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IrailGroove.com with your idea. We're always on the lookout for quality content, and compensation is offered for quality submissions. Our list of requirements isn't too long, but please keep the subject focused towards backpacking or hiking. However, submissions related to other outdoor activities will be considered. (Backcountry fishing or wilderness photography, for example). Page through our magazine for the general idea of what we're all about, but even if you have something you haven't yet seen in an issue our ears are open. Please send us a note with a broad overview and sample of your idea, as well as an approximate word and picture count. Original and factual material is a requirement. Once received, we'll evaluate your submission and contact you for further discussion. Questions before you start? Just let us know.

A few examples of what we are looking for:

Destinations
Gear Reviews (Objective)
Photography
Video
Skill & Technique

Art / Illustration Short Stories Interviews Backcountry Cuisine Your New Idea

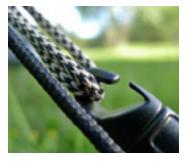










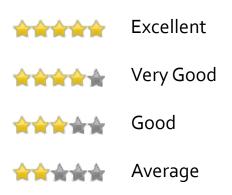


TrailGroove Magazine Review Policy

The products we review are obtained via normal consumer retail channels. We do not ask for or accept review samples from manufacturers, and we do not obtain the products we review under the TrailGroove Magazine name. As such, we're reviewing the same products that you would obtain - Not hand-picked review samples. Even though we like free gear as much as the next person, but we won't bend on this rule! As a result of this philosophy, we are also able to experience and comment on the same level of customer service that the typical consumer would receive.

Note that this policy does not apply to any pre-release products that we're able to obtain prior to market release for review. In such cases, we will clearly state that the product was obtained from the manufacturer for a sneakpeak, pre-release evaluation in the review.

We use a 5-star rating scale for our reviews:



Poor

Jargon Silnylon \sil 'nī, län\ Often referred to simply as "Sil". Nylon fabric impregnated with a silicon coating on each side. Fairly economical. Typically offered in a 30 denier (30D) fabric weight. Often used in lightweight shelters, tarps, and backpacks due to its strength, light weight, and waterproofness. Nonbreathable. While very strong, the fabric can suffer slight leakage under heavy water pressure such as that from a heavy thunderstorm (Misting) or from kneeling against the fabric as water lies underneath when used in a groundsheet application, which exerts a high level of pressure against a very small portion of the fabric.





We all know that dry feet are a blessing - It just makes life on the trail that much easier. While an almost sure way to reduce the possibility of a blister or hot spot, dry feet most importantly boost morale. Even if you miscalculated on food and ran out a day early, or an angry bull moose ran over your tent while you stepped away...Well, dry feet may not solve the situation but it will certainly help! The largest backcountry enemy of dry feet is the stream crossings you'll encounter out on the trail. Many times a fallen tree or a trail of dry rocks rising above the water can lead you across, but both options can leave you stranded with a broken ankle or worse as well. And of course, many times no such option even exists and a ford is required. You can carry a pair of dedicated water shoes to solve the problem, but there's a tradeoff carrying that weight around all day for such an infrequent use. Forge across barefoot? Painful and potentially dangerous. Rather than moving forward fully equipped in your trail runners, leaving you with a set of shoes and socks that likely won't dry until midway through the next day, stop to remove your socks and insoles first. Make your way carefully across and instead of replacing your socks and insoles immediately on the far side, keep hiking for another mile or so. As you hike you'll squeegee most of the water from your shoes and begin the drying process. Once the water has been squeezed out, stop to replace your dry insoles and socks. Your socks may end up a bit damp from the residual water left in your shoes, but as you move forward any remaining moisture should vent out quickly. This way, you keep your feet happy and you should arrive at camp with a fully dry set of footwear - All set for evening shenanigans.



Outdoor Education: My NOLS Experience

By: Josh Downing

Who is a great educator? What makes a positive learning environment? Where can you have an experience of a lifetime while learning more than you ever dreamed? It's a place where everybody loves but not everyone knows about. It's an institution, an expedition, a community of fellow adventure seekers, and simply an acronym: NOLS. The National Outdoor Leadership School is a nonprofit outdoor education school based in, Lander, Wyoming with branches in nine different countries around the world. NOLS takes students of all ages to remote wilderness areas and teaches them wilderness ethics, outdoor skills, leave-no-trace principles and leadership techniques.

Without knowing what I wanted to do with school or with my life, I signed up for NOLS New Zealand not having a clue what I was getting myself into. For the past two and a half months from January 26 to April 11, I was tramping around the northern part of New Zealand's South Island where I was a part of a group of 10 students from around the United States. We hailed from Colorado, Washington, Virginia, South Carolina, Texas and the great state of Oklahoma. The course was split up into four sections: culture, sea kayaking, hiking and sailing.

We started the course by learning about New Zealand history and spent time with the first settlers on the island, the Maori. We visited the town of Kaikoura and received insight in the culture, history, traditions and spiritual values of the Maori. I found their beliefs very different from those who live in Middle America. They invited us into their home and gave us the warmest welcome I have ever received. That reminded me of home because Oklahomans are known for their hospitality. They taught us their language, how to



use kelp to cook mussels and how to "stand in the heart of the day." They also taught us a classic Maori game where we stood in a circle with a long wooden stick. We had to move left and right and catch the stick next to us without having it hit the ground. I never won, but I was a natural. All those years of little league had finally paid off.

We got the opportunity to be a part of an ancient Maori gathering or Hungi. We started and finished the ceremony by singing to them. We sang Bob Marley's "Three Little Birds" and The Tokens "The Lion Sleeps Tonight." They shared their

beliefs about their gods and what each god stands for. They also gave each of us a Maori name. They were the nicest, most warm-hearted people I have ever met. I will never forget what they taught us and what it means to "stand in the heart of the day."

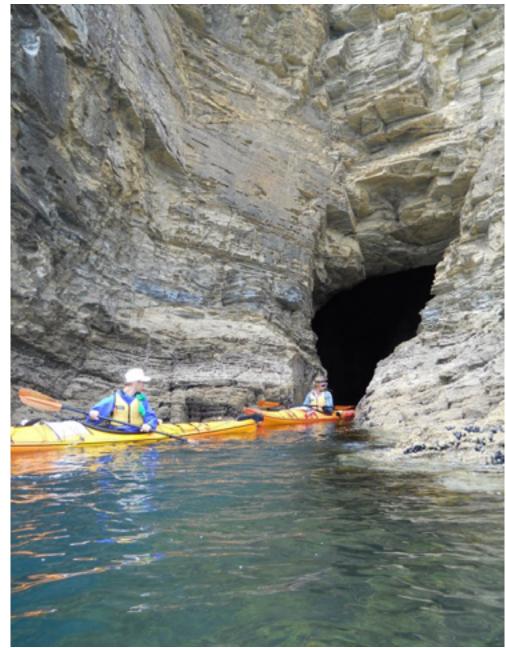
For the next 31 days, we took off to explore the waters and coastline of the Marlborough Sounds. The expedition began at Cowshed Bay in the Pelorus Sound where we learned various forward and back strokes, directional stokes, bracing stokes, solo/ double re-entries assisted and un-assisted, coastal navigation and chart reading. We also learned about tides, currents and coastal hazards. We ventured northward, taking in the sights of the Sounds for 10 days, then we refilled our supplies at Waimaru Bay in preparation for the next 11 days of our



journey. Along the way, we took numerous classes on first aid, leadership, risk management, outdoor skills and environmental studies. We put our first aid skills to practice when we were involved in the treatment and evacuation of a man who had a cycling accident.

One day, toward the end of our section, we were taking a break from our everyday activities when we heard commotion coming from up the road. We followed the sound and saw a group of people hovering over a man who appeared to be unconscious. Our instructors jumped into action and performed first aid on the man. They wrapped him up in a sleeping bag, checked his vitals and discovered he had a concussion, a broken nose and knocked out his four front teeth.

He was in bad shape, so they called for the Coastguard to come rescue him. We ran to the beach, flagged the Coastguard down by jumping and waving our paddles. We then showed the Coastguard where the man was and assisted by carrying him on a stretcher down rocky and uneven surfaces, through knee deep water and onto the boat. It was a terrible



accident but a good learning experience for us as we took our first aid skills from the classroom and put them to work in a real life scenario. We never experienced anything quite like that for the remainder of our course. I'm glad we didn't; the sight of all that blood almost made me faint- enough about that.

We then navigated through the Tennyson Inlet, enjoyed fresh seafood and the natural wonders of the Marlborough Sounds. We took part in a 24-hour solo, where each student went off by themselves for a night. What a long night it was. It rained all night and I fell into a creek which drenched me from head to toe. Then I fell asleep in a puddle of mud; my shelter didn't protect me from anything. I had to stuff paper into my clothes because I didn't bring a sleeping bag. I slept in the



fetal position to stay warm. But I would do it again in a heartbeat.

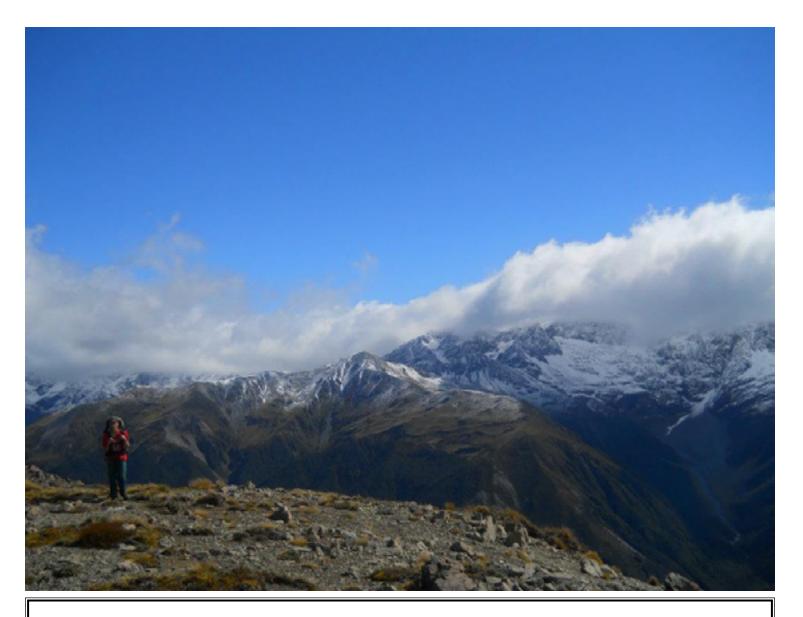
It wasn't about how miserable I was because I was pretty miserable. It was about the experience, the challenge to withstand obstacles and gaining the confidence to tolerate adversity whenever it may come. I learned to always be prepared while camping and make sure you have the things you need to make your night more enjoyable.... like a sleeping bag. For the remaining 10 days, we fought

strong winds and paddled a 21 nautical mile passage into the Cook Strait where we explored the Queen Charlotte Sound. After our astonishing night paddle where the stars lit up the sky and the bioluminescence glowed in the water, our expedition was complete. But our trip of ultimate misadventures had just begun.

