

# Introduction to Lightweight and Ultralight Backpacking

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# Agenda

- ◆ How to Lighten Up Your Backpack
- ◆ Gear Demonstrations
- ◆ Lightweight Shelter Display

# About Philip Werner

- ◆ AMC Boston member and leader
- ◆ Medium distance section hiker
  - The Long Trail in Vermont
  - 750 miles of the Appalachian Trail
  - Scotland Cross Country
- ◆ Trail maintainer in the White Mountains
- ◆ Lightweight backpacking evangelist for Gossamer Gear
- ◆ Outdoor blogger at [SectionHiker.com](http://SectionHiker.com)

# What You'll Learn

- ◆ Lightweight backpacking is about comfort and choices
- ◆ Everybody has a different comfort level
- ◆ Many different options available for reducing gear weight
- ◆ Weight saved can allow an additional comfort or luxury item
- ◆ Fun to figure out what works best for you
- ◆ Ask questions and start experimenting

# Degrees of Lightweight

40-50 lbs: Traditional (25% of body weight, max)



10-25 lbs: Lightweight Backpacker

- More comfortable
- Less injury prone
- Hike faster
- See more
- More free time

10 lbs or less: Ultralight Backpacker (UL)

5 lbs or less: Super Ultralight Backpacker (SUL)

# Places to Save Gear Weight

## The Big Three

Shelter  
Sleeping Bag  
Backpack

Clothing  
Sleeping Pad  
Water Filter  
Stove  
Pots and Mugs  
Stuff Sacks  
First Aid Kit  
Luxury Items

Food  
Water

Easy

Harder

Very Hard

# How to Lighten Your Gear

1. Weigh everything
2. Reduce Big Three to 9 lbs or less
3. Eliminate non-essentials
4. Use multi-function gear
  - Hiking poles as tent poles
  - Sleeping pad as backpack frame sheet
5. Increase gear compactness

# How to Lighten Your Gear

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# Weigh Everything

	oz
<b>1 Packing</b>	
2 Gossamer Gear Gorilla Backpack	23.2
3 Gossamer Gear Nighlight Pad 2/3 torso only	2.4
4 Gossamer Gear Pack Liner	1.0
5 Plastic Whistle	0.1
6 Victoronix Knife	0.7
7 Inka Pen	0.5
8 Gossamer Gear External Hip Belt Pocket	0.9
9 Mountain Laurel Designs External Camera Pocket	1.1
10 Mountain Laurel Designs External Hip Belt pocket	0.9
<b>11 Sleep System</b>	
12 Mountain Laurel Designs Grace Duo Tarp, Cord, Stuff Sack	9.6
13 10 X tent stakes and stuff sack	4.0
14 Screw Ties for Tent Platforms	0.5
15 Sea-to-Summit Waterproof Sack	1.0
16 Western Mountaineering Ultralight Sleeping Bag	29.9
17 MLD Superlight Bivy Bag with head net	6.9
18 Thermarest NeoAir Sleeping Pad	14.0
<b>19 Camp Clothes/Rain Gear</b>	
20 Mountain Laurel Designs UL Stuff Sack for Camp Clothes	0.4
21 Rocky Gore Tex Socks	2.6
22 Golite Reed Rain Pants	6.2
23 Patagonia Capilene 1 Bottom Long Underwear	6.0
24 1 pr Swartwool Sock Liners	1.5
25 Patagonia Capilene 1 Jersey	6.7
26 Montbell Thermawrap Jacket	7.5
<b>27 Loose</b>	
28 Rab eVent Momentum Jacket	12.0
29 Mountain Laurel Designs eVent Rain Mitts	1.4
30 Black polypro glove liners	1.4
31 Mountain Hardware polypro hat	0.8
32 Monbell Tachyon Wind Shirt + stuff sack (gear testing)	2.6

