Hammock Camping 101

Preface: This document is intended to be an introduction to hammock camping for Scouts or leaders interested in exploring an alternative to tent camping.

About the author: Scott Strangfeld is an avid hammock camper who first started hammock camping in 2010 when invited to join a Scout troop to Voyageurs National Park. After some initial research of the area and camping conditions, Scott knew that the ground would be hard, rocky, and most likely damp. To make the trip as comfortable as possible, he started to research hammock camping and the spiral down the rabbit hole began.

Since that initial trip to Voyageurs National Park, with an entirely DIY hammock set up, Scott has not slept a single night on the ground. He has bought, made, tried, and used several different hammocks and insulation options in a variety of settings and has introduced many Scouts to this wonderful alternative to tent camping.



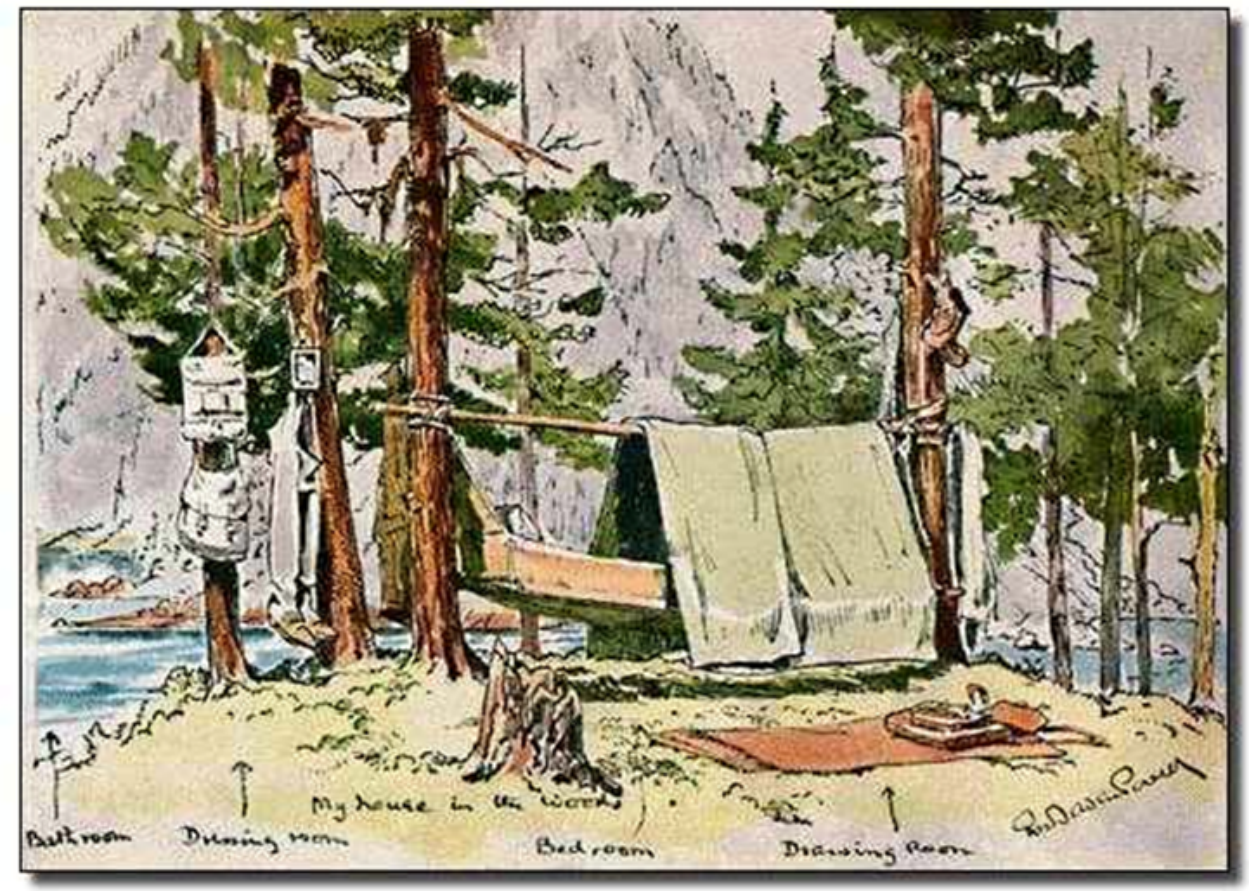
Scott Strangfeld's very first DIY gathered end hammock rig.

