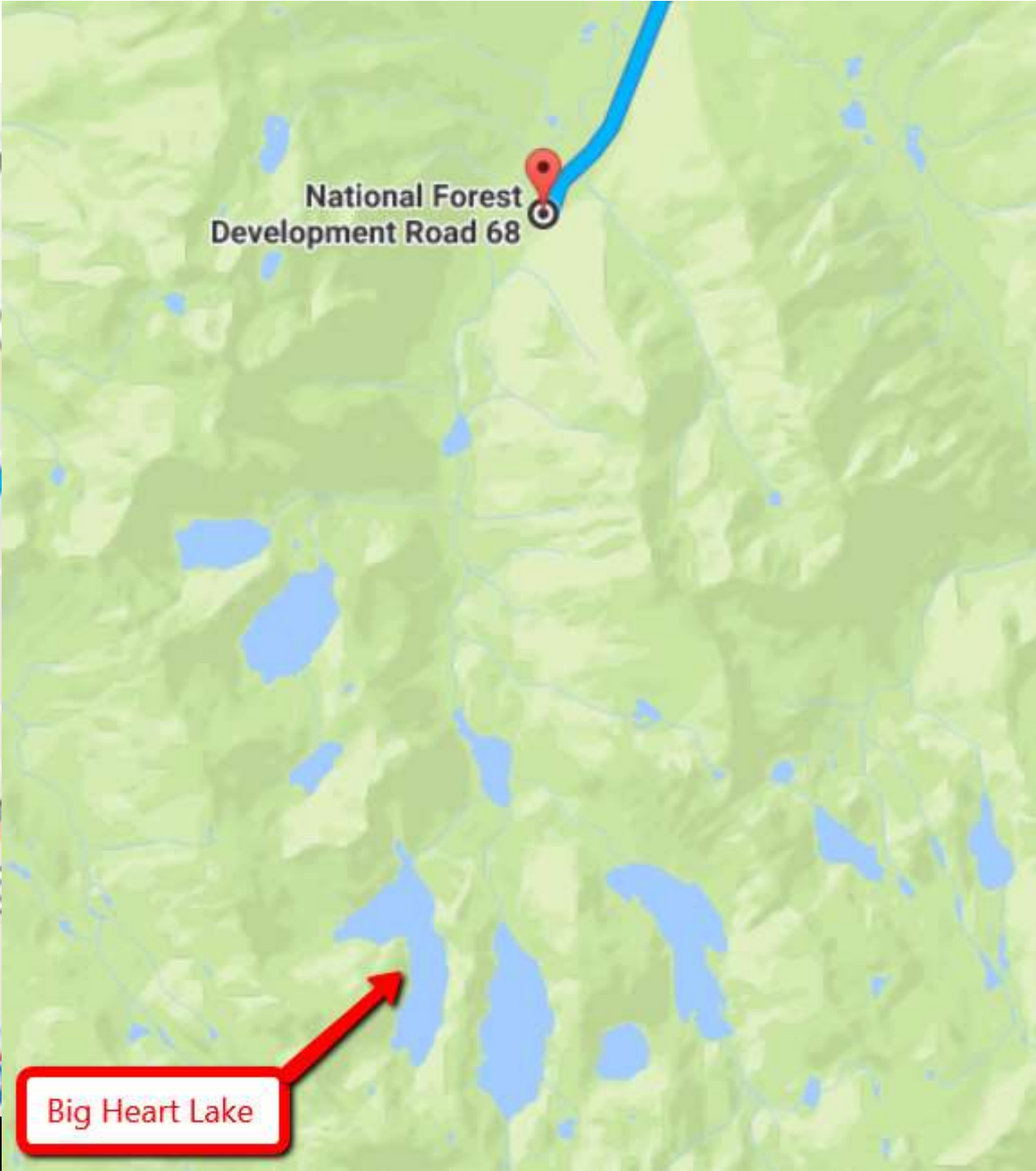
More Adventures

- Length: 7.5 or
- Elevation: +1,6
- Highlights: Two exciting stream
- Location: Hwy south of Skyko



