

# THERE & BACK SAFELY



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# SECTION 1

## Hiking Protocol, Etiquette and Technique

### DEFINITIONS

- HIKING** is an outdoor activity which consists of walking in natural environments, often on hiking trails for a longer duration than a simple walk and usually over terrain where hiking boots are required.
- A DAY HIKE** refers to a hike that can be completed in a single day, often applied to mountain hikes to a lake or summit, but not requiring an overnight camp, in which case the term **BACKPACKING** is used.
- LONG-DISTANCE TRAILS** or long-distance tracks, paths, footpaths are the longer recreational right-of-way routes mainly through rural areas, used for non-motorized recreational travelling (walking, backpacking, cycling or horse riding).
- BUSHWACKING** specifically refers to difficult walking through dense forest, undergrowth, or bushes, where forward progress requires pushing vegetation aside. In extreme cases of bushwhacking where the vegetation is so dense that human passage is impeded, a machete is used to clear a pathway.
- TRAIL IDENTIFICATION** any route named as a "trail" will probably be marked, or identified on a map, but it will usually only be described as "long-distance" if it takes the average user more than one day to travel from end to end. Typically, a "long distance" trail, way or path will be at least 50km.

Everywhere is in walking distance if you have the time...

### HIKING PROTOCOL AND ETIQUETTE

CapeNature is a public institution with the statutory responsibility for biodiversity conservation in the Western Cape and is mandated to promote and ensure nature conservation.

The CapeNature Hiking Trails range from easy strolls to challenging climbs with panoramic views of mountain ranges and seacoasts. Each CapeNature Nature Reserve is unique and representative of the distinct natural fynbos regions the Western Cape has to offer.

The variety of trails provides a chance to intimately explore the complex protected fynbos environment

**Help CapeNature protect this significant landscape. Remember that you are hiking in a protected wilderness environment. Leave nature in its place.**

Hikers often seek beautiful natural environments in which to hike. These environments are often fragile: hikers may accidentally destroy the environment that they enjoy. While the action of an individual may not strongly affect the environment, the mass effect of a large number of hikers can degrade the environment. For example, gathering wood in a fynbos area to start a fire may be harmless once (except for wildfire risk). Years of gathering wood, however, can strip a fynbos area of valuable nutrients.

Generally, protected areas such as CapeNature Nature Reserves have regulations in place to protect the environment. If hikers follow such regulations, their impact can be minimized. Such regulations include forbidding wood fires, restricting camping to established camp sites, disposing or packing out faecal matter, imposing a quota on the number of hikers per kilometer.

Many hikers support the philosophy of **Leaving No Trace**: hiking in such a way that future hikers cannot detect the presence of previous hikers. Followers of this practice follow strict practices on dealing with food waste, food packaging, and alterations to the surrounding environment.

Human waste is often a major contributor to the environmental impact from hiking. These wastes can contaminate the watershed and make other hikers ill. Bacterial contamination can be avoided by digging "catholes" 10 to 25 cm (4 to 10 inches) deep, depending on local soil composition and covering after use. If these catholes are dug at least 60 m (200 feet) away from water sources and trails, the risk of contamination is minimized. Many hikers warn other hikers about the location of their catholes by marking them with sticks stuck into the ground.

Sometimes hikers enjoy viewing rare or endangered species. However, some species are very sensitive to the presence of humans, especially around mating season. To prevent adverse impact, hikers should learn the habits and habitats of endangered species.

There is one situation where an individual hiker can make a large impact on an ecosystem: inadvertently starting a wildfire (by eg: by accidentally knocking over a gas portable stove). Obeying area regulations and setting up cooking devices on designated areas (or if necessary on bare ground) will reduce the risk of wildfire.

### WE URGE YOU TO OBSERVE THE FOLLOWING HIKER PROTOCOL:

- It is illegal to collect or disturb plants, animals, rocks or cultural artifacts.
- Destruction or removal of plants, animals, and historical, prehistoric or geological sites are prohibited.
- Wildflowers and other natural objects are beautiful indeed. Leave them intact for others to enjoy.
- Twigs, branches, bark or dead wood may not be gathered for firewood.
- Always stay on designated boardwalks and trails to reduce damage to soil and plants and protect fragile vegetation, in particular vegetation marked as in process of rehabilitation. Trailblazing is strictly forbidden. Although rugged and wild feeling, this area can be fragile and easily damaged. Some plants can take up to 25 years to flower for the first time - and one hiker's boot-print can destroy that plant forever. Therefore, avoid putting your hands and feet anywhere you cannot see.
- It is illegal to set up cooking devices or start fires unless done so on designated areas.
- Do not approach, disturb, chase or harass wildlife. Enticing wildlife is unlawful.
- Do not feed wildlife. Feeding wildlife is unlawful.
- Put your food and garbage away. Baboons and other animals may be attracted to your food.
- Store food in your vehicle and use Baboon-proof garbage cans provided.
- Do not litter. Littering harms wildlife and spoils the view! Use available recycling facilities.

### WE URGE YOU TO OBSERVE THE FOLLOWING HIKER ETIQUETTE:

- Learn to share the trails with all other users. In general, bike riders yield to hikers. However, for all trail users, downhill yields to uphill.
- Use common sense and courtesy while on the trails.
- Announce your intentions and slow your pace when passing someone on the trails.
- Remember the 3 C's: Courtesy, Communication and Common Sense.

## WALKING TECHNIQUE

### WALKING

As a means of transport, particularly when carrying equipment and gear, is very difficult compared to every day urban walking.

### LEVEL OF FITNESS

Hikers must be fairly fit and should definitely get exercise before embarking on any hiking trail.

### ADOPT THE FOLLOWING SENSIBLE WALKING TECHNIQUES WHEN TRAIL HIKING:

- Walk slowly and evenly swinging your arms to maintain momentum and balance and allowing your legs to swing forward naturally.
- Walking as a group must be at the pace of the slowest member, and requires planning and organization. The medical conditions or physical impairments of group members must be considered in this process.
- Try to maintain an even, steady pace – one that everybody in the group can maintain for extended periods of time, without getting out of breath or hurting themselves.
- When travelling over difficult or more challenging terrain, it is in the group's interest to assist struggling members to help one another. **YOU WILL HAVE TO ADAPT YOUR WALKING STYLE TO THE TYPE OF TERRAIN IN ORDER TO AVOID INJURIES:**
- On very steep slopes: Joining hands can be helpful to any member who slips or does not feel sure-footed.

#### *Walking uphill:*

Shorten the length of your stride when going uphill, keeping the same rhythm, leaning forwards, place your feet flat on the ground.

#### *Walking down hill:*

Open your stride and lean back slightly. Do not try to go too fast. Descending can be hard on your knees, especially when carrying weight, such as a backpack.

#### *Walking on sand or loose ground:*

On soft sand, slow down and place each foot deliberately putting weight on it gradually. Walking sideways prevents the toes from digging in.

## SECTION 2

### Hiking Personal Safety Responsibilities

#### BEFORE YOU HEAD OUT ON A HIKING TRAIL

In an effort to educate hikers on the inherent risks of hiking and how they can become better prepared before beginning any hike, these HIKER SAFETY GUIDELINES have been prepared to improve personal safety.