<b>33 Hydration</b>	
34 1 x 3L Platypus Bladder	1.5
35 80 x Katadyn Micropur Chlorine Dioxide Tablets	1.8
36 Aquamira Frontier Pro Filter	2.6
37 2 X Qt Recycled Soda Bottles	2.0
38 Cut down Platypus Water Scoop	0.5
<b>39 Gear Repair and First Aid Bag</b>	4.5
<b>40 Kitchen and Camp</b>	
41 Ursack Bear Bag	7.5
42 OPSack	1.1
43 Evernew Pasta Pot 0.75 L	3.9
44 Snowpeak Giga Stove	3.8
45 MSR Camp Towel	0.8
46 BPL Long Titanium spoon	0.3
<b>47 Navigation/Office</b>	
48 Suunto A10 Baseplate compass	0.9
49 Panasonic Lumix lx3 digital camera and polarizing filter	10.3
50 Black Diamond Spot Headlamp	3.0
51 Spot II GPS Satellite Messenger	4.1
52 Android Phone	4.1
53 Phone Recharger	2.9
54 2 extra Camera batteries, filter, brush	3.0
55 Maps and AT Guide Pages	8.4
56 Rite as Rain Journal	2.3
57 Digital Tape Recorder	2.0
58 Stuffed Bear	4.3
59 Personal Items/Stuff Sack	3.9
60 Dermatone tin - Sun tan lotion	0.8
61	
62	
<b>Total weight in lbs</b>	
	<b>14.13</b>

**\*Does not include worn clothing, food, water or fuel**

# Big Three: Shelter Options

Double Wall Tent

Hammock

Single Wall Tent

Tarp Tent

Tarp

- ◆ Inner bug screen and outer rain fly
  - Advantages
    - ◆ Keeps internal condensation away from gear
  - Disadvantages
    - ◆ Heavy
    - ◆ Bulky
    - ◆ Slow setup in rain



**Big Agnes SUL1 – 1P**  
**3 lbs**



**MSR Hubba Hubba - 2P**  
**4 lbs 8 oz**

# Big Three: Shelter Options

Double Wall Tent

Hammock

Single Wall Tent

Tarp Tent

Tarp

- ◆ Inner bug screen and outer rain fly
  - Advantages
    - ◆ Keeps internal condensation away from gear
    - ◆ Great for forest, rocky ground
    - ◆ Better air flow
  - Disadvantages
    - ◆ Requires trees
    - ◆ Still heavy, can't share
    - ◆ Bulky
    - ◆ Difficult to insulate your back in colder temps



**Hennessy Hammock  
Expedition Asym – 1 lb 15 oz**



**Warbonnet Blackbird  
1 lb 8 oz**

# Big Three: Shelter Options

Double Wall Tent

Hammock

Single Wall Tent

Tarp Tent

Tarp

## ◆ Single wall with screened openings

### – Advantages

- ◆ Lightweight
- ◆ Fast setup in rain
- ◆ Limited selection

### – Disadvantages

- ◆ Poor ventilation and internal condensation



MSR Skinny One – 1P  
3 lbs 9 oz



Black Diamond Firstlight – 2P  
2 lbs 12 oz

# Big Three: Shelter Options

Double Wall Tent

Hammock

Single Wall Tent

Tarp Tent

Tarp

- ◆ Single wall with screened openings
  - Advantages
    - ◆ Lightweight
    - ◆ Excellent ventilation
    - ◆ No condensation
    - ◆ Compact
    - ◆ Fast setup in rain
    - ◆ Use hiking poles for setup
  - Disadvantages
    - ◆ May experience rain-rebound in heavy rain



**Tarptent Contrail 1P**  
**1lb 8 oz**



**Tarptent Squall2 -2P**  
**2 lb 2 oz**

# Big Three: Shelter Options

Double Wall Tent

Hammock

Single Wall Tent

Tarp Tent

Tarp

## ◆ Single wall without a floor

### – Advantages

- ◆ Lightweight
- ◆ Excellent ventilation
- ◆ No condensation
- ◆ Compact
- ◆ Fast setup in rain
- ◆ Use hiking poles

### – Disadvantages

- ◆ May experience rain-rebound in heavy rain



**Mountain Laurel Designs  
Grace Tarp (Silnylon) 1P 8.5 oz**



**Gossamer Gear CubicTwin 2P  
5.5 oz**

# Big Three: Sleeping Bag Options

- ◆ Factors affecting warmth and weight
  - Type of fill
    - ◆ Synthetic (Primaloft, Polarguard Delta, etc)
    - ◆ Down
  - Fill power
    - ◆ 600 fill power
    - ◆ 850+ fill power
  - Sleeping bag design
    - ◆ Mummy
    - ◆ Rectangular
    - ◆ Stretch hugging
    - ◆ Quilt-style or quilt
  - Zipper
    - ◆ Full length
    - ◆ 1/2 or 3/4 length



