

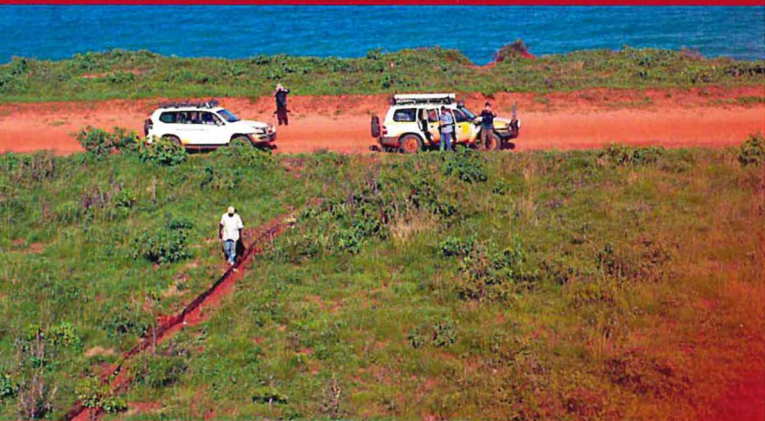
LANDSCOPE EXPEDITIONS
Working at the frontier of discovery

fully revised
April 2009

Procedures and operations manual

for *LANDSCOPE* Expeditions

Compiled by Kevin Kenneally and Jean Paton



Department of

Environment and Conservation

Our vision for *LANDSCOPE* Expeditions:

That the research expeditions program continues to establish high standards and is a recognised leader in the nature-based tourism industry.

Our guiding principles

- That participants benefit by being part of something many people only dream about: rare, engaging and memorable opportunities to visit remote and exciting places in WA and to help preserve endangered wildlife and their habitats.
- That scientists benefit by receiving both funding and physical assistance. They also benefit from the diverse knowledge, fresh perspectives and skills of participants and from increased community understanding of their work.
- That the environment benefits from the improved understanding of participants as they help explore uncharted territories, assist in the preservation of threatened environments and species and work together for the benefit of natural and cultural resources.
- That the community benefits from the enriched lives of its members and from the benefits which flow on from research findings and outcomes.
- That future generations benefit from the natural and cultural resources volunteers help to identify and preserve.
- And on a global scale, the benefits include the perpetuation of cultural and biological diversity.



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Welcome to *LANDSCOPE* Expeditions

It is with pleasure that we welcome you to the *LANDSCOPE* Expeditions program. Our mission is to conduct scientific research and to promote community awareness of nature conservation issues in Western Australia. To this end, we provide opportunities for community participation in research expeditions.

LANDSCOPE Expeditions are not-for-profit, self-supporting study and research projects. They are part of Department and Environment and Conservation's (DEC) Strategic Development and Corporate Affairs communications program and are offered in association with UWA Extension, The University of Western Australia. Between 1992 and 2008, 82 expeditions were undertaken.

LANDSCOPE Expeditions answer the need for research to protect the environment, while also responding to the demand for first class interpretation by scientists and specialists to lay persons. They provide paying volunteers with an opportunity to work alongside scientists and other DEC personnel, and promote wider cooperation in addressing conservation and land management challenges throughout the State.

The program's greatest resource is its leaders. The selection of our leaders is based not only on their expertise and experience, but also on their ability to interact with the public and communicate the relevance of their work. Your involvement is an important part of the program's continuing success. Most of your time will be spent interacting with volunteers, finding out their interests, responding to their questions, concerns and needs. It is important you take this role very seriously. One-on-one contact is very important. Volunteers may ask questions about the project and may be curious about other research with which you have been involved.

Please review the information contained in this manual. It is important that you have a clear understanding of the program's expectations. The manual has been written to help you in the field in a range of situations. Please always keep in mind that everyone involved in an expedition has worked hard to create the final product. We welcome any questions, concerns and suggestions you may have.

Please keep this manual as a reference tool. The manual will be updated from time to time and leaders involved in the program will be sent current editions.

Why conduct **LANDSCOPE** Expeditions?

Western Australia covers almost a third of the Australian continent, stretching from the tropical Kimberley to temperate areas west of Albany. The coastline alone is nearly 13,000 kilometres long. Of Australia's 80 recognised natural biogeographic regions, no fewer than 26 occur in Western Australia – more than in any other State. These biogeographic regions are defined principally by landform, soils and vegetation types. They range from the monsoon forests (rainforests) and savannas of the northern Kimberley to the diverse desert regions and the mulgas and mallees of arid inland Western Australia and the tall karri forests of the Warren Region in the south-west. Coastlines cover a similar diversity of environments from the extensive coral reefs, mudflats and mangroves of the tropical Kimberley to the shallow sandy embayments of the west coast and the granite promontories and islands in the ocean off Albany and Esperance to the south.

These extensive land and seascapes provide a magnificent natural setting for a vast array of plant and animal species. It is in this huge natural laboratory that scientists can pursue their research interests. However, such a diverse and extensive State also poses a formidable hurdle for scientists in determining the first among many questions that are essential to effective research and conservation – what occurs where? A major emphasis of the scientific research undertaken by **LANDSCOPE** Expeditions is directed toward answering this intriguing and pivotal question.

In the sparsely populated western third of the continent, the distribution of most plant and animal species is very poorly known and many **LANDSCOPE** Expeditions focus on trying to improve scientists' understanding of species' distributional patterns. Detailed records and prudent collections are made of many species, using the most scientifically acceptable methods and techniques, so that biologists from many institutions can carry out more detailed studies.

Such documentation and collection helps define the distribution of many botanical and zoological species and facilitates research by State herbaria and museums on the level of variation within species. Studies of specimens and records of species from a wide geographic area are often the precursors to the description of species new to science.

Western Australia's conservation reserve system aims to be comprehensive, adequate and representative. However, many land surface types and their associated wildlife are not represented in reserves, or are very poorly represented. This pattern was documented in the 1995 'Interim Biogeographic Regionalisation for Australia (IBRA) Report', which demonstrated that many of Australia's major bioregions are poorly served by the existing conservation reserve system. While some land systems may have been well represented within reserves, others remain completely unrepresented. Bioregions provide a framework for identifying gaps in the reserve system. Conservation reserves should protect representative samples of each bioregion. *LANDSCOPE* Expeditions help identify which areas should be included to protect and enhance the State's biodiversity.

LANDSCOPE Expeditions encourage the public to travel to distant places for close encounters of the scientific kind. As expedition members, they are vital partners in a scientific team – recording observations, collecting, preparing and helping identify specimens. Many conservation goals are difficult to achieve by scientists working alone – volunteer support can make the difference.

How do expedition members help?

When they travel with *LANDSCOPE* Expeditions, they help in a variety of ways:

Funding

Their financial contribution makes the research possible. This alone is a significant factor in making the expedition a success.

Scientific discovery

They can help by collecting key information. Although some interpretations will be made in the field, much of the synthesis takes place back in the laboratory, where final identifications and analyses

are made and results prepared for publication. They will discover that fieldwork can be repetitive and time consuming as it has to be done in a systematic way. Outcomes are not always obvious at first – but there's always the chance of that surprise discovery.

Extra pairs of hands and eyes are of great benefit in helping to achieve goals, as fieldwork is very intensive. Leaders should maximise time spent on fieldwork but should provide instruction in techniques as time permits.

They may be asked to collect plant specimens and make animal sightings to increase our knowledge of the distribution of species. However, with plants, only representative specimens will be kept. Volunteers may be disappointed if some are discarded but you should explain that redundancy is often part of the scientific process. With bird observations, it is the collective experience that confirms the sighting and produces advances in our knowledge.

Their fresh point of view or personal expertise may help in unexpected ways. Please encourage them to share their ideas.

Volunteers should expect to return home with a broader understanding of the natural world, the role of scientific methods, the value of nature conservation and the rewards of knowing that they have contributed to pioneering studies in remote areas. *LANDSCOPE* Expeditions aims to whet their appetite for nature, to give them a taste of scientific discovery, and provide an experience that may not otherwise be a part of their life.

It's not all science

Many elements combine to make an expedition successful, not just the scientific activities. An affinity for team work, a flexible approach and a willingness to assist in whatever way you can help to create the best results for nature conservation.

Administration of expeditions

Planning and administration of the *LANDSCOPE* Expeditions program is carried out from DEC's Strategic Development and Corporate Affairs (SDCA) Division at Kensington. UWA Extension's role is to maintain the mailing list, distribute brochures, process bookings and pay accounts.

Expressions of interest in running expeditions

We encourage staff in the DEC Science Division, and in regional offices, to submit expedition proposals for the following year. The expeditions provide a unique opportunity for staff to identify research needs and priorities, particularly in remote areas, which are suitable for public participation.

Acceptance of projects

The expedition proposals are assessed by the Scientific Coordinator of *LANDSCOPE* Expeditions. Projects are selected on merit, and must be aligned with departmental objectives and strategies. Scientists are notified of successful proposals, meetings are held with them, and brochure copy and costings prepared.

Agreed budgets

Once costings are received from expedition leaders, *LANDSCOPE* Expeditions personnel prepare a budget and circulate a copy to the leaders for approval. A copy of the approved budget is required to be signed-off and returned to *LANDSCOPE* Expeditions. Once the budget is finalised no additional costs can be added without the approval of the expedition administrators.

All of our financial accounts are processed for payment by UWA Extension at The University of Western Australia. We have been advised that, as their financial system is based on the use of purchase orders and payment by cheque, it is not possible for their staff to organise immediate payment for items at the last minute (such as extra camping gear, hire vehicles, costs associated with extra personnel). Additionally, many businesses are now demanding credit card payment for last minute purchases to guarantee bookings.

As a result, any alterations that are made to the logistical arrangements of a trip within 60 days of the date of departure will need to be organised and paid for by your District or Region. *LANDSCOPE* Expeditions will offer whatever assistance and advice we can with last minute logistical changes, but the final responsibility for the organisation and interim payment of these changes lies with the expedition leaders.

Any changes will still need to be approved by *LANDSCOPE* Expeditions and, if approved, these expenses will be covered within your trip budget and reimbursed when funds are distributed by the SDCA Director early in the year following the expedition (usually in January or February).

