



The Scout Association of Australia  
Queensland Branch  
Brisbane North Area  
**VENTURER SECTION EXPEDITIONS**

AREA OFFICE:  
Cnr. Sicklefield Rd.  
& Shand Street  
ALDERLEY Qld  
P.O. Box 430  
ALDERLEY Qld 4051  
Tel: (07) 3543532

**GUIDELINE No 5**  
**WILDERNESS WALKING**

*By: Geof. Dwyer*

**Table of Contents**

- 1. Introduction**
  - 1.1 Wilderness Walking
  - 1.2 Responsibility to the Environment
  - 1.3 Knowledge to cope with a New World
- 2. Clothing**
  - 2.1 - The Gear
  - 2.2 - Footgear
  - 2.3 - Socks
  - 2.4 - Clothing
  - 2.5 - Below the Waist
  - 2.6 - Wet and Windy Weather Gear
  - 2.7 - Headgear
- 3. Equipment**
  - 3.1 - Packs
  - 3.2 - Miscellaneous Equipment
  - 3.3 - Equipment Check List
- 4. Camping and Sleeping**
  - 4.1 - Shelter
  - 4.2 - Flies
  - 4.3 - Tents
  - 4.4 - Sleeping Bags
  - 4.5 - Ground Insulation
- 5. Bush Cuisine**
  - 5.1 - Cooking
  - 5.2 - Housekeeping
- 6. Garbage and Control**
  - 6.1 - Water Pollution and Human Wastes
- 7. Water**
- 8. Navigation**
  - 8.1 - The Tools
  - 8.2 - The Map
  - 8.3 - Types of Maps and Their Uses
  - 8.4 - Interpretation of Topographical Map
  - 8.5 - Map Protection and Modification
  - 8.6 - The Compass
  - 8.7 - Lost
  - 8.8 - Route Finding
- 9. First Aid**
- 10. The Log**
  - 10.1 - The layout
  - 10.2 - Break-up of Log
- 11. The Trip**
  - 11.1 - Selecting a Trip
  - 11.2 - List of Trips
- 12. Author's Note**

	<p>The Scout Association of Australia Queensland Branch Brisbane North Area <b>VENTURER SECTION EXPEDITIONS</b></p>	<p>AREA OFFICE: Cnr. Sicklefield Rd. &amp; Shand Street ALDERLEY Qld P.O. Box 430 ALDERLEY Qld 4051 Tel: (07) 3543532</p>
---	---	---

## GUIDELINE No 5 WILDERNESS WALKING

### **1. INTRODUCTION**

#### **1.1 WILDERNESS WALKING**

The Freedom of the Bush.

"The true wilderness walker walks softly through the wilderness, striving to leave not the slightest trace of their passage. This individual accepts the fact that privilege entails responsibility, without which freedom is only license."

(1982, Mountaineering, The Freedom of the Hills)

A wilderness walker is one who seeks the freedom of the hills, full wilderness citizenship with all its privileges and rewards, its responsibilities and demands. For though wilderness walking at best is exhilarating, at worst it is frustrating, discouraging and punishing, even disastrous to those who ignore nature's stern and impersonal rules.

Wilderness walking relies largely on the ability of a party, whatever the size, to handle every problem of travel and living, including emergencies, with nothing more than the members can carry conveniently on their backs, using their physical resources and the knowledge and judgement they have gained through experience. Implicit is the responsibility each individual must have to the environment, to the party, and to himself.

#### **1.2 RESPONSIBILITY TO THE ENVIRONMENT**

Throughout man's history the bush has epitomised remoteness, wildness and the unknown. Creeks and banks have symbolised delicate beauty, rugged hills have represented durability and timelessness. Yet today creeks are being polluted with human waste and garbage, banks broken down by boots and areas denuded by camping.

If fragile ecological systems and structures are to be preserved, for meanings and values far beyond those of "sport", and for generations yet to be born, the walker must study and understand the character of the land that they travel, comprehend the vulnerability of its plants and soils and creatures, and must utilise new techniques of camping and walking. The philosophy of "If it moves, shoot it - if it doesn't, chop it down" has no place in the wilderness as it stems from the desire to subdue and pillage, rather than to accept and work with.

#### **1.3 KNOWLEDGE TO COPE WITH A NEW WORLD**

The bush is a foreign environment, not necessarily hostile, but certainly indifferent. It is necessary therefore, that wilderness walkers be knowledgeable about many things uncommon to the urban dweller or the weekend sightseer. Walkers, whether beginning or experienced, must diligently acquire familiarity with the conditions and techniques of travel in the bush in order to be assured of safe and successful trips. Experience gained in wilderness walking in one area may not be transferable to other areas, but may be used as an adjunct to the information acquired on an area prior to undertaking a trip into unfamiliar environments.

Wilderness travellers carry navigation aids and have mastered their use. Before the trip they study maps and descriptions of the route and surrounding terrain. Walkers strive by experience to become successful in the art of route finding. They walk with their eyes, observing the route constantly, looking for those general characteristics of the terrain that are no longer apparent

when they are engulfed by trees or surrounded by rocks. The walker must develop "an eye for country".

## **2. CLOTHING AND EQUIPMENT**

### **2.1 GENERAL GEAR**

Equipment carried on any trip must be kept to a safe minimum and must be just as light as is consistent with durability and versatility. Modern materials and methods of manufacture have made possible great saving in weight with no sacrifice of utility. Unfortunately, very often the lower the weight the higher the price.

Given unlimited funds, a person can visit a wilderness shop and walk out later fully and superbly outfitted for wilderness walking. The novice of ordinary means must proceed more cautiously to avoid financial disaster. Many objects from the urban environment can be converted to use in the wilderness, though perhaps only as stopgaps.

The beginner can avoid confusion and/or bankruptcy by taking one trip at a time, one purchase at a time, remembering there is seldom any real economy in buying cheap. Footwear comes first.

With growing feet, stopgap measures may be the best. It becomes an expensive and unnecessary outlay if you purchase a pair of boots, that with care would last two or three years under heavy use, but are outgrown after twelve months.

