

Pandani Leaders Manual

(Abridged version)



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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.

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 and availability of tent sites. 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, torches 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 and 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 and if so obtains one from the Club custodian.

- ◆ Obtains detailed up-to-date weather forecasts for the area before setting out contacting the Bureau of Meteorology. Considers postponing the trip if the weather may place the safety of participants at risk eg. very cold and wet or very hot and windy (bushfire risk).
- ◆ 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.
- ◆ Before the trip commences, informs one of the Club Search and Rescue Coordinators of 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).

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 conditions and 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 look out 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". Ensures that on all trips at high level (including day trips) there is at least one tent or bivvy bag in the party available for treating exposure.
- ◆ 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 water sources.
- ◆ 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 rings the Club contact and informs them of the safe completion of the trip.
- ◆ Once home submits the completed Trip Report form to the Walks Co-ordinator.
- ◆ In spite of the responsibilities and duties of leadership, does not take life too seriously and enjoys the trip.



PANDANI EMERGENCY BEACON (PLB)

The Club has purchased a new 406 MHz band Personal Locator Beacon (PLB) to replace the old EPIRB (for which support ceased in February 2009) for use on Club trips to remote areas. Note the change in terminology from EPIRB to PLB – for our purposes they are essentially the same but EPIRB's must be able to float with the aerial clear of the water. 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 is compact and weighs approximately 230 grams. The principal advantages of the new beacon are:

- Satellites can identify the signal and location much faster than with the old system.
- The beacon's owner can be immediately identified.
- With the GPS enabled model that the club has purchased, the location can be identified within in an accuracy of 45 metres. 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 to three 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 neither practical nor desirable to make the beacon available for all Club trips and the beacon will **not** generally be issued to Club trip leaders on most day walks or the more accessible weekend trips. However, the beacon will be available for all more remote and extended trips and **should** be taken by trips leaders on such trips. Following discussions with the State Emergency Service and Tasmania Police, the following protocol for use of the beacon has been worked out.

All trips where it is considered appropriate and desirable to carry the beacon will be identified with a suffix (PLB) on the program summary sheet. For those trips, 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 the day after the trip is completed. The operation of the beacon will be explained to the leader when they pick up the unit.

As mentioned above, 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 sprained ankle, 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. eg. 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 eg. 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.

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 the items 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.

<u>Item</u>	<u>Quantity</u>	
◆ 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 (eg. Betadine)
For infected cuts. Use sparingly.
 - ◆ Sterile saline
Eye irritation, injury.
 - ◆ Paracetamol tablets
For pain relief.
 - ◆ Anti-histamine
For insect bites, allergic reactions.
 - ◆ Disposable Gloves 1 –2 pairs
For protection when treating others.
 - ◆ **First-Aid Manual** 1
Standard trips – Red Cross or St Johns Manual
Longer/remote area trips - "Medicine for Mountaineering".
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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 not venturing 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 coma 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. 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. Apart from the fact that snakes are protected in all National Parks it is akin to trying to drain the ocean. You are also quite likely to be bitten if you misjudge your skill and agility.
- ◆ In snake country wear long trouser 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 sun right 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 not** 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.
- (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 as the 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 where you 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. 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 of the area of the trip. Do not take a club trip out intending to rely solely on a GPS device. If you intend to 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 form of 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. As mentioned in the section on snow conditions, markers in open high level terrain are easily covered by snow or obscured by mist and it is in these conditions that experience combined with skill in compass use comes to the fore.

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. If Murphy's Law is working there will be an animal pad or open area running alongside the tree leading you off at 90° 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. That hope is likely to be forlorn.

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:

1:100,000 Series. This series covers all of Tasmania. The scale is too small to be useful for off track walking or for navigation in intricate areas such as the Arthur ranges. However for well tracked areas such as the Cradle Mountain Lake St. Clair National Park the maps are adequate as you will be using the maps more in the sense of a road map to follow the established tracks.

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 but important bushwalking areas are occasionally out of print. However the maps do have their disadvantages. On an area basis up to fifteen 1:25,000 maps are needed to cover the same area as a 1:100,000 sheet. Murphy's Law usually results in the area of interest being at the junction of four sheets. The cost of maps on a long trip can become significant. The additional weight is also a factor to be considered.

"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" not found on Tasmaps and also cover areas outside national parks.

A Practical Compromise. Obtain Tasmap National Park maps for the national parks you intend to walk in and supplement these with guide books. Buy the occasional 1:25,000 map when you plan a more ambitious off track walk or for areas that you walk in frequently.

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 to regain your intended route and rejoin 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.

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.** Have a round table conference. 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 signaling devices such as brightly coloured groundsheets or clothing, ready to attract the attention of ground or aerial searchers.

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! It will 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, of 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 waterbottle 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 you get to a phone.
-