The sight of the New Zealand Southern Alps was breathtaking; it was almost too surreal to comprehend. Every place I looked was more beautiful than the next. The snow covered peaks, the beech forests, the cool, glassy lakes and the waterfalls that flowed off the mountains in pairs of twos



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"It is not the mountain we conquer, but ourselves."
- Sir Edmund Hillary

and threes, sometimes sevens were only some of the sights we saw. We covered 100 miles (160 km) on our 31-day hiking trip in the Nelson Lakes region of New Zealand. We had great weather, except for the occasional rain and the two days of snow. Of course, the snow started to fall when I was experiencing signs and symptoms of Giardia. Nothing is more

uncomfortable than going to the bathroom multiple times in the snow and not having control of when it was going to happen.

Luckily it didn't bother me when we were making our first high pass crossing. We mostly traveled above tree line across scree and alpine tussock basins. While hiking, we learned how to navigate with a compass, find routes

off the trail and read a topographic map. Reading those maps is harder than it seems, it took me the whole section to realize that the color green on the map meant grass. We also learned the proper river crossing techniques and developed strength and endurance while hiking. That was very instrumental because there were days when all I wanted to do was quit, but I had to



overcome all the blood, sweat, and tears and keep on truckin'.

New Zealander Sir Edmund Hillary was quoted as saying, "It is not the mountain we conquer, but ourselves." That's so true; you can't climb up a mountain without having the confidence and determination to do so. There's no better feeling than getting up to the peak and looking back at what you just accomplished and what more lies ahead of you. That is something I learned at NOLS; and I probably wouldn't have learned if I hadn't gone. We grew as a group and became competent enough to lead student groups. We would take off in two groups of five students each and find a trail to lead us to our next campsite, where we met up with our instructors. One day while we were hiking, we found a swimming hole on river. There was a natural

slide that reminded me of Swiss Family Robinson. We took time off our hike and jumped in the water. The water was icy cold and crystal clear. It took our breath away, literally. It was an unforgettable day.

During hiking, most of our classes were on first aid so we could hone our skills to enable us to go off with our small groups. We also took classes on astronomy, wilderness management,

ecology and completed an environmental studies assignment. My assignment was on glaciology. This was to get ready for our Independent Student Group Expedition (ISGE); this was different from our previous student led groups because we didn't see our instructors for five days.

Our rations were delivered in a variety of ways: boat, car and my favorite a helicopter. Before our ISGE a helicopter landed and dropped off our rations and a member of our group. She was evacuated eight days prior due to a knee injury. We were supposed to get a five-day ration but we got an eight-day ration instead. So we pigged out for the final days. For the last five days, we successfully completed a





student led expedition. Our two groups found new routes said them anyway. I also through the mountains of the gave myself a pirate name, St. James Range. Looking into the New Zealand Southern Alps from a bus is beautiful, but so much different than being in it, being surrounded by it and being a part of it. It was sad getting back on the NOLS bus and knowing that I probably will never be back to experience all that I did. But sailing was still ahead and was something I looked forward to doing.

"Aye matey!" and "Shiver me timbers!" were prerequisite terms we had to know and understand before getting on

the boat. Not really, but I Dead Eye Downing, because of my keen eyesight and nautical prowess. I wish that was true...I came into the sailing section with minimal knowledge and sailing experience. After 10 days of the sailing section, I had a good understanding of what it takes to be a competent crew member on a sailboat. We split into two groups and spent our time on two Chieftan-design 38-foot sloop-rigged boats based out of Waikawa Marina in the Marlborough Sounds. We covered 131 nautical miles

from Waikawa Marina in the Queen Charlotte Sound to the Cook Strait where the Tasman Sea meets the Pacific Ocean.

We finished in Havelock, New Zealand in the Pelorus Sound. We sailed no more than five nautical miles offshore and went through mildly rough seas. We mostly sailed in moderate winds (15-25 knots), with gusty conditions (30-40 knots) on three days. The first two days of the gusty conditions, our instructors thought we weren't ready to handle the strong winds so we only sailed for an hour and then

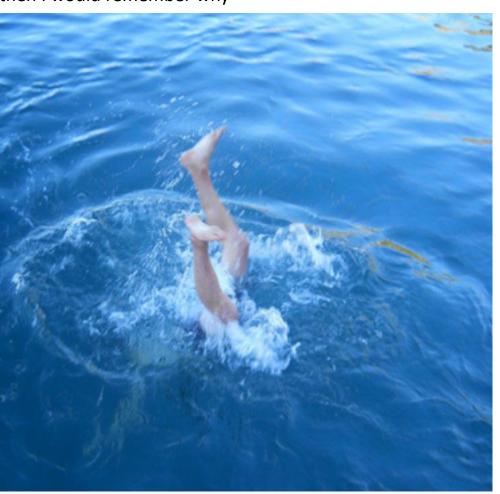
"I wanted to learn about life and what it means. I wanted to learn about myself and all I can do."

went back to the same mooring. We worked on raising and lowering the sail, reefing, boat handling and tactics in heavy weather. After our hour lesson in heavy weather, we got to go onshore and stretch our legs. We played volleyball and soccer in the rain while slipping and sliding in the mud. It was our first time on land in four days so it took me awhile to get accustomed to my legs. On the third day of heavy weather, the boat I was on, Chieftan, started experiencing mechanical problems so we had to go back to Waikawa Marina and wait until the boat was fixed.

While we were there, we took classes on understanding sail theory, points of sail, the use of VHF

radio and radio protocol, movement under power and rules of the road. On the water, we learned good anchoring, how to steady the helm on and off the wind, and tacking and jibing. On the boat, we all reached a good level of technical boat handling and sailing skills. We took turns doing the jobs on board, such as navigating, helming, sail handling, steward and engineer. It was a good change of pace going from hiking to sailing, but I found it hard to keep a good mindset. I just wanted to check out and sit back and relax and let the wind take us where ever it decided to. But then I would remember why

I came to NOLS and what I wanted out of it. I wanted to push myself and experience things I never thought I would ever experience. I wanted to learn about life and what it means. I wanted to learn about myself and all I can do. I learned more in two and a half months than I have in my 12 years of formal schooling. I think every high school senior should take a gap year and do a NOLS course. They would find out so much about themselves; they would gain the confidence to know that they can accomplish anything. So get out and do it. There is so much out there to see. �





Review: Sawyer 3 Way SP122 Filter

In the never ending quest to lighten my pack I've eliminated quite a few things from my gear list over the years, and have sought out lighter alternatives to the items that still remained on the list - But one thing I never gave up on was the pump water filter that I've always used since I started backpacking. Sure, I've traded heavier pump filters for lighter pumps as I've gone along, but the filter always remained one of the heaviest things in my pack. This spring I took advantage of a sale and decided to pick up a Sawyer 3 Way SP122 filter. I had my doubts that it would be an impressive enough product to replace my heavy pump filter, but I thought it was at least worth a shot.

Specifications & Impressions
The Sawyer SP122 is a hollow fiber membrane filter with an absolute pore size of .1 micron. At this pore size, the filter offers protection from waterborne protozoa such as giardia and cryptosporidium, while offering protection from the category of much solids (Color & taste), heavy metals, or chemicals if that's a concern. You can find the SP122 for around \$50.

The filter works through the use of a multitude of hollow u-shaped tubes, each allowing water to enter the core of the tube through a matrix of micro-pores. The

The filter works through the use of a multitude of hollow u-shaped tubes, each allowing water to enter the core of the tube through a matrix of micro-pores. The ends of the hollow tubes are then sealed toward the output side of the filter so that only filtered water can pass through. Sawyer claims that the sheer quantity of these tubes and high surface area allow for an excellent flow rate.

While I've seen various weights stated for the Sawyer 3-Way filter ranging from 1.8-2oz, the filter unit ended up weighing 2.8oz upon receipt and after use it ranges in weight from 3.4 - 3.6oz just depending on how much residual water you're able to shake out. In the box you'll also receive an instruction guide, a hose adaptor for backflushing at home, and several quick-disconnect fittings in addition to the connections that are built into the filter for splicing everything into your setup. In hand the filter feels solid and well built, while being a bit larger than anticipated. However, I'm quite willing to accept the slightly larger than expected size for an increased surface area

The Sawyer SP122 is a hollow fiber membrane filter with an absolute pore size of .1 micron. At this pore size, the filter offers protection from waterborne protozoa such as giardia and cryptosporidium, while offering protection from the category of much smaller bacteria as well. Sawyer claims a 6 log 99.9999% removal rate for protozoan cysts & a 7 log 99.99999% removal rate for bacteria, both exceeding EPA filtration requirements. The .1 micron pore size is an absolute rating - Meaning that's the largest pore size in the filter. Most of the popular filters on the market today offer pore sizes ranging from .2 to .3 microns. This level of filtration is generally accepted for the majority of North American backcountry water sources, but the Sawyer may offer a bit more peace of mind for protection against the smallest of waterborne bacteria which can at times approach the .1 micron size rating. As a filter and not a purifier, the SP122 does not offer viral protection. At their very largest, viruses equal the .1 micron rating of the filter but are generally quite a bit smaller. Additionally, while sediment will be removed, the Sawyer doesn't offer a carbon element so the filter doesn't help with dissolved



Pros: Very light. Its .1 micron rating beats most competitors in the backcountry filtration market. Works well as a gravity filtration system.

Cons: Not effective against viruses & no built in carbon element. Field backflushing (If ever needed) can be tedious. Filter must be protected against freezing. No integrity test. Manufacturer's listed weight inaccurate. Flow rate diminishes after use and cannot be restored to original levels even after significant backflushing.

Rating: 🍁🍁 🊖 🊖

within the unit and a higher resulting flow rate. Though very solid, you'll want to avoid dropping or freezing the SP122 – And there is no integrity test to determine if your filter is still functioning correctly after such an event.

Building the System

A 3L Playtpus Hoser is already my main hydration source, and the idea was to splice the Sawyer into the 3.8oz Hoser system for use both inline and with a gravity mode option. The filter itself should

be sufficient for nearly any backcountry North American environment, however one thing that I've always liked is the addition of a carbon element in my filtration system just to help reduce any bad tastes, tannins, or other unpleasantries from my water source. With this in mind I decided to add a **Gravity Works Cleanstream** carbon element from Cascade Designs to the system. The cartridge is about \$13. I also wanted to easily be able to leave this at

home for other trips, or have the option to splice it both in or out of the system quickly when in the field, depending on the water. Upon arrival the element only weighs .8oz, and after use plus the added quick connects and hoses it comes in at 1.4oz before use and 1.8 after. The carbon cartridge is rated at 300 liters.

