



*See your world in a different way*



**Government  
of South Australia**



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***training better bushwalkers***

# **A guide to better bushwalking**



**Bushwalking Leadership South Australia Inc.  
*training better bushwalkers***

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## **Get out & go bushwalking**

Hello, and thanks for picking up this booklet. Bushwalking is a fun, low impact way to be active. The benefits for the mind & body are obvious, and the great thing is, bush walking is accessible for most people.

Some of the best wild places are well off the beaten track, and a long way from help. So it is useful to be prepared before you go.

The purpose of this booklet is to get some basic facts & information together so you can get outdoors and get involved in 'better bushwalking'.

This booklet WILL NOT ensure your safety in the bush. As your skills and confidence grow, learn the ropes from the experts.... Bushwalking Leadership SA runs courses for beginners to advanced bushwalk leaders. Get some first aid training as well.

Enjoy the bush!

## **When do I go?**

The South Australian bushwalking season is from 1 April to 30 November, with many areas closed for walkers outside of this time. Parks and forests are closed on days of extreme fire danger, please respect these warnings.

## **Where do I go?**

Choosing where to go walking is your first decision. How far away is it? How rugged & remote? Do you want to see big views, wildflowers, waterfalls, or rugged coastline. Perhaps you want to stand on a summit. No matter where it is, you will be on one or more of the following....

### **NATIONAL PARKS**

Managed by Department for Environment and Heritage (DEH). There are great spots to visit close to Adelaide including Para Wirra Recreation Park & Belair National Park. Generally, trails are for walkers only, with all other vehicles permitted only on roads. Pets are not permitted in most national parks but are allowed on leads in Belair National Park and a number of other DEH reserves. Camping is generally only allowed in designated camping areas.

### **FOREST RESERVES**

ForestrySA manages the State's Forest Reserves, containing plantations grown for commercial timber production and native forests managed for biodiversity conservation. The plantation areas are available for multiple use including walking, horse riding and bicycling. Walking off track and with dogs is permitted in plantations but NOT in native forest.

### **PRIVATE LAND**

Obviously not all of the great walking spots are on public land. If you do wish to walk on private property, CONTACT THE LANDOWNER BEFOREHAND. Always be courteous and respect the landowner's decision. You do not have a right to walk on their property. If you do not get permission, you are trespassing! Landowner concerns you may encounter include public liability, stock (eg lambing season), gates left open, etc. Some trails such as the Heysen and Yurrebilla trails traverse private land, please adhere to signs & guidelines.

### **HEYSEN TRAIL & OTHER WALKING TRAILS**

South Australia has a great trails network crisscrossing a variety of areas all over the state. Managed mainly by DEH, ForestrySA, local government and volunteer walking clubs, they are great to use to help you discover new places and string together quality loop walks. The Heysen Trail is South Australia's premier long-distance walking trail, and is worth exploring. Be aware, it is over 1200km long, in places following indistinct creek lines and footpads. The trail route may change over time, particularly through forest, so ensure you check with local land managers before you leave. Trail updates are also available from Friends of the Heysen Trail.

Other great trails to explore include the Yurrebilla and also the range of Mount Lofty Trails.

## CLASSIFICATION OF WALKING TRAILS

DEH, ForestrySA and other land managers are using Australian Standards for walking trails. You may see the following ratings signposted at the beginning of trails or on your trail notes. Trail classifications assist you to plan your walk.

### Trail classifications and corresponding symbols used on trails in National Parks.....

WALK		<ul style="list-style-type: none"><li>• even surfaced trail</li><li>• suitable for small children</li></ul>	<b>Australian Standard 1 &amp; 2</b>
	<b>Easy</b>		
HIKE		<ul style="list-style-type: none"><li>• some moderate inclines</li><li>• irregular surface with loose, uneven base</li><li>• average level of fitness</li></ul>	<b>Australian Standard 3 &amp; 4</b>
	<b>Moderate</b>		
		<ul style="list-style-type: none"><li>• some steep inclines</li><li>• irregular surface with loose, uneven base</li><li>• average level of fitness</li><li>• some hiking experience</li></ul>	
	<b>Hard</b>		
TREK		<ul style="list-style-type: none"><li>• long distance trail with some steep inclines</li><li>• irregular surface with loose, uneven base</li><li>• suitable for experienced walkers with navigational skills</li><li>• high level of fitness</li><li>• submit a "Let us know before you go" form to the local park office</li></ul>	<b>Australian Standard 5 &amp; 6</b>
	<b>Challenging</b>		

### Details they will need:

Police 000 or 131 444  
Your (nearest) contact no.  
Names of people in your group  
Mobile phone nos. in group  
Maps carried  
Route to be taken  
Expected time frame  
Equipment carried (including food, water & shelter)  
Where you left the car  
Registration & make of the car  
Time frame of when to call for help  
Who to call for help

### Hospitals

It is good practice to know of the nearest hospital to where you are walking. If it is a regional hospital, they may not be staffed 24 hours, so try the number first before visiting. Remember, not all injuries require evacuation but may need medical attention.

### When do I call the ranger?

Ring reasonably early into your planning with a good idea of your trip intentions. Rangers need to know if you are in their area in case they are planning management work such as fuel reduction burning, feral animal eradication etc. Their local, recent knowledge is essential for your trip planning. This is particularly important for overnight camping.

### Who do I walk with?

There are lots of walking groups around metropolitan Adelaide, catering for most types of walkers, from beginners through to advanced levels. For more information, get in touch with Walking SA, details listed at the back of this book.