Disbursement of expedition funds

The expeditions are run on a not-for-profit basis. When accounts have been paid for individual expeditions and general administration costs that are incurred on an annual basis are deducted, any remaining funds are paid by UWA Extension to DEC SDCA. These are dispersed by the Director in January/February of the following year. Leaders whose expeditions run before the end of the financial year and who have a necessity to reimburse departmental funds can avoid the problems of carrying debt over by submitting accounts to the expedition administrator on completion of the expedition.

Briefing paper

A comprehensive briefing paper is prepared by *LANDSCOPE* Expeditions in consultation with the expedition leaders prior to each expedition. This should contain background information and the aims of the project, a detailed itinerary and notes on the terrain and environmental conditions of the study area. (As a guide, a sample copy is sent to leaders of new expeditions.) The finalised briefing is processed by the expedition administrators, proofed by the respective leaders, and distributed to the volunteers on the project. In addition, each volunteer receives any printed material relevant to the project or region, e.g. WA Department of Health pamphlets, copies of scientific articles, DEC leaflets, etc.

Role of expeditioners as DEC volunteers (rights and responsibilities)

On receipt of application forms, participants are registered as DEC volunteers, entitling them to certain benefits. These include receipt of Environment and Conservation News, 20 per cent discount on the purchase of DEC publications, and permission to drive DEC vehicles (subject to holding the appropriate licence) or be a passenger in same. DEC holds personal accident cover for volunteers and further information is available if required.

Leaders should note that the risks involved for each trip are independently assessed by the insurers. Additional coverage may have to be obtained to cover volunteers engaged in dangerous work or subjected to hazardous conditions, e.g. crocodile handling, backpacking in remote areas etc. It is important that any potential risks be disclosed to expedition administration staff.

Lands and waters managed by DEC

One of the most important mechanisms for achieving nature conservation objectives is the reservation and management of land and waters for conservation purposes. Most plants, animals and micro-organisms can not survive outside natural ecosystems.

It should be recognised, however, that even if the ideal system of nature conservation reserves were established securely, this would still not fully protect the biological diversity of Western Australia. Nature conservation must be practised where possible across all land tenures. Land management practices should also be ecologically sustainable on agricultural lands, pastoral lands, shire reserves, unallocated Crown land, urban areas, and Aboriginal lands.

The total area of land managed by DEC at 30 June 2008 was 27,308,451 hectares. This represents 10.16 per cent of Western Australia.

The area of marine reserves was 1,536,551 hectares.

National parks and conservation parks

National parks and conservation parks are areas that have national significance for scenic, cultural or biological values, and can accommodate recreation that is consistent with maintaining these values. The area of national parks at 30 June 2008 was 5,637,482 hectares. The area of conservation parks at 30 June 2008 was 844,039 hectares.

Nature reserves

Nature reserves serve to conserve flora and fauna. They have high conservation value, because they represent natural ecosystems and contain or provide habitat for particular species of plants and animals. Recreation which damages natural ecosystems and any commercial activities that exploit wildlife are not allowed. The area of nature reserves at 30 June 2008 was 10,873,039 hectares.

State forest and timber reserves

State forest and timber reserves are managed for multiple uses including water catchment protection, recreation, sustainable timber production and wildlife conservation. The area of State forest at 30 June 2008 was 1,304,710 hectares. The area of timber reserves at 30 June 2008 was 123,279 hectares.

Marine parks and marine nature reserves

Marine parks are managed for conservation and recreation, with areas zoned for commercial fishing on a sustained yield basis. Marine nature reserves are managed for the conservation of marine flora and fauna and their habitats and fishing is not permitted. Marine parks are classified into different zones. Sanctuary zones are look but don't take areas; recreation zones provide for conservation and recreation including recreational fishing; special-purpose zones are managed for a particular priority purpose or use; general-use zones are areas in which other uses are permitted (including commercial fishing) providing they do little harm to the environment. The area of marine parks at 30 June 2008 was 1,261,166 hectares. The area of marine nature reserves at 30 June 2008 was 132,000 hectares.

Marine management areas

Marine management areas are managed to maintain environments with a high conservation value and multiple uses. They are selected primarily on the basis of biological and recreational values and their existing or future commercial activities, predominantly commercial fishing. The area of marine management areas at 30 June 2008 was 143,385 hectares.

Other reserves and management areas

These include section 5(g) and (h) reserves, regional parks, freehold land, former pastoral leases and other miscellaneous reserves.

The area of other reserves and management areas as at 30 June 2008 was 6,989,351 hectares and includes 5,780,746 hectares of former pastoral lease land which is managed by DEC.

Unallocated crown land and unmanaged reserves

DEC is responsible for preparations to control fire and for the control of weeds and pest animals on unallocated Crown lands and unmanaged reserves outside towns and the Perth metropolitan region. The area is approximately 88 million hectares.

Conservation Commission and the Marine Parks and Reserves Authority

The Conservation Commission is the vesting body for all terrestrial conservation lands including national parks, nature reserves, conservation parks, multiple-use State forests and timber reserves. It is responsible for preparing management plans and reviewing DEC's progress in the management of conservation lands. The commission's policy on Aboriginal involvement in national parks and nature conservation is aligned with departmental policy.

Marine parks, marine nature reserves and marine management areas are vested in the Marine Parks and Reserves Authority.

Aboriginal lands

Approximately 12 per cent of the State, mainly in the arid zone and the far north, is held, leased or owned for the benefit of Aboriginal people. Much of this land is relatively unmodified and has great value for nature conservation but needs management to retain these values.

The reoccupation of these lands by Aboriginal communities raises the possibility of the resumption of Aboriginal land management practices, such as patch burning, which would be beneficial for nature conservation. It is possible for DEC to assist communities in the protection and management of such areas. Such assistance could include an interchange of information, providing technical expertise, training community rangers, conducting joint research or wildlife management programs, or formally agreeing to assist a community in a joint management arrangement.

The total area of land in Western Australia held for Aboriginal purposes at 30 June 2008 was approximately 27 million hectares.

DEC's Aboriginal initiatives and strategies

DEC's initiatives and strategies in Aboriginal affairs have been developed in light of various reports that are directly related and pertinent to our land management responsibilities: e.g. Indigenous Ownership and Joint Management of Conservation Lands in Western Australia, a consultation paper published in 2003.

Additional reports and strategies such as the report by the Council for Aboriginal Reconciliation provide frameworks for amending DEC initiatives and strategic directions in a environment that aims to encourage continuous improvement.

Three tenets that underlie DEC's approach are:

1. Recognition of the importance of land to Aboriginal cultural heritage and the need to consider matters of cultural importance in relation to land and wildlife management.
2. Development of cooperative arrangements with Aboriginal traditional custodians and landholders to achieve sustainable conservation outcomes, both on and off the DEC-managed estate, throughout Western Australia.
3. Promotion of economic, social and environmentally sustainable outcomes that achieve improved quality of life for Indigenous people.

Aboriginal Heritage Act

The *Aboriginal Heritage Act 1972* makes provision for the preservation on behalf of the community, of places and objects customarily used by or traditional to the original inhabitants of Australia or their descendants. The Department of Indigenous Affairs administers the Aboriginal Heritage Act.

Relevant Sections of this Act are as follows:

Section 15 Any person who has knowledge of any Aboriginal site or artefact, or landscape elements must report it to the Aboriginal Sites Registrar.

Section 16 No-one may disturb an Aboriginal site without permission from the Registrar of the Aboriginal Cultural Materials Committee.

Section 17 It is an offence to disturb any site without permission.

Aboriginal heritage sites and Aboriginal properties

LANDSCOPE Expeditions respects Aboriginal cultural and heritage sites and insists that our personnel and expeditioners do also. We have a very good and close working relationship with many Aboriginal groups and it is important that we remain on the best of terms. If in doubt, do not access an Aboriginal heritage site or Aboriginal property. Contact the expedition's administrator for clarification and to report any problems. Ensure you have

any required permits and/or permission before accessing an Aboriginal heritage site or Aboriginal property. Under no circumstances are Aboriginal paintings to be touched by anyone or burial sites disturbed. Photographing Aboriginal paintings and burial sites is restricted by the *Aboriginal Heritage Act 1972*. More information on the *Aboriginal Heritage Act 1972* can be obtained at www.dia.wa.gov.au.

Permits, approvals and regulations

Leaders must ascertain the need for, and acquire, any permits or approvals required for their expedition, (e.g. Aboriginal lands and sites, ethics committee, Department of Fisheries Western Australia, accessing pastoral leases etc). Where appropriate, copies should be lodged with the expedition administrator.

Ethics committee

Some overseas expeditions have been infiltrated by animal rights activists, who are philosophically opposed to intervention activities involving animals e.g. trapping, blood sampling, tagging, etc. and have disrupted research activities. It is therefore important that leaders have obtained ethics committee approval to carry out their research and are aware that such groups exist.

Campsites

Regulations concerning camping are to be adhered to. Campsite environments must be respected and looked after. Any problems associated with *LANDSCOPE* Expeditions are to be reported to the expedition's administrator. Camping fees are to be paid when required. Campsites must always be left in as good or better condition than when the expedition arrived.

Fires

Care is to be taken at all times when setting and extinguishing a campfire. Fire regulations and bans for a particular area should be checked and adhered to. If in doubt contact FESA, DEC, or the local council/shire office.

Conducting expeditions

Volunteers can only be transported in DEC vehicles or in vehicles licensed for tourist operations; and suitably surveyed and licensed vessels and aircraft. This ensures that volunteers are covered by insurance carried

either by DEC or the operators subcontracted to *LANDSCOPE* Expeditions. Seat belts should be worn at all times. Perth-based departures and arrivals are attended by expeditions administrative staff. It is desirable that one of the leaders travel in the vehicle with the volunteers at all times.

Trip diary

All expeditions are expected to keep a diary recording the daily activities and achievements. The diary will be supplied by the expeditions staff. Each expeditioner is encouraged to contribute to and sign the diary. Entries may include sketches, verse, anecdotes etc. After the expedition, the diary will be transcribed and a copy forwarded to each volunteer.

