Location: Any area of medium to dense vegetation. (Approximately 50m)

Background:
As well as the ANZAC theme, Pindari offers a range of activities that teach participants general life skills. Bush survival skills are essential for any one appending time in the bush.

Resources: Australian Geographic bush survival, part 1 & 2.
Step 1  Mind control
Step 2  Stay hydrated
Step 3  Communicate
Step 4  Stay warm & sheltered
Step 5  Hunt & gather
Step 6  Travel by the stars
Step 7  Carry a survival kit

Activity Design / Objective:
To gain a greater understanding and appreciation of our Australian bush and learn some basic bush survival skills, such as finding water, lighting fires and making shelters so participants would be able to survive in the bush overnight.

Method:
Participants begin with a historical talk on Pindari and its surrounds.

Activity 1: Observation
Participants are given approximately 5 minutes on their own (the area is to be designated by the facilitator) to record all the various sound, smells and animals within that time. A brief group discussion is held to identify issues or topics that could or should be taken notice of.
Survival priorities such as food, water and shelter are discussed and the facilitator demonstrates various methods of finding, producing water, making fire including creating distress signals, practice snake safety, catching crayfish and constructing basic shelters.

Activity 2: Shelter Construction

Equipment: Natural surrounds

Method:
Participants should be broken into small groups of 3 – 5 participants.
Each group should select a site and begin to obtain foliage to build shelter.

Consideration should be given to:
- Location – ie; not in a creek or area of high wind exposure. There should be some natural protection.
- Animals – avoid building shelters on animal nests / mounds, eg ant nests.
- Steepness of terrain.
- Surface of shelter.
- Likely direction of weather.
- Size and comfort and likelihood of success.
Find large solid pieces of timber to combine with existing branches to form frame of shelter.
Where possible use broad leafed foliage to provide shelter.
Weave the foliage between solid structures for extra strength.
Use small vines to tie structure together if available.
The area should be large enough for all members of the group.

Scoring:
Shelters are given a nominal score, with regards to:
- Location – ie; not in a creek or area of high wind exposure. There should be some natural protection.
- Animals – avoid building shelters on animal nests / mounds, eg ant nests.
- Steepness of terrain.
- Surface of shelter.
- Likely direction of weather.
- Size and comfort and likelihood of success.

Team participation in both planning and construction may also be included in the score.

Activity 3: Fire

Equipment:
- Flint
- Cotton wool
- Dry grass, leaves, small twigs and branches.

Method:
The facilitator should demonstrate how to light a fire using a flint and some cotton wool.
Once the shelters are complete, participants are to prepare a fire place close to their shelter.
As the facilitator and the rest of the group assess the quality of each shelter, the occupants of that shelter light their fire and boil a billy. The time taken to boil is compared between each company.

Activity 4: Finding water

Equipment:
- One plastic bag

Method:
The facilitator should discuss a variety of methods for locating suitable drinking water, such as:
- Use of a plastic bag over leaves on at the end of a branch.
- Digging a hole, filling it with leaves and placing a piece of plastic over the top.
- Following the natural fall of the land to a creek / water course, and boiling the water.
  - Mention the importance carrying of iodine or other purifying tablets when going into the bush.

Safety Issues:
1. Participants should remain within the designated area.
2. The facilitator should check the location’s suitability and safety prior to use.
3. No running.
4. No throwing of any objects.
5. Fires and fireplaces should be actively supervised before during and after completion of the fire lighting exercise and will depend on the weather conditions and any fire bans that may be in place.
Debriefing Points:

This is a very diverse activity which may produce numerous topics for discussion. Some major points to be discussed include:

- Quality of shelters
- Leadership
- Teamwork
- Communication
- Planning
- Listening
- Application of skills
Bush survival: Part I

By: Sam Gibbs | September-14-2009

TAGS:
Australian outback

Skills

Don’t be caught off guard on your next adventure into the wilderness - ensure your safety by brushing up on your bush survival skills.