When bushwalking with friends, it is recommended that on day walks there should be at least 2 of you and on overnight journeys, at least 4. With 4, if one person gets injured, one can stay with them, and 2 can go for help.

In general, forget going on a day walk with more than 15 in your group, and 10 for overnight walks. Once your group gets too big, your wilderness experience diminishes, and importantly, your impact on the environment increases dramatically.

### Where do I get water?

You need to consider water supplies very early on in planning your walk. Creeks & rivers are drawn blue on a map, however this does not mean they will have any water in them. Springs and rock pools marked on maps and in guide books may be seasonal only and dependent on rainfall. This is an important aspect to consider in South Australian bushwalking.

Carry enough water to last you until DEFINITE drinkable water is reached. Check with the local ranger, or landowner, close to the time of your walk to assess water availability.

On day walks we recommend you carry at least 2 litres of water in 2 separate bottles.

Oh, and make sure that your bottles are strong, if they break you will be kicking yourself all the way back on the long, thirsty walk to your car.

Experienced bushwalkers begin hydrating days before a bushwalk, especially if it is hot. Starting with your body fully hydrated makes great sense.

### How long am I going for?

An early consideration in your trip plan is how much time you have to go walking. Most trail times in South Australia are based on steady walking of 2-3 km per hour and DO NOT allow for breaks. Know the distance you are intending to walk before starting, remember to plan for breaks, view stops and lunch. Use trail notes as a guide only.

### Who to tell?

It is always important to formulate a plan should you for some reason be held up on your walk and perhaps need help. Leave details of your intended journey with someone reliable. Set up a system where if you have not contacted them within a specified time frame, they will then raise the alarm.



## What do I carry?

Both you & your group's safety can be jeopardised by inappropriate clothing, footwear and equipment. In an emergency, it may take hours to evacuate a sick or injured person. Warmth, weather protection, water (or access to it) and first aid is vital. In general, always take the following....

- ☐ **Solid walking boots**  
Good grip, worn-in & comfortable. Sneakers have little grip and can be slippery
- ☐ **¾ length waterproof rain jacket with hood**  
Showerproof spray jackets & quilted parkas are not waterproof & create a real danger of hypothermia (lowering of core body temperature to dangerous levels)
- ☐ **Warm jumper of wool or polyester fleece**  
Cotton shirts (while great in summer) & windcheaters have minimal insulation when wet & retain water. Wool and polyester provide greater protection from heat loss in cool conditions
- ☐ **Shorts or loose, comfortable wool/synthetic pants**  
Jeans are not suitable as they are cold & heavy when wet
- ☐ **Wide brimmed sunhat & sunscreen**  
Think about your ears, face and neck
- ☐ **Sunglasses with strap**  
Be sun smart!
- ☐ **Woollen beanie & gloves**  
If you have to stop in the bush, you WILL get cold
- ☐ **Wrist watch**  
Someone needs to keep track of the time!
- ☐ **Map & Compass**  
Carried by someone who knows how to use them
- ☐ **Mobile Phone/communication system**  
Will your phone work? CDMA phones have good range in the bush, but not everywhere. You may consider other communication systems for more remote areas
- ☐ **Water, minimum 2 litres**  
This is per person, per day. Also consider how much extra you'll need for meals
- ☐ **Food**  
For short walks; nutritious snacks & a piece of fruit. All day walks; take the same plus lunch & perhaps a thermos or fuel stove for a hot drink
- ☐ **Medical information & contact details**  
Details need to include person's name, address, date of birth and contact details, relevant medical history and records of medications currently taken/ medical management plans to follow, and an emergency contact while on the walk
- ☐ **Personal medications**  
Clearly identified. Tell your leader where you keep it, why & when you use it
- ☐ **First aid / Emergency kit**  
Per person: sunscreen, bandaids, space blanket, cigarette lighter, 2x roller bandage, 1x triangular bandage, blister protection, and 5 metres Venetian blind cord (or similar)
- ☐ **Group first aid kit**  
Go for an outdoor/adventure kit, and get some accredited training on how to use it
- ☐ **A whistle on a neck cord**  
3 blasts for the lost, 1 for rescuer
- ☐ **Small torch**  
Take spare batteries, always!
- ☐ **A quality day pack**  
Comfortable harness & padded hip strap
- ☐ **Shelter from the elements**  
Your group may need to get out of the weather. Carrying a tarp, hootchie or emergency blanket
- ☐ **Optional extras**  
Thermal top & bottom, waterproof over-trousers. Gaiters (depending on terrain, but useful in grassy or prickly conditions to protect your lower legs), camera (with spare batteries), thermos, sit-on foam mat

## On overnight & extended bushwalks....

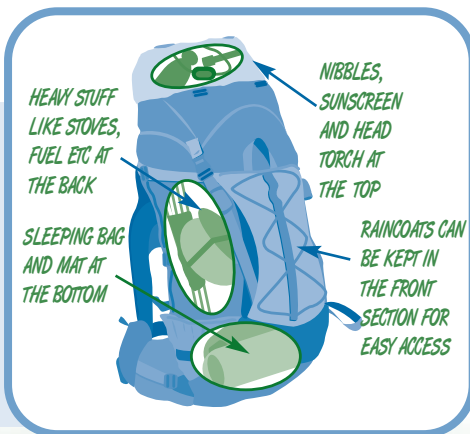
consider also carrying the following....

