



# Risk Assessment and Audit

## South Africa 2021



Risks when travelling – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
Travellers stomach problems	L	M	Make sure students are briefed to wash hands and to not share bottles.		
Mosquito bites leading to malaria, dengue fever or Zika virus	L	M	All participants to be instructed to cover up in the early morning and late afternoons, sleep under mosquito nets in areas where the insect populations are high and wear insect repellent. If taking anti-malarial tablets then participants advised to complete full course. All participants to be warned of specifics of each disease and symptoms to look out for.		
Theft, mugging, violence & personal security	L	M	Participants will stay in a hotel whilst in the city and will be briefed on how to reduce the risks. Valuables should remain “off display” at all times, and participants should not walk out alone at night and avoid remote areas of the city. Participants will be briefed on ensuring they lock their room doors overnight and when they leave the room. During the Botanical Gardens trip students will remain with group at all times, Opwall staff member will be with group for duration of visit and group will stay within boundaries of the gardens.		
Dehydration	M	M	All participants are informed that dehydration is a significant risk at all times when in the expedition country. They should be informed that they should drink 2 litres of water per day. For any surveys, participants should carry sufficient water supplies for the duration of the survey and the survey leader should stop regularly to rest and check for signs of dehydration.		
Being injured from traffic	L	M	All participants told of dangers of the busy city roads and advised not to leave the hotel / airport on foot.		

Transfers, stop offs, vehicles & shuttling between sites: Cars, buses, trucks – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
Lack of management control increases risks of collision or other incident	L	M	Ensure there is an English-speaking transfer supervisor for each journey. This person should have a mobile phone and be able to contact each of the drivers travelling on any transfer. They should also ensure the drivers are always briefed (see below), and that vehicles travel in convoy with at least one transfer supervisor per group of vehicles.		
Vehicles attacked	L	H	Travel to take place during daylight and on main roads wherever possible.		
Passengers becoming sunburned or rained on during the journey	M	M	All participants sitting outside in the back of the trucks or on boats to be told to use sunblock. When raining all passengers will be required to carry rain jackets		

Participants unprepared for length of journey or relevant risks	L	M	Ensure transfer briefing is given before any transfer. This should include as a minimum: The length of the journey, the approximate times of any breaks, what to expect during breaks in terms of relevant risks and where is "off limits" (e.g. crossing the highway to browse other shops).		
Inappropriate or lack of insurance	L	L	Ensure supplier holds relevant motor insurance to satisfy national requirements. This is a contract requirement.		
Inexperienced driver increasing risk of accident	L	H	Ensure driver has more than 3 years' relevant experience or holds a specific public driving licence.		
Driver fatigue	L	M	Ensure there is a second driver if the journey is longer than 10 hours on any given day.		
Driver unaware of safety requirements	L	M	Ensure the driver has committed to meet their obligation to comply with national vehicle regulations relevant to the journey e.g. for licensing, speed limits, weight of vehicle, number of passengers etc. and have been briefed on our safety requirements (see below). This is a contract requirement.		
Inadequate safety equipment available	L	M	All vehicles should have a mobile phone, the necessary equipment for changing wheels and to carry a torch and sufficient water for the journey in case of breakdown.		
Tyres not able to support emergency braking	L	H	Ensure that each tyre has visible tread in the central part of the tyre all the way round, and that there are no clear irregularities such as bulges.		
Lack of comfort on journey	M	L	Ensure that all passengers have a seat (not including floor space) if the journey is longer than 1 hour.		
Lack of comfort on journey	M	L	Ensure that luggage is stored in a separate area of the vehicle or does not prevent passengers from being in a comfortable sitting position on journeys longer than 1 hour.		
Participants becoming lost during travel	L	H	If using multiple vehicles, ensure that they travel in convoy or there is one transfer supervisor (who has a mobile phone and can contact each of the drivers) per group of vehicles.		
Driver not following safety requirements	L	H	Ensure that the driver drives carefully and within the speed limit, does not use their phone whilst driving, and stops at least once every 4 hours in order to prevent fatigue.		
Other risks associated with travel by pick-up trucks	M	M	If participants are travelling in the bed of a pick-up truck, ensure that they are all able to sit in the bed on not on the edge. Ensure that all participants are told not to sit on the edge, and not to stand during transit unless a shoulder-height cage is fitted. Ensure that the tailgate locks securely, and that participants know not to touch it during transit. Ensure that pick-up trucks carrying passengers never exceed 50kmp/h.		