(Photo: Getty Images)

You are standing alone in 30°C heat beside your car, bonnet up and a 250 km drive from the nearest town. Your car is loaded with gear for the daywalk you were planning, including four litres of water, lunch, a hat, sunscreen, and a map of the walk. Due to the lure of isolation there’s no phone reception, and the owner’s manual in your glove box is about as useful as your Eclectic Hits of Queen CDs for starting your car. No other vehicles are on the road, and thinking about it now, you haven’t seen one since taking that last turn 80 km back. It is hot, dry, and as quiet as a tomb...

When I first heard of Bob Cooper’s survival courses, held in the bush of Western Australia, I had visions of an ex-army, ration-packed, drinks-his-own-urine boot-camp instructor offering tourists a Mick Dundee/Steve Erwin style experience. I had no idea.

Bob Cooper, however, has been conducting wilderness survival courses since 1980, and to the vast number of outdoor people less ignorant than me, he is Australia’s premier survivalist. He carries no knives, wears nothing more camouflaged that an old broad-brimmed hat, and with his fair, blue-eyed complexion, large frame and white beard, looks more like Santa than the leathery character I was expecting when I sat down for day one of his three-day Basic Outback Survival Course.

STEP 1 - Mind control
It is unbearably hot, you hate your phone provider more than ever, you have abandoned your owner’s manual...
and have resorted to reading the Queen Disc One song list: 'I Want To Break Free', 'I'm Going Slightly Mad', 'Under Pressure', 'Death On Two Legs', 'Dead On Time'. You begin to wonder if you told anyone where you were going, if this minor road was even the correct one, if Australian birds circle their prey before death... “

The first word I want you to write down”, says Bob, “is control”. If there is one thing that Bob stresses, after all of his years studying and being involved in survival situations, it is the importance of attitude; that creating and keeping an appropriate outlook can be, and often is, the defining factor between an incident and a tragedy. A survival situation is a fantastic opportunity to put your positive attitude and ingenuity to a new challenge.

So you move on to reading Queen's Disc Two: 'We Are The Champions', 'Hang On In There', 'The Show Must Go On', 'Don't Lose Your Head', 'It's A Beautiful Day'. You don your hat and sunscreen, make yourself comfortable in the shade of a tree, and sit down with a pen and paper to think about your situation, what resources you have on hand, and how you can best use them.

Your priorities should be divided into five main themes: Water, Signals, Shelter, Warmth and Food. As Bob says, "Plans don't usually fail. But people fail to plan."

**STEP 2 - Stay hydrated**

The four litres of water you packed for your walk is looking pretty good. In hot environments, the body will rapidly dehydrate if its fluids are not replaced. The vital organs will scavenge whatever water they can find to continue functioning, and one organ at the back of the bodily queue is the brain. The loss of just two litres of body fluid (which can happen in as little time as three hours in hot climates), can impair your cognitive abilities by 25 percent. One quarter of your senses may leave you in the space of half a day if you do not drink.

Bob Cooper has a library of tales of healthy, intelligent people making tragically poor decisions when suffering dehydration dementia: people walking away from roads for help; stripping themselves naked in the blistering sun; abandoning radios and vehicles filled with food and shelter to wander aimlessly through the bush.

If your well-constructed positive planning is going to have a chance of success, drink your water. Don't sip. Drink a cupful at a time, when desired. Your thirst and urine colour will tell you when you need to increase the amount.

Bob's course teaches at least 15 different methods of procuring fluids in a dry bush environment. Our small group experimented with clear plastic bags tied over transpiring tree branches, digging solar stills to collect evaporated water from impure water, and draining water from plant roots. Other clever methods include:

- Collecting dew from surfaces, plants and grasses;
- Following fresh animal tracks to water;
- Observing the flight directions of seed-eating birds, that will travel to and from water each day (towards the water they will fly in a neat formation; away, they will fly in a haphazard arrangement);
- Draining the air-conditioning water of your vehicle (if the engine still works) by running the air-con with the windows down and collecting the overflow in a container or bag.

**STEP 3 - Communicate**

Feeling reassured about your water situation, and having quenched your thirst, you begin to assess when someone is likely to start looking for you.