In addition to the carbon element I wanted to have the ability to both remove and replace the reservoir easily

and quickly from my pack. I added an auto shutoff quick disconnect fitting close to the reservoir itself. Once disconnected this type of fitting shuts off the water flow which allows a full reservoir to either be put back into the pack or removed without spillage. The flow is then re-established once reconnected. I also wanted a decent flow rate when in gravity mode, so I used 23" of tubing to extend the filter away from the hydration reservoir. The longer the length from the reservoir to the filter, the faster the flow rate you'll get. However, too long and the system may

become cumbersome to use from so much extra tubing. The length used here seemed with the Hoser and added a to offer a good compromise. After the filter is another 26" length of tubing (again with quick disconnects). This is the length of tubing that will connect to the Sawyer's output side and then run through your backpack's hydration port and end with the bite valve and hose clip. Now when you need to pull out the reservoir to refill or switch to gravity mode there is no need to fish any tubing out of and back into your pack's hydration port. If you'd like to add the carbon element, simply clip this in after the clean output end of

the Sawyer. We also ditched the alligator clip included magnetic hydration clip from Source Hydration - Highly recommended! Luckily, we had an old Platypus Hoser that was ready for retirement that we could part out that allowed us to make a perfect prefilter cap along with some fine mesh we scored off a tea strainer. The cap is already perfectly cut - Cut the mesh in a circle slightly larger than the hole and press to fit. The mesh will stay in on its own. Platypus sells normal



If you aren't lucky enough to locate a spare Hoser cap, replacement caps, but you'll have to cut it out yourself. Optionally, don't prefilter at all or simply use a bandanna over the opening, etc.

Sound complicated? Once you have the parts, the system can be assembled in less than 5 minutes. The system works equally well with any filtration unit you may want to use designed for inline use. Here are the components of the system and the weight in ounces:

Component	Oz	
Platypus 3L Hoser	3.8	
Sawyer SP122 Filter	2.8	
GravityWorks	.8	
Cleanstream Carbon		
Element		
17" Additional 1/4"	.6	
Tubing		
1 Auto Shutoff QD	.3	
Fitting		
3 Male QD Fittings	.3	
2 Female QD Fittings	.3	
1 Spare Hoser Cap (Or	.1	
cutout platypus cap) w/		
mesh screen		
30" Zpacks ZLine	.1	
1 Small Carabiner	.3	
1 Source Magnetic	.4	
Hydration Clip		
(Original Hoser Clip		
Removed = .2oz)		

Note that Sawyer does provide 3 male and 1 female quick disconnect with the SP122, extras will need to be obtained to build the system



Weights

Total System filters dry weight w/ out carbon = 8.1oz Total System filters dry weight w/ carbon = 9.5oz

Total System filters wet weight w/ out carbon = 8.7oz Total System filters wet weight w/ carbon = 10.5oz

For a complete backpacking water filtration system, these are pretty impressive numbers, but to some extent still misleading. If you're already using a hydration system when you hike like I do, and you plan to use the Sawyer inline while hiking as detailed here, the weight you'll actually be adding to your pack will be much less. Additionally, since the wet weight of the filters will actually be taken up by water you'll be drinking while the pot for easy access, and walking through inline use, it's no longer dead weight in your pack and the dry weight becomes the important number. This would be compared to a gravity-only system or a pump filter where this extra water that is retained by the filter would end up being dead weight in your pack after use. That said, when used inline and not including the weight of the hydration reservoir you're looking at only 4.1oz for the system including the SP122 filter and all the additional hardware. Throw carbon in and you'll be set back a highly respectable 5.5oz.

Field Technique

The Platypus Hoser does have one drawback - its narrow mouth. This can make refilling the reservoir tricky; when submerged the water pressure collapses the sides of the bag and

it's very difficult to get any more than a few ounces of water with each dunk. If you aren't lucky enough for find a small waterfall to make things easy, some type of scoop is in order. (Platypus also makes the Big Zip with a much larger opening, but it's heavier) I use my cookpot for this purpose. No extra weight, and you can fill up a 3L reservoir with just a few scoops. The prefilter cap made earlier is kept inside if I'm refilling at the end of the day after camp has been made, I'll simply fill up the pot with water (After all filtering is done) and carry this unfiltered water back to camp for cooking - Just making sure to boil the water for my meal to sterilize the water. If you prefer not to use your cookpot for this purpose, a small plastic food

container, or a Platypus

bottle with the end cut off make good scoop alternatives. (Very light and rolls up for storage!) A Ziploc bag can work as well.

The system itself is ideal both for solo use as well as when backpacking with a partner. When solo I'll scoop water into the reservoir and over the mesh screen cap to block larger particles and extend the flow rate of the filter before a backflush will be needed. Once filled, I'll hang the bag and go to gravity mode. I'll then fill the small soda bottle that I also carry (Great for flavored drinks) with filtered water and when Jen and I are both out, we'll then fill her hydration reservoir with clean water as well. If greater speed or redundancy is desired, each person carrying their own system may be preferable; however we opted for this method in the interest



21 described here.

of saving weight. After everything is filled, I'll then fill the reservoir up with dirty water again and carry this back to camp. Once there I'll find a suitable place to hang the system - It's like having a kitchen sink with clean water on demand. Raise the filter above the waterline of the reservoir and secure to stop the flow, lower when water is needed. Very simple. If freezing temperatures are expected, disconnect to activate the auto shutoff quick connect and then place the filter in a Ziploc at the foot of your sleeping bag. Upon departure the next morning it's time to switch back to inline mode.

Maintenance

Sawyer guarantees the filter for 1 million gallons provided that proper backflushing procedures are followed and they suggest backflushing the filter whenever the flow rate begins to slow. (Which greatly depends upon source water quality) At home, backflushing is easy. Included in the package is an adapter that hooks to your faucet on one end on then quick connects to the Sawyer on the other. Run clean water back through the system and your filter is backflushed in under 60 seconds. In the field however, things can be a bit more difficult. Sawyer does not include a field syringe for



backflushing the filter as they do for some other models, and the conundrum is that clean water must be used for the backflushing process. We haven't had to resort to this yet, however the backup field plan in this situation would start with disconnecting the Sawyer, then cleaning the hydration reservoir and the hydration hose on the "Dirty" side of the system with soap and clean water if any was available. At that stage, you could sterilize dirty water by

boiling and then pour this water into the reservoir while still boiling if you felt that further sterilization was needed, running this through the "Dirty" side of the hose system as well. After this, fill the reservoir and allow the now sterilized water to cool. Connect the SP122 into the auto shutoff quick connect in a reverse flow direction and squeeze your reservoir with enough force to slowly move water through the filter. This should sufficiently backflush

the filter to partially restore the flow rate. That said, this is probably not my 1st choice of the various activities available on a backpacking trip so we've been sure to backflush via the home method (Even when the flow rate is still strong) prior to departing on any trip. Potentially, you could also utilize the syringe method with some tubing and an additional quick connect if you didn't mind carrying the extra weight.

Flow Rate

When new and used inline, the Sawyer alone doesn't affect the flow rate in a noticeable manner - I was easily able to drink from the system with no issues. With the Sawyer plus the carbon element I could definitely tell a difference, enough of a flow rate reduction that I decided to use both only if the water quality is really

bad. Additionally, during a 1 liter gravity test I was able to filter 1L of water with the Sawyer alone in 58 seconds when new, but when adding the carbon filter this bumped the time up to 1:42. With the additional time in mind, along with the fact that while drinking inline with the carbon filter is possible but not ideal, this led me to believe that leaving the carbon filter at home or only bringing it along if I'm venturing to an area with questionable water sources and then splicing it in only when required would be the best option.

However, we were interested to see how the Sawyer would hold up after use. To test the filter, we selected a local mountain stream as a test candidate. The stream is swift flowing and clear, but very low levels of sediment are still present. We felt

this would be a fairly good test - Not extremely muddy water where the filter might be pushed beyond its limits, but also not pristine high mountain spring water where you might wonder if filtration was even needed. In our opinion, the water offered a good average of what we encounter while backpacking. Using the mesh prefilter cap, we proceeded to filter exactly 100 liters of water through the Sawyer. We felt the 100 liter number was a good guess at the most we would ever push the filter on a longer trip (Filtering for 2 in hot conditions) before returning to civilization where backflushing would be easy. This took a while, but eventually we returned from the stream and retested the filter just as we had when new. The results were pretty surprising.

1 LITER GRAVITY MODE TEST:

New filter: 0:58

After 100 liters average stream water: 5:26

We didn't expect this much of a slowdown, but then we started the backflushing process and retested the flow rate each time.

Backflush 1: (30 seconds per included instructions) 3:28

Backflush 2: (10 minutes additional) 2:45
Backflush 3: (30 minutes additional) 2:18

Backflush 4: (2 hours additional) 2:00 Backflush 5: (2 hours additional) 1:53

Backflush 6: (2 hours additional) No change

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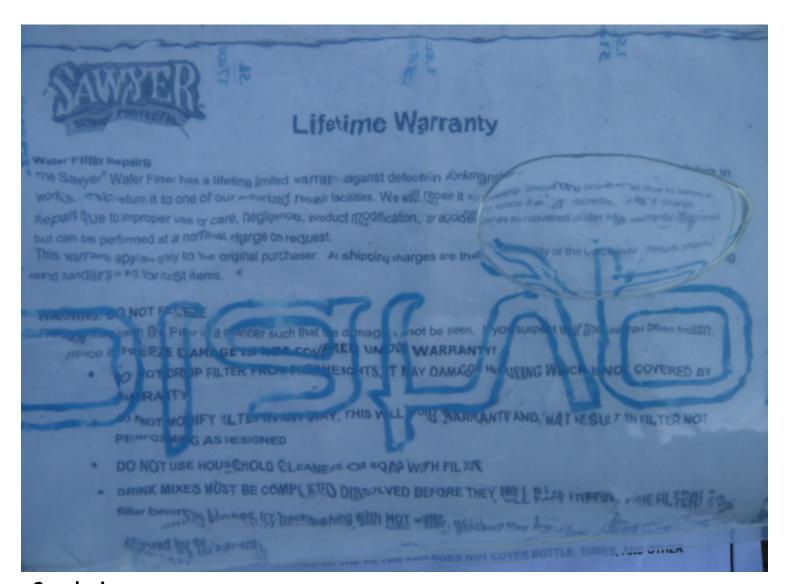
Above: Sample of the untreated water used during testing.

Unfortunately we were not able to restore the filter anywhere close to its flow rate when new. Testing was performed at an elevation of 5500 feet - Slight evident at lower elevations. Each backflush did help, but the returns soon diminished until there was no change. After this, we decided to use

the filter in gravity mode, but also helped out the flow by squeezing the hydration reservoir. This did result in a substantial flow rate increase - Filtering 1L of water in improvements in time will be exactly 1 minute. At this point & SP190. This product is however, the filter offered enough resistance when used inline as a hydration solution that while drinking was possible, it was fairly difficult. the Sawyer Squeeze.

