Walk Organiser Manual

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Version 4

Contents

GUIDE FOR TRIP ORGANISERS

The following is a list of general principles applicable to leading a bushwalking trip. The list is somewhat idealistic and should not be taken to imply that leading a bushwalking trip is an onerous task requiring great experience. The relevance and importance of individual items will obviously vary considerably with the type of trip being led.

"The Good Bushwalking Leader"

General

- Has an adequate background in general bushwalking skills and has experience ***sufficient for the trips they wish to lead?***
- Has an adequate level of fitness for the proposed trip so that they can look after their own needs with some reserve left to assist other party members if necessary.
- Realises that bushwalking is basically a recreational activity and that an autocratic, military style of leadership is not appropriate.

Requirement for Approval to Lead Walks (Mentoring)

- Before leading your first walk you will need to be mentored as per the club's Walks Mentor Policy and approved by the Committee to lead day walks.
- Information about the mentoring process can be obtained from the club's website under 'Club Documents'.
- The Committee may take into account Recognition of Prior Learning and/or Recognition of Prior Competence instead of requiring a mentored day walk.
- A walk leader, having been approved by the Committee, may then apply for approval as a: -
    - Multi Day Walk Leader
    - Cycling Leader
    - Abseiling Leader
    - Caving Leader
    - Kayak Leader
    - Pack Rafting Leader

Reconnoitre

Leaders are encouraged to research walks before they lead them. Any or all of the following are acceptable: -

- have previously completed the walk, and/or
- research via digital media, guide books or reviews, and/or
- discuss with other Walkers who have previously completed the Walk.

To qualify as a reconnoitre the following is required: -

i. two to four walkers (including the Walk Leader),
ii. conform with the Club's "Small Group Size" policy, and
iii. register on pandanibush@gmail.com as per normal.

Please note that recces are covered by club insurance provided the same procedure is followed to register a walk via pandanibush@gmail.com.

Trip Preparation

- Prepares accurate descriptions and gradings of their walks so that people interested in coming on the walks will have a good idea whether the trip will suit them and be within their capabilities.
- On harder trips ensures that the party size is appropriate for the degree of difficulty involved, availability of tent sites and sensitivity of the area. Checks that the experience and capabilities of party members will be adequate and reasonably evenly matched.
- Enquires tactfully as to the ability and experience of newcomers, including visitors, particularly for harder and longer walks.
- Makes sure all-party members are aware of particular equipment they will need for the trip e.g., tents, stoves, foul weather clothing, headtorches etc. Holds a pre-trip meeting if necessary. Checks on critical items before setting out.
- Is competent in map reading and navigation by compass as required by the trip. Obtains the best and most up-to-date maps, GPS style information or trip guides. Makes enquiries as necessary from others who have previously visited the area. Checks on possible access problems.
- Determines whether the trip warrants the carrying of a PLB – View Small Numbers Policy on Club website. If so obtains PLB from the Club custodian.
- Obtains detailed up-to-date weather forecasts for the area before setting out from the Bureau of Meteorology. Considers postponing or relocating the trip if the weather may place the safety of participants at risk e.g., very cold and wet or very hot and windy (bushfire risk).
- The Walk Leader shall assess their planned activity against the Bushwalker Alert issued by BOM and take action that they deem necessary. This may include, but not be limited to: -
    - Not making any changes,

- Changing some aspects of their planned activity,
- Changing the location of their activity,
- Cancelling or postponing their activity, and
- Recommend specific equipment be carried by participants.

- The Walk Leader shall advise all participants of the Bushwalker alert and the action that they deem necessary as a result.
- When there is a severe weather alert the Walk leader shall either cancel their activity or move their activity to an area not impacted by the Sever Weather Alert.
- Sets a clearly defined meeting place and time for departure. Makes careful transport arrangements to the start of the actual walk, ensuring no vehicles are lost along the way.
- Leaves essential details of the trip with someone reliable at home, with instructions when and who to contact if the party is overdue.
- If, due to changing circumstances, is unable to lead the trip on the day, attempts to find a replacement. Notify all booking participants if this has been done.
- Before the trip commences sends an email to pandanibush@gmail.com with the names of the people in the party and the registration number of at least one vehicle from the party (usually the leader's car).
- As a general rule, members have priority over visitors when booking on trips.

Flash Walks

- Leaders may add Walks to the Program at any time. Flash Walks are walks added to the Program after the quarterly paper Program has been released. When creating a Flash Walk, a Leader must advertise the Walk on the Club Facebook Page and it must be listed with all of the usual details as a walk on the Pandani website.
- The S&R contact for the month should be advised of the walk and email(s) sent to pandanibush@gmail.com as per normal. Flash Walks must comply with the Club's Small Group Policy to be considered as a Club Walk.

On the Trip

- Before the trip commences introduces everyone in the party and explains to the party the proposed itinerary, the expected lunch stops and campsites and answers any queries.

- On off-track walks or those with a large group appoints one of the more experienced party members as a "tail-end-Charlie" to bring up the rear of the party.
- Tries to keep the party together as a unit as much as possible. Always gathers the party together at points of possible confusion such as track junctions, areas of indistinct track, in misty conditionsand in thick scrub. Checks party numbers frequently.
- Has sufficient experience to be a good judge of time and distance taking into account the terrain, weather and ability of party members.
- Is a good listener and observer. Is constantly on the lookout for signs of fatigue, distress or exposure in party members. Can assess the relative importance of these signs.
- Pays particular attention to slower members, offers encouragement to them and adjusts the pace and party organisation appropriately.
- Generally, tries to keep their leadership as unobtrusive as possible. Uses the strengths and abilities of other party members to augment their own role.
- Always has a contingency plan in mind in case of deterioration in the weather, unexpected difficulty of terrain or fatigue or illness in party members.
- Takes prompt action in exposure conditions to ensure the safety of the party. Never forces the party to "press on regardless".
- Has a good knowledge of bush first-aid and carries an adequate first-aid kit ***and manual*** for the party.
- Does not force party members to take risks beyond their abilities in potentially life-threatening situations such as crossing flooded rivers or rock scrambling in exposed places.
- When making camp, informs party members of suitable water sources and any need for treatment before using. Defines appropriate toilet areas well away from and downstream of any watersources.
- Is conscious of conservation issues and minimal impact bushwalking techniques and guides the party in these matters during the trip.
- At the end of the trip, waits until all party members finish and makes sure that all car engines are started before moving off.
- At the end of the trip send an email to pandanibush@gmail.com to advise of the safe completion of the trip.
- Once home submits the completed Trip Report form to the Walks Co-ordinator by either post or email.
- These activities are subject to the same principles as laid out above, and must be led by a suitably experienced leader: Kayaking, abseiling, rock climbing, cycling, caving.

DUTY OF CARE

Duty of care is the responsibility or duty to take reasonable care to avoid acts or omissions that could expose people, for whom there is a responsibility, to a reasonably foreseeable risk of injury.

Essentially duty of care means being in a position where someone else is relying on you to be careful, and where, if you are not careful, it is reasonably predictable that the other person might suffer harm.

In terms of bushwalking clubs, the test of an activity leader's or participant's duty of care could be:

What a reasonably prudent person would do to take reasonable care to avoid exposing fellow participants (having regard to their knowledge, age, experience and skill) to unreasonable risks of injury or loss.

Furthermore, in the case of bushwalking clubs there is normally a high level of expectation on the part of club committees and activity leaders that participants will take responsibility for their own welfare and safety in a manner consistent with their knowledge, age, experience and skill.

Therefore, all participants and leaders need to take reasonable care to avoid exposing any person including other participants to unreasonable risk of injury or loss.