These guidelines include a set of principles that all hikers can look to before they embark on the trail, created to help hikers become more aware of their responsibility for their own safety every time they are on a hike.

**BEING PREPARED is the key to having a safe and enjoyable experience.**

Here you'll find help in planning ahead—from the equipment you'll need and weather to be prepared for, based on the seasons, to what to do if you're lost or have an encounter with wildlife or any other emergency situation which may arise and threaten your personal safety.

#### **YOU ARE RESPONSIBLE FOR YOUR OWN SAFETY, SO BE PREPARED! BEFORE YOU HEAD OUT ON A HIKING TRAIL:**

- SIGN A HIKING REGISTER, a SELF-ISSUING PERMIT or whatever form available to indicate your presence on the hiking trail.
- MAKE SURE YOU PARK ONLY ON PAVED SURFACES. Parking on unpaved surfaces slowly erodes preserve land, generates dust and poses a fire risk to grasses and small brush from hot engine parts. Make sure someone knows where you'll be hiking and when you expect to return.
- BEFORE LEAVING YOUR CAR, make sure your valuables are stored out of sight. The best solution is to leave your valuables such as a wallet or purse at home or secure them in the trunk before arriving at the trailhead. Lock your car and take your keys with you (do not try to hide keys under a tire or car bumper)
- REPORT SUSPICIOUS BEHAVIOUR to Nature Reserve Field Rangers or Management or to Crime Stop.
- HAVE A HIKING PLAN

### YOUR HIKING PLAN

#### 1. BE PREPARED WITH KNOWLEDGE & GEAR

**Become self reliant by learning about the terrain, conditions, local weather and your equipment before you start** (e.g. A map and compass can only get you home if you know how to use it, cellphones often do not work in the mountains as the land mass can block signals).

Even if you are headed out for just an hour, an injury, severe weather or a wrong turn could become life threatening. **Do not assume that you will be rescued; know how to rescue yourself.** Have emergency equipment on hand (e.g. pocket knife, maps, compass, flashlight, First-Aid kit, rain or wind gear, or anything to start a fire).

#### 2. KNOW WHERE YOU ARE GOING AND WHAT KIND OF TERRAIN YOU WILL BE HIKING ON

Before you set out, it's always advisable to consult a topographic map so you'll be familiar with the type of terrain you'll encounter. You can find these maps in local outdoor stores, bookstores and online. **Learn how to use a map and compass. Call ahead, read a guidebook and study maps of the area you'll be hiking to become familiar with trails, roads, rivers, streams, mountains and other features.**

#### **Use these as reference points as you hike:**

Know the time of sunset, the tide changes (especially when hiking in coastal / Marine Protected Areas) and weather prediction for the duration of the hike before you set out. Take steps to make sure you don't become lost. Bring a trail map when possible

CapeNature Nature Reserve Hiking Trails include a huge variety of terrain, from windswept mountainous areas, sheer cliffs and low-lying interval and fynbos covered terrain. The terrain can be very steep and rocky, so plan accordingly, as short sections of trail can take much longer than anticipated. Hikers can encounter snakes and other potential hazards particular to these areas.

#### 3. LEAVE YOUR HIKING PLANS FOR EMERGENCY RESCUE PURPOSES

Once you've determined your route, **leave your Hiking Plan with family or friends - then make sure you do not deviate from this Hiking Plan.**

Inform family members or friends where you intend going, the trails you are hiking, the route you intend following, when you will be departing from base camp, how long the anticipated hiking trail will take to complete (generally 3km/hr) when you will return and your emergency plans.

#### 4. NEVER HIKE ALONE AND STAY TOGETHER

**It is safer to hike in groups of two, three or more. When you start the hiking trail as a group, hike as a group and end as a group.** Pace your hike to the slowest person. It takes many more hours for a Search and Rescue Team to locate individuals as opposed to locating the group. The costs involved for Search and Rescue operations are also exorbitant.

## 5. CAMP ONLY AT DESIGNATED CAMP SITES

### 6. NEVER DEVIATE FROM YOUR ORIGINALLY INTENDED ROUTE, UNLESS IN AN EMERGENCY

What you shouldn't change: your route. If you do not return on schedule and the person you left your Hiking Plan with contacts authorities, search and rescue efforts will start where it is presumed you are. If you have taken another route, this can substantially delay help reaching you. Think through your situation and use your best judgment. **Never change your route unless it is an emergency.**

### 7. KNOW WHEN TO TURN BACK

Weather conditions are known to change quickly, especially at higher elevations, even if the weather is good at lower altitudes, the higher you go, the colder, windier and wetter the weather is likely to be. Late spring storms can mean snow on mountain ranges. **When the weather changes suddenly, you need to respect nature's unpredictability and head for home.**

Fatigue and unexpected conditions can also affect your hike. **The fitness levels of and medical condition of individual group members should always be considered and the group's pace should be set by the slowest hiker. If that hiker is unable to continue, keep your group together.**

**Never be afraid to turn back.**

Running out of time: Sunset and darkness can come quicker than expected, especially in the autumn and winter months.

**Respect the messages and signals nature and your body sends—it's an experienced and intelligent hiker who can judge when to continue and when it is better to turn back and return another day.**

### 8. KNOW HOW TO DEAL WITH CERTAIN EMERGENCY SITUATIONS:

Even if you are headed out for just an hour, an injury, severe weather or a wrong turn could become life threatening.

**Do not assume that you will be rescued; KNOW HOW TO RESCUE YOURSELF.**

## YOUR HIKING GEAR, EQUIPMENT & FOOD & EMERGENCY SUPPLIES

Ensure that you have the correct hiking gear and emergency protective clothing and equipment.

THE 10 ESSENTIALS first described in the 1930s by The Mountaineers, a hiking and mountain climbing club. Many regional organizations and authors recommend that hikers, backpackers and climbers rigorously ensure they have the ten essentials with them.

According to the "Mountaineering: The Freedom of the Hills"

### THE 10 ESSENTIALS are:

- 1 Map
- 2 Compass (optionally supplemented with a GPS receiver)
- 3 Warm Clothing Rain/wind Jacket & Pants, Sweater or Pile Jacket, Long pants, & Woollen Hat or Beanie)
- 4 Extra food and water
- 5 Extra clothes
- 6 Headlamp / Flashlight with extra batteries
- 7 First Aid Kit / Repair Kit
- 8 Fire Starter / Matches (in waterproof container)
- 9 Whistle
- 10 Knife

This is a list of suggested equipment, which you can adjust to suit your personal preferences. Mountain weather is unpredictable; be prepared for winter conditions at any time of the year. Snow may persist in high mountain regions into the summer.

Not every expedition will require the use of an essential item. Carrying these basic items improves the chances that one is prepared for an unexpected emergency in the outdoors. For instance, if a hiker experiences a sudden snow storm, fresh clothes and fire starter may be used to keep warm, or the map and compass and headlamp will allow them to exit the wilderness quickly; otherwise hypothermia becomes a prominent possibility, perhaps even death.