Other Sawyer Models

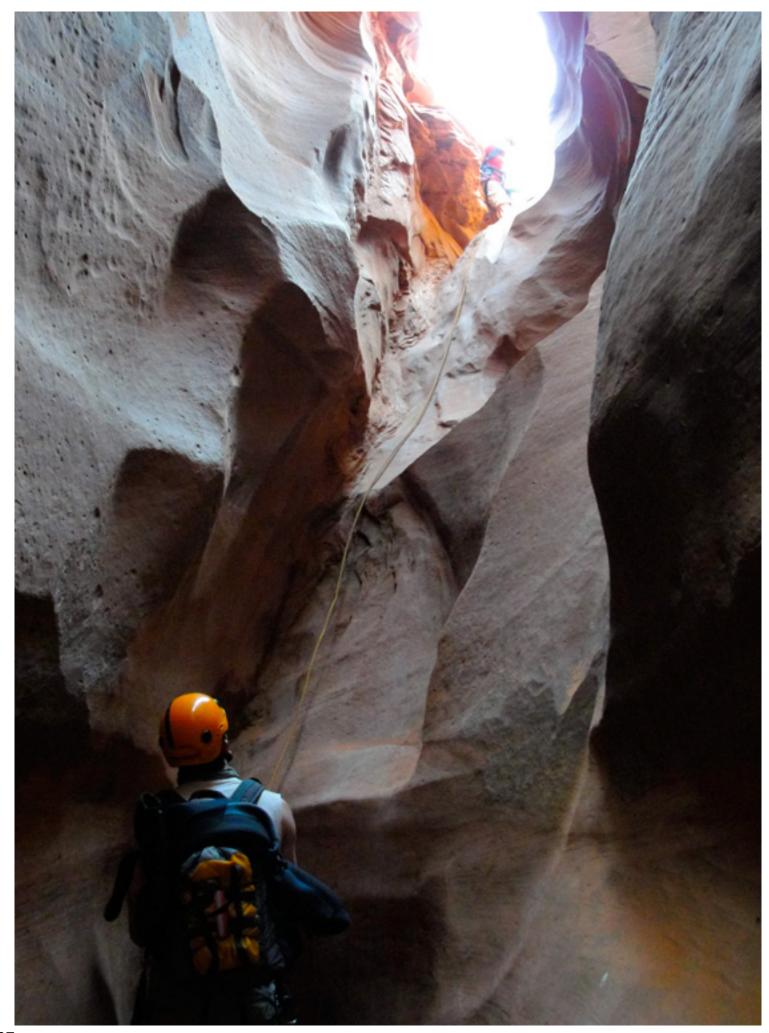
Sharing the same filtration element as the SP122, the newer Sawyer Squeeze SP131 filter was also considered, but in the end the SP122 came out ahead due to its built in quick connect fittings. The Sawyer Squeeze is designed to screw onto Sawyer's specially designed water pouches that allow you to squeeze and force water through the filter at a faster flow rate. While the Sawyer Squeeze ever so slightly trumps the Sawyer 3 Way in the weight department, you can't splice it into a hydration system without adding their newly offered and optional hydration adapters. (Model number SP110) This erases the weight advantage, and we confirmed with Sawyer that both filters use the same internal .1 micron element. However, the Squeeze has proven to be quite popular and may offer a great solution for many users who find the filter / squeeze bag system to fit into their backpacking routine. If the additional protection from viruses is desired, Sawyer also offers a .02 micron purification system under the model names SP194, SP191, substantially heavier, slower in the flow rate department, and more expensive when compared to the SP122 and



Conclusion

Overall, there are pros and cons to using the Sawyer in an inline / gravity configuration compared to a pump filter, UV, and/or chemicals. Using any type of water filtration system poses some amount of hassle. When new, Sawyer comes in with such a light weight, speed, and relative ease of use while offering more than adequate protection against the vast majority of waterborne organisms that a backpacker or hiker will find in the wilds of North America. However, after use the flow rate slows and cannot be restored. This wasn't a problem when in gravity mode - You can either just wait longer or squeeze the reservoir to still get quite fast flow rates. But at this point the system became quite difficult to use with a hydration system, limiting its versatility. The Sawyer may be a great choice for some that are only interested in a gravity system or those that are willing to use extensive prefiltration techniques at all times on the trail, as well as invest in frequent backflushing. We felt that while the Sawyer had its good sides, the system resulted in a fairly average experience and we're interested to try the same hydration / gravity combination setup with other inline filters that are currently available. For

The Sawyer 3 Way SP122 filter is available at REI.com and Amazon.com



CANYONS OF THE ESCALANTE

TAKING OFF-TRAIL TO THE NEXT LEVEL

Location: Southern Utah

by Tyler Hoecker

It's 5:15 AM and just like Matt promised last night, he's crawling out of his tent right on schedule. I won't belabor it, the guy's a nut. Geography is his anti-drug. On our drive down from Salt Lake he recites every prominent peak along the Wasatch, its elevation, a description of the climb. Matt hasn't descended our objective yet, the South Fork of Choprock Canyon, but you'd think he had. On our warm-up through the well-trodden and classic Neon Canyon he briefed us.

There's likely to be at least 6 or 7 rappels, depending on what we're comfortable down climbing. First the canyon will be short and wide, with sections of shallow slot. Then it will deepen and narrow. In the slot proper we'll meander through the "Happy Section," where the water is usually only waist deep. We might decide to put on our wetsuits here. Then the character of the canyon will change dramatically and we'll enter the "Grim Section." This is where a guy died once. That was under very different conditions, Matt reassures us.

We've entered this particular nook of

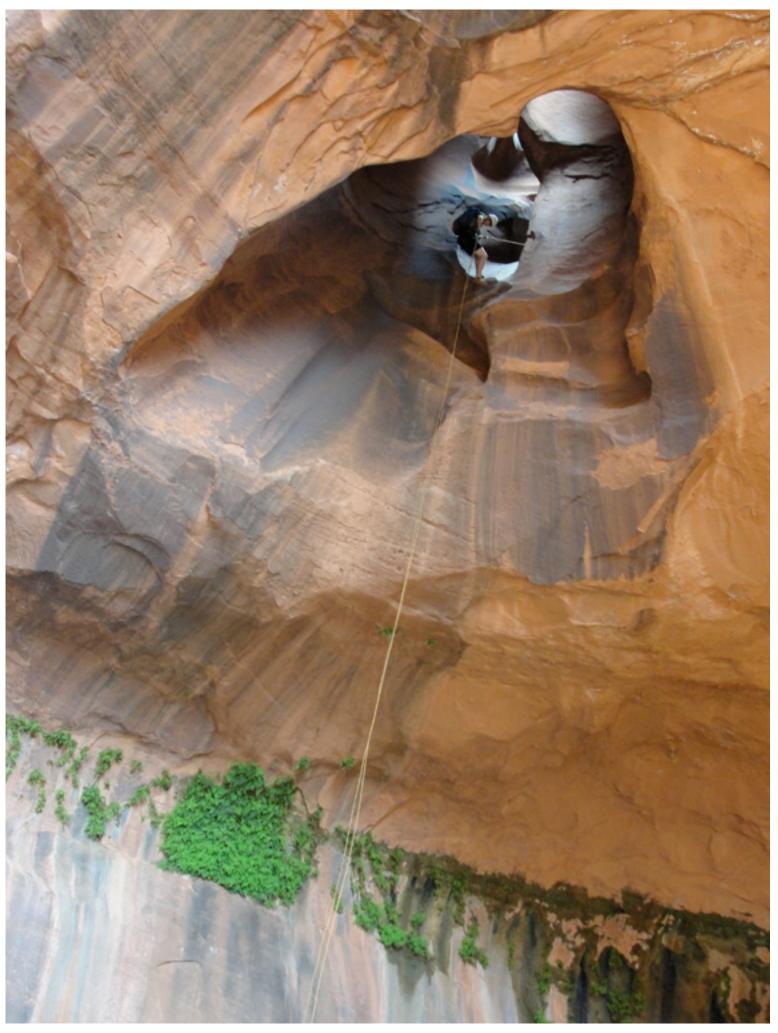
Escalante canyon country through the Egypt trailhead. We're surrounded by some of the most famous slots in the world. We're like kids in a candy shop, except we pay for the candy with hours of slogging through the hot desert and the sweet reward is wading through freezing cold, chest-deep pools of brackish water in the dim canyon bottom. It's fun, I swear. There were a number of cars at the trailhead, mostly just photography junkies and their wives, but one group has entered with the same itinerary as us. I can't decide if I appreciate or begrudge the knowledge that a group will be hot on our trail all day.

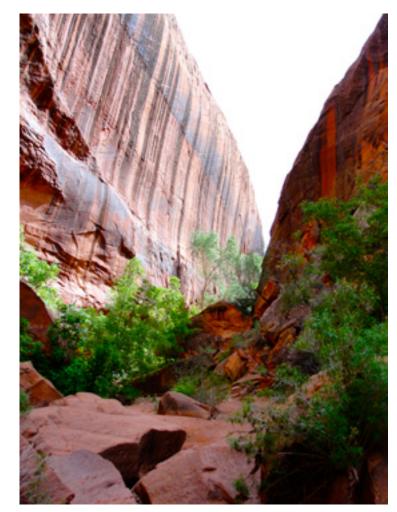
Once we've climbed the broad slab of red Navajo slickrock that leads up and out of the Escalante's cool wash, I'm glad we left so early. For now the seven o'clock sun only bathes our faces in a welcomed warmth. At our highest point on the bench we stop to survey our Choprock route. Matt points into the distance, tracing and describing each of it's branches. He motions further east, placing the Henries, the Orange Cliffs, canyonlands stretching to infinity.

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Mostly Matt's a good guy to go canyoneering with. He's level-headed and canyoneering is a bizarre sport maintained by eccentric people. I like to remind my companions that it manages to incorporate all of the most dangerous aspects of rock climbing into one always adventurous and sometimes scary hobby. Most climbers avoid rappels at all costs. Most canyoneers do too, I suppose, but they replace them with sketchy down climbs through shafts of slimy sandstone. Approaches typically involve class IV-V scrambling, stretches of crawling across scalloped edges of sandstone and route finding through poorly cairned desert scrub. Descents are unpredictable, they hinge on recent rain, catchment area and availability of natural anchors.

After a few hours of hiking along the seam between chossy Kayenta and Navajo we scramble down a final slickrock slab to a sandy, shaded wash. Here begins the South Fork of Choprock Canyon, we're informed. We rest and fuel, but the break is short because we know there will be better places to spend our time today. Cathedrals of red rock streaked black and white like the hide of an enormous Balinese Tiger wait for us down canyon, we practically run through the first stretches of shallow slot with the thought of it. Choprock continues gently downward, undulating between sections of narrow and broad canyon. The canyon bottom is sandy and the sun is now high and hot above our heads, soon the walls will rise high enough to shade us but for now we roast in the midday heat.