Breach of Duty of Care

The current position in Tasmania to establish a breach of a duty of care requires the three elements **to be satisfied**:

- the person knew or ought to have known of the risk – sometimes called 'reasonable foreseeability';
- the risk was not insignificant;
- a reasonable person in that person's position would have taken precautions against the risk.

In addition, the precautions that a court will consider reasonable will vary according to circumstance.

The considerations that a reasonable person would have made in deciding to take precautions against a risk are specified as:

- the probability that the harm would occur if care were not taken;

- the likely seriousness of the harm;
- the burden of taking precautions to avoid the risk of harm; and
- the potential net benefit of the activity that exposes others to the risk of harm.

Negligence

Negligence in its legal sense means a failure in law to do what a reasonable person would have done in the circumstances.

Over a period of years, the law has established the requirement that people should conduct their affairs to the standard required of the reasonable person.

Before a plaintiff can recover compensation from a defendant in a negligence action, the plaintiff must show three things:

- that the defendant owed the plaintiff a duty of care;
- that the defendant breached that duty of care; and
- personal injury or property damage suffered by the plaintiff as a result of that breach (causation).

Being hurt isn't enough proof to show that the trip organiser didn't do what they were supposed to do. The walker will have to be able to prove that it was the failure on the trip organiser's part that directly contributed to them hurting themselves. For example, if someone tripped over a broken footpath because the trip organiser chose to walk in a poorly lit area, is not the same as someone tripping on a footpath because they were running backwards to show off in front of their friends at the time. Furthermore, the walker has to prove that the trip organiser's negligence was actually significant to their injury. Someone with lifelong chronic back pain would have difficulty proving that tripping over during the walk made a big difference to their condition.

In summary**:**

All participants owe a duty of care to other participants. If you are the trip organiser, or are more experienced, you owe a higher duty of care. If someone suffers injury or loss because you did not provide the level of care that a court considers reasonable in the circumstances, the court may require you to pay damages.

In assessing whether the trip organiser provided an appropriate level of care, a court will consider:

- whether a warning was given about the hazard that contributed to the claimant's loss or injury;

- whether the hazard was something inherent in the activity and/or should have been obvious to the claimant;
- whether the claimant themselves understood the risk (whether they signed the Club's Acknowledgment of Risks and Obligations form is part of what the court will consider) and whether they should have taken more care;
- the relative levels of experience of the people involved.

Sources: Hobart Community Legal Service, Bushwalking Australia Risk Management Guidelines, Canberra Bushwalking Club, Handbook - HB 246-2004 Guidelines for Managing Risk in Sport and Recreation – Standards Australia, NSW Office of Communities, Sport and Recreation.

INSURANCE

The Club carries both Personal Accident and Public Liability Insurance. Public Liability insurance prevents the Club, its officers and members from being sued should they be found liable for causing bodily injury or property damage. We also have Personal Accident Insurance which provides a payment of money in the event that one of our members is killed or suffers a permanent injury as a result of an accident whilst attending one of our club outings or carrying out office bearer duties.

However, this insurance comes with conditions attached, one of which is that the Club may not run walks when there is a Severe Weather Warning in place. This usually refers to very strong storm force winds, which will beworse at higher altitude. Winds such as these can cause trees to fall, something that is more likely if the ground is soft. Bushwalkers have been killed by falling trees in Tasmania in the relatively recent past.

If a Club walk is knowingly run under these conditions the Club's insurance will be voided for this walk and this leader. No claims will be honoured under these circumstances.

If a member sustains an injury on a Club trip, there must be evidence on the relevant Trip Report Form or Incident Report Form that the incident occurred. Please note that even minor incidents should be reported as they may be more serious than they first appear. Trip Report Forms and Incident Report Forms act as crucial evidence if/when a member chooses to make a claim.

Bushwalking Australia is the relevant organisation to contact when makinga claim (it is not the organisers or the club's responsibility to do this). Relevant documents can be made available – Contact the committee for more information. Bushwalking Australia will then put the claimant in contact with the insurance provider. Please note that if the claimant has private health insurance, they will not be able to make a claim.

PANDANI PERSONAL LOCATION BEACON (PLB)

The Club has Personal Locator Beacon (PLB) for use on Club trips or reconnoitres to remote areas, areas with low/no phone coverage, or walks with low numbers of participants. The beacon functions by sending out a signal on international distress frequencies that is picked up by one of a number of orbiting satellites. The alert is then forwarded to a control centre in Canberra and suitable search and rescue procedures are put in train. The beacon may also be detected by over flying aircraft and the exact position of the distress call identified. The beacon's owner can be immediately identified and the location can be identified within in a reasonable degree of accuracy.

Please note that the beacon is "GPS enabled" but is not a GPS unit and cannot be borrowed for navigation purposes.

As a distress signal from a beacon institutes a national level search, it obviously must not be used for frivolous reasons. Therefore, when civilisation can be reached by members of a party in an emergency situation in say two tothree hours, this course of action remains the preferred one. They can relay full details of the incident and give Search and Rescue a much better idea of the resources required for the rescue.

It is the responsibility of the trip leader to pick up the PLB from the custodian during the week preceding the trip and to return it promptly as soon as practical after the trip is completed. The operation of the beacon will be explained to the leader when they pick up the unit.

The beacon must not be used for frivolous reasons and parties carrying the beacon should not treat it as a "dial-a-helicopter" facility. A toothache, a bout of flu or a case of temporary exhaustion would not generally warrant use of the beacon. Some situations that would warrant use of the beacon, if help could not be reached quickly by walking out, would include:

- A life-threatening injury or medical condition e.g., severe bleeding, a heart attack or head injuries involving any significant loss of consciousness.
- An injury that is not life threatening but may lead to permanent disability if medical help is not obtained rapidly. e.g., a significant eye injury or severe injury to a limb.
- An injury in a remote area that would clearly require helicopter evacuation of the patient e.g., a broken ankle or leg, snakebite.
- A situation where a relatively inexperienced member becomes separated from the party in rugged and remote terrain and finding them is obviously beyond the resources of the party, particularly if weather conditions are severe.
- Any incident requiring cliff rescue skills.

The above examples obviously do not cover every possible situation and trip leaders will have to use their common sense should an incident arise. If the beacon ***is*** activated, the party must remain at that location and make every effort to make their location visible to searching aircraft.

RISK MANAGEMENT

Risk management is a tool a walk organiser can use to aid their decision making when preparing for or leading walks. The effective management of risk will help to keep walkers safe and to prevent and reduce the number and severity of injuries, and help to eliminate the number of things that can go wrong on a walk.

Risk management is a protective process that helps you to respond to changes, or unforeseen events that can occur on walks. The four steps for managing risks are as follows:

Step 1: Identify the hazard

Find out what could cause the hard. Identifying hazards in the bush involves finding things and situations that could potentially cause harm to walkers, such as:

- A snake blocking your path on a walking track;
- A change in the weather
- A missing walker
- Returning in the dark;
- Accidents or injury

A hazard is simply a potential source of danger.

Step 2: Assess risks

You should understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening. I.e., the risks associated with being caught in a heavy mist.

A risk is the possibility harm (injury, illness or death) might occur when exposed to a hazard.

Step 3: Control risks

Implement the most effective control measure that is reasonably practicable in the circumstances and ensure that it remains effective over time. This part *must* be carried out in consultation with other members of your walking group.

The most important step in managing risks involves eliminating them so far as is practical, or if that is not possibly, minimizing the risks as much as possible. For example, the possibility of being caught in a snow storm may mean the best course of action is to abandon the walk.

The experience of other walkers in your group will help in your decision making when managing risks, and their input may increase the likelihood of those decisions being accepted. The idea is to choose the control that most effectively eliminates the hazard, or minimises the risk in the circumstances.

Step 4: Review control measures

You should continue to consult with your group to ensure the decisions that have been made are working as planned, and that no new problems or hazards have arisen.

