

20 UNDERWATER EXPEDITIONS

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Marine and freshwater projects open up exciting opportunities for expeditions. With more than 70 per cent of the surface of the planet under water, the world is literally awash with opportunities for an interesting project. There are several additional risks associated with working near, on or under the water. However, careful planning, appropriate equipment and the correct skills and training, will keep your group safe, and you will gain a life experience that might not be achieved on a less ambitious terrestrial project. This chapter highlights some of the main points that you should consider, but should be read in conjunction with the other more detailed and specialist literature available.



Figure 20.1 *Diving in a marine reserve* (© RGS–IBG/Paul Kay)

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HEALTH AND SAFETY

Working near, on or under water, particularly if you intend to use boats and/or add SCUBA diving to your itinerary, is potentially hazardous and must not be undertaken lightly. It is vital that your expedition team includes personnel with appropriate qualifications and skills. All members of your team must be competent swimmers, sit a first-aid course and know how to rescue and resuscitate a drowning victim.

Common ailments

Common ailments that you might face will include all of those of land-based expeditions, including cuts, burns and grazes. Bear in mind that such minor injuries are less likely to heal quickly in humid or wet environments, and additional care should be taken to avoid them. In particular your feet are valuable and vulnerable – it is all too easy to think that walking barefoot down a beach is pleasant, but a nasty shell or coral cut to a foot can prevent you from diving for several days, and is painful to try to squeeze into a diving bootie. Take a good supply of an iodine-based solution (such as Betadine) which can be painted on to wounds on a regular basis – the paints are better than creams because they dry out a wet wound.

You should be particularly aware of sunburn and dehydration, especially when working from boats when a breeze might mask the heat of the sun. Extra care should be taken to drink enough water, particularly when diving. If you make contact with the coral on a dive, the resulting coral scrapes can take a long time to heal, but, again, prevention is the key – if your buoyancy is good you should not make contact with the coral anyway. Ear infections can be a real nuisance on diving projects, and ears should be dried carefully each time you get out of the water. It is also a good idea to speak to your GP about an appropriate ear-wash solution of alcohol and glycerol which some people like to use before and after dives, and a good supply of antifungal ear drops and topical creams. Good personal hygiene is the simplest way to stay healthy – and keeping your skin rinsed in fresh water where possible will help prevent problems.

There are some dangerous marine creatures out there, but you'll be lucky even to see one and are unlikely to be bothered by them. Sessile creatures, such as hydroids and corals, do sting if you make contact with them, as do jellyfish, and it is worth having small bottles of vinegar with you, especially on boats, to treat stings. Gloves should not really be worn because this encourages divers to touch things under water – it is far better not to touch the bottom at all. The best precaution against the stings of benthic fish is to wear shoes in the shallows. Do find out what creatures are in your area, and make sure that all members of the team are aware how to recognise them and treat any resulting injury.

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Use of boats

If you are working in a remote area and have to take your own boats with you, ensure that a suitable number of your expedition team are very experienced in using and handling them. They should hold a current qualification (e.g. Royal Yachting Association). Bear in mind that if you have only one or two members who are qualified, your work and indeed safety could be in jeopardy if they are both unwell and unable to drive the boats. Shipping inflatables is costly and you will need to take all spares with you. It might be more appropriate to hire local craft on arrival if you can confirm their availability in advance.

An alternative to driving the boats yourselves is to try to hire boats with local boatmen. This carries the massive benefits of local knowledge of the waters, weather patterns, tides and other factors, as well as supporting the local economy and potentially integrating yourself more into the local community. The potential downsides are that you never quite know what craft you will get until it turns up, and how safe these vessels will be, so ensure that you bring all additional safety equipment, including life jackets, with you. You should also be aware that local boatmen may never have worked with divers before, and may not know how to approach them in the water safely. Spend time in the first few days running through drills, such as person-overboard practices and radio communications.