A rucksack is also a substantial investment, as only the more expensive rucksacks will give any sort of reliable service over a period of time. Remember that a pack that is ten years old and has been used by the owner once every three months on weekends has only been used for forty days. But if this is all that the pack is going to be used for, a less expensive one may be the one to get.

The sleeping bag is also a painful expenditure. The need for one cannot be argued in winter and in summer it may be considered a wise choice. Bags range from cheap, bulky, heavy items to expensive, small and light. The range and types of bags will be dealt with later.

Shelter in wilderness walking ranges from a single sheet of plastic thrown over a log to an expensive freestanding tent that will withstand a full blizzard or cyclone. Most wilderness walking in Queensland can be quite safely undertaken with a flysheet and ground sheet. A fly and ground sheet combination will often serve in the most adverse conditions and be a cheap useful shelter.

The governing rule is, never buy anything until the next walk demands it. By improving, modifying, borrowing and renting, the entire outfit can be budgeted over a considerable period of time. In succeeding years stopgaps can be gradually replaced, all the more wisely for the delay.

### **2.2 FOOTWEAR - BOOTS**

Foundation of the Walker. One day of wilderness walking may involve travel through and over streams, mud, logs, scrub, grass, scree and delicate footwork on rock. A single pair of boots usually must suffice for all these conditions.

A good walking boot, therefore, represents a happy compromise among a number of conflicting requirements. The sole should provide a solid platform on which to place weight; a soft-soled boot may be great for ridge running or walking on tracks without a load. However, once a load is placed on the feet for even a weekend pack, the feet deform and every uneven surface places unnecessary stress on the feet. Above all, a sole should provide confidence-building traction under a variety of conditions. A good lugged sole will generally provide great traction, but under some conditions may provide no traction at all; for example, when the tread is filled with mud. The user should be aware of these limitations so as to take the necessary precautions to avoid a minor disaster.

The compromise currently found best by most walkers is a 5<sup>1</sup>/<sub>2</sub> to 7<sup>1</sup>/<sub>2</sub> inch high boot with a lugged sole of fairly hard rubber and a half-length shank. Dozens of boot styles are available which fall within the limits of the recommended compromise. Whichever is chosen must meet still further tests of acceptability. The welt should be narrow to ensure neat placement of feet. The top should open wide so that, even when the boot is wet, it can be put on with minimum struggle. Reducing the number of seams decreases the points of entry of water and lengthens boot life, since seams are susceptible to abrasions and are frequently the first part to fail. Minimising seams adds to the expense of construction but increases durability, as does double and triple layering in areas exposed to roughest wear.

To prevent mildew and rot, boots should be washed off after each use and thoroughly dried in a ventilated, moderately warm storage place. High temperatures are as damaging to leather as to human skin. Leather is skin, but a boot lacks nerve endings to warn of harm being done. The boots seen roasting by the campfire are the very ones that mysteriously disintegrate on some future walk.

Water can enter the boot not only over the top, but also through the leather or seams. Boots of good quality leather, well waterproofed, - particularly at the seams - and having a tongue gusseted to the top, can exclude water for a long while, even when slopping around in water (assuming none enters over the top). Waterproofing is best applied a day or two before a walk to allow the preservative to work into the leather. Be careful of waterproofing agents which are unsuitable for the type of leather, or which contain leather softeners that can lead to stitching tearing away. A good stopgap boot for use in Queensland is the suede boots that have been waterproofed. The tendency for scuffing to break the waterproof layer is reduced owing to the penetration of the water proofing into the suede. A suede boot that has been waterproofed no longer looks like a suede boot, but they do work.

Composite boots (boots made of leather and nylon), while being as light as a gym boot yet offering the protection of a full leather boot, have a major failing in that there are a large number of stitch lines which can become weak joints in rough use. This type of boot is quite suitable for medium duty walking, but should not be considered for walking with a heavy load over rough terrain for extended periods.

### **2.3 FOOTWEAR - SOCKS**

Socks perform four vital functions: cushioning, insulation, absorption of perspiration and reduction of foot/boot friction. Wool has been proved to be superior material for socks. A light, smoothly woven pair is usually worn next to the skin and a heavy, rough woven pair over these. People who have a reaction to wool often add a pair of light cotton or synthetic socks next to the skin. The toes must always be free to wiggle.

### **2.4 CLOTHING - GENERAL**

Man is a warm-blooded creature and therefore must maintain the body's internal temperature within a very fine margin. In hot weather, lightweight cotton clothing is the best, always combined with a hat. Overheating of the body can lead to complete collapse of the body's functions from dehydration.

Clothing worn in hot weather must be able to act as a radiator of heat to keep the body cool. When activity stops, a cooling breeze can be great. However, it may take sufficient heat away from the body to start hypothermia, a dangerous lowering of the body's core temperature. Wet clothing can conduct 240 times as much heat from the body as dry clothing (Ed Peters, Mountaineering: The Freedom of the Hills, 1982),

For insulation, clothing in Queensland need not be heavy for most conditions. In winter it is usually quite adequate to wear a flannelette shirt, a wool jumper and wind proof over jacket with

long wool trousers. Headgear in winter is best provided by a hat in daytime, and a beanie at nighttime. Long cotton trousers in winter should be avoided. Wool is longer wearing and provides far better insulation in the event of getting wet. Woollen trousers are, in the main, cheaper from a disposal store.

Many specialist-clothing items are available which perform magnificently. However, they are expensive and often need not be acquired for Queensland conditions, as stopgap measures are often adequate. Layered clothing is warmer than one bulky item and allows greater control of temperature. Wind proof garments are essential to minimise heat loss in cold and a water proof shell is necessary to keep insulating layers dry, though it is difficult to keep moisture out and still maintain adequate ventilation.

## **2.5 BELOW THE WAIST**

Walking trousers should be loose fitting and of a closely woven, hard finish fabric for abrasion resistance and wind proofness. Wool is much preferred in a cool wet climate. Shorts travel well in rain and hot weather and are good for deep stream crossings, keeping the long pants dry in the pack for camp,

The boundary between trousers and boots is an important area. Gaiters that fit snugly over boots and are elastic at the top keep seeds out of socks, mud and trash out of boots and give a degree of protection to the legs when wearing shorts.

