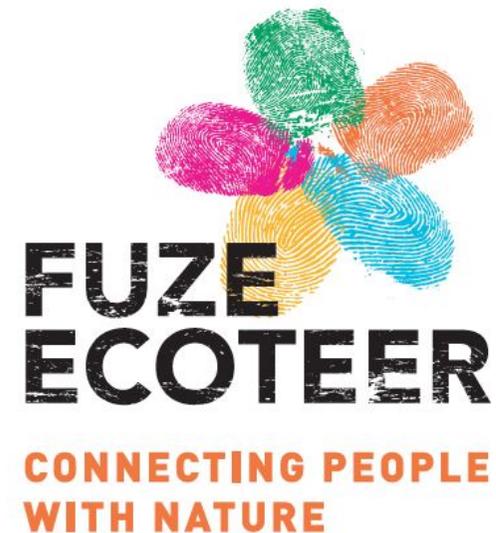


**Perhentian Turtle Project &  
Perhentian Marine Research  
Station  
Risk Assessment - 2020**



## **Table of Contents**

### **EP01: Transfers and Transport-based Risk Assessment and Management.**

### **EP02: Accommodation-based Risk Assessment and Management.**

PTP & PMRS House & Volunteer House

### **EP03: General Environment-based Risk Assessment and Management.**

Village

Other Resorts

Around The Islands

### **EP04: Water Activity-based Risk Assessment and Management.**

Snorkelling

Diving

Kayaking

Swimming

Jetty Jumping

Conducting Underwater Surveys

### **EP05: Jungle Activity-based Risk Assessment and Management.**

Trekking in the forest not on the paved path

### **EP06: Research-based Risk Assessment and Management.**

General Activities

Turtle Photo Identification

House Renovations or Basic Construction Work.

Malay Dinners and Kuih Making Sessions

### **EP07: Night-time activities-based Risk Assessment and Management.**

Turtle patrol at Tiga Ruang.

### **EP08: Beach-based activities Risk Assessment and Management**

Awareness Campaign/Beach Clean Up

**EP09: Animal Interaction-based Risk Assessment and Management.**

Land-based animals

Marin- based animals.

**EP10: Medical-based Risk Assessment and Management.**

Allergies.

Minor Injuries and Illness.

Major Injuries and Illness.

Emergencies and Evacuation.

**EP11: General Risk Assessment and Management.**

## EP01: Transfers and Transport-based Risk Assessment and Management.

Risk:	Likelihood:	Severity:	Control Measures:
Accident at sea resulting in the vessel sinking or capsizing.	Low	High	<ul style="list-style-type: none"> <li>● Licensed ferries from the mainland to the Perhentian Islands do not run in bad weather or at night.</li> <li>● Passengers are required to wear life jackets (if available) when at sea and on any boat. Upon arrival in Kuala Besut, volunteers are met by a trusted member of Safe Park Holidays and accompanied to the right boat.</li> <li>● Volunteers/interns/visitors must be met by/sent-off by/accompanied by trusted members of FE staff to ensure they get on the right boat etc when leaving for the mainland/another site for work-related activities.</li> <li>● The time of crossing and number of passengers is logged with the expectant resort or boat operator before departure.</li> <li>● If required, passengers also registered themselves to Marine Park.</li> <li>● Resort boatmen who are EFR trained usually undertake transfers between island sites. The resort or boat operator monitors their journeys.</li> <li>● When water taxis are in use, Fuze-Ecoteer staff will strive to use trusted boatmen we use have signed contracts with us which are refreshed every year. This advice is passed on to volunteers when using water taxis for personal use.</li> </ul>
Passengers becoming sunburned, dehydrated or heat-stroked.	Medium	High	<ul style="list-style-type: none"> <li>● The project is located in a tropical country, which is an unfamiliar environment for some.</li> <li>● Staff and volunteer orientation that includes a safety briefing is given upon arrival regarding the dangers of heat and humidity.</li> <li>● Staff and volunteers are advised to use sunscreen, cover up and drink plenty of fluids. This advice is repeated regularly and backed up by info packs (including the project's Know Before You Go Guide) at the project sites.</li> <li>● Project site should be equipped with aloe vera and sunscreen (either the plant or products) and/or cool packs and rehydration salts.</li> </ul>
Slipping or falling on deck or falling overboard.	Low	High	<ul style="list-style-type: none"> <li>● All passengers are required to remain seated when in transit.</li> <li>● All passengers are required to wear a life jacket with its belt fastened when in transit.</li> </ul>

Falling when boarding or alighting a boat.	Medium	High	<ul style="list-style-type: none"> <li>● Assistance is provided as required by Fuze Ecoteer staff and boat crew. All boats will stop at the jetty, in shallow water or on the beach depending on the situation.</li> <li>● Always listen to the boatman's instruction. Passengers are advised to wait until the boat has stopped moving and been secured.</li> <li>● Passengers are advised to alight one at a time to avoid excess pitch of the boat which could cause a trip or fall hazard.</li> <li>● Passengers are advised to use the ladder, if available to enter the boat to avoid falling back into the water.</li> </ul>
Seasickness	Medium	Medium	<ul style="list-style-type: none"> <li>● Boat travel is an unavoidable aspect of the Perhentian program. Passengers are advised of this prior to booking. If a volunteer suffers from motion sickness, they are advised to bring adequate supplies of medication for the duration of their stay.</li> <li>● This advice is stated in the project's Know Before You Go Guide.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP02: Accommodation-based Risk Assessment and Management.

### Perhentian Turtle Project, PMRS House & Volunteer House

Risk:	Likelihood:	Severity:	Control Measures:
Fire arising in rooms or communal areas.	Low	Very High	<ul style="list-style-type: none"> <li>● Staff and volunteers are not permitted to smoke in the house.</li> <li>● Always place the mosquito coils in a holder before lighting them and regularly discard the leftover ash.</li> <li>● Fire procedures are explained upon arrival at the house. Staff undergo fire safety training and there will always be someone living in the house who knows how to use a fire extinguisher.</li> <li>● Fire extinguishers should be easily accessible and positioned within the house.</li> </ul>
Hazards in rooms.	Low	High	<ul style="list-style-type: none"> <li>● The Project Manager is responsible for the daily upkeep of both houses and ensuring any hazards, such as loose cables etc, are managed.</li> <li>● Interns and volunteers are required to inform project manager with any possible hazards in both houses, as mentioned in the Code of Conduct.</li> </ul>
Illness caused by low level of hygiene.	Low	Medium	<ul style="list-style-type: none"> <li>● The building is fairly open and situated close to the jungle providing a risk of small mammals being attracted to food.</li> <li>● Everyone should take care not to leave food items unsealed. Everyone is briefed upon arrival about the food storage in PTP &amp; PMRS House.</li> </ul>
Illness caused by lack of provision for dietary requirements.	Low	High	<ul style="list-style-type: none"> <li>● Interns &amp; volunteers are asked to advise the project manager of any dietary requirements prior to commencing their employment or program.</li> <li>● Staff &amp; volunteers are advised that access to specialty foods in the village is extremely limited and items should be sourced from the mainland.</li> </ul>
Young children getting lost.	Low	High	<ul style="list-style-type: none"> <li>● Volunteer parents are advised to stay with their children at all times within the village as the alleyways can be quite confusing, it is quite easy to get lost. However, the village is small and the community friendly. It is judged that they would be very helpful in the event of a child becoming lost.</li> </ul>