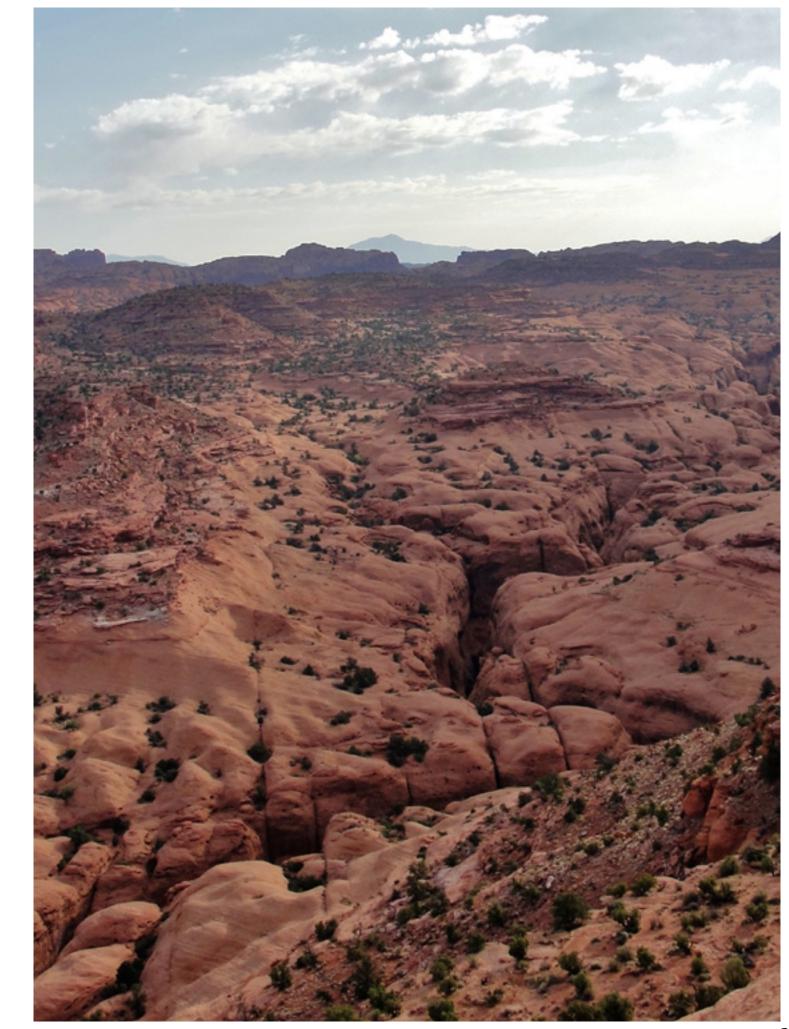
The only water in the Happy Section is still below our waists. We enjoy theopportunities to cool our feet in the shallow pools. After a few sections of narrowing slot and mellow wading we're presented with a few shorter rappels culminating in a longer abseil into Choprock's famous "Riparian Ballroom." The Ballroom is a huge, rounded alcove not unlike the rotunda of a state capitol. We rappel past trickling springs and maiden-hair fern growing from cracks in the bright red sandstone. Poison ivy grows in the thickest, tallest shrub form I've ever seen. Cottonwoods tower over us, clinging to the edges of scummy black pools that fill in the curves of canyon wall. We finally don wetsuits and submerge chest-deep into one of these things. Spider webs crisscross across the pools. This doesn't feel like slickrock desert anymore, we imagine instead that we're searching for Charlie in dense, wet jungle. Tamarisk chokes every square inch not already occupied by something hardier.

It's at this point that the foretold change in terrain would occur. Long, sustained narrows emerge. We elevator down 20-plus foot shafts, using our elbows, shoulders and knees to control our speed. We encounter numerous logjams at choke points throughout the slot. These are Choprock's unique danger; when the water is low you pass easily under, but when water is high they become potentially impassable barriers requiring you to go from treading water to shimmying up and over. Usually the canyon walls flare out, or bombay, below the jams, only adding to the challenge. This is where parties have

become permanently stuck. "Keeper" potholes also pose a danger in Choprock. The water is low during our descent so we avoid both risks, but higher water can turn a mucky pool on the canyon floor into a Venus flytrap for humans.

Even at low water conditions the canyon isn't without technical and thoughtprovoking obstacles. None of the rappels in this section are straightforward or free-hanging. Each is debated as to it's necessity, but we ultimately rope up everywhere we find an anchor. All require an awkward, squatting start, clinging to the break end with one hand while pushing into position with the other. Some end in a swim through a hundred feet of pothole. I'm carrying the rope today and the sensation of rappelling into deep water, pulling the rope and stacking it without touching feet to ground is definitely a new one. Each time my pack fills with a few gallons of water. Out of the ice-cold water we stop to drain our bags and warm ourselves on blocks of desert sun.

Choprock ends in one long, spectacular rappel into a final sandstone amphitheater. A murky pool fills the bottom of the sphere, it reflects green and gold. We splash down the rest of the wide canyon to its confluence with the Escalante. At 12 hours round-trip we're exhausted. Good thing we left so damn early. ��



CANYONS OF THE ESCALANTE

Get There: Drive to the town of Escalante (5 hours from either Salt Lake City or Las Vegas), 5 miles east of town turn south onto the Hole-in-the-Rock Road. Drive 26 miles down Hole-in-the-Rock until you reach a Y, veer left following signs to the Egypt Trailhead. Cross 4x4 only terrain for 9 more miles until you reach the trailhead, overlooking the Escalante river and labyrinth of canyons beyond.

Essential Resources: "Canyoneering 3" by Steve Allen (this is a bible for Escalante exploring); Tom's Utah Canyoneering Guide, online at canyoneeringusa.com; Escalante Grand Staircase Visitors Centor on Highway 12 in town.

Maps: National Geographic Trails Illustrated: "Canyons of the Escalante."; See Tom's Utah Canyoneering Guide online for an excellent .pdf guide and map.

Equipment: Full technical canyoneering and rapelling gear, spare webbing, rapid-links and wetsuits. But pack light, it's a squeezer!

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Review: Six Moon Designs Lunar Duo 2 Person Tent

For groups of two looking for a lightweight shelter with decent elbow room, the choice of lightweight backcountry shelters can at times seem limited. The category can be narrowed down to just a few contenders quite quickly, with one of the leading candidates being the topic of this review, the Six Moon Designs (SMD) Lunar Duo. A single-walled shelter offering 34 square feet of interior floor space, the Lunar Duo offers a nicely adequate floor plan for 2 or luxury for 1. This is a welcome change compared to many other "2 person" offerings on the market, most of which are really simply large 1 person tents and a tight, mostly unlivable squeeze for 2. Not only does the Lunar Duo serve up more interior room than most competitors, it also includes 2 side entry doors and two huge vestibules at 12 square feet each. All of this at a space to weight ratio that no 2 person mainstream tent can match. New for 2012 the Lunar Duo is offered in both silnylon and polyester fabric versions. In this review we'll discuss both models and feature our experiences with the predecessor to the lighter "Explorer" silnylon offering as well as the Explorer itself.

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Design

To save weight, the tent uses the two trekking poles that you're hopefully already carrying for support. (Set to 45") If you're not a trekking pole user, SMD offers a carbon fiber or aluminum pole (You'll need 2) that can be purchased separately. Trekking pole user or not, every Lunar Duo comes with a pair of short, curved Easton aluminum spacer poles that are inserted into an interior sleeve sewn into the roof on each side of the tent during setup. An elastic pouch secures the poles in place and the result is a ceiling that peaks into a smooth curve rather than the sharp, angular roofline of many tents. As a result, headroom is greatly increased. A minimum of 6 stakes are required for setup. 6 additional tie-outs surround the tent - Offering a greater amount of wind resistance if needed. Line tensioners are included for each of the 6 main stake points. Stakes are not included - SMD offers an add-on package for the tent or if you prefer, you can assemble your own set. This adds a silver lining to the potential drawback of the situation - You can assemble a package that best suits your needs with any combination of stakes that you wish. We found that a setup of MSR Groundhogs

and shepherd's hook stakes work best for this tent.

There are two versions of the Duo, the lighter and more expensive Explorer (30d Silnylon) version, (\$310) and the 1lb heavier but cheaper \$160 Outfitter (190T Polyester) version. Either way, the canopy of the tent protects the occupants nicely from wind driven rain, overlapping the inner living space significantly on all sides. Dual zippered doors offer each person an easy entry and exit through the large vestibule on each side. Each vestibule secures to a hook that slides down

the side guy line using a prussic knot. This allows the user to slide the vestibule up or down for more views and ventilation, or farther down for greater weather protection. If desired, you can also enter and exit the tent this way, (By simply sliding the vestibule upwards) though you'll have to duck a bit lower than if you fully unzip the vestibule to exit. Once unzipped, SMD provides a loop and toggle system that allows you to roll each side of the vestibule up and secure it to the main tent body. A peak vent on each side of the tent assists with ventilation. At first

Pros: A 2 person tent that's not a squeeze, huge vestibules, an excellent balance between features and simplicity. Factory seam sealing option offered.

Cons: Condensation can be a nuisance if not managed properly. Stakes not included.







glance the vents look as though they might be penetrated by a driving rain, but in practice they functioned well. They are located in the vestibule section, so even in a worst case scenario the living quarters wouldn't be affected. A full enclosure of ultralight no-see-um netting completes the Lunar Duo's design, resulting in complete protection from crawling and flying insects. A pocket is sewn into the netting on each side for storage of essential items. For the floor you'll again find 30d silnylon in the Explorer and 190T Polyester for the Outfitter. The floor is shaped to create a bathtub design. At 54"

wide by 90" long, the floor plan is quite generous as well. 45" of headroom allows of the tent where the insect even taller hikers to sit up comfortably - And since the roofline isn't sloped side to side, this full height can be used by both occupants. 6 additional guyline points are included surrounding the tent for additional stability if desired, guylines not included. The packed size is 15" by 6" with a 20" circumference. Seam sealing is required - You can either opt to DIY or SMD will take care of the process as a \$30 option. One great thing about the design is that there are no seams to seal on the floor - And overhead you'll find a seamless sheet

of fabric as well until you reach the head and foot end netting is sewn in. Basically, while sealing is still required, it's not quite a critical as other lightweight shelters where seams are running directly over your head and underneath your pad.

Unfortunately, while SMD expanded their Lunar Duo lineup for 2012 with the more affordable & 1lb heavier Outfitter model, we were also hoping they'd go the other way as well and release a lighter cuben fiber model to round out the lineup. SMD previously released the now discontinued Refuge X 2



person tent in cuben, and recently they've begun to release solo models as well as 2 person tarps using the superlight but strong material. So far, no word on cuben for the Lunar Duo, but we're keeping our fingers crossed.

In Practice

Setup

The tent takes approximately 5-10 minutes to setup, and is about as easily done with 1 or 2 people. While the instructions call for spacer pole insertion prior to pitching the tent, this involves reaching into the living quarters to insert the poles. The tent has a lot of fabric, and we found at

times it could be difficult to make sense of all that nylon while inserting the poles. Additionally, opening up the inside of your tent to the elements in rainy weather is obviously not ideal. We found that pitching the tent first and inserting the spacer poles later worked fine and was more convenient. The tent also works pretty well without the spacer poles, but you'll lose headroom. The spacer poles are made from Easton aluminum and weigh 2.6 oz. for the pair. We found that it was best to pitch with the vestibules closed - Otherwise you might end up with a bad main guyline angle that won't allow you to close the vestibules. (Easily

fixed with a quick re-stake)
Another tip is set the main guylines just slightly to the left of each vestibule zipper - This allows the silnylon flap that lays over the zipper for additional rain protection to lay flat. One complaint is that this flap snags easily on the zipper when the vestibule is not taut. However, due to the slippery nature of silnyon, it's a pretty quick and easy fix.