History

Hammocks and Scouting have a long-standing history. After Columbus discovered the Americas in 1492, he learned that some Native Americans used hammocks. When he returned to Europe, he brought hammocks with him. After Columbus introduced the idea of the hammock to the Royal Navy they began to use

them on ships to save much needed space. Not long after, hammocks were introduced and used in other branches of the Royal military.

While hammocks may seem as a relatively new idea in the Scouting world, it's origins stem from Lord Baden Powell's introduction to, use of a hammock during his time of service in the Royal Army. It is said that he introduced hammocks to scouting almost 100 years ago.



Lord Baden Powell's campsite site where his set-up is pictured as an Ashanti style hammock with a tarp draped over a ridge pole.

Safety

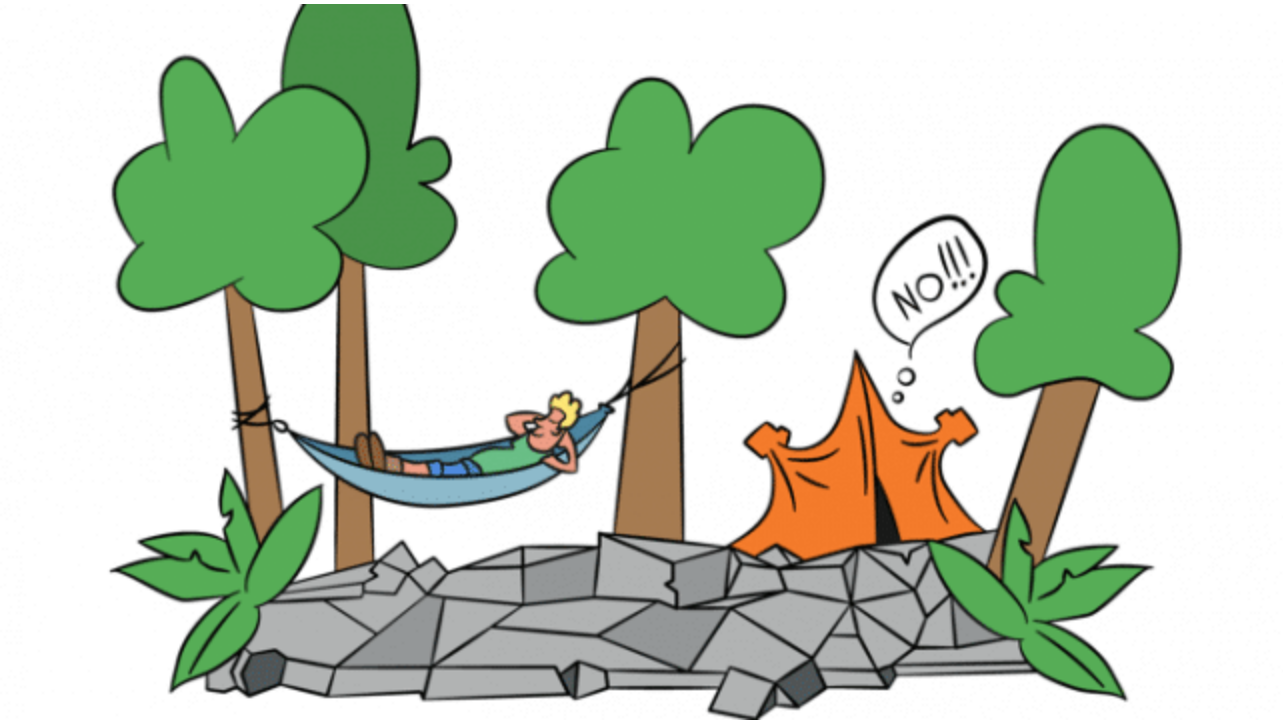
As with any kind of camping, there are many safety considerations when setting up camp with a hammock. Ensuring that your hammock set up is safe is of utmost importance to prevent injury to self and the environment you are camping in. Here is a short list of some of the guidelines to keep you and your environment safe.

