#### **Charles Hood:**

- BSAC Advanced Instructor, Advanced Diver, Mixed Gas Diver, Closed Circuit Rebreather Diver
- HSE Diver
- VHF Radio Certification
- MCA/RYA Commercial Powerboat and Sailing Skipper
- BSAC Diver Coxswain
- Offshore Yachtmaster theory
- DDRC First Aid certificate

Hazards	Control measures	Risk Level
General hazards		
Loading and unloading vehicles; carrying field equipment – Potential back or other injury	<ul> <li>Care will be taken when lifting.</li> <li>Equipment should be carried in several small loads to avoid excessive heavy lifting.</li> <li>Individuals should avoid twisting whilst lifting and should lift from the knees.</li> </ul>	Low
Slipping and falling on site – Potential to slip and fall on wet surfaces	<ul> <li>Appropriate clothing and footwear should be worn at all times.</li> <li>Look ahead at ground when walking around the water's edge and plan route carefully, checking for slip or trip hazards.</li> <li>Participants advised not to climb on rocks or walk on seaweed covered rocks or uneven surfaces.</li> </ul>	Low
Weather-related illness		
Exposure to hot temperatures and sun during activity - illness through sunburn or sunstroke.	<ul> <li>Sun cream and hats to be worn when working outside for prolonged periods.</li> <li>Cover up with lightweight clothing.</li> <li>Ensure plenty of fluids are drunk.</li> <li>Ensure adequate breaks from working outside in hot conditions are scheduled into the timings of the work programme.</li> </ul>	Low
Exposure to cold and/or wet weather during activity - Illness	<ul> <li>Wear suitable wet weather gear and thermal protection, including hats when not in the water.</li> <li>Ensure any wet clothing is removed.</li> <li>Ensure adequate breaks from working outside in cold conditions are scheduled into the timings of the work programme.</li> <li>Ensure adequate exposure suit is worn during survey.</li> </ul>	Low
Diving activities		
Strong Currents Low visibility Entanglement by monofilament line and /or discarded nets Injury / entanglement from underwater debris	<ul> <li>Check tidal current data for the area.</li> <li>Observe visibility before entering water.</li> <li>Divers to consider validation of the dive.</li> <li>Divers to carry torches and stray line if visibility is low.</li> <li>Divers to ensure they carry a knife and it is in easy reach.</li> <li>Divers to be aware of the potential risk</li> <li>Abandon dive if dangerous debris encountered.</li> <li>Do not dive if visibility too poor to detect debris.</li> </ul>	Low
Work equipment - Equipment failure Near Drowning Caution of using cylinders containing compressed air Contaminated air Danger from vessel's propeller Boat traffic Loss of weightbelt on dive	<ul> <li>Ensure equipment is in good working order and routinely serviced.</li> <li>Ensure that when drysuits are worn they are fully zipped up.</li> <li>Ensure BCDs are worn during the dive.</li> <li>Ensure equipment is regularly serviced.</li> <li>Ensure cylinders are in test.</li> <li>Ensure cylinders are handled with care and stowed securely on vessel</li> <li>Ensure cylinders are only filled by qualified personnel. Ensure compressors are regularly serviced.</li> <li>Ensure vessel is out of gear or the engine is off before diving commences.</li> <li>Inform Falmouth Coastguard when working. Diving vessel the International Flag 'Alpha' when divers are in the water. Boat handler to keep a watch on any approaching traffic. If any vessels do not change course, they are to be initially contacted on VHF Channel 16.</li> <li>Ensure buckle is secure.</li> </ul>	Low