Summary

Don't wait until something goes wrong. Be proactive and consult with other members of your party – Use their knowledge, experience and ideas to solve any problem.

ACCIDENT PROCEDURE

Sometimes accidents do happen on walks and people are injured. Often the patient is capable of walking out after some rest. The following is a guide to decision making when an injury occurs.

1. Stop and think
2. Do not panic
3. Appoint a person to administer first aid
4. Appoint a person to take notes/reassure
5. Ensure first aid is administered calmly and in a reassuring manner
6. Establish if the injured party member will need assistance or evacuation (see below)
7. Depending on the severity of the injury, call emergency services if possible, or send two competent people, with details of incident, state of casualty and location of the party (as a grid reference or easily identified point such as a hut), for help, or set off the PLB as a last resort
8. Stay calm, look after yourself and fellow party members.

When deciding on calling emergency services consider the following:

1. A decision to self-rescue should not be made lightly as this may aggravate the injury and make subsequent evacuation difficult.
2. From police search and rescue: “if someone has a broken limb the medical advice from Ambulance will always be to evacuate you and get you to hospital ASAP as there can be other complications. A genuine injury is always a problem in the bush and the helicopter (or other means) will always be authorised.”
3. Conduct a thorough examination of injuries before the person is allowed to walk
4. The possibility of shock and undetected medical conditions must be considered
5. Continue to monitor the patient, looking for signs of a change in condition. This may be best accomplished by talking to the patient to gauge how they feel and looking for signs such as slurred speech or unusual quietness.
6. Location of the party at the time of injury. It may not be feasible for the party to provide the assistance required to get the injured person to transport.
7. Weather
8. The number of people in the party and the strength of groupmembers
9. Time of day.
10. Consider the “worst-case” scenario.

If you are in any doubt about the extent of the injuries or the problem is persistent, uncomfortable and cannot be relieved by available treatment then an evacuation should be implemented.

If it is decided to walk the casualty back to transport share the contents of their pack amongst the group. Monitor the casualty closely and stop and provide additional first aid if their condition worsens. Reassess the situation.

If it is decided to evacuate the casualty:

1. Either call 000 and/or set off your PLB.
2. If you call 000 make sure it is on a fully charged mobile phone that has good reception
    a. Give the emergency service an alternative number, if possible (another mobile phone within the party), in case your battery goes flat
    b. The operator will probably have little experience in remote areas and will be expecting a street address
    c. Tell the operator your location in reference to the nearest town, national park/state forest, fire trail/tracks and then the name of the relevant map and a grid reference or GPS coordinates
    d. Describe the injury and condition of the casualty
    e. Provide the name of the casualty
    f. Describe the weather and terrain
    g. Provide the registration number of the PLB (located on the back of the PLB) that has been activated and if it is at a location suitable for a helicopter to land (helicopter may follow PLB signal)
    h. Describe the condition of the rest of the party and how well they are equipped

Whilst caring for the casualty the needs of the rest of the group must also be considered. They may also need reassuring. If possible, find tasks for them to do, such as providing shelter and food for the patient and the group.

If a helicopter is expected:

1. A clearing large enough for the helicopter to land will be required or alternatively a large enough clearing from which the casualty can be winched into the helicopter
2. Keep your mobile phone on in case the helicopter crew try to call you
3. Keep everyone at least 20m from the landing area
4. Layout brightly coloured objects (such as tent fly) so the area is easily seen
5. Have signalling devices (e.g., Torch) ready if there is little daylight

6. Ensure the casualty is comfortable and ready for evacuation
7. Have the casualty's pack ready to go in the helicopter
8. If there is not room for the pack in the helicopter ensure they at least have their keys, phone, wallet, health care card and some form of identification on them
9. Provide the helicopter crew with a copy of the first aid notes and note the time the casualty had their last food and drink
10. Ask which hospital they will be taking the patient to
11. Turn off the PLB once the helicopter has left.

Cancel the rest of the walk and take the rest of the group straight back to the cars.

When it is possible advise a club contact of the incident and once home complete an Accident/Injury Report Form and submit to Walks Coordinator with Trip Report Form.

FIRST AID KITS

Set out below is a suggested list of materials suitable for making up a first-aid kit for a small to medium size party on a trip of up to a week or as a comprehensive personal kit. *Note that it may be considerably cheaper to obtain a made-up kit from St Johns or the Red Cross rather than buying all theitems listed below individually.* Basic items such as band-aids and pain killers should be duplicated in individuals' personal kits to avoid exhausting party supplies. Items marked with an asterisk * are not absolutely essential. The first-aid kit can be packed in a plastic lunch box or similar container.

Item	**Quantity**	
♦ Small Surgical Scissors Cutting dressings, dead skin etc	1 pair	
♦ Tweezers - fine pointed Removing splinters, ticks, foreign objects etc	1 pair	
♦ Needle - medium size Pricking blisters, removing splinters etc Flame sterilize before use	2	
♦ Safety Pins Securing dressings, slings	5	
♦ Adhesive Plaster or Tape Hypoallergenic, for sensitive skins	1 roll	
♦ Sports Tape For strapping sprained ankles etc	1 roll	2.5cm wide
♦ Band-aids For minor cuts	20	
♦ Steristrips For holding together small lacerations		
♦ Gauze Bandage To make your own dressings - Cut to size	1	7.5 cm wide
♦ Sterile Dressings For burns and large lacerations Non-stick 10cm x 10cm	10	
♦ Triangular bandages For making slings and splinting broken bones	2	
♦ Heavy Cotton Crepe Bandages	2	7.5cm x 2m

For sprains, securing dressings and snakebite treatment

- Antiseptic (e.g., Betadine)
  For infected cuts - Use sparingly
- Sterile saline
  Eye irritation, injury
- Paracetamol tablets & anti-inflammatory tablets
  for pain relief and inflammation
- Anti-histamine
  For insect bites, allergic reactions
- Disposable Gloves 1 – 2 pairs
  for protection when treating others
- Snake bite bandage
- **First-Aid Manual** 1

EFFECTS OF HEAT AND COLD

Often the effects of both heat and cold go unrecognised by the affected person. Other party members must be alert to the signs and take action. You as the trip organiser may be just as likely to be the one affected. Always stop immediately symptoms are recognised and commence treatment. If recognised and treated quickly the affected person will recover rapidly.

Unwanted effects of both heat and cold can be easily prevented by notventuring into unfavourable conditions, ensuring everyone in the party is adequately clothed for the conditions encountered and has an appropriate intake of food and water during the trip.

Heat (Hyperthermia)

The human body normally cools itself by sweating. When bushwalking in conditions such as high temperature, high humidity and exercising without sufficient water sweating may stop and the body quickly becomes overheated. If the symptoms are not recognised and treated promptly, they can lead to heat stroke which is a serious medical condition.

The initial signs and symptoms may include flushed face, profuse sweating, feeling weak, stumbling, nausea, headache, lack of appetite, rapid pulse and progress to vomiting, dizziness and fainting, weak and fast pulse, pale skin, apparently normal body temperature, cold and clammy skin and eventually unconsciousness. If it progresses to heat stroke additional symptoms are likely to be raised temperature, hot, dry skin, severe mental disturbances, rapid pulse and fast shallow breathing.

Place the patient in the shade and remove excess clothing. Cool them by applying water and fanning. If they are conscious give small drinks of water. If unconscious place them in a recovery position and continue to cool whilst monitoring their vital signs.

Cold (Hypothermia/Exposure)

Wind chill is a major cause of the onset of hypothermia. Onset is rapid if the wind chill is combined with being wet. Before setting out on a trip, ensure all party members have a waterproof and windproof jacket and sufficient warm clothing, including beanie and gloves. If the weather is inclement on the trip check the group regularly for signs of hypothermia and that they are adequately clothed. Have frequent short breaks for eating and drinking.