Contact with people along the way

Each expedition is an exercise in public relations for DEC. The presence of DEC personnel in remote areas is an opportunity for a positive public relations exercise. Locals are of great importance to *LANDSCOPE* Expeditions operations. They are to be respected and dealt with in a courteous manner at all times. They are to be asked local conditions at every available opportunity. The expedition's administrator is to be notified as soon as possible of any problems concerning locals. Remember, you may not pass this way again but *LANDSCOPE* Expeditions may!

Leadership skills and group dynamics

For many people the exposure to DEC personnel will be the only contact they have with the organisation and they may form an opinion of the organisation based on this experience. The expeditioners are putting their trust and faith in you and you have an obligation to deliver. They are looking for leadership from you. It is your responsibility to create an atmosphere of confidence, credibility, excitement and interest in the expedition. A lot of these people may have taken years of hard work to save for this expedition: you are the key person for a successful, enjoyable, rewarding and safe outcome for them. Don't get drawn into too many one-on-one situations, your responsibility is to the whole group. Every person on the expedition has and deserves an equal right to your time, efforts and participation. Some volunteers may feel that having 'bought' your services they are entitled to ask all sorts of personal questions. You need a

technique to deal with this – something like “I don’t have a private opinion when I’m on an expedition” (said with a smile) will usually do the trick. Be wary of intruding on volunteers’ privacy. You can frame personal questions in the context of “It helps me to know something of your background so that I can have some idea of your interests and expectations.”

It is important for leaders to be aware that different people like to do different things, and the experience will be more fulfilling for all concerned if people are enjoying themselves. Talk to people to find out their interests as early as possible, as this can facilitate serendipitous research, complementary to the main research aims. Many participants are highly qualified in their own fields. Information about participants can be gleaned from application forms and by travelling in vehicles on long trips—this enables a scientist to move around and talk to volunteers on a one-to-one basis.

It is a good idea to keep an eye on older participants who may struggle to keep up with the daily activities. Be aware of alternative activities which these people may wish to do, but without discrimination or barring people from activities they choose to do. Be sensitive to the group dynamic. If appropriate (and in consultation) place husbands and wives on separate teams. Find out people’s interests and ensure that they are involved in activities of special interest to them where possible. Be aware of overbearing people and don’t allow them to intimidate others. Ensure no-one is left out. Strongly encourage people to change seats daily in the vehicle. Leaders are encouraged to travel in the vehicle, which provides quality, relaxed, one-on-one time with individual participants. Be enthusiastic! You may have seen it all a thousand times but it will be a once-in-a-lifetime experience for most people. Be excited and interested with them.

Opportunities for good public relations occur through activities such as ‘show and tell’ around the camp fire at night, when each person can contribute and when leaders can report on the day’s activities and achievements. Involve people by asking open-ended questions to which everyone can contribute; ask for their opinions/impressions/experiences. Remember that all opinions are valid. It is important to use this time to make sure individuals are clear about the next day’s activities and about any changes or modifications to the itinerary that may be necessary.

This is where a degree of flexibility may be necessary to accommodate volunteer capability. Remember to allow periods of 'free time' for people to make their own discoveries. In the planning of daily operations such as meal times and travel schedules etc., leaders need to communicate and cooperate with those providing logistical support so that all aspects of the expedition are seen by the volunteers as a cohesive whole.

The greatest faux pas of all is undermining authority, denouncing someone else's work or contradicting comments made by your fellow workers. If there is a problem, whether personal, mechanical or operational, never address the issue in front of the volunteers. Take the person aside, away from the public eye, to resolve the issue.

Tricks of the trade

Be aware of your strengths and weaknesses in these areas.

- **Voice projection:** This doesn't necessarily mean loud, though you do have to be aware of background noise; talk away from source of noise, towards your clients. Open your mouth. Don't mumble. If you have a pronounced accent, remember your audience may not be familiar with it; speak clearly, and slowly. Generally, the deeper your voice, the better it carries; drop an octave (if you can) to assist people with hearing problems.
- **Stance:** Look confident. Stand straight, face your audience. Make eye contact. When you use hand gestures, do so for a reason.
- **Tone of voice:** Vary this. If you are affirming something, sound positive. Not sure? Sound doubtful. Nothing is duller to listen to than a monotone.
- **Volume:** Can people hear you? Ask often, and modify your volume accordingly. Be appropriate in volume and tone; you will not talk the same way to a couple of people, as to a full bus. If there's a problem with a microphone, stop the vehicle while you talk. Repeat questions put to you if the others haven't heard.
- **Voluble clients:** Don't allow them to take control. If one person is constantly questioning you, that's fine; but make your answers and comments relevant and audible to everyone.

Avoid these things

- **Irrelevant information** – Beware of pointless information such as 'If it wasn't raining we'd have a beautiful view'. Don't raise people's expectations if you're going to dash them immediately.
- **Talking with the sun in people faces.** It can be very distracting to participants if they are looking straight into the sun while you are talking to them.
- **Aussie-isms** – If you have non-English speakers on board, avoid things like 'are you right mate' or 'fair dinkum'. And take care with English speakers from overseas; 'rubbers' and 'Durex' mean different things to Australians/Americans/English.
- **Never be negative:** Present everything in the best possible light. It's a rainy, grey day. Remark how cool it is, and how green the country looks, and look for pools and waterfalls. Don't talk about what a shame it is they weren't here yesterday, and how beautiful it looks in the sunlight!

Sensitive issues

Remember that a person's whole opinion of DEC can be based on their exposure to a single DEC officer. If you become aware that a volunteer would prefer not to be engaged in a particular activity for any reason, it is advisable to make optional activities available to them. Issues about which people can be sensitive include trapping, handling and tagging of animals, as well as:

- working with animals;
- use of firearms;
- use of fire;
- disposal of waste;
- sexist attitudes and issues, religious opinions, risqué jokes (Don't joke unless you are absolutely sure you have gauged audience response correctly);
- cultural issues (Aboriginal land rights, Mabo/Wik High Court decisions);
- photography (Request and obtain permission before photographing Indigenous people – photographing Aboriginal paintings and burial sites is covered by the *Aboriginal Heritage Act 1972*);

- music (At some point on the expedition it may be appropriate to play music but it is exceedingly difficult to please every person with the selection of music – find the happy balance. Consideration should be given to volume as well); and
- politics (Never get into conversations of a political nature and don't hold forth with personal views on a potentially controversial issue. Try to give several points of view, without disclosing your leanings. An anonymous imaginary 'friend' is a good standby, to speak for you – 'I have a friend who thinks').

Mutual expectations

Much of this information will be contained in the written briefing. Etiquette and guidance for attendees will also be included in this document. This may include appropriate behaviour when in close contact with animals, handling of equipment, camp rules, etc.

Cancellation policy after departure

If, after departure, a trip has to be terminated due to unforeseen circumstances, no refunds will be made. To avoid such penalties, we strongly recommend that volunteers purchase trip cancellation insurance.

Communicating to your audience

The publication *Saving our natural heritage? The role of science in managing Australia's ecosystems* (C. Copeland (ed.): 1998, Halstead Press) has suggested that information gathered by scientists is not being clearly communicated to the general public and that Australian scientists are not being trained in appropriate communication skills. One of the aims of *LANDSCOPE* Expeditions is to address this concern.

It is an important part of any expedition that the leader/s are conversant with all the many facets of the area he/she will be operating in, e.g. the flora and fauna, history, geography, cultures, current affairs etc. *LANDSCOPE* Expeditions' reputation has been built on the quality of its personnel and the high level of interpretation its scientists can provide. The commentary should be informative and interesting without becoming so in-depth as to be boring. Again, a degree of decorum needs to be observed particularly in the areas of race, sex, religion and politics.

Take care how you personalise your commentary – clients want to experience the here and now, not necessarily learn all about your last job or your ashram stay in India. It's fine over lunch but not over the microphone at the expense of the scenery.

Guide to successful interpretation

The ecotourism experience can engender an intellectual, emotional and even spiritual connection between people and places as much as it does a physical experience with land and water. Interpretation is a process of translating the stories of our natural and cultural heritage in terms that will motivate and inspire visitors to greater understanding and care for the environment.

The interpreter's role is to create awareness and promote appreciation and understanding. The best interpreter likes people, cares about the environment and is a skilled communicator. Interpretation is a service provided by *LANDSCOPE* Expeditions to its clients. It is a management tool that can increase visitor appreciation of sites to encourage protection of their resources, and it can communicate to users the goals of the agencies which manage the areas visited.

A good interpreter:

- knows and understands the basic principles of communication and interpretation;
- looks pleasant and acts courteously;
- communicates well, speaking clearly and simply;
- acts with self-confidence;
- is warm and friendly and responds to the group;
- cares about the clients and their feelings and wellbeing;
- takes responsibility for the group's safety and comfort;
- shows enthusiasm and makes the audience feel enthusiastic too;
- provokes curiosity;
- leads by example – shows appropriate visitor behaviour;
- is honest about what he/she knows about a particular topic;
- sounds credible without being arrogant;

- is flexible enough to cope when something unexpected happens;
- maintains a sense of humour and perspective, especially when things go wrong;
- talks with the audience rather than at them;
- knows and personalises the topic relating what people see back to their everyday lives;
- gives the audience time to digest information, observe and explore;
- leaves something for people to discover for themselves; and
- evaluates and refines his/her interpretive skills.

Environmental awareness (low impact/best practice)

All facets of the environment are of the utmost importance in the philosophy of *LANDSCOPE* Expeditions and they are to be respected at all times. It is the responsibility of the expedition leader/s to ensure expeditioners follow expedition guidelines. Some examples of best practice include:

- small camp fires (to reduce the amount of wood burnt);
- bottled gas to be used for cooking wherever possible;
- leaving camp sites litter-free;
- chemical toilets or pit toilets to minimise impact;
- reducing the use of disposable items;
- removal of all rubbish; and
- no use of detergents or soap in or adjacent to rivers, creeks or waterholes.

Seabird breeding islands (guidelines for visiting)

Comprehensive guidelines have been developed for human visitation to seabird breeding islands in Australian waters. Any expedition planning to visit seabird breeding islands should consult *Guidelines for managing visitation to seabird breeding islands* (1997) published by the Great Barrier Reef Marine Park Authority and *Conserving Western Australia's Islands*, a pamphlet published by DEC.

