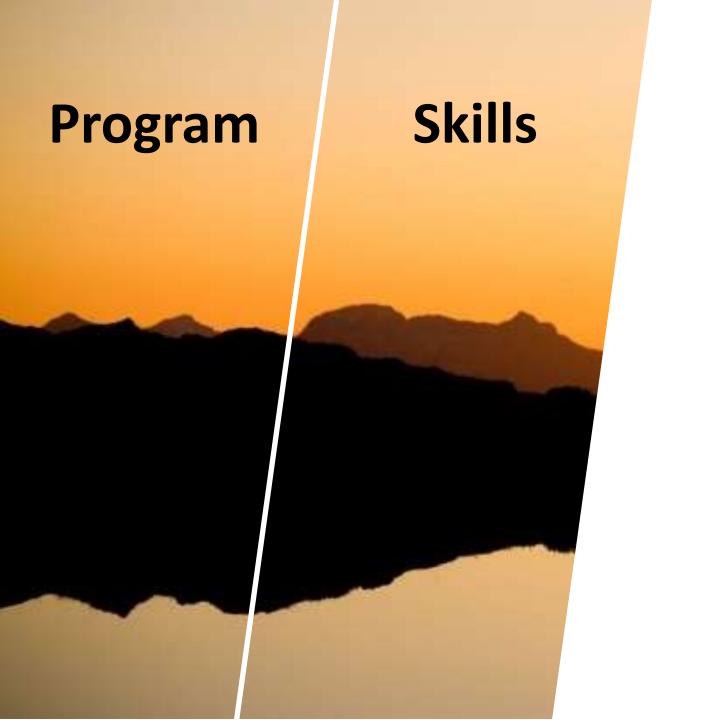


Boekpoeking Course 114

Instructor: Shane Watts, Troop 604



Program













Backpacking in your program

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







Backpacking Skills

- 1) Pack your backpack
- 2) Adjust the fit of your backpack
- 3) Place and pitch your tent
- 4) Stay reasonably dry in the rain
- 5) Hang a bear bag
- 6) Select and prepare food
- 7) Make and break camp systematically



Skill: Gear placement

- O Weight high, close and centered
- O Frequent use items on top/outside
- O Food above fuel
- O Break down larger items
- O Stuff the spaces
- O Weight loaded:

OK – 25-30% of body weight

Better – 20% of body weight

Best – 15% or less of body weight



Where to Pack Your Stuff



MID & LIGHT GEAR

Accessible while stopped & on break



HEAVY GEAR

Used at camp



MID & LIGHT GEAR

Used at camp



Skill: Adjust the fit of you

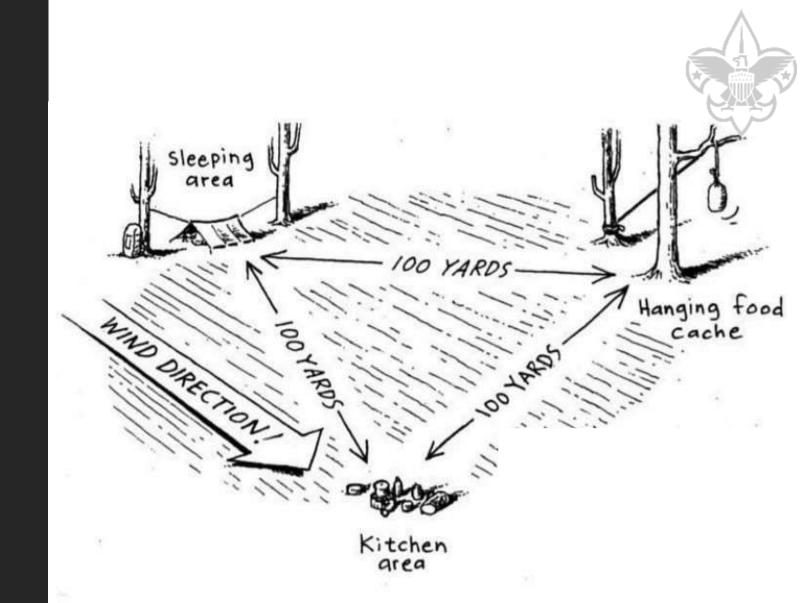
Most scouts begin to care about the adjustment of their pack straps when pain and fatigue start to set in—usually around mile 3-4.