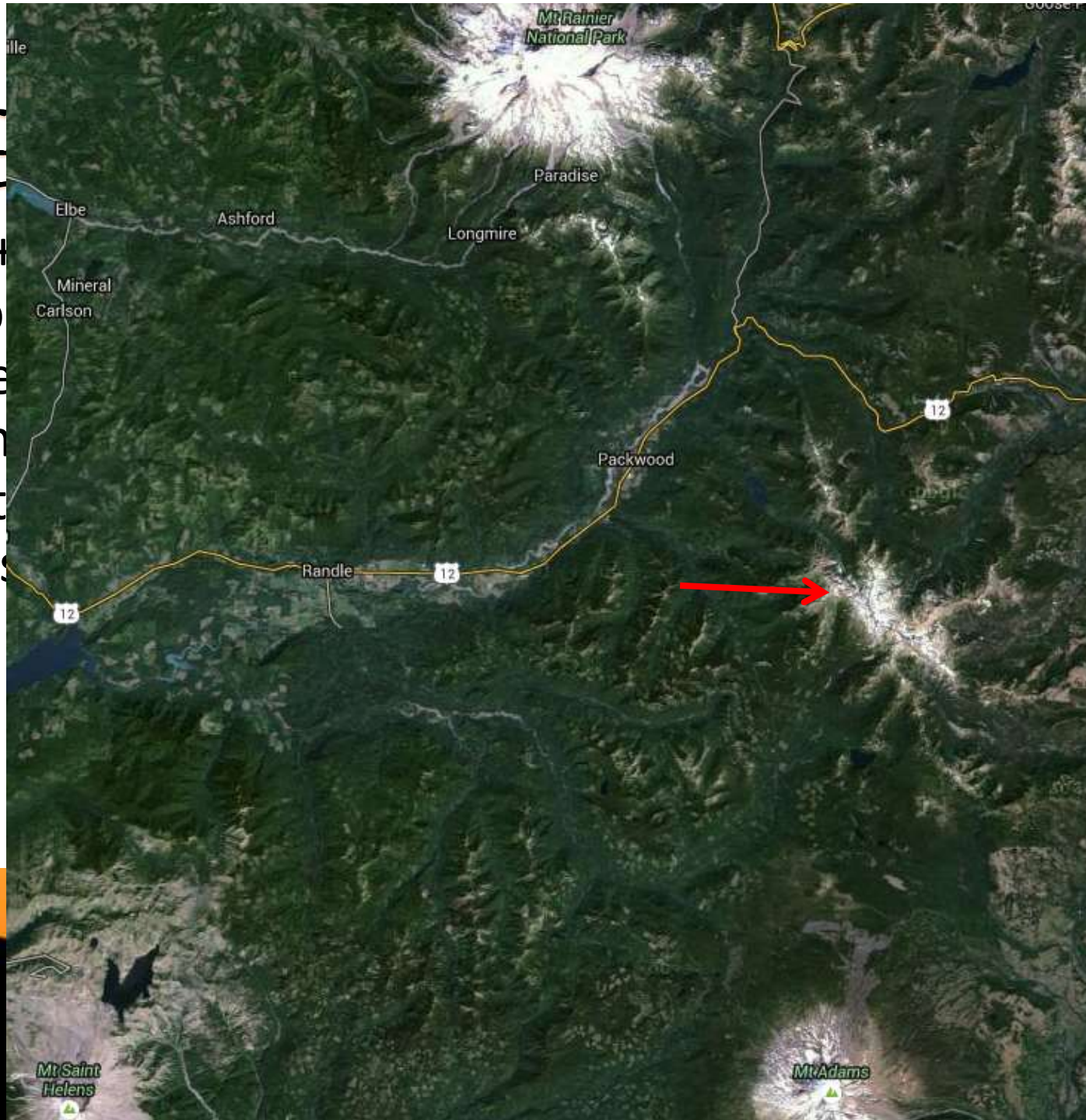
Lakes

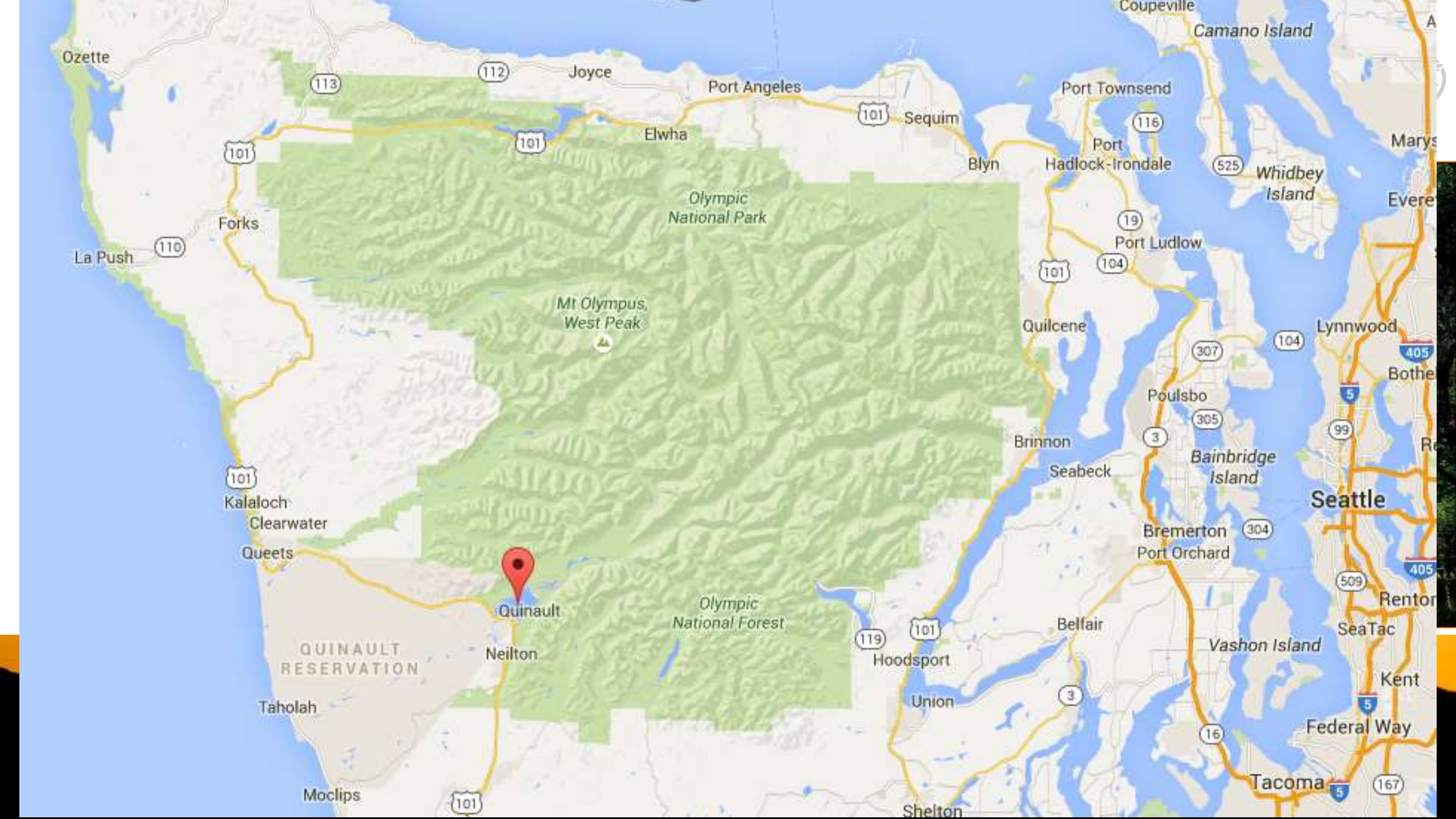




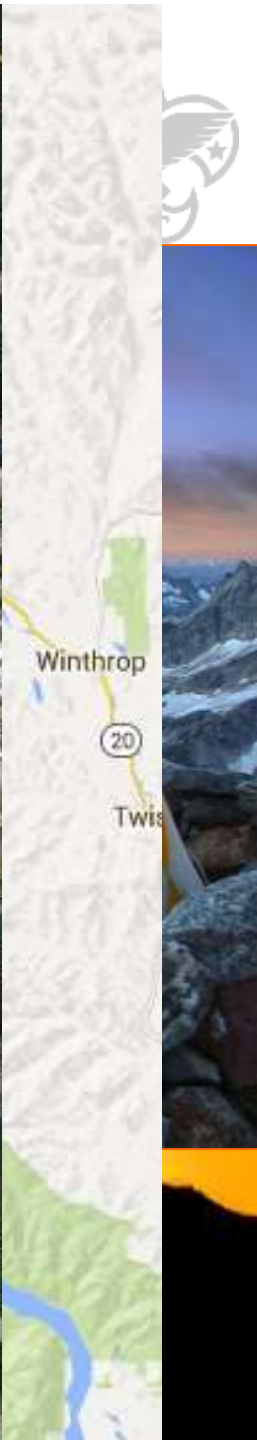
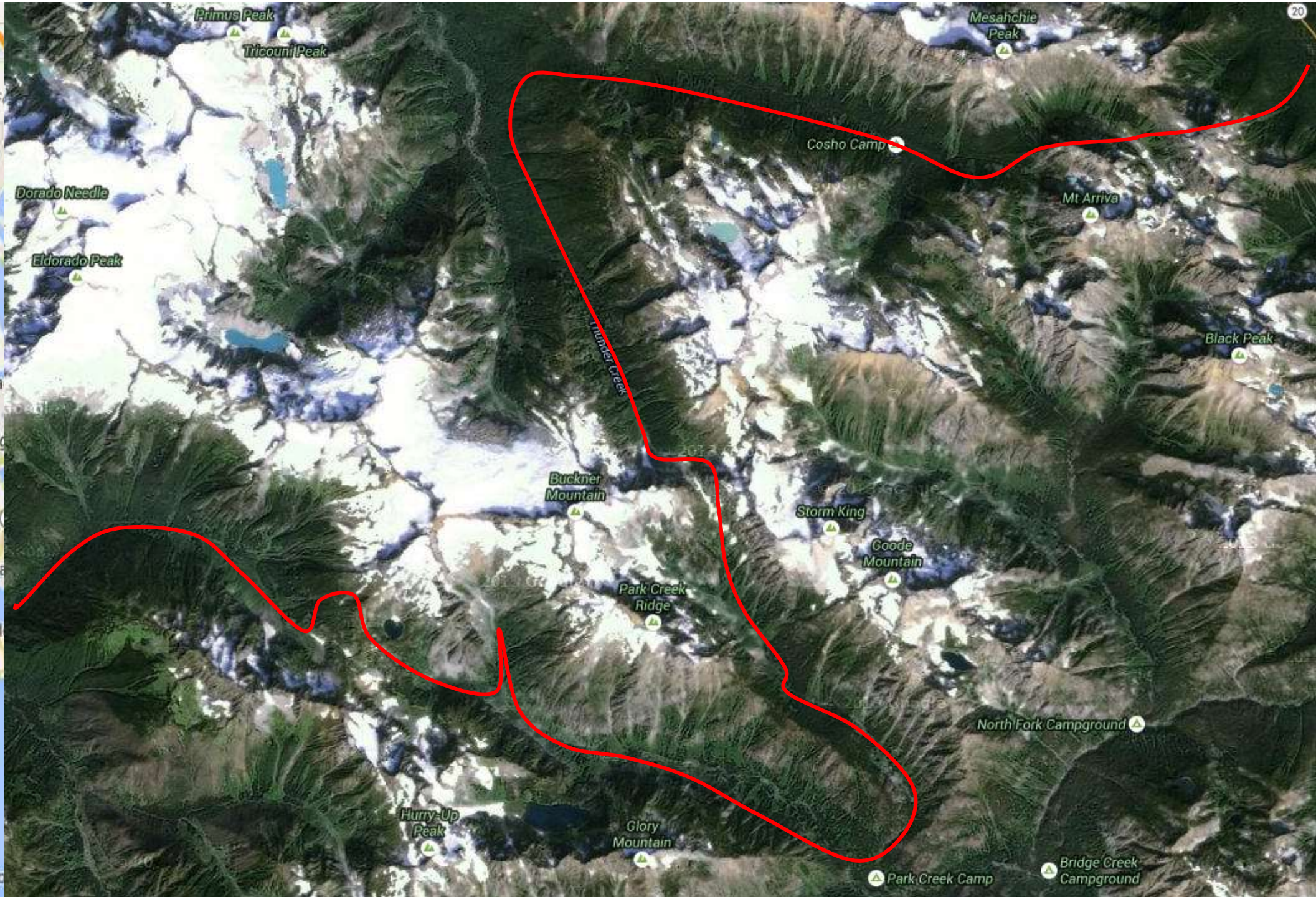