- Never hang higher than you are willing to fall
    - The recommended safe height to hang your hammock is approximately 18" from the ground. This is about chair height and would provide for comfortable easy entry and exit of your hammock
- Be aware of widow makers
    - As with picking a spot for a tent, it is very important to look up at the trees for dead branches and to make sure the trees you plan to hang your hammock from are healthy and safe.
- One person per hammock
    - Many hammocks are marketed as double hammocks. This does not mean they are designed for double occupancy. They are oftentimes simply made with wider fabric making them seem double the width.

- Know the load limit of your hammock setup
    - Most hammocks have a load rating well beyond the actual weight of the person using them but oftentimes the load limit of the straps or suspension is overlooked. Know the limits of your entire setup.
    - After setting up your rig slowly add your body weight to it to test everything prior to adding your full body weight.
- Know and prepare for the weather as best as possible.
    - If possible Thunderstorm situations are known try to set up in lower areas away from taller trees.
- Refer to the resources page for more safety considerations

Why a Hammock?

Why not a hammock is the real question at hand. There will always be tent camping purists that will refuse to try hammocking and there will always be those that try it and it just isn't their thing but for those that fall in love with hammocking, there is no substitute.



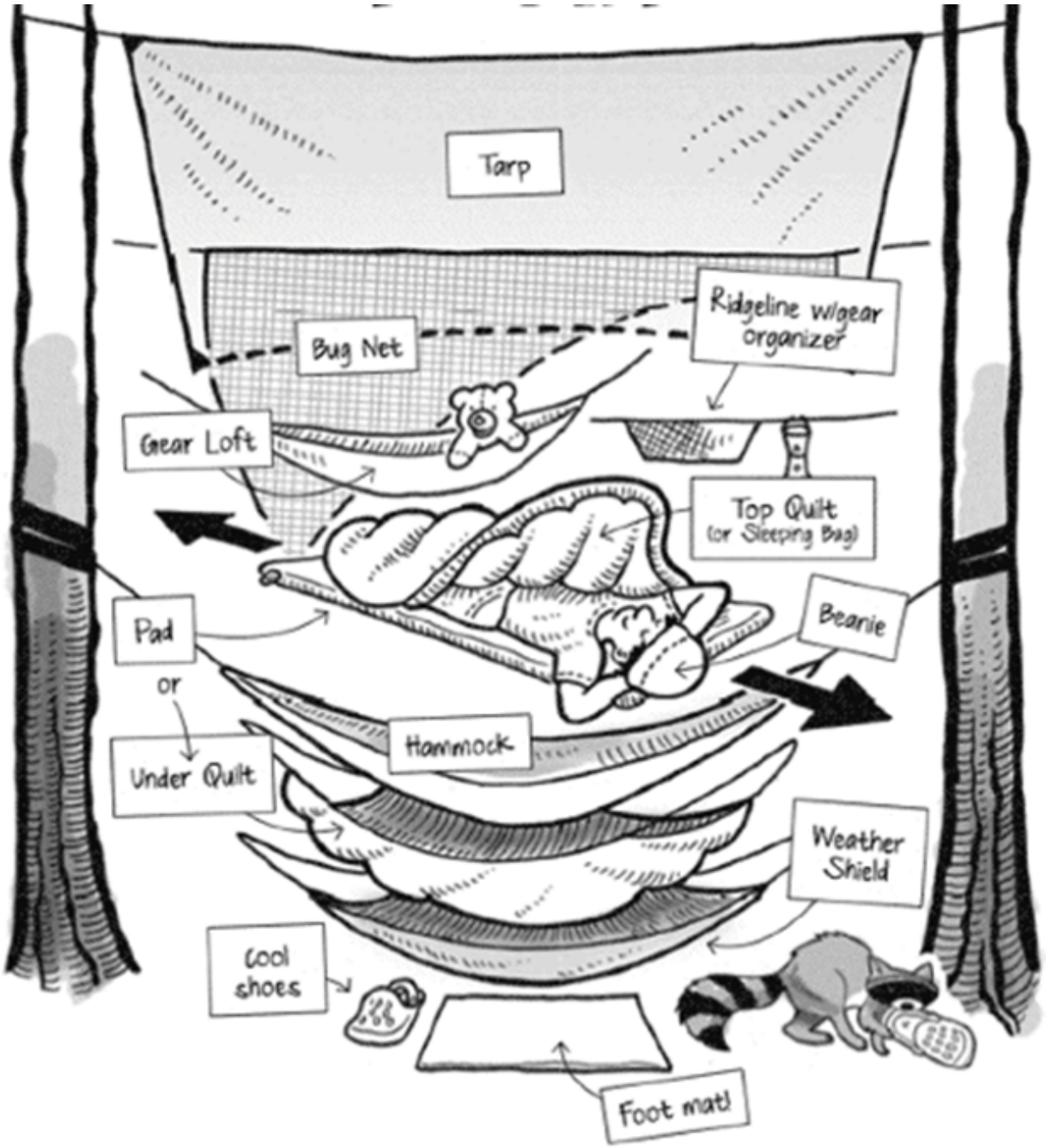
Look how comfortable the scout in the hammock is. Don't be miserable like the Scout in the tent