And even then, they only care if they realize that adjusting pack straps can alleviate their suffering.



Skill: Place & pitch a tent

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

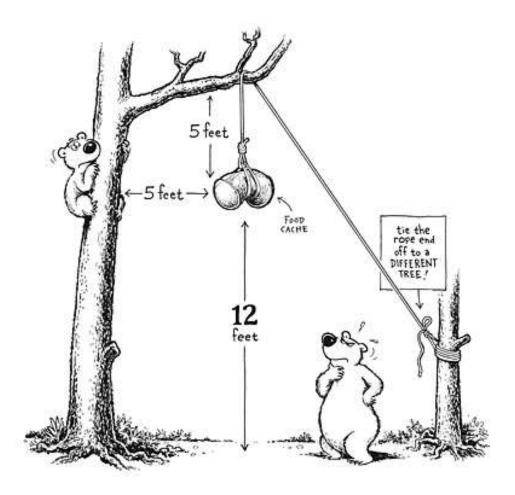


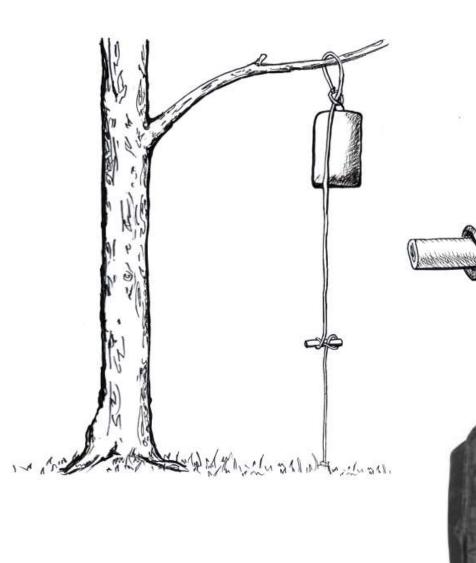


Skill: Backpacking in the rain

- O Embrace reality
- O Stay warm and comfortable, if not dry
- O DWR your rain gear
- O When to put on rain gear
- O Shorter breaks, more snacks
- O Keep your important stuff dry
- O Pitch your backpacking tent right
- O Keep wet stuff outside
- O Dry before you lie

Skill: Hang a bear bag





Ursack

How To Video: PCT-style bear hand - https://youtu.be/yAhWqbtd2p0





food

- O Your food philosophy
- O Freeze dried vs. regular
- O Cook vs. non-cook

- O Practice stove and meals at home
- O Eat heavy/bulky food first
- O Calorie-dense, durable foods
- O 2,500-3,000 calories per day (1.5-2 lbs)

Food

Divide into 4 categories

- Breakfast (~500 calories)
- Lunch (~500 calories)
- Dinner (~500 calories
- Snacks (~1,000 calories)

Count calories (~2500 per day)

Place snacks into labeled bags to ensure

you eat enough but don't over-eat





It's Demo Time!

Gear Storage System









About Lightweight Backpacking

- 40+ pound backpacks are not fun, especially if you're 12 years old and only weigh 80 pounds.
- Heavy backpack = I'm tired. This hurts.
 Backpacking is too hard—I don't like it.
- Light backpack = Hey, look at that! Whoa, that's awesome! Let's go!
- Only take what you will use.
- Prepare for possibilities; pack for probabilities.
- Don't pack your fears.