**Water Margins – Completed by .....** **Date.....**

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
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Inappropriate supervision	L	M	Complete assessment pro-forma to establish level of supervision required		
Hippo or crocodile attack whilst in or near water bodies	L	H	All swimming and walking around the edge of fresh water is prohibited due to the likelihood of crocodile or hippo attack, unless the area has been pre-checked by a member of senior management.		
Beach activities (including leisure time on the beach)	L	M	Ensure appropriate supervision is in place (see pro-forma). Do not enter water if there are strong tides or current that could cause participants to be drawn out to sea or to a dangerous area (e.g. rocks or coral). Give a safety briefing to highlight any out-of-bounds areas.		
Swimming pools	L	M	Ensure participants are told never to use the pool alone. Brief participants on any slippery areas around the pool and on any banned activities e.g. diving in the shallow end.		
Alcohol	L	M	No alcohol to consumed by any participants whilst in the water. No participants to enter the water whilst under the influence of alcohol.		

**Terrestrial risks – Completed by..... Date.....**

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
Participant becoming lost or separated	L	H	All groups must sign out when leaving the camp using whiteboard/scheduling system and if the group does not return on time then contact will be attempted with the group and if this is not possible a search and rescue team will be organised. No participant to leave the camp site area unaccompanied. All groups leaving camp are accompanied by a qualified field guide and are in a vehicle with radio contact and/or mobile phone. The on-foot groups have a qualified armed staff member with them. When working on foot, participants are briefed to stay within 20m of each other to avoid separation. When at the botanical gardens will be accompanied by an Opwall staff member will be present at all times and ensure the group remains together.		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. At least one staff member will always be present in the terrestrial camps. During the Botanical Gardens visit An Opwall staff member will accompany the group and the transfer		
Participants poorly equipped or with a lack of fitness to cope adequately with the conditions	L	M	Participants are fully briefed prior to the start of any on-foot activities and check they have the appropriate equipment with them. New participants will be watched carefully for signs of exhaustion and to adjust the distances covered according to the fitness levels. Training sessions given to students prior to expedition to ensure they are fully prepared for conditions on site.		

Lack of hygiene increasing risk of disease	L	M	Hands should be washed regularly before eating using hand washing facilities provided on site. Kitchen facilities whilst on site should be kept clean and food categories (eg meats, vegetables etc.) are prepared separately. All food preparation tables on site are cleaned with bleach at least once a day and dishwashing bucket water changed frequently.		
Allergic reaction to food	M	H	All participants to submit dietary and allergy information prior to the expedition. Where allergies are serious (eg severe nut allergies), no trigger foods to be prepared or served whilst the relevant participant is on-site (eg a total nut ban).		
Medical problem for participant	M	M	All medical details are provided by all participants before the expedition and reviewed by country manager and expedition medics. Medical staff always available during the expedition or always within close proximity of medical facilities. Sites have adequate medical supplies for stabilising any patients needing to be transferred to a hospital.		
Need for emergency evacuation	L	H	Vehicles always available for emergency evacuation from field sites. Full evacuation plans in place for extraction to local medical facilities.		
Volunteer attacked at night whilst sleeping	L	H	Each reserve is fenced and the camps are fenced within the reserves. There are armed guards on the reserve, and students will sleep two to a room or tent, wherever possible, and the staff members will be located nearby.		
Falling down steep slopes, holes or tripping on uneven surfaces	M	H	All participants should have footwear with good grip and ankle support in the field. Participants must walk single file behind the armed safety officer whenever walking through the bush.		
Snake bite	VL	H	Only designated, experienced snake-handlers will supervise handling known non-venomous snakes. Venomous species should not be brought to camp to show participants and should be removed from camp only by experienced snake-handlers. All participants should wear long baggy trousers and walking boots when walking through the bush. If a snake bite was to occur then response is to apply a light pressure bandage, immobilise the patient and evacuate them to hospital.		
Attack from large animal	L	H	All foot-based surveys within sections of the reserve housing dangerous game will be supervised by a suitably qualified Safety Officer and research guide per each group of nine students.  Our partners will provide safety officers that are able to provide safety from dangerous animals whenever participants do research-related field work on foot. These safety officers are suitably qualified with the necessary rifle handling competencies, fire arm licenses and weapon permits. Professional Hunters are (automatically) also considered safety officers as they possess the same rifle handling competencies, albeit with the added advantage that they usually also have advanced animal behaviour and practical field skills. There is no empirical standard regulating these conservation research type		