### IT IS RECOMMENDED THAT THE 10 ESSENTIALS BE SUPPLEMENTED WITH:

- Water treatment device (water filter or chemicals) and water bottles
- Repair kit, including duct tape and basic sewing materials.
- Insect Repellant (or clothing designed for this purpose)
- Signaling devices, cell-phone (fully charged and with emergency contact numbers pre-programmed) two-way radio, satellite phone, unbreakable signal mirror
- Plastic tarp and rope for expedient field shelter.

OTHER ESSENTIALS	OPTIONAL EXTRA ITEMS	EMERGENCY SUPPLIES
<ul style="list-style-type: none"> <li>■ Trail Map</li> <li>■ Topographic map</li> <li>■ Compass</li> <li>■ Small torch with new batteries</li> <li>■ Waterproof matches &amp;/or lighter</li> <li>■ Candle</li> <li>■ Emergency blanket</li> <li>■ Extra shoelaces</li> <li>■ Sunglasses, sunhat</li> <li>■ Sunscreen &amp; lip balm</li> <li>■ Eye drops</li> <li>■ Garbage bags</li> <li>■ Pencil &amp; paper</li> <li>■ Rope 8 m. approx.</li> <li>■ Pocket Knife and Tin Opener</li> <li>■ Gas Stove and Gas Light (ensure you have enough gas)</li> <li>■ Washing line &amp; clothes pegs</li> <li>■ Soap, wash cloth, toothbrush, -paste &amp; Shampoo</li> <li>■ Light towel and washcloth</li> <li>■ Comb or brush</li> <li>■ Mirror</li> <li>■ Toilet paper (sometimes it is not provided)</li> </ul>	<p><b>OPTIONAL EXTRAS</b></p> <ul style="list-style-type: none"> <li>■ Binoculars</li> <li>■ Altimeter</li> <li>■ Bird and Plant Identification Book</li> <li>■ Camera</li> </ul> <p><b>CLOTHING</b></p> <ul style="list-style-type: none"> <li>■ Comfortable strong shoes and cotton socks (additional pairs included)</li> <li>■ Long underwear</li> <li>■ Wool sweater, down vest, or fleece jacket</li> <li>■ Raingear pants and jacket, gaiters</li> <li>■ Hat and gloves/mittens</li> <li>■ Shorts, pants and shirt</li> <li>■ Extra socks</li> <li>■ Boots - with ankle support and good soles</li> <li>■ Sandals/runners - for fording streams and at camp</li> <li>■ Swimming costume</li> </ul>	<p><b>SHELTER</b></p> <ul style="list-style-type: none"> <li>■ Tent with waterproof fly</li> <li>■ Backpack</li> <li>■ Sleeping bag</li> <li>■ Sleeping pad</li> <li>■ Stove, fuel, pot, dishes, eating and cooking utensils</li> <li>■ Food including enough for an extra day</li> <li>■ Water filter, purification tablets or extra fuel for boiling your water</li> </ul> <p><b>EMERGENCY SUPPLIES (not included in First Aid Kit)</b></p> <ul style="list-style-type: none"> <li>■ Bandage and plasters</li> <li>■ Transact plasters (muscular pain)</li> <li>■ Mercurochrome</li> <li>■ Headache tablets/Painkillers</li> <li>■ Muscle relaxant</li> <li>■ Mosquito lotion (Tabard)</li> <li>■ Anti-allergic medicine</li> <li>■ Immodium &amp; Buscopan (diarrhea)</li> </ul>

## FOOD: SUSTAINANCE

A hiking trip's menu should always come to terms with personal taste and preference, although you should look at the following: Taste, nutritious value, is it filling, lightweight, prepared easily and is the cost reasonable?

One way of planning meals on a trail is to join with one or two more people and plan a joint menu. Everyone doing their own thing, or one person doing everything, (unless he/she is a qualified chef) can result in waste.

- Rusks
- Eggs or powder eggs
- Instant soup and sauces
- Any breakfast cereal or muesli
- Salami
- Dried fruit
- Biltong (dried meat) and "droë wors"
- Nuts e.g. peanuts and raisins
- Sweets (Super C's or Vita C's)
- Chocolates
- Powder cool-drink (Game or Clifton)
- Fresh fruit (Oranges and Apples)
- Cheese wedge's and Yoghurt
- Pro-vitas
- Tin meat (Bully beef or Vienna's)
- Dried mince (Dried in a microwave)
- Instant potato for e.g. Mash potato
- Tin tuna, sardines, Vienna's and meat
- Vegetables (Carrots and Onions)
- Dried vegetables
- "Meal in one" or Pastas
- Fresh bread rolls
- Jam, Syrup and butter
- Smoked and vacuum-packed meat
- "Rooster koek" mix
- Instant milk pudding
- Ginger cake

## HIKER SAFETY KIT

Hiking in the great outdoors is usually a relaxing and enjoyable experience. However, it always makes good sense to be prepared for the unexpected. Hiker Safety Kits are generally designed to be lightweight, mobile and durable, and are specially created to assist hikers who find themselves unexpectedly needing assistance, before, during and after an emer-

gency and contains items for food intake, thirst protection, protection against loss of body heat, illumination, as well as signaling equipment.

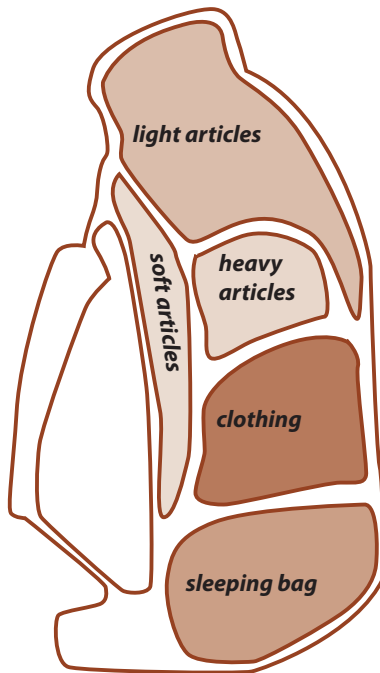
### BACKPACK

A comfortable backpack and comfortable strong shoes are also very important. The weight of your backpack (packed) may not exceed one third of your body weight. Don't carry too many things. Everything, even the smallest item, must be as light as possible.

Your backpack should always be packed to keep the load as close to your centre of gravity as possible. This lessens the "backward pull" you get when the bag is incorrectly packed.

Remember everyone doesn't have to carry everything with, groups can divide items among each other.

**Pack your backpack as illustrated below:**



## SECTION 3

### Hiking Safety and Emergency Procedures

#### *How to rescue yourself and others in your hiking group*

Hiking may produce threats to personal safety. These threats can be dangerous circumstances while hiking and/or specific accidents or ailments.