- ☐ **Good quality backpack**  
Needs to be AT LEAST 65 litres, and ideally, load from the top with an adjustable harness with padded hip belt
  - ☐ **Sleeping bag**  
Warm enough for the environment, small enough to carry. A -5 degrees or 3 season C comfort rated bag, with a hood, is adequate for all South Australian conditions
- ABOVE ALL ELSE, KEEP YOUR SLEEPING BAG DRY!**  
It could save your life. A simple way to do this... pull the bag out of its' cover, stick a garbage bag inside the cover. Stuff the sleeping bag inside the garbage bag, inside the cover, push all air out and tie off the neck
- ☐ **Inner sheet**  
Keeps your sleeping bag clean and adds a little warmth
  - ☐ **Sleeping mat**  
Thermal insulation is the main purpose of a sleeping mat, and no bushwalker should be without one. Foam cell mats or thin, lightweight inflatable mats are ideal
  - ☐ **Tent/Shelter**  
Light enough to carry, tough enough to cope, big enough to fit in/under
  - ☐ **Thermal top & bottom**  
These are lightweight, warm (even when wet). No excuse not to carry!
  - ☐ **Waterproof pants**  
Great for around camp, really good if cold, wet or windy
  - ☐ **A little extra food**  
An extra meal, a couple of extra packets of soup, or some extra chocolate can be that difference between going hungry, and staying happy

- ☐ **Stove & fuel**  
There are lots of groovy lightweight fuel stoves available in different sizes, weights and complexities. Whatever stove you choose to use, make sure you know how it works, and how to fix it. BEFORE you leave. Trangias are an excellent lightweight & simple methylated spirits fuel stove. Carry fuel in a secure bottle, store little bits inside the stove when carrying. Cut the end off a wooden spoon to fit, and put biodegradable detergent in a film canister. Do waterproof matches, store in film canisters (tear off the flints) inside your stove. Oh, and pack 2 of them.
- ☐ **Entertainment**  
A small book on local flora & fauna, a pack of cards, a hackey sac or similar can add to a trip

### TIPS ON PACKING

There are 2 different methods for keeping your gear dry... Waterproof things in separate bags. Or, stick everything into a plastic pack liner, inside your pack. With food, discard packaging and repack in lightweight containers. Be careful not to crush your food!



## What can I eat?

Spending time outdoors will make you hungry, so do not forget to take plenty of food. Think nutritious, easy to prepare and easy to carry.

### Day walking

**Suggestions:** SCROGGIN (Sultanas, chocolate, raisins, other good gear including nuts) is an absolute winner. Great to graze on throughout the day. Fruit can be carried, however keep it to apples, oranges, or if you are going light, dried fruit. Bananas, pears and fleshy fruits are hard to keep and can make the inside of your pack rather gooey.

Lunch can be sandwiches, pita breads or dry crackers. Use a plastic lunch box if you do bring bread, and careful how you handle tomatoes.

A thermos or lightweight fuel stove is handy for a revitalising hot drink or soup on a cold day.

### Overnight walking

The demands on the body for overnight walking are far greater than day walking, with heavier pack weights and extended periods in the elements. So the food to consider needs to fulfil the following criteria.

1. **Nutritious** Carbohydrate based meals are ideal, also include protein, fruit and veg for balance.
2. **Tasty** No point carrying it if you will not eat it!
3. **Lightweight** Forget carrying cans, you will be carrying enough weight already! There are plenty of dehydrated vegies and meals on the market nowadays, and tuna comes in foil packs. Be creative, strip off as much packaging as possible before you go, and decant off excess amounts (e.g. do you really need half a kilo of sugar?)
4. **Easy to handle** No point carrying it if it gets squashed, bruised, damaged or goes off before you can eat it. You may also consider the hassles involved with cooking raw food in the bush. Sure, sausages & eggs would be nice, and can be done, but even if you can keep raw meat & eggs cold enough, the contamination of your cooking equipment from the raw food could make you sick.

*Foods with high water content will be heavy!*

### A grid is a great way to plan your menu

	Day 1	Day 2	Day 3	Day 4
Breakfast				
Snack				
Lunch				
Snack				
Dinner				

Take one extra meal for insurance. The day you drop your last meal in the dirt is the day you will be glad you remembered to bring it.

## How do I use a map?

Go get yourself a map of the area you intend to walk in. There is an extensive range of maps available including brochures, walking books and, best of all, well detailed topographic maps. In general, go for the map with the most detail of where you want to walk.

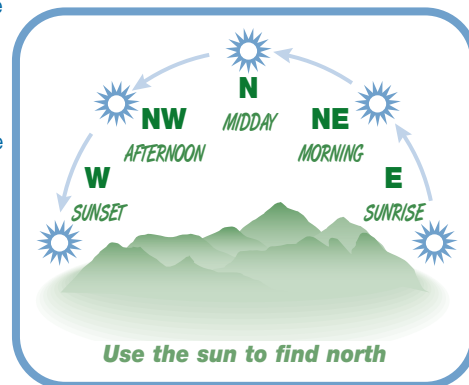
Firstly, familiarise yourself with it... Things to look for include scale, contour intervals, colours, start point of your journey, which way is north.

Put your map into an A4 size mapcase, with the side up being the area to be walked, and the reverse side showing the route card.

A route card is a sheet detailing the walk you have planned to do, including grid references, steepness/elevation, estimated times & distances and other relevant information. There is a diagram of a route card on page 10.

Before you start walking, locate your position on the map.

Always know where north is on your map, and always point your map north!

