

SURVIVAL KNIVES:

A strong knife is the survivor's best friend. Not all knives are created equal. Utility and strength are the hallmarks of any survival knife.

It **MUST** have a full tang; the portion of the blade that extends into the handle for maximum strength.

A knife with full tang has a blade that is one solid piece from the tip to the butt of the handle. The design is standard for all GI-issue knives as well as high-quality civilian models.

A survival knife also has saw-teeth cut into the back, or "spine" of the blade opposite the cutting edge. These are not designed to saw through branches but to cut shallow, squared grooves into wood and bone.

A shallow groove cut into two sides of a sapling will prevent a tied rope from sliding along its length, and sharp sided notches are vital to the construction of quality snares and deadfall.

Its handle should ALWAYS be contoured to fit its user's hand and should ALWAYS have a grooved, checkered or knurled surface.

A smooth handle is slippery when wet or while the user is wearing gloves, making the knife hard to get a grip on and dangerous.

The knife should also have a wide finger-guard that extends beyond the blade in either direction. This will prevent the hand from sliding over the blade if a slip should occur.

Finger-guards on some newer survival knife have a flat and cross-point screwdriver tip ground into either end.

The butt end of the handle should terminate in a solid, heavy, and firmly attached butt cap. The butt cap is meant to be used as a hammer, and **MUST** be equal to the task.

One survival knife; the Imperial Schrade M-7S, has a unique buttcap that's squared on 3 sides for hammering and has a claw-type nail puller and ice claw on the forth.

It's **important** that the blade have a "false" or unsharpened edge running 2 or 3 inches along the spine and down to the tip.

The false edge is not usually sharpened because its purpose is to penetrate rather than to cut.

Having a false edge makes the blade terminate in a needle-like point, very useful for drilling holes in wood, bone or leather.

Before buying a survival knife, give some consideration to the type of ground edge it has. Sharpness at this point is not important, but the shape of the edge itself is.

THERE ARE 5 BASIC EDGE TYPES:

They are saber-ground, flat-ground, hollow-ground, semi-hollow ground and diamond-ground. The ground edge is what determine how strong the blade is and how sharp it can be made.

Until recently the saber ground edge was the standard for survival knives, military blades and bayonets and in general still is. But now the new US Army M (Field knife made by Buck) has a semi-hollow ground edge.

The saber-ground edge is shaped like a V, beginning about half way down the blade and ending in a point at the cutting edge.

It is difficult to sharpen because the entire surface of the ground edge **MUST** be honed down to make the point formed at the cutting edge sharp.

It also dulls rather quickly regardless of how hard the steel is because the V formed by the edge is wide. (The narrower the V, the sharper the edge.)

The advantage of the sabre-ground edge is that the maker need remove only a minimum amount of material from the blade, leaving fully half of it at full thickness.

The result is a blade that it can with practice & work, be made sharp enough to shave the hair off someone's arm while retaining enough brute strength to withstand the abuse of being used a prybar, wedge, or climbing tool.

The legendary Marine Corps K-Bar Fighting knife and the USAF Pilot's survival knife have saber-ground edges.

The flat-ground edge is similar tooth V formed by the sabre-ground edge, except that it begins at the blade's spine and ends at the cutting edge giving the entire blade a sharp "V" shape.

A flat-ground blade is necessarily wide in comparison to its thickness but can be honed to razor sharpness with little trouble and retains a functional cutting edge very well.

It is not as strong as the sabre-ground edge because more steel is removed when the edge is formed, but many experienced woodsmen have been willing to make the sacrifice.

The Trailmaster, a large Bowie knife from the Cold Steel company, has a flat-ground edge, as do many folding knives.

The hollow-ground edge is the sharpest of them all. This is the edge found on straight razors and a few fillet knives.

It is formed by grinding a wide groove along the length of the blade on either side, beginning at the spine of the blade and ending at the cutting edge.

Unfortunately, so much metal is removed from the blade to form the edge that it becomes downright weak. Consequently, no companies are making a hollow-ground belt knife and it is just as well.

The semi-hollow ground edge is another matter. This edge has such a strong following that is can be found on nearly every hunting knife ever made.

It is formed by grinding a groove length-wise along either side of the blade, much the same as the hollow-ground edge.

The difference is that the semi-hollow edge has a much smaller radius, beginning only halfway down the blade and ending at the cutting edge.

This leaves half the blade a full thickness to maximize the strength while narrowing the cutting edge into a sharp V that will take and hold a very keen honed edge.

Because of the advent of superior alloys and heat treating methods, this edge is gaining still more popularity among survivalists & professional woodsmen for whom a broken knife is not just an inconvenience but a serious problem.

The Gerber BMF Survival knife, US Navy UDT knife and the Buck M9 Field knife have semi-hollow ground edges.

The last type or diamond-ground edge is unique to double-edges knives & daggers. Essentially a saber-ground edge that has been duplicated on what would otherwise be the spine of the blade, it produces a second cutting edge.

However this edge can not be made sharp and is inherently weak because so much metal is removed from the blade. Better to stay away from that type of knife is our advice.

BOWIE-TYPE SURVIVAL KNIFE:

The Rambo type has the characteristics that distinguish the Bowie from other blades' types is its wide, thick blade, good balance, heavy finger-guard and a long false edge.

Today there are at least a dozen hollow-handle survival knives on the market, proof enough that the design has following among outdoorsmen.

At first glance it appears to be a wonderful idea to use the handle as a storage place for survival items, until one **REMEMBERS** that that's where the tang should be.

Hollow knives have no tang to speak of because the blade mounts to the handle rather than running through it. The design quite virtually takes the backbone out of the knife, making it prone to breakage during hard use.

I suggest that anyone in the market for a serious survival knife that carries its own emergency items give some consideration to knives like the Imperial Schrade M-7S or Gerber BMF.

Both of these offer the strength of a full tang and come with sheath pouches containing compass, matches, wire-saw and fishing tackle.

Having said that, we recommend that anyone who still wants a hollow-handle knife purchase the Buckmaster made by Buck Knives.

The so-called "blood grooves" still found on many blades including the legendary K-Bar **should be avoided**.

Folded knives have little value as general duty survival knives because, like hollow-handle knives, they have no tang.

Still the folding knife has a place in the survivalist's kit. The large size and brute strength of the general survival knife, so desirable for building shelters, butchering large animals, and a host of other heavy chores, work against its delicate tasks.

Fashioning wooden implements and sensitive snare triggers and filleting fish are best accomplished by smaller, thinner blades. For these and many other light duty chores, we recommend any good 3 blades stockman knife. Personally I love the Swiss Army knife.

Choosing a survival knife with so much variety of brands, sizes and styles can be a confusing experience.