			<ul style="list-style-type: none"> <li>● Fuze Ecoteer staff accompany volunteers on project activities and are a short distance away at night time. They are always contactable by telephone.</li> </ul>
Injuries to young children.	Low	High	<ul style="list-style-type: none"> <li>● Volunteer parents are advised to monitor their children. Due to building works and rubbish issues in the village, hazards exist with materials left on the ground.</li> <li>● Fuze Ecoteer staff will offer advice regarding this upon arrival in the village on a guided tour.</li> </ul>
Theft.	Low	Medium	<ul style="list-style-type: none"> <li>● As with any low-income community, tourists are at risk of having personal items stolen. Thankfully this element within the community is small and predominantly attributed to a group of Young Beach Boys with which the project does not associate with and do not regularly frequent the village.</li> <li>● Staff &amp; volunteers are advised to leave valuables in the safe under the care of the Project Manager.</li> <li>● Staff &amp; volunteers are advised not to leave belongings unattended especially in communal spaces, even in the house because there are always children playing in the house.</li> </ul>
Attack/burglary from local people.	Low	Very High	<ul style="list-style-type: none"> <li>● The village hosts a friendly community who have reacted positively to having the project present and the work done with the local school. Isolated incidents have occurred in the past on the tourist area of Long Beach where bars and Young Beach Boys are located.</li> <li>● There has been one incident of a burglary at the house but that was due to an open bathroom door. We have since reinforced the need for keeping the doors locked at night.</li> <li>● There is a known issue of the misuse of drugs in the village. Staff &amp; volunteers are told in a safety briefing about the signs of drug misuse and never to be alone at night in the village or in the jungle.</li> <li>● Accommodation is secure and a Fuze Ecoteer staff member is always on call.</li> </ul>
Incidents arising from cultural differences.	Medium	High	<ul style="list-style-type: none"> <li>● The village is strictly Muslim and as such staff &amp; volunteers may encounter customs that they do not fully understand or find difficult. Likewise, staff &amp; volunteer customs that may seem harmless can cause offence to the community. It is important that staff &amp; volunteers are briefed on local customs before staying in the village and reiterated upon first arrival. FE staff must ensure customs, such as dress codes, are adhered to.</li> <li>● Volunteers should be made aware that they are to raise any queries with Fuze Ecoteer staff.</li> </ul>

Slippery surfaces	Medium	Low – Medium	<ul style="list-style-type: none"> <li>● Volunteers are being briefed and warned by signs about slippery surfaces in the house, such as the toilet or the stairs outside, as the ground surface is likely to be wet and slippery.</li> <li>● A first aid kit is stored at the project house and at least one FE staff member on duty will be first aid-trained.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

### EP03: General Environment-based Risk Assessment and Management.

#### Village

Risk:	Likelihood:	Severity:	Control Measures:
Trips and falls.	Low	Medium High	<ul style="list-style-type: none"> <li>• Due to uneven grounds, a high level of building work and issues with the disposal of rubbish in the village, there are various materials to be found on the ground at any one time. Staff &amp; volunteers are expected to manage this risk independently with advice given during the safety briefing to take extra care when walking at night time.</li> <li>• A first aid kit is stored at the Turtle Project &amp; PMRS house and at least one FE staff will be first aid trained.</li> </ul>
Slippery Surfaces.	Medium	High	<ul style="list-style-type: none"> <li>• Volunteers are advised in the safety briefings to take care when using the jetties or any other places such as toilets as the ground surface is likely to be wet and slippery, especially after rain.</li> <li>• A first aid kit is stored at the project house and at least one FE staff will be first aid-trained.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>• All Risk Assessments to be reassessed annually by management team.</li> </ul>



### Other Resorts

Risk:	Likelihood:	Severity:	Control Measures:
Trips and falls.	Low	Medium High	<ul style="list-style-type: none"> <li>Tripping hazards may exist at other resorts due to building works, items left on floors, cables etc. FE cannot manage risks at other resorts. Staff and volunteers are expected to manage this risk independently with advice given during the safety briefing to take extra care when walking in the dark.</li> <li>Volunteers below 18 years old are not allowed to go to other resorts without FE staff who will carry a first aid kit.</li> </ul>
Slippery Surfaces.	Medium	High	<ul style="list-style-type: none"> <li>Staff and volunteers are advised in the safety briefings to take care when using the jetties as the ground surface is likely to be wet and slippery.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by the management team.</li> </ul>

### Around The Islands

Risk:	Likelihood:	Severity:	Control Measures:
Injury or danger encountered when walking around the island.	Medium	High	<ul style="list-style-type: none"> <li>Staff &amp; volunteers will find the paths between bays and resorts are basic trails with exposed roots and uneven surfaces. There is rubbish such as broken glass or metals on the beach. Caution is advised during the safety briefing particularly at night and after rain. Volunteers are expected to manage this risk independently.</li> <li>Volunteers below 18 years old are not allowed to go to other resorts without FE staff who will carry a first aid kit.</li> </ul>
Slippery surfaces.	Medium	High	<ul style="list-style-type: none"> <li>Trails are likely to be slippery after rain or when running alongside the sea. Caution is advised during the safety briefing particularly at night. Staff &amp; volunteers are expected to manage this risk independently.</li> <li>Volunteers below 18 years old are not allowed to go to other resorts without FE staff who will carry a first aid kit.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> </ul>

			<ul style="list-style-type: none"> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>
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## EP04: Water Activity based Risk Assessment and Management.