#### DANGEROUS HIKING CONDITIONS

- Losing your way
- Inclement weather
- Exacerbation of pre-existing medical conditions
- Specific incidents include:
  - Metabolic imbalances (such as dehydration, hyperthermia or hypothermia)
  - Topical injuries (such as frostbite or sunburn)
  - Attacks by animals or bites (snakebites, spider & insect bite)
  - Attacks by humans are also a reality
- Specific injuries include:
  - Broken bones caused by falling
  - Internal injuries
  - Muscular or ligament damage (sprained ankle)
- Specific illnesses include:
  - Wilderness-acquired Diarrhea (often afflicting long-distance hikers)

#### WHAT TO DO IF YOU ARE LOST

**GETTING LOST CAN BE PREVENTED AND RESCUING YOURSELF AND OTHERS CAN BE ACCOMPLISHED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:**

- Never descend via unknown trails, kloofs or slopes. (Waterfalls, loose stones and hidden cliffs can be deadly).
- Keep the hiking group together.
- S.T.O.P. (Stop, Think, Observe, Plan). Your brain is your #1 survival tool.

- Retrace your steps (light and weather permitting) until you reach a familiar landmark or route, otherwise camp where you are until rescued.
- Use bright items to reveal your location to Search and Rescue Teams.
- Take your map (1: 50 000 contour map with grid references) and compass with you. That way, if you become disoriented, you can stop, refer to your map and try to reorient yourself. Experienced hikers say that most people find their way after studying a map and the surrounding terrain for five minutes, so don't panic if you can't immediately figure out where you are. Sit down and remember that being lost means that you are only temporarily uncertain of your location.
- Know your location. You may need to be on higher ground in order to identify landmarks such as streams and ridges. Light and weather permitting, retrace your steps until reaching a familiar route. Just don't wander far from your original route; remember, this is where rescuers will start looking for you if your friends or family tell them your planned route.

#### IF YOU CAN'T RESCUE YOURSELVES

- Keep the group together, stay warm and protect yourselves from the elements.
- If possible, stay near an open space; move into it to be visible from the air and ground.
- Try to remain hydrated.
- Put bright clothing on, or put out something that's bright to attract attention and reveal your location to Search and Rescue Teams.
- Blow your whistle loudly and continue to do so to attract attention.
- Don't lie on bare ground. Use the equipment you brought to protect yourself from the elements.
- Try to define your location: Establish where true North is. Work out the most probable direction and start walking in a straight line (use a fixed high feature or landmark to guide you in a straight line). Maintain your heading until you have identified your position.
- Do you recognize any landmarks like river beds, mountains, clumps of tall trees etc. If you find a fence or a road, it will most probably lead to a gate or camp site. Use your local knowledge to decide which way to proceed. As you pass prominent landmarks, memorize them and relate them to your direction of travel.
- Discuss the situation with your fellow hikers and explain your strategy. Once the group has agreed on a strategy, stick with it. If the last known location is within a reasonable distance, try to go back to it. If you can't find any recognizable landmarks by backtracking, stay put.
- In the event that someone may search for your group, leave indications of the direction that you are going, e.g. by making arrows directing the direction of travel.

- Keep your eyes and ears open and seek clues of human habitation or human activities:
  - Look for telephone lines or fences
  - Listen for generators or pumps
  - Look out for smoke
  - At night, look for a glow on the horizon, indicating towns or settlements
- Contact Emergency Rescue Personnel from the Reserve/ Mountain Rescue Services if you are able to get cellphone coverage (these numbers should be entered into your cellphone prior embarking on your hike)

## WHAT TO DO IN THE EVENT OF DEHYDRATION

### DEHYDRATION

Occurs when the body loses more water than it takes in. About 75% of the human body consists of water. Water is lost from the body through sweating and urination and therefore it must be replaced regularly to avoid dehydration. Drinking plenty of water is a necessity out on the trail. **Dehydration can lead to poor decision-making, heat exhaustion, cramps and heat stroke.**

### SIGNS & SYMPTOMS OF DEHYDRATION

Minor heat related conditions are heat rash, swelling of the feet and cramps. Symptoms of dehydration include: stumbling, a dry mouth, a sunken appearance around the eyes, loss of skin elasticity, headache, nausea, and dark concentrated urine, if any. Dehydration can lead to poor decision-making, heat exhaustion and heat stroke. As dehydration worsens, the pulse becomes rapid and weak, and the breathing rate increases. Eventually the person will sink into a coma and die if serious attempts at rehydration are not initiated immediately.

### DEHYDRATION CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Avoiding overexertion on hot days.
- Pace yourself and rest often. Rest in the shade, if any is available. Drink water. Soak a bandana with water and cover your head with it. Avoid severe dehydration by ensuring that your fluid intake increases during very hot weather and periods of physical exertion: drink at least 250ml (one cup) of water every hour. Making sure that you bring enough water with you can often be the difference between a safe trip and a dangerous situation.
- Hike in the cool of the morning and late afternoon. Rest in the shade during the day.
- Wear a sun hat with a wide brim to protect your ears, face, scalp and back of your neck.
- Wear cool natural fiber clothing (e.g. cotton type wear).



## KEEPING HYDRATED IS AN OFTEN OVERLOOKED ITEM ON THE HIKER'S CHECKLIST.

However, this may put things in perspective: you can live for nearly a month without food, but only around a week without water. Therefore, it's essential to drink enough water any time you go for a hike.

- Since water isn't always available from streams or brooks, you should plan to carry all the water you need. There are several schools of thought on how much water you should carry, but a general rule of thumb is to pack more than you'd think you need. It's better to err on the side of bringing too much water than too little.
- If you're going for an extended period of time (multi-day hike) or if you're planning to drink water you find along the way, be aware of where water is located.
- Bring along a filtering system or iodine water purification tablets or a stove with enough fuel to boil your water before you drink it. Always filter, chemically treat or boil water you've taken from an unprotected source. Water treatment gear can be found at outdoor equipment stores, as well as ordered online.
- It is NEVER safe to assume any natural water source on the trail is safe to drink. What appears to be a clear mountain stream could contain giardia and a host of other debilitating and hike-ending bacteria. Quite often, drinking from a contaminated stream doesn't result in immediate symptoms; the bacteria lie dormant in your system, and then may appear sometimes weeks after drinking. Therefore, always filter, chemically treat or boil water you've taken from an unprotected source



*Move a person suspected of being dehydrated to a cool place and immediately initiate rehydration attempts : Give him/her plenty of rehydration solution (Rehydration Solution : 8 level teaspoons of sugar and half a teaspoon of salt added to a liter of water)*

## WHAT TO DO IN THE EVENT OF HEAT STROKE / HEAT-RELATED ILLNESS (HYPOTHERMIA)

**HEAT STROKE** is the condition in which the body becomes overheated. Body temperature can rise as high as 46 degrees.

**Overexertion on hot summer days can lead to heat-related injuries.** Listen to the feedback from your body. If you can't quench your thirst (or you don't feel thirsty) and you feel lightheaded, nauseous, or chilled despite the heat, you're in the throes of heat exhaustion. **STOP HIKING IMMEDIATELY!**

## SIGNS & SYMPTOMS OF HEAT STROKE (HYPEROTHERMIA):

Heat exhaustion will leave you feeling tired, nauseous, dizzy and headachy. Signs of heat stroke: sweating stops and there might be unnatural sudden movement of the muscles, confusion, delirium, loss of consciousness, collapse and a possible coma. Such cases are life-threatening and can be fatal. The skin feels hot as the body's cooling mechanism fails. **THIS IS A TRUE EMERGENCY.** Cooling the patient immediately is essential. Remember, even if you are hydrated, you can still suffer from heat-related illness. Long stretches of trail may provide no shade or little water, heat exhaustion is a major concern. Temperatures can soar, and if you're not hydrated, heat exhaustion will set in.