The following list is a list of what we feel are the 5 best survival knives on the market today based on hard experiences and not on specifications or manufacturer's claims.

They are listed in order of preference with their average retail price even though this may change a lot as the years go by or by countries.

Imperial Schrade M-7S = \$50.00

USAF Survival Knife = \$30.00

Buck M9 Field Knife = \$100.00

Gerber BMF = \$150.00

USMC Combat knife = \$40.00

FIRE STARTING TOOLS:

Matches are something every woodsman **MUST HAVE AT ALL TIMES**. Used carefully, a single book of matches is capable of starting 25 fires; 2 books = 40 fires.

Assuming that the survivalist is walking back to civilization, at that the average person can walk 25 miles a day, if he makes a new campfire each night and does not waste any matches, he will have to walk 500 miles before exhausting a single book.

Wooden "strike anywhere" safety matches offer the advantage of being hotter burning and less apt to be blown out by a breeze but these can be quite volatile often igniting against themselves.

Many a woodsman, myself included, has had the unpleasant experience of having a pocketful of these little wonders ignite from rubbing against one another. **So ALWAYS carry them in an airtight container.**

The newest breed of wooden matches is a bit safer. They are equally to being blown out, but will only light when struck against the igniter strip on the side of the box they come in.

These can be carried in a match holder, pill bottle or even wrapped in a plastic sandwich bag as a protection against moisture, but they are useless unless a section of the igniter is included.

Disposable butane lighter are one of the many modern technologies most of have come to take for granted.

A single Bic type lighter is the equivalent of about 100 books of matches and has the advantage of being impervious to water. If it becomes dunked all one has to do is wait until the flint and igniter wheel dry out & it's back in business.

But the value of the butane lighter does not end when the supply of butane is exhausted. I have found that by removing the metal hood surrounding the gas port the lighter can be used as spark-thrower to ignite dried grass, cotton fibers and other fine tender.

It seems the flint in a disposable butane lighter **ALWAYS** lasts twice as long as its butane supply and that can be an advantage in the wilderness.

Chemical fire starters are also a great asset, especially in very cold or wet weather. Military Trioxane bars and the smaller Hexamine tablets, available in most Army-Navy surplus stores, are very stable, have an almost infinite shelf life, and burn with a hot, smokeless blue flame that can be used to start a fire with wet wood or windy conditions.

Either of them can also be used alone to heat water or canned food. Trioxane comes in a box containing 3 foil-wrapped bars and retails for about \$2.00 per box. Hexamine tablets come 6 to a cardboard tube and retail for around \$1.00 per tube.

Both of these are very effective for starting fires under adverse conditions, but I prefer the larger Trioxane bars.

Having one of these in my pack has saved my fingers on several subzero mornings when the temperature was so low I had only seconds in which to get the fire started before my hands turned into frostbitten claws.

The magnesium fire-starting block comes onto the market almost a decade ago but has **NEVER** gained much popularity. This is one of those items that apparently works fine in the lab but not in the field. **Better forget it altogether.**

Candles are an old tried and true fire starting aid that **every woodsman should at least have one** "Emergency Candle" in his pocket or kit to help light fires in wet weather.

A LIT CANDLE PLACED UNDER A PILE EVEN OF THE WETTEST TWIGS WILL START A FIRE, EVEN IN A LIGHT RAIN.

One of the beauty is that they are real cheap. Tea candles that come in their own metal container are also very cheap and in some cases even better.

FISHING GEAR:

There is no reason for anyone venturing into or near wilderness to be without a good supply of fishing gear. Improvised hooks made of bone or wood and fishing line made of twisted plant fibers are things of the past and completely unnecessary for the modern woodsman to survive in the wild.

Survivalists have **ALWAYS** realized the value of a fishing kit in the forest where streams are plentiful and fish **provide an abundant & reliable source of food every month of the year.**

A good working fishing kit is so small and light that it will fit into a jacket pocket. The kit I have used for the past 10 years is self-contained, dirt cheap to make, and unbelievably effective. We have used it to take brook trout, bluegill, perch, rock bass, etc.

The kit I used consists of a plastic 35 mm. film bottle with a Snap-On cap. The film bottle is my container of choice for most small items because it is unbreakable, tough and has a watertight seal.

In it I place an assortment of **long-shank hooks (they seem to be most effective)**, about a dozen split-shot sinkers at least 30 feet of 20 pound test mono-filament line held in a small coil with a rubber band or a wire tie, a scented rubber worm, and a Swedish Pimple or spinner for jigging.

And even with all this, there is still room for swivels, a steel leader, extra hooks or a number of other small items.

But the film bottle itself is an important part of the fishing kit. With a few wraps of brightly colored vinyl tape around its circumference that can be used for many uses, it will also work efficiently as a fishing float or "bobber".

As an alternative, making a bobber from a twig is simple. First select a dry softwood twig about 4 inches long and 3/4 of inch in diameter (these dimensions are not critical and are given only as suggestion).

Remove the bark, if the twig is dry it should come off easily with your thumbnail. If the wood is darkened scrape the surface lightly with a knife until the entire surface is a light tan color. Remove about 2 inches of colored vinyl tape from the film bottle.

Lay the fishing line parallel along the surface of the twig, fastening the two together. The bobber can now be slid along the line until the desired depth is achieved. The emptied bottle can be used in the same way.

Artificial bait (lures) can be **very effective** for catching fish without the conventional rod and reel. A small spinner can be used for jigging in pools or slow moving streams and will be active enough in fast moving streams to attract trout and creek chubs.

Swedish Pimples are probably the most effective lures for bass, crappies, perch and sunfish. A scented rubber worm is attractive to all types of fish and can be cut into small sections to extend its usefulness.

Floating flies are effective for catching trout, bass and perch, and are also easily tied in the field using thread, feathers, animal fur or even one's own hair.

Live bait can be found at nearly any time of the year, including winter. Earthworms are available on the banks of rivers, streams and lakes until the ground freezes in winter.

Grasshoppers, crickets, bees and most any other insects will be attractive to most type of fishes, especially bass and perches.

Grubs, insect pupae and salamanders can be found in rotting stumps & logs throughout the year. Freshwater clams are excellent bait and they too can be found close to shore in lakes and streams at all times of the year.

And ALWAYS REMEMBER that fishes are cannibalistic creatures. If more live bait is somehow unavailable, the first fish caught can be sacrificed as bait to catch others.

One item we believe should be a part of any woodsman's kit is the 4 tined frog spearhead.

A spear-shaft can be quickly made from a straight green sapling and fastened securely to the spearhead simply by forcing the tapered shaft into it.

The spear head cost only about \$3.00 and could be used to take frogs, fish and even small animals.