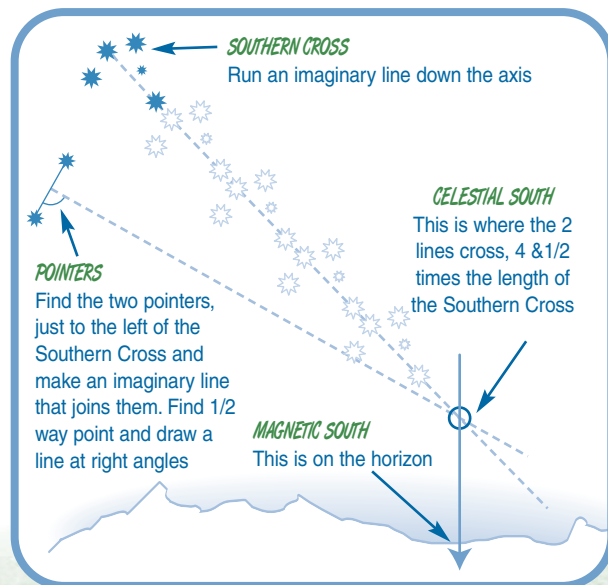


Once you have found that, you are on the way!

### Finding north without a compass.

Sun rises in the east, sets in the west, halfway through the day (around 12 pm) it is north (in the southern hemisphere).

At night, if you can see the southern cross, you can find south. once you can find south, you can find north!



Some things you need to know about topographic maps...

GRID REFERENCES

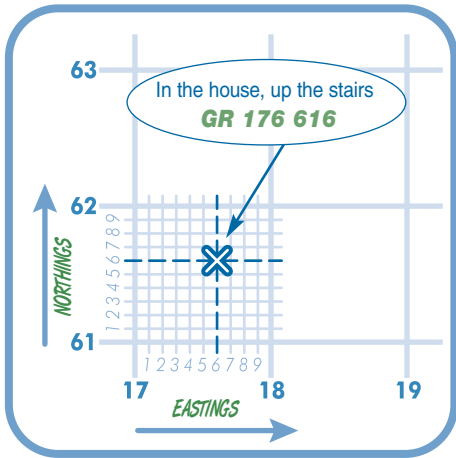
A grid reference (GR) is a set of numbers (usually 6) that will indicate a point on a map. A six figure GR looks like this 574 678. THE FIRST 3 NUMBERS indicate how far EAST the point is on the map, and THE SECOND 3 NUMBERS indicate how far NORTH the point is on the map. GRs are always relative to the map you are using, so always quote the map you got it from.

*This is how it works..*

There are straight lines drawn on South Australian (and most Australian) topographic maps called Grid Lines. These lines are 1km apart, and about 1.5 km from corner to corner. These lines are numbered along the bottom and up the side of the map and are called grid numbers. They range from 00 to 99. The grid numbers along the bottom are called eastings, because the numbers increase as you go east, and up the sides; northings. This is for the same reason. For all references, always read eastings first.

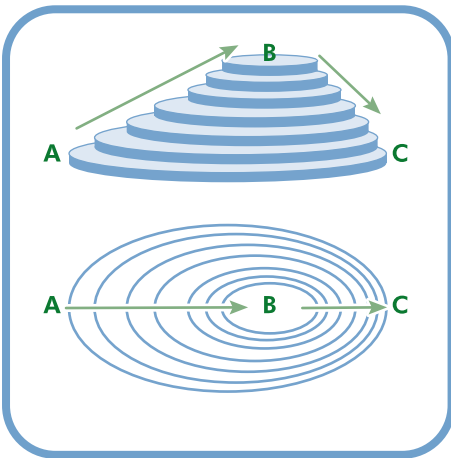
Divide the 1 km space between gridlines into 10 lots of 100m and number them 1 to 0.

So, a six figure grid reference will be split into 2 groups of 3 numbers. Look at the example.



CONTOUR LINES

Contours are drawn on a map linking up places of the same height. These lines are at standard intervals (called contour intervals and found on the map legend). South Australian topographic maps are usually 10 m apart, but make sure you check. These lines indicate height above sea level on a map and will tell you how much up and down hill sections your intended days walking will have. Understanding contour lines is 'the trick' in improving your navigation. The closer the lines are together, the steeper the terrain is.

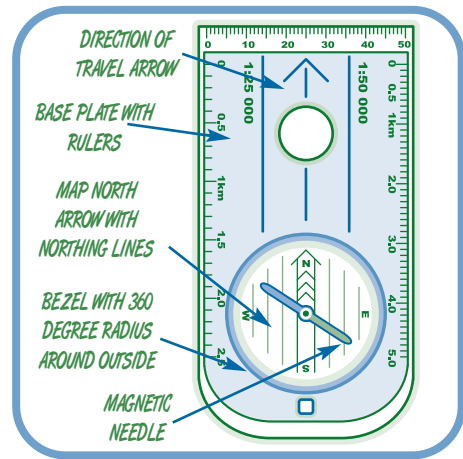


COMPASSES

A compass is handy in poor visibility, in thick scrub or to confirm where you are. See the illustration for an example. Protractor compasses have a medium sized base plate with easy to read numbers on it. Practice using a compass and understand the variances in "north" (magnetic/grid).

Navigation training

If navigation is an issue, you are not alone. Think about improving your skills. Learning navigation (getting rid of that lost feeling) is excellent for your bush walking confidence and competence.