Much like tents, hammocks are a portable lightweight shelter solution. Hammocks are a very personal solo shelter which eliminates the challenge of choosing a tent mate of appropriate age. Added privacy can be achieved by using a tarp with doors or if in a long term camp such as scout camp, pitching a tent that would be for gear storage and changing clothes.

While a little cumbersome at first, hammocks can be very quick and easy to set up once one becomes more familiar with a hammock system. Once the comfort level with a hammock system increases, the process of not only setting everything up, but also packing everything away becomes second nature. The way a hammock system is packed away will oftentimes directly affect the set up time so take time to understand what helps to streamline the setup process.

Along with many other great reasons to use a hammock, hammocks, when used properly support Leave No Trace principles. Hammocks leave a much smaller footprint as compared to tents and are considered an excellent minimum impact shelter. The Leave No Trace Center for Outdoor Ethics endorses hammock usage and has several LNT tips on their website.

Hammock Rig Components



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A hammock rig consists of as many or as few components as one wishes. The basics are, of course, a hammock, a tarp, and insulation. Beyond the basics there are different types of suspensions, fixed or adjustable structural ridgelines, and bug nets. Even further beyond the basics there are convenience components such as foot mats or ground cloths, ridgeline organizers and gear slings.

Most new hammock campers will start with hammock straps with multiple loops for easy adjustments. As the setup is fine tuned many venture into lightweight straps with hardware such as cinch buckles or for

those that enjoy knots a hardwareless system. Many backpackers will employ some type of titanium hardware in their system to help cut weight. Regardless of the suspension type settled on, make sure straps are a minimum of 1” wide to prevent damage to trees

In areas such as Wisconsin, when the weather is warmer and mosquitoes are ever present, bug nets are highly recommended. There are essentially two kinds of bug nets, one that is attached to the hammock or integrated and a separate bug net that can be removed in the shoulder season and winter when there are no bugs. Bug net style selection is a matter of personal preference and often comes after trying both styles.

Choosing a Hammock

Many hammocks on the market are not suitable for a truly comfortable camping experience. Before selecting a hammock one must determine what style best suits them. Most will find that one of many gathered end hammocks available will be their hammock of choice. For those that are typically stomach sleepers, a bridge style hammock may be better.



Typical gathered end hammock

When selecting a gathered end hammock start by looking for a hammock that is no less than 10’ long. This will ensure that a proper diagonal lay is achieved leading to a more comfortable experience. The taller the individual the longer the hammock should be. Typically, for a person that is 6’ tall or taller an 11’ hammock may be more comfortable. The same general guidelines apply to the hammock width. Many hammocks are marketed as single or double hammocks. This is not in reference to single or double occupancy. As with the length of the hammock, taller people may find more comfort and an easier time getting a flat diagonal lay in a wider double hammock. Single hammocks are typically in the 50” to 60” range and double or wide hammocks are 65” and up.

If you are a stomach sleeper a bridge hammock may be a better option as opposed to a gathered end hammock. In some cases side sleepers find more comfort in a bridge hammock as well. Bridge hammocks are designed with poles on each end that help provide a flat lay along the length of the hammock instead of having to lay at an angle like in a gathered end hammock.