Hazards	Control measures	Risk Level
Human Injuries from divers rolling off boat on top of other divers. Hitting head on underside of boat when surfacing. Losing contact with survey vessel and divers whilst on the surface Separation from standby diver whilst on dive Running out of air Cuts/grazes Barotrauma Decompression Illness (DCI). Burst Lung Nitrogen narcosis	<ul> <li>Ensure the water surface is clear before entering the water.</li> <li>Ensure the surfacing drill procedure is undertaken i.e. Check the surface is clear on the ascent.</li> <li>Ensure diving is only permitted when surface visibility is good. Attach to shot and transects using stray lines. Divers to ascend up the shot. If contact with shot lost, then each diver should carry a delayed surface marker buoy and deploy when surfacing. If surface conditions deteriorate, consider recalling divers.</li> <li>Return to shot line. Communicate with surface. Continual monitoring of each diver from the surface (and to each other with dive comms.).</li> <li>Ensure equipment is regularly maintained and in good working order. Divers to ensure they monitor air throughout dive and are aware of air requirements on surfacing. Divers to carry an independent air supply.</li> <li>Divers to take care when handling equipment underwater and diving on rocky / artificial substrates.</li> <li>Divers not to dive with a cold.</li> <li>Ensure divers are suitably qualified and know how to reduce risk of barotrauma.</li> <li>Good fitting equipment i.e. suit, mask.</li> <li>Ensure divers are fit to dive on the day of the diving operations. Ensure divers use a dive computer and are familiar with its operation. Avoid over exertion under water and after diving.</li> <li>Ensure divers are qualified. Adhere to ascent rates as per their computer.</li> <li>If divers feel the effects of narcosis they are to stop descent.</li> </ul>	Low
Activities on boat		
Working from boat Man overboard procedure	<ul> <li>Prior to starting any boat survey, the crew will be briefed on the man overboard procedure, so that everyone is aware of what to do:</li> <li>Shout 'man overboard' (MOB) to alert the crew.</li> <li>Skipper to instruct a crew member to point at the MOB at all times. This crew member will keep pointing at all times</li> <li>Skipper to instruct a crew member to call the coastguard (VHF Channel 16) the MOB situation, providing location.</li> <li>The skipper will move towards the MOB, carefully calculating current and wind speed to ensure they are not run over.</li> <li>Skipper will instruct a crew member to prepare a throw line</li> <li>Skipper will bring the boat alongside the MOB, with the boat pointing into the wind and the propeller stopped.</li> <li>A throw line will be thrown to the MOB, and the MOB will be carefully recovered.</li> <li>Coastguard will be notified that the MOB is recovered</li> <li>All fieldwork will cease. The MOB will be covered in a thermal blanket and all crew will return to shore.</li> </ul>	Medium
Working from boat Risk of accident or injury to other site users, or damage to boat or other vessels. Risk of falling overboard due to change in conditions or collision with floating or submerged debris: Man overboard , Injury, death (drowning)	<ul> <li>A VHF Radio will be accessible at all times and set to Channel 16 for the Coastguard.</li> <li>Boat skipper to be commercially qualified.</li> <li>Vessel crewed by competent crew knowledgeable and practised at man overboard drill.</li> <li>All crew to keep a good look out for debris at all times.</li> <li>Paddles on board in case propeller is damaged or engine trouble.</li> <li>Ensure a throw rope is readily available in case of emergency.</li> <li>150N inflate life jackets and dry suits (when necessary) when on the boat.</li> <li>VHF Radio and mobile phone accessible to call emergency services</li> <li>A first aid kit will be carried on board the boat at all times during operation.</li> </ul>	Medium

Hazards	Control measures	Risk Level
Working from boat Movement of crew to and from vessel to foreshore: Persons falling into water causing distress, injury or drowning	<ul> <li>Vessel will be moored fast along quayside or pontoon with ropes fore and aft (if applicable).</li> <li>Vessel will slowly move into foreshore, disembarkation will only occur when shallower than 60cm depth.</li> <li>One crew member will disembark at front of boat and hold the boat on the foreshore while other crew members disembark.</li> <li>The crew will first assess the condition of any tidal access points for trip/slip potential, before disembarkation.</li> </ul>	Medium
Working from boat Poor weather conditions cause unsafe environment to complete survey work: risk of capsize	<ul> <li>Before embarkation, check the weather forecast. If exceptionally high winds are forecast, diving will be postponed.</li> <li>If weather and/or sea-state conditions deteriorate during day, the skipper will assess whether it is still safe to remain at sea.</li> </ul>	Medium
Working from boat Exposure to cold and/or wet weather during activity: Hypothermia	<ul> <li>Wear appropriate thermal layers during cold conditions with waterproof jacket, Waterproof salopettes (or equivalent), waterproof gloves and hats.</li> <li>The Skipper will ask for updates about how cold crew are feeling during the day.</li> </ul>	Low
Working from boat Exposure to hot temperatures and sun during activity: Illness (sunstroke).	<ul> <li>Sun cream and hats to be worn during survey work.</li> <li>Sun glasses will be carried on board to be worn to minimise glare from water if required.</li> <li>Drinking water to be carried at all times to drink plenty of fluids during hot conditions.</li> </ul>	Low
Working from boat Infection from communicable diseases: Illness	<ul> <li>Hands will be washed thoroughly with anti-bacterial wash before eating food.</li> <li>All cuts will be covered.</li> <li>New cuts will be treated with antibacterial wipes after field work</li> <li>Consult their GP if they feel unwell after working on site, informing them of their exposure to river water.</li> </ul>	Medium
Working from boat Damage to vessel during berthing or survey leading to deflation: Man overboard, Injury, death (drowning)	<ul> <li>Use of fenders.</li> <li>Approach speed appropriate to river, sea, weather and traffic conditions.</li> <li>All sharp edges on clothing and equipment to be suitably protected when on vessel.</li> <li>Puncture repair and pump on board vessel for emergency repair.</li> </ul>	Medium
Working from boat Engine failure, fouled propeller due to foreign object entanglement: Stranding	<ul> <li>Carry a set of paddles on board at all times.</li> <li>Do not leave vessel unless safe to do so.</li> </ul>	Medium
Working from boat Running aground and getting stuck	<ul> <li>Be aware of state of tide.</li> <li>Have accurate admiralty charts (or equivalent) for the area to avoid underwater obstacles</li> <li>Nobody to leave boat whilst aground unless directed to do so by skipper.</li> <li>If in immediate danger call the coastguard using VHF Channel 16</li> </ul>	Medium
Working from boat Tripping over equipment while on the boat: Man overboard, injury, death drowning	<ul> <li>Ensure all equipment appropriately stored on boat, and there is adequate foot room</li> <li>Ensure all straps, ropes and cables are stored in a bucket or container</li> </ul>	Medium
Working from boat Fuel leakage: Pollution of waters threatening aquatic fauna and flora	<ul> <li>Care to be taken when fuelling.</li> <li>Only fuel necessary for trip to be carried on board.</li> </ul>	Low