### Snorkelling

Risk:	Likelihood:	Severity:	Control Measures:
Drowning.	Low	Very High	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are required to take safety devices when snorkelling and to never snorkel alone. Water confidence is given upon arrival. On the 1<sup>st</sup> week of the program staff &amp; volunteers must wear lifejackets whilst their ability is assessed.</li> <li>● At least one member of Fuze Ecoteer staff will have life saving qualifications. Fuze Ecoteer staff will receive in-house sea rescue training from a qualified instructor.</li> <li>● Volunteer student groups must wear life jackets at all times. Fuze Ecoteer Staff will carry additional floatation devices in order to help in the case of an incident.</li> </ul>
Falling from the boat on the way to snorkel sites.	Low	High	<ul style="list-style-type: none"> <li>● All passengers are required to remain seated during transit.</li> <li>● The boat is equipped with long ropes and flotation devices to aid in recovery.</li> <li>● Staff &amp; volunteers are encouraged to wear a life jacket on a boat.</li> </ul>
Being hit by a boat whilst snorkelling.	Low	Very High	<ul style="list-style-type: none"> <li>● Ensure that all staff and volunteers stop snorkelling every couple of minutes to check their location.</li> <li>● Safety procedures are explained during water confidence.</li> <li>● Staff &amp; volunteers are not to snorkel in any boat channel and are required to swim within the buoy lines if available. If no buoy lines are available (applies to all snorkel sites without buoy lines such as Turtle Bay), staff &amp; volunteers need to stay close together near the boat and need to be aware of the boats around and one staff member will carry a floator diving buoys for safety and also so boats can see the group.</li> </ul>

Suffering from cramp.	Medium	High	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are advised not to snorkel immediately after travelling for extended periods and to stretch out their legs before entering the water.</li> <li>● Staff volunteers are taught how to deal with a cramp should it occur.</li> <li>● Staff &amp; volunteers are advised not to go snorkelling within an hour of eating.</li> <li>● Staff &amp; volunteers are advised to wear life jackets during snorkel tour.</li> <li>● Fuze Ecoteer staff are required to take one floatation device for every 2 people when snorkelling.</li> </ul>
Becoming lost whilst snorkelling.	Low	High	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are not to snorkel on their own and to stay within 30m off the shore.</li> <li>● Staff &amp; volunteers must stay in designated snorkel areas whilst on a snorkel tour.</li> <li>● Staff/volunteers are assigned a buddy whom they need to stay together with throughout the whole snorkel tour.</li> <li>● Fuze Ecoteer staff and boatmen that have signed contracts with us regularly check on everyone's safety.</li> </ul>
Injury caused by touching coral.	Medium	Medium	<ul style="list-style-type: none"> <li>● The majority of snorkel sites are over coral and can involve shallow swims. Touching, scraping against or standing on coral can result in painful cuts that are easily infected. Staff &amp; volunteers are instructed in safe and responsible snorkelling techniques during water confidence and on site introductions.</li> <li>● If injuries occur, first aid treatment will be provided. Staff &amp; volunteers will be admitted to the clinic, if serious.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

## Diving

FE refer divers or anyone who wants to take a course to the dive centre at Sea Voice Diver, Anti Gravity Divers and PMRS. The following assessment represents their dive centre's practice.

Risk:	Likelihood:	Severity:	Control Measures:
Tanks falling off dive benches.	Low	Medium	<ul style="list-style-type: none"> <li>Ensure all staff and volunteers are instructed to lay tanks down onto dive benches or into tanks racks at all times when they are not holding the tank.</li> </ul>
Falling over whilst getting into & out of dive boat with equipment.	Medium	High	<ul style="list-style-type: none"> <li>Make sure that all staff and volunteers hand equipment to boat handlers with care and make sure it is secure in the boat. Staff and volunteers should take care when getting into and out of dive boats at the jetty to avoid falling or slipping.</li> </ul>
Falling out of dive boat whilst going to dive sites.	Low	High	<ul style="list-style-type: none"> <li>Ensure all staff and volunteers are instructed not to wear weight belts on dive boats, and stay seated at all times. Make sure staff and volunteers are instructed to sit evenly on each side of the boat.</li> </ul>
Hitting head when backwards roll into water at the dive sites or tipping over boat on entry.	Low	Medium	<ul style="list-style-type: none"> <li>Ensure all staff and volunteers are told to check behind them and let the boat leader know that they are going into the water. Ensure the divers enter the water in an agreed order so that the boat is not unbalanced. Ensure divers are aware of the possibility of the boat hitting their head when hanging onto the mooring rope.</li> </ul>
Decompression sickness.	Low	Very High	<ul style="list-style-type: none"> <li>Ensure all diving procedures are followed completely. Ensure 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.</li> </ul>
Being hit by boat on surfacing.	Low	Very High	<ul style="list-style-type: none"> <li>Surface slowly with arm raised and slowly turning to check for risks. FE dive leader to carry and surface with an SMB on EVERY dive. Boatmen are trained to recognise and locate divers whilst using an SMB.</li> </ul>
Being left in water at the end of a dive.	Low	Medium	<ul style="list-style-type: none"> <li>Ensure all dive boat leaders operate the boat roster system for each dive. Make certain that the dive safety procedures are audited every month throughout the season. Ensure that all pairs of divers have an SMB with them for inflation at the end of the dive. Ensure that the boat roster is completed every dive.</li> <li>Boatmen to be properly trained in boat diving procedures, including lost diver procedure.</li> </ul>

Becoming separated from buddy.	Low	Medium	<ul style="list-style-type: none"> <li>• Ensure that all staff and volunteers are trained in the lost diver procedure. Trainee divers are in a maximum group size of 8 with a Dive Instructor and a Dive Master in the water with them at all times.</li> <li>• Qualified divers are groups of 6 or less with a Dive Master in the water with them.</li> </ul>
Being carried away by currents or to greater depths by down currents.	Low	High	<ul style="list-style-type: none"> <li>• Ensure that risk assessments are completed for each dive site and used by all staff in dive planning. Ensure that the Dive Leader checks the conditions on the day before the group enter the water.</li> <li>• Boatmen to keep eyes on divers bubbles to know their location AT ALL TIMES.</li> </ul>
Barotraumas	Medium	Medium	<ul style="list-style-type: none"> <li>• All staff and volunteers informed of risk of barotraumas when diving and the safe.</li> <li>• 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.</li> <li>• Ensure all volunteers and staff are informed of the serious danger of breath holding whilst scuba diving.</li> <li>• NO FREE DIVING within 8 hours after a dive, and while snorkelling after a dive to not exceed 2 metres depth</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>• All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Kayaking

Risk:	Likelihood:	Severity:	Control Measures:
Drowning.	Low	Very High	<ul style="list-style-type: none"> <li>• Staff &amp; volunteers are required to wear life jackets when using kayaks.</li> <li>• The beach should always be in sight.</li> </ul>