Rabbit burrows are often shallow and straight, making it simple to thrust the spear through the burrow entrance and impale the rabbit.

This tactic like many others in survival, is not pleasant, but when the alternative is starvation, the choice is easy.

SHELTER MATERIALS:

PONCHO:

A PONCHO IS ONE OF THE MOST VERSATILE TOOLS FOR PROTECTION AGAINST THE ELEMENTS.

It can be worn as a raincoat, wrapped around a sleeping bag or bedroll to keep it dry, used as water-proof shelter, or to collect rain, shadow maker against a burning sun, or simply used to cover a person who **MUST** sleep in the open.

SPACE BLANKET:

The basic model is simply a large sheet of reflective aluminum laminated plastic, usually 84 X 54 in 7 weighs about 2 ounces. It is reputed to be able to reflect up to 80% of a person's body heat back at them.

My own experience is that it does not provide sufficient insulation by itself to keep a person warm in cold weather.

It does however make a wonderful shelter roof, being waterproof and windproof. An added bonus is that its shiny silver coating turns the entire shelter into a giant mirror that is easily spotted from the air.

A variation of this is the cloth backed vinyl sportsman's blanket, available in red, silver or woodland camouflage.

This blanket has about the same size as the space blanket, weighs 12 oz. but it is a bit more durable and made to be used over and over. Whereas the space-blanket is designed to be used only once.

Another inexpensive and effective shelter material is the polypropylene plastic sheeting used as tarpaulins and painter's drop cloths. It is light, water and windproof & is available in clear or black.

We recommend the clear one because it is more easily spotted from the air and makes a more efficient solar still for collecting and purifying water.

ROPES:

While not absolutely necessary to the construction of an emergency shelter, 100 feet or so of strong, light nylon cord is **invaluable** for erecting shelters quickly, not to mention the 100's uses it has around camp, including the use as heat booster in a campfire.

P/S: You also **MUST learn** some basic knots. (Square/Bowline & Double half hitch.#?)

SIGNALS:

Those in need of rescue should be aware of the techniques for alerting a search party to their whereabouts.

The lost or stranded hunter needs to be especially well informed because he has not gotten a lot of time. It is **rather hard fact that most hunters are given up for dead after a maximum of 72 hours in cold weather.**

The signal flare is a tried and true method of signaling, but it can only be effective if the searchers are close enough to see its trail as it arcs through the sky. Even then the flare is only visible for only a few seconds and can be obscured from sight by high terrain.

The most common type of signal flare is the single shot flare pistol. These pistols use a flare cartridge that resembles a 12 gauge shotgun shell. But be warned, flare pistols are usually constructed of cast metal or even plastic. **NEVER** attempt to fire a shotgun shell in on. They usually start around \$60.00.

Pencil flares are another more compact type of signal flare launcher. It is a compact tube slightly larger than a pencil. Since it is smaller than the flare pistol it also uses a smaller less obvious flare.

WHISTLES:

Loud piercing whistles have had some value in signaling search parties in the past, particularly in densely forested areas or under foggy conditions.

The sound of a whistle will carry for miles in mountainous country. Sports whistles work very well, but there is currently a unit on the market that incorporates a liquid filled compass, match holder, signal whistle and lanyard. The entire unit is about 6 inches long by 2 inches in diameter and composed of orange plastic. About \$5.00 it should be a welcome addition to any survival kit.

FLASHLIGHTS:

They are not only generally useful, they make an excellent signaling device. New flashlight, most notably the near indestructible Mag-Lite, use high intensity Krypton or halogen bulbs that give the standard 2 cell D size flashlight as much brilliance as the old 6 volts type. Even the AA Mini Mag-Lite provides more light than standard D-cell flashlights.

There are currently several aluminum flashlights on the market but we recommend the Mag-Lite by name because it has proven track record for durability, bulbs are readily available from most stores. They have adjustable beams that can be focused from broad to spotlight.

As a signal the flashlight is useful only at night, but its beam can be seen from as far as 5 miles away, depending on the size and power of the light.

Considering its utility, it would be foolish for anyone to venture into the wilderness without a good flashlight, spare batteries and an extra bulb, even if the light is just a cheap plastic model.

FIRE AS SIGNAL: SEEN 15 MILES AWAY

Fire is also useful as a distress signal and in some situations it may even be the best way to attract help. A large but controllable signal fire built on the highest point possible will be **visible from more than 15 miles away depending on weather conditions** and is sure to be seen by passing aircraft.

AS A SURVIVAL FIREARMS RIFLE IS BEST!:

Unless at war a true survivalist does not need to be Rambo with its fully automatic weapon. **The rifle is most often selected as a survival gun for a number of reasons.**

It has more range, accuracy and killing power than a handgun or shot gun in any given caliber. It is easy to become proficient with than a handgun, its ammunition is smaller than used in the shotgun; and finally, the rifle is more certain of getting the job done at longer ranges than either of the other two.

Yet even though nearly all experienced outdoorsmen agree that the rifle is best suited for the role of survival gun, there exists some disagreement about which caliber is most capable of meeting the needs of the survivalist.

We believe the .22 Long Rifle is the best choice available for use in all-around survival rifle.

Why the .22? **Versatility is the biggest reason.** In the hands of a skilled marksman the vastly underrated long Rifle cartridge can and has been used to take nearly every edible animal on the N. American continent.

We have used it successfully to take rabbits, porcupine, squirrels, ducks, geese, trout and even white tail deer at distances of up to 100 yards. As a sporting cartridge, the .22 is illegal to use on many of these animals, but the need to eat in a survival situation is recognized by all.

Apart from its proven killing power and accuracy, the .22 Long Rifle cartridge is even more attractive because of its small size and portability. The standard box of 50 rounds weighs only 6 oz. 500 rounds are more than sufficient for any contingency, including repeated signaling with gunshots, yet weigh less than 4 pounds.

For the woodsman who wants a survival gun but can not choose a rifle or shotgun, there is a very nice compromise from Savage Firearms. The Model 24 is an over and under shotgun/rifle combination and is available in a number of caliber/gauge combinations.

Like 30/30/20 gauge, .22 Long Rifle/20 gauge or .22 Long Rifle/.410. When not in use the Model 24 breaks down into 3 separate pieces, the stock and receiver, the barrels and the forearm, and fits easily into a full size backpack.

Following is a list of firearms that we have used and can recommend for use by anyone needing a firearm to provide themselves with food in an emergency.

Two of them, the Charter Arms AR & and the Marlin 70P, are semi-autos with screw-off barrels that were designed specifically for use as backpack survival rifles.

The AR-7 has long been a favorite of canoeists because its receiver and barrel can be detached from and stowed in the hollow plastic stock, making it the world's only floating rifle.