You will want to be ready for being accidentally found, as much as deliberately found, and so the first thing you do is raise the bonnet of your car so that you don't look like you have just stopped for a pee, and block the road with a tripod made of sticks and anything to attract attention as a distress sign. You want to be seen by passing vehicles, planes, walkers, riders, whoever — during the day, as well as throughout the night.

According to Bob, you have approximately two minutes in which to work after first hearing an aircraft, and possibly less for a vehicle. This is your window for attracting attention to yourself and you want to make the most of it...

**Fire**

During the day you will want a contained fire to burn that emits as much smoke as possible. This can be achieved by burning green branches and leaves, or by burning wet branches. You may consider burning parts of your vehicle, such as upholstery or ideally, a spare tyre, as it will signal to the nostrils as much as the eyes. In the night, depending on your position, you will want a fire to signal with its light, and a flaring fire will draw even more attention. Fires positioned at the three points of an equilateral triangle are internationally recognised as a distress signal.
Reflection
One of your greatest tools for attracting notice will be the reflection of light. Daylight, torchlight, headlights, or firelight – reflections from mirrors can travel over 20 km. Reflective materials you may not have thought to use include:

- Car mirrors removed;
- Aluminium foil;
- The inside of a drink can;
- A wine cask bladder;
- Reflective patches on jackets, skis and backpacks;
- Space blanket from first aid kit;
- Credit card;
- Eclectic Hits of Queen CDs.

When not actively using your reflective tools, you can hang them from dead trees or poles, or a tripod of sticks on the road, so that they may rotate in the breeze and passively signal to potential passers-by.

Whistles
If you have the benefit of a whistle, use it. Universally, three whistle blasts (or light flashes, or flares), means distress.

Messages
The most basic form of written signal is an SOS message. Create your message in any way that you can; using sticks, logs, bright clothing, tape, stones etc. Make it as large as possible, and as square as possible - round letters tend to blend in with other natural organic shapes. Square, right-angled letters are easier to distinguish in natural surroundings, and are more likely to catch the eye.

It is imperative that you also create informative notes to rescuers. These might be left on roads (attached to large, colourful tripods of sticks), with your vehicle, at your shelter, or at a water source. Features to note include:
- The words ‘Emergency’ and ‘Help’;
- Date of your note and other incidents;
- Names, ages and medical details of yourself and your companions;
- Colour of your clothing;
- Reason you are stranded;
- Action you have taken and why;
- Direction you have travelled in (also mark with an arrow on the ground);
- Your intentions;
- Water and provisions you are carrying;
- The help you want;
- A sketch of your area and plan (do not assume the literacy or language of your rescuer).
Bush survival skills: Part II

By: Sam Gibbs | October-6-2009

More tips and tricks for staying alive in Australia’s alienating bushland...

STEP 4 - Stay warm and sheltered

Being a well-prepared bushwalker you are already wearing lightweight, long-sleeved, sun-protective clothing. You have a fleece packed, and a raincoat, but could also easily improvise these items from plastic bags, and layers of clothing stuffed with grasses or leaves. Evening will soon approach, and while you have your signal tools hanging from tree branches, an SOS signal set-up, three small triangular fires burning, water transpiration bags on trees, and all the water you could gather from the car, including the windscreens wipping water, you will soon want a shelter.

In constructing your shelter – as in all survival activities – keep an energy output-for-benefit ratio in mind and make smart decisions. Do not build in the heat of the day for example, when physical exertion will mean maximum fluid loss through sweat. Where possible, identify where natural formations such as rock shelters already exist for your use. Conversely, make the effort to construct as good a shelter as possible earlier in your experience rather than later – not only will it keep you more comfortable, but you must allow that you may not sustain your initial energy levels as days and possibly weeks pass.

The urgency of creating warmth will depend on your environment, but in all cases, staying warm is not only physically central, but psychologically important. Increase the benefits of a fire by constructing a heat-reflective shelter with a space blanket or tarp, or by using fire-baked rocks to bury under a sleeping ground-space.


19/08/2011
STEP 5 - Hunt and gather

As you eat the last of your Vegemite sandwiches thinking of the burger roadhouse you passed 250 km ago, you can be comforted by the fact that according to Bob Cooper's studies, nobody in Australia has ever died from hunger in a survival situation.