**Bushwalking Leadership SA offers courses in navigation, bushwalking skills and leadership for beginners to experienced bushwalkers.**

Other places to consider could be orienteering or rogaining clubs, or bushwalking groups.

Resources

Natmap put out an excellent booklet that will get you started It is called 'Map Reading Guide - how to use topographic maps' and costs around \$2. It comes with a bonus plastic map card. This will help you develop your map reading skills. It is available from outdoor retailers.

*This is an example of a route card, other information it can contain includes the height gained and lost during each leg of the route, estimated and actual times.*

**For an example go to [www.bushwalkingleadership.org.au](http://www.bushwalkingleadership.org.au)**

LEG	START	FINISH	BEARING	DISTANCE	COMMENTS
1	535798	547235	23	1.5KM	Creek crossing, 200m climb
2	547235	553748	130	1KM	road junction, watertank nearby
3	553748	537890	250	2KM	flat forest area for most of the way
4	537890	524784	280	1.7KM	600m hill, lunch at the trig point
5	524784	503278	295	1.3KM	600m descend watch out for rock faces



## Who is responsible?

Duty of Care (responsibility) does not end with the designated walks leader. You have a duty of care to yourself, your party and other people in the area you are walking. The leader should have the experience and skills to properly manage and assist all members of the group on the activity, regardless of the terrain and conditions.

*So be safe, have fun and look out for each other.*

**Here is a guide to the type of information a medical form should contain. Ensure everyone has filled one out before your walk.**  
**For an example go to [www.bushwalkingleadership.org.au](http://www.bushwalkingleadership.org.au)**

### SAMPLE MEDICAL INFORMATION FORM

**Trip:** \_\_\_\_\_ **Dates:** \_\_\_\_\_ **Venue:** \_\_\_\_\_  
Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Address \_\_\_\_\_  
City \_\_\_\_\_ P/code \_\_\_\_\_ Phone H \_\_\_\_\_ W \_\_\_\_\_  
Email \_\_\_\_\_

#### Emergency Contact: (while on trip)

Name \_\_\_\_\_ Relationship \_\_\_\_\_ Ph \_\_\_\_\_  
Alt Contact \_\_\_\_\_ Relationship \_\_\_\_\_ Ph \_\_\_\_\_

#### Medical Information

1. Are you covered by private medical insurance? Y/ N

Name of Fund \_\_\_\_\_

2. Are you covered by Ambulance subscription? Y/ N

3. Medicare Number \_\_\_\_\_

4. Do you have/ have you had asthma? Y/ N

Prevention \_\_\_\_\_ Severity \_\_\_\_\_ Treatment \_\_\_\_\_

5. Do you require Medication? Y/ N

Name of Medication \_\_\_\_\_

Reason \_\_\_\_\_ When is it taken \_\_\_\_\_

6. Do You have any Allergies? Y/ N

To What? \_\_\_\_\_ Reaction \_\_\_\_\_ Treatment \_\_\_\_\_

7. Have you has major surgery or illnesses? Y/ N

If so, when? \_\_\_\_\_ Details \_\_\_\_\_

8. Do you have any other medical conditions that may affect your participation in this activity? Y/ N

Details \_\_\_\_\_

9. Fitness Ability (please circle)

poor fair good excellent

I .....understand the nature of the activity and the risks in the activity. These include and are not exclusive to drowning, broken limbs, twisted & damaged joints through falling or being fallen on, animal bites including snakes, injury through exposure to weather, burns & cuts through stove use & other possibilities.

I understand anything I do on this event is my own responsibility. I understand I will not be forced to do anything I do not wish to do.

Signature: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

## Environmental Considerations

### The 'leave no trace' ethic

All people enjoying wild places carry the responsibility of keeping these places as you find them for the next person and for generations to come. With the ever-growing number of people visiting these areas, it is more important than ever to respect the bush and endeavor to leave the place better than you found it.

### Things you can do....

#### Pre trip

Plan to visit areas that will cope with your group's planned adventure.

Plan to use areas appropriate to your group - heavily used and managed areas are best for novices while those with greater experience can visit little used areas.

Keep your party small.

Take a lightweight fuel stove/thermos (try to do without the fire).

Check out where toilets are & carry appropriate gear (trowel, paper & handwash) to 'go rough' if necessary.

Clean your boots, removing soil and organic matter before you hit the trail and when you leave an area of known plant diseases. You may come across *Phytophthora* hygiene stations, please use them. *Phytophthora*, otherwise known as root-rot fungus is killing our native plants and threatens the survival of animals. Please help stop the spread (on your muddy shoes) by staying on the tracks and complying with hygiene stations.

If there is a track, use it!

#### During your trip

Take a rubbish bag and be prepared to take everything out, including banana & orange peels, apple cores, cigarette butts, lolly wrappers etc.

Car pool, ease the strain on the environment, and your pocket!

If you are walking off trail, spread out so as not to create a new track.

Avoid walking through more fragile areas such as soft marshy ground or steep, unstable dunes & hillsides

Don't create new trails or build cairns - others need a sense of discovery just like you do.

#### Toilets

*If there is a toilet, use it! If there is no toilet 'go rough'*

Go at least 100m from watercourses and your campsite. Dig a hole, 8 to 15cm deep (in the biologically active layer in the soil). When done, ensure you refill your hole, and perhaps put a rock on top. The last thing you want is for an animal to dig it up, and then go and pollute the water way you were trying to preserve. If you are going river walking or to a pristine environment, find out ways to bring your waste back out with you, it is easier than you think. Always wash your hands afterwards, always! And do it away from water supplies. Carry out tampons and sanitary pads.

