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Basic Navigation in Forest
Tips and tricks

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Perspektif

TIPS AND TRICKS OF BASIC NAVIGATION IN FOREST AREA

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In many incident scenarios, being able to navigate with a map and compass is crucial. Map and compass skills are still necessary even with modern technology, such as Global Positioning System (GPS) receivers. Practise and expertise in navigation skills lead to confidence. This confidence level frequently affects how an individual performs in a crisis, which may need making life or death decisions. Although it occasionally happens, becoming lost is not the goal of navigation; rather, it involves tracking your position as you travel away from a known location. You must keep an eye on the landscape you are leaving behind, the territory you are passing, and the terrain in front of you as you travel. Knowing your starting location, destination, and path in the wilderness is essential for navigation. With these abilities, you'll be able to travel further than you ever imagined off the usual route.

You will need to use known human pathways, ridge lines, streams, dry riverbeds, or wildlife paths because the jungle and many rainforests are so dense. This is acceptable if your intended path of travel is traveling in the same direction, but this isn't the case most of the time. The inability to move in straight lines makes navigation more challenging.

At night, avoid using any established trails because animals (predators) will be using them. Instead, travel during the day. Be prepared to take a meandering path that will need you to travel twice as far as you would have if you tried a straighter route (of course, on clear, easy terrain). In the dense jungle, it is impossible to try and take a direct path.

What can I do if I lost in the jungle?

If you are lost in the jungle, the first thing that you should do is to remain calm. Any body of water with a downstream flow can be followed by a lost navigator in the forest to eventually return to civilization.

However, not all civilizations are amicable in nature. Additionally, areas such as jungles are generally not accurately mapped because heavy vegetation makes aerial surveys difficult. The ability to observe terrain features, near or far, is extremely limited. The navigator must rely heavily upon his compass and the other navigation techniques when moving in the jungle. Thus, there are a few tips and tricks if you want to navigate in the jungle.

First, *Individual Pace Table*. Your average pace count per 100 metres for each of the many types of terrain you are likely to travel through should be included in a digital (like in a smart watch) or written personal pace table. Then on each measured course count your paces (every time your left foot touches the ground or every 2 steps = 1 pace). Pace count is the most accurate method of determining distance in a dense jungle when it is not always possible to see landmarks to track your position. It is the sole technique that enables a navigator to gauge how far he has come. He can determine his current location using this information.



Figure 1: A pleasant footpath through the green tunnel of the Appalachians. (Source: Andrew Skurka, 2023).

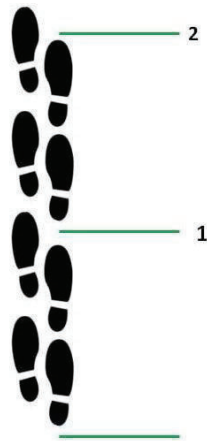


Figure 2: Two steps equal to one pace count. (Source: SectionHiker.com, 2023).

Second, **Using Indirect Fire for Resection**. A safe distance from your estimated location, call for mortar or artillery fire (airbursts of white phosphorous or light) on two grids that are far apart and not on any topographical features like the one you are in. Sometimes sound must be used to determine where the airbursts are. This technique usually practices by military, but common navigator also can try indirect fire by using light smoke from small branches and twigs.

Third, **Modified Area/Point Navigation**. Even when using the compass primarily for 'dead reckoning', you can usually area navigate to an extended objective that is clearly visible by landscape association. Then, just create a brief, point-navigation leg to get you to your destination. Dead reckoning's "dead" comes from the acronym "ded.," which stands for "deduced." It is reasoning-based navigation. It does not imply that navigating is always dangerous.

It is an estimated location and a helpful means of avoiding getting lost. The range of uncertainty is reduced.

The rule of three's

In navigation, you need to know the rule of three's. You have *three seconds* (refer to *mind*) to determine whether to run away or deal with an immediate threat. The average amount of time you can survive without breathable air is *three minutes*. You have *three hours* to find shelter before you start to experience hypothermia (cold) or hyperthermia (heat)-related death. The maximum time before dehydration can cause you to die due to a lack of water is *three days*. The amount of time until you are unable to perform any daily tasks because of a lack of food is *three weeks*. And, hopefully, you have *three months* before a serious depression overtakes you without you having met anybody else.

Utilizing survival skills: Finding shelter and water

Finding shelter and water is the priority when you are stuck in the jungle's merciless embrace. Making a temporary shelter out of the available natural materials can protect you from the weather and give you a semblance of protection because the dense vegetation offers a variety of potential risks. To build a cheap but sturdy shelter that keeps you off the ground and out of the elements, look for huge leaves, branches, and vines. It is crucial to find water and assure its potability because water sources may be sparse and contaminated.