## HEAT EXHAUSTION and HEAT STROKE CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Avoidance of overexertion on hot days.
- Pacing yourself and resting often. Resting in the shade, if any is available. Drink water. Soak a bandana with water and cover your head with it.
- Water sources are pointed out on all Trail maps, but keep in mind that some non-potable sources may only be available seasonally.
- Eating regularly throughout your hike
- Consider hiking only in the early morning and on less arduous and less strenuous trails. On the hottest summer days, consider whether it's safe to hike at all. If you do choose to hike



1. *Move the person into the shade / a cool place immediately*
2. *Remove clothing, within reason, bathe with cool water if available and fan him/her cool. Note: if a heat stroke victim is cooled too quickly, his/her body temperature may drop too far causing shock. Take care to cool him/her slowly.*
3. *Rehydration: Encourage the person to swallow small quantities of water at intervals of a few minutes.*
4. *Allow the person to rest: a good night's sleep is the best remedy.*

## WHAT TO DO IN THE EVENT OF EXTREME COLD-RELATED ILLNESS (HYPOTHERMIA)

### HYPOTHERMIA

When a person is exposed to severe cold conditions without adequate protection (walking in severe cold weather conditions or snow / walking with wet clothes in rain and wind / emersion in cold water) can lead to unsustainable heat loss

and the consequent development of hypothermia. Hypothermia occurs when the body fails to conserve heat and the body's core temperature drops below normal, causing mental confusion, coma and death.

### SIGNS & SYMPTOMS OF HYPOTHERMIA

Early signs of hypothermia may be as mild as poor judgment, a slight sensation of chilliness, and trouble using your hands for simple tasks. Later signs of hypothermia include uncontrolled shivering, difficulty thinking, slurred speech, mental confusion, impaired vision and sleepiness, followed by unconsciousness and death. Hypothermia is aggravated by hunger, fatigue, illness and high altitude.

### YOU CAN ATTEMPT TO PREVENT HYPOTHERMIA BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Having warm clothes and dressing in layers to adjust temperature as needed. Wear a warm cap to avoid heat loss. Carry hand warmers and energy bars in your pack. In summer months temperatures can plummet at night – ensure that you have a warm sleeping bag with you. During the winter months – a 20°F bag should provide reasonable warmth. Be aware of the weather around you.
- Keep dry with good wind and rain gear: your body loses heat three times as fast when it's wet. The risk increases substantially when you wade through rivers or stream crossings in chilly weather. However warm the day may seem, never set out without a warm sweater and windbreaker in your day pack.
- Drink plenty of fluids, eat many small meals throughout the day in order to maintain a steady intake of food as this will ensure constant production of body heat and avoid alcohol and caffeine.
- Do not start out for a hike in the face of obviously deteriorating weather
- If caught in bad weather seek shelter early while you still have energy, and in particular, get out of the wind before chill and exhaustion take their toll – however, try to stay near the designated path.



1. *When Hypothermia is identified, immediate treatment is to stop, rest, seek shelter and re-warm the person. Seek shelter away from the wind (as wind whips away heat from the skin and cools wet clothes).*
2. *Strip off wet clothing and put on dry clothes.*
3. *Do whatever is necessary to bring the victim's core temperature up, from feeding them hot liquids to diving into a sleeping bag with them.*
4. *Rehydration: Encourage the person to swallow small quantities of water at intervals of a few minutes.*
5. *Allow the person to rest.*

## WHAT TO DO IN THE EVENT OF WILDERNESS-ACQUIRED DIARRHEA

### WILDERNESS-ACQUIRED DIARRHEA "WAD"

Diarrhea caused by pathogens acquired in the wilderness is sometimes called **wilderness-acquired diarrhea** and is a much-discussed hazard among backpackers, hikers, campers and other outdoor recreationalists who visit remote areas.

Risk factors include drinking untreated surface water and insufficient washing of hands and food utensils, i.e. insufficient hygiene, which may result in person to person transmission of microbes that cause WAD. Some people may be carriers and not exhibit symptoms. The risks of acquiring infectious diarrhea are not always understood by the public:

### SIGNS & SYMPTOMS OF WILDERNESS-ACQUIRED DIARRHEA

The average incubation periods for Giardiasis and Cryptosporidiosis are each 7 days. Certain other bacterial and viral agents have shorter incubation periods, although hepatitis may take weeks to manifest itself. The onset usually occurs within the first week of return from the field, but may also occur at any time while hiking.

Most cases begin abruptly and usually result in increased frequency, volume, and weight of stool. Typically, a hiker experiences at least four to five loose or watery bowel movements each day. Other commonly associated symptoms are nausea, vomiting, abdominal cramping, bloating, low fever, urgency, and malaise, and usually the appetite is affected. The condition is much more serious if there is blood or mucus in stools, abdominal pain, or high fever. Dehydration is a possibility. Life-threatening illness resulting from WAD is extremely rare but can occur in people with weakened immune systems.

### WILDERNESS-ACQUIRED DIARRHEA CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

Since wilderness-acquired diarrhea can be caused by insufficient hygiene, contaminated water, and (possibly) increased susceptibility from vitamin deficiency, prevention methods should address these causes.

- **Vitamins**  
On very long trips in the wilderness, taking multivitamins may reduce the incidence of diarrhea.
- **Hygiene**  
The risk of fecal-oral transmission of pathogens that cause diarrhea can be significantly reduced by good hygiene, including washing hands with soap and water after urination and defecation, and washing eating utensils with warm soapy water.

### ■ Treating water: Portable Water Purification

Water can be treated in the wilderness through filtering, chemical disinfectants, a portable ultraviolet light device, pasteurizing or boiling. Factors in choice may include the number of people involved, space and weight considerations, the quality of available water, personal taste and preferences, and fuel availability.

In a study of long-distance backpacking, it was found that water filters were used more consistently than chemical disinfectants. Inconsistent use of iodine or chlorine may be due to disagreeable taste, extended treatment time or treatment complexity due to water temperature and turbidity. Methods based on the use of halogens, such as iodine and chlorine, do not kill *Cryptosporidium* and sometimes filtration misses some viruses.

Ultraviolet (UV) light for water disinfection is well established and widely used for large applications, like municipal water systems. A small portable UV device, called a Steri-pen, is now available for hikers.

### ■ Hygiene Water Risk Avoidance

Different types of water sources may have different levels of contamination

*More contamination may be in water that*

- Could have passed through an area subject to heavy human or animal use
- Is cloudy, has surface foam, or has some other suspicious appearance.