Space & Livability
The tent is very spacious.
Not only is there room for 2
full size inflatable sleeping
pads, there is enough room
to fit both in with extra space
between the pads and again
on each side. The floor is also
quite long at 90 inches, so

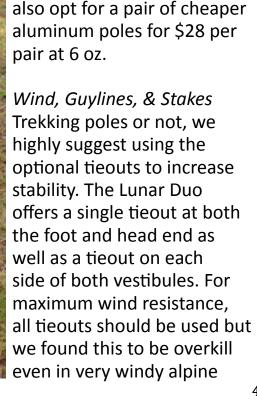
you'll have quite a bit of additional room at the head and foot end as well. On top of all that, each vestibule has enough room to store a full pack out of the elements, yet still allow space for an easy entry and exit. The tent was quite large enough for the two of us plus our 50lb 4-legged hiking companion and our gear. The canopy significantly overlaps the interior on all sides - so even if you find the foot of your sleeping bag pressed up against the netting of the

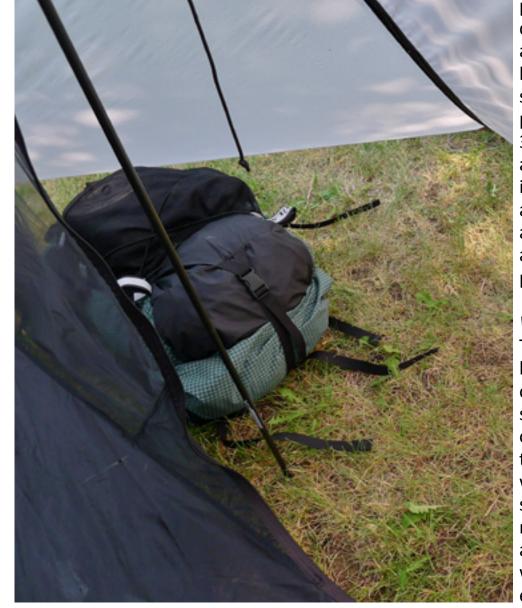
tent for example, you're still well protected from rain and splash. While the footprint is large, we've used the Lunar Duo in everything from old growth forests to alpine environments and so far, we've never had an issue finding a spot to setup camp.

Support System
With this much space, we found that a taut pitch was needed for good stability in windy conditions. Trekking poles, due to their extreme stiffness and strength helped

allowing you to tighten things down while maintaining the roofline. We also tested the optional carbon fiber pole set that SMD offers for those who aren't trekking pole users. At \$60 per pair and 3.6 oz., the price is on the steep side but lighter than trekking poles. The poles worked in practice and I wouldn't hesitate to use them for most trips. However, to really tighten up the tent so much downward force is exerted from top to bottom that the carbon poles begin to bow. This didn't cause any problems and the poles never broke, but to some extent it was still disconcerting. Still, the poles held up great in 20-30mph winds and do an adequate job, but don't quite inspire the same confidence as trekking poles. You can also opt for a pair of cheaper aluminum poles for \$28 per pair at 6 oz.

a lot in this regard - Really



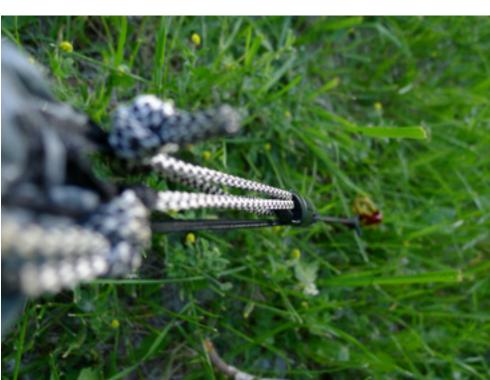


camps. In the interest of saving weight, we found the best method for dealing with wind was to pitch one vestibule into the wind, then utilize both tieouts on that (The windward) side only. (Less guylines and stakes) We used 5' of 3mm cord for our extra guylines, combined with a lineloc to make tensioning a little easier. (The 5' length is greatly reduced after it's looped through a lineloc and tensioned) If you'd like to be able to easily switch between sides, you can attach these with a loop to loop connection or simply always pitch that side of the tent into the wind. Using micro linelocs and a thinner line could save some weight, though a loop connection probably wouldn't be ideal. (Could be hard to remove after being under tension) Since our experience is with the silnylon version where sag is always a factor, we permanently attached tieouts of the same length and again with a lineloc to the head and foot end of the tent. This helps a bit no matter which way the wind is blowing but also ensures that the tent stays off the foot of your sleeping bag (Or head) if the tent begins to sag due to moisture in the middle of the night. How many of these tieouts to use definitely depends on personal

preference and conditions. For maximum stability use them all, or none if you expect still & dry weather or don't mind a bit of shiftiness when the wind picks up. We found the method above to be the best allaround balance and kept things stable enough in 45mph gusts, the highest we experienced in the Duo. If it's a bit too drafty inside, you can even lower your trekking poles a bit and batten the shelter down all the way to the ground, but at the cost of ventilation and headroom. The extra tieouts do great with lightweight shepherd's hook stakes, though for the 4 corners and especially the two main guylines running under each vestibule a stake with better holding power like the MSR Groundhog was preferred.

Rain & Humidity The Lunar Duo offers great protection from rain - Due to the overlapping canopy rainstorms are of little concern and with all that space and headroom, being tent-bound due to weather isn't such a bad thing. Vertical sidewalls prevent rain from entering during entry and exit. One issue inherent to all silnylon shelter designs is sag -Especially when wet and the Duo is no exception. In our experience, a quick retension of the guylines was required after an hour





or so once the fabric had a chance to stretch. SMD makes it pretty easy however, with buckles at each corner allowing you to cinch things up without having to re-stake and a lineloc for the side guylines that you can even re-tension from inside the tent. When setting up your tent, loosen each of these lines to allow for maximum tightening later, and if you're using linelocs for your extra guylines this is quick work as well. Generally, this was sufficient to keep the Duo taut until the next morning, however if humid or rainy

weather rolled in you'll again be faced with the need to tighten things up - At which point the tent should maintain its pitch well until you're ready for departure. When we declined to venture for maximum ventilation to out due to the weather in the counteract the issue. Both middle of the night however, the tent never sagged so much that it became a huge problem, though some head & foot room would be compromised and wind resistance would also be affected. The polyester Outfitter model should have much less of an issue in this regard.

Condensation inside the tent was also a concern, although always just a nuisance and only during humid weather. Whenever possible, sleep with the vestibules raised cases were combated with the occasional wipe down of the interior roof fabric using a pack towel and even at the worst, the DWR shell of our sleeping bags was enough to keep us warm and dry -Although if you're experiencing a high condensation night, you'll want to keep the shelter



tight for clearance so you aren't rubbing the foot of your sleeping bag against a damp ceiling as you sleep. The Lunar Duo is a 3-season shelter but we ventured into snowy conditions on more than one occasion. While a light dusting of snow is of no concern, if more than an inch or so is expected to fall a shelter offering more snow load support would be recommended. The 30d sil floor of the tent does have the potential to leak under high pressure if you were for example, to kneel on floor over wet ground. We always used a lightweight polycro groundsheet underneath (Mostly to extend the life of the floor) and never had any issues with water seeping in from below. Even without a groundsheet, you should be fine as long as you're not setup on extremely soggy ground and placing high pressures (Knees, elbows, etc.) on specific parts of the floor.

Modifications

Floor

We decided to make a few very small modifications to our LD. First and foremost is a seam seal treatment for the floor that we think most everyone will find quite an asset. Stock, the floor is quite slippery and if you're setup on any type of incline (Which seems to be almost 100%



of the time for spots I pick) you'll soon find you and your sleeping pad slowly sliding downhill. Setting up the tent at home, a seam-sealer set of stripes, dots, or patterns of your choice across the inside of the floor will greatly help in this regard.

Vestibule Attachment
There are two webbing loops
that SMD has attached to
the end of each vestibule.
Attaching these loops onto

the hook attached to the main guylines allows you to slide the vestibules up or down and secure them tightly when needed for weather protection. We began to find this attachment process cumbersome - The loops are large and the opening of the hook small. Attaching the loops and removing them was tedious, especially when you were leaning out of the interior of the tent at night, trying to

attach each loop to secure the vestibule for potential bad weather rolling in. Our solution was to tie 4 lengths of 3mm cord to each webbing attachment point, essentially forming a new loop that is much easier to attach and detach when needed. Since the hook is under tension, there is no risk of an accidental disengagement.

Zipper Pulls & Corner Tieouts

No zipper pulls are included with the Lunar Duo. The addition of glow in the dark paracord pulls makes life just a bit easier in the darkness! We also elected to tie a double knot at the end of each corner tieout's webbing – Forming a nice handle for quick one handed retensioning.

2012 Changes Models For 2012 SMD has

streamlined the Lunar Duo line while adding a lower cost option made from Polyester fabric. The Explorer is now the silnylon Lunar Duo, and comes in at a pound lighter but \$140 more than the Outfitter. Offering a lower cost version of such a welldesigned tent is a great idea especially where pack weight might not be the largest concern. Even at 57oz however, the Outfitter is still pretty light when you're looking at the 2 person tent market as a whole.

Floor

Previously, the Lunar Duo had two floor options -An "Ultralight" as well as a "Standard" option. The ultralight option was made from 30d silnylon with the standard floor utilizing a 70d fabric with a 4oz weight difference between the two. For 2012 the 30d "Ultralight" is now the standard and only option on the Explorer with the 70d floor eliminated from production. There were pros and cons to both options. We tested the ultralight option in our pre-2012 model. Our reasoning behind this was that even with a lightweight polycro groundsheet; this combo came out lighter than the standard floor with no groundsheet... And it's easier to replace a cheap groundsheet than an entire

tent floor. One benefit the standard floor had is that its tackiness was built in, so the anti-slide floor treatment we described earlier was more of an option than a necessity and the floor was waterproof to a greater degree than the 30d, now standard floor.

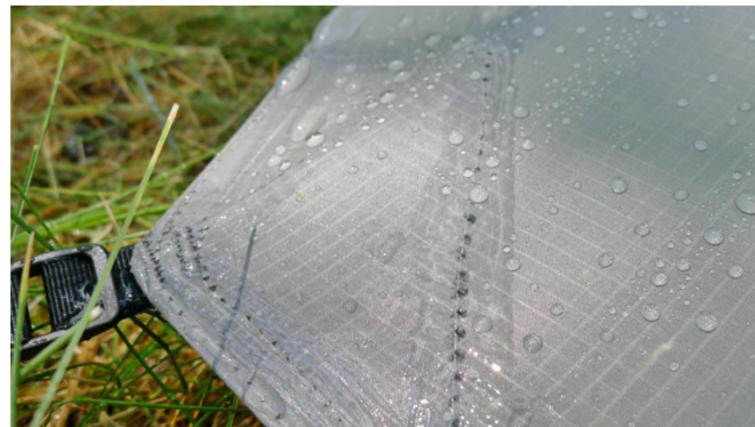
Zipper, Fabric, & Color Gone for 2012 is the green color option, with the LD now made only in the more subtle grey, which is a bit of a lighter and brighter grey than before. Though we never had any issues with the zipper of the previous version, it's now been beefed up to a sturdier #5 version, which does seem to result in a slightly smoother action as well. Corner tieouts and other various points around the tent have been more heavily reinforced and the silnylon has also been upgraded to a more premium & waterproof fabric on the Explorer version compared to the pre 2012 models. According to SMD, this new fabric is a substantial improvement and offers approximately twice the waterproofness / hydrostatic head rating compared to the previous models. In our opinion, this is a huge selling point. Misting is when the intense pressure of heavy rain is enough to result in an extremely fine mist through the fabric and into the tent. We only

experienced slight misting in the older Lunar Duo in the heaviest of rains - resulting in a small nuisance rather than a problem. The new fabric should make an already great shelter that much better. In our testing, the fabric did indeed offer a very significant increase in waterproofness compared to the older model. Admittedly however, our older model has seen significantly more use. With these changes, the weight of the shelter is now listed at 41 oz. where previously the tent was listed at 39 oz. with the