More information can be obtained at

http://www.gbrmpa.gov.au/__data/assets/pdf_file/0019/4465/seabirds1.pdf

Duty of care

Duty of care will be practised at all times and leaders have the responsibility to see that staff or volunteers are not placed at risk or in danger. It is not permissible to allow staff or volunteers to ride on the roof of the front of a vehicle, etc.

In case of emergency or accident, *LANDSCOPE* Expeditions staff in Perth must be contacted as soon as possible and a situation report supplied.

Emergency numbers are:

- Director, Strategic Development and Corporate Affairs, (w) (08) 9389 8644, (h) (08) 9336 3296 (mob.) 0419 045 355
- *LANDSCOPE* Expeditions (08) 9334 0401 all hours or mobile 0407 986 227

Expedition leaders will be supplied with a copy of volunteers' application forms containing medical details and emergency contact numbers for family members. Expedition administrative staff will contact family members if appropriate or if advised by expedition leaders to do so.

Risk management – leaders' obligations

"December 15, 2002—In response to the 1999 Swiss canyoning disaster Contiki Holidays (Australia) Pty Ltd . . . provided the Australian Competition and Consumer Commission (ACCC) with a court-enforceable undertaking to reform its quality assurance systems. . . . ACCC Chairman, Professor Allan Fels, said "This is a warning to the travel and tourism industry to ensure all safety procedures are in place prior to providing products or services to the public, particularly where assurance of safety are a feature of their promotional material." www.adventurepro.com.au

Your obligation as a leader

As a leader participating in *LANDSCOPE* Expeditions, you must examine the practice of Risk Management associated with any expedition you are conducting, or assisting. This practice involves:

- reading and signing the Leader's Declaration form in the Procedures and Operations Manual (The Manual) for *LANDSCOPE* Expedition leaders;

- systematically analysing the risks faced by each expedition you are leading;
- minimising the potential for risk;
- ensuring all expeditioners are registered volunteers;
- examining procedures in order to minimise the potential for mishap;
- in the event of mishap, following the Accident Checklist as outlined in The Manual; and
- reporting to Expedition Administration any mishaps, accidents, or hazards encountered.

Many of these protocols are highlighted in The Manual. All leaders must carry The Manual in the field and be familiar with its requirements.

Crisis management plan

Prior to the expedition, *LANDSCOPE* Expeditions in consultation with leaders will prepare a crisis management plan including emergency evacuation procedures and all expedition staff should be briefed on how this is to be implemented. It is advisable that all expedition personnel should hold a current first aid certificate.

Legislation says employers must:

- identify risk; and
- provide and maintain:
 - a safe and healthy workplace; and
 - a safe system of work designed to eliminate hazards and reduce risks.

This is not optional – the law requires it!!!

Effects of non-compliance

- Workplace closure
- Penalties – fines and/or jail
- Damages
- Liquidation

How do I discharge my obligations?

- I ensure all safety procedures are in place when providing products and services to the expeditioners, particularly where assurance of safety have been featured in *LANDSCOPE* Expeditions promotional material.
- I embrace and communicate the principles of the *Occupational Safety and Health Act 1984 (OS&H)*.

- I identify hazards in my workplace.
- I assess the risks.
- I eliminate or control the risks.
- I monitor the controls.
- I document developed policies and procedures.
- I train staff.
- I learn to self-audit.

Leaders must:

- report hazards;
- take care to ensure personal safety and that of others; and
- wear personal protective equipment, where provided.

Everyone has duty of care responsibilities

- Employers
- Employees
- Manufacturers
- Designers
- Suppliers
- Those who have control of workplaces
- Self employed

Be prepared – duty of care under common law

Your standard of care and conduct will be based on the following criteria:

- | | |
|----------------------|----------------------|
| • Alleged negligence | • Reasonableness |
| • Precedence | • Legal implications |
| • Consequences | • Level of damages |
| • Foreseeability | |

Workplace deaths

- | | |
|------------------------|-------------------------------|
| • United States | 37 deaths per million workers |
| • Britain | 24 deaths per million workers |
| • Sweden | 22 deaths per million workers |
| • Australia | 84 deaths per million workers |

Main causes of injury and death

- Unsafe systems of work
- Unsafe workplaces
- Lack of information, instruction or supervision
- People unfamiliar with new work environment, machinery, materials, or tools
- Non-reporting of hazards
- New employees don't want to be seen as incompetent or trouble-makers, so they don't ask questions

Your obligations under the legislation

- Embrace OSETH principles
- Issue policy statement
- Implement policy and procedures
- Identify hazards
- Assess risks
- Eliminate hazards
- Control hazards
- Implement monitoring program
- Train staff
- Provide personal protective equipment
- Monitor work practices
- Self-audit
- Provide safe place of work
- Provide safe systems of work
- Control contractors
- Provide insurance protection for all visitors and guests
- Comply with standards

Accident checklist:

In the event of an accident the following information is required by *LANDSCOPE* Expeditions administrative staff:

- Establish the nature of the accident and obtain details – how, when, and personnel involved. Advise the expedition administrators as soon as is practical of any action that has been taken.

- Has medical advice been sought? From where?
- Has the patient been evacuated? By what means?
From where and to where?
- Was the patient accompanied by an expedition leader? If so, who?
- If person is hospitalised, keep administrative staff informed on medical status.
- Advise if the expedition is going to continue. Liaise with administrative staff to jointly assess the situation.
- Advise administrative staff if next-of-kin have been contacted.
- Based on advice received, administrative staff will reassure families of those not involved that all is okay.
- If the accident is serious and likely to attract media attention, administrative staff will advise the Executive Director and Corporate Executive.
- Do not respond to media without first liaising with administrative staff.
- Administrative staff will arrange a contact number for friends and relatives to ring to obtain further information.
- Administrative staff will arrange for counselling of staff and/or participants if appropriate.
- Administrative staff will advise DEC's volunteer coordinator of the nature of the accident.

Note: Emergency contact numbers for all volunteers are kept at Kensington. Leaders have a copy in the field. The DEC volunteer coordinator also has a copy.

Royal Flying Doctor Service (RFDS)

Before the commencement of each trip, *LANDSCOPE* Expeditions will advise the Royal Flying Doctor Service (RFDS) that you will be in the area, the route you are taking and the number of personnel involved. RFDS operates from Jandakot Airport (administration only phone (08) 9417 6300 and ask for operations). It is essential that expeditions to remote areas carry a satellite phone.

The RFDS emergency medical advice/evacuation phone number is 1800 625 800. Alternatively you may call (08) 9417 6364 if this number does not connect.

RFDS HF Emergency Radio Frequencies (Note the emergency frequencies operate 24 hours 7 days a week):

Port Hedland: 5300 (Alternative 5360), Night 2280

Derby: 5300, Night 2792

Meekatharra: 5360 (Alternatives – 5300), Night 2280

Kalgoorlie: 5360, Night 2656

Alternatively, you may call 000

All HF radio traffic is relayed from the country base receiver sites to the central operations room at Jandakot. When calling the RFDS say **“Royal Flying Doctor Service 6 Papa Yankee this is...”** then go ahead with your message.

Frequencies are active during the following hours – During this time RFDS listens and transmits. All other times the radios are live but RFDS does not transmit, unless in an emergency.

Mon–Fri 0700–0730 Hours

Saturday, Sunday and public holiday, 830–0900 Hours

Outside these hours contact can be established by activating your radio's emergency alarm.

The RFDS Western Operations operates from bases in Derby, Kalgoorlie, Port Hedland, Meekatharra and Jandakot.

In an emergency situation the patient is to be medically evacuated by the most effective method and with advice from the RFDS or medically qualified personnel. Any questions relating to accident or emergency evacuation insurance can be resolved at a later time; the priority is to deal with the emergency.

More information can be obtained at www.flyingdoctor.net/Emergency-Contact-.html.

Safe use of vehicles

Amendments to the Road Traffic Code, commencing 1 January, 2001, prohibit persons riding in the goods section of open load space vehicles such as utilities (including dual cab 4WDs and trucks) unless such a vehicle is equipped with an approved 'Rollover Protection Device' (RPD). When operating on private property you must remember that there is now a law that says that this is an unsafe practice, and that your duty of care has increased. Under the amended act, research vehicles engaged in work that requires passenger(s) to alight from and re-enter the vehicle from open load spaces at frequent intervals may be exempt from the regulation, provided that the vehicle is driven at a speed not exceeding 25 kilometres per hour. Passengers in vehicles undertaking similar research are exempt from wearing seatbelts provided that the vehicle is driven at a speed not exceeding 25 kilometres per hour. All DEC vehicles and hire vehicles are strictly no smoking areas. All speed limits must be observed.

Procedures for roadside vehicle assistance in remote areas

The Aussie habit of helping travellers in distress is a wonderful tradition and we encourage that this generosity of spirit be able to continue. These guidelines have been formulated to ensure your safety and preparedness in times of demonstrating goodwill towards your fellow travellers.

Due to a disturbing increase in unpleasant encounters for travellers offering assistance to other travellers in trouble in remote regions of Australia, it has become necessary to formulate guidelines to avoid harm or potential violence towards the 'Good Samaritan'. However, these guidelines can apply to assistance rendered in any locality.

LANDSCOPE Expeditions recommend travellers adhere to the following protocols when encountering other travellers requesting roadside assistance, i.e. being flagged down, or encountering a situation where you believe you may be of assistance.

Of paramount importance is your own safety. If at any point you consider yourself to be at risk or in danger, it is appropriate to remove yourself from the scene.

If it is obviously a road accident, and there are injured people at the scene, render all necessary assistance as per standard first aid training, and radio for help.