*Less contamination may be in water from*

- Springs (provided the true source is not surface water a short distance above)
- Large streams (those entering from the side may have less contamination than those paralleling the trail)
- Fast-flowing streams
- Higher elevations
- Lakes with undisturbed sediments (10 days undisturbed water storage can result in 75-99% removal of coliform bacteria by settling to the bottom)
- Freshly melted snow
- Deep wells (provided they aren't subject to contamination from surface runoff)
- Regions where there was a heavy snow year when streams run full and long compared to dry years.
- Risks are highest in surface water near trails used by pack animals and cattle pastures

Rain storms can either improve or worsen water quality. They can wash contaminants into water and stir up contaminated sediments with increasing flow, but can also dilute contaminants by adding large amounts of water.



*A suspected case of wilderness acquired diarrhea may be assessed within the general context of intestinal complaints.*

**WAD is typically self-limited, generally resolving without specific treatment. Oral rehydration therapy with rehydration salts is often beneficial to re-**

**place lost fluids and electrolytes. Clear, disinfected water or other liquids are routinely recommended.**

*A hiker who develop three or more loose stools in a 24-hour period — especially if associated with nausea, vomiting, abdominal cramps, fever and blood in stools — should be treated by a doctor and may benefit from antibiotics, usually given for 3–5 days. Alternatively, a single dose azithromycin or levofloxacin may be prescribed. If diarrhea persists despite therapy, travelers should be evaluated and treated for possible parasitic infection.*

*Cryptosporidium can be quite dangerous to patients with compromised immune systems. Alinia is approved by the FDA for treatment of Cryptosporidium.*

## WHAT TO DO IN THE EVENT OF ACCIDENT OR INJURIES OR AFFLICTIONS WHILST HIKING

Accidents happen to even the most experienced and best prepared hikers. A fall can result in a few scrapes minutes from the trailhead or life-threatening injuries miles - and hours - from help. This is why it's especially important to never hike alone.

### COMMON TYPES OF HIKING TRAIL ACQUIRED INJURIES AND AFFLICTIONS

- Injuries which result from falls: Head Injuries, Back and Neck Injuries, fractures of bones, sprains and strains, cuts, scrapes and splinters.
- Other injuries: Eye Injuries, blisters, burns and scalds, snake bites, spider bites, scorpion stings, bee stings and tick bite fever.

### ACCIDENTS AND INJURIES CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Never hike alone.
- Be prepared with knowledge (of the terrain, administration of First Aid and staying warm).
- Be prepared with gear. If you take a fall on a day hike, you may have to spend the night. Have what you need to stay warm, dry, hydrated. (Matches, flashlight, whistle and other items in your pack you thought you'd never need may mean the difference between getting home quickly and safely - or not at all.)
- Do not panic! You must stay calm so that you can think clearly and deal with the situation as best you can.



If you or your fellow hikers become injured (or ill) whilst on a hiking trail, **KNOW HOW TO RESCUE YOURSELVES**. Remember: if you're prepared to rescue yourself, you'll also be able to help another hiker too.

- In the event of a serious injury where a back injury / spinal injury cannot be excluded: Do not move an injured person. Moving them could aggravate the injury.
- Apply First Aid: Check ABC, Airway, Breathing, Circulation and stop bleeding
- Do not leave the injured person alone: Protect the injured person from further injury.
- Make sure that the rest of the group are safe.
- Make a note of landmarks around you so that you are able to direct emergency teams to your position. If you have a cellphone call mountain rescue. This number should already be on your phone. If you have no phone, send someone to call for help, preferably send two persons for help.

#### WHEN YOU SPEAK TO EMERGENCY SERVICES

- Stay Calm
- State what happened
- Explain who is injured? (Name, Gender, Age)
- Describe the nature of the injuries (Where on body, fractures, extent of injuries)
- Describe the person's condition (Are they alert, unconscious, only responding to pain)
- Look around you, and explain where you and the injured person are and how they can find you? (Area, Valley...find a landmark)
- If you can, stay on the phone and in contact with emergency services
- Reassure the injured person that help is on the way
- Keep them warm/cool and alert until help arrives.

## WHAT TO DO IN THE EVENT OF EXTREME WEATHER CONDITIONS: Flooding / river crossings / drowning

### WATER CROSSINGS:

In spring and after heavy rains, streams can change from trickles to torrents, making crossings difficult. If you decide to cross a stream, be extremely careful. Many rivers are shallow and can be crossed with ease at selected points. However, heavy rain may rapidly change a gentle trickling stream into a major obstacle.

### ACCIDENTS AND INJURIES CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Select the site for crossing with care. Spend some time moving up and down the bank of the river studying the river and its' flow patterns, and then choose the best crossing point. No river crossing should be attempted without careful consideration of the width, depth and strength of the current.
- Look for a level stretch in the river where it breaks into a number of channels. Two or three narrow channels are usually easier to cross than a wide river.
- A river crossing should always be approached with caution and an awareness of potential danger. A dangerous river crossing may be justified only when the alternatives to crossing are more hazardous than the crossing itself (e.g. unprotected climbing along a rock face).
- Try to avoid having to cross a flooded mountain stream. Rather wait until the water level has dropped before crossing at a safe place.
- If you do decide to cross a stream, be extremely careful: Keeping your boots on will give you better footing and prevent your feet from going numb from the cold water. Unbuckle your pack's waist-belt before starting.
- Boulder hopping may be feasible at certain places. Rapids indicate shallow rocky sections which may be easier to wade than even-flowing deeper reaches. Do take care when crossing fast water. Boulder hopping ability varies from person to person and shorter members of the group may need a helping hand. Balance is improved by passing on backpacks hand to hand. Beware of slippery rocks.
- If forced to wade, keep safety boots and socks on if the water is cold. Be ready for deep mud, vegetation or sudden changes in river depth.
- A stick will provide added support as well as linking arms with others in the group.
- Always cross very slowly.
- To reduce the force of the current on your body: if the current is swift aim for a point on the opposite bank, somewhat downstream.

### CREATING A LOG BRIDGE

One of the easiest and safest ways of crossing a deep gorge or a narrow, fast flowing stream is to build a bridge. This is particularly useful if you need to cross a stream regularly. The advantage of a log bridge for narrow streams is that it can initially be built entirely from one side of a river

- Lower the log. Wrap ropes around some nearby trees to add more friction if necessary.
- Then slide the next log carefully across the first one. The remaining logs are slid along the first log and maneuvered until three or four logs bridge the stream.

- Place a short log under their ends on the first bank and peg all the logs down securely before using the bridge.

### RESCUING A DROWNING PERSON FROM A RIVER

A PERSON WHO CANNOT SWIM: may drown when he/she ends up in deep water during a river crossing.

A PERSON WHO CAN SWIM: may drown, when swept away by strong currents in the water when unconscious in the water by a blow to the head.

**When someone in the water is clearly in trouble, there should be NO DELAY to help:**

- It may be a good idea to throw a rope or extend a tree branch for the person to grab onto and then pull him or her to the edge. If this is not possible:
- The rescuer should go to the swimmer in a “bear hug” so that swimming is impossible.
- The rescuer must first release himself/herself before attempting the rescue.
- The rescuer can free himself by bringing a hand up between the victims arms and pushing his/her head forcefully backwards or flex your hip and knee so that your lower leg is against the victim’s chest. Push forcefully with your legs until the victim looses his/her grip.
- If the victim is able to respond to instructions: tell him/her to place their hands on the rescuers shoulders from behind and to hold on. This enables the rescuers arms and legs to be free to swim breaststroke and can “tow” the victim to safety.
- If the victim is unconscious: The rescuer must support his/her face above the water. The rescuer can then swim sidestroke with one hand held under the victims jaw or with an arm hooked under one of the victims’ armpits.