#### Camping

Always use existing camp sites unless you have permission to do otherwise.

Choose a site with good drainage, avoid digging trenches or filling holes!

Dig a sump pit for any waste water (strain out the food particles), limiting your mess.

Do not wash pots, you or part of your body in waterways, and if you have to use detergents, use biodegradable products.

Do not break limbs off trees, move rocks or rip up vegetation for whatever reasons. The local inhabitants of the area (insects, worms, birds, snakes, lizards etc.) will thank you for it.

*National parks have a code that makes good sense to follow no matter where you walk!*

## The National Parks Code

Help protect national parks by following these guidelines:

- Leave your pets at home
- Take your rubbish with you
- Observe fire restrictions (1 November - 30 April)
- Conserve native habitat by using liquid fuel or gas stoves
- Camp only in designated areas
- Respect geological or heritage sites
- Keep our wildlife wild - do not feed or disturb animals, or remove native plants
- Keep to defined vehicle tracks and walking trails
- Be considerate to other park users

Thank you for leaving the bush in it's natural state for the enjoyment of others.

## What about the weather?

Obviously, the weather is going to impact on your time in the bush. Temperature, precipitation, wind and the possibility of lightning are all to be considered.

Weather is basically the result of horizontal & vertical movement of the atmosphere. The more you know about the upcoming weather in advance, the better you can prepare/make decisions on your journey.

## Some basics to get you started....

Find ways to get quality weather updates. Here are 3....

### 1. Before you go...

The Bureau of Meteorology has an excellent website, [www.bom.gov.au](http://www.bom.gov.au) which gives up-to-date weather information including 4 day forecasts, both locally and nationally, as well as some great learning aids.

### 2. In transit...

Buy the paper and check out the weather on your way to the start of your walk, (especially on extended journeys), it will be your most up-to-date weather forecast pre walk.

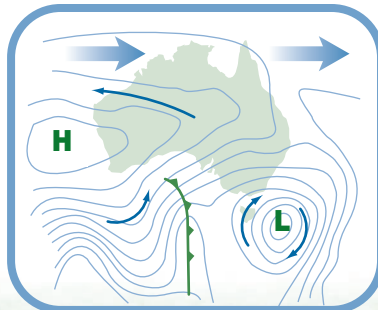
### 3. On your walk...

Take a small am/fm radio, and, in your tent, before going to sleep or before getting up, check news bulletins for weather forecasts on the hour.

## Fundamental understandings of a weather map...

Barometric pressure is measured on maps in isobars. They look surprisingly similar to contour lines on maps, and join together points of equal air pressure. Wind runs parallel to isobars and wind intensity can be measured by the closeness of isobars (the closer the isobars, the stronger the wind).

High pressure systems rotate anti-clockwise and slightly outwards, are generally stable, are big, fat and relatively stubborn. They contain air that has been warmed up and is sinking, and tends to hold onto most of its moisture. In general, think fine, stable weather. Low pressure systems rotate clockwise slightly inwards, are generally unstable and smaller, uptight and aggressive, moving through quickly and with impact. They contain rising air that is continually cooling and unable to hold onto its moisture. In general,



think cooler, windy weather with a greater chance of rain.

With this in mind, both types of weather systems will pick up moisture over the ocean, and will be without moisture if rotating over land. Consider this.... Northerlies in Adelaide are generally hot and dry, ('straight off Uluru') and southerlies are cold and wet ('straight off Antarctica')

## In Southern Australia weather generally moves from west to east.

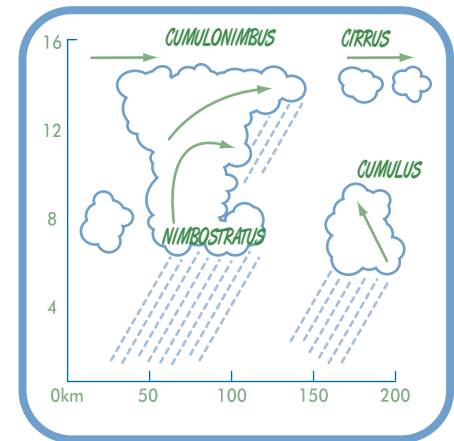
Fronts are where 2 different air masses meet. They generally indicate a change (for the worse) in the weather. South Australia generally sees only cold fronts. TAKE NOTICE!

## Clouds

Clouds bear moisture and hold secrets to the weather ahead. Not all clouds bear rain, you will need to develop an understanding of which ones do!

### Here's a start

High, thin and wispy clouds called cirrus indicate the end of fine weather, with a change approaching. Bad weather is born out of temperature changes in large fluffy clouds called cumulus. Storms are born out of really large cumulus clouds called cumulonimbus. Thicker darker and lower clouds called nimbostratus can bring heavy rain.



## Fire Restrictions

The South Australian bushwalking season is from 1 April to 30

November. Fire Bans are issued on days of extreme fire danger. Parks and forests are closed on days of extreme fire danger, please respect these warnings. Fire ban information is available on most weather reports and from National Parks and the Country Fire Service (CFS). The CFS hotline/information number is 1300 362 361.

**Bushwalking in South Australia is best done in autumn, winter and spring. We have hot, dry summers that make the bush not only uncomfortable to bushwalk in, but positively dangerous due to the real risk of bushfire.**

## In the event of fire

If you see smoke while out walking in the bush, leave the area and report it.