			<p>of field activities, but we are holding ourselves to the same norm as implemented by SANParks in all their parks and territories.</p> <p>The Safety Officer will take appropriate action if any dangerous game is encountered while on foot (including encounters with large herbivores). Appropriate action is removal of the group from the encounter to a safe location in the most expedient, safe way possible.</p> <p>The guide accompanying the group will hold a FGASA Level 1 guiding qualification, or locally accredited equivalent. Whilst performing a survey on foot, the group is never to be more than 200 meters from a vehicle or the camp, unless the site has been pre-approved by a member of senior management. Prior to embarking on survey activities, the Safety Officer is required to thoroughly check the site on foot before disembarking the group from the vehicle.</p> <p>The only exception to these ratios is in pre-designated “safe zones”, where no dangerous game species are located. In these areas, on-foot fieldwork can be performed without a safety officer present providing no reports of large mammals breaking into the area have been recently submitted. This has to be checked prior to activities taking place and the approved by senior management.</p> <p>All participants will have completed safety training in how to respond to large game encounters before participating in any foot-based surveys. While undertaking any vehicle-based movement within park boundaries, it’s unlikely that an attack by animal will occur. However, all drivers are to hold a recognised guiding qualification (minimum FGASA Level 1 or equivalent) and safe distances will be maintained between vehicles and large game at all times. In the absence of a Safety Officer, participants may disembark the vehicle for short periods of time (e.g. for a comfort break) only if staying within a safe distance of the vehicle and if the area has been checked by the guide prior to leaving the vehicle.</p> <p>Final decision on participants participation in field activities is given to the safety officer or guide leading the activity. Anyone deemed a safety risk will not be allowed into the field.</p>		
Encountering dangerous animals at night	L	H	No night-time surveys are performed outside of the fenced camp area. The camps are surrounded by an electrical fence or within safe zones designed to keep dangerous animals out. Nonetheless, participants are briefed on the appropriate protocol for each		

			camp if dangerous animals are encountered at night. All participants are required to use a torch when moving between buildings at night.		
Small mammal or bat bite	L	H	Only participants who have received rabies injections to be allowed to handle bats and small mammals. Any participant or staff member bitten by a bat will be taken to be given booster rabies injections.		
Reaction or disease from insect or arachnid bite	L	M	Participants with strong reactions to insect/arachnid bites identified prior to expeditions and instructed to carry epipens with them. Participants to wear long trousers and closed-toed footwear whilst when working on foot outside of camp.		
Local fauna and flora	M	M	Field staff to walk at front of group and identify any major insect hives and ensure groups avoid these areas. All participants should check their shoes and bedding before use. Participants will be briefed on any risks from flora or fauna.		
Heavy rain causes river to rise, landslides or tree fall	L	H	Experienced expedition site manager to select the site to minimise risk from flooding, landslides and tree fall. In exceptionally heavy rain Camp Manager to organise a 24-hour look out system.		
Fire	L	VH	Smoking is not permitted anywhere except in designated areas. All participants should be fully briefed on this regulation and are trained in evacuation procedures. No smoking allowed in any tent, hammock, building or local houses.		
Getting lost or injured on day trips to local towns	L	M	At least one first aid qualified staff member will accompany the students carrying a full first aid kit. All students will be given the mobile number of that staff member and their approximate locations during the day. A brief orientation of the key landmarks will be given on arrival, and a clear point and time of return will be communicated. Participants should stay in pairs at a minimum when separated from the staff member.		