The initial signs and symptoms are a feeling of being cold, lack of co- ordination, shivering, confusion, incoherent, irrational behaviour. Often the person will insist they are alright.

Get the affected person to shelter, remove any outer clothes that are wet and replace them with dry clothes. If possible, put the person into a sleeping bag or Emergency Blanket. Huddle next to them to keep them warm. Give lukewarm or tepid drinks and high energy food only if they are fully conscious.

Do not give them alcohol, rub the exposed skin or apply external heat such as hot water bottles.

SNAKES

Snakes are shy creatures and, in most circumstances, will make every effort to avoid human beings. However even snakes have their self-respect and if trodden on or if attempts are made to catch or kill them, they are likely to retaliate. Additionally, at certain times of the year, snakes can become more aggressive, although this is often largely a defensive tactic. The threat from snakes should not be exaggerated - there has only been one snakebite fatality amongst bushwalkers in Tasmania in the last forty years and even this one loss could probably have been prevented with the correct treatment. However, it is worth knowing how to avoid them if possible and what to do in the unlikely event of a bite.

Occurrence

Snakes are active in the warmer months, particularly from October through to late April and are often active at night.

Tasmania has three species of snakes, all of which are poisonous. The Tiger Snake is the most frequently encountered and also the most venomous. The Copperhead is also highly venomous but is shy and not often seen. The Whip Snake is less venomous and is usually very small so the likelihood of a bite from one is quite small.

Prevention of Snakebite

- Always be on the lookout for snakes particularly on warm sunny days. Never put your hands into or under logs without checking first and be very careful when walking through long grass. Step *onto* rather than over logs - a snake may be waiting on the other side.

- Never attempt to kill a snake in the bush. Snakes are protected in all National Parks. You are also quite likely to be bitten if you misjudge your skill and agility.

- In snake country wear long trousers and gaiters for protection. The venom in Tasmanian species of snakes is delivered down a groove in the outside of the fang and if the bite occurs through clothing most of the venom will spread out on the fabric.

- If you meet a snake in the bush try to detour around the snake if at all possible. Sometimes however this may not be possible - if for example you are following a track in thick bush and the snake is basking in the sunright in the middle of the track. In this case throw a stick or similar object near the snake to disturb it and get it to move on. Don't throw the object

right at the snake and don't throw rocks - the idea is to give it the hurry up - not to injure it.

- Always carry a torch and use it around the campsite at night. Snakes are often active on warm summer nights and if you accidentally tread on a snake in the dark, you are very likely to be bitten.

Treatment

The bite marks may range from the classical paired fang marks to multiple marks and lacerations. The bite may be relatively painless and go unnoticed. Symptoms, if they develop may include the following:
painful lumps in the groin or armpit, headache, nausea, abdominal pain, partial loss of consciousness, double vision, drooping of eyelids, facial muscle paralysis and progressive breathing failure.

The modern treatment for snakebite relates closely to the way the poison from a bite spreads through the body. When a snake bites into normal soft tissue the venom spreads not through the blood circulation but through the lymphatic system. By suitably compressing and immobilising the affected area (usually a limb) the spread of the poison can be greatly slowed and largely confined to this area. The recommended treatment when someone is bitten by a snake is as follows:

(1) Get the victim to lie down immediately and to limit all movement as much as possible to minimise the spread of the venom.

(2) Do not waste time unnecessarily removing clothing or trying to wash the bitten area. This has very little beneficial effect and will delay the vital application of the compressive bandaging. Definitely ***do no*t** cut or excise the bitten area.

(3) Assuming that the bite is on a limb, immediately apply a broad firm bandage over the bite site (over 95% of bites occur on the limbs). Continue the bandaging to encompass the whole leg if possible or if the bite is on the hand or forearm, bind to the elbow. The bandage should be as tight as you would apply to a sprained ankle. The idea is to apply firm compression, not to create a tourniquet. The bandage can and should be left on continuously until medical help is obtained, ***not*** released every thirty minutes as used to be the practice with tourniquets. Heavy duty elastic crepe bandages 75-100mm wide x 2 metres long are ideal for the purpose. Two such bandages are needed in the party to effectively bandage a leg. Snake bite bandages are now available from the Committee.

(4) Apply a splint to the affected limb. If the bite is on a leg, splint the whole leg straight. Bind the splint firmly to as much of the leg as

possible. If the bite is on a forearm, use a splint to the elbow and support the arm with a sling.

(5) If the bandages and splint have been applied correctly, they will be comfortable and should be left on until medical help is obtained. The doctor will decide when to remove the bandages. If venom has been injected it will move into the bloodstream quickly when the bandages are removed. The doctor should in fact leave them in position until he or she has assembled the appropriate antivenom and drugs which may have to be used when the bandages and splint are removed. Note there is no need to catch or kill the snake for identification asthe same antivenom is used for all Tasmanian snakes.

(6) Re-assure the victim that with the correct treatment they are receiving their chances are excellent and they may not in fact even experience any adverse symptoms from the bite. However, realistically you must send for medical help as soon as possible. In today's circumstances this will probably mean a helicopter rescue unless you are very close to a road. ***Never*** force the victim to try and walk to help, no matter how close this may be.

(7) If you are by yourself in the bush resist the temptation to try and reach help immediately. Apply the treatment listed above and wait. Make notes of any symptoms you experience if and when they occur. Try to attract attention with a series of three blasts from a whistle if people are likely to be in the area. If you have left full details of whereyou are going at home then assistance should arrive soon. If help does not arrive within a day or so and you have not experienced any adverse symptoms from the bite then it is *probably* O.K. to make your way out. However, there is insufficient medical experience in these situations to be specific.

(8) If the bite is not on a limb (very unlikely) the principles of immobilisation and compression still apply but the procedures may have to be modified depending on the exact site of the bite.

(9) If, in spite of all the above precautions and treatment, breathing failure does occur, then apply mouth-to mouth resuscitation as required or CPR if the heart stops. It should be emphasised that this is a very unlikely outcome if prompt and correct treatment is applied.

NAVIGATION ISSUES

General

Most of Pandani's club trips are done on established tracks. Hence the ability to recognise and follow bush tracks is an essential skill requirement for all Trip Organisers. Off track walking is mainly confined to the harder exploratory type walks. Progress off formed tracks is generally much slower than walking on formed tracks, often by a factor of three or four times because of Tasmania's thick bush. Those who lead such trips must have the ability to navigate off track using map and compass or GPS. If your navigation skills are not strong care should be taken if you want to temporarily take the group away from formed tracks, such as to climb a nearby mountain.

Ensure you always carry a map/GPS map of the area of the trip. If you intendto supplement a map and compass with a GPS always carry spare batteries for the GPS.

Tracks In the Tasmanian Bush

Tracks are marked in a number of different ways depending on the terrain they pass through. In **forest** tracks are usually relatively easy to follow because of the obvious foot pad and swathe through the vegetation. However,markers are often also used and these include pieces of aluminium or plastic nailed to trees, plastic tape tied to branches and occasionally splashes of paint. Blazes in the bark of trees were used frequently in the past but are becoming less common as track markers. **On button grass plains**, timber poles or steel pickets, often with a tin can fitted on the top are the usual formof marker. **In open alpine areas** tracks are usually marked with cairns (small piles of rocks built up in a pyramid), paint splashes on rocks and less commonly by steel stakes or timber poles. In snow conditions, markers in open high-level terrain are easily covered by snow or obscured by mist and itis in these conditions that experience combined with skill in compass use comes to the fore. Be aware that sticks/logs placed across a track indicate thisis a false track.