Contrary to popular belief, the body can withstand many weeks without food, as opposed to the days that it may not survive without water. In warmer environments, food should be the last priority on your list of survival concerns. In colder situations however, where the body requires calories to burn for warmth, some food is required to keep the home fires burning.

Ration the food you have available to you, and if possible, avoid dry and dense foods until you have sufficient water to assist with their digestion. When it comes to relying on the wilderness for food, you are left with two approaches; hunting or gathering.

Most methods of hunting, no matter how refined, are likely to require the expenditure of a large amount of energy. Fishing is an exception however, being easy to improvise, with hooks, lures and baits from rubbish, food, and all manner of random objects. It can be practised at different times of the day and night, and can be left to a 'sleeping line' while you are busy or resting.

Bob's course teaches how to gather seeds, roots and other edible plant matter in the bush, as well as how to apply universal poison indicator tests to potential foods. He teaches the poison indicators that apply to plant leaves, roots and seeds, and on our course spent a whole morning walking our group through the scrub of Dwellingup, where in a one kilometre radius he identified and discussed no less than 20 plant varieties to provide all manner of foods, antiseptics, soaps, strings and fluids, passing on many of the skills learnt from his time spent with Indigenous people of Australia and Africa.

STEP 6 - Travel by the stars

You are feeling confident. You have several water collection methods on the go. Your signalling tripods and messages are loud and clear, the Queen CDs are swinging gaily in the sun. You have added a patio extension to your shelter, and you have such an over-abundance of edible plant seeds that you are considering setting up a market stall. It occurs to you that it may be time to have a look around. The map you are carrying shows the road you are on, and a parallel larger road 20 km due east which is likely to carry more traffic. You are aware that once you are mobile, all of your five concerns (water, signalling, shelter, warmth and food) will require new solutions. Above all, you are conscious of not wanting to lose the direction home to your cosy campsite, or direction at all. Just how rusty is your nav?

There are a number of methods for finding your bearings in the bush, during both the day and night. By far the simplest method is to observe the movement of the sun. At any time of the day, stand a stick or pointed object upright in the ground so that it casts a shadow. Mark the tip of the stick's shadow with a stone. Wait 10-15 minutes and mark the end of the stick's shadow at its new position. Now draw a line between the first and second markings to gain an east-west bearing. Estimate a perpendicular line through the east-west line to find your north-south bearing.

After only three days on Bob's course, in a group of people whose nav skills ranged from good to non-existent, every member of our team was able to travel at 283° within two degrees, using the sun-and-stick-method. We did a similar exercise at night using the stars, with equally satisfying results. By the end of our short course, every student had the skills to comfortably use a map and compass, refer to map grid references, and travel specific distances through dense scrub in complete darkness.

STEP 7 - Carry a survival kit

You have packed your bag with all the water you can carry, all the tools you think you will need and have left a detailed note of your intentions with your car. You are about to travel into scrub in the direction of your clearly-marked ground arrow and are excited to finally be doing some bushwalking! You have everything you will need to survive, and you know this, because you are carrying Bob Cooper's Mark III Mini Survival Kit.

The product of a life of survival expertise, Bob's latest survival kit is designed to cope with any bush survival situation; in the tropics, desert or even at sea. Every item has been selected with extraordinary care, and Bob himself has lived from the kit alone for weeks in the Pilbara region in Western Australia. It is provided with any of Bob's survival courses, or can be purchased independently from the website and fits comfortably in a pocket.
Lessons learned

• Control your emotional responses, and be aware of negativity, fear and despair.
• Think before you act, and act with purpose, even if the purpose is to lift the spirits.
• Carry water everywhere. Drink lots, all the time, and then drink some more.
• Be aware of the tools and resources around you and of how everything - even waste items - can have a multitude of uses.
• The body does not need large amounts of complex foods to be perfectly satisfied.
• If you are going to communicate something important, do it efficiently and with care.
• Do not assume anything of other people or situations.
• Think creatively in your problem solving.
• Be aware of the provisions of the natural world, and appreciate the sustainability of what can be taken from the earth. Respect your surroundings.
• Keep a positive attitude in all things – it can conquer the seemingly impossible.