			<ul style="list-style-type: none"> <li>● FE staff or facility staff should be made aware that volunteers are using the kayak. Safety briefings are given prior to use.</li> </ul>
Capsizing the kayak.	Medium	Medium	<ul style="list-style-type: none"> <li>● Precautions for staff &amp; volunteers are as above.</li> <li>● Kayaks are of the sit on top type. Staff &amp; volunteers are not to try to recover a sinking kayak but return to shore.</li> <li>● FE staff arrange capsized kayak recovery with divers if its safe or realistic to do so.</li> </ul>
Becoming lost whilst kayaking.	Low	High	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are not permitted to take kayaks out of sight of a beach.</li> <li>● Staff &amp; volunteers must inform other/Fuze Ecoteer staff of any kayaking activities and a return time.</li> <li>● Staff &amp; volunteers are advised to bring a working mobile phone, just in case of any emergencies.</li> </ul>
Being carried away by currents.	Low	Medium	<ul style="list-style-type: none"> <li>● Within the permitted area currents are not considered strong enough to carry away a kayak against effort. Kayaks are to be used by 2 passengers at all times.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Swimming

Risk:	Likelihood:	Severity:	Control Measures:
Drowning.	Low	Very High	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are required to take at least 1 floatation device between 2 people when swimming and to never swim alone. Water confidence is given upon arrival.</li> <li>● For volunteers, on the 1<sup>st</sup> week of their program, volunteers must wear life jackets whilst their ability is assessed.</li> <li>● At least one member of Fuze Ecoteer staff will have life saving qualifications.</li> <li>● Volunteer student groups must wear life jackets at all times. Fuze Ecoteer Staff must always be present and will carry additional floatation devices to help in the case of an incident.</li> </ul>

Being carried away by currents.	Low	High	<ul style="list-style-type: none"> <li>There are occasional strong currents in swimming areas around the island. Fuze Ecoteer staff will assess the risk based on the conditions at the individual location.</li> </ul>
Injury from touching coral.	Medium	Medium	<ul style="list-style-type: none"> <li>The coral reefs surrounding the Perhentians are close to the shore. Swimmers are advised as to where the sandy areas are as scraping against the coral can cause painful cuts.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Jetty Jumping

Risk	Likelihood	Severity	Control measurements
Drowning	Low	High	<ul style="list-style-type: none"> <li>Fuze Ecoteer staff will be present at all times in the water with a floatation device before and during jetty jump.</li> <li>Additional Fuze Ecoteer staff will be available on the jetty for any emergencies.</li> <li>A check on the weather and sea condition is conducted prior to jetty jump. Jetty jump is only allowed if the weather and sea conditions permit.</li> </ul>
Cuts / minor injuries	Medium	Low	<ul style="list-style-type: none"> <li>During jetty jump, minor injuries can occur due to sharp barnacles growing on the jetty. It requires more force to climb onto the jetty during low tide, increasing the risk of touching barnacles. Fuze Ecoteer staff will be available at all times to assist volunteers while climbing back onto the jetty. However, during low tide staff &amp; volunteers are advised to swim back to the beach. Low tide can be recognized on the jetty if the water level does not reach the jetty black step.</li> </ul>
Being carried away by currents.	Low	High	<ul style="list-style-type: none"> <li>Fuze Ecoteer staff will be present at all times in the water with a floatation device before and during jetty jump.</li> <li>Additional Fuze Ecoteer staff will be available on the jetty for any emergencies.</li> </ul>

			<ul style="list-style-type: none"> <li>● Fuze Ecoteer staff will assess the risk based on the conditions before the jetty jump such as current and tide. Jetty jump is only allowed if the weather and sea conditions permit.</li> </ul>
Slippery surfaces.	Medium	High	<ul style="list-style-type: none"> <li>● Volunteers are advised in the safety briefings to take care when using the jetties as the ground surface is likely to be wet and slippery.</li> <li>● A first aid kit is stored at the Turtle Project &amp; PMRS house and at least one member of FE staff will be first aid trained.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Conducting Underwater Surveys

Risk:	Likelihood:	Severity:	Control Measures:
Drowning.	Low	Very High	<ul style="list-style-type: none"> <li>● Conducting snorkel surveys involves skin diving to examine the coral. Volunteers are not to undertake this activity if they are not confident in doing so.</li> <li>● Fuze Ecoteer staff will be present when conducting the survey and will ensure safety equipment is available such as floatation devices, ropes on boats and kayaks.</li> </ul>
Injury from touching coral.	Medium	Medium	<ul style="list-style-type: none"> <li>● Conducting reef surveys involves swimming around and close to coral. Touching, scraping against or standing on coral can result in painful cuts that are easily infected. Staff &amp; volunteers are instructed in safe and responsible snorkelling techniques during water confidence and on site introductions.</li> <li>● If injuries occur, first aid treatment will be provided. Staff &amp; volunteers will be admitted to the clinic, if serious.</li> </ul>
Being carried away by currents.	Low	High	<ul style="list-style-type: none"> <li>● Survey sites are close to shore and surveys are not undertaken when currents are assessed to be dangerous or in bad weather.</li> </ul>
Ear injuries caused by skin diving.	Low	Medium	<ul style="list-style-type: none"> <li>● Staff &amp; volunteers are instructed in how to equalise when skin diving and advised not to dive deeper than is comfortable or to push themselves in anyway.</li> </ul>

Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>• All Risk Assessments to be reassessed annually by management team.</li> </ul>
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## EP05: Jungle Activity based Risk Assessment and Management.

### Trekking in the forest not on the paved path

Risk:	Likelihood:	Severity:	Control Measures:
Staff/Volunteers poorly equipped or with a lack of fitness to survive the forest conditions	Low	Medium	<ul style="list-style-type: none"> <li>• FE staff accompany volunteers on their first trek into the forest and assess levels of fitness. 1<sup>st</sup> Aid kits are taken and volunteers are advised to wear appropriate clothing and take plenty of water.</li> <li>• Jungle trekking is possible from the PEEPHouse. Only very strong walkers will be allowed to go jungle trekking here. First aid kits and mobile phones will always be carried and briefs about the dangers to be given. Jungle treks will not start later than midday. Volunteers and students are not allowed jungle trekking without FE Staff.</li> <li>• FE staff should not trek alone. Experienced FE staff must inform other staff if he/she is trekking alone.</li> <li>• Avoid trekking from 12pm to 2pm as it is the hottest part of the day.</li> </ul>
Heavy rain causes rivers to rise, landslides or tree fall with consequent threat to volunteers and staff	Low	High	<ul style="list-style-type: none"> <li>• The jungle trek has steep slopes as such no treks will be allowed 24 hours after any rain.</li> <li>• Rain is more frequent after 3pm so no trek shall depart later than midday.</li> </ul>
Medical problem for volunteer or staff member	Medium	High	<ul style="list-style-type: none"> <li>• A first aid kit will be carried by FE staff member.</li> <li>• A mobile phone with full battery and credit will be carried by FE staff member. A mobile reception can be received along the entirety of the jungle trek.</li> </ul>