Eno Eagles Nest SkyLoft Bridge Hammock

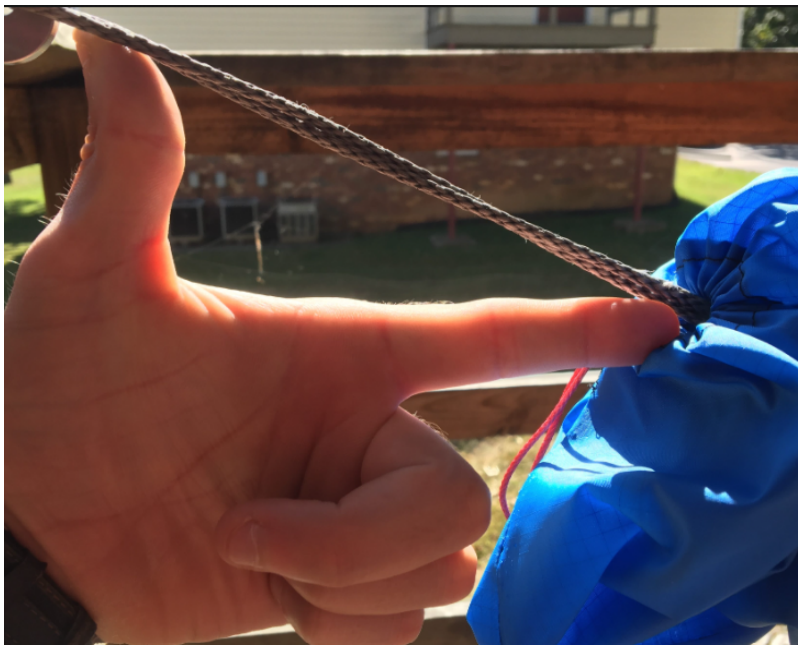
Note: The remainder of this article will apply to gathered end hammocks.

Finding your comfort spot

When seeking ultimate comfort in a hammock there are many factors that come into play. The two main ones are the proper “hangle” and a proper diagonal lay.

Hangle

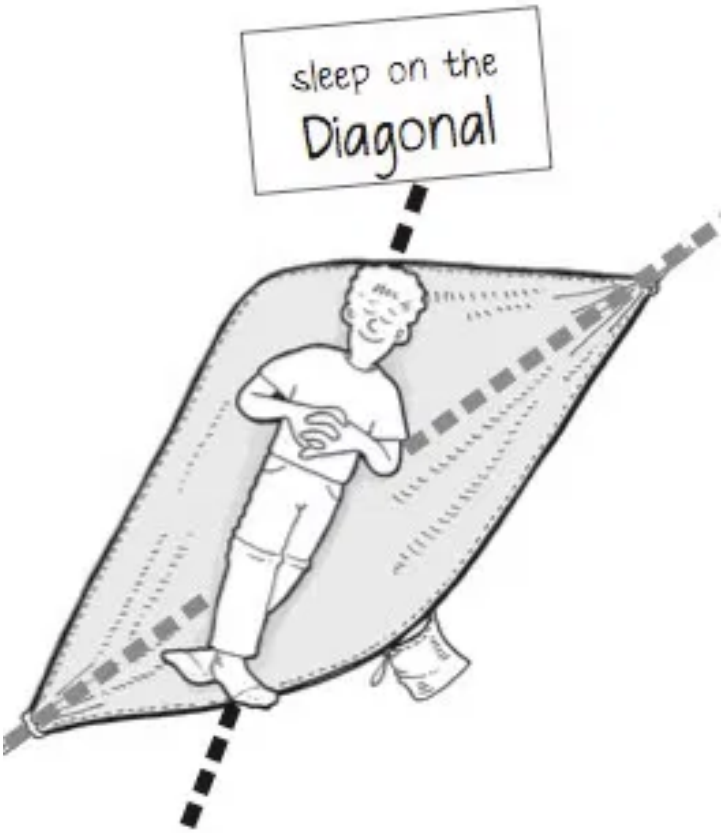
When hanging your hammock, to get the proper “hangle” or angle of the hammock relative to the trees that you are hanging from, look for trees that are approximately 13’-15’ apart. Attach your straps, that are at least 1” wide, to the trees about 6’ high. Make sure the trees you are hanging from are of the appropriate size. A good rule of thumb is the trees should be about as big around and your thigh. With your tree straps attached securely, attach your hammock suspension to the straps and adjust so that the straps form an angle of approximately 30 degrees. A good measuring tool is to form a lazy L with your thumb and forefinger as shown below. With your forefinger parallel to the ground the line from the tip of your finger and thumb is approximately 30 degrees.