Quite often when following a track in the bush it will suddenly become vague and ill-defined or you will lose it all together. In these circumstances ***do not*** continue on hoping the you will regain the track. ***Immediately retrace your steps*** to a point where you are certain that you are back on the official track. The feeling of anxiety you probably felt when the track became vague should then disappear. Now proceed forward again one step at a time, carefully looking for markers that would identify the true track. Quite often what will have eventuated is that a tree will have fallen across the track. There will sometimes be an animal pad or open area running alongside the tree leading you off at 90^{o} to the track. When you proceed forward slowly you will notice

the track on the other side of the fallen tree and be able to continue on. The important point is ***not to blunder on*** hoping that somehow or other you will regain the track.

If you do get lost

If you do become lost - ***don't panic***. Follow the course of action set out below:

If you become separated from the group. **Stay put** and do not attempt to "rescue yourself" unless you are *absolutely certain* of your mistake and how toregain your intended route and re-join the party. The rest of the party will almost certainly be looking for you and it is easier for them to find a stationary rather than a moving target. Find shelter and water in your immediate vicinity and try to attract attention by a series of three blasts on your whistle or a smoky fire if it is safe to light one. This is where it may be handy to carry matches/firelighters in a waterproof container.

The party that has lost a member or members should attempt to find the lost members without endangering any other members of the group. If conducting a search of the immediate area the group should remain within voice or whistle contact unless party members have good navigational skills and can search further afield. Set a time limit on searching and if the lost member(s) are not found within a reasonable time or the search is quite clearly beyond the resources of the remaining party, the grid reference of the last known location of the missing member(s) should be recorded and the group should return to the cars and instigate a more formal search by the relevant authorities.

If you become lost as a party. **Stay together**. Facilitate a group discussion. Consider carefully where you might have gone astray and prepare a plan (with contingencies) to regain your intended route. Leave a trail of notes as to your intentions, condition of the party etc. at prominent points on your route so that if a party has to search for you, they will have some idea of your movements. If you become totally lost or the weather prevents safe movement, make a secure camp near an area that will be visible from the air and wait for rescue. Prepare a fire and other signalling devices such as brightly coloured groundsheets or clothing, ready to attract the attention of ground or aerial searchers.

INTRODUCTION TO BASIC NAVIGATION

Navigation is a practical skill and as such means lots of practice and re-enforcement rather than just being taught how to do it. Navigation skills are equally important for day and overnight walkers. There are many instances of "geographical embarrassment" to bear this out!

GPS

Whilst a GPS is a great navigational aid it is dependent on being able to locate and lock on to satellites and that its batteries don't go flat. A GPS on its own still needs to be related to the features on the ground, which requires the ability to read a map.

Mapping programs on phones are also a useful aid but may be limited by battery life.

Maps

The key to successful navigation starts with the ability to understand and use a map. A map is just a plan of the ground at a certain date, so care needs to be taken with any assumption of accuracy. Man-made features may change over time so a map can only be considered reliable for the physical features it depicts.

Marginal information

This is the information around the edge of a map and understanding this information is essential for use of the map.

- MAP TITLE

This may be the name of a town or significant feature on the map e.g., Hobart

- EDITION AND SHEET NUMBER

A numerical number to identify an individual map. Usually conforms to a national index. e.g., 5225 edition 3

- INDEX TO ADJOINING SHEETS

Gives the names and sheet numbers of adjoining maps. Does not mean they have actually been produced!

- MAGNETIC VARIATION DIAGRAM

Shows the variation between magnetic, true and grid north and the annual rate of change.

- COMPILATION DATE

This is important to assess the reliability of the man-made features on the map and is needed to calculate the magnetic variation.

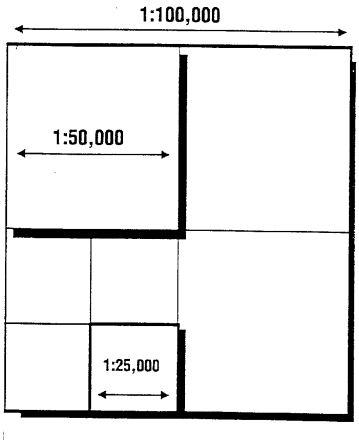
- SCALE

The scale is shown as both a linear scale, a line drawn on the map to assist in measuring distances, and as a representative fraction which expresses distance on the map as a corresponding distance on the ground. For example, if the scale of the map is 1:100,000 any distance on the map is 1/100,000 of that distance on the ground. Therefore, for a 1:100,000 scale map one centimetre on the map represents one kilometre on the ground.

1:100,000 1cm on map = 100,000cm on ground = 1000m = 1 km
1:50,000 1cm on map = 50,000cm on ground = 500m => 1km = 2cm
1:25,000 1 cm on map = 25,000cm on ground = 250m => 1 km = 4cm
(1:25,000 maps are available digitally but are no longer in print)

Reference to a small- or large-scale map means the larger the denominator (bottom bit!) of the fraction the smaller the scale and the less detail is shown on the map. E.g., 1:100,000 is a smaller scale map with less detail than 1:25,000. Generally, a large-scale map is of more benefit for bushwalking purposes.

Effect of Scales on Maps



- CONTOUR INTERVAL

Gives the vertical distance between contour lines.

- EASTINGS

Thin black lines running vertically (north/south) on a map. They are numbered top and bottom and are usually 1 km apart. They are used to measuredistance east/west.

- NORTHINGS

The thin black lines running horizontally (east/west) on a map. They are used to measure distance north/south.

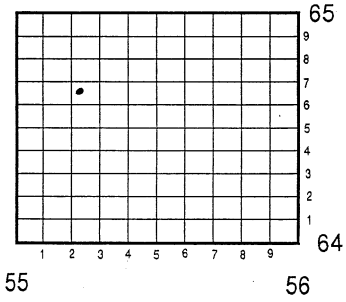
- GRID REFERENCE BLOCK

Describes how to give a 6-figure grid reference.

- CONVENTIONAL SIGNS

The legend for the map showing conventional signs used on the map and their meaning. E.g., roads and tracks, rivers, bridges, buildings, fences, dams.

How to give a 6-digit grid reference



A grid reference is used to give the location of a feature.
Using the black dot in the above diagram as an example of a feature of interest:
1. First select your feature.
2. Locate the first easting (vertical thin black line) to the left of the feature and trace the line to the nearest margin and read off the number. In the example above it is 55.
3. Divide the distance to the next easting (the first one to the right of the feature) into tenths and estimate the tenths from the gridline used in step 2 to the feature. Note the tenth to the left of the feature. In the example above it is 2.
4. So, the first half of the grid reference is 552. (five-five-two)
5. Locate the first northing (horizontal thin black line) below the feature and read off the number at the margin. In the example above it is 64
6. Divide the distance to the next northing (the first one above the feature) into tenths and estimate the tenths from the gridline used in step 5 to the feature. Note the tenth below the feature. In the example above it is 6.
7. Putting all the numbers together gives the 6-figure grid reference. In this example 552646.

A 6-figure grid reference is accurate to 100m on a 1:25,000 map.