Gear Bag Storage

System 1: Clothes & Sleeping

- 1 Underwear
- 1 Sleeping bottom

1-2 socks

- 1 T-shirt
- 1 Insulating layer Sleeping bag
- 1 Sleeping top
- Inflatable pillow

Bag 2: Ditties

- Hygiene kit
 - Bug repellent

First aid kit

Fire starter

Sunscreen

Bag 3: TP

- 1 Toilet Paper
- 1 Hand sanitizer

Bag 4: Cooking Kit

1 Stove*

1 Pot*

1 Fuel*

- 1 Fire starter
- * Group gear items

Bag 5: Food

- # Breakfasts
- # Dinners
- # Lunches
- # Snack bags

Bag 6: Tent

- 1 Tent (or part)*
- Stakes*
- * Group gear items

Backpacking Checklist

Personal Equipment: Cloth	ning (NO COTTON!)	Location
1 Long sleeve trekking shirt	Lightweight synthetic	Worn
1 Pants or shorts	Lightweight synthetic fabric. Pants with zip-oof legs are great!	Worn
2 Underwear	Synthetic—no cotton; should be a dark color	Worn, Bag 1
2-3 pairs of socks	Light-to-mid weight synthetic running or hiking socks—no cotton	Worn, Bag 1
1 Hat with a brim		Worn
1 pair shoes	Trail runners. In good condition. This should be the only pair of shoes you bring on this trip.	Worn
1 pair running gaiters	Not required but highly recommended if you're wearing trail runners to keep bits of gravel out of your shoes. Recommend:https://dirtygirlgaiters.com/shop/ -or-http://www.simblissity.net/levagaiter.htm	Worn
1 Rain shell	Waterproof (not merely water resistant)	n/a
1 Rain pants (optional)	Recommend DriDucks (if you don't already have rain pants). No heavy plastic/rubber rain pants.	n/a
1 Insulating layer	e.g. fleece or down sweater. Avoid heavy windproof fleece—blocking wind and rain is the job of your rain shell.	Bag 1
1 T-shirt	Synthetic	Bag 1
1 Set sleeping clothes	1 lightwieght top and bottom; 1 lightweight knit cap	Bag 1
1 Pair gloves or mittens	Synthetic, lightweight—glove liners work.	n/a
1 Bandana	Yes, this one item may be cotton.	n/a
Personal Equipment: Slee	p System	
1 Sleeping bag	Lightweight summer bag 20-35 degrees EN rating. Down or synthetic fill are fine.	Bag 1
1 Dry bag for sleeping bag & clothes	Roll-top dry sack made of silnylon-type fabric, just big enough to fit your sleeping bag and clothes. Alternatively, you can line the inside of your pack with a trash compactor bag.	Bag 1
1 Sleeping pad	Recommend Thremarest Ridge Rest or insulated inflatable pad	n/a
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.	Bag 1

Backpacking Checklist (cont.)

	A-11.	
Personal Equipment: Gea		
Backpack	45-65 Liters, <3 lbs empty	n/a
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.	n/a
1 Personal hygiene kit	Should fit in a Ziploc sandwich bag. Includes: Small soap (unscented Dr.Bronerscan double as toothpaste), Small toothbrush, Personal medications (prescription meds needlabels)	Bag 2
5 gallon-size Ziploc freezer bags	ze Ziploc freezer Make sure they are freezer bags, not the thinner sandwich bags.	
1 Small knife	Must be folding knife with <3 inch blade. Smaller is better.	n/a
1 Headlamp	Make sure it has fresh batteries	n/a
1 Compass		n/a
1 First aid kit	(very) Smallshould fit in a Ziploc half-sandwich bag	Bag 2
1 Sunscreen Recommend repackaging into smaller container. A good hat and long sleeve shirt can alleviate the need to take too much sun screen.		Bag 2
1 Sunglasses (optional)	Polarized is a bonus, but recommend keeping it cheap here.	n/a
1 Lip Balm	Chapstickor similar with SPF of 25+	n/a
1 Bug repellent	Small, or repackaging into smaller container.	Bag 2
2 Fire starters	Small lighter, magnesium striker or waterproof matches	Bag 2, Bag 4
1 Toiletry kit	One roll of toilet paper and one small hand sanitizer in a gllon-size Ziploc freezer bag	Bag 3
1 Hand sanitizer	Small container that won't leak	Bag 3
1 Spoon	Long handle	Bag 4

Backpacking Checklist (cont.)