Need for emergency evacuation	Low	High	<ul style="list-style-type: none"> <li>● In the event of an emergency, volunteers must return to the village with assistance, if required. Evacuation would then take place from the village.</li> <li>● If evacuation is needed from the forest, a Fuze Ecoteer staff member will stay with the group and another will go to get help. If a boat or the sea can be heard they will go towards the sound. If nothing can be heard they should travel down the slope.</li> </ul>
Staff/Volunteer becoming lost in the forest and unable to Find the village / resort	Low	High	<ul style="list-style-type: none"> <li>● An FE staff member must always be present. The trek is a simple up and down trek and boats can regularly be heard. If the team become lost they must head down slope taking a suitable path.</li> <li>● The Fuze Ecoteer staff member will take some money in case the group reaches the sea and are not at the village. The team will then call a water taxi.</li> </ul>
River crossings	Low	Low	<ul style="list-style-type: none"> <li>● There are only small streams in the Perhentian Islands. The flow is often slight, even after a storm, the river levels do not reach waist height.</li> </ul>
Not being able to see resulting in a fall	Low	High	<ul style="list-style-type: none"> <li>● Treks must start no later than midday so loss of light should not be an issue. However a torch will be taken with the Fuze Ecoteer staff member in case it gets dark before the team arrive back.</li> </ul>
Minor injuries.	Medium	High	<ul style="list-style-type: none"> <li>● As with any trekking activity there is always a moderate risk of sprains or small falls. Volunteers are given a safety briefing before trekking and required to wear suitable footwear.</li> </ul>
Reactions or injuries from plants.	Medium	Medium	<ul style="list-style-type: none"> <li>● Volunteers &amp; staff are required to inform staff/management staff of any known allergies. There are various plants present along the trail and in areas around the islands that have spiky leaves and can cause scratches and cuts. Volunteers are advised to wear long trousers and shoes when trekking.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP06: Research-based Risk Assessment and Management.

### General Activities

Risk:	Likelihood:	Severity:	Control Measures:
Incidents arising from cultural differences.	Low	Medium	<ul style="list-style-type: none"> <li>● The project is based in a village that is strictly Muslim and for groups at a dive resort that has a very western feel. Staff &amp; volunteers are given a cultural briefing before going into the village with regards to such issues as appropriate clothing. Staff, volunteers and students must wear suitable clothing outside of their village accommodation. For example females to be covered from the shoulders to their knees.</li> <li>● The villagers are well accustomed to having tourists on the islands and it is very unlikely that immediate negative reactions would arise from an isolated incident. However, a number of occurrences would have an effect on the acceptance of FE's long-term work in the community.</li> </ul>
Mugging or violence.	Low	High	<ul style="list-style-type: none"> <li>● Previous staff &amp; volunteers have had no incidents in this regard, however there have been isolated incidents involving tourists on the backpacker area of Long Beach in the past. The programs do not include night times spent at this location though it has always been a popular destination for nights off.</li> <li>● Staff &amp; volunteers are given a safety briefing and advised to exercise the same level of caution they would when accessing city drinking venues.</li> <li>● Staff &amp; volunteers may find they encounter locals they have identified as poachers or otherwise against the ethos of the project. It is important that staff &amp; volunteers do not enter arguments with such people as this will increase the risk of violence.</li> <li>● Staff, volunteers and students are not allowed to be alone after dark.</li> </ul>

Theft.	Low	Medium	<ul style="list-style-type: none"> <li>As with any low-income community, tourists are at risk of having personal items stolen. Thankfully this element within the community is small and predominantly attributed to the young beach boys scene with which the project does not associate and do not regularly frequent the village.</li> <li>Staff &amp; volunteers are advised to leave valuables in a safe at the project house in the care of the Project Manager. Belongings are stored in lockers at project houses or volunteer house.</li> <li>Staff &amp; volunteers are advised not to leave belongings unattended particularly when on beaches such as Long Beach.</li> <li>Volunteers and students are not allowed to be alone after dark.</li> </ul>
Volunteers becoming lost.	Low	Low	<ul style="list-style-type: none"> <li>The beaches, resorts and village are situated on small islands and linked by single tracks. The village has some winding alleyways but it is easy to return to the seafront in the event of losing your way. Staff &amp; volunteers are provided with contact numbers for any FE staff.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Turtle Photo Identification

Risk	Likelihood	Severity	Control Measures
Heat stroke and sunburn.	High	Low - High	<ul style="list-style-type: none"> <li>Ensure that all volunteers and staff are aware of the need to drink 3 litres of water a day. The way to monitor whether adequate fluid is being taken is to monitor the volume and colour of urine.</li> <li>All volunteers and staff to be told of significant risk of sunburn particularly when travelling on boats and to wear hats, sit in the shade and use high factor sun block (30+) for the duration of their stay.</li> <li>All staff &amp; volunteers to be made aware of the risk of heat stroke through long exposure in the sun before acclimatization.</li> </ul>
Boat Accidents	Low	Medium	<ul style="list-style-type: none"> <li>Always work in a group of at least 2 people and bring a floating device and/or life jacket.</li> </ul>

			When one person dives underwater, one person must stay at the surface and look out for boats.
Drowning	Low	High	<ul style="list-style-type: none"> <li>Volunteers are required to take safety devices when snorkelling and to never snorkel alone. Water confidence is given upon arrival.</li> <li>At least one member of Fuze Ecoteer staff will have life saving qualifications. Fuze Ecoteer staff will receive in-house sea rescue training from a qualified instructor.</li> </ul>

## EP07: Accommodation based Risk Assessment and Management

### House Renovations or Basic Construction Work.

Risk:	Likelihood:	Severity:	Control Measures:
Heat stroke and sunburn.	High	Low - High	<ul style="list-style-type: none"> <li>Ensure that all volunteers and staff are aware of the need to drink 3 litres of water a day. The way to monitor whether adequate fluid is being taken is to monitor the volume and colour of urine.</li> <li>All volunteers and staff to be told of significant risk of sunburn particularly when travelling on boats and to wear hats, sit in the shade and use high factor sun block (30+) for the duration of their stay.</li> <li>All staff &amp; volunteers to be made aware of the risk of heat stroke through long exposure in the sun before acclimatization.</li> </ul>
Stomach Illness	Low	Medium	<ul style="list-style-type: none"> <li>Ensure all staff and volunteers drink from filtered water. The tap water is suitable to clean teeth and shower as it comes from the mainland. Ensure that personal hygiene issues are emphasized in briefings to avoid the spread of infectious diseases amongst a group of people living in close proximity.</li> <li>Project Manager to regularly check the standard of hygiene in volunteer areas.</li> </ul>
Dehydration.	Medium	Low-High	<ul style="list-style-type: none"> <li>Volunteers and staff were briefed on the importance of drinking plenty of water. A minimum of 2 litres a day. The way to monitor whether adequate fluid is being taken is to monitor the volume and colour of urine.</li> <li>Anyone suffering from stomach upsets to be instructed to double their water intake and take re-hydration salts. Extreme cases to be evacuated to the clinic for observation.</li> </ul>