While evading, keep to tracks and trails if possible. You will move more quickly and may find help from fire fighters.

Should you be trapped in a bushfire, your two major threats come from radiated heat from the fire, and poor decision making through panic. Try to stay calm to make good decisions. The most intense radiation will only last one or two minutes as the fire front passes.

To maximise your chances, you will have to try to find cover. Cover as much of your exposed skin as possible. Consider sheltering behind or under rocks, trees, ditches, fallen logs or creek washouts. Think about what you are wearing, ensure it is not flammable! Before the fire arrives, if possible, stock up your water supplies and drink as much as you



can. The heat will seriously dehydrate you. Wet a cloth to cover your nose, mouth and eyes from the intense smoke and superheated air.

Do not try to run through flames unless it is small and you are wearing exceptional protective clothing.

Never climb into water tanks. Once immersed in water, the body will quickly absorb heat from the water. If the ambient air temperature is in the high thirties and a bushfire raises the temperature of the water a further ten degrees, the water/body temperature will be deadly.

**Remember... Fires burn quickly uphill and on ridgetops, and usually move slowly downhill. OBSERVE FIRE BANS!**

## If all goes wrong....

### Lost group

*Okay, so you have gotten yourself lost.... Don't panic! There are things you can do.*

1. Stop, don't go getting more lost! (yes, it can be done)
2. Don't panic
3. Begin working out where you are
4. Do not split up
5. Go to a high point with your map, compass and mobile phone (if service is available) and endeavor to recognise features
6. Can you retrace your steps? This could be a way to return to a recognisable place
7. Think about what you are going to do before you call in the emergency services
8. If still completely lost, your task changes to surviving until you are found. Help your rescuers by staying together, building shelter and conserving energy
9. Create a signalling system with a torch, mirror or by maintaining a small fire (NOT a bushfire!). But make sure its only after contacting emergency services
10. Use your whistle to signal for help...3 blasts for the victim, one for the rescuer

### Lost group member

*Okay, so you have lost a group member. Don't panic! There are things you can do.*

1. Stop, and think
2. Don't panic
3. Begin working out when they were last seen and where they possibly went
4. Return to the last point where the person was seen
5. Organise a small group to set themselves up for an extended wait where the lost person was last seen
6. When calling for group members, use your whistle or call, and then be quiet, so you can listen for a response. Set a timeframe for the search
7. Think about what you are to do before you call in the emergency services
8. Write down all relevant information, including the individual, times, names, group size, resources, location last seen, action taken and action to be taken
9. If necessary, Send out 2 competent people, with details of incident, casualty & last location seen, for help. Ensure they are carrying minimum safety gear themselves
10. Stay calm, look after yourself and fellow bushwalkers
11. Follow emergency services directions from contact. If you are the lost group member, stop, go to a high point, and listen. Stay calm and conserve energy. See details on lost group!

## Injured

*Occasionally, things do go wrong and people may get hurt. Making good decisions in these situations will limit the severity of the situation.*

1. Stop, and think
2. Don't panic - have we covered this already?
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
7. Think about where you are and what you are to do before you call in the emergency services
8. Call emergency services
9. If necessary, Send out 2 competent people, with details of incident, casualty & location for help. Ensure they are carrying minimum safety gear themselves
10. Stay calm, look after yourself and fellow bushwalkers. Follow emergency services directions from contact

## Hypothermia

Hypothermia, or exposure, is when the body's core temperature cools by 2 degrees or more. If this cooling continues without treatment, death is possible. Hypothermia is always a concern. Good management and attention to people, their equipment and the environment (weather) will minimise the likelihood of hypothermia.

### Symptoms

Symptoms can resemble fatigue and may be hard to recognise. Signs of clumsiness, exhaustion, irritability and uncontrolled shivering may be seen. Casualties may not recognise their own condition.

### Treatment

This is a preliminary guide only, do your first aid course!

Minimise further heat loss!

Remove casualty from elements, out of the wind and rain. The sheltered side of a ridge, in a gully or behind some rocks are all places of potential shelter.

If one person appears hypothermic, at least one other person in the group probably is as well, so get the entire group covered, with coats and beanies, and out of the elements.

Do not have people sitting directly on the ground, as heat loss will be rapid. Get them to sit on their packs or sleeping mats.

Organise some sweets or chocolate, and a warm drink, to keep the internal fire burning.

If condition is serious, set up overhead shelter and prepare for an extended stay.

You will need to assist in the warming of the casualty.

Put on warm dry clothes over existing clothes, and get into a sleeping bag. You may want to put a fit person in the bag with them, or crowd a tent to warm up the area around the casualty.

No alcohol, rubbing or rapid reheating, including hot drinks if severe symptoms are present.

Keep casualty awake. If they become unconscious, turn on side, clear airway, monitor vitals, and get help urgently!

## Hyperthermia

Hyperthermia, or heat stress and, in severe cases, heat stroke, is an overheating of the body's core temperature. Again this is potentially lethal, and especially relevant to our hot dry conditions. Good management and attention to people, their equipment and the environment (weather) will minimise the likelihood of hyperthermia.

### Symptoms

Heat Stress – Tiredness and fatigue are key signs, as are excessive sweating, weakness, nausea, headache, flushed face and a rapid pulse. Hyperthermia is usually not recognised by the casualty.

Heat Stroke – Weak irregular pulse, vomiting, no sweat, hot dry skin, the body's internal cooling system has broken down and it is a medical emergency.

### *Treatment*

This is a preliminary guide only, do your first aid course!

