



## Risk Assessment and Management in Dominica 2019

Risks when travelling - Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Travellers stomach problems	L	M	Ensure only bottle water is drunk. Do not clean teeth in tap water.		
Mosquito bites leading to malaria, dengue fever or Zika virus	L	M	Malaria is not present in Dominica but three other mosquito borne diseases, Dengue, Zika and Chikungunya are present on the island. 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. All participants to be warned of specifics of each disease and symptoms to look out for.		
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 treks, participants should carry sufficient water supplies for the duration of the trek and the trek 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. Everyone should walk on sidewalk rather than road.		

Transfers & vehicles: Cars, and buses – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Lack of management control increases risks of collision or other incident	L	M	Local, English speaking driver on board all transfers. This person should have a mobile phone and be able to contact with the country manager. 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 to be given tarpaulin covers.		
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.		
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.		
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.		

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

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Break-in or attack at the Camp	L	M	All Opwall staff members are based at the research camp. Only personnel involved in the project or known to the camp manager are able to stay at the camp. All students and staff will be advised to keep their tents shut when they are not in there and also when asleep at night. Security lights and guard are in place during hours of darkness.		
Participant becoming lost	L	H	All groups must sign out when leaving the camp using whiteboard 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.		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. Guards or Opwall staff members will always be present in the terrestrial camps.		
Participants poorly equipped or with a lack of fitness to cope adequately with the forest conditions	L	M	Participants are fully briefed prior to the start of any walks 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 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.		
Falling down steep slopes, hole or tripping on slippery surfaces	M	H	All participants must stick to designated paths in the forest along which any potential hazards are roped off. Regular trails with steep slopes to be fitted with ropes. Ropes to be installed around river showers and washing areas where needed.		
Snake bite	VL	H	Only herpetologists will handle snakes and venomous species should not be brought to camp to show participants. All participants should wear long baggy trousers and walking boots/wellingtons when walking through the forested areas. If snake bite was to occur then response is to apply a light pressure bandage, immobilise the patient and evacuate them to hospital.		
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 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 in forested areas and long grass.		
Local fauna and flora	M	M	Trek leaders to walk at front of group and identify any major insect hives and ensure groups avoid these areas. All participants should check their shoes before putting them on. 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 inside the forest 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.		

Transfers and vehicles: boats – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Lack of management control increases risks of incidents	L	M	All journeys to be accompanied by a transfer manager who should make sure that the vessel is not overloaded, and that all participants are fully briefed on where they can travel or site within the boat, location of lifejackets and toilets (if any), and expected journey time.		
Vessel sinking or capsizing	L	H	All boats used for transportation to be registered with the relevant port authorities. Captain to have method for communication with rescue services. Lifejackets to be available for all participants (except on dive or snorkel trips). Passenger boats to have radio communications or mobile phone communications with the shore.		
Passengers suffering sunburn, dehydration or heat-stroke	M	M	Transfer manager to make sure that sufficient drinking water is available, and that participants are told to wear sun block if outside.		

Passengers suffering sea sickness	M	L	Participants to be advised to bring travel sickness medication and reminded to take it, if desired, prior to the journey.		
Falling whilst boarding	L	L	Participants to be advised to board one person at a time. If using a gangplank ensure that there is an option for participants to board without their luggage and it be passed to them once they are onboard.		

**Water Margins - Completed by..... Date.....**

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Inappropriate supervision			Complete assessment pro-forma to establish level of supervision required		
River crossings			Do not enter water where the current/flow could cause the participant to be moved to a deeper or more dangerous area of the water. Staff member to enter first in order to test the depth and terrain under the water. Any slippery sections should be highlighted. Use a rope if appropriate over sustained slippery terrain.		
Bathing in streams			Give a safety briefing to ensure that any out-of-bounds areas are highlighted, any non-bathing activities are prohibited, means of access to the bathing area is specified (e.g. no diving in to the water), and participants are told not to be alone in the water unless in a pre-defined bathing area.		
Beach/lakeside activities (including leisure time on the beach)			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			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			No alcohol to consumed by any participants whilst in the water. No participants to enter the water whilst under the influence of alcohol.		

Marine risks - Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Slipping down stairs or falling from the walls of the Fort	L	M	The fort is an archaeological restoration in progress which is open to the public, so there are areas where there is a significant drop between the restored wall and the ground below. All volunteers to be told to stay away from these drops, and not to run or play ball games in these areas. All volunteers to be briefed on the risks of running up and down the stairs and told to use handrails where available.		
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.		
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 dorm rooms with flushing toilets and showers and will be briefed on the importance of washing hands thoroughly before meal times.		

Insufficient communication facilities	L	H	Emergency phone charged and kept with a copy of emergency numbers.		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. Opwall staff members 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.		
Excessive drinking or inappropriate behaviour	L	M	No alcohol to be consumed on-site at the Fort, or by any expedition participants under the age of 18. All participants to be briefed on suitable conduct upon arrival. This is particularly important as the Fort is open to members of the public.		
Insufficient communication facilities	L	H	Cell phone reception is available all around the Fort, and at each of the boat accessed dive sites. Each site to be checked for signal prior to the season. VHF radio communications available between the boat and the base in Portsmouth so as to be able to communicate an emergency should the cell phone signal fail.		

**Diving & Snorkelling - Completed by..... Date.....**

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Injury caused by falling tank			All tanks should be laid down when they are not being held.		
Inappropriate pre dive check			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			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			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			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			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.		
Decompression sickness	L	VH	Ensure all diving procedures are followed completely. Limit dives to 2 per day, maximum depth 18m for survey dives, and maximum depth of 30m for pleasure dives – advanced divers or equivalent only. Maximum dive time of 50 minutes with a 5 minute stop at 5m before surfacing for all dives > 10m and have 50 bar/700psi remaining in the tanks at the end of the dive. Ensure that the dive procedures are audited every month throughout the season. Ensure that all boats carry oxygen supplies and that there are sufficient oxygen supplies at the base camp to continue treating the patient throughout the period of the evacuation. Ensure that there are qualified staff who can administer oxygen. There is a recompression chamber at Roseau.		
Barotraumas	M	M	All staff and volunteers informed of risk of barotraumas when diving and the safe equalisation procedure, which includes aborting the dive if equalisation is not possible. All staff and volunteers to be informed that they should not dive with an upper respiratory tract infection. All staff and volunteers to be informed of the dangers of using decongestants when diving. Ensure all volunteers and staff are informed of the serious danger of breath holding whilst scuba diving.		

Injury during snorkelling from boats			Clear briefings on designated snorkelling areas and need to stop and check for boats every few minutes.		
Becoming lost while Snorkelling			All snorkelers must sign in and out and be covered by a staff member (see below)		
Lack of supervision for snorkelling groups			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. For night-snorkels, each pair to have a torch, and supervision must be provided both in water and on shore with a maximum ratio of 1:6.		

Hurricane and severe weather risks - Completed by..... Date.....

Risk	Likelihood	Severity	Control Measures		
Hurricane or severe weather warnings	M	H	The Country Manager to be responsible for monitoring weather conditions regularly. If the weather conditions are severe then in water activities to be cancelled and, if necessary, participants to be moved to an inland location.		