## **2.6 WET AND WINDY WEATHER GEAR**

An anorak is the best gear for either wet or cold weather as an outer shell. 60/40 polyester /cotton blend anoraks are tough and wind resistant but repel water in heavy rain for only short periods, even when treated with water proofing substances. An anorak should be long enough to sit on so that the shorts will not get wet. Goretex anoraks are waterproof and breath, but are expensive. Ponchos shed rain and allow air circulation. Their major faults lie in being so cumbersome as to be restricted to camps and open trails and they are almost totally useless in wind. Cheap ponchos have a habit of self-destructing in cold weather.

## **2.7 HEADGEAR**

Headgear is only headgear when on the head. That is where it belongs so keep it there, not in the pack.

Summer - a broad brimmed hat. Winter - a hat for day and a beanie for night.

### **3. EQUIPMENT**

#### **3.1 PACKS**

Every year brings an ever-expanding range of packs onto the market all saying how much they are an improvement upon last year - a bit like new car models. Packs constructed from waterproof materials are not necessarily waterproof and so a pack liner is used (a large garbage bag is ideal for lining a pack). In choosing a rucksack one must be sure it fits well and the capacity is suited to the individual needs. All items should be stored inside the pack. Gear tied on the outside of the pack is prone to damage, getting lost or wet. A damaged tent can lead to a very uncomfortable night, so can a wet sleeping bag. None at all can be miserable to say the least.

Internal framed packs with fully adjustable harness systems are the best, offering flexibility and great comfort, but have a maximum load capacity of about 25 kilos. An external framed pack can carry heavier loads but are, as a rule, not as comfortable or as adjustable. Avoid packs with many pockets and openings - every opening is a weakness. Packs that depend on zippers as part of the load carrying structure or for a crucial closure should be approached with caution since failure of a zipper could disable the pack.

#### **3.2 MISCELLANEOUS EQUIPMENT**

A catalogue of sometimes-useful miscellany could easily run to many volumes. This section suggests many items that need no elaboration, a few are discussed below, others are discussed in later sections. A list of the "Ten Essentials" has been compiled and it must be the bare essentials that an experienced walker would not be without.

1. Map of Area (in a case)
2. Compass
3. Flashlight with extra cells and bulbs
4. Extra Food
5. Extra clothing
6. Sunglasses
7. First Aid Kit
8. Pocket Knife
9. Matches in waterproof container
10. Firestarter

#### **Map and Compass**

A map of the area to be travelled and suitable compass together with the knowledge to use these items to their best advantage are complementary essentials. "Navigation", describes both in detail.

#### **Flashlight**

Around the camp a double "A" cell torch is all one needs, with spare bulb and one set of spare cells. Walking at night is not recommended at any time but is sometimes forced upon one. A head torch is best with suitable spare cells and bulbs. Hand held torches get in the way, are dropped or are overly heavy.

#### **Extra Food**

A one-day supply of extra food is a reasonable minimum of most wilderness trips. A combination of dried meat, nuts, health bars and tropical chocolate store well, and last for an extended period of time in a pack.

#### **Extra Clothing**

Spare socks, a light pullover, spare shirt, will add to the comfort and appearance of a walker at

the end and also keep up moral in times of adverse conditions.

### **Sunglasses**

Sunglasses of the better variety that filter out U.V. and infrared are the best. Alpine styles are not needed in walking as a rule, as they tend to fog up in hot weather,

### **First Aid Kit**

Many people who continue to hike carry a first aid kit inadequate to treat the injuries that will sooner or later be encountered. Likewise many people do not know how to utilise their own equipment to its best advantage in a situation requiring first aid. Devise your own from your personal requirements and by seeking the advice of experienced first aiders and bush walkers. Always ensure it is packed in waterproof containers and that any lotions, etc, have not exceeded their life span.

### **Knife**

In food preparation, fire building, first aid and gear repair - everywhere in wilderness walking - a knife is so essential that every walker must carry one. The days of large sheath knives are finished with some relief. A knife with two folding blades, can opener, combination screwdriver and bottle opener and sometimes an awl is handiest and least expensive. The similar Swiss Army Knife is superior in every respect but costs more. A knife with everything that opens and shuts from bush saw to ruler is, in the main, an overkill.

A locking blade knife, in the main, is the safest but does not have any of the nick-nacks and so a trade off is made between safety and convenience. A knife is only as good as the edge that is upon it. A blunt knife is a health hazard and is the mark of an inexperienced walker.

### **Matches and Firestarters**

An emergency supply of matches, water proofed or stowed in a watertight container, must always be carried on each and every trip in addition to the matches or butane lighter used for routine purposes. Together with the emergency supply of matches should be either a candle stub or a bit of solid chemical fuel.

### **Water Bottle**

A water bottle must be kept at all times. A one litre or one quart bottle is best, with a captive lid. The lid must have a watertight seal; otherwise the only thing that will get a drink is the contents of the pack. Plastic or plastic lined metal water bottles are best, as fruit drinks will eat an unlined bottle and taint the contents. A good walker will always have water unless there is a 100% chance of a refill in the very near future.

### **Repair and Improvisation**

All walkers, through experience, accumulate emergency kits composed of odd bits and pieces wonderfully versatile in times of trouble. It comprises an assortment of wares - tape, safety pins, thread, squares of patching fabric, coils of nylon string, small pliers. The list could be extended indefinitely. Generally walkers, with 20-20 hindsight, carry those items they wish they had carried on some past walk.

### **3.3 EQUIPMENT CHECKLIST**

It is difficult on journey's eve to remember everything that may be needed. The more quickly one packs, the more easily an item may be forgotten. Seasoned walkers have learned, often as not through sad experience, that a systematic run through a checklist is the only way, no matter how many times they have packed their packs for past trips. The following example is representative, though by no means either universal or complete. Each person should make their own list, building upon the ten essentials. Different trips will require different lists and thought should be given to equipment lists some time prior to packing.