# Big Three: Sleeping Bag Options

20 Degree (F)

40 Degree (F)

Synthetic Mummy

Kelty Light Year XP  
3 lbs 5 oz

Montbell UL #5 Super  
Spiral Burrow 1 lb 14 oz

600 Down Mummy

Mountain Hardware Plute  
3 lbs 13 oz

Kelty Light Year 40  
2 lbs

800+ Down Mummy

Western Mountaineering  
Ultralite 1 lb 13 oz

Montbell UL #5 Super  
Spiral Hugger - 1 lb

875 Down Quilt

Nunatak Arc Alpinist  
Quilt - 1 lb 4 oz

Nunatak Arc Edge  
Quilt - 11 oz

# Big Three: Backpack Options

- ◆ Factors affecting weight
  - Capacity
  - Frame or frameless
  - Heavy or lighter weight fabric and stitching
  - Hip belt
  - Padding
  - Pockets
  - Straps
- ◆ The lighter and more compressible your gear...
  - Less capacity required
  - Less structure (frame)
  - Less padding
  - Less need for heavy duty fabric and stitching

# Big Three: Backpack Options

External Frame

Internal Frame

Frameless

- ◆ External Aluminum Frame
  - Advantages
    - ◆ High weight capacity
    - ◆ Attachment points
    - ◆ Good back ventilation
    - ◆ Heavy duty fabric
    - ◆ Less expensive
  - Disadvantages
    - ◆ Heavy



**Kelty Trekker 4 lbs 14 oz**



**Mountain Smith Youth Scout  
4 lbs 2oz**

# Big Three: Backpack Options

External Frame

Internal Frame

Frameless

- ◆ Hidden frame and stays
  - Advantages
    - ◆ Closer fit, good for scrambling and off-trail
    - ◆ More comfortable than external frame packs
    - ◆ Larger internal storage
  - Disadvantages
    - ◆ Less back ventilation
    - ◆ Fewer external attachment points



**Osprey Exos 58**  
**2 lbs 8 oz**



**Gregory Jade – Women's**  
**3 lbs 15 oz**

# Big Three: Backpack Options

External Frame

Internal Frame

Frameless

- ◆ Back of pack touches your back
  - Advantages
    - ◆ Very lightweight
    - ◆ More comfortable than an internal frame pack
    - ◆ Close fit, good on-trail and off-trail
  - Disadvantages
    - ◆ Less back ventilation
    - ◆ Less weight capacity
    - ◆ Less content capacity



**Gossamer Gear Mariposa Plus**  
**1 lb 6 oz**



**Zpacks Blast 32**  
**10.7 oz**

# Philip's Big Three



**Mountain Laurel Designs  
Grace Duo Tarp 2P – 9.5 oz**

## Tarp

- ◆ 2 Person Tarp for plenty of space, even in bad weather.
- ◆ Stuffs small so I can use a smaller backpack
- ◆ Often sleep in shelters on the AT, so it doesn't pay to carry a heavier shelter



**Western Mountaineering Ultralite 20  
850 Fill Down – 1 lb 13 oz**

## 850 Fill, Down Sleeping Bag

- ◆ 850 fill, 20 degree down sleeping bag because I hike in mountain areas with cold weather
- ◆ High fill power down stuffs small, enables use of a smaller backpack



**Gossamer Gear Gorilla 1 lb 7 oz**

## Frameless backpack

- ◆ Lower volume, 2800 cubic inches
- ◆ No rain cover, internal plastic bag
- ◆ External pockets so I don't have to open my pack in the rain

# Questions for Gear Demonstrators

- ◆ Can I try your backpack on?
- ◆ Do you prefer an internal frame or frameless pack?
- ◆ What kind of shelter do you use?
- ◆ Do you prefer sleeping bags or quilts?
- ◆ What kind of boots or shoes do you wear?
- ◆ What clothes do you bring on trips?
- ◆ How do you filter/purify your water?
- ◆ What kind of stove and fuel do you use?
- ◆ Do you pack any luxury or comfort items?



# Ultralight Backpacking in the White Mountains

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## Lightweight Backpacking on The Long Trail



# Lightweight Backpacking on The Appalachian Trail



# Lightweight Backpacking in Scotland

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