Group Gear (to be di	vided among patrol members)	
1 Stove	Lightweight backpacking stoves (1 stove for every 3-4 people)	Bag 4
1 Fuel	Canister fuel. 20 oz for 12 people for 5 dinners	Bag 4
1 Pots w/lid	One 4 liter pot and one 2 liter port per patrol	Bag 4
1 Tent (tent part)	Tent parts to be divided with your tent mates	Tent Bag
1 Water Filter	1 high quality pump filter +1 Sawyer Squeeze as backup per patrol	n/a
1 Trowels	1 per patrol	n/a
1 Detail maps	Coated; 1 per patrol member	n/a
1 GPS tracker	1 per patrol	n/a
1 Bear bags + line	3-4 per patrol	Food Bag
Food (1 of each item	per day)	
# freeze dried dinners	Pro-Pack preferred	Food Bag
# Breakfast-in-a-bag	A hearty/granola cereal in a Ziploc freezer bag with three table spoons of powedered milk	Food Bag
# lunches	First lunch will be eaten at the trailhead Monday and does not need to be packed away.	Food Bag
# days of snacks	Should be packaged and labeled per day. Good variety. Equals 1,200-1,500 calories per day.	Food Bag

Gear Bag Storage

System 1: Clothes & Sleeping

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- 1 Sleeping bottom

1-2 socks

- 1 T-shirt
- 1 Insulating layer Sleeping bag
- 1 Sleeping top
- Inflatable pillow

Bag 2: Ditties

- Hygiene kit
 - Bug repellent

First aid kit

Fire starter

Sunscreen

Bag 3: TP

- 1 Toilet Paper
- 1 Hand sanitizer

Bag 4: Cooking Kit

1 Stove*

1 Pot*

1 Fuel*

- 1 Fire starter
- * Group gear items

Bag 5: Food

- # Breakfasts
- # Dinners
- # Lunches
- # Snack bags

Bag 6: Tent

- 1 Tent (or part)*
- Stakes*
- * Group gear items

Gear Worn

Item

Shirt (long sleeve)

Shorts or pants (zip-off legs are great!)

Underwear

Socks

Hat (with brim)

Shoes

Running gaiters (optional)



Gear Stored Separately

Item	Recommended Location	
1 Sleeping pad	Main compartment	
1 Rain shell	Top of main compartment or outer mesh pocket	
1 Gloves/mittens	Inside rain shell pocket	
1 Bandana	Inside pot or an outer pocket	
2 Water containers	Side pockets	
1 Water filter*	Side or mesh pocket	
2-5 Ziploc bags (1-gallon size)	Main compartment	
1 Knife	Shorts/pants pocket	
1 Headlamp	Shoulder pocket	
1 trowel*	Outer mesh pocket	
1 Map	Outer mesh pocket	
1 GPS*	Shoulder strap	
Snacks for the day	Hip belt pocket	

^{*} One per patrol, so scouts may carry one but not all, of these items.

It's Demo Time!