If the situation is unclear as to why assistance is being requested, we recommend the following course of action:

- Never stop alongside the vehicle/s requiring assistance. Instead, slow down, assess the situation, and stop 50 metres past the scene. This applies even if someone stands in the middle of the road to flag you down. Ensure your windows are up and doors locked.
- At all times observe road safety and your personal safety before proceeding (e.g. activate your hazard lights, ensure you are not in the path of any other vehicles that may be on the road, keep off the road as much as possible).
- If travelling in convoy, radio the registration details and a description of the colour, make and model of the vehicle/s requiring assistance, and the number of people involved at the scene, to other convoy members.
- Have a driver remain with your vehicle, in the driver's seat, with the motor running and keep the windows wound up, and the doors locked.
- Re-assess the situation from your vehicle before deciding to proceed with the next step. Do not get out of the vehicle until you are certain there are no other people who could be hiding out of view.
- Have a passenger alight and request that the person/s needing assistance walk towards your vehicle. During this procedure, the driver must be able to observe the entire scene in the rear or external mirrors.
- Make sure anyone approaching you has their hands in full view, and that they are not carrying or attempting to conceal anything that can be used as a weapon.
- If you have any concerns at this point, get back in your vehicle and leave the scene.
- If you choose to continue to provide assistance, immediately advise the people from the vehicle/s requiring assistance that you have radioed their vehicle details to other convoy members (even if you have forgotten to do so, or have been unable to do so).
- Establish what type of assistance is required, and whether you can provide it.
- Only approach the other vehicle when you are completely satisfied that your safety is not at risk.

- At any time you feel uncomfortable with the situation, get back in your vehicle and leave the scene. Make a written record of all details you have observed.
- Advise other convoy members that you are uncomfortable and that you have left the scene. Alternatively, you can wait for additional convoy members to arrive at the scene.
- At the first possible opportunity, notify authorities of your concerns, providing as much detailed information as possible from your notes.

Alcohol and drugs

LANDSCOPE Expeditions has a 'zero tolerance' policy in relation to drugs. Any unauthorised use, possession, manufacture, distribution, dispensation or sale of illegal drugs, narcotics and controlled dangerous substances is not permitted on any of our expeditions.

Expeditions personnel must not have an alcohol blood level exceeding the legal limit of 0.05 per cent when on duty and/or in charge of an expedition. This includes when in a permanent base camp. When on an expedition, no matter the hour, your **duty of care** still extends to your volunteers and as such you **must at all times be able to respond** to a situation in a coordinated, sober and responsible manner. You have a legal requirement under the *Occupational Safety and Health Act 1984* duty of care legislation to your volunteers. For these reasons and for personal satisfaction as a professional expeditions leader/guide, it is imperative that you conduct yourself in a dignified and professional manner at all times. If you are escorting expedition volunteers on night activities, do not consume alcohol until all fieldwork is completed.

Group control

As previously explained you have a duty of care to your clients. You are legally bound to take responsibility for their actions and wellbeing even if they do not want you to! Consequently, it is imperative that you are not only in charge but in control at all times. This can be very difficult at times with some people. At the outset of a trip it is important that all expeditioners understand exactly what is expected of them. If you have expeditioners who are not within your control, *LANDSCOPE* Expeditions' "Conditions of

Participation" (which all expeditioners sign) clearly states that: "Participants whose conduct or behaviour jeopardises the welfare or fulfillment of the project objectives may be required to withdraw". Should it become necessary to instruct an expeditioner to withdraw from a project, then expedition administrative staff are to be advised (if possible) in advance.

Conditions of participation

Volunteers are required to sign an application form which includes, in summary, the following conditions:

- Participants whose behaviour jeopardises the welfare or fulfillment of the project objectives can be asked to withdraw.
- Photographs of expeditioners, taken by the project leaders or other members of the expedition, and material contained in the official trip diary, may be used by *LANDSCOPE* Expeditions at its discretion, unless advised in writing by a volunteer.
- Emergency transport, medical or hospitalisation costs, resulting from illness or accident during the expedition, are the responsibility of the person receiving such care.
- A volunteer may be sent home or hospitalised where a project leader, in consultation with a medical authority, considers it necessary.
- The trip itinerary can be changed at the leader's discretion.
- The expeditions program reserves the right to make changes and/or cancel any expedition with an insufficient number of participants or for any other reason considered detrimental to the project's success.

Roll call

Before any departure and at every opportunity leaders are required to check that all volunteers and leaders are accounted for. Do not proceed until everyone is present. Never assume that they are in the other vehicle. Instruct volunteers that they must not go off on their own but be accompanied by at least one other person at all times. Leaders and volunteers should not leave the campsite or vehicle/s without informing another person of their direction from the camp and their expected return time.

Small boat handling

Potentially, the most dangerous activity we may undertake is that involving small boats. Only crew are allowed to tie up and/or operate small boats. Other persons may not do so unless authorised or directed by the skipper. Strict procedures and care must be followed at all times. A lifejacket or lifevest is to be worn by everybody in the small boat no matter how short the journey. Never allow more passengers than stipulated by Department of Planning and Infrastructure (Maritime Division) survey and don't overload with equipment.

Always operate at a safe speed taking into account prevailing conditions. Always check the following prior to each journey:

- Fuel
- Anchor and rope
- Oars
- First aid kit
- Flares
- VHF radio, satellite phone, Emergency Position Indicating Radio Beacon (EPIRB)
- Drinking water
- Bailing bucket
- Outboard motor spares.
- **NEVER** cast off without motor running.
- **NEVER** leave small boats unattended for any length of time (tides!) and always run out anchor up the beach.
- **ALWAYS** ensure that everyone keeps their hands and legs inboard and remains seated at all times.

Please note: DEC vessels being used on *LANDSCOPE* Expeditions are subject to Department of Planning and Infrastructure (DPI) survey conditions. If you plan to use DEC vessels on an expedition it is essential that leaders ascertain the DPI survey requirements for DEC vessels transporting volunteers (in some cases the vessels maybe be survey exempt but not in others) and the appropriate qualifications for persons skippering the vessel (i.e. Recreational Skippers Ticket, restricted coxswain, Master V). If using external surveyed charter operators, you must also ensure that their vessels are appropriately surveyed for the type of operations you wish to undertake.

Safety rules for marine collecting

The following are some safety rules that should be adhered to:

- Never allow individuals to collect on their own. Work on the 'safety mate' system for both land and water-based surveys.
- Always have one person acting as a lookout when collecting in the water.
- Wear the appropriate protective clothing, such as protective footwear when on beaches or intertidal areas.
- Don't handle or harass fauna. Many species are toxic, venomous or can inflict injury.
- Don't swim in the sea at night.
- Be careful of currents when when swimming or snorkelling. Don't swim when currents are strong.
- Act cautiously in small boats and observe all necessary safety precautions.
- Inform the designated safety person in the event of an injury. Make sure all coral cuts and scratches are cleaned up and treated promptly.
- Sunburn and heat exhaustion are health hazards. "SLIP on a shirt; SLOP on some cream: SLAP on a hat".
- Make sure you drink extra water before commencing any collecting activities and carry a water bottle with you at all times.

Please note: The collecting of marine specimens may require a permit from the Department of Fisheries. It is the leaders' responsibility to ascertain the need for a permit to collect and to obtain any such permit required. Any costs associated with the permit must be included at the budget preparation stage.

Operating in crocodile country

If approached by a crocodile start the motor and move away ASAP. If unable to, then tap crocodile firmly between the eyes with an oar, keeping everyone low down and inboard. Always scan around checking for crocodiles – at night use a torch to look for red eyes, in shallows look for dark underwater shapes, on beaches look for tell-tale drag marks. Because you don't see one NEVER assume they are not there! Avoid going ashore each time at the same spot and don't allow expeditioners to hang around water/shore line.

Tag-alongs

Some expeditions invite tag-alongs to join them. Tag-alongs are responsible for their own transport, fuel, camping equipment, catering, drinks, water and other provisions. The only item supplied to tag-alongs by the expedition is the scientific research component of the trip and in some cases an expedition dinner. Tag-alongs are a very important part of the expedition funding process as they are sometimes the difference between a trip being financially viable or not. The following are guideline sent to tag-along participants. It is important that leaders are aware of what instructions have been given to tag-alongs and that these guidelines are adhered to.

Rendezvous point

There will be several location where tag-alongs will be able to meet the expedition. These locations will be available closer to the departure date of the expedition. All tag-alongs participants are required to report to leaders on arrival at the agreed rendezvous points.

Vehicles

Most expeditions are **not suitable** for light weight four-wheel drive vehicles or 'soft roaders' (eg: Toyota Rav 4, Mazda Tribute, Ford Territory, Subaru Forrester and the like). The expeditions travel to very rugged region and vehicles must be capable of handling long stretches of rough and corrugated four-wheel drive tracks. Vehicles should be four-wheel drive with 500 kilogram upward carrying capacity. Trailers are generally not permitted on expeditions.

It is essential that all vehicles be in good mechanical order before the start of an expedition. It is advisable to make your party self-sufficient as far as your vehicle is concerned. All vehicles must be checked by a reputable workshop one week before departure. Special attention needs to be paid to all suspension components, ball joints (steering and universals), constant drives, water pumps, alternators, power steering pump seals, and timing belts (replace if over 95,000 kilometres).

Fuel

Sufficient fuel should be carried by tag-alongs for the trip, allowing extra for the conditions as well as for use during the study period. Fuel is generally calculated at five kilometres per litre to allow for heavy conditions.

More information upon specific fuel requirements for each expedition is usually provided closer to the expedition departure date. Tag-alongs need to make provision for the transport of several jerry cans of fuel. There are generally no fuel outlets close to where we conduct research.

Vehicle standards and requirements:

- Two spare wheels, in good condition, plus tubes.
- A No. 2 Tip-top tyre repair kit.
- For the conditions encountered, vehicles should be equipped with split rims. Standard 10 or 12 ply are best, or radials with steel walls. Sand tyres and soft walls are not suitable. No Pirelli Dakars or Kelly Radials. (Tip: before departure, break the beads and smear the rims with a light coat of rubber grease. In the event of a puncture this makes breaking the beads much easier).
- A suitable jack in good working order (a high lift jack – kangaroo jack – is recommended), and a solid base for the jack. We recommend a 70 centimetre plough disc as a base.
- A good tow rope.
- A snatch strap.
- A set of jumper leads.
- Compressor (good quality – not a cheap base model).
- Tool kit, including tyre repair tools and grease gun.
- A spare set of belts, hoses and coil, spark plugs and points.
- A set of fuel and oil filters.
- Oil for one engine change; four litres of gear oil; 0.5 litres brake fluid; a 0.5 kg tin of Plasti-Bond.
- A two kilogram general purpose fire extinguisher.
- Flywire radiator protection plus an under-cover and sufficient 80 per cent knitted shade cloth to fit roo bar, for extra protection from spinifex seeds. Another suggestion is air-conditioning filter material (available cut to size from air-conditioning outlets).
- Vehicle loadings should not exceed 90 per cent of load capacity.
- A de-watering agent such as WD 40 or CRC.
- Petrol vehicles are to carry a copy of a workshop manual instruction page for a limp-home mode in case of electronic ignition failure.