You should always take a well-stocked “boat box” with you on every trip – use a waterproof case and check and replenish it after every trip. This should include fresh water and snacks, radio, your standard first-aid kit plus vinegar, sun creams, flares, boat and diving spares, diver-recall system (or agree an alternative signal such as knocking on the bottom of the boat) and any medication required by any member of your group.

Outboard engines can also be a problem – if shipping your own, ensure that you know how to maintain the engine and that you’ve got all spares with you, including propellers. If using local engines, try to find out what make they are before you depart and whether spares are available locally – if not, again take them with you, because they will always make good thank-you presents at your departure if you have been fortunate enough not to need them. Fuel and oil can be a issue in remote areas – do check out the supply before you leave and, when in-country, allocate one responsible member of your team to look after supply, storage and mixing of fuel.

Ensure that you know the correct anchoring and mooring systems for small boats, and that all members of the team know how to secure boats. Local anchors are often not the most environmentally friendly, so do bear this in mind in reef environments, and re-lay the anchor at the beginning of dives if it is resting on a fragile environment.

Finally, if all this talk of shipping or hiring gear is too much, you could consider using a hired-boat or charter vessel, where accommodation, storage, compressors, security, etc. may all be available. This may be a good option, but it is important that you get a written agreement that the skipper and crew understand the aims of your expedition, and your requirements for their boat. They might be unexcited by the

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Figure 20.2 *Ensure that all members of your team have the appropriate qualifications to dive* (© RGS-IBG/John Nortcliffe)

locations that you choose for research purposes, and put pressure on you to change your plans. Do also check whether there will be a smaller boat on board to take you into shallower locations, and pick up divers or kit if necessary.

SCUBA diving

This has its own associated risks, in addition to just working near the water. The most important factor when planning an expedition that includes diving, especially research diving, is that all members of your group are appropriately qualified and at least some of the team have had experience of diving in similar locations.

Not all divers are appropriately qualified to dive with each other, and the lowest level of qualification will not be suitable for an expedition environment. It is important that every member of the expedition gains a suitable level of qualification to ensure that they can dive with any other member of the team – when planning dive rotas the last thing you want to be trying to factor in is who is qualified to dive with whom, particularly if members of the team are unwell or unable to dive. There are a number of certifying agencies worldwide, and it can be confusing to work out the equivalent grades between these systems. The most common agencies that you will come across are the British Sub Aqua Club (BS-AC) and the Professional Association of Diving Instructors (PADI). Either of these organisations can give you advice on equivalent diving standards, as can the World Underwater Federation (CMAS).

Before you depart, and when in the field, it is a good idea to appoint one member

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of your team as a diving officer (DO) who takes responsibility for running all diving activities. He or she should be a well-qualified diver (ideally PADI Dive Master/BS-AC Advanced Diver) and should have had experience in remote diving and overseeing group diving activities. The DO should also take responsibility for recording all dive information, and a logbook including names of divers, dive details (time, depth, etc.) and any other additional information such as weather or diver illness. Such a log can be an invaluable history of a diver's activities should an incident occur that needs treatment or reporting to the authorities.

It is important to find out details of the local recompression facilities/chamber before you embark on a diving project, and decide whether the location is safe. All divers should be well aware of the very real dangers of nitrogen narcosis and decompression sickness, but even if you implement all safety measures it is still possible that you will need the use of a chamber. Ensure that you have a written and agreed plan for a casualty evacuation to a chamber if necessary, and that this has been agreed with the relevant local authorities (such as the chamber operators, coastguard if present, etc.) and your insurance company.

Do remember that, when you have additional tasks to complete underwater, such as collection of survey data, ordinary sport diving safety rules, such as monitoring your buddy, can get forgotten and, as such, research diving carries additional risks. All steps to prevent a diving incident should be taken, and specialist advice sought from experienced divers on how to dive more conservatively to reduce your risks. The following are key suggestions for additional safety precautions:

- Ideally no decompression diving and all dives limited to 30 m maximum. If dives outside these limits are required, they should be planned on an individual basis with additional risk assessments and safety precautions.
- All dives should be within tables if possible – computers should be used as a dive record but not used to calculate bottom time
- A minimum of one day in every seven should remain dive free – ideally one day in every four.
- Minimum of BS-AC Dive Leader/PADI Dive Master for all expedition divers – if the team has to be made up of less experienced divers then they should be limited to shallower, shorter dives.