Packing My Pack



Backpack

O Price: Depends, but generally mid-range

O Volume: 45L-65L

O Weight: 2-3lbs

O Torso length: Fits or is adjustable

 Nice features: External mesh, diagonal pockets, hydration port

O Know how to pack and wear it





Backpack Baseline Sample

O Gregory – Denali 100
www.gregorypacks.com

O Volume: 100 liters

O Weight: 6 lbs 10 ounces

O Recommended max load: 60+ lbs

O Three torso and hip belt sizes

O Bells and whistles

O Price: \$400





Backpack – Top 5 Picks



Gossamer Gear Mariposa



Osprey Exos 58



ULA Circuit



Granite Gear
Crown2 60



Hyperlite Mtn Gear
Junction 3400







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
<u>ULA Equipment</u> – <i>Circuit</i>	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
<u>Hyperlite Mountain Gear</u> – Junction 3400	Light, bombproof, nearly waterproof	55 L	DCF	2 lb	\$345



Sleep System

Sleeping bag

O Fill: Synthetic or down?

O EN rating: 20-35 degrees

O Weight: 2-3 lbs

Sleeping pad

O Type: Air or foam?

O R-value: 2.5–5

O Weight: 1–2 lbs











Sleeping Bags – Top 5 Picks



Sleeping Bag	Differentiators	EN Rating	Fill	Weight	Price
REI – Magma 15	Great value, warmth-to-weight	15 °	Down 850	1 lb 12 oz	\$369
REI – Igneo 17	Duck down = lower price, footbox	17°	Duck down	1 lb 15 oz	\$299
Kelty – Cosmic Down 20	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	\$280





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 – Insulated AXL	Super light, comfortable, expensive	6.5 x 3	n/a	12 oz	\$180
<u>Therm-a-rest</u> – 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

O Type: Backpacking (dome or hybrid)

O Quality: Mid-to-high

O Size: 2-3 person

O Weight: ~ 2 lbs per person

 Nice features: Air vents, double side entry, roomy vestibules, vertical walls

O Fly: Full-length (no toupee tents!!!)

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







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
<u>Tarptent</u> – Stratospire 2	Uses trekking poles, sleeps 2+, light, huge vestibules, packs small	36 sq ft	16 x 4	2 lb 12 oz	\$359



Clothing

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





Rain Shells – Top 5 Picks



Marmot Precip

REI Drypoint GTX

Frogg Toggs
Ultra Lite 2

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
Frogg Toggs – Ultra Lite 2	Low cost, lightweight, waterproof, not breathable or durable	Polyethylene	6 oz	\$15
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





O Boots vs. Shoes

Weight

• Wet feet and blisters

Expense

O Socks

O Gaiters

Orthotics





Weight (biomechanics)

Comfort and blisters

Water

Support

O Trail debris

O Cost







Blisters & Friction Injuries

O Causes: Shoes, toenails and trail debris



Too small
Too big
Too stiff

Too narrow in the toe box

Too wet for too long

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

Socks

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







Foot Aches & Pains

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



- 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

Cascadia

#2 Brooks



#3 Merrell Moab 2 Ventilator



Footwear	Туре	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

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







Top 3 Stove Picks

#1 MSR
Pocket Rocket Deluxe
2.9 ounces

#2 Kovea e Spider 6 ounces \$51 #3 Jetboil Flash 13.1 ounces \$99





Water Purification

Filters

Tablets/drops

O Electric (SteriPen)