- Suitable footwear to be worn by all participants (thongs and sandals not permitted).
- A long-handled spade and an axe.
- Table and chairs.
- Camping gear.
- A UHF CB radio is compulsory.
- A first aid kit appropriate for remote area travelling.
- If travelling over sand dunes, a sand flag should be fitted to warn other vehicles of the vehicles approach. This should be at least three metres in height and attached to the front of the vehicle (roo bar or front bumper).
- A GPS and a winch are optional but extremely valuable items to have on board.

Cautionary note: Petrol vehicles with catalytic converters fitted to the vehicle's exhaust should be aware that there is an extreme danger of fire due to the accumulation of highly flammable spinifex grass under the vehicle. Frequent checking is required.

Accommodation

Nothing is supplied by the expedition (apart from specific scientific equipment), and tag-alongs will need to take their own swags, tents and camping equipment to use on the expedition. If tag-alongs wish to break their journey and stay somewhere en route, they will need to depart prior to the expedition departure date and meet the expedition at one of the pre-determined rendezvous sites.

Cooking/food/beverages

Tag-alongs are not catered for on expeditions, and they need to provide their own food and cook their own meals. They will also need to bring their own beverages. Ample supplies of essential foods for emergencies, preferably canned rather than dehydrated, should be carried. Tag-alongs are asked to organise meals so that they can be present at 'show and tell' which is at 7pm each evening at base camp.

It is essential that tag-alongs carry gas or similar cooking equipment for the places where the lighting of fires may be prohibited. When using an open fire, this should be kept small, for cooking purposes only and, if practical, shared with other tag-along members. Firewood should be collected opportunistically before reaching the evening campsite, to prevent depletion of firewood in one concentrated area. Collect only wood that has fallen. Ensure fires are out, remove traces of campfire scarring, and leave sites in as natural a state as possible before departure.

Water

Tag-alongs must carry an adequate supply of drinking water for each person in the tag-along vehicle. Water is usually calculated at four litres per person per day. Tag-alongs should also bring water purification tablets or a mechanical water filter in the event that clean drinking water runs out.

Hygiene/waste disposal

Tag-alongs should always carry a shovel and/or trowel and toilet paper. Select a place well away from natural water sources and campsites. All toilet waste should be well buried.

Tag-alongs must remove their rubbish from any campsite, burn it or carry it out with them. They have been instructed not to burn plastics. Burying rubbish in holes is not permitted. It can be dug up by feral animals/wildlife. Do not put rubbish down toilet holes. Bring a good supply of strong garbage bags with ties for rubbish.

General

- Pets are not permitted to travel with tag-alongs on expeditions.
- Minimal impact principles should be adhered to by all participants.
- A level campsite with adequate water run-off should be selected. Where possible, select a site that has already been used, to eliminate further damage to the bush. Choose camping sites thoughtfully and use it lightly, leaving it in as natural a state as possible.
- Be considerate of others. Keep noise to a minimum – value wilderness areas as places to renew the human spirit and to escape the pressures of 21st century living.

Briefings/information exchange/show and tell

At base camp during the expedition there will be opportunities for social interaction for all expedition members. Tag-alongs are invited to contribute to the trip diary, which will be circulated among all expeditioners.

Convoy Procedures

Rendezvous

All tag-alongs vehicles should rendezvous as arranged. When there is more than one tag-along vehicle, positions will be drawn for the first day and a 'tail end Charlie' rostered for each day, and all positions rotated from then on.

CB radios

CB radios should be turned on and a communications check carried out with the expedition leaders and other vehicles before departure.

Radio schedules

All tag-alongs vehicles should leave their radios on at all times, for regular contact with the convoy and leaders.

In transit

To ensure that regular contact is maintained between the convoy vehicles the following protocols apply:

- Before leaving, take note of the vehicles both in front of and behind.
- In transit regularly monitor the vehicle behind.
- When a change of direction is required, stop and wait for the following vehicle to catch up. When this vehicle has caught up, signal the change of direction and then proceed as required. The vehicle that has been following must then wait for the next vehicle and so on.

As long as the procedure outlined is followed, no vehicle will be separated or lost from the convoy.

Drivers have a responsibility to keep up with the other vehicles, but at the same time should maintain a safe distance between vehicles. If two or three vehicles are travelling together, leave at least 400 metres between each vehicle. When driving in convoy, always keep the vehicle behind you in view. It is recognised that, at times (for instance on a dusty road)

vehicles may fall back to avoid unpleasant conditions. Whenever the convoy is on a main road, be sure to allow room for other traffic to pass. If stops are made for observations, or to take a photograph, etc, wave through the vehicles following and fall onto the end of the convoy. Do not delay the convoy unnecessarily.

Tail end Charlie

Should there be more than one tag-alongs vehicle, one vehicle will be rostered to be the 'tail end Charlie' each day. In the event of an accident or delay, leaders must be advised. The lead party will carry a comprehensive first aid kit, but may be out of CB radio range, so each vehicle must carry a first aid kit.

Gates

Any gates encountered are to be left as found.

Liability

- No responsibility or liability will be taken by *LANDSCOPE* Expeditions, the Department of Environment and Conservation, UWA Extension or their associates for breakdown expenses or recovery of vehicles. All reasonable assistance will be rendered.
- Tag-alongs have been advised to check their insurance policies carefully for appropriate and adequate cover when travelling in remote areas.

Health and hygiene

Hygiene – general

In this day and age of exotic diseases and well-travelled tourists, hygiene should be at the forefront of your thoughts in the field. Your duty of care to your clients extends to this area as well. Expeditioners should be clearly informed from the outset and reminded as often as you deem necessary of rules and requirements concerning hygiene. Appropriate handwashing facilities (including liquid soap) should be provided to all expedition personnel at all times. As important is personal hygiene and cleanliness of volunteers. No one wants to sit next to a person for an extended period who is not meeting personal hygiene requirements. It is

a difficult subject to broach to a person and a degree of diplomacy will be required but it is a job that must be undertaken. Toilet procedures must be clearly spelt out. Remember this is a very sensitive subject, particularly to most women.

Expedition hygiene

A high level of personnel hygiene will be practised by all. All cups, dishes and utensils are to be washed in hot water where possible. Dish washing will always include the use of chlorine (such as 'Milton' or bleach) in the rinse water. This can also be used to provide a hand rinse for personnel handling food. Do not allow communal drinking from the same cup or bottle because of the risk of spreading disease (hepatitis, gastroenteritis) etc. Ensure a dipper is placed beside the billy. Everyone helping in the preparation of food is to wash their hands in soap and water prior to becoming involved and wear disposable gloves when handling food.

Water quality

Assessment of water quality to be used should be made before the expedition commences. All suspect water is to be chemically treated and expedition members advised of the type of treatment used.

Food

It is of the utmost importance that a high degree of hygiene is maintained. Many expeditioners, because they are experiencing an unfamiliar diet and water, will be having problems anyway and so will be more susceptible to bacteria in their food causing infection or dysentery. High temperatures, particularly in the north and in the desert, will exacerbate the problem. Ensure that quality food is bought and check expiry dates carefully. Store carefully and to manufacturers' requirements. Don't leave food uncovered and/or lying around. Make sure cooking utensils and eating utensils are clean. Wash and disinfect bench tops, food preparation areas and chopping boards. Place all rubbish in sealed plastic bags, when possible burn inflammable rubbish and burn out empty tins prior to placing in rubbish bags. If possible, rubbish burning should be done when volunteers are not present at the campsite.

Food handling

To stop the spread of bacteria:

- Always wash your hands thoroughly with soap and hot water (or an antibacterial solution) before handling food, especially before handling cooked food.
- Use separate cutting boards and knives for each type of food e.g. raw meat, fish, vegetables and cooked foods.
- Always clean and sanitise work surfaces and utensils. Sanitisers kill bacteria, while detergents only remove dirt and grease.
- Avoid using bare hands to touch food. Use tongs, forks and spoons whenever possible.
- Use paper towels whenever possible. Dishcloths and towels carry bacteria.

Expedition personnel

LANDSCOPE Expeditions insist on the highest degree of personal hygiene and appearance from their personnel. You are an ambassador for DEC. When on extended expeditions every attempt should be made to keep your clothes clean and tidy. Appropriate footwear must be worn. All expeditions personnel should be constantly aware of their appearance. You must set the example and standard for the expeditioners to follow.

Please wear your expedition name tag at all times. Make a point to circulate and socialise with the volunteers, particularly at mealtimes. Avoid socialising and dining exclusively with other leaders.

Biological specimen handling

Remember, many species of native animals carry pathogenic strains of *Salmonella* that can be communicated to humans causing gastroenteritis that can quickly lead to dehydration. Never allow animal preparation to take place where food is being handled or prepared. Disinfect all surfaces where animal preparation has taken place. Ensure all tetanus vaccinations are current.

Bats

It will be necessary for all expeditions staff handling or coming into contact with bats to take precautions in order to minimise the risk of

exposure to the potentially fatal lyssavirus. Recent evidence indicates that the incubation period for lyssavirus may be longer than previously believed (up to two years). It is now considered that the risk of handling bats is so great that no expeditioner is permitted to handle bats and where bats may be encountered expeditioners must be informed of the risks. Volunteers indicating a desire to visit bat colonies, caves or roosts or to otherwise come into contact with bats should be advised of the potential risks identified above and be advised not to handle any bats, and not to attempt to 'rescue' sick or injured bats, unless they have been vaccinated and take protective precautions to minimise the risk of infection. To prevent exposure to histoplasmosis fungus, which can cause chronic pulmonary histoplasmosis, personnel entering caves and old mine shafts should wear breathing apparatus or filters. Expeditioners should be advised that there is no suggestion that there is any risk of infection to persons who are not directly exposed to bat bites, scratches or blood. Where it is necessary for any staff to handle bats for any reason, they should be immunised with rabies vaccine, and wear protective gloves and clothing (long-sleeved shirts and trousers, overalls or equivalent would be best). Direct body contact with saliva or blood from sick bats must be avoided. Any person (vaccinated or not) should seek medical attention if bitten or exposed to bat blood, saliva or excretions.