**Elephant encounters/ Elephant behaviour sessions - Completed by..... Date.....**

<b>Risk</b>	<b>Likelihood</b>	<b>Severity</b>	<b>Mitigation and Assessment Methods</b>		
Negative encounter with elephant resulting in charge behaviour or physical contact with the vehicle	L	H	Elephants will be approached slowly and quietly. A minimum viewing distance of 50m will be kept to where possible. However on some sightings elephants will approach the vehicle, in this situation it is the responsibility of the guide to assess the situation and select the best course of action based on the elephant and any behavioural cues it may have displayed. The possible actions taken can include, but are not limited to, the following; leave the sighting and terminate the research session, retreat to a safe distance, stay in the same place remaining still and quiet allowing the elephant to pass. No citrus fruit should be taken on elephant behaviour sessions by any staff or students, hand sanitiser will be kept in all vehicles to remove scent from the hands of anyone who may have eaten citrus fruit before elephant behaviour sessions.		

			<p>A staff member will be present with students/volunteers on the back of the vehicle during any elephant behaviour session. This is to make sure that students behave correctly around elephants keeping to the above guidelines.</p> <p>Safe and quick exit routes should always be considered/maintained, and vehicles positioned to make use of them if necessary. Only one vehicle is to be present during an elephant behaviour research session to minimise the chance of multiple vehicles blocking/limiting the number of safe exit routes. During elephant sightings, if there are multiple vehicles they should be well spaced to allow for quick exit if necessary.</p> <p>Areas/roads in the study site/reserve which pose potential problems for working with elephants i.e. areas with few or difficult exit routes will be avoided on elephant behaviour sessions and/or if we have prior knowledge of elephants recently in that area. A copy of the ESAG guidelines for safe elephant viewing will be kept in each camp and form part of all staff training</p>		
Unexpected encounter with elephant	L	H	Speed limits will always be maintained through the reserve, staff will remain vigilant when heading towards an area where we are expecting to find elephants. The total number of elephants in the reserve should be known by each staff member, unless all elephants are present it should be expected/assumed that more may arrive or be in close proximity. If an unexpected encounter occurs staff will follow the above described protocols on mitigating/avoiding a negative encounter with an elephant.		
Negative encounters with specific/known elephants	L	M/H	Where prior information of specific elephants is available guides will be trained on how to identify and behave around these specific elephants. During research sessions or general elephant sightings all elephants will be identified as soon as possible, using pre-made ID kits. If a elephant known to be of higher risk is identified then extra precautions will be taken, up to and including, terminating the sighting and leaving the area. The level of precaution taken with each elephant will vary, all staff will be made aware of the necessary precautions for each elephant during training.		

**Marine risks – Completed by..... Date.....**

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
Need for emergency evacuation	L	H	At least one vehicle always available for emergency evacuation from each field site. Full evacuation plans in place for extraction to local medical facilities.		
Injury or danger encountered when wandering away from the beach	L	M	Beach manager must be informed of any groups leaving the gazebo area on the beach and when they are due to return. All trips out of this area should be in groups of at least two people.		