All Trips - Overnight - The Ten Essentials

- Shelter
- Mess gear
- Water Bottle
- Food
- First Aid Kit
- Toilet gear Whistle
- Gear which may be group gear Shelter
- Big First Aid Kit
- Stove and Fuel Some mess gear (billies etc)
- Food Clothing
- Boots
- Socks (inner and outer)
- Underwear
- Pants/shorts
- Shirt/jumper
- Anorak/poncho Hat
- Gaiters

Other

- Ground Sheet
- Stove and Fuel Pack
- Sleeping bag and bag liner
- Pack liners
- Repair kit

#### **4. CAMPING AND SLEEPING**

A walking camp should be one of reasonable comfort. "Any fool can be uncomfortable in the bush". Plans do not always turn out as expected and so camps may have to be made in places that are less than ideal. The selection of camp sites can depend upon a number of factors, but at all times safety has to be the overriding factor. It is unwise, in the extreme, to pitch camp under large gum trees as they have the habit of dropping widow makers at the most unexpected time. Campsites with great views should be avoided as great views indicate exposure to the weather from that quarter. A nice sandy creek bed can be comfortable to lie down on but sand is a cold hard bed in the morning.

Cold air will often flow down gullies in the night creating cold areas along creeks. Twenty foot up from the creek may mean a short walk to water, while it may also mean 5° temperature difference. A large proportion of long established campsites in Australian wilderness areas are on the banks of lakes and streams. However, waterside plant life is so especially delicate, the areas so denuded of firewood and water pollution such a growing problem, that in many areas these campsites have become health hazards. The lack of firewood together with the inherent dangers of open fires has made the carrying of stoves a must in many areas. As low impact walking becomes more accepted one can expect a shift from open fires to stoves as a reaction to both a shortage of firewood and the effects of environmental degradation.

##### **4.1 SHELTER**

Most walkers carry portable shelter. Tents and flys both have virtues and vices, and each is unquestionably superior for some conditions. Certainly a tent is the only shelter worthy of the name in heavy rain, in strong winds and in mosquito country. Of prime importance, it can be erected almost anywhere - being a self contained unit. The main criticism of tents is that they

are either heavy or expensive, and no serious walker can afford the burden of a cheap, heavy tent.

#### **4.2 FLYS**

A fly is both light in weight and low in cost and offers adequate shelter from all but extreme weather. It gives less protection than a tent from heat loss and wind, and none at all from insects, but allows more convenient study of natural science and scenic splendour. Setting a tarp (fly) up demands human ingenuity and some co-operation from the landscape. The most versatile size is about nine (9) feet by twelve (12) feet providing living room for two people and their gear. In smaller sizes the useable space approaches the vanishing point, since the outer margins of fly covered ground are usually only half protected, if that. The weary walker, who wraps oneself in the fly as if it were a large blanket, is protected from wind but generally finds oneself damp from their own perspiration by morning. Maximum protection in wind driven rain is gained by rigging the tarp as close to the ground, as needs for head room will allow, edges flush to the ground anchored with a large log etc. A fly can handle quite high winds and rain if pitched correctly.

Rigging a fly is an art using only a few basic designs but unlimited variation. The architect needs imagination and experience to become a master.

#### **4.3 TENTS**

Tents offer greater protection and comforts than tarps, though, of course, at greater cost. The choice of a tent depends upon its intended use and individual preferences. Will it be used only in southeast Queensland? Will it be used in more severe climatic areas? Will it need to accommodate two, three or four people? Is luxurious space desired? How much to spend? The more you spend the less you have to carry. Owners are often willing to discuss advantages and shortcomings of their models so and talk to users of tents, not salespersons. Tents are constructed with either floors or no floors, single or double walls, of either waterproof or breathable materials. A completely enclosed unit must be well ventilated and preferably should "breathe". A tent without a floor is inviting the worst disaster - wet sleeping. If the tent is made of completely waterproof material, the moisture exhaled by occupants condenses on the cool walls and will drip back upon the occupants or their gear. In a single night two persons can expel enough water vapour from lungs to drench sleeping bags. Often the very inexpensive tents are constructed of one layer of waterproof material. Such tents cannot be recommended except in the mildest of conditions, where the door and windows can be left open for ventilation.

Even so, some condensation inside must be expected.

The ideal material for a tent is one which will both breath and keep out a driving rain. Gore-Tex R, a thin membrane of polytetrafluorethylene laminated to various fabrics, the dream of tent users, seems to have come true. But it is not without its disadvantages. It needs a temperature gradient to ensure that water vapour will pass through and it must be kept clean otherwise it will cease to breath. It is also very expensive. The dilemma of a waterproof yet breathable tent was often solved by the use of a breathable inner tent with a waterproof outer flysheet. The majority of good tents are still designed using this principle. The rain fly of a double wall tent should be designed not to touch the inner walls when properly rigged. The fly should also come fairly close to the ground to adequately cover the tent and entrance and minimise exposure to wind driven rain. It should be kept in mind that under certain conditions some condensation will occur in any tent, regardless of construction.

Shapes of tents vary widely. The trend has been to tunnel and freestanding dome shaped styles, which make maximum use of available space and minimise the number of pegs and guylines needed. Freestanding tents often need no pegs but in high wind will have to be pegged down unless one likes to play beach ball with a free roaming tent. The old standby, the cottage tent

and 'A' tent can still be found. Although not given to much internal space for the same dimensions as a tunnel or dome tent it is a simpler, hence generally less expensive, design and has proven its worth over the years. Various entrance designs offer zip doors, tunnels, alcoves, vestibules and hoods. Careful scrutiny of the entrance is in order to determine that a minimum amount of rain is admitted when entering or exiting. Some designs are notably lacking in such consideration.

In general, cooking inside a tent cannot be recommended, particularly with gasoline stoves. Beside the danger from carbon monoxide fumes, any spilled fuel or flare up is a very real health hazard. Cooking also adds to inside condensation. The colour of a tent also should be considered. Subdued hues that blend into the background, lessening the intrusion upon the landscape are preferable to bright hues that stand out. Hide your bright safety coloured items except when you want to be found; visual pollution is just as offensive to people as litter and water pollution.