Heat Stress – A person in this situation needs to be moved to a shady area, cooled and given ample water, in short sips.

Heat Stroke – The body temperature is very high and needs to be quickly cooled. Place casualty on their side, in the shade, and keep them still and calm. Cool the casualty with a wet cloth on forehead and armpits, fanning is also helpful. Loosen clothing.

Treatment needs to continue until casualty feels cool.

Medical attention should be sought regardless of recovery as this condition is life threatening.

### *First Aid*

Enroll in your senior first aid course today. The course will provide you with handy skills for all your adventures. Courses are reasonably priced, and are run at enough different times to be available to all. Red Cross, St Johns and Royal Life Saving run courses.

## **Disclaimers**

### *Bushwalking Leadership SA*

Bushwalking Leadership South Australia, in putting this booklet together, does in no way suggest that this is the ultimate guide and STRONGLY recommends anyone interested in bushwalking to educate themselves in the dangers involved with this activity.

Bushwalking Leadership SA STRONGLY advocates first aid training and recognised outdoor leadership training before leading groups of any sort of bushwalking.

This book is intended as a prompt or introduction to some of the basics of enjoyable bushwalking.

### *National Parks/Government Trails*

Trails are provided for your enjoyment and should only be used in accordance with the Code. Trail users must be adequately prepared and obtain relevant information and maps. The trail conditions may vary from time to time, and trail users are advised to check weather conditions prior to leaving. Persons should use caution at all times when using trails in South Australia.

### *Thanks for your effort!*

Paul Stuart did the graphics layout. (well done Paul!). Rod Quintrell co-ordinated the process and created the first draft and final edit. Anthea Shem was sensational, Neville Byrne, Jessica Wilson, Michael Woodward, Andrew Govan, Kym Tilbrook, Rob Robinson and others provided comment. The Office for Recreation and Sport provided resourcing, Department for Environment and Heritage and ForestrySA provided input and support, and Bushwalking Leadership SA provided content and the legwork.

The Bushwalking Leadership SA Board, now in it's 31st year, gratefully acknowledges the continuing support of it's volunteers on the Training Assessors and Advisors Panel.

Do you want to contribute? Send us your ideas and comments on this booklet. Check out [www.bushwalkingleadership.org.au](http://www.bushwalkingleadership.org.au) and go from there.

***BLSA retains intellectual property of this document. October 2004***

## **Really helpful links**

### *Training*

#### *Bushwalking Leadership South Australia*

South Australia's community based peak training body. Runs bushwalking & leadership courses. Industry recognised. Established 1973. p: (08) 8232 9411 f: (08) 8223 4744 e-mail: [blsa@bushwalkingleadership.org.au](mailto:blsa@bushwalkingleadership.org.au) web: [www.bushwalkingleadership.org.au](http://www.bushwalkingleadership.org.au) 73 Wakefield Street Adelaide SA 5000

### *First Aid Training*

#### *Australian Red Cross Training Centre*

229 Marion Rd Marlestone SA 5033 p: (08) 8293 9200 or 1300 367 428

#### *St John Ambulance First Aid Training*

85 Edmund Ave, Unley, SA 5061

p: (08) 8306 6900 f: (08) 8306 6995 e-mail: [stjohn@stjohnsa.com.au](mailto:stjohn@stjohnsa.com.au)

#### *Royal Life Saving Society*

1755 Sir Donald Bradman Drive Cowandilla 5033

p: 8234 9422 web: [www.rlssa.org.au/sa](http://www.rlssa.org.au/sa)

### *Walking Opportunities*

#### *Walking Federation of South Australia*

South Australia's community based bushwalking federation overseeing South Australia's bushwalking clubs and groups. Office open Mondays and Thursdays.

Unit 2, 462 Greenhill Rd, Linden Park, SA 5065

p: 8338 3099 e: [office@walkingsa.org.au](mailto:office@walkingsa.org.au) web: [www.walkingsa.org.au](http://www.walkingsa.org.au)

#### *Friends of the Heysen Trail and other Walking Trails*

A great resource for maps and other bits in the Heysen Trail and other areas around S.A. They also have an extensive walks program.

Lower Level, 10 Pitt Street, Adelaide.

Open between 10:30 am and 2:30 pm Tuesday to Friday

ph: 08 8212 6299 fax: 08 8212 1930 e-mail: [heysentrail@heysentrail.asn.au](mailto:heysentrail@heysentrail.asn.au)

web: [www.heysentrail.asn.au](http://www.heysentrail.asn.au)

### *Further information*

#### *Trails SA*

[www.southaustraliantrails.com](http://www.southaustraliantrails.com)

#### *Department for Environment and Heritage*

*(National Parks & Conservation Parks)*

[www.environment.sa.gov.au](http://www.environment.sa.gov.au)

#### *ForestrySA*

Forest areas around the state

You are welcome to refer to our 24 hr Information &

Emergency line. This can be accessed by phoning

Mt Crawford 8524 6004 or Kuitpo 8391 8800

web: [www.forestry.sa.gov.au](http://www.forestry.sa.gov.au)

#### *Lands Titles Office*

To help identify the owners of private property

101 Grenfell St, Adelaide p:8226 3983 or country 1800 648 176

#### *Bureau of Meteorology*

Weather Information p:1196 web: [www.bom.gov.au](http://www.bom.gov.au)

#### *Country Fire Service*

Fire Restrictions & information web: [www.cfs.org.au](http://www.cfs.org.au)

CFS hotline/information number 1300 362 361