O Boiling





Top 3 Water Filter Picks





Resources

O CleverHiker.com



OutdoorGearLab.com



O BackpackingLight.com



O darwinonthetrail.com







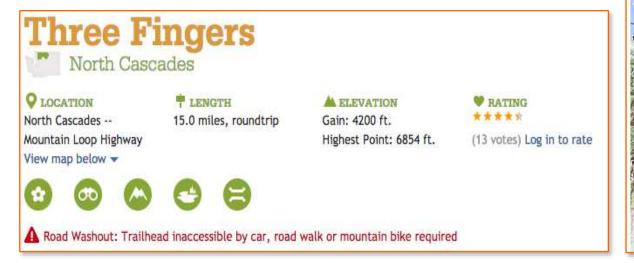


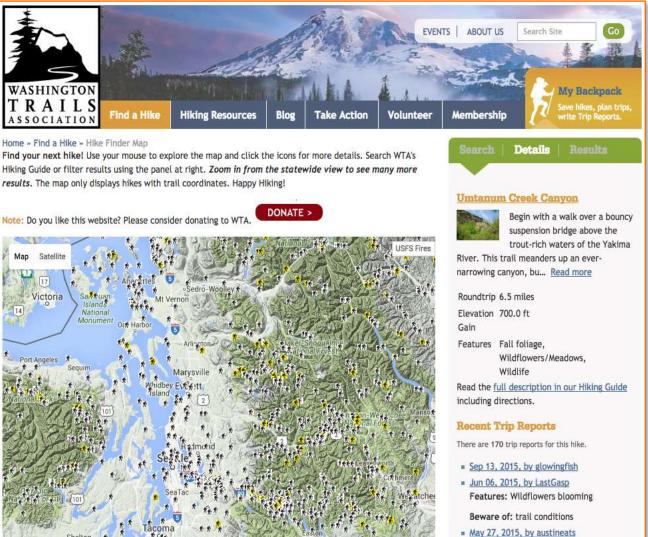




Find your own hike

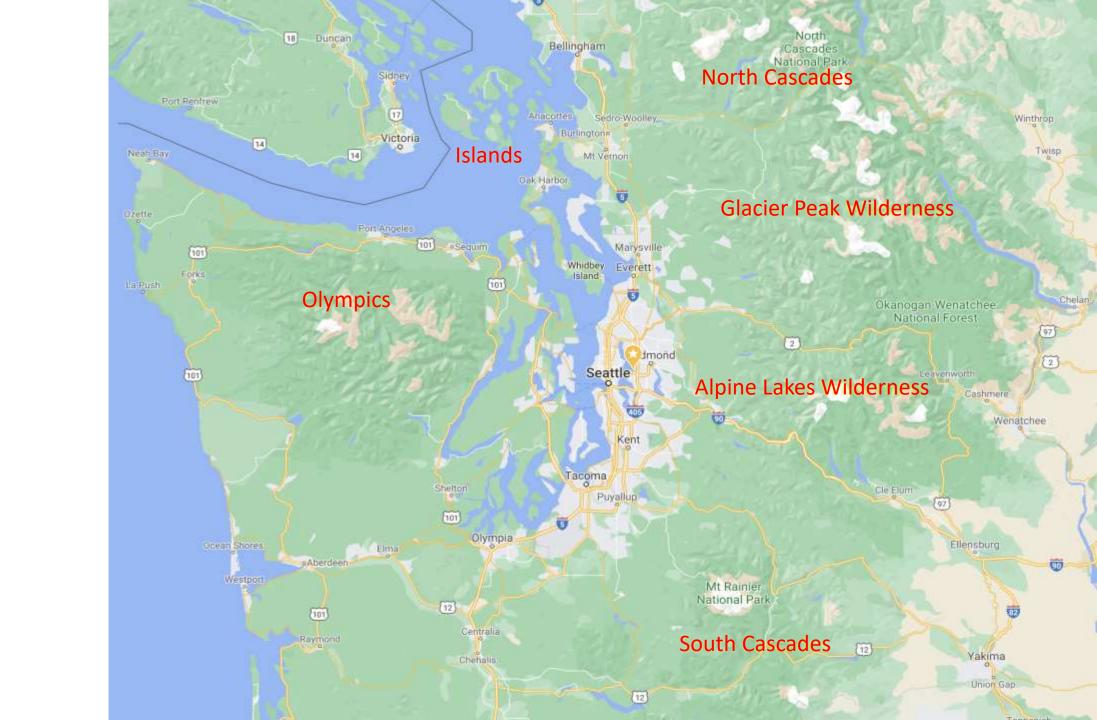
www.WTA.org





Features: Wildflowers blooming

Roware of trail conditions





Quick & Easy: June Lake

- Length: 2.8 miles RT
- Elevation Gain: 200 ft.
- Highlights: Nearby Ape Caves, Lava Canyon, Mt. St. Helens
- Location: Near Mt. St. Helens