The trick is to remember which way to go first - eastings or northings. There are 2 “helpful” methods. One is treated it like reading a street directory where you read along the top or bottom of the map first then use the numbers down

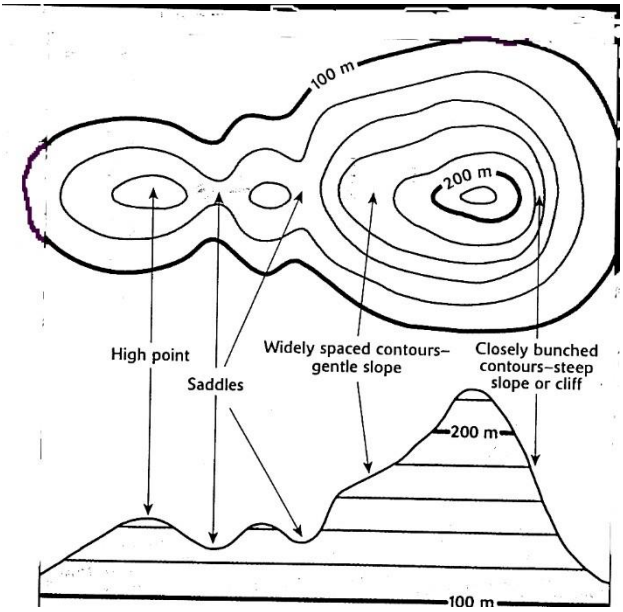
the sides. The second is to think of it like going into a house. You have to go into the house (from left to right on the map) before you can go up the stairs.

Contour Lines

A contour line joins areas of the same height. They are often represented as orange/brown lines on a topographic map. Contour lines close together represent steep slopes, contour lines widely spaced indicate gentle slopes and evenly spaced contour lines represent uniform slopes. The shapes of contour lines also represent physical land features. For example:

High point (knoll, peak) = circle or ellipse
Saddle (depression between adjacent high points) = gap between two circles/ellipses
Spur (ridge running out from a high point) = curved contour lines "pointing" away from a peak
Gully (watercourse between 2 spurs) = curved contour lines 'pointing" towards a peak.

To distinguish between spurs and gullies use the analogy of your hand. Hold out your hand. Think of the wrist as the high point. Your fingers are the spurs pointing away from the high point. The gaps between your fingers are the gullies pointing towards the high point.



Maps For Bushwalking in Tasmania

Maps for bushwalking purposes are available from two principal sources. The first principal source is the **Tasmaps** which cover all of Tasmania. Tasmaps are available in a number of different types:

1:25,000 Series. This series with a linear scale four times larger than the 1:100,000 series provides much more detail and is ideal for off track navigation. Most of the State is mapped at this scale.

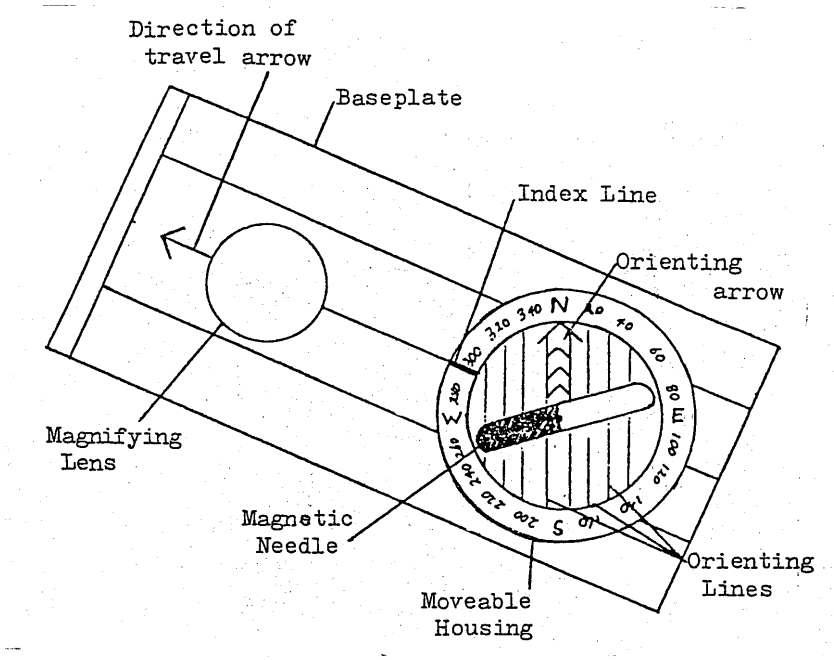
As of 2015 the 1:25,000 maps have been phased out and replaced with 1:50,000 maps. Please note that Avenza and other mapping apps may still use 1:25,000 maps.

"National Park" Tasmaps. These maps are available for most of Tasmania's National Parks. These purpose designed maps are ideal for bushwalking. The area of coverage has been adjusted to cover each national park in one sheet. The maps also have notes on the reverse side with much useful information on likely weather conditions, history, flora and fauna etc.

The second principal source of maps is found in bushwalking guidebooks. Most of these guidebooks have small but usually detailed maps to go with the walks being described. These maps often contain useful "local knowledge" notfound on Tasmaps and also cover areas outside national parks.

HOW TO USE A COMPASS

Silva Style Compass



To Walk on A Given Bearing

E.g., 120^0

1. Turn the compass housing so 120^0 is over the index line
2. Turn yourself until the magnetic needle lines up directly over the orienting arrow
3. Walk along the line of the direction of travel arrow to walk on a bearing of 120^0.

To Measure a Grid Bearing

To do this the compass is actually used as a protractor, so when using the compass on the map IGNORE THE COMPASS NEEDLE.

1. Lay one of the straight edges of the base of the compass along an imaginary line joining the two points you want to walk between, with the direction of travel arrow pointing in the direction you want to go.
2. While holding the baseplate so it can't move, rotate the housing of the compass until the orientation lines in the base of the dial are parallel to the vertical grid lines (vertical black lines) on the map, with the orienting arrow pointing to the top of the map.
3. Read off the bearing at the index mark. This is a GRID BEARING.

To complicate things a little a compass works on the magnetic north pole while maps are designed to use grid north. There are 3 "norths" to be aware of:

TRUE NORTH: the direction of the earth's geographic north pole,
GRID NORTH: the direction of all vertical grid lines on a topographical map (different to true north because it ignores the curvature of the earth), and
MAGNETIC NORTH: the direction to which the compass needle points (currently in Canada).

The position of the magnetic north pole varies each year – the amount has to be calculated from the map border information and adjusted for the time since it was measured. If, for example, it was moving at 0.1 degrees every two years and the grid/magnetic deviation was 14 degrees in 1990, in 2000 it would be 14 + 0.5, i.e., 14.5.

Therefore, compass bearings taken in the field (magnetic bearing) must be converted to a grid bearing to plot on a map and bearings measured on a map must be converted to magnetic bearings for use with a compass. The conversion is simply a matter of adding or subtracting but the correct calculation must be done. There are many little rhymes to help remember which way to go but a simple one is: *if you take your compass **off** the map (e.g., to walk on a bearing) take **off** (subtract) the magnetic variation. if you put your compass **on** the map (e.g., to identify a feature) then put **on** (add) the magnetic variation.*

To Measure a Magnetic Bearing

1. Point the direction of travel arrow at the feature of interest.
2. While holding the compass steady so the direction of travel arrow stays pointing to the feature, rotate the housing of the compass until the north

point of the compass needle (movable needle, north end is often red in colour) is directly over the orienting arrow.

3. Read off the bearing at the index line.
4. Remember to transfer this bearing to the map, magnetic variation must be taken into account (added).

Position Fixing

If you are unsure of your location, you may be able to determine your position using a map and compass.

Select three features that you can identify (two is the minimum required).
Take a bearing to the first identified feature.
Adjust for magnetic variation (add).
Place the compass on to the map with the long edge of the base plate intersecting the feature and the direction of travel arrow pointing towards the feature.
Move the base plate until the orienting arrow is parallel with the grid lines and points to grid north.
The line along the base plate and through the feature is the bearing along which you are located.
Repeat for the other two features.
The three lines should intersect at your location.

BUSHFIRES

It important to know the principles of fire safety, how to avoid getting caught in a bushfire and what action to take if you unfortunately do get trapped in a fire.

Always be aware of and observe "Fuel stove only area" regulations. Do not light campfires in hot windy conditions. Observe total fire bans and **remember that on these days it is also illegal to use fuel stoves in tents**.