30d ultralight floor. (All weights prior to seamsealing) You'll also find a small change in the way the arch poles secure into their sewn-in roof sleeves -Instead of a Velcro closure, they now secure with an elastic & pouch arrangement. As previously mentioned, SMD has designed a flap of silnylon that overalps the vestibule zipper when closed and taut. One new welcome addition for 2012 is an additional Velcro securement point halfway up the vestibule just to help

WEIGHTS	
2012 LD weight in stuff sack w/spacer pole prior to sealing	41.1 oz. (Listed weight: 41oz)
2012 LD weight after seam sealing & Anti-Slip floor treatment with spacer poles in stuff sack	43.4 oz.
Pre-2012 LD weight after seam sealing & Anti- Slip floor treatment with spacer poles in stuff sack	40.5 oz.
Optional Carbon fiber poles	3.6 oz.
Optional Aluminum Poles	6 oz.
3 mm guylines w/ lineloc	.3 oz. each
Polycro groundsheet	2.8 oz.





keep the flap in place over the zipper and offer some additional rain protection for whatever you have stored underneath each vestibule for the night. After seam-sealing the new model, we did find a few more loose thread ends vs. the original model and the new reinforced corner tieouts exhibited some thread stress / cutting through the fabric on each corner after our first pitch. We seam-sealed these areas a bit more heavily and so far, so good. One final point was that while our doors were opposing on the older model, the doors are now in the same position side to side for 2012.

Conclusion

Time after time the Lunar Duo has met our

expectations, kept us dry, and kept our packs lighter compared to alternative traditional shelters offering this much space. The space to weight ratio is impressive and for groups of two it's hard to compete with so much livability. Each person has their own door. Each person has their own vestibule capable of sheltering their gear from the elements. Inside, there's still a lot of elbow room and you don't have to draw straws to see who gets the short side - The high roof treats all occupants equally. For 2012 the shelter has been upgraded with a more waterproof fabric as well changes to increase durability, increasing the overall weight slightly. We never had any issues with

durability using the older version, so we have mixed feelings about the changes. One one hand, the heavier zippers and more reinforced corner tieouts just seem like more weight in our mind. On the other hand, it's hard to argue with a fabric upgrade resulting in a more waterproof product - So for us that aspect is a definite bonus. During wet and humid weather, condensation is there and will need to be managed. Like all silnylon shelters, you'll probably have to re-tension the Explorer model once or twice to get the perfect pitch. However, the drawbacks are workable in practice and didn't result in any major headaches.

Overall, very good ****





Summer Backpacking

Tips to Keep You Going When the Hiking Heats Up

Summer is a great time to be out on the trail. The long daylight hours expand opportunities, and you can get away with lighter gear when staying warm isn't as large of an issue during the day and at night. At the same time, however, considerations such as heat, hydration, and insect protection must be considered - any one of which can quickly turn a great trip into a journey where putting one foot in front of the other becomes an exercise of sheer determination. Here are a few tips and techniques that we have found will make the process go a lot smoother.

Hydration

This one is really important no matter the time of year, but it becomes critical when temperatures soar and you're hiking all day while potentially exposed to the sun. If a hot weather hike is planned, it's important to be hydrated when you first hit the trail - trying to catch up while hiking usually results in empty bottles or a hydration reservoir while craning your neck around each bend of the trail,

hoping the next water source is just ahead. I'll even start hydrating for a hot weather hike at home the night before and use the same technique to get ready for the next day on multiday trips when spending a night in camp. The key is to drink before you're thirsty and keep drinking. One huge difference we've found is the use of a hydration system instead of just water bottles; we find that the sheer convenience that a hydration system offers for drinking while on the go results in a much higher hydrated and dehydration headache-free hiker when the day is over, despite a bit of additional weight when compared to the plastic bottle-only approach. Adding a powdered energy drink mixture containing electrolytes and complex carbohydrates to your reservoir or bottle really helps as well. If using an inline filter with a hydration reservoir, carry an ultralight plastic soda bottle along as well for mixing things up. When you get to a water source, it can really help to "camel up" - drinking a healthy share of filtered or purified water before filling up your bottles / hydration system and then moving forward.

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Clothing

This one is pretty personal. Synthetic? Superlight wool? Even cotton for hot weather can definitely work, but after a few miles of hiking with a soaking wet shirt things can definitely become uncomfortable. And while this depends greatly upon your destination of choice, cotton can of course become extremely dangerous if the temperature were to suddenly drop or if you were in a hot day / chilly night environment. Our favorite approach is to wear quick-drying, fully synthetic clothing all around with a slightly loose fit to allow for a bit of airflow. Light colors are key; they will keep you much cooler in the sun but just as warm at night if needed. (Approach clothing colors in the opposite manner for cold weather) Sun protection is important, so a very light long sleeve shirt can be an asset. Personally, I can't stand long sleeves in hot weather, so I rely on a wide-brimmed hat and sunscreen if needed for forearm protection. Convertible pants allow you to switch to shorts to stay cool or pants for sun and brush protection. If in full pants mode, unzip the lower leg detachment point halfway with the opening facing the direction of travel - A great ventilation system. Synthetic socks that dry fast and won't hold onto moisture, along with breathable, non-waterproof shoes are a great asset as well. A wide-brimmed and breathable hat will offer shade for your face, ears, & neck. Apply sunscreen to any exposed areas not shaded by your hat and clothing - and don't forget the sunglasses. While the above are some of the points to consider, what works for you will obviously be key, and

with experimentation a solution for everyone can be found.

Insects

With the summer heat mosquitos, ants, and all other types of insects pick up their activity. An insect-proof shelter along with bug repellant really become key factors towards the enjoyment of any trip. So far as repellant is concerned, products containing DEET work very well, but

have a bad habit of destroying / melting certain materials like plastic, leading us to worry both about our gear the product might come in contact with and our health as well. We've tried natural repellants containing lemon eucalyptus oil, but our test mosquito subjects in the backwoods of Ontario didn't seem to mind the product too much - unless we reapplied every few minutes. We've had great success with products containing Picaridin, which won't hurt

your gear. Just make sure to obtain a product containing a 20% solution. At concentrations less than 20%, the repellant is not nearly as effective and cannot compete with DEET. If you're using long pants and sleeves to shield yourself from the sun, this will really help to create a barrier in the insect department as well. In camp, a smoky fire can help to keep the mosquitos at bay, though sitting around a fire on a hot night isn't always an appealing pastime.



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Other Considerations

During really hot weather, plan your day of hiking accordingly. Waking up early to beat the heat, with a lunch /siesta session during the middle of the day can be a great approach. Then push in the late afternoon and evening towards your final destination, the air cooling as you move forward. If you have a mind to sleep in however, morning comes early (And hot!) during the summer months. Setting up camp on the western side of a hill or ridge can give you another hour or so of sleep without the hot and bright sun beaming through your tent or shelter first thing in the morning. In level country, a tree or treeline can give you the same type of shade. Tossing and turning during the night because it's just so hot isn't any fun either. Avoid a winter-rated sleeping pad. Unzipping your sleeping bag and using it as a quilt (or simply using a summer quilt instead of a bag) can help with ventilation and allow for a comfortable night.

Obviously summer is one of the best times of year to be out on the trail, and you can do so with a much lighter pack than during winter months when much warmer clothing and more sturdy shelters are / might be required. Staying hydrated will be your number one goal, and usually water ends up being the heaviest thing in a summer pack. Mostly though, all that daylight leads to longer and greater explorations and trips to remember. Along the way you'll find a few interesting seasonal issues to

deal with like all that sun and the yearly flock of mosquitos chasing you along the trail. But with

practice and a good outlook, these issues can be easily dealt with. And with fall approaching, the mosquitos

should begin to dwindle, and crisp, cool nights are just around the corner. •



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It's easy to get caught in a breakfast rut during backpacking trips. Some people don't mind having the same thing every morning, but some of us like to mix it up with interesting flavors to start the day. Doctoring up some store bought or homemade granola is an easy way to do this without carrying much extra weight. Simply package into Ziploc bags at home, then at camp, add a small amount of water to hydrate the powdered milk.

I have not included measurements, as the quantity depends on your own caloric needs, and seasoning/sweetening is done to taste. For example, if you like additional sweetness or could use extra carbs, add some sugar or granulated honey. Protein powder can be added to any of these variations, but keep in mind it may alter the taste if you have a flavored powder. If you are dairy intolerant (or paleo or vegan), you can substitute regular powdered milk for a non-dairy variety such as coconut or soy.











You can also use these additions/toppings for oatmeal, grits, or other porridge... experiment at home and bring your favorites on your next trip. Hope you enjoy these, and feel free to share some of your own on our forum!

Super Berry Granola

Add to plain granola:

Powdered milk

Cinnamon

Freeze-dried strawberries, raspberries, blackberries, and

blueberries

Sugar/sweetener if desired

Chunky Monkey - personal favorite - inspired by Ben & Jerry's Chunky Monkey ice cream (Pictured left)

Add to plain granola:

Powdered milk

Banana chips

Walnuts

Dark chocolate chips/chunks

Pecan Pie

Add to plain granola:

Powdered milk

Pecans

Freeze-dried maple syrup

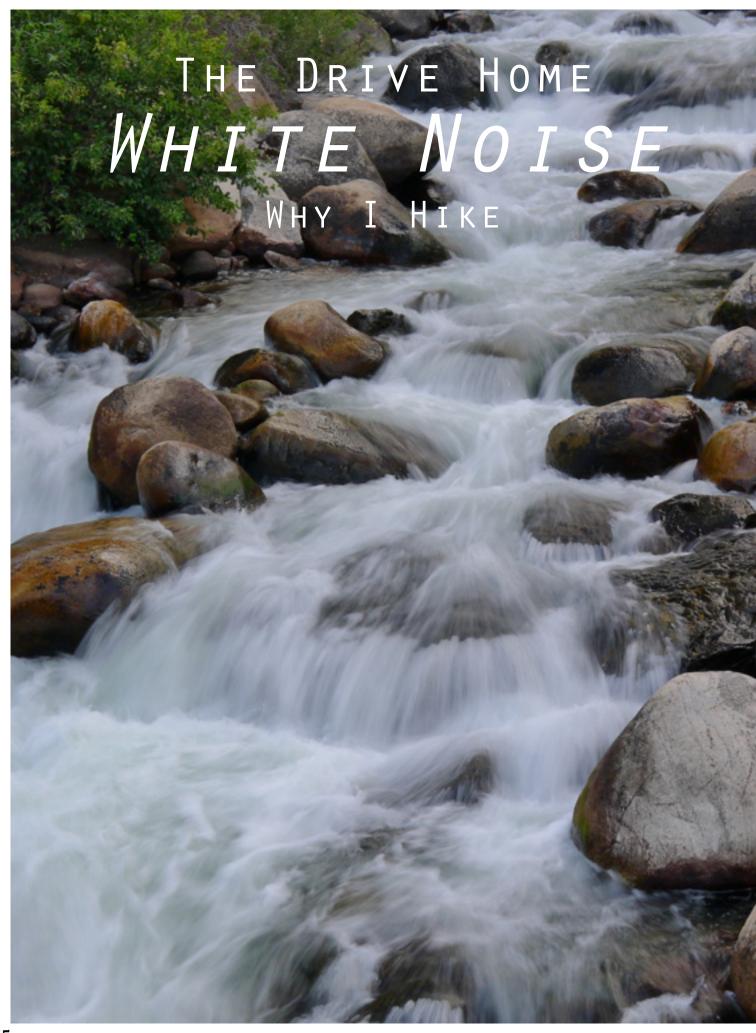
Peanut Butter Cup

Add to plain granola:

Powdered milk

Chocolate chips

Peanut Butter Powder (if you bring peanut butter on your trip, you can add a spoonful or two of this instead).