Marlin Model 25 bolt-action .22 = \$100.00 US

Charter Arms AR-7 semi-auto .22 = \$150.00

Savage Model 24 over & under = \$260.00

Armscor Model 20P semi-auto .22 = \$90.00

Marlin Model 70P semi-auto .22 = \$100.00

MARKSMANSHIP:

Far too many sports hunters take to the field with little or no shooting skills, secure in the fact that if they miss they can **ALWAYS** go home to a hot meal.

But if you are stranded or injured you can not afford to be so blithe concerning your marksmanship. In the wild every single cartridge represents a meal or an important signal.

Like all skills shooting has its own procedures and techniques that **MUST be followed** to become even mediocre.

First is proper sight alignment. Place the rifle butt against the shoulder with the stock securely nested into the hollow of the shoulder. Lean forward slightly, **NEVER backward.**

If the gun is equipped with telescopic sights, simply place the intersection of the cross-hair on the target and hold it as steadily as possible.

If the gun has "iron" sights, look through the notch in the rear sight and align the front sight blade with it until the blade sits in the rear sight notch flush with its top. Place the aligned sights directly under the target.

Whenever possible, rest the stock for-end (not the barrel) on a convenient tree branch or other supports to help hold it steady.

Next is proper trigger squeeze. More shots are missed because of a jerked trigger than for any other reasons.

The trigger of any rifles or pistol for that matter **MUST ALWAYS be gently pulled back** toward the shooter with the ball of the forefinger, directly opposite the fingernail and ahead of the first joint.

The shooter should NEVER know precisely when the gun will fire, but should press the trigger with steadily increasing force while concentrating on keeping the sights aligned with the target. When the gun discharges it should come as a surprise.

The shooter should hold his breath during this exercise to prevent excessive barrel wobble.

That is basically all there is to shooting. Assuming the sights are in proper alignment with the target and the barrel is held steady and the firing distance is reasonable, the shooter who follows these simple instructions will hit his intended target.

LEN BOOK MEDICAL SUPPLIES:

Most survival manuals put a great deal of emphasis on herbal medicines and with good reasons. There are virtually thousands of wild plants, trees and shrubs that have proven medicinal value.

The major drawback to herbal medicine is that the woodsman needs to possess a great deal of knowledge to prepare and use them properly.

In most instances it is safer and easier to carry a broad supply of modern medicine. However for everyone's convenience we have included some ways to prepare and use those medicinal herbs. See #?

ASPIRIN:

It is an inexpensive yet fairly effective pain killer. It will help you ease the swelling in an injured or bruised limb, bring back down a fever & dampen the pain of minor injuries. Aspirin also works to thin blood and so **MUST NOT be used when internal bleeding is suspected.**

IBUPROFEN TABLETS:

They are available under a number of brand names, including the original medical name, Motrin. They are **very effective against pain.**

Four of the over the counter tablets are equal to one prescription strength Motrin tablet. Except for possible stomach upset **ALWAYS** a potential side effect of Motrin, taking 4 Ibuprofen will not harm the user.

However, use this dosage only in cases of very severe pain, NEVER exceed it and do not repeat it more often than once every 4 hours.

REMEMBER, pain is the body's signal that something is wrong. **NEVER use a pain killer to make it possible to walk on an injured leg or to overcome a suspected back injury.**

Doing so will only make matters worse. It is better to be laid up for a couple of days with a minor injury than for a couple of weeks with an injury compounded by foolishness.

BAR OF SOAP:

It should **ALWAYS** be part of any wilderness first-aid kit. Doctors now agree that the **best way to prevent infection in minor cuts and scrapes** is not with peroxide, alcohol, mercurio-chrome or any of the other popular disinfectants but simply to wash the wound with soap and water.

(**MAKE SURE** that the water is germ free by either boiling it or adding purifying substances.)

My advice however is that you should use non-scented soap (ex: Sunlight bars), the reason because scented soap attracts mosquitoes etc.

ANTIBIOTIC OINTMENTS:

Such as Neosporin are also **NECESSARY** to a functional first-aid kit. These ointments take up where the soap and water leave off, providing a protective coating that keeps bacteria out of a wound as well as antibiotics to kill any germs that might still be there after the washing. **Most antibiotics ointments also contain zinc oxide to accelerate healing.**

IODINE:

It is not necessary to disinfect cuts, but it is a good idea to include a bottle of it in your kit. It will disinfect wounds, (although it destroys skin cells in the process) but it's **most important as a water purifier.**

WARNING: VERY POISONOUS!

2 or 3 drops in a quart canteen will kill any virus, bacteria or trematode living in it. **Iodine is also highly poisonous to humans!**

NEVER exceed 3 drops per quart of water and ALWAYS MAKE CERTAIN that some of the water is sloshed over the mouth of the canteen before drinking from it.

Commercially made iodine water purification tablets are available from most stores that sell camping equipment, but are 2 or 3 times more expensive than a bottle of ordinary iodine disinfectant and tend to disintegrate over time.

BUTTERFLY SUTURES:

They are a relatively new innovation that have found wide acceptance among outdoorsmen who do not have quick access to medical help but may need to close gaping wounds quickly before serious blood loss can occur.

In days past, the only recourse was to stitch the wound closed with a needle and some type of thread. **This is not recommended** in the less than sterile environment of the wilderness because the needle and thread often introduce new infectious organisms that can breed in the closed wound.

Nearly as effective as stitches, butterfly sutures are essentially very sticky tapes enclosed in a sterile envelope.

After thoroughly washing the wound and stopping the bleeding as much as possible, the butterfly suture is used to pull the wound closed and hold it there.

SAFETY TAPE: ?? Duct tape??

A fairly new item that was originally designed to wrap the fingers of factory workers to prevent minor cuts and scratches.

The tape is made by applying a latex coating over surgical grade cotton gauze and wrapping it in roll form. It will stick tenaciously to itself but will not adhere to anything else including skin.

Since most cuts sustained by woodsmen are on the fingers, **safety tape is perfect for bandaging even serious wounds on the digits quickly and with almost no blood loss.**

After washing the wound thoroughly, apply a generous coating of an antibiotic ointment and wrap the finger with several snug (not tight) layers of safety tape.

This will close the wound. Leave the tape on for a least 12 hours before carefully removing it to apply a looser wrap over a fresh coating of antibiotic ointment.

Safety tape is also useful for wrapping sprained joints and applying splints to broken bones. It comes in a variety of widths up to 3 inches & an assortment of colors, although only white should be used as a bandage.

At the time of this writing there is only one source for safety tape that we are aware of. The company is General Bandages Inc. Box 99 Morton Grove Illinois 60053 USA. A free roll is available from them for the asking.