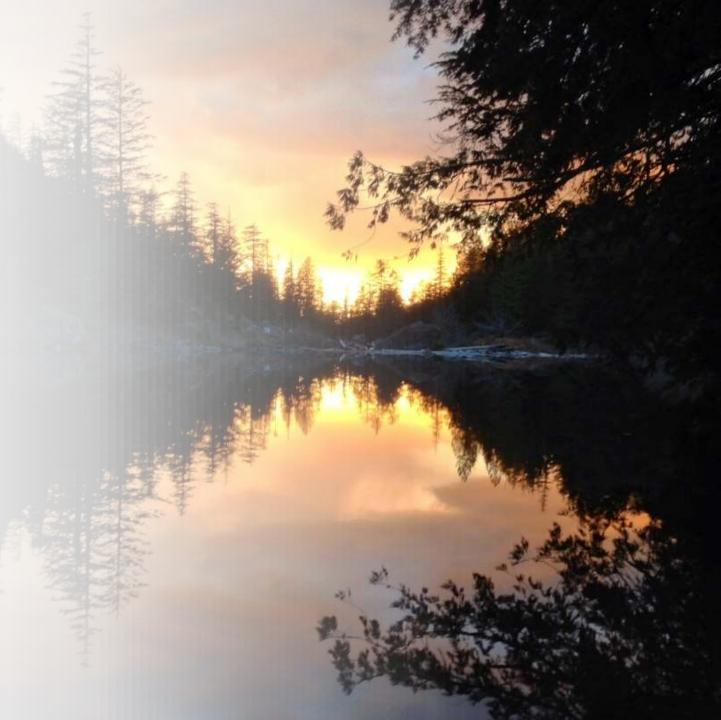
• Length: 4.4 miles RT

• Elevation Gain: 500 ft.

• Highlights: Log bridge, lake with

mountain views

O Location: Hwy 2 near Baring, WA





Quick & Easy: Snow Lake

• Length: 8 miles RT

• Elevation Gain: 1,800 ft.

Highlights: Amazing views, before and at lake

 Location: I-90 near Alpental resort, Snoqualmie Pass



More Adventurous: Gravel Lake

• Length: 14 miles RT

• Elevation Gain: 2,700

• Highlights: Kendall Katwalk, Stunning mountain views

• Location: I-90 near Snoqualmie Pass



More Adventurous: Dorothy & Bear Lakes

- Length: 7.5 or 11.5 miles RT
- Elevation Gain: 1,600 ft.
- Highlights: Two beautiful lakes, exciting stream crossing
- Location: Hwy 2, south of Skykomish



• Length: 14.6 miles RT

• Elevation Gain: 3,300

• Highlights: Alpine lakes, waterfalls, big views

• Location: Hwy 2 near Skykomish





50 Miler: Goat Rocks Wilderness

- Length: 24-50+ miles
- Elevation Gain: Depends on route
- Highlights: The "knife edge," amazing mountain views
- Location: Goat Rocks wilderness, near White Pass, WA

50 Miler: **Enchanted** Valley/LaCrosse Basin

• Length: 50+ miles

• Elevation Gain: 10,000

• Highlights: Wildlife, waterfalls, mountain valleys

and views

O Location: Near Lake Quinault





50 Miler: North Cascades Triple by Pass

• Length: 50 miles

• Elevation Gain: 13,000

• Highlights: Easy, Park Creek and Cascade passes, insane mountain views, Horseshoe Basin, Sahale Arm

Location: North Cascades,21 miles past Ross Lake onHwy 20

50 Miler: Spider Gap-Buck Creek Pass Loop

• Length: 54 miles

• Elevation Gain: 14,300

O Highlights: Spider Meadows, Spider Gap, Buck Creek Pass, High Pass, alpine lakes, big views

• Location: Central Cascades