While working to achieve this angle most hammockers find that hanging the foot end of their hammock about 12” higher than the head end will prevent sliding to the center of the hammock creating a cramped situation.

Diagonal Lay

Once the proper “hangle” is achieved it is time to get comfortable. Many will crawl into their hammock and lay straight or parallel with the length of the hammock. This may work for a short time or just leisurely hanging around but for an overnight many will experience pain in their knees due to over extension. The best way to combat this is to turn your body at approximately a 20 degree angle across the hammock as shown in the illustration below.



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By turning your body at an angle you will be able to flatten out in the hammock and reduce the amount of overextension in the knees. If there is still some discomfort in the knees this can quickly be solved by placing a rolled up jacket or a small pillow under the knees.

Tarps

As with most of the other components of a hammock setup, tarp selection is greatly a matter of personal preference. When looking for a tarp there are many shapes, sizes, and materials to choose from.

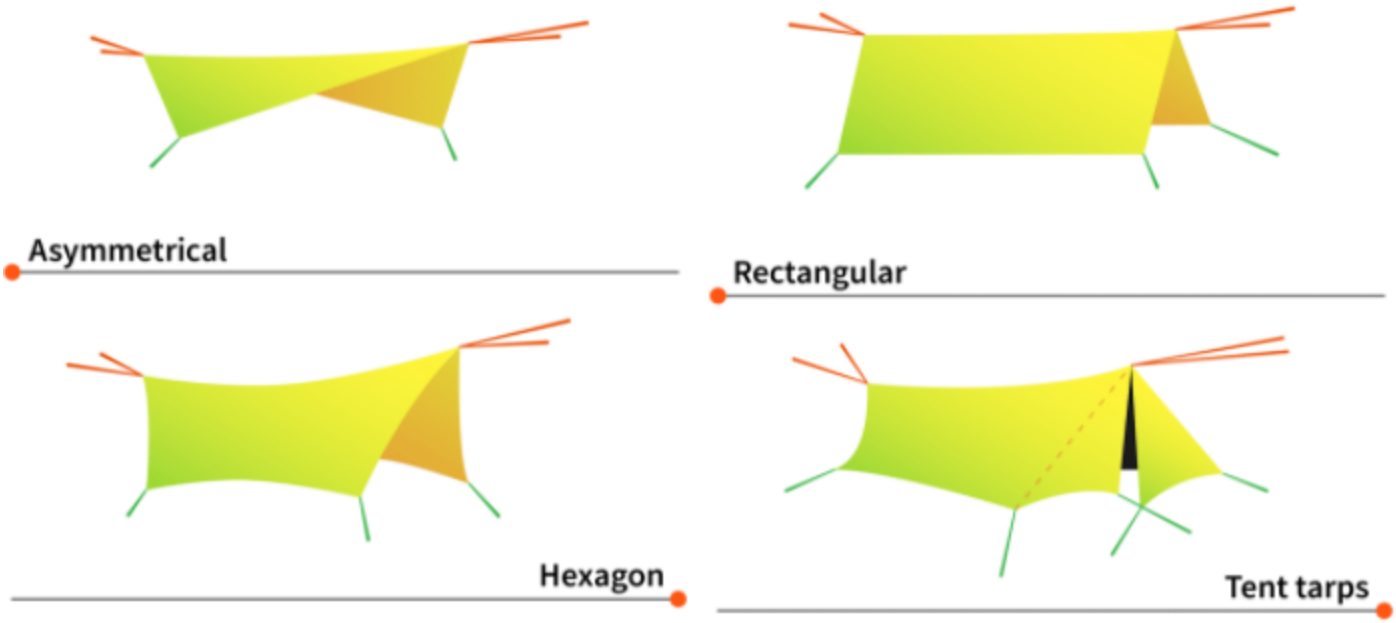
The basic hammock tarp shapes are asymmetrical, hexagon, rectangular, and tent tarps or tarps with doors. These tarps all come in various materials as well. The most common are Nylon and Polyester. These materials will usually have some kind of waterproof coating or will have been made with pretreated thread to provide a durable waterproof tarp. On the high end of the spectrum there is a material called Dyneema Cuben Fiber. Dyneema Cuben Fiber is very light weight and very durable. It is also very expensive but often worth the extra cost for through hikers and distance backpackers.