MULTIVITAMIN TABLETS:

They are an often overlooked item of the well-equipped first-aid kit. It is ironic that so many of the folks who religiously take vitamins at home will forget them in the woods.

In a survival situation a good multivitamin can help to stave off the effects of malnutrition by providing the vitamins & minerals necessary to remain healthy and energetic.

TOOTHBRUSH:

It is **another vital accessory** that many woodsmen even trained survivalists tend to forget. A gum infection can set in quickly in the woods and can become an abscess without proper dental hygiene.

A tooth abscess can virtually kill its victim overnight with a fever that can easily top the 100 degree mark. Toothpaste is optional (salt is a good one), but no woodsman should ever be without a toothbrush.

In a pinch the twig brush, an old fashioned cleaner that precedes the modern toothbrush will suffice. The twig brush is made by chewing a section of green twig (we recommend the witch hazel shrub) until the end is frayed and fibrous.

Care should be taken to avoid twigs from poisonous shrubs like Dogwood . Maple, oak, poplar, birch, beech and even pine can be safely used to make a twig brush.

PRESCRIPTION DRUGS:

For those going into very remote place these drugs can be a real asset. Penicillin, xylocaine, light prescription pain killers can sometimes be obtained by scheduling an appointment with the family doctor.

Any doctor worth his salt will question your motives at length before consenting to write a prescription and will probably have a good bit of advice to offer concerning the use of prescription drugs in the wilderness.

Listen carefully to this advice and take notes; it may save your life in an emergency. Most doctors will also ask that you return any unused drugs when you come back.

A well-stocked emergency medical kit can be invaluable in a survival situation and may even save your life. It need not be large or heavy but it **MUST** be as functional and efficient as possible.

Adequate medical kits can be made from small duffels, lunch boxes or even zip-lock plastic bag or even several ordinary hinged bar-soap containers filled with an assortment of small items and held closed by heavy rubber bands.

A LIST OF ITEMS:

1 tube antibiotic ointment.

1 roll 1" wide safety tape.

Butterfly sutures, assorted sizes.

1 bottle Ibuprofen tablets.

1 bottle of aspirin /1 bottle of iodine

1 small bar hand soap. / 1 toothbrush

1 pair of tweezers / 1 small pair scissors

6 alcohol prep pads/ 1 toenail clippers.

1 section latex rubber tubing, 2 feet long

for tourniquet (or 2 feet long Velcro strip)

1 bottle of multivitamins / 1 roll cotton gauze

1 package sewing needle, assorted sizes

1 styptic pencil. 1 mini-first-aid book.

MISCELLANEOUS ITEMS:

Only size and weight limit the utility of any survival kit. Although most experts highly urge anyone not to go over 40 lb. as a maximum. Of course the size and complexity of a deer hunter's survival kit will be less than that of a boater or off-road driver.

The aforementioned items are those that have been proven useful many times and all of them are recommended for inclusion in any survivalist's kit.

The following items are also very useful, but probably none of them are critical to survival. Of course, whether or not a particular item is necessary or not depends on the season, terrain, individual wants and a host of other factors.

SLINGSHOTS:

Most of us had slingshots as children. Those of us who are older than we care to admit probably made ours from rubber inner tubes and a Y-shaped stick.

They were effective, but not nearly as powerful as the latest generation of high-velocity slingshots powered by tough latex rubber tubing.

Using marbles or ball bearings as ammo, this new breed of slingshots is easily capable of taking most small game animals, providing the hunter has enough skills to hit them. Some models even fold into a compact unit for easy storage in a backpack.

SPARE SOCKS: (Dear Spocks)

They are very important in cold weather. The best one all around are wool ones. Wet socks do little to keep feet warm and wearing wet socks in cold weather can result in trench-foot, frozen toes even gangrene.

The military has long realized the importance of clean, dry socks in cold weather, especially under conditions of prolonged exposure.

LEATHER GLOVES:

Another important item to anyone in any weather. During warm weather a pair of heavy leather gloves will protect the hands from scratches, cuts, blisters and burns. In cold weather with a pair of wool liners inside, they will like-wise protect them from frostbite and cold.

G-I issue gloves are adequate for all around use but the leather used to make them is not as heavy as that used in some of the civilian models, most notably those from Well-Lamont company. Ironically the less durable military gloves sell at twice the price of civilian work gloves. (Go figure?!)

WIDE HAT:

The wide-brimmed military type bush hat is more versatile than many folks realize. It offers nothing in the way of warmth during cold weather, but when it is warm the bush hat will help to keep the sun off the wearer's head and out of his eyes.

Being made of heavy cloth it can be saturated with water and worn wet to keep the head cool, yet still retain enough water repellence to keep a pouring rain out of your eyes.

Many have used theirs to filter mud, silt, and microscopic organisms from swamp water, even as berry bucket or pot-holder for campfire cooking or even as trap to catch minnows for use as bait.

For the hunter this rumpled, misshapen appearance of the bush hat works to make him less recognizable in almost any terrain.

DOG RAG: (VERY USEFUL & MANY USES)

Used by Special Forces in Vietnam; it is nothing more than a very large handkerchief or square of heavy cloth preferably flannel or jersey and measuring **3 to 4 feet across**.

It can be used to filter muddy water, as an emergency tourniquet, arm-sling, as pot-holder, tied at the 4 corners to make a hobo bundle, as a sweatband, or a wash-cloth.

In desert area it can be used to sponge up the dewdrops that collect on rock in the early morning. The gathered dew can then be wrung out into a canteen cup, tin can or directly into the mouth.

WIRE TIES:

Large, colored wire ties, like those included with some brands of plastic bag are **infinitely useful in the wild**. They can be used to quickly fasten together the frame of an emergency shelter or bundle of dry grasses into an insulated sleeping mat.

Or they can be used one per pair of eyelet's, to replace a boot-lace that has been sacrificed to make a snare or hunting bow. They will even serve to fasten branches, ferns, and leafy boughs to one's clothing as hunting camouflage.

ELECTRONIC & SURVIVAL:

Besides the Panasonic tracker, the electronics of today is so compact and energy efficient **that there is no reason whatsoever not to have a radio receiver on any venture away from civilization.**

Personal AM/FM receivers are smaller than a deck of cards and can operate on 2 AAA alkaline cells for a week or more.

One of the best backpack radio would be one that receives AM, FM, VHF-TV & Weather Band frequencies. They cost less than \$20.00 and will operate on 4 AA batteries for a month when used for about 3 hours each day.

A good radio receiver can be **most important** for maintaining the morale of a stranded woodsman by constantly reminding him that civilization still exists. The receiver is also valuable for the weather reports it provides, especially if it has Weather Band capability.