#### **4.4 SLEEPING BAGS**

Sleeping bags come in a range of weights and prices that can stagger the imagination. Top of the range bags are very lightweight, very warm and very expensive. Bottom of the range bags are heavy, bulky and cheap. The walker must make a trade off between quality and price. The warmth, weight and cost of a sleeping bag are chiefly functions of the kind and quantity of insulation - down or a synthetic polyester. No one as yet has improved on nature. Down is still the most efficient insulation per unit weight for a sleeping bag. Its chief disadvantages are its high cost and its absorbency. Once wet, down loses most of its insulating value, and is for all practical purposes impossible to dry out on a trip. Once wet, a down bag's weight can be as high as seven or eight kilos. Polyester on the other hand is resistant to moisture, retains most of its loft when wet and dries relatively quickly. It is also much less expensive than down. Bags made with polyester are still heavier than comparable down styles and do not compress as easily, thus making a bulkier load. There have been some reports of polyester bags losing their loft after six to eight years of use and so not working as efficiently. This has also to be considered, as a down bag, with care, will still be good after twenty years of use.

The warmth of a sleeping bag depends on the entrapment of dead air. The loft, or inches of a sleeping bag, determines the effectiveness of insulation - more loft, more dead air. The amount of fill a bag required for a certain loft depends on the style, the method of construction, the size and the type of insulation of the bag. Therefore, two bags with the same weight of fill may have quite different comfort ranges. Sleeping bags can be categorised as recommended for summer, three-season or winter expedition use. A three-season will often be quite suitable for most use in Queensland. Most manufacturers rate their bags with optimistic minimum comfort temperatures, but their ratings are, at best, an educated guess and not even entirely consistent from one manufacturer to another. Whether or not a particular bag will be comfortable for a particular person at a given temperature depends upon a number of factors - shelter (if any), ground insulation, additional clothing worn and whether the individual is a husky young adult sleeping off a steak or a frail senior citizen who skipped dinner.

Four basic construction methods are used in down bags, the fill uniformly distributed - sewn through, slant tube, vertical tube and overlapping tube. Sewn through construction is just that; the inner cover is stitched directly to the outer cover. This type of construction is only suitable for summer bags as it allows substantial heat loss at the seams. Sewn through bags are the most simple and inexpensive method of construction. The majority of down bags are made with either slant tube or vertical tube method. The most efficient design, overlapping tubes, is used only in the most expensive bags. Most polyester bags are constructed with sandwiched layers of polyester batts, the least expensive being constructed with the sewn through method. The more sophisticated shingle construction method uses batts of polyester stitched alternatively to the

outer shell and inner lining. Dirt decreases the loft of any bag and every effort should be made to ensure that a bag is kept clean at all times. A removable inner liner not only adds to the comfort of a bag but also ensures that the time between cleaning is increased. The inner liner is made out of either cotton, lightweight silk or a synthetic.

#### **4.5 GROUND INSULATION**

As all bag fillings compress to almost nothing under body weight, additional insulation underneath is desirable for a warm bed. Extra clothing, pack frame and boots can be used to improvise padding but a foam or air mattress is more comfortable. A closed cell foam provides good insulation under a bag. The self-inflating air mattress provides both the insulation of a foam mat with the comfort of an air mattress but they are expensive and some models are very heavy. Air mattresses are the most comfortable, but a good quality one is heavy, while a cheap one is so prone to puncture as to be almost useless.

In spite of tradition the destruction of vegetation for a bed, bough beds are not to be considered as an alternative, as they retain their insulation and comfort so briefly they rarely justify the time, effort, and vandalism necessary for their construction. Modern materials are so light, versatile, comfortable and inexpensive as to render bough beds or grass beds obsolete.

## **5. BUSH CUISINE**

Food is what keeps a walker going. There are a number of foods available that are lightweight and can be turned into a good meal with adequate protein and carbohydrates to ensure a balanced diet. Careful consideration to diet has to be given on long walks to ensure that food boredom does not set in and lead to lack of interest in food. There is no reason, apart from morale, that food has to be cooked, however, camp cooking is such a part of bush craft that it cannot be ignored. A handful of raisins with sandwiches and cold sausage will no doubt keep walkers on their feet, but over time becomes so disheartening, that only the most dedicated ridge runner would consider such a diet over a period of time. Bush food should only be left to the expert in the field, as mistakes in the extreme can be fatal, and in the least, uncomfortable,

### **5.1 COOKING**

The contemporary walker generally cooks meals over one of the currently available special purpose stoves, gaining the advantages of speed, simplicity and lessened impact on the environment with a relatively small amount of extra weight in the pack. Solid fuels carried primarily as fire starters are light and cheap, but serve only for limited cooking. A stove with a pressure tank, burning kerosene, petrol, white spirit, shellite or liquid gas, is indispensable for a normal amount of cooking. A number of ingenious, lightweight and reliable back packer oriented stoves are available. Each has advantages; each has special tricks. The walker should make first gain confidence with the stove at home and then escalate to a useful relationship through steady, less deal conditions. Kept in good working order these stoves last for years.

The complete wilderness walker is never caught without dry matches in a suitable waterproof container, and has the ability to start an emergency fire in adverse conditions.

### **5.2 HOUSEKEEPING**

#### **Cooking and Eating Utensils**

Aluminium cooking billies have nearly replaced the various sizes of tin cans once found at every campsite. Fruit tins still make useable billies and are cheaper than aluminium cooking sets. Billie lifters are desirable for handling and carrying, and lids keep in heat and steam, improving efficiency. The simplest eating utensils are a large cup and a spoon. Some people like to use a bowl besides.

#### **Dishwashing**

Clean plates and pots reduce the incident of sickness. Over a long trip this can become a major problem and many walkers have suffered from stomach disorders as a result of inadequate cleaning of equipment. Use hot water to wash up and use a scourer and soap. On extended trips a little disinfectant goes a long way to ensuring the health of the party. Disposal of washing up water should be done so as to ensure that creeks, waterholes and lakes are not contaminated by the soap. Disposal is best done on the ground by broadcasting well away from watercourses. Even with biodegradable detergents and soaps, the problems of pollution are very real. Only a very small amount of soap or detergent is required to break down grease.

#### **Frustrating Animals**

Hungry rodents and possums are not much of a problem in Queensland as yet. However, they are becoming more common. They can gnaw through a pack and plastic bags in search of food.

Horses in some areas have been known to raid camps. If raiding animals are known to be a problem in an area, the only sure way of preventing raids is to hang the food up well away from anything that the creatures can use to get to the food. Possums have been known to tease open packs, and understand that a billie lid comes off. The rattling of plates and gear around the tent at night by animals is a sure way to keep every person awake, so when the creatures are about, pack everything up.