*Apply First Aid: Once the victim has been brought to the shore, artificial respiration (CPR) should immediately be administered: Check the ABC: Airway, Breathing, Circulation and stop bleeding.*

## WHAT TO DO IN THE EVENT OF EXTREME WEATHER CONDITIONS: thunderstorms and lightning

### STORM PREDICTION:

Watch for a steadily falling barometer with winds from the East or North-East. This indicates the arrival of a storm from the South or South West within 24 hours.

Cirrocumulus clouds in patches or widespread layers are a sign of an approaching weather system

### ACCIDENTS AND INJURIES CAUSED BY LIGHTNING CAN BE PREVENTED BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

Every year a number of people are killed by lightning strikes, while others suffer shock and serious burns. Near-miss victims suffer burns, lung damage and tissue damage, particularly of the nervous system. A direct strike usually causes instant death.

If you’re out climbing on the rocks or in the mountains hiking on a trail, and a thunderstorm sweeps in, you’re in a dangerous situation since you’re probably in an open exposed place like a ridge, cliff-top, summit or hiking trail.

### Follow these safety precautions in order to minimize your risk and stay safe from lightning:

- **Quickly descend to a lower elevation**  
If a thunderstorm seems to be brewing, immediately move away from high ground (summits, exposed necks, cols and ridges, prominent trees, overhead power lines and similar lightning conductors). Lightning is drawn to the highest points in the storm area, so these are to be avoided. It is best if you are away from the direction of the approaching thunderstorm. Descend and find a less exposed place. Move down well below the summit of a mountain or crown of a hill and seek shelter under low, evergreen trees or bushes or inside a dry cave or overhang.
- **Don’t be the tallest object around**  
Do not stand in open areas. Instead take shelter in a thick forest and avoid taking cover beneath isolated trees or a tree that is taller than nearby trees. If there are no trees around, hunker down in a squat. Do not lie down on the ground.
- **Keep away from objects that conduct electricity**  
These include water, metal objects like climbing equipment, metal fences, and power lines. Take off any pack with an internal or external metal frame and hang all metal climbing gear well away from you.

- **Wet ropes can carry current**  
A wet rope also makes a perfect electrical conductor. In a bad storm, consider untying any wet rope from you. If lightning strikes above, the current can pass down the rope and zap you.
- **Squat or kneel down**  
It's best if you use a sleeping pad, empty pack or anything else that will insulate you from the ground. Put your feet close together so you will have less contact with the ground and reduce danger from ground currents. Do not lie flat on the ground because strike currents can easily travel through your vital organs.
- **Spread your group out**  
Spread your group out so that if there is a strike there will be team members available to give first aid assistance.
- **Don't hide in small caves or under overhangs**  
Sitting under an overhang or in a small cave is asking for trouble since lightning will jump the gap from top to bottom by passing through you.
- **Move to either side of cracks**  
If you're climbing or hiking and a lightning storm comes, move away from vertical crack systems whenever possible. Lightning currents travel down cracks.
- **Don't lie down on ledges**  
If you're on a cliff in a lightning storm, don't lie down on a ledge or sit with your back against the vertical wall since current can pass through you. Instead try to sit or crouch, preferably on insulation, on the outside edge of the ledge. Also tie in crosswise so you don't fall off if struck and keep the rope from under your armpits.



Follow these first aid steps immediately:

- **Assess the situation**  
*Check out the situation. Was only one person struck or are there multiple victims? Is the storm still raging? Are you safe when you administer first aid? It's important not to create more casualties. Be aware of continuing lightning danger to victims and rescuers. Don't expose yourself, the victims, or rescuers to additional lightning risk. If necessary, move the victim to a safer location before providing first aid. Also consider if the victim was directly struck by lightning or struck by ground currents. Direct strikes are, of course, much more serious.*
- **Check for breathing and heartbeat**  
*Next step is check if the victim is breathing and has a heartbeat. The best places to check for a pulse are at the carotid artery in the neck and the femoral artery behind the knee. Lightning often causes cardiac arrest.*

- **Administer CPR** *(A combination of mouth-to-mouth resuscitation with external cardiac massage)*  
*If he/she isn't breathing and doesn't have a heartbeat, immediately begin providing CPR, following the current Red Cross specs—2 rescue breaths followed by 30 fast chest compressions in 30 seconds. Continue CPR until rescue arrives, although if there is no response after 30 minutes then the chances of survival are slim. It's a great idea for every climber to take a basic Red Cross first aid course and get CPR certified so that you can do the right thing in emergency situations.*
- **Other Lightning Injuries**  
*Besides cardiac and respiratory arrest, other lightning-caused injuries are burns, shock, brain injury, muscular and skeletal damage, and sometimes blunt trauma including broken bones and ruptured organs. Some victims also experience nervous system disruption with loss of consciousness and amnesia. Treat all these injuries with basic first aid until help arrives. Death by lightning usually results from cardiac arrest.*
- **Go or call for medical help immediately.**  
*Call Search and Rescue / Emergency Rescue Services (This can be difficult if you are in the wilderness and don't have cellphone coverage and are a long way from a trailhead)*  
*Inform the Emergency Rescue Services where you are, provide directions to your location, and advise regarding the number of strike victims and their condition.*

## WHAT TO DO IN THE EVENT OF THE OUTBREAK OF FIRE

By far the most common of bushveld / wildfires are ill-tended cooking fires and carelessly discarded matches and cigarette butts.

A narrow and steep valley or gorge creates a chimney-like effect and a fire will race up in these, faster than a human can run.

### PROTECT YOURSELF FROM FIRE BY ADOPTING THE FOLLOWING SENSIBLE PRACTICES:

- Respect the verocity of bush and mountain fires, and the speed at which flames can advance. Unless the fire is small and the wind gentle, do not attempt to fight it. Ensure your own safety and that of the group by moving well away from the burning area, preferably to a road or a good escape route.
- Remember that fires generally burn uphill. Never attempt to escape a mountain or hill

fire by climbing in front of it. Move to one or the other side of the line of advancement of the fire, and work your way in the opposite direction from the path of the fire

- Keep to open slopes: never go into a kloof where you could be trapped by dense vegetation, rock faces and the fire racing up from below.
- If close contact with the fire is unavoidable, cover yourself with clothing. (A hat, long sleeved jacket, gloves and long trousers will to some extent, protect you from radiant heat)

#### IF TRAPPED: DO NOT PANIC: YOUR SURVIVAL DEPENDS ON RATIONAL ACTION

- Look out for a break in the fire line (this may be where there is a clearing in the bush, a screen of loose stones, a large slab of rock surface, a pathway or a river. Use this as the escape route to the area which the fire has already burnt.
- If there is no obvious break in the fire line, look for a place where the flames are at their lowest
- Protect your face with a cloth (wet, if possible) or with green grass or bush if available.
- Take 3 deep breaths and hold the fourth in. Keep your head low and run as quickly as you can until you are through the flames.
- Be prepared for great heat and don't inhale until you are clear of the fire line.
- If your clothes are alight, when you reach the burnt out area throw yourself to the ground and roll over and over. Throw loose earth on smouldering garments. Treat a group member whose clothing is on fire in the same way.