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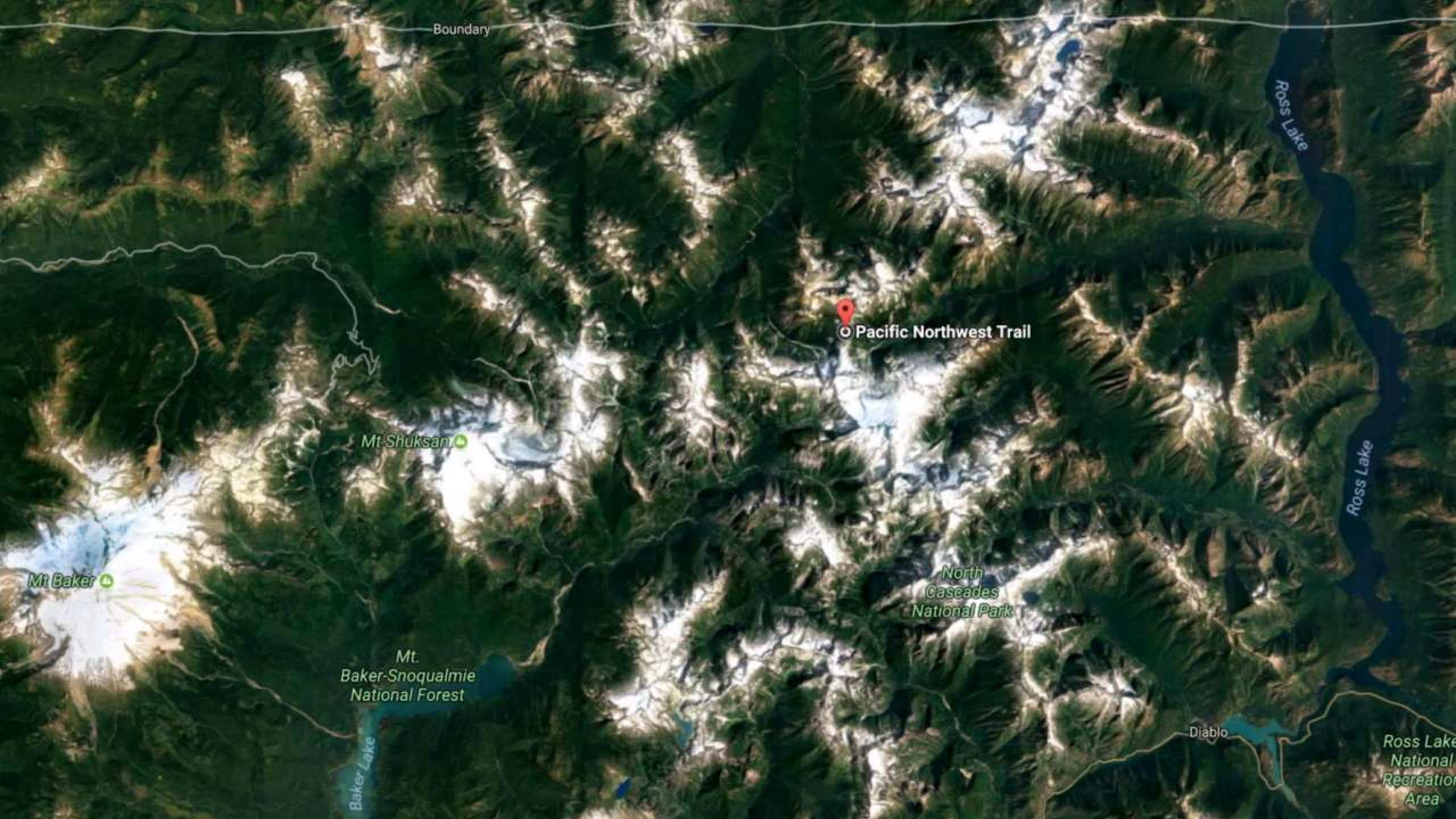
- Length: 24-50+
- Elevation: Dep
- Highlights: The amazing moun
- Location: Goat near White Pas






5





Boundary

Ross Lake

 Pacific Northwest Trail

Mt Shuksan 

Mt Baker 

Mt.
Baker-Snoqualmie
National Forest

Baker Lake

North
Cascades
National Park

Ross Lake

Diablo

Ross Lake
National
Recreation
Area



Plummer
Mountain

Glacier Peak Wilderness

Dumbell
Mountain

Chiwawa
Mountain

Fortress
Mountain

Helmet Butte

Google



Ga

Backpacking

Course 119



Instructor: Shane Watts, Troop 585