Start by looking for indications of water, such as convergent animal tracks, dense foliage, or low-lying places. To prevent water infections, filtering and purifying techniques like boiling or using purification tablets are essential. Do not, however, drink it right away. You can improve your odds of surviving the challenges of the jungle and raise your chances of being rescued by becoming an expert in certain survival techniques.

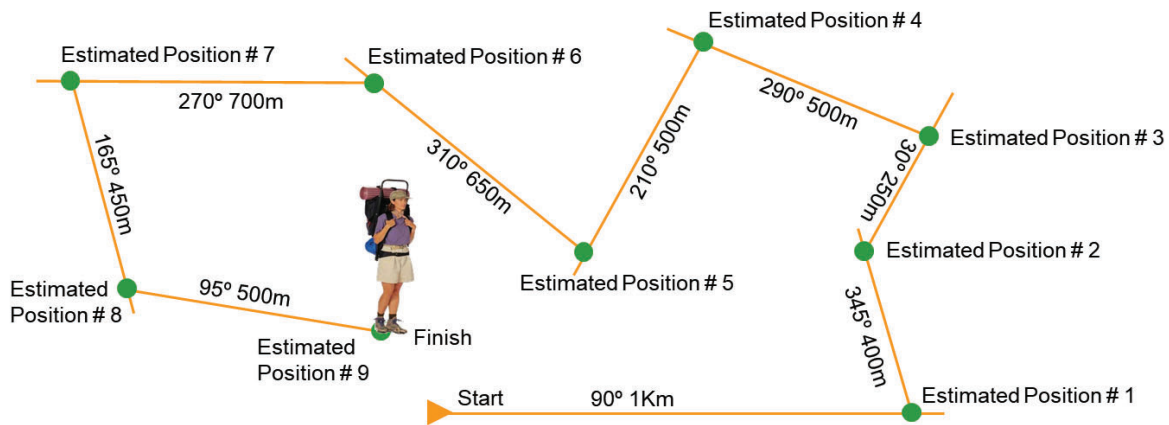


Figure 3: Using dead reckoning in navigation (Source: Expert land navigation)

Navigation and help signalling: Rescue advice

The key to your rescue in the middle of the perplexing jungle can be found in your ability to navigate sensibly and signal for assistance. Start by orienting yourself using the sun's position, the direction of the water, or the prevailing winds. These clues might offer a sense of direction and help one stay on course. Your inventiveness becomes your ally when it comes to signaling. Create eye-catching signals by flashing sunlight in the distance using reflecting surfaces like mirrors or even the screen of a smartphone, if accessible. You can also improve your visibility from the air by making obvious ground signals with rocks or leaves that contrast with the surroundings. Keep in mind that staying stationary in one spot generally increases your likelihood of being discovered rather than randomly exploring new terrain. Understanding these methods and exercising patience will greatly increase your chances of being found and saved from the treacherous jungle terrain.

Food foraging: Basic hunting and edible plants

Food security becomes a top priority in the challenging jungle environment, making the ability to recognize edible plants and use simple hunting techniques a vital advantage. Observe the local wildlife to learn how to discern between edible plants and possibly toxic ones. If animals consume a certain plant without experiencing any negative effects, it is usually safe for human consumption. Bananas, coconuts, and some berries are examples of staple foods that can be nourishing. Additionally, learning the basics of hunting might be a source of protein. Be patient while hunting because quick movements can scare off prospective wildlife. Instead, make simple traps out of wood and vines. Always prioritize your safety and reduce unnecessary risks when sourcing food because some jungle species are poisonous or hazardous.

Keeping mental resilience: Overcoming fear and isolation

Maintaining mental toughness becomes a major problem while stranded in the maze-like embrace of the jungle, needing coping mechanisms for loneliness and dread. Adopt mindfulness practices like meditation and deep breathing, which can help you focus on the present moment and reduce anxiety, to keep your spirits up. Drawing motivation from stories of people who have survived might help strengthen your resolve. Making tools or organizing your shelter are two examples of productive habits that not only help you practice your survival abilities but also give you a feeling of purpose. The symphony of sounds in the jungle can be a companion, fending off loneliness; learn to listen and recognize the many calls to strengthen your sense of place. You may overcome the psychological challenges of loneliness and fear by adopting these mental coping mechanisms, which will ultimately increase your chances of surviving until help arrives.

Reference:

National Wildfire Coordinating Group (NWCG) Committee. (2016). Basic Land Navigation. Great Basin Cache, National Interagency Fire Center, Biore, ID. 1-172.