Injuries from machete use.	Low	Medium - High	<ul style="list-style-type: none"> <li>Volunteers are not permitted to use machetes, unless under the supervision of Fuze Ecoteer staff.</li> </ul>
Other major cuts.	Low	High	<ul style="list-style-type: none"> <li>In the instance of a major cut first aid trained staff will administer care and take the patient to the village clinic or Jerteh Hospital.</li> </ul>
A fall resulting in broken bones.	Low	High	<ul style="list-style-type: none"> <li>Volunteers are allowed to use ladders only under the supervision of Fuze Ecoteer staff. If someone uses a ladder there must be another person to hold the ladder to prevent it from slipping.</li> <li>In the instance of a broken bone first aid trained staff will administer care and take the patient to the village clinic or Jerteh Hospital.</li> </ul>
Mosquitoes (Dengue and Malaria)	Low	Very High	<ul style="list-style-type: none"> <li>Ensure that all staff and volunteers travelling in Malaysia are told in advance to bring adequate supplies any medication that they needed and that they start taking them at least one week before joining the expedition.</li> <li>All staff and volunteers to be informed that anti malaria medication is only partially effective against Malaria and totally ineffective against Dengue fever and that the first line of defense should be to cover up from about 5pm onwards, wear insect repellent and sleep under a mosquito net.</li> <li>There is no history of Malaria in the Perhentian Islands but there are cases of dengue</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP08: Community Activities-based Risk Assessment and Management

### Malay Dinners and Kuih Making Sessions

Risk:	Likelihood:	Severity:	Control Measures:
Incidents arising from cultural differences.	Medium	Medium	<ul style="list-style-type: none"> <li>Staff &amp; volunteers may find themselves confronted with differences they find disturbing based on their own values. Staff &amp; volunteers are encouraged to raise concerns with a Fuze</li> </ul>

			Ecoteer staff member rather than direct with the host family as direct confrontation could hinder the long-term work Fuze Ecoteer aims to continue with the villagers.
Abuse of children	Low	High	<ul style="list-style-type: none"> <li>Volunteers and students are not allowed to be alone with any children.</li> </ul>
Etiquette and dress	Medium	Low	<ul style="list-style-type: none"> <li>All volunteers and students will be briefed about proper etiquette and suitable dress. A member of Fuze Ecoteer staff or long term volunteer to be present at each Malay Dinner to ensure proper etiquette and dress is followed.</li> </ul>
Illness caused by low level of hygiene.	Low	Medium	<ul style="list-style-type: none"> <li>The villagers eat traditionally with their right hand. Hands need to be clean and washed during activities where food is being touched by hands. Fuze Ecoteer staff members brief the volunteers.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP09: Night-time Activities-based Risk Assessment and Management.

### Turtle patrol at Tiga Ruang.

Risk	Likelihood	Severity	Control Measures
Incidents arising from work and cultural differences.	Medium	Medium	<ul style="list-style-type: none"> <li>Fuze Ecoteer works closely with locals from Department of Fisheries on nesting beaches. Staff &amp; volunteers may find themselves confronted with differences they find disturbing based on their own values. Staff &amp; volunteers are encouraged to raise concerns with an Fuze Ecoteer staff member rather than direct with locals as direct confrontation could hinder the long-term work Fuze Ecoteer aims to continue with the Department of Fisheries.</li> </ul>
Attacks by Poachers.	Low	Very High	<ul style="list-style-type: none"> <li>There have been no instances of attacks by poachers previously while assisting Fisheries staff at Tiga Ruang.</li> <li>However it is recognised that there is a potential risk. As such volunteers are instructed to follow a set protocol when they identify any boats coming ashore.</li> </ul>

			<ul style="list-style-type: none"> <li>Volunteers are not to approach poachers at any time and must alert Fuze Ecoteer staff and/or Fisheries staff who will assess the situation and follow the protocol accordingly.</li> </ul>
Conflicts with Tourists	Medium	Low	<ul style="list-style-type: none"> <li>At times tourists are brought to Tiga Ruang to watch turtles lay eggs. Always inform Fuze Ecoteer staff and/or Fisheries staff of any incoming boats and tourists who will assess the situation and follow a set protocol.</li> <li>To minimise conflicts and develop understanding among the tourists of turtle conservation work, volunteers are advised to brief tourists on practising eco-friendly ways of watching turtles, only after getting permission from Fuze Ecoteer staff and/or Fisheries staff, as well as the boatman.</li> </ul>
Minor injuries.	Low	Medium	<ul style="list-style-type: none"> <li>The hourly patrol involves walking the length of the beach on which obstacles and hazards will have been removed previously. However, as it is night time, staff &amp; volunteers should be vigilant of any hazard that may wash ashore. A torch is always available in the kit bag. Volunteers are informed to seek assistance from Fuze Ecoteer staff for injuries or medical issues.</li> </ul>
Medical Emergencies.	Low	Very High	<ul style="list-style-type: none"> <li>In the event of an emergency at night medically trained staff are to be alerted, both Fuze Ecoteer and resort staff. Training procedures are then to be followed. The mainland hospital at Jerteh is to be contacted and transports for the patient arranged by the resort boats of ambulance boat to the village clinic on Perhentian Kecil or Jerteh.</li> </ul>
Illness caused by low level of hygiene.	Low	Medium	<ul style="list-style-type: none"> <li>Any food brought to Tiga Ruang must be kept in a plastic container. Unattended food attracts animals like rats and cockroaches.</li> <li>Staff and volunteers are advised to wash their hands before eating and after each patrol.</li> <li>All food must be kept in a plastic container and food waste must be discarded into the bins.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Project Manager to audit Risk Assessments quarterly and submit report to HR and Director. This report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP10: Beach-based activities Risk Assessment and Management

### Awareness Campaign / Beach Clean Up

Risk	Likelihood	Severity	Control measurements
Cuts / minor injuries	Medium	Low	<ul style="list-style-type: none"> <li>• During beach clean ups, staff volunteers are advised to wear shoes or sandals to reduce the risk of cuts from washed up corals, rocks or other washed up materials like broken glass.</li> <li>• Staff &amp; volunteers are also advised to wear gloves to reduce the risks of cuts on the hands while picking up the rubbish.</li> </ul>
Incidents arising from cultural differences.	Medium	Medium	<ul style="list-style-type: none"> <li>• Staff &amp; volunteers may find themselves confronted with differences they find disturbing based on their own values. Staff &amp; volunteers are encouraged to raise concerns with a Fuze Ecoteer staff member rather than direct with the resort owners as direct confrontation could hinder the long-term work Fuze Ecoteer aims to continue with the villagers.</li> <li>• Volunteers are being briefed about the appropriate behaviour during awareness campaigns. Although volunteers are working outside of the village, they must be aware they are still being seen as Fuze Ecoteer representatives since they are wearing Fuze Ecoteer t-shirts.</li> </ul>
Illness caused by low level of hygiene.	Low	Medium	<ul style="list-style-type: none"> <li>• The collected rubbish might contain a lot of bacteria. Staff &amp; volunteers are advised to wear gloves to reduce health risks.</li> <li>• Staff &amp; volunteers are advised to use antibacterial hand soap when returned to the house.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> </ul>