## **6. GARBAGE CONTROL**

"If you can carry it in, you can carry it out" is the only rule that applies to garbage. Paper can be burnt, but not plastics. Aluminium foil should be carried out at all times, not disposed of in the fire.

### **6.1 WATER POLLUTION AND HUMAN WASTES**

It is becoming apparent that much supposedly virgin water, however clear and cold, may be so contaminated by thoughtless humans and their uncontrolled domestic animals that it, could be as dangerous as any city sewer. For personal protection, therefore, wilderness travellers must now, and increasingly in the future, inspect carefully the water they propose to use and when in doubt give it preliminary treatment with water purification tablets or by boiling.

The rules of good wilderness sanitation are simple and absolute. Human waste will be disposed of by burying six to eight inches, and no less than sixty (60) metres from open water. Used non-biodegradable items of personal hygiene, such as sanitary napkins, should be carried out in sealed, air tight containers, unless provisions are available for a fire which will reduce them completely, finally and absolutely to ashes.

## **7. WATER**

The notion lingers that because it is a pleasure to drink when thirsty, it must be harmful, and therefore one should resist the devil by sucking a stone or perhaps a prune pit. The only thing this will do for you is give you a rough mouth. Water is as vital to life as oxygen and all reduction of the water levels in the body can lead to substantial lowering of efficiency. Authorities recommend an average daily intake of two (2) litres of water during active exertion and twice that in hot weather. Processed food on the whole contains so much salt that increased salt intake is not necessary under most circumstances.

Tossing down a large volume of water into the stomach slows one down. If the person is very hot and the water very cold it can even knock one out. Drink little but drink often is the rule, and to this end, walkers fill canteens even when they could, strictly speaking, survive from one creek to the next without a drink. Powdered drink mixes are normal and are often added to strange flavoured water. Red cordial powder also is a good bug killer in water. It's all in the acid.

## **8. NAVIGATION**

Navigation is the process of determining ones present position and the location of the objective, and of selecting and following the route between these two points. Most wilderness navigation is done by inspection, that is, by looking at the surrounding terrain and relating what is seen to prior knowledge of the locality or to features described on a map. The area of navigational concern for a walker is small, seldom larger than can be seen from a vantage point. When resort to instruments is necessary or desirable, the only ones essential should be simple, self contained, easily mastered and virtually foolproof. With a good map, wilderness navigation can be easy and exact. This skill is very largely a function of experience, though the basic tools and procedures can be quickly mastered in the relative safety of the backyard or local park.

### **8.1 THE TOOLS**

Nature offers several rudimentary indicators of direction. Northern slopes are sunnier and thus drier than southern slopes, with vegetation sparser or of an entirely different type. The sun rises in the east and sets in the west, within general terms. The 'Southern Cross' can be used to determine due south. Persons stranded in the wilderness without equipment may be completely dependent on such information.

However, they can simplify orientation by always carrying a map and an artificial direction finder, i.e. a compass. The compass can either point to magnetic north or 'Mecca ' or any other point, but when it is free of outside interference it will point in the direction that it is intended to.

### **8.2 THE MAP**

For terrain description, a walker generally depends chiefly on a map - a symbolic representation of an area that relates places to one another by distances and bearings and by convenient shorthand, conveys a wealth of information in a form easily carried and easily understood.

### **8.3 TYPES OP MAPS AND THEIR USES**

Sketch maps are usually prepared for the special purpose of providing graphic notes of particular routes and features. They are not always drawn to scale, seldom show any surrounding detail and may not indicate directions and elevations accurately. When used as supplements to proper navigational maps - which never include interesting and useful details like "Small Cypress Pine growing sideways in rock crevice just past rock with wasp nests" they are very useful as route finding aids.

Cadastral maps show only boundaries of properties, and very little besides. High points, ranges and watercourses are often only shown when they are related to property boundaries.

Topographical maps are the prime tool of the wilderness walker. Their name is derived from their depiction of topography, the shape of the earth's surface. On these maps the description of the works of humans is subordinated to terrain details. Topographical maps are published by 'Nat Map' and The Department of Mapping and Surveying and are sometimes referred to as 'Military Maps'.

The scales that these maps are available in vary from 1:250,000 to 1:5,000. The scale of map to be used is very much dependent upon the use that the map is to be put to. At the broad planning stage a map of 1:100,000 is often suitable, but when the map is to be used in the field, a scale of 1:25,000 is the most suitable. For the walker, the 1:25,000 series gives sufficient topographic information for route selection and each sheet covers enough area to make orientation easy.

Orthophoto maps are also available. For some areas these maps combine both aerial photos with topographical information. They are available only for very restricted areas.

Special series maps are also available in a variety of scales. These maps are often prepared to cover areas that are of special interest to the Government or a private developer.

#### **8.4 INTERPRETATION OF TOPOGRAPHIC MAPS**

Topographic maps show the shape of the terrain with contour lines, which are drawn to represent constant elevations above sea level on the surface of the earth. The interval between contour lines always represents an equal vertical distance. The contour interval can be found in the legend of the map near where the scale is printed. Important information to look for on a map, to judge its suitability for use, includes:

Title; Author; Date; Orientation; Scale; Legend

Old maps are often misleading as, while topographic features do not often change, roads, settlements, dams and power lines do.

Contour maps offer much information about the landscape but do not tell all. It must be remembered that a twenty (20) metre cliff will not be evident at all if it lies between contour lines of fifty (50) metre intervals. Regardless of the value of topographical maps, no one map tells the whole story and all sources should be thoroughly studied before entering unknown territory.

#### **8.5 MAP PROTECTION AND MODIFICATION**

Topographical maps are fairly inexpensive and can be easily replaced, but not during a walk. Enclosure in a clear plastic bag or map case is adequate protection and allows use without damage, even in wet weather.

Some topographical maps are confusing even to an expert. It is helpful to outline the ridgelines in pencil along crests. More laborious, but far more valuable, is shading a map to simulate shadows cast when the sun is low in the southwest. Such techniques speed development of the stereoscopic vision characteristic of a practiced map-reader.