If you are diving, it is important that you have a supply of oxygen for treatment of casualties, and at least two or more of your team are trained in its administration. Taking full oxygen cylinders with you on a flight can cause difficulties, and will need to be set up in advance. You need to check whether oxygen cylinders and fills are available from a reputable source before you depart – if so it might still be a good idea to take your own regulator and administration kit so that you can be confident that these are functioning correctly.

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Disability awareness

If one of your potential team has a physical disability, don't assume that you or they cannot join the team, because all members of teams on integrated expeditions tend to gain from the range of skills in the group. Many disabilities do not prevent diving safely and well and, indeed, many disabled people come into their own underwater. If you are concerned about any safety or logistical considerations, discuss this with the team member him- or herself and with his or her GP, or seek expert advice from BS-AC, PADI or one of the disabled diving organisations listed at the end of the chapter.

EQUIPMENT AND CLOTHING

It is important that you plan your equipment and clothing carefully to match your planned environment, particularly if you are unlikely to be able to purchase spares during your expedition. A reconnaissance visit to your planned location, or at least to talk to people with first-hand knowledge of the area, will help ensure that you take equipment that is suitable for the temperature and other conditions that you will encounter. Sun, sand and saltwater all take their toll on kit, as well as on you, so don't assume that the gear that has served you well in the UK is the best for your expedition.



Figure 20.3 *It is vital to ensure that all your diving equipment is properly maintained*
(© RGS-IBG/Tom Hooper)

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Diving kit

Your diving kit is your lifeline underwater, and it is vital that you purchase the best you can afford, that it is properly serviced and that you look after it in the field. Don't think that your kit is the best place to cut corners on your budget – remember that it is your life that you are dealing with. However, do bear in mind that high quality doesn't mean with all the bells and whistles – simple, well-constructed kit that is strong and easy to service is what you are after. Ensure that at least one member, preferably more, of your team is competent to service the kit that you have, and that you have tools and ample spares to do this. Consider sending several members of your team on training courses, specific to the brands of kit that you have. This goes for everything, from regulators, tanks, torches, compressors and boat engines right down to your basic kit. Where possible, try to have all members of the team with the same brand of kit, particularly your regulators, and that they are not too complex to be serviced easily. Take more "O" rings than you think you need, and carry them with you, along with spare mouthpieces, mask and fin straps, and lots of silicon jelly.

If you are intending to hire cylinders and weights in country, do check that the source is reputable, and that you have the booking in writing – you don't want to arrive and find someone else is using the tanks that you need. Do check the inspection test date and fill capacity on the neck of all the bottles. Again, this is better done on a recce visit to check that the tanks are well serviced.

If you are camping, take your kit out in strong bags or even pelican cases, and take padlocks to keep them secure. Waterproof boxes and/or waterproof kit bags (the best are the ones that roll over and seal at the top) are great for taking your gear on small boats, and may even float for a while in the unfortunate event of a capsize or loss overboard. Similarly, take a couple of cork key-savers to use on the boat, and waterproof bags for GPS or camera gear. If you have space, also take some *large* plastic bins that can be filled with fresh water to wash your kit, some big rolls of paper towels (like those used in laboratories) and a good store of cotton buds for cleaning out your gear.

A good tool kit is a vital part of your equipment, and should include metric and imperial spanners, Allen keys and sockets, plus any tools specific to your diving gear. Fill up any other space with lots and lots of plastic cable ties (various sizes), duct tape, self-amalgamating tape, Super-Glue, strip-seal and Ziplok plastic bags and some condoms (yes, seriously), because they're really useful for waterproofing kit or cuts on fingers. Do check out the local hardware stores and outboard dealers when you arrive in your host country, so that you know what you might be able to get if the situation arises.