*Burns should then be treated.*

If an escape through the line of fire is out of the question, one of several other strategies may be employed:

- If there is time, **a protective area should be cleared or burnt in the bush.** The larger the area the better. Those trapped should lie on the ground in the centre of the area with their heads covered until the fire line has passed beyond the clearing and they can make their escape to a burnt out area.
- Another technique when there are a number of people trapped, is for all to obtain fire-beating implements such as branches and to form a circle facing outwards. With strong and forceful beating, the fire may be kept at bay round the centre of the circle, until the fire line has passed. Survivors can then make their escape into the burnt-out-area.

## WHAT TO DO IN THE EVENT OF AN ANIMAL ATTACK

Sometimes hikers enjoy viewing rare or endangered species. However, some species are very sensitive to the presence of humans, especially around mating season. To prevent adverse impact, hikers should learn the habits and habitats of endangered species.

### ANIMAL BEHAVIOUR

Is the result of specie characteristics, sex of the animal, previous experiences with humans, the animal's physical condition at the time and environmental conditions at the time.

A leopard with a history of bad confrontations with people will act in accordance with what experience has taught him. The animal will usually behave in terms of the norm of that species – one can trust a leopard to act like a leopard and not suddenly to behave like a jackal.

An animal's behaviour will be fine-tuned by the environment in which it has to operate: Terrain characteristics such as available cover, slope, density of vegetation, distance of the threat etc.

### PRIMARY DRIVING FORCES OF ANIMALS

When dealing with animals, it is very useful to understand their primary driving forces. We must view driving forces as survival issues, either personal survival or social survival.

**Personal survival** Has to do with the animal's own safety. In order to survive, it must eat, drink, have safe shelter or escape routes, clean its own body, and get rid of parasites. Young animals must practice the skills that allow them to survive, so they indulge in play, all the time sharpening those critical skills.

**Social survival** Refers to behavioural patterns that are focused on survival of the group – the life of an individual animal is sometimes sacrificed for the group. If an animal is cast out by the group (due to illness or age) it will have to develop different survival skills in order to survive alone.

### HOW ANIMALS RESPOND TO HUMANS IN NATURE

Humans have been super-predators for centuries. Animals have developed an instinctive understanding of this fact, and respond to humans in terms of this understanding.

- Fact: **Animals would rather avoid humans than make physical contact.**
- Fact: **Animals respond to threats.** If there is no threat, there should be no response.

If an animal perceives a human as a threat, it will respond accordingly. If the threat is removed by some other means, the response will change.

Talking to animals can sometimes totally defuse the situation. It has a calming effect on the animal. Whilst not understanding your language, they are capable of reading the tone of your voice, and the implied message behind it, assuming the animal that you are is on a non-threatening mission.

### YOUR DEFENCES: ADOPT THE FOLLOWING SENSIBLE PRACTICES:

- Your main line of defense is to remain undetected. Wildlife actively uses certain of the trail corridors: remember that you are traversing their habitat. Walk softly. Never feed or approach any wild animal, as desensitization to humans may result in harm to a human and will result in an animal's death.
- When animals run away, they tend to run into the wind. This is understandable because by running into wind they know what is lying ahead of them. Bear this in mind when considering the escape route of an animal.
- The Charge : Different animals will respond differently in a charge: some may charge with the intention to scare you off, while others may be deadly serious. Preventative measures include:  
*Make a strange noise: Slap your hand against the side of your backpack or beat a stick against a metal object and shout – a loud and aggressive shout could divert many animals. However, in a serious charge this would most likely not work.*

### THE LEOPARD

The spoor of the leopard is similar to that of the lion. The sexes can also be distinguished (the female spoor is more slender than that of the male).

A large leopard will weigh an average of 31kg, while the female will weigh approximately 21kg. Due to the mountainous terrain in which they are found in the Cape they are much smaller than their counterparts living in savannah regions.

Their main prey species are small and agile animals such as dassie, and klipspringers and some rodents are included on the leopard's diet.

Leopards are usually solitary animals, except when mating takes place, or when a female has cubs with her. They differ from the other large predators in being much more solitary and secretive, but the basic principles remain the same. When threatened and harassed they will defend themselves. When left alone they pose no threat.

Territories vary in size according to the terrain and habitat, but average approximately 30m<sup>2</sup>.

A leopard's call is a rasping sound (reminds one of a plank being cut, using a coarse saw).

Leopard attacks: You need to make a clear distinction between a wild leopard and a hunted leopard.

- Wild leopard avoid humans as far as possible, and may live in close proximity to humans without ever showing themselves.
- A hunted leopard is involved in a survival fight. A wounded animal of any species becomes an awesome opponent, and the leopard ranks amongst the most dangerous.

### WHAT TO DO IN THE CASE OF SNAKE ENCOUNTERS

The snakes predominantly encountered in CapeNature Nature Reserves are the Puffadder, the Cape Cobra, the Boomslang and the Rinkhals.

Most snake bites occur because someone attempted to handle a snake or got within the snake's "strike zone." If you encounter a snake, treat it with respect—give it a wide berth. (For further information refer to the document headed "First Aid in the Wilderness")

### HOW TO COMBAT INSECTS

A fear of insects and mosquito-borne diseases shouldn't keep you off the trail. There are several methods of protection available.

- **Wear protective clothing.** A lightweight long-sleeved shirt and pants does wonders in keeping most of your skin and keep you protected from insect bites. If you're headed into an area known for its mosquito population, carry a headnet or mosquito netting. To avoid bug problems when you sit, carry a plastic garbage bag or a chunk of foam as a cushion between yourself and the ground.
- **Use insect repellent.** Some hikers balk at the use of products with DEET, but there are many options available on the market. Always be cautious: it never hurts to spray before your hike. To keep ticks off your body, spray your clothing (not your skin) with permethrin, a long-lasting insecticide. Dusting your socks and waistline with sulfur powder (available from a compounding pharmacist, or at some outfitters) will fend off ticks.
- **Be alert.** What habitats are you hiking through? Mosquitoes breed around standing water. Ticks thrive in deep shade. Spiders like to string their webs at eye-level between trees, so it seems; duck under the ones you can (after all, the spiders are doing their part to catch mosquitoes) and otherwise use your hiking stick to clear the path. Particularly when you are setting up camp, always scour the ground for signs of red ant nests. There are few insect encounters more miserable than being swarmed by red ants, either by putting your foot in a nest or by setting up your tent atop one.
- **Follow up afterwards.** Once you're off the trail, check yourself for ticks. Remove them carefully with tweezers, making sure to extract the head from your skin. If your legs feel itchy after a hike, you're suffering from chiggers. Take a 15-minute soak in a hot tub or a hot bath to neutralize these microscopic bugs that attach themselves to your skin to feed.