NEVER light fires on the peaty organic soil found in many parts of Tasmania. Although apparently extinguished, these fires may smoulder for weeks underground and re-emerge on hot windy days to start a major fire. Make sure that your campfire is ***completely out*** before leaving. Flood it with copious amounts of water, rake over the coals and pour more water on until all hissing ceases. Do not light a fire if there is not plenty of water available.

Avoiding Bushfires

- Never go bushwalking in hot windy weather in an area where you know a fire is burning.

- Even if a fire is not burning, do not go walking in areas of dense vegetation on days of extreme fire danger. Do a beach walk instead! Itwill also be a lot more pleasant.

- When walking in hot windy conditions keep a constant lookout for signs of bushfires. If you are downwind from the fire, make your way out as soon as possible or to safe areas such as lakes and tarns, large creeks or rivers or open rocky areas. Do not assume that because the fire is some kilometres away you are safe. In very hot windy conditions burning embers from a bushfire can be carried many kilometres by the wind to start "spot fires" well ahead of the main fire front.

- Never attempt to flee from a bushfire up a ridge. Bushfires, particularly with the wind behind them, travel very fast up ridges whereas walkers travel slowly and become exhausted quickly in such conditions.

If you do get caught

If it becomes obvious that you are not going to be able to escape the fire, then do not leave it to the last moment to make preparations for the arrival of the fire front. Most importantly, **DON'T PANIC**. With a knowledge of the correct fire survival techniques, you have a very good chance of coming out unscathed. Re-assure the party and make certain that all members have a clear understanding of the plan of action.

The most important single fact to appreciate is that the greatest danger and threat to survival comes not from the smoke or hot air but from **radiated heat**.

Take the following steps:

(1) Cover all exposed skin and head with clothing, or wool if possible. Protect the hands with whatever gloves are available or use spare woollen socks.

(2) Drink as much water as you can to avoid dehydration, but keep some in reserve in your water bottle as it may be needed for first-aid purposes.

(3) Determine if you can where the front or head of the fire is and try to move around to the flanks or rear of the fire which are relatively cool compared with the head.

(4) Get out of areas of high fuel load, i.e., areas of dense fine vegetation. Be careful of dead standing timber that is burning as it may fall without warning.

(5) Take refuge behind whatever solid material you can find and as far away as possible from vegetation. Suitable areas include:

- In ditches and depressions, particularly if you can dig in and cover yourself with earth
- In rivers and significant size creeks provided they are not overhung by dense vegetation
- Behind or between large rocks
- Lakes and tarns
- In wombat holes
- Under large fallen logs
- Open alpine areas
- Huts

(6) If none of the above shelter is available and the fire front is imminent, you can set alight to an area near you and move into the burnt area before the main fire front arrives. Pick an area as sparsely vegetated as possible and wait until all significant flame has died out before moving in.

(7) Stay close to the ground - the air is coolest and freshest there. Limit breathing in dense smoke and have a wet handkerchief or cloth ready to cover your eyes, nose and mouth.

(8) Once the fire front has passed, check all members of the party, administer first-aid as necessary and slowly and calmly make your way out of the bush.

Don't

- Attempt to run through the fire unless you are in open, sparsely vegetated terrain and your chances are clearly very good. Never run through flames more than waist high or extending more than 3 metres in depth.

- Seek shelter in elevated water tanks if they are exposed to flames from the fire. A person almost totally immersed in hot water reaches collapse after only three minutes.

Do

- Be very careful when driving in bushfire conditions, watch out for falling trees and branches and never drive blindly into smoke. If trapped by the fire, stay with your car. It offers good protection from radiated heat and there is little probability of the petrol tank exploding. Close all the windows, cover yourself with clothing or rugs and crouch low on the floor until the fire passes.

- Notify authorities and families that you are out of the danger area as soon as possible.

RIVER CROSSINGS

If you are in *any doubt* as to whether the river is safe to cross - **don't attempt the crossing**. Wait for the river to fall to a safe level. Rivers that rise rapidly after heavy rain will generally fall rapidly after the rain stops.

There are some signs you should never ignore: -

- Discoloured, surging water
- The sound of boulders rolling on the riverbed
- Large pieces of debris carried along by the current.

Never cross a flooded river.

It is easy to underestimate the force of the river. The force of the water around obstacles can trap people and make it difficult to get out.

- Be careful not to pressure, even unintentionally, weaker members of the party into attempting a river crossing about which they are not confident.
- Remember that after heavy rain even minor creeks that are normally easily forded may become impassable. Allow time in your schedule for possible delays. However, such creeks will also usually fall rapidly.
- On a long trip try to arrange your route to avoid having to cross major rivers or creeks late in the trip when you are likely to be in a hurry to get home.
- When camping by a river, cross the river, if possible, when you arrive and make camp on the far side. This could save you a day's delay if heavy rain overnight makes the river unfordable.
- Before attempting a difficult crossing always spend some time searching upstream and downstream for a natural crossing such as a fallen log or large rocks.
- When assessing whether a river is safe to ford remember that fast flowing water is effectively deeper than its actual depth. Knee deep water will "boil" up around the waist and waist deep water around the shoulders.
- Never enter a river if you can hear boulders being rolled along the bed by the force of the water or if logs are floating down.

Preparations for Crossing

- Take your socks off but keep you boots or shoes on. Bare feet are easily injured in a river bed and your footholds will be much less secure with

bare feet. Boots can be drained when you get to the other side and dry socks in damp boots are not uncomfortable.

- Loose clothing and long trousers can significantly increase current drag. Change into shorts or cross in your underwear if necessary.
- Waterproof your pack as much as possible by tying up the liner bag. Take extra care to protect cameras etc. Keep your pack on for the crossing as the extra weight will aid stability but leave the waistbelt undone in case you have to release the pack in an emergency.
- Find or cut a stout pole 2 metres long and use this to probe ahead to test the depth of water and as an additional support - on the upstream side so that the current will force the end into the river bed and make its hold more secure.
- Find the best crossing place where the river bed is as even as possible, the water relatively shallow and not flowing too fast, and entry and exit to the river is straightforward. Avoid bends (where the water is likely to be deep on the outside of the bend), fast flowing water, rapids and waterfalls and submerged logs and snags.
- Be cautious about choosing a crossing involving boulder hopping. Boulders can be slippery and/or unstable. A fall could result in serious injury or death.

River Crossing Methods

In pairs or a group:

If the water is more than knee deep consider crossing in pairs or as a group.
The strongest person should be upstream and if in a group another strong person at the downstream end.
Undo chest straps and loosen shoulder straps on packs.
Link arms.
Walk slowly and together.
If crossing in a group practice before entering the water.
The person at the upstream end co-ordinates the group.
Do not split up or let go until everyone is across.

As an individual:

In water up to about knee level trekking poles can be used as a support.

In deeper water or if trekking poles are not available use a long pole as a support.

With both hands hold the long pole diagonally across your body with the end in the water upstream
When both feet are secure move the pole forward, through the water, and push it into the riverbed.
Once the pole is anchored move yourself forward.
Repeat the alternating movement of the pole and feet until the river is crossed.

The Crossing

- Proceed slowly, testing for depth with your pole. Turn back if the crossing is obviously more difficult than you thought ***before*** you get swept away. If you do get swept away, jettison your pack, if necessary, keep your feet up and out in front to avoid getting caught by snags and try to make your way to the bank.
- Keep side on to the current to minimize water resistance
- Take small shuffling steps
- River crossing can be a very cold procedure. Watch out for exposure in party members and allow time to dry out and warm up when you reach the far bank.

In still but deep-water swimming may be an option with a pack float. Only strong swimmers should attempt this type of crossing. Ensure everything in the pack is in at least one plastic bag. The pack will be buoyant. Push thepack into the water ahead of you. Hold on to it with one hand and use theother hand and legs to swim.