#### **8.6 THE COMPASS**

A compass is a magnetised needle mounted so that it can respond freely to the earth's magnetism - almost always that is. Our bodies, power lines, any ferric or ferrous object or electric device can deflect the earth's gross magnetic field. The small round pocket watch type of compass, marked with the cardinal directions indicates little more than the general direction of onset and is inadequate for wilderness use. A compass to be used for navigation should enable one to determine a bearing or a direction to within one (1) or two (2) degrees. A five (5) degree error in one kilometre of travel leads to an error of eighty five (85) metres. A liquid damped compass eliminates excessive oscillations of the compass needle and permits fast and accurate readings, whereas an undamped needle vibrates too much to allow accurate readings.

Good quality compasses have adequate instructions with the instrument when purchased and it is the responsibility of the user to ensure that he/she has adequate knowledge in the use and care of the instrument.

There are a number of compasses on the market, some of which are no more than toys, while at the upper end of the market are compasses of such accuracy and precision, and hence price, as to be beyond the means and needs of the average walker. Base plate compasses and reflector compasses are what most walkers need. A bearing compass is a joy to use but requires other map and compass skills not usually mastered by the average walker. Prismatic compasses are an overkill for walkers in both accuracy and weight.

The use of map and compass with all the tricks and traps explained takes a fair sized volume to explain and it is suggested that the user masters map and compass prior to setting out.

### **8.7 LOST**

A good navigator is never lost, but having learned humility, always carries enough equipment to survive hours, even days, of temporary confusion. Stated differently, there is no such thing as being lost - only varying degrees of uncertainty about one's position. Having a compass and map with you is great but a compass can only tell you one fact - which way magnetic north is (you hope). The compass cannot tell you where you are on the map. When lost follow the rules:

1. Stop
2. Relax
3. Think it through

There are a number of books available on what to do when lost. Read them before you go bushwalking.

Bushwalking history reveals the significant fact that a party of two or more, even if the most tender of tenderfoots, rarely gets dangerously lost or confused. It is the unintentionally lone person, overwhelmed by a sense of human fragility and the immensity of the wilderness, who throws away their life. Fear in the face of nature is no sign of cowardice, but rather is a healthy reaction. It is entirely proper, when alone, to treat every step as a life or death matter. The important lesson is DO NOT WALK ALONE.

### **8.8 ROUTE FINDING**

Route finding in the wilderness is not a science, but an art. Some travellers have the gift and some do not, but all must learn the use of the tools and all can improve with practice.

## **9. FIRST AID**

This section is no substitute for current first aid training. Go read a book on First Aid or, better still, do a good first aid course, and in time do the refresher courses. The only way to be proficient in first aid is to practice, both in the classroom and in simulated in-the-field exercises, until it becomes a second nature reaction.

## **10. THE LOG**

Bushwalking can be a very rewarding experience and it is often a pity that many of these experiences are lost as the information is lost through the single fact that no record is kept of the activity. In order to preserve this information, logs were brought into being to meet a number of requirements:

1. So that the trip may be repeated.
2. As a record of completion of the trip.
3. As a guide to bushwalking equipment.
4. To record the feelings of the participants.

Logs should include enough information to insure that a person completely unfamiliar with the particular trip can repeat that trip from the information contained there in, provided that person is equipped with the right skills. To ensure that each log is unique such things as weather conditions, track conditions and personal observations should be included. Samples of fauna and flora are often included as well as sketches of campsites and points of interest. Photography should also be used to generate a feel for that particular trip.

Hazards that may lead the unwary astray should be detailed, as well as major navigation aids. The availability of water as well as good camping sites should also be noted, as this information may be of importance to other walkers entering the walk area from other areas.

### **10.1 The Layout**

Logs may be laid out in a number of ways and may make use of a variety of illustrated forms. The following examples of log types have been used in the past and should not be considered exhaustive, but as examples of type. Comments by the author of the effectiveness of the log to meet the requirements of the log types are also included.

#### **The Strip Map or Traverse Notes**

Useful for compass walks; commonly used by surveyors. Very easy to retrace route provided information relating to compass bearings and distances is accurate. Can often be followed by the use of the topographical information and other features. This log type is often handy for the recording of rough notes.

#### **Narrative Type**

Reads like a book. While often the information is all included, it is often not readily available and requires thorough reading. This type of log is good however, to get an overview of the complete trip. When used in conjunction with a Strip Map, it gives a complete picture of a trip.

#### **Narrative Type with Times**

Good gauge times of trip will be of assistance in planning, as time taken is more often important than distance travelled, as terrain and vegetation will dictate speed over land. Important considerations when reading this type of log are the fitness and experience of the party.

#### **Narrative type with Map and Times**

This log type is very useful as many conclusions can be drawn from a study of the map in conjunction with times and narrative, if compass bearings are included. A complete retracing of the trip can be undertaken very easily,

## **10.2 BREAK UP OF LOG**

The first section of the log should include the following:

- Objective of the Trip
- Pre-planning activities such as:
  - Documentation re permission to camp etc
  - Menu
  - Gear list
  - Maps used
  - Members of Trip
  - Special tasks list

The second section of the log should contain the following:

- Narrative of Trip
- Personal observations
- Special task activities
- Maps of Trip

Rough notes should also be presented with the log.

## **11. THE TRIP**

In Venturers, two trips are of major importance. They are the "Venturer Award" trip and the "Queens Scout" trip. Both trips should be of such a nature as to test the scouting skills of the persons undertaking the trip, in order to gain an award. Before the trip can be undertaken, the necessary skills have to be learnt to ensure a safe trip, as such trips will undoubtedly have hazards that could lead the unwary to disaster. To ensure that such skills are learnt, preliminary trips should be undertaken, as many of the skills can only be learnt by experience. Camping out of the back of a car cannot be considered experience for trips; likewise, day walks are of only limited value.

A person selecting an award trip should have sufficient skills in navigation and an eye for country to select a trip by the use of a topographical map and track notes that are available from a number of publications. The examiner should have sufficient skills also, so as to ensure that the trip is not beyond the skills of the persons undertaking it.