Hazards	Control measures	Risk Level
Working from boat Contamination from e.g. oil, sewage while handling samples: Injury, infection	<ul> <li>Ensure antiseptic wipes are provided.</li> <li>Ensure relevant inoculations are up to date, where appropriate (see Vaccinations section above).</li> <li>Ensure any cuts and grazes are covered.</li> <li>Ensure gloves are worn.</li> </ul>	Low
Working from boat Fire on board the boat	<ul> <li>Two 2KG Powder ABC fire extinguisher will be carried on the boat at all times, in case of engine fire</li> <li>They will be stored under the two seats, furthest from the engine, in case of emergency</li> <li>All crew will be trained in how to use the fire extinguisher, in case of emergency</li> <li>Coastguard will be called when fire starts and when it is under control.</li> </ul>	Low
Other In-water activities		
Swimming with blue sharks Shark attack	<ul> <li>Listen to the shark briefing and ask for any clarification.</li> <li>Follow the directions of the skipper.</li> <li>Ensure you are fully covered in protective gear, including wet/dry suit, gloves, hood and boots.</li> <li>Avoid having anything white and/or shiny.</li> <li>Only enter the water with clear agreement from the skipper.</li> <li>Remain close (within 20 metres) of the boat.</li> <li>Keep arms and hands close to your body.</li> <li>Do not touch the sharks.</li> </ul>	Medium
Swimming with basking sharks Shark attack	<ul> <li>Listen to the shark briefing and ask for any clarification.</li> <li>Follow the directions of the skipper.</li> <li>Ensure you are fully covered in protective gear, including wet/dry suit, gloves, hood and boots.</li> <li>Only enter the water with clear agreement from the skipper.</li> <li>Remain close (within 50 metres) of the boat.</li> <li>Do not touch the sharks.</li> </ul>	Low
Swimming with seals Seal attack	<ul> <li>Listen to the seal briefing and ask for any clarification.</li> <li>Follow the directions of the skipper.</li> <li>Ensure you are fully covered in protective gear, including wet/dry suit, gloves, hood and boots.</li> <li>Only enter the water with clear agreement from the skipper.</li> <li>Remain close (within 50 metres) of the boat.</li> <li>Do not touch the seals.</li> </ul>	Low
Snorkelling and swimming Cold, stings and bites	<ul> <li>Listen to the general briefing and ask for any clarification.</li> <li>Follow the directions of the skipper.</li> <li>Ensure you are fully covered in protective gear, including wet/dry suit, gloves, hood and boots.</li> <li>Only enter the water with clear agreement from the skipper.</li> <li>Remain close (within 50 metres) of the boat.</li> <li>Do not touch any marine creatures.</li> </ul>	Low

What do the risk levels mean?		
Low	A minor injury/minor health effect may occur. Monitoring is required to ensure suitable and sufficient control measures are maintained.	
Medium	A significant injury may occur however the injured person would make a full recovery. Any health effects would be temporary. The effectiveness of control measures must be considered and implemented.	
High	A fatality, serious injury or a permanent health condition where a full recovery is not expected may occur. Work should be halted and access restricted until control measures have been implemented.	
For further information and guidance on risk levels, please see the Risk Assessment Policy		