Recovery

If you lose your footing and are swept downstream your pack becomes your buoyancy aid.
Turn on to your back with the pack behind and upstream of you and your feet out in front with your toes visible above the surface of the water.
Use your feet and arms to move you to a safe location.

SNOW CONDITIONS

Snowfalls can occur in the Tasmanian high country at any time of year and in the winter, months sometimes extend down to sea level. For the purpose of discussion, the snow conditions likely to be encountered on a bushwalking trip can be divided into two broad groups. These two groups are:

(1) **"Summer" Snow Conditions.** This is a situation normally encountered in the warmer months where the ground is not snow covered at the beginning of a trip but a snowfall occurs during the trip. The fall may vary from only a few centimetres up to perhaps half a metre in depth but air temperatures are generally not lower than freezing point and the snow melts rapidly after the main fall has finished. The principal problems that "summer" snow present are an increased danger of exposure as the snow is usually quite wet, the party may not be adequately equipped for snow conditions, the snowfall may result in an unexpected delay in the itinerary and navigation may become considerably more difficult.

(2) **"Winter" Snow Conditions.** This situation normally only occurs in the winter months through into early Spring and at high altitude. Deep continuous snow covers the ground and thaws only slowly, daylight hours are short and temperatures may be well below freezing point. Parties venturing into the mountains in this situation are generally well equipped to handle the likely conditions. The principal problems that winter snow conditions present (apart from the obvious one of cold) are the difficulty of making progress in deep soft snow, the difficulty of navigation in "white out" conditions, and the dangers posed by frozen lakes and icy slopes.

Particular Problems Encountered After a Snowfall

- Navigation Difficulties. Even a relatively light snowfall will cover many track signs including foot pads, cairns and paint splashes. Heavier falls may weigh down vegetation so much that even a normally well-defined track in forest may become indistinguishable from the surrounding bush. In open country, continuous snow cover combined with mist produces "white out" conditions where all features of the landscape can disappear into a uniform white hemisphere. The ability to navigate "blind" by compass is vital in such conditions.

- Making Progress in Deep, Soft Snow. Deep, soft snow is very tiring to walk in. Even relatively light snowfalls will make dolerite boulder fields difficult and dangerous to negotiate. Really heavy winter snowfalls in rough country may make reasonable progress virtually impossible until

the snow has melted or consolidated. In forest the weight of snow on vegetation may bend it over to such an extent that it becomes very difficult to force a way through. In such conditions the person at the head of the party should be changed frequently as they have a very strenuous task in forging a path. However, weaker party members should not be asked to lead, at least not for any sustained period. In deep snow, snow shoes will often facilitate progress greatly provided the terrain is suitable and party members are reasonably competent in their use.

- Bright Light and the Danger of Snow Blindness. In winter snow conditions people will normally be equipped with suitable sunglasses or ski goggles. In "summer" snow conditions people will often not have suitable eye wear. However, in the warmer months the snow will tend to melt fairly rapidly once the sun comes out and what snow there is on the ground generally does not form such a continuous white sheet as with a full winter cover. Nevertheless, it is still possible to experience eye problems and the excruciating pain of snow blindness is definitely worth avoiding. Always carry sunglasses.

- Feet and Hands. In winter snow conditions waterproof leather boots (with gaiters) are essential and bushwalkers will generally expect and be adequately equipped for such conditions. However, in the warmer months bushwalkers often wear fabric boots or joggers, even on extended trips. If caught by a sudden snowfall wearing light footwear, reasonable protection can be provided by the vapour barrier method where stout plastic bags are worn between two pairs of socks. The danger of true frostbite i.e., freezing of tissue, under "summer" snow conditions is quite small as the temperature rarely stays below freezing for very long. However, a condition known as Trench Foot can occur if the feet remain cold and wet for too long. Circulation is reduced to such an extent that the nerve endings die and tissue loss as with frostbite is a real possibility. Therefore, every effort should be made to keep the feet as warm and dry as possible and if they have been wet all day change into dry socks as soon as you make camp.
  Cold hands will lead to discomfort and significant loss of body heat. Some form of hand protection should be carried on all trips at high altitude at all times of the year. However, if you don't have such protection, spare socks can be pressed into use as substitute mittens.

- Frozen Lakes and Tarns. At least 6 cm of strong ice must be present on lakes before they are safe to walk on. However, as it is difficult to determine the actual thickness of ice present it is best to avoid walking on a frozen lake if you are in any doubt. In this respect, travelling on skis is much safer as the load is spread over a much larger area of ice. The ice is generally weaker around the perimeter of the lake, particularly

where creeks enter and especially at the lake outlet. Look out for watery patches and head to shore immediately if you hear the ice crack or groan.

If you do fall through the ice, carefully wriggle out of the hole and make your way to safe ground, remaining flat on the ice.

- Ice. Ice and frozen snow can turn comparatively easy summer bushwalking tracks into dangerous routes that may require mountaineering equipment and knowledge to traverse safely. Be particularly wary of steep icy slopes that end in rough and rocky terrain. In Tasmanian winters, ice does not usually last throughout the day and routes than are icy in the early morning can often be negotiated safely later in the day once the sun has melted the surface ice.

Survival Overnight in The Snow

If you do become lost in the snow there are a number of do's and don'ts that you should observe:

- **Do** try to find your way back to shelter if safe to do so, but **don't** leave it until darkness overtakes you before making emergency preparations if it is obvious you will have to spend overnight in the snow.

- **Do** get down off exposed ridges into areas more sheltered from the wind. However, **don't** attempt to retreat off open mountain tops by other than known routes in an attempt to reach civilisation. Below the tree line you will usually encounter dense scrub half buried in snow and if you attempt to continue for long in these conditions, you will quickly become wet through and exhausted.

- **Do** eat and drink well to help your body functioning at maximum efficiency and make every effort to keep as dry as possible.

- If you are alone but dry and warmly clothed you can sleep but if you are wet through you must keep awake or you may sleep too long and drift off into unconsciousness. Move around occasionally to maintain blood circulation. If you are sheltering with others huddle closely together to conserve body heat. Again, if you are wet through one person must remain awake at all times.

- Set off the PLB if in any doubt.

BUSHWALKING REFERENCE MATERIAL

The Pandani library contains a number of useful and interesting books. The library is available at club social nights or by contacting a committee member.

The forums at www.bushwalk.com provide general information about walking destinations in Tasmania but detailed track notes are not provided.

In addition to the club library the following books are useful references:

1. Safety in the Bush - Published by the Hobart Walking Club.

2. 50 Family Walks in and around Hobart
   More Family Walks around Hobart
   Mount Wellington Walks
   50 Family Walks around Launceston and Northeast Tasmania
   Family Walks in Northwest Tasmania
   All five books above are by Jan Hardy and Bert Elson.

3. Peninsula Tracks - by Peter and Shirley Storey.

4. Walk Into History in Southern Tasmania – by David Leaman

5. Day Walks in Tasmania – by John and Monica Chapman.

6. South West Tasmania - by John Chapman.

7. Cradle Mountain Lake St Clair and Walls of Jerusalem National Parks – by John and Monica Chapman, John Siseman

8. Family Bushwalks in Tasmania's Huon Valley – by Nell Tyson and Annie Rushton

9. South West Tasmania - by Ken Collins 1990.
   A detailed mini encyclopaedia on South West Tasmania with comprehensive maps and route guides. Out of print but worth chasing second hand.

10. The Abels volumes one and two – Edited by Bill Wilkinson

11. 120 walks in Tasmania - by Tyrone Thomas

14. Wild Magazine - published quarterly. Available from newsagents and outdoor shops.