### **11.1 SELECTING A TRIP**

When selecting a trip five criteria should be met:

1. The trip should be physically demanding.
2. The trip should be mentally demanding.
3. The trip should be a test of navigation.
4. The trip should be a test of scouting skills.
5. The trip should be over unfamiliar terrain.

In order to ensure that the trip is of such a nature to meet the five (5) criteria, the trip selected should include bushwalking, very little use of tracks, roads or such features as power lines, easements, railway lines, pipelines or other major man-made features. In some areas the only safe passage has become a footpad through use, particularly in South East Queensland. Such footpads should be used for environmental reasons. In National Parks, where they exist, the graded track system should be used.

The distance that one sets out to cover on any day or trip should be considered in the light of the

terrain and nature of travel. Many wilderness walkers have come to grief through attempting too much in any one day. Night travel should be ruled out of most trips except in special cases. Nighttime navigation over unfamiliar terrain tests the skills of the most experienced wilderness traveller. Baden Powell, in 'Scouting for Boys' made it a policy not to undertake wilderness travel at night.

With continued trends within society to protect the foolhardy, as well as the inexperienced, various restraints are being placed upon the wilderness walker to ensure that the various rescue and/or wilderness protection agencies are not overtaxed. The scouting organisation is attempting to ensure that its members are well prepared for wilderness travel by the teaching of various outdoor skills, as wilderness travel is still a major activity of scouting.

The opportunity of the scouting members to gain the various skills is often restricted to a few activities year and as a result, very few scouting personnel could be judged as competent in wilderness travel. As a result of this, very few personnel can be judged as competent to examine wilderness trips. The selection of an examiner, therefore, becomes a major problem.

## **11.2 LIST OF TRIPS**

The list of trips with a brief description of the trip could be considered as whole or part of the major award scheme. It is stressed, however, that all these trips require prior training in the various skills before undertaking the trip.

### **Walking Trips:**

Main Range, South East Queensland:

- Laidley Creek to Cunninghams Gap (2 day)
- Cunninghams Gap to Fishers Park via Spicers Gap (2 day)
- Spicers Gap to Emu Creek (2 day)
- Emu Creek to Teviot Gap via The Steamers (2 day)
- Teviot Gap to Lindsay Gate via Mt. Ballou and Burnett Creek (3 day)
- Border Loop to O'Riellys via Stinson Wreck and Ratatat Hut (4 day)

The best information on the above trips can be obtained from "The Bushwalkers Guide to South East Queensland" and "101 Walks in South East Queensland". Both publications are available through many outdoor centres.

Mt. Barney Area:

Mt. Ballou / Mt. Barney / Mt. Maroon / Mt. May is an area where extensive walking trips can be undertaken. The area offers rugged terrain with a variety of attack points to various areas of this group of mountains. Many two, three and four day walks can be undertaken in this area.

A special note, on Main Range walking and associated areas, is that snow has been recorded and so adequate equipment should be carried in winter. Even in summer, evening temperatures can be quite low.

The Islands of Moreton Bay:

Moreton Island offers some scope for wilderness walking. Special care, however, has to be taken so that little use is made of the extensive road network, which currently exists on the island.

Stradbroke Island does not offer much in the way of wilderness walking and as such cannot be considered as a suitable site for wilderness activities.

Fraser Island:

This Island does present the opportunity for considerable wilderness walking with a great variety of vegetation types and navigation problems. Care should be taken to avoid the extensive road

and track system on the island. This includes the Main Beach.

Special note on Fraser Island is that the vine forest areas are very thick vegetation and should only be traversed by persons skilled in scrub travel and navigation.

### **Other Types of Travel**

Apart from walking trips - which this paper is essentially about - some suggestions are also listed below for canoe trips, sailing trips, bicycle trips and horseback trips around south eastern Queensland.

#### **River Trips:**

**Brisbane River:**

The Brisbane River offers some great training areas, where the skills of canoeing can be learnt to undertake a major trip on a more demanding river.

**Mary River:**

- Kenilworth to Gympie (3 days)

The rapids to be encountered are not above Grade 3 and when the river has some fresh in it, good canoeing could be expected. Care should be taken of fences crossing the river.

#### **Bicycle Trips:**

Anywhere within the South East Queensland area; the major difficulty being selecting a route where campsites are available. The Brisbane Bicycle Touring Association has regular rides as well as ride information available. A major problem with bicycle trips is that novice cyclists over estimate their ability to ride long distances. Eighty (80) kilometres per day is more than enough for starters extending to 120 to 140 kilometres per day with experience.

Brisbane to North Stradbroke Island, camping overnight at Point Lookout, is a good training run for cycle touring.

#### **Horse Riding:**

There is a National Horse Trail that extends from Victoria to Cape York. Information is available from any of the major pony clubs. A number of rides exist near Brisbane. Special notice as to property ownership and grazing has to be given.

#### **Sailing:**

Moreton Island to Southport, on the mainland side of the islands, offers sailing with a variety of navigation problems, as well as tests in boat handling. A carefully planned trip in this area would have to be considered a worthwhile activity.

#### **Interstate Trips:**

Along the eastern side of Australia are a number of interesting areas for wilderness travel in all of the modes previously mentioned. Owing to the rugged nature of many of these areas, a high degree of skill on the part of the persons undertaking the trip is required. There is no reason why such trips could not be undertaken in the future, as they have been in the past. Careful planning, as well as specialist training, can be carried out to ensure a successful trip.

## **12. AUTHOR'S NOTE**

This paper is not meant to be in any terms exhaustive, but is meant to be a guide to persons first

starting off in wilderness travel. The sport can be taken up with a minimum of gear at a very low cost but this precludes the traveller from undertaking many extended trips by the nature of the gear. Good gear does not mean a good traveller; much depends upon the mental attitude as well as the physical capabilities of the walker. To a very experienced traveller there are very few, if any, wilderness areas left. However, to an inexperienced traveller the local park can be a testing walk. Experience does not only come with a number of wilderness trips, but also with the person being prepared and able to undertake all the various activities which make up a successful wilderness trip. It is very easy to be a free loader and learn nothing.

Now ....

' I must hurry, for there they go and I am their Leader'.

(Unknown)

Original by Geof. Dwyer - Circa. 1989

Edited by Ivan Cash - March 1994

Converted to PDF by George Rowlinson – March 2003