## EP11: Animal Interaction-based Risk Assessment and Management.

### Land-based animals

Risk:	Likelihood:	Severity:	Control Measures:
Snake bites.	Low	High	<ul style="list-style-type: none"> <li>• Ensure that all volunteers and staff entering the forest wear long baggy trousers and long sleeved shirts.</li> <li>• Ensure no volunteer or staff member approaches any snakes. Ensure only approved staff with training are allowed to empty pitfall traps.</li> <li>• There is one known venomous snake living in the Perhentians, the Waglers Pit Viper. Volunteers and students to be shown a picture of the snake and how to distinguish a viper from other species of snake. If bitten the wound should be bandaged and immediate medical attention sought from the local clinic.</li> </ul>
Small mammal or bat bite.	Low	High	<ul style="list-style-type: none"> <li>• The handling of small mammals is not a regular part of the program. Volunteers are not permitted to handle small mammals. Any volunteer or staff member bitten by a small mammal or bat to be evacuated to Jerteh where they will be given booster rabies injections.</li> </ul>
Attack from monkeys.	Low	High	<ul style="list-style-type: none"> <li>• There are macaques around the island and they are known to be aggressive. However, they tend to be attracted by food and are unlikely to approach hiking groups. Any Macaques seen should be avoided and must be reported to Fuze Ecoteer or resort staff immediately.</li> </ul>
Bees and Ants.	Medium	Medium	<ul style="list-style-type: none"> <li>• Trek leaders to identify any major hives and ensure trails avoid these areas.</li> <li>• An Epi Pen is available in the clinic at the Perhentian village.</li> </ul>
Scorpions and Frogs.	Low	Medium	<ul style="list-style-type: none"> <li>• Ensure all staff &amp; volunteers and staff check their shoes before putting them on.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>• All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Marine-based animals.

Risk:	Likelihood:	Severity:	Control Measures:
Handling of turtles.	Low	Medium	<ul style="list-style-type: none"> <li>Turtles have extremely strong front flippers that they will slap quickly if panicked or when burying their nest. They can also deliver powerful bites. Handling of turtles for measuring or tagging is only to be undertaken by trained Fuze Ecoteer staff.</li> </ul>
Bites from fish.	Low	Medium	<ul style="list-style-type: none"> <li>The majority of the fish life in Perhentian waters is harmless. There are a few species that will bite defensively. Fuze Ecoteer staff will deliver a briefing regarding this prior to volunteers accessing the water.</li> </ul>
Jellyfish stings, stinging plankton and sea anemones.	Medium	Medium	<ul style="list-style-type: none"> <li>There are species of jellyfish, plankton and sea anemones that will deliver stings as part of their defence mechanism. These stings have occurred more frequently in the past and cause irritation rather than pain and need to take precaution to avoid these areas.</li> <li>In the event of a sting, Fuze Ecoteer staff or resort staff will assist with relief.</li> </ul>
Sea Urchins.	Low	Medium	<ul style="list-style-type: none"> <li>At some sites around the islands sea urchins pose a risk to people taking part in water activities.</li> <li>If a sea urchin is stood on their spines can easily penetrate the skin and break off causing painful wounds.</li> <li>The risk is low, as sea urchins will usually congregate around rocks rather than in the shallow areas where people enter the water.</li> <li>Volunteers are advised not to handle any animals.</li> </ul>
Stone fish.	Low	Very High	<ul style="list-style-type: none"> <li>Stone fish can be encountered whilst diving at certain sites. Along the back of the fish are 13 spines which if trodden on, penetrate the skin of the victim and envenomate causing serious pain, injury or occasionally death. The likelihood of a sting proving fatal is very low.</li> <li>Within hours of each group arriving on the island, all volunteers and staff are given a briefing on the dangerous marine organisms present on the island in which the Stonefish is one.</li> <li>It is made very clear that the sting from this animal can be deadly, especially as we have limited medical facilities on the island. Photographs are included in this presentation, so that students are aware of what they look like and they are also discussed in the mandatory Coral Reef Ecology lectures.</li> </ul>
Rays.	Low	Very High	<ul style="list-style-type: none"> <li>Some species of ray have barbs on their tails that they can whip up to stab and break off as</li> </ul>

			<p>a defensive mechanism. These barbs contain venom capable of causing severe pain and potentially resulting death if pierced the abdomen or heart.</p> <ul style="list-style-type: none"> <li>● Divers are advised not to position themselves over a ray when observing the animal.</li> <li>● All volunteers and staff are given a lecture on the dangerous marine organisms.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP10: Medical-based Risk Assessment and Management.

### Allergies.

Risk:	Likelihood:	Severity:	Control Measures:
Mild to moderate allergic reaction.	Medium	Medium	<ul style="list-style-type: none"> <li>Staff &amp; volunteers are required to inform higher management/staff project of known allergies. It is quite possible that volunteers will encounter plants that provoke an allergic reaction. Fuze Ecoteer staff ensure adequate stocks of antihistamines and hydrocortisone creams are held at both sites.</li> </ul>
Anaphylactic shock.	Low	Very High	<ul style="list-style-type: none"> <li>A bite or sting from any toxic animals, even those that would not normally be dangerous, can cause anaphylactic shock. Roughly 10% of the population is considered 'at risk' from anaphylactic shock. As many as one in a hundred cases of anaphylactic shock can result in death where treatment is not administered quickly.</li> <li>Within hours of each group arriving on the island, all volunteers and staff are given a lecture on the dangerous marine organisms found in the area and are told not to handle or aggravate them. When large numbers of stinging 'jelly-fish' are in the area all water based activities are stopped. All staff are fully briefed on how to identify anaphylactic shock and how to treat it if necessary.</li> <li>Supplies of oxygen are held at each resort and at the medical clinic &amp; at PMRS house. Although the likelihood of a life threatening anaphylactic shock occurring is very small, we consider it to be the most serious risk posed by marine animals.</li> <li>Volunteers with known allergies such as peanut are required to bring an adrenaline pen.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Minor Injuries and Illness.