SEWING KIT:

A sewing kit can be valuable not only to the survivalist but also to the recreational woodsman who is neither lost nor stranded. Clothing tears, ripped backpack seams, and a variety of other frequent damage that can be repaired only by needle and thread are common to wilderness travel.

A very workable kit can be made by placing a small spool of thread and a package of assorted sewing needles in a 35mm film bottle. The total cost of this type of kit is less than \$1.00.

OTHER NEAR ESSENTIAL ITEMS: (LBE)

We highly recommend that any woodsman have with him a G-I type plastic canteen, canteen cup, canteen cover and nylon pistol belt. This heavy grommeted pistol belt is a handy place to carry a survival knife, medical kit, pouches and nearly all the smaller component of a practical survival kit.

One of the best harness is the US Army LBE (Load bearing equipment) harness which is basically just a pistol belt with heavy canvass suspenders attached.

This belt should be worn with a heavy canvass suspender, otherwise it will slip off you too easily. It provides you with the **most efficient and comfortable method** of carrying other survival equipment that we have found.

I have a razor-sharp USAF survival knife taped securely to the left shoulder strap (I am right-handed) **in the upside down position for quick and easy access.** (No I am no Rambo)

I also have 2 ammo pouches attached to the belt that contain fishing tackle, matches, sewing kit, medical gear, Trioxane bars, .22 ammunition and an assortment of other items too numerous to list.

Also attached to the belt is a small map pouch that contains a Silva map compass, a stainless steel mirror (All purpose blade see) and a laminated waterproof map of the area I intend to be traveling.

Occasionally I carry 2 canteens and still have plenty of room to attach extra pouches, a machete or hatchet and just about anything else that can be feasibly attached to the belt or suspenders.

This LBE outfit is a completely self-contained survival kit that wears comfortably and weighs less than 15 pounds with 2 full canteens.

INSECT REPELLENT:

The importance of a good insect repellent depends on the terrain and the weather. In the snow or desert it has little value, but if you are traveling through h or near a swampy area in warm weather, an effective insect repellent is worth its weight in gold.

Mosquitoes are usually the least of your worries; **more important** are the 300 species of horsefly and deerfly and the 600 species of blackflies. These parasitic flies are **all very determined biters and all potentially dangerous to humans.**

Deerflies and horseflies both inflict bites that are quite painful, often bleed freely and swell into large wheals that can itch intensely for several days. (Ouch!!!)

These 2 flies are credited with the ability to remove up to a pint and half of blood from a domestic animal in a single day. **A human without protection in areas of heavily infestation could be in real danger.**

Blackflies also pose a danger to the unprepared. Their bite is painless but **ALWAYS** bleeds freely and is followed by dime size wheal that itches intensely for several days.

This fly has been known to kill thousands of animals in a single season and humans exposed to area of heavily blackflies infestation have in many cases required hospitalization.

All 3 of these flies have a proven ability to transmit a variety sometimes fatal diseases, including tularemia. Less noticeable ticks and chiggers also transmit a variety of diseases, most notably Lyme disease.

There are a number of wild plants that can be used as an effective insect repellent (specially catnip, cedar, and other mints), but **few are as effective as a single bottle of repellent containing DEET** stashed in the survival kit. LEM PIX PAGE 41

We do not recommend aerosol spray because it is bad for the ozone layer besides taking too much room in your kit. A small bottle of Muskol brand repellent contains 100% DEET and will last for weeks in the wild.

In the absence of insect repellent, the survivalist can **protect himself by covering his face, hands and other exposed areas with a layer of mud.**

Clothing should be buttoned as snugly as possible around the wrists and neck and trousers' legs should be bloused or tied securely around the ankles.

Small, smoky "smudges" fires can be set around the perimeter of the camp to deter mosquitoes after dark and help the survivalist get a good night's sleep.

SMUDGE FIRES:

Smudges fires are made by building a small hot fire and then partially smothering it with wet leaves, grass or pine needles. With a good bed of coals a smudge fire will smolder for several hours and produce enough smoke to repel biting insects.

RECOMMENDED ITEMS FOR SURVIVAL KIT:

No survival kit will provide for every contingency in every environment, but the following are pretty much generic to all conditions.

Any working survival kit should contain each of these, although those that have been recommended by name are offered merely as suggestions and are subject to personal preference. and work one or 2 or 3 tops.

Survival Knife, Shrade M7-S or USAF survival knife.

Compass, Silva Type 3 / This survival book, Matches, wooden, waterproof, strike anywhere" type. Butane lighter (I recommend 4) 2 on you at all times and 2 in your survival kit.

Fishing kit (in 35mm film canister) See

Space-blanket or large plastic tarp

Nylon cord 100 feet

1 blade survival knife see? for inf.

Flashlight, AA Mini Mag-lite (batteries & bulbs)

Signal flares, gun or pencil type with launcher

Fire starting tables, Trioxane or Hexamine

Candles (at least 2)

Canteen, with metal cup, cover and belt (LBE)

Spare socks, 1 pair, wool is best.

Radio receiver, AM-FM with Weather Band

(Or and with a Panasonic tracker)

Medical supplies (see) Poncho / sunglasses

OPTIONAL ITEMS FOR SURVIVAL KIT:

.22 rifle, Charter Arms AR-7 or Marlin 70-P

.22 ammo's, 100 rounds Remington Viper

Slingshot, latex tubing type

Gloves, leather & wool ones

Bush hat / Wire ties / Dog rag / Sewing kit

Insect repellent, bottle, 100% DEET

Spearhead, frog 3-tined

Prescription drugs (xylocaine, penicillin)

WHAT DO I DO FIRST?:

It is safe to say that anyone who suddenly finds himself thrust into a do-or-die survival situation will not be in a clear state of mind. This will be particularly true if he has been injured.

Panic is the mortal enemy of anyone in a survival situation. It can and does cause people to do things that are counter-productive to their survival, even to the point of being suicidal.

Since panic is a non-cerebral function, it can be most effectively controlled by maintaining a logical approach to the task of staying alive.

THE FIRST THING THE SURVIVALIST MUST DO IS MAKE HIMSELF AS COMFORTABLE AS POSSIBLE.

The critical thinking portion of the mind is seriously hampered by physical discomfort, so the survivalist needs to address the requirement of his body before attempting to devise an escape plan.

He should apply first aid to any injuries, take an analgesic if in pain, build a fire to warm himself or find or construct a shelter if the weather is bad.

Once he has established a base camp and made himself as comfortable as possible, the survivalist can then take stock of both his supplies and his situation.

Assuming that he has with him a well-equipped survival kit and that each of its components has withstood the ordeal up to that point.

He can use map if he has one and his compass to determine his approximate location, learn what obstacle lies between himself and civilization, and plot the most direct route back home.