More information can be obtained at http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-other-bat_lyssa.htm

Avian influenza

Wild birds in Australia pose a negligible avian influenza risk to humans at the present time, however, all birds, particularly water fowl (ducks, geese, swans) are potential carriers of the disease. As there may be some contact with water fowl on expeditions, volunteers are advised that they are not permitted to handle birds, especially those who appear sick or injured. For further information please refer to the Commonwealth Department of Health website which contains information on avian influenza.

More information can be obtained at <http://www.health.gov.au/internet/main/publishing.nsf/Content/avian+influenza+%28Bird+Flu%29-1>

Safety first

Safety is paramount!

We cannot stress this point too strongly. Commonsense, alertness and experience play important roles in safety. Your volunteers are relying on you to take good care of them. Stop and think things through rather than just rushing in. Make it a habit to do a safety analysis on a situation prior to committing yourself and/or your volunteers. *LANDSCOPE* Expeditions will always support a decision taken by one of its personnel that was based on safety first.

Safety mates

For the duration of *LANDSCOPE* Expeditions, all *LANDSCOPE* volunteers and personnel will be paired with a safety mate for the purpose of ensuring your safety in the field. Please ensure that all expeditioners (including leaders) wear name tags at all times. It also assists at base camp where you may come into contact with other DEC staff or members of the public.

Travelling in the outback and at sea (particularly at night) always carries an element of risk, and it is reassuring to have someone looking out for everyone's safety and welfare. At all times, everyone should know where their safety mate is. If anyone cannot locate their 'mate', and are concerned as to their whereabouts, they have been instructed to advise an expedition leader immediately of their concerns. If participants are split up for expedition activities, ensure that all participants always check that their safety mate is back at base camp. At no time during the expedition should any expedition member leave the group or go off on their own without advising their safety mate and obtaining approval from a leader.

No expedition vehicle should depart any stop or leave base camp without a head count being done and leaders satisfied that all personnel are accounted for in every vehicle in the convoy.

There will be a whiteboard in camp and each group leader will record the personnel involved, the destination where they will be going and an estimated time of arrival (ETA) back in camp. On arrival back in camp the leader will check everyone has returned and erase their names from the board.

Safety tags

To improve client safety in on board research vessels, expeditioners are provided with individual safety tags. These are designed to assist leaders in maintaining a high level of safety for all expedition members at all times during the expedition.

These tags are to be used in the following manner:

- Upon arrival at the rendezvous site, leaders will distribute the respective safety tags to expeditioners.
- The tags are to be worn by expeditioners and leaders at all times and must be visible when on board the research vessel. Safety tags are the individual's responsibility during the duration of the expedition.
- The following procedures need to be undertaken by the leader/s:
When leaving the research vessel, tags are to be left on board.
Upon return to the vessel expeditioners and leaders must retrieve their tags. Leaders must check that all tags have been collected and are being worn. Should a tag not be collected, the leader must immediately conduct a roll call, and confirm the expeditioner has returned to the vessel. If the person is missing, an immediate search must be mounted.
- At the conclusion of the trip, expeditioners may retain their tags.
- The wearing of safety tags does not preclude safety mates from taking responsibility for each other or from leaders conducting head counts throughout the day.

First aid kit

All expeditions carry a comprehensive first aid kit. The kit has been equipped in consultation with medical personnel. In an emergency, seek advice from the RFDS. **(The RFDS emergency medical advice/evacuation phone number is 1800 625 800 (alternate number is (08) 9417 6364.)** Any use of first aid supplies should be recorded on the list included in the kit.

Swimming and snorkelling

Expeditioners have been advised that as a condition of their participation, if they choose to participate in snorkelling or swimming activities, they do so entirely at their own risk. However, *LANDSCOPE* Expeditions and its staff still have a duty of care to its expeditioners. This carries over to all times and events while the volunteers are with us. It is paramount that

they are safe at all times. It is the expedition leader's responsibility to ensure that an area is safe to swim. If in doubt do not allow swimming. Some things to take into account are:

- Can the person swim?
- Depths of water
- Currents
- Underwater obstacles or other hazards
- Contaminated water
- Crocodiles, sharks, stingers etc

Remember, most volunteers are out of their known environment when on expedition and the onus is on the leaders to advise them as to what is safe and acceptable, even if they don't want the advice.

Camp fires

Warn expeditioners that due care needs to be taken when handling containers of boiling water on open fires. Many burns result from people attempting to handle hot water containers while not wearing protective gloves.

Bushfire emergency

Where a member of the public is caught on a road during a bushfire, the Australasian Fire and Emergency Service Authorities Council has suggested the following general guidelines be followed to help minimise the level of risk:

- While travelling, dress in suitable non-synthetic clothing and shoes and always carry woollen blankets and a supply of water.
- Know the local bushfire warning system (such as your local ABC radio station) and tune in accordingly when travelling.
- If a bushfire is seen in the distance, carefully pull over to the side of the road to assess the situation. If it is safe to do so, turn around and drive to safety.
- If trapped by the fire it will be necessary to find a suitable place to situate the car and shelter from the intense radiant heat. Find a clearing away from dense bush and high ground fuel loads. If possible, park behind a natural barrier such as a rocky outcrop. Position the vehicle facing towards the oncoming fire front. Park the vehicle off the roadway to avoid collisions in poor visibility. Don't park too close to other vehicles.

- Stay inside the vehicle – it offers the best level of protection from the radiant heat as the fire front passes.
- Turn headlights and hazard warning lights on to make the vehicle as visible as possible.
- Tightly close all windows and doors.
- Shut all air vents and turn the air conditioning off.
- The engine may be left running to enable the headlights to continue to operate and not flatten the battery.
- Get down below the window level and shelter under woollen blankets.
- Drink water to minimise the risks of dehydration.
- Stay in the vehicle until the fire front has passed and the temperature has dropped outside.
- Fuel tanks are very unlikely to explode.
- As the fire front approaches, the intensity of the heat will increase along with of smoke and embers.
- Smoke gradually gets inside the vehicle and fumes will be released from the interior of the car. Stay as close to the floor as possible to minimise inhalation and cover your mouth with a moist cloth.
- Tyres and external plastic body parts may catch alight. In more extreme cases the vehicle interior may catch on fire.
- Once the fire front has passed and the temperature has dropped cautiously exit the vehicle. (Be careful – both internal and external parts will be extremely hot.)
- Move to a safe area e.g. a strip of land that has already burnt.
- Stay covered in woollen blankets, continue to drink water and await assistance.

More information can be obtained at; http://knowledgeweb.afac.com.au/guides_and_positions/guidelines/afac_guidelines_for_people_in_cars_during_bushfires_2008

Electrical storms

Do not work during an electrical storm.

For advanced warning of the hazard, call the Bureau of Meteorology and get the current and projected weather advice. If caught outdoors suspend activities and notify people and move to a safe location.

If outdoors:

- Immediately seek the shelter of a substantial building or an enclosed vehicle, sit in vehicle with windows up for the duration of the storm.
- Lightning will often strike the tallest thing, which may be you if you happen to be working on a sparsely treed landscape. If caught out in the open avoid being the highest object, squat down on your feet as low as you can get with your head down between your knees and feet close together, and do not lie down.
- Avoid proximity to other people.
- Don't handle metal objects such as umbrellas and stay clear of metal poles and fences.

If indoors:

- Keep clear of windows, open doors and other openings to the exterior.
- Don't handle hard wired electrical appliances or telephones.
- Don't touch water pipes, taps or metal sinks.

Sunburn and insects

Sunburn and insect bites can totally ruin an expeditioner's experience. It is important to ensure that they are fully aware of slip, slop, slap and to apply insect repellent when required. Expeditioners should be made clearly aware of possible outcomes if repellent is not applied, i.e. Ross River virus, Australian encephalitis etc. Expeditioners are advised in the briefing notes to carry their own antihistamines if required.

Volunteer information

It is a requirement that expeditioners inform *LANDSCOPE* Expeditions of any special medical conditions they may have. A copy of this information is given to the expedition leaders. Leaders should make themselves aware of these. They could include:

- Allergies
- Sleepwalking
- Current medication
- Particular health problems
- Pregnancy
- Dietary requirements

Privacy Act

Changes to the Privacy Act have come into force in Australia which affect the collection, use and disclosure of personal information.

At *LANDSCOPE* Expeditions we respect volunteers' privacy and are committed to protecting their personal information. We collect personal information to manage expedition arrangements and related activities. Volunteers' personal information may be disclosed to charter operators, hotels, expedition leaders, DEC's Volunteer Coordinator and UWA for the purposes of administering the expeditions, and to any other third parties for the sole purpose of expedition-related arrangements or for bona fide research that promotes sustainable tourism.

Leaders must return the leaders' satchel containing the confidential application forms and other volunteer information to the *LANDSCOPE* Expeditions Project Officer as soon as possible after the end of the expedition so that this information can be destroyed.

Travel insurance

We strongly encourage volunteers to obtain travel insurance to cover them for such contingencies as lost or stolen baggage, personal liability, cancellation due to illness, termination due to illness or death at home and emergency assistance as a result of accident, illness or rescue operation. *LANDSCOPE* Expeditions, UWA Extension and their associates will not be liable for damage, losses or additional expenses incurred. Emergency transport, medical or hospital costs resulting from illness or accident during the expedition are entirely the responsibility of the person receiving such care.

Evaluation of expeditions by participants

Evaluation forms are distributed to each volunteer. Feedback from those returned to *LANDSCOPE* Expeditions is available to expedition leaders at any time. The trip diary kept by volunteers is also a useful form of feedback, and is typed and distributed to all personnel at the conclusion of the expedition.

Scientific publications

In the event of the publication of scientific articles, books, etc., resulting wholly or in part from data gathered on *LANDSCOPE* Expeditions, leaders are asked to acknowledge *LANDSCOPE* Expeditions in such publications, and to inform the expedition administrator so that volunteers can be advised of the availability of appropriate publications.