Risk:	Likelihood:	Severity:	Control Measures:
Infection of wounds.	Medium	Low - Medium	<ul style="list-style-type: none"> <li>• Ensure all cuts, however insignificant, are cleaned with clean water and antiseptic is applied. All volunteers and staff to be made aware that there is a greatly increased risk of secondary infections in this climate and with frequent immersion in the sea. Assess daily and if the wound appears to becoming infected then report it to the Project Manager</li> <li>• Ensure that volunteers and staff are informed that scratched mosquito bites are a common source of secondary infection.</li> <li>• Ensure staff and volunteers are informed of the dangers of walking around barefooted.</li> </ul>
Heat stroke and sunburn.	High	Low - High	<ul style="list-style-type: none"> <li>• Ensure that all volunteers and staff are aware of the need to drink 3 litres of water a day. The way to monitor whether adequate fluid is being taken is to monitor the volume and colour of urine. All volunteers and staff to be told of significant risk of sunburn particularly when travelling on boats and to wear hats, sit in the shade and use high factor sun block (SPF30+) for the duration of their stay. All volunteers to be made aware of the risk of heat stroke through long exposure in the sun before acclimatisation.</li> </ul>
Ear infections	High	Medium - High	<ul style="list-style-type: none"> <li>• Staff and volunteers to be made aware of greatly increased risk of ear infections with in-water activities. All staff and volunteers to be advised to wash out ears at the end of each dive with freshwater and keep them dry.</li> <li>• All instances of ear problems, however minor, should be reported promptly to the Project Manager. All students should be made aware of the dangers of diving with ear infections and should stop in-water activities when symptoms first begin and not return until advised by the Project Manager.</li> </ul>
Stomach Illness	Low	Medium	<ul style="list-style-type: none"> <li>• Ensure all staff and volunteers drink filtered water. Water filtration system to be maintained by resorts and mainland supply used when in village.</li> <li>• Ensure that personal hygiene issues are emphasised in briefings to avoid the spread of infectious diseases amongst a group of people living in close proximity. Project Leader to regularly check the standard of hygiene in volunteer areas.</li> </ul>
Dehydration.	Medium	Low-High	<ul style="list-style-type: none"> <li>• Volunteers and staff briefed on the importance of drinking plenty of water. A minimum of 3 litres a day. The way to monitor whether adequate fluid is being taken is to monitor the volume and colour of urine. Anyone suffering for stomach upsets to be instructed to</li> </ul>

			double their water intake and take re-hydration salts. Extreme cases to be evacuated to Perhentian Kecil to be kept in the clinic for observation.
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>• Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>• Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>• Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>• All Risk Assessments to be reassessed annually by management team.</li> </ul>

### Major Injuries and Illness.

Risk:	Likelihood:	Severity:	Control Measures:
Injuries from machete use.	Low	Medium - High	<ul style="list-style-type: none"> <li>• Volunteers are only permitted to use machetes under the supervision of Fuze Ecoteer Staff.</li> </ul>
Other major cuts.	Low	High	<ul style="list-style-type: none"> <li>• In the instance of a major cut first aid trained staff will administer care and arrange transport to the Perhentian clinic or Jerteh Hospital. There are qualified first aiders on site FE Staff plus the medical clinic where fully qualified nurses are present.</li> </ul>
A fall resulting in broken bones.	Low	High	<ul style="list-style-type: none"> <li>• In the instance of a broken bone first aid trained staff will administer care and arrange transport to the Perhentian village clinic or Jerteh Hospital. There are qualified first aiders on site FE Staff plus the medical clinic where fully qualified nurses are present.</li> </ul>
Mosquitoes (Dengue and Malaria)	Low	Very High	<ul style="list-style-type: none"> <li>• Ensure that all staff and volunteers travelling in Malaysia are told in advance to bring adequate supplies of malaria medication and that they start taking them at least one week before joining the expedition. All staff and volunteers to be informed that anti malaria medication is only partially effective against malaria and totally ineffective against Dengue Fever and that the first line of defense should be to cover up from about 5pm onwards, wear insect repellent and sleep under a mosquito net.</li> <li>• There is no history of Malaria on the Perhentian Islands but there are cases of dengue.</li> </ul>
Tropical illnesses.	Low	Medium - High	<ul style="list-style-type: none"> <li>• All volunteers and staff are advised to see their doctor prior to their departure and make sure that they have all the vaccinations as advised by the doctor.</li> <li>• There is no history of any tropical illnesses on Perhentian Islands.</li> </ul>

Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>
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### Emergencies and Evacuation.

Risk:	Likelihood:	Severity:	Control Measures:
Injuries requiring evacuation to mainland.	Low	Very High	<ul style="list-style-type: none"> <li>● Evacuation to the mainland is undertaken by a local boat or ambulance boat or marine park boat from the village clinic. The clinic will make arrangements of transfer from the clinic to either a clinic at Kuala Besut or Jerteh Hospital. The travel time by boat is around 45min and the travel from Kuala Besut to Jerteh is around 15min.</li> <li>● One Fuze Ecoteer staff is required to follow on the evacuation.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>● Safety briefings are given for new staff and at the beginning of the programme for volunteers.</li> <li>● Fuze Ecoteer staff must meet volunteers at the village jetty.</li> <li>● Monthly report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> <li>● All Risk Assessments to be reassessed annually by management team.</li> </ul>

## EP11: General Risk Assessment and Management.

Risk:	Likelihood:	Severity:	Control Measures:
Severe Weather.	High	Low - High	<ul style="list-style-type: none"> <li>Severe weather can hit the islands at any time but particularly at the start and end of the volunteer season. Weather forecasts are monitored and activities altered accordingly. Particular caution is taken with regards to water-based activities.</li> </ul>
Excessive drinking or inappropriate behaviour.	Medium	Medium	<ul style="list-style-type: none"> <li>The Perhentian Islands lie in a strict Muslim state and as such alcohol is frowned upon. Volunteers are not permitted to possess alcohol when in the village</li> <li>When in resorts that sell alcohol volunteers are asked to consider that they will often be in family environments and that they are seen as representatives of the Fuze Ecoteer project. Inappropriate behaviour will reflect on the project and as such is not accepted.</li> </ul>
Insufficient communication facilities.	Low	Medium	<ul style="list-style-type: none"> <li>Severe weather can occasionally mean phone signals around the islands are disrupted. This is only temporary and in the event of communication being down when an emergency occurs, a boat is dispatched to deliver the patient or raise assistance.</li> </ul>
Control measures not implemented	Low	High	<ul style="list-style-type: none"> <li>Safety briefings are given at the beginning of the programme.</li> <li>Project Leader to audit Risk assessments monthly and submit report to Director. This report to include instances of non-compliance, all accident reports, actions taken and reassessments made as required.</li> </ul>