Asymmetrical tarps are typically used with asymmetrical hammocks. These tarps are designed to hang in the same direction as an asymmetrical hammock to provide the best coverage without a lot of extra fabric. They are typically a little lighter than a rectangle or hex tarp.

Hexagon tarps are just as the name would imply, they are cut in a hexagonal shape. These tarps are at times preferred to rectangular tarps because they are slightly lighter and still provide good coverage. Hexagon tarps can typically be used with both asymmetrical hammocks and straight gathered end hammocks.

Rectangular tarps are by far the most common tarp on the market. Rectangular tarps are very versatile and can be hung in a variety of ways for whatever suits your needs. They can be hung with the long length parallel to the t ridgeline for maximum coverage or with the short length parallel to the ridgeline for less coverage and better airflow. They can also be hung in a skewed manner to better hang with an asymmetrical hammock. Depending on how the tie outs are positioned on the hammock it is also possible to tie them out with a door on each end.

Tent tarps or tarps with doors are often used in colder weather when cutting down on airflow is important. Some tent tarps have a means to tie the doors back so that they can be hung similar to a hex tarp. Tent tarps are also great for situations where one may want to create more privacy and the extra weight of the larger tarp with doors is not an issue.



Four basic tarp shapes

With all of these tarp configurations, you will need to have a continuous ridge line to hang the tarp from. A continuous ridge line can typically be any kind of rope or cordage that has minimal stretch. Many hammocker use a 1.75mm or 2.2mm arborist throw line for their continuous ridgeline. These lines will be sufficient to hang your tarp either above or below the ridge line. Hanging above or below the ridgeline is another matter of personal preference. Some would argue that hanging your tarp above will cause excess wear on the tarp from rubbing and others would argue that hanging below can create too much sag in the tarp. One of the only situations that would require hanging below the ridgeline would be if you had a catenary cut tarp. The specific cut on the ridgeline of these tarps requires attaching to and hanging from below the continuous ridgeline. In either case you will also need to have a means to attach the tarp to the ridgeline and to be able to stretch it taught. This can be done with various types of hardware or with cordage and knots such as a taut line or a loop that is tied to the ridgeline with a prusik knot.

Insulation

One of the major advantages of hammock camping in the hot weather is that there is often an abundant amount of airflow all around your body that helps cool you. On the contrary, this can be a significant downfall when the weather cools off. In cooler temperatures, without proper insulation one may experience CBS or Cold

Butt Syndrome. As one might assume, CBS occurs when there is cooler airflow around the bottom side of the hammock and there is not an insulation barrier to prevent heat loss. As a general rule, when the overnight temperature starts dipping below 50 degrees F insulation should be used. The most common types of insulation used are under quilts, top quilts, sleeping bags, and sleeping pads.

Many first time hammockers will want to crawl into a sleeping bag then into their hammock thinking they will stay warm just like they would in a tent. While this is true to an extent, because the insulation of the sleeping bag is getting compressed in the bottom of the hammock the insulation value is greatly diminished creating little to no barrier from the cold resulting in CBS. The best way to avoid this is to use an under quilt.

Under quilts are essentially an insulated blanket that is hung from the hammock suspension by a length of shock cord which allows the quilt to move with the hammock. The advantage of the under quilt over a sleeping bag in the hammock is that with the under quilt being suspended and being able to move with the hammock, the insulation does not get compressed and is able to insulate as it is intended. A properly suspended under quilt will have a slight gap between the quilt and hammock when you are laying in it. This may require some assistance from a friend to help adjust the quilt suspension while you are laying in the hammock. Once you get the under quilt adjusted properly and are able to fine tune it after a couple of uses, this adjustment will not need to be changed.