Expedition reunion

A combined reunion for all expeditions is held at the end of each year. Leaders are encouraged to attend. The reunion is an informal occasion and provides an excellent opportunity for people on different trips to compare notes, and share the highlights of their trips through photo albums and images. Many volunteers are repeat clients and the reunions offer an excellent opportunity for interaction.

First aid

In an emergency or when someone is injured don't panic. Call for help.

D – Check for danger to yourself then the casualty

R – Response – check if conscious – ask what happened

A – Airway – check if clear

B – Breathing

- **Casualty breathing** – place in recovery position, seek medical aid and monitor vital signs
- **Casualty not breathing** – give two initial breaths, check for signs of life, seek urgent medical aid

C – Circulation

- **Unconscious, not breathing, no signs of life** – commence CPR
- **30 breaths two compressions** – target rate 90 compressions per minute (minimum 60)
- Continue CPR until help arrives
- Only stop CPR if signs of life return (skin colour improves, breathing returns)
- Keep comfortable and keep reassuring

Bleeding – apply direct pressure, elevate part, clean dressing, seek medical aid. Protect yourself – wear gloves if available

Shock – reassure, lie flat, raise legs, nil by mouth, keep warm, urgent help, seek medical aid

Broken bones – control bleeding, reassure, gentle handling, immobilise, seek medical aid

Spinal injury – apply cervical collar, maintain body alignment, do not move (unless casualty is in danger), seek medical aid

Burns – cool the burn, cover with clean dressing, remove jewellery, seek medical aid

Snake bite

If bitten:

- Keep patient calm and still. Movement spreads the venom through the body.
- Do not wash the area of the bite as a swab will be taken at the hospital to identify the venom.
- Apply a broad pressure bandage over the bite as soon as possible. The bandage should be as tight as would be applied for a sprained ankle.
- Extend the bandage down to the fingers or toes and then back as high as possible towards the armpit or groin.
- Apply a splint. Bind it firmly to prevent movement.
- Try to bring transport to the patient, rather than moving them, and get them to a hospital as soon as possible.

Heat exhaustion and heat stroke

Many travellers are not used to the temperatures we experience in Australia. It is important that procedures to prevent heat exhaustion and heat stroke are explained to expeditioners. Insist that full water bottles must be carried at all times. Frequently remind personnel to fill their bottles. The use of electrolyte replacements such as 'Staminade', 'Gatorade' and 'Gastrolyte' may be useful.

Heat exhaustion results from loss of excessive body fluids and salts.

Signs and symptoms

- Pale
- Clammy skin
- Dizziness
- Headache
- Nausea
- Irritable
- Lethargy
- Muscle cramps

Management

- Give plenty of fluids
- Give small sips slowly increasing but avoid vomiting
- Cool sponge or fan
- Keep cool in shade

Heat stroke is a serious condition. At this stage the body no longer sweats to cool down and the core body temperature is no longer maintained at a normal level.

Signs and symptoms

- Hot dry skin
- Headache
- Nausea and vomiting
- Collapse
- Unconsciousness

Management

- DRABC (Danger, Response, Airways, Breathing, Circulation)
- Coma position (if unconscious)
- Remove clothing
- Cool sponge or wrap in wet sheet
- Fan
- Fluids if conscious
- Urgent medical aid

More information on first aid can be obtained at www.ambulance.net.au.

Death

Dealing with a deceased person

Although this may seem an unpleasant topic, it is a possibility that needs to be dealt with in the correct way, to avoid stress among other expeditioners and to satisfy legal requirements. Only a registered medical practitioner can certify that a person is dead but the leaders may need to make that decision in the absence of medical personnel. However, resuscitation should never be stopped when medical aid is imminent.

Signs of death

- Fixed dilated pupils, patient not responding to resuscitation.
- Absence of spontaneous heart beat (pulse) in spite of prolonged resuscitation.
- Rigor mortis (stiffening of the body) is a late but reliable sign of death.

Procedures to follow

- Seek medical advice.
- Immediately advise the police or local authorities and be guided by their advice.
- Get everybody in the group to take careful notes of the date, time, location, who was present and the circumstances surrounding the death as this will assist the police in preparing a report to the coroner.
- Make a list of any valuables and equipment belonging to the deceased person and have the list witnessed. Give the list and personal items to the police when you are able.

Effects of death on others

Watch for and acknowledge signs of stress and shock in the party. At the very least there may be depression and distress that must be addressed by the group as a whole to provide mutual support and minimise effects.

Emergency signals

The following methods can be used to indicate your position.

Mirror

A small mirror or any polished surface that will reflect light (e.g. alfoil) can be used as a mirror.

Fires

A smoking fire will aid searchers but care should be taken that fires do not escape causing a major bushfire that may endanger others.

Whistle signals

- Distress signal by lost party – three signals together, regularly spaced
- Searchers looking for lost party – one blast at regular intervals
- Acknowledgement of distress signal – two blasts repeated regularly
- Recall signal for search parties – four blasts

Gun shots and torch flashes

The same as whistle signals. Guns should be discharged into soft ground, not into the air.

Ground to air visual codes for use by survivors or those in distress

- | | |
|--------------------------------|---|
| • I/We require assistance | V |
| • Require medical assistance | X |
| • Proceeding in this direction | → |
| • No or negative | N |
| • Yes or affirmative | Y |

Remember: if in doubt use the international distress symbol – 'SOS'

Actions by search aircraft

The aircraft will indicate that your signals have been seen and understood by rocking from side to side in daylight hours and by making green flashes with a signal lamp at night.

If ground signals have been seen by the aircraft and not understood, it will fly in complete right hand circles in daylight hours or make red flashes with a signal lamp at night.

Rescue helicopter

Never approach a helicopter from the rear. Position yourself in front, in view of the pilot and wait until approached by a crew person.

Phonetic alphabet

A	Alpha	N	November
B	Bravo	O	Oscar
C	Charlie	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliet	W	Whisky
K	Kilo	X	X-ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

More information on outback safety and survival can be obtained from the WA Police website and the publication Aids to Survival which can be downloaded at <http://www.police.wa.gov.au/YOURSAFETY/AidstoSurvival/tabid/1337/Default.aspx>.

Leader's declaration

I acknowledge receipt of a copy of the Procedures and Protocols Manual for *LANDSCOPE* Expeditions. I confirm that I have read and understood the contents. I agree to carry this manual with me on expeditions and follow the guidelines therein.

Name (block letters):

Signature:

Date:

Expedition name:

Expedition dates:

Note: Please photocopy and complete one declaration for each expedition. Return to the Project Officer, *LANDSCOPE* Expeditions, by fax (9334 0498) or mail to Locked Bag 29, Bentley Delivery Centre, WA, 6983.

This completed declaration will be kept by the project officer on the appropriate expedition file.

Counter signed:

(Project Officer, *LANDSCOPE* Expeditions).

Contributors

Professor Kevin Kenneally, AM has been the Scientific Coordinator for *LANDSCOPE* Expeditions since the program's inception in 1992. Prior to that, he was a Principal Research Scientist with the Western Australian Herbarium. He is an internationally recognised author and specialist on Kimberley flora. Kevin has led research expeditions into remote areas of Western Australia for more than 35 years. He was awarded a Churchill Fellowship (1979), the Australian Natural History Medallion (1984) and the CSIRO Medal for Research Achievement (1996). In 2005 he was appointed a Member of the Order of Australia and in 2006 he was a finalist in the Prime Minister's Environmentalist of the Year Award. Kevin is an Honorary Associate of the WA Museum and an Adjunct Professor at The University of Western Australia.

Jean Paton played an important role in the development of the expeditions program from their commencement in 1992. Jean was instrumental in setting up the first *LANDSCOPE* Expedition to the Gibson Desert in 1992 when working with UWA Extension, The University of Western Australia. She then joined the then Department of Conservation and Land Management (CALM) in a part-time role as the Expeditions Administrator. She has as a long-standing interest in environmental education and has coordinated study tours throughout Western Australia. Jean was a member of the State's Nature Based Tourism Advisory Committee and helped develop a Nature Based Tourism Strategy for Western Australia. She retired in 2005 and lives in Fremantle.

Acknowledgements

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We also appreciate the advice and assistance given by Dr Ric How, Dr Bev Phillips, Peter Sharp, Val Talbot, Daphne Edinger, Marg Buckland, John Ireland, Gil Field, Dave Hampton, John Edwards, Robin Emmett (RFDS), Cheryl Tonts and Rohan Swan in the preparation of this manual.

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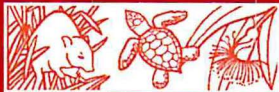
Challenges facing *LANDSCOPE* Expeditions

Challenges: Organisers

- Presenting science as relevant in people's lives
- Selling science as tourism
- Training professional scientists to be leaders
- Helping scientists to be better communicators
- Preparing volunteers for the experience
- Interpreting the results in a report, wrapping up the experience
- Convincing people that they don't have to be experts to contribute to research

Challenges: Scientists/Leaders

- Highest level of interpretation required
- Making science enjoyable
- Relating day-to-day detailed work to the big research picture
- Relating local science to a global scenario
- Meeting scientific objectives while providing a rounded tourism experience
- Matching research activities to individuals
- Explaining procedures and techniques (e.g. research activities, observation techniques)
- To ensure group cohesion and sharing of information, daily group briefings and debriefings are essential
- Allowing opportunities for participants to share their expertise and knowledge: two way interpretation
- Relating science to history and culture



LANDSCOPE EXPEDITIONS

Working at the frontier of discovery

Bookings

LANDSCOPE Expeditions

UWA Extension

The University of Western Australia

M432 35 Stirling Highway, Crawley, Western Australia 6009

Tel: 08 6488 2433; Fax: 08 6488 1066

Email: extension@uwa.edu.au



Research and project details

LANDSCOPE Expeditions

Locked Bag 29, Bentley Delivery Centre, Western Australia 6983

Tel: 08 9334 0401; Fax: 08 9334 0498; Mobile: 0407 986 227

Email: landscapeexpeditions@dec.wa.gov.au

Visit www.dec.wa.gov.au/landscapeexpeditions

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