If he has a working radio receiver, he should use it, not only to gather weather reports and forecasts, but also entertainment.

Proper attitude is also a vital part of the survival process. The way one perceives his situation is at least as important as his knowledge and skill.

A successful survivalist is **NEVER** lost, only momentarily perplex. He may wonder when he will get home, but **NEVER** if he will get home.

In most cases, the survivalist's best option will be to walk back to civilization. Before starting the trek, **MAKE CERTAIN** that you have a good idea of where you are headed as possible.

Travel as lightly as you can, but not to the point of leaving behind transportable tools that might have critical importance on the trail.

If package food is available, it should make up most of the weight carried because the pack will become lighter as the food is eaten, and **REMEMBER, there is absolutely nothing to prevent you from taking as many rest periods as you feel are necessary.**

Forced march has no application in real life and is in fact counterproductive. **NEVER push yourself to the point of exhaustion** because a tired mind and body are apt to make dangerous even deadly mistakes.

Based on our experience, a cold, tired survivalist who continues to push on after his body tells him to stop will become irritable and jumpy and may go right over the edge into a blind panic.

IN A NUTSHELL, ONE OF THE BIG SECRET TO SURVIVAL IS TO BE KIND TO YOURSELF.

If you are cold, build a fire, if you are hungry, eat; and if you are tired, rest. Believe in yourself and **NEVER doubt your own capabilities.**

All of us are born with inherent powerful survival instinct. That, a few basic pieces of equipment, and a little bit of knowledge are all that will be required to emerge alive and healthy from the most challenging wilderness survival situation. Believe it!

BEST CLOTHING = WOOL:

BEST WOOL IS FROM RABBIT FUR.

MOST SURVIVAL SPECIALIST AGREE

THAT THE BEST CLOTHING FOR RETAINING BODY HEAT IN WET WEATHER IS MADE FROM WOOL!

Gortex will help to keep you dry. Thinsulate Will keep you warm, when you are dry, but **ONLY WOOL will keep you warm when you are soaking wet.** (Eve-n- Soak- King wet!)

SNOW IN AND OF ITSELF IS PROBABLY THE LEAST THREATENING WEATHER CONDITION.

In fact a 20 degree day with snow on the ground will seem noticeably warmer than the same day without snow. The same insulating qualities that make a snow filled forest so quiet will also make it feel warmer.

Snow can actually be used to protect oneself against the dangers of cold weather, because it is abundant, easy to work with & entirely effective for manufacturing windproof walls and roofs.

The MOST SERIOUS DANGER from the snow it it's BRIGHTNESS, which causes a debilitating --if temporary- affliction known as "snow blindness" especially in bright sunlight.

SNOW BLINDNESS SHOULD ALWAYS BE

GUARDED AGAINST BY WEARING SUN GLASSES or a brimmed hat to shade the eyes.

If neither is available, fashion emergency goggles by tying around your head a broad strip of Birch bark with narrow slits cut into it. see pix?

On the other side, the sun can be as dangerous as any other weather condition. Prolonged exposure to a hot sun can cause dehydration, heat exhaustion and finally heat stroke.

Just as hot is the opposite of cold, so are the requirements of a hot weather shelter the opposite of the cold weather shelter.

Where the cold weather shelter needs dead air to retain the user's body heat, the hot weather shelter needs to breathe and has as much air circulation as possible.

HOT SHELTERS:

An effective hot weather shelter can be made simply by erecting a sloped light-proof roof over a frame, leaving the sides, front and back open to allow any air currents to pass unobstructed. The space blanket works very well here.

The roof should face south to keep out as much sun as possible, & traveling through open country **MUST** be restricted to the hours between dusk and dawn.

The shade provided by the roof will be approximately 10 degrees cooler than the outside temperature and should be comfortable enough to allow the survivalist to sleep throughout the heat of the day. Perspiration wastes water.

COLD SHELTERS:

A THICK, INSULATING BED IS ABSOLUTELY VITAL IN COLD WEATHER and is even a good idea on a summer night.

The earth is the world's best heat sink and it will absorb a human's body heat faster than it can be generated, resulting in hypothermia that can range from mild to life threatening.

WINTER BEDS:

They need not to be fancy or difficult to make. **My own favorite winter bed is made from** lengths of dead poplar or cottonwood logs.

When these short-lived softwoods die the tops break off in the wind, leaving sections of the trunk sticking above the winter hard-pack.

These dead trunks are easy to break off and several of them laid side by side on the snow with a thick covering of pine boughs will provide as much insulation from the ground as possible.

WINTER FIRE OFF THE GROUND:

Building a fire on a similar platform next to the bed will allow you to keep warm while sleeping outside in clear weather. If one is traveling and can avoid building a shelter at the end of the day's trek, why waste the effort? **(Saving energy is #1 in Survival.)**

FIRE HARNESSING & REFLECTORS:

Fire is one of the survivalist's best friends. It allows him to cook his food, light the darkness and most important to keep warm.

But there is more to keeping warm than just lighting a fire. You need to harness as much heat from the flames as possible. Sitting in front of blazing fire in subzero weather will keep only the front of the body warm.

BEST WAY TO MAKE REFLECTORS:

TO BE AS EFFECTIVE A HEATER AS POSSIBLE the warmth of the flames needs to be focused through the use of a reflector, either a natural feature or one erected by the survivalist himself.

A rock cliff or dirt bank makes an excellent reflector as does a space blanket suspended vertically on two poles.

Place your body between the reflector and the fire. Direct heat from the flames will warm the portion of you body facing the fire while reflected heat from behind will warm the other side. (The principle is the same as that used in convection oven.)

FOR MAXIMUM HEAT REFLECTION, PLACE REFLECTORS ON 3 OR 4 SIDES OF THE FIRE.

Additional reflectors can be made from a dense latticework of branches stood on end to form a wall and stationed a minimum of 4 feet from the flames.

A fire used to heat a shelter should be positioned directly in front of the shelter entrance, about 4 feet away, and surrounded on 3 sides by reflectors.

The reflectors will impede the circulation of cold outside air and focus the heat from the fire directly on the door of the shelter. With this configuration, the stranded woodsman on a thick insulation bed inside the shelter will be comfortable even in a subzero blizzard.

THE LEAN-TO: missing info to find

A WOMEN TALE OF SURVIVAL:

On the coldest night, the night of the great ice storm, Maria thought she and all the women might freeze to death. The fires she made sputtered and blew out. The two old Mexican women were already almost dead anyway.

Maria had to go back and find them. One of them had fallen 3 miles behind the group. Maria hunted wood and kept the fires going, but ice had covered everything and her hands and feet got very cold.

The women were convinced that they would all die. They did not believe they would live to reach the railroad and several of them had ceased to care.