Under quilts can be purchased from one of many cottage vendors found online or if you are handy and somewhat adventurous there are many DIY options to explore. When selecting an under quilt, much like sleeping bags, there are two types of insulation, synthetic or down. Down is often most preferred by backpackers because it is lighter weight and more packable than synthetic insulations. A big advantage of synthetic insulations is that they will typically hold some of their insulation value if they get wet where as down will completely fail if wet. Also like sleeping bags, quilts are made in a wide variety of temperature ranges so when doing your research plan accordingly.



Image shows an properly hung ADVENTURE UNDER QUILT 2.0 from Go! Outfitters (hex tarp in the background)

An alternative, while not highly recommended, to under quilts is to use a sleeping pad in the bottom of the hammock. A foam sleeping pad, slightly under inflated inflatable pad, or a piece of Reflectix insulation can be placed on the diagonal that you will lay at and will provide a barrier from the cold under the hammock but they tend to shift as you move in your sleep and can surprise you with a case of CBS in the middle of the night. If a pad of some sort is preferred, the best option for this method is to insert the pad between the layers of a double layer hammock.

Top quilts are the second main part of the equation to staying warm in a hammock. Much like the under quilt, the top quilt is essentially an insulated blanket. Most top quilts are made with a foot box that is either permanently sewn in or achieved with shock cord and fanteners. To use a top quilt the feet and lower legs are slipped into the foot box and the remaining portion of the top quilt becomes a blanket that can be tucked in around the shoulders. Just like the under quilts, top quilts are made with two insulation types and in various temperature ranges. If you already have a good sleeping bag, a top quilt may not be needed. A partially zipped sleeping bag will create a foot box just like a top quilt and can then be pulled up over your body like a blanket.



Image shows both sides of a Hammock Gear Burrow top quilt

The most important considerations when choosing hammock insulation is to plan cold enough and do not compress your insulation.

Closing

With this basic information you should now be able to seek out the basic elements of a comfortable safe hammock rig that will possibly start you down the rabbit hole of hammock camping. As with any outdoor activity please alway remember to be respectful to others and the environment and have fun.

I'd like to express a special thank you to Derek Hansen, author of "The Ultimate Hang" for giving permission to use some of the illustrations from his book. Derek is a former Scoutmaster and one of the most influential hammock advocates known. His book is both entertaining and incredibly educational. Check out the resources page for a link to his website and where to buy his book.

Hammock 101 resources

BSA Scouting Safely - Hammock Camping
https://www.scouting.org/health-and-safety/safety-moments/hammock-camping/#:~:text=Hang%20hammocks%20in%20secure%20locations,stack%E2%80%9D%20hammocks%20one%20above%20another.

Eno General Safety Information
https://eaglesnestoutfittersinc.com/pages/safety-instructions

Eno Responsible Hammocking
https://eaglesnestoutfittersinc.com/pages/responsible-hammocking-1

Leave No Trace Skills: Hammock Camping
https://lnt.org/leave-no-trace-skills-hammock-camping/

Derek Hansen - Author of “The Ultimate Hang”
www.theultimatehang.com
Derek’s Book
https://www.amazon.com/Ultimate-Hang-Hammock-Camping-Illustrated/dp/1478351187/ref=sr_1_1?dchild=1&keywords=The+Ultimate+Hang&qid=1616790734&sr=8-1

Ridge Outdoors Camping Hammock with Mosquito Net- Pinnacle 180 - very good starter hammock with integrated bug net.
https://www.amazon.com/Mosquito-Ultralight-Carabiners-Structural-Ridgeline/dp/B088SF1N1W/ref=sr_1_7?dchild=1&keywords=Ridge+Outdoors&qid=1616790952&sr=8-7

DIY suppliers
Ripstop by the Roll - https://ripstopbytheroll.com/

Dutchware Gear - https://dutchwaregear.com/

Budget quilts
Hammock Gear duck down under quilts - https://hammockgear.com/economy-under-quilts/
Hammock Gear duck down top quilts - https://hammockgear.com/economy-top-quilts/