Fire	L	H	No smoking allowed within buildings and only in designated smoking areas. All participants should be fully briefed on evacuation procedures.		
Lack of hygiene increasing risk of disease	L	M	Participants sleep in tents with flushing toilets and showers and will be briefed on the importance of washing hands thoroughly before meal times.		
Insufficient communication facilities	L	H	A representative at each site where students are located will have a charged phone with emergency numbers.		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. A staff member will always be in and around the on-site accommodation. If accommodation has lockable rooms then this should be done at night and whilst rooms are unoccupied. For those in tents, valuables can be stored in designated steel trunks that are kept in the staff office when not in use. Items will be signed in and out of these trunks with the responsible staff member on duty.  Participants are advised not to take valuables to the beach. Any items taken will be supervised by the beach manager whilst in the gazebo area, but extra care should be taken in this area.		
Being attacked at night	L	H	Access to the camp is controlled by a fence and all vehicles entering the camp are monitored. All students sleep at least 2 to a tent wherever possible and all the tents are close together. Students are NOT allowed to leave the confines of the camp area without a leader. There is a 24-hour security guard onsite, with access to back up support from a local security company.		

## Diving & Snorkelling – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation and Assessment Methods	Assessment Method	Compliance (Action to be taken if not compliant)
Injury caused by falling tank	M	M	All tanks should be laid down when they are not being held.		
Inappropriate pre-dive check	L	H	Buddy dive equipment checks to be done for all divers prior to entering the water and these to be checked by supervising dive staff		
Becoming separated whilst diving	L	M	All divers receive a full briefing about the times, dive profile, possible currents and what to do in the event of becoming separated.		
Lack of supervision during dive training	L	M	All dive trainers in the water at a ratio of 1 Dive Instructor and 1 Dive Master per 8 students. Dive instructor or dive master to remain close to group and monitor group at all times.		

Lack of supervision during dives	L	M	All qualified divers in the water with a Divemaster per 6 students. Dive instructor or dive master to remain close to group and monitor group at all times.		
Lack of cover for divers	L	M	For boat dives: boat to maintain visual contact with dive groups on the surface and to have sufficient oxygen, trained personnel in oxygen delivery and a First Aid kit. All dive professionals to be briefed to make every effort to surface as near to the boat as safely possible. Shore dives to always have a sign out system where an alarm is raised if the group are not back on time.		
Are all divers checked to ensure they have not exceeded 18m depth, maximum dive time of 50 minutes, stopped at 5m for 3 minutes and have 50 bar/700psi remaining in the tanks at the end of the dive?	L	H	The boat roster is completed pre-dive with starting air and post-dive with final air, time, safety stop check and max depth for all dives.		
Lack of understanding signals	L	M	Some dive professionals will use different signals, so it is important that a standard is kept for all. Briefings given prior to dive.		
Injury or Illness during snorkelling	L	M	All snorkelers to be wearing a wetsuit or rash vest and short to protect from the sun. All participants briefed on dangers of local flora and fauna.		
Injury during snorkelling from boats	L	H	Clear briefings on designated snorkelling areas and need to stop and check for boats every few minutes.		
Becoming lost while snorkelling	L	H	All snorkelers must sign in and out and be covered by a staff member (see below)		
Lack of supervision for snorkelling groups	L	H	Depending on the location this may be shore cover / boat cover / in-water supervision. All snorkelers must be in groups of two or more and the group or supervisor (who should have an appropriate water rescue qualification) must carry an SMB.		
Being hurt by propeller or knocked over by boat	M	H	All diving at Sodwana Bay is done by launching boats into the surf. Only qualified skippers are allowed to drive the boats and when divers are in the water either a flag will be hoisted to warn other boats to keep a safe distance or the dive leader will have an inflated SMB. All staff and volunteers to be trained in how to safely assist the launch and get onboard the boat.		
Sharks	L	H	Majority of sharks encountered will be small reef sharks and harmless although Great White, Bull and Tiger sharks and Orcas have been recorded from nearby sites in the past. Any sightings of these large dangerous sharks result in all water activities being suspended until the shark has moved.		