Maria had to keep pushing and prodding them to keep on going. Maria had fixed her mind on saving the women though she did not know any of them.

Getting them safely to the railroad had become important to her. She had taken them of the disaster and now she felt she must supply the will to keep them traveling despite the bitter cold. She herself had often had to search for will in hard times.

She was thinking of her past and long struggles. The lack of laughter in her life was a thing that Maria held against men.

She felt she had the temperament to be a happy woman if she was not interfered too much. She knew that it was her fault that she let men interfere with her, yet if she did not, there was nothing, or at least there was not enough.

She wanted a man to lay with, except if she wanted a man once, she would want him many times. She liked to take pleasure from men and liked to give it, but when she gave men that pleasure, they came to need it and then to resent her because they needed her.

When that happened, the interfering began. Maria did not know why men resented the very women who gave them the most pleasure and gave it generously.

It was foolish, very foolish, of men to resent the good that came from women. Still they did.

Thinking of Billy her husband and all the times he had made her laugh, kept Maria's mind off the icy ground and the sheaths of ice on the mesquite limbs she broke off to keep the fire going.

She made 3 fires, and kept them all going herself. The women were too tired and numb to move. She put the women in a little triangle, between the fires.

But it was bitter cold and even 3 fires were not enough. It was too cold and the women were too tired and broken. Maria knew she had to do something else, or the women would give up and begin to die.

She thought the things she talked about with the women of her village, when they washed clothes together or cooking for a little fiesta.

Those were times when she and the women were apt to get bawdy & talk about the embarrassment or the rewards of love. None of the women huddled between the fires looked as if they had know love recently.

Men might have used them, especially the young ones but that was different. The women might not be able to remember a time when love had been an exciting thing, but Maria decided she wanted to make them try.

It was a long time before dawn, and they had nothing but 3 small, sputtering fires to get them through the night.

There had to be something more. Maybe the memories of times when life had been exciting would make them want to live through the freezing night.

"Tell me about your first man," Maria said. She addressed the question to Anna. "What?" Anna said. She thought she must have heard Maria wrong. "I want to know about your first man," Maria said.

Then she looked at Cherie. "I want to know about yours too," she said. "My first man was a vaquero.

He came riding into town, and when he got off his horse and walked to the cantina, his spurs jingled. From the time I heard his spurs, I knew I wanted to be his woman. "Oh Lord," Cherie said.

Maria waited. Marietta and Gabriella paid no attention, they had not even heard Maria's word. But the oldest woman in the group, a thin, old woman named Maggie, showed a spark of interest.

Maggie had been one that Maria had to go back for several times. Once, Maria found her kneeling by a little bush. She was crouched behind the bush as if she expected it to keep from the cold wind biting her.

Yet Maggie recovered a little. She looked at Maria with curiosity. "Did you get the vaquero?" Maggie asked. "Yes, he was my first husband," Maria said.

"We had good times but then he got mean. I still remember the sound of his spurs, the first time I saw him. When I think of him now, it is the spurs I remember".

"I was married to a circus man, first," Maggie said. She cackled at her own memory. "That was 40 years ago that I married Eddie," Maggie said. "I am surprised I can still remember him." Maggie, now that she had begun to talk was not interested in listening to anyone else.

All the women, even Marietta and Gabriella, were listening to Maggie. Maria had not expected it to be Maggie who talked, she thought Maggie too far gone.

But that proved to be a misjudgment. Maggie had some spirit left. She knew everybody was listening to her and she liked the attention.

As Maggie and the others talked on, a tiredness began to come to Maria. She had kept the women going for 3 days, leading them, encouraging them, going back for them. She had gathered most of the frozen wood they burned and she had made the fires.

She heard Maggie talk about her lovers and the other women too but Maria began to lose the names that went with the stories.

The sound of the women's voices lulled her. It was better to hear women talk, even if she was too tired to listen, than to have only the silence and the cold.

Maria would have like to be fresh, to tell some of her own stories, but it would have to be another time, when they all reached the railroad and were safe.

Maria's eyes grew so heavy she could not watch the fire. She slumped over, and her serape slipped off her shoulders.

Sally, who was closest, got up and wrapped the serape back around Maria, pulling it tight so it would not slip off again. She fed the fire a few sticks from a pile Maria had gathered. Maria had come back for Sally when Sally was freezing and Sally did not want her to sleep cold.

"She is tuckered out," Maggie said. Then she went on to the women about some more of her stories when she was young and still had her looks.

Because of Maria's determination & their memories they survived the freezing night and eventually they reached the railroad and safety.

The following comes from Len's book to check

SURVIVAL SHELTER:

BASIC SHELTER REQUIREMENTS:

They are relatively easy to build if one has just a little knowledge of their construction. All of them are made from usually abundant materials at hand.

Dead branches and saplings are employed to make the frames, shorter sticks and branches form the roof latticework and wet leaves, snow, ferns, or just plain dirt can be used to seal out the elements. As with all other aspects of survival, imagination and ingenuity are the keys to success. (2 rpt in pshy.)

COLD WEATHER MOST COMMON THREAT:

COLD WEATHER IS UNDOUBTEDLY THE MOST COMMON LIFE THREATENING CONDITION ANYONE IN A SURVIVAL SITUATION WILL FACE.

WIND & FREEZING TEMPERATURES HAVE CAUSED THE DEATHS OF MORE WOODSMEN THAN ALL OTHER FACTORS COMBINED:

PRIMARILY BECAUSE THE AVERAGE OUTDOOR RECREATIONIST IS UNPREPARED TO WEATHER A WINTER STORM.

NEARLY ALL COLD WEATHER FATALITIES OCCUR AMONG SPORTS HUNTERS:

A group from whom taking to wilderness without proper clothing, preparation, or training is almost traditional...

In a study conducted by the NRA in 1978 it was determined that the person least likely to survive in extended stay in the wilderness was the armed sport hunter.

WARNING ABOUT RAINY WEATHER:

WET, RAINY WEATHER CAN BE EVERY BIT AS DANGEROUS AS FREEZING WEATHER, EVEN THOUGH TEMPERATURES MAY BE WELL ABOVE FREEZING. PSY & COLD

A cold downpour on a sixty degree day will literally wash away its victim's body heat, leaving him wet, cold and **ILL PREPARED FOR THE SUDDEN DROP IN TEMPERATURE THAT'S SURE TO COME AFTER THE SUN SETS.**

Most experienced woodsmen agree that the BEST CLOTHING FOR RETAINING BODY HEAT IN WET WEATHER IS MADE FROM WOOL. (And the best wool is from rabbit fur.)

Gortex will help to keep you dry. Thinsulate will keep you warm when you are dry, but **ONLY WOOL** will keep you warm when you are soaking wet.

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