In terms of diving suits, take what is appropriate for the water temperature – investing in the right dry/wet or Lycra suit for the conditions will make your trip a much more pleasant experience.

Once you have invested so much of your budget in your kit, you have an added

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incentive to really look after it. Establish an equipment officer, and/or have rotas for use and servicing of compressors, etc. Security will also be an issue, so make sure that things are as secure as possible in your base camp. Remember, your Mr or Mrs “Fix-it” may be the most valuable member of any team, but you cannot rely on them always being there, or indeed being well enough to fix something. It is better for you all to take responsibility and learn what you need to know before you go.

LOGISTICS

In addition to all the other logistical considerations of any terrestrial expedition that are included in earlier chapters of this manual, there are certain additional considerations for water-based expeditions.

Flights

Do check that your airline allows you to transport your diving kit (if necessary) and oxygen sets, and it is worth checking whether the airline gives an extra baggage allowance to divers.

Base camp

Your primary concern in planning your expedition base is the safety of you and your team members and your equipment and, with diving equipment, good storage and maintenance are vital to ensure this personal safety. Remember that sand, salt and kit do not mix well, and so you must try to create an environment that keeps these separate. If possible, use an existing field station (check out the RGS–IBG World Register of Field Centres on www.rgs.org/fieldcentres for a list that caters for marine research) or a building because these are much easier to keep clean. If you are intending to use tents, take at least one large tent with you, in addition to your mess tent, and have it dedicated solely to the storage of your equipment. Use plastic tubs outside the doors to rinse sand off feet, and ensure that shoes are left at the door. Security of your kit will be a problem in tents and, if you are really concerned, never leave your camp unattended.

Ensure that your cooking facilities and compressor are well separated, and that the compressor is up-wind of the rest of the camp and has a good supply of fresh air.

Your fresh water supply is vital, and a main concern in planning an expedition location. Do not underestimate the amount of water that you will need to drink, or wash both yourselves and your kit to ensure that things stay functioning well. If you need to transport the water, remember how heavy it is and the logistical considerations of this.

A secure anchorage for your boats is vital – seek local advice on this if possible.

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Communications

These are vital – within parties in the group and to the outside world to set in place your agreed emergency evacuation procedure. Do ensure that all your planned systems – radios, mobile phone, satellite phone, etc. – actually work before you rely on them. If using VHF radios, staff must be properly trained, professional and keep “chat” to a minimum. You will be very unpopular, and look amateurish, if you block up emergency channels with trivia. Also think about power supplies for batteries, and remember that batteries last a very short time in tropical, humid environments. It is good practice to have agreed report-back times if a team are off in a vehicle or boat. Make sure that such parties sign out before they depart, stating who has gone, where they have gone and when they expect to return. This is important so that you know when to start a search and rescue party if necessary.

Insurance

Finally, do ensure that your insurance company knows precisely what you are doing, and that your policy covers you and any third party for water-related activities. Many policies exclude not just diving but also use of small craft (remember, if your small boat causes a large yacht to run aground, you could be looking at a very large suit against you), and evacuation of a diving-related incident at low altitude, requiring a specific flight. You might consider taking out a separate policy specific to your diving and boating needs.

Permissions

Many countries require you to have permits to dive, drive boats or conduct research in their waters, so do check this out before you go to prevent a major upset on arrival in the country.

RESEARCH AIMS

If you are interested in running an underwater project, you have many options for a research aim – there is still so much to be discovered about our underwater world. With even fairly modest research aims, you can conduct a study that is genuinely useful to yourselves and your host nation, and this must be your starting objective.