Often times in my life I've asked myself "Why am I doing this". Sometimes this has happened while I'm trying my best to get to the top of a mountain through days of bad weather, cold wet and hungry - Blistered feet and a heavy pack but still 2 days from a soda. Other times I've found myself out on a fishing trip where in an effort to find the most secluded part of a stream on a map, (Presumably with the largest fish) what I thought would be an easy stroll through a nice field turned out to be a slog through brambles and poison ivy or a thigh deep bog while holding a fishing rod. Of course, most trips turn out with just a few wrong turns and are overwhelmingly a great experience. Those few where everything seems to go wrong are still good trips - And I wouldn't trade them for anything. (Time heals all wounds) But I think one day when I hit that crux of a trip...One where everything did go wrong, I really sat down and asked myself why I was doing this, and if this made me happy. It wasn't an answer that came to me immediately, and it was something I pondered that night and the next day after making it back to the car. It's also something that I've thought about quite frequently ever since. The answer to that question was, and is, a resounding "Yes".

I didn't come to that conclusion from analyzing the trips gone wrong, but from taking a look at how I felt on those trips when you're just simply ecstatic that you're doing what you're doing "Between work, the television, radio, and yes... the internet, there isn't much time to just be and experience life as it comes at you without all the mental clutter."

- Miles from anywhere with no one but yourself, the trees, and perhaps a dog or your hiking companion to share that feeling with. Those are the kind of moments where bonds are really formed, between people or between people and place. In any event, I began to come to the realization that what I was after was "The Place".

In day to day life we find ourselves bombarded with data - And thoughts. Between work, the television, radio, and yes... the internet, there isn't much time to just be and experience life as it comes at you without all the mental clutter. Some may have a better ability to cut through that than myself, but for me the one place to always get away was in my hobbies. I've had a few over the years, from of course backpacking and hiking, to mountain biking, running, and a few more that are now nothing more than humorous memories of my past. All together though, I was after the same thing

with each one. And to some extent, each activity did allow for that escape and peace that I think a lot of us are seeking, and myself for sure. But the extent that each activity had towards achieving that goal was surprisingly different.

So which activity to choose? With something like mountain biking I would find myself on a trail right after work going through the singletrack as fast as I could manage. With a trail only a foot wide and at speed, this requires quite a bit of focus to keep from biting the dust. With this focus came that place I was after - The stress of work faded away and my mind became clear. I was focused with the task at hand, and if I let any of those other thoughts start to creep in I would probably crash. So I focused, and I still ride when I can and don't have the time to take a pack into the backcountry on foot. The problem is, the effect doesn't last that long. After my ride and even just starting to drive home... I might just start thinking about such things like a task I need to take care of at work the next morning. For me, it's a temporary fix. Sure, the solution would be to simply ride more, but that's not possible 24/7.

Backpacking is more of a commitment up front. It will take you longer to get ready, and probably longer to get to your destination of choice. After that you're spending at least a couple half days and a night out on the trail, or more if you're after more than an

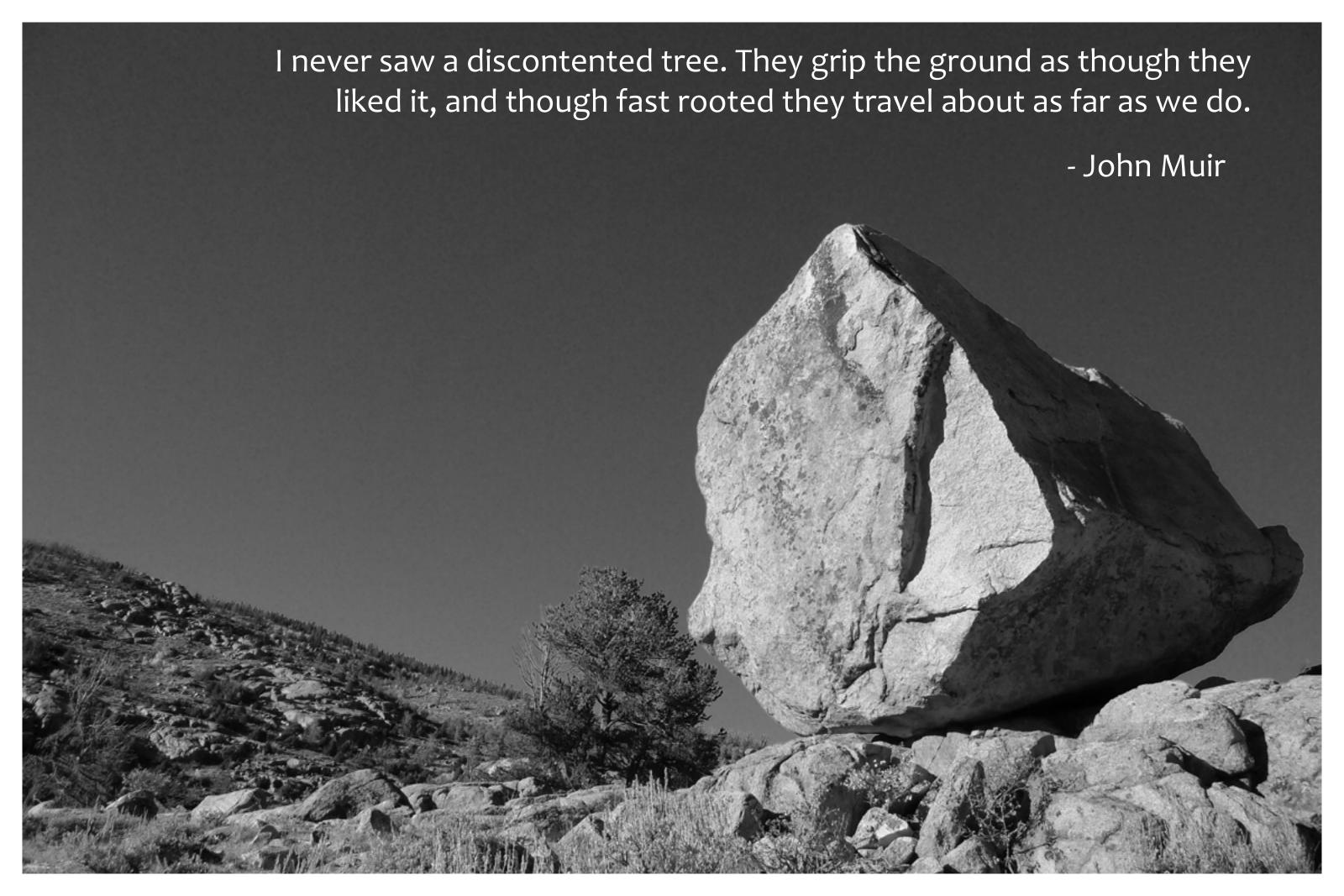




overnighter. But what I found was that my backpacking trips "Stuck" more than anything else. It usually hits me the first evening, once the light starts to fade and I'm enjoying the last of my dinner a few hundred feet away from camp (when in bear country). I'll then hang my bear bag and make my way back to the tent or shelter I pitched just prior to eating to settle in for the night - that's always a great moment and when the trip starts to set in. When it really hits is around day 3 of a longer trip though, in the same way but simply in a more intense manner. This is where I find myself laughing about that deadline at work - If it even makes its way into my mind.

Once to that point things stay with me on the way home, once I get home, and even for days or weeks afterwards. After a great trip there does of course come a time when I feel myself falling out of the groove, and that part of life that I thought I had escaped starts to creep back in. This is simply when another trip is in order. But if you stay outside often enough, that place just becomes a way of life. And that's the goal right? Hiking and backpacking just have a great way of putting things in perspective and showing you what's really important in life. What's important of course is different for everyone, but that's beside the point. What is important is to find that outlet in life that allows one to focus on what you want and need to see, not what's in the way. �





Note from the Editor:

No sooner had we completed writing the previous article than we struck up a conversation about this topic with one of our forum members (Gary M). His thoughts on the subject really resonated with us, and he agreed to let us share them with you. Enjoy!

I've wondered if others have really stopped and asked themselves the simple fundamental question, "Why do I love hiking?" "Why do I love it so?"

Now I'm sure you've been asked this by friends, co-workers, or family. You know, when you get back home or show up to work a bit ragged and torn up from the trail. You have that special look in your eyes and blisters on your feet. They ask, "Why do you do it?" And you probably have some kind of set answer; one perhaps that non-hikers just do not quite really understand.

But have you really seriously, honestly asked yourself this question? Why hike? There are plenty of other activities to choose from, and most do not involve so much dirt and sweat. Why not just sit around and watch other people do interesting things? Why not just download another "app" or checkout your iPhone? Is it simply that hiking is so interrelated with nature, or maybe something more?

Thoreau wrote that he went to the woods because he wanted to live deliberately. He wanted to live life to its fullest. That was in 1854, but what about today? I'm certainly not such a great poet or philosopher. And my two-story in suburbia with a mortgage isn't a cabin in the woods, so I'm not

up to Thoreau's standards. But I do know modern life is incredibly fast, complicated, and at times overwhelming. The question remains.... Why do I love it?

I go to the woods (or the trail in this case) not so much to live deliberately, but rather just to live! Hiking the woods or plains, the desert or mountains, is life affirming. To me, it's a complicated set of skills and actions which somehow get molded into simplistic joy. A type of joy I just can't find anywhere else. One

of my absolute biggest thrills is to be way out on a trail and to somehow stumble onto something special. Haven't you turned a corner, and there in the most remote and unlikely place imaginable you see it? Perhaps it's a wildflower, a tree, a unique rock formation, or an incredible view.

It seems almost as if it was placed there just for you. Just for you to discover and see something that everyone else has missed. Oh, you can get scientific and quote a theory to try to explain it. "Oh yes, that's the result of advanced evolution, or perhaps long term geological forces."

Not me! I just want to look and listen. I want to take it in for as long as I possibly can, to let it soak in deep. If you are willing to make the effort and open your eyes, it is absolutely incredible what plays out right in front of you. I do not want to go thru life without living it. Why do I hike? I hike to live!

- Gary Meyer







Check out our next issue (available the 1st week in September) at:

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