Start by contacting the relevant parties in your host country – ask them whether you can run an expedition, what work they would like to undertake and what expertise they can provide. You may well find that there is a project on a plate just waiting for the people to run it. Most countries have research organisations and/or government departments responsible for their wetlands or coastal zone, and they will be able to put you in touch with the right people. If a web search doesn't raise an appropriate institution, try the British Council office in country. Most countries also have

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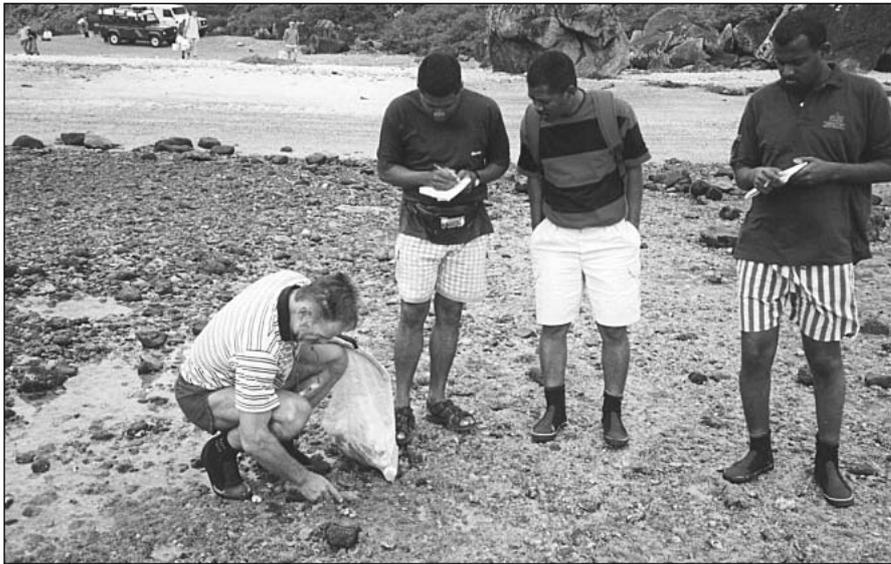


Figure 20.4 *Collecting algae on a rocky shore in Rodrigues, home to one of many marine research stations around the world that welcome visiting scientists* (© RGS-IBG/Jeremy Neech)

non-governmental organisations (NGOs) that often conduct environmental work. Finally, check out what other research work has been conducted in the area, perhaps by groups such as your own – via the RGS-IBG Expedition Advisory Centre. You may find that you are able to repeat field research conducted perhaps a few years before, and compare data to see how things have changed.

Your next task is to research your host country thoroughly, including any relevant background to your research area and especially the current environmental issues facing the area that you want to study. It is important that you don't just appear to be a tourist looking for a jolly – countries rich in natural resources and habitats are plagued by requests from individuals, well meaning or otherwise, and you need to demonstrate that you know what you are talking about.

Once you have identified a research topic, you need to work out the best way to conduct the research. Given the logistical, safety and cost implications of diving that have already been raised, even if you came into this wanting to run a piece of diving research, it is important to ask yourself whether this is the most efficient way of collecting data. Remember that a lot of your research will take place in very shallow water, which is often easier and safer to work in through snorkelling than diving. Don't feel you've failed if you choose to snorkel – remember you can always add a week or more recreational diving at the end, perhaps through a registered diving

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Figure 20.5
Snorkelling is a simple way to investigate the subtidal environment
(© RGS-IBG/Jeremy Neech)

school, once your work is complete, without all the hassle and responsibility of organising research diving.

The best rule of thumb for any research project is to keep your research objective and techniques as clear and as simple as possible. You want to be able to collect enough data to validate your statistical studies, and so that they can be repeated. Do conduct at least some data analysis on site, so that you can pick up inadequate or suspect data-sets. Try to avoid taking samples for analysis in UK – if this is a must then ensure that you know how to store and transport them, and that you have written permission to take samples out of the country and back into your home country. Make sure that you photograph species you want to identify when they are still fresh. Simple water quality analysis can be conducted on site, and training in the use of reagents or electronic sampling equipment can be carried out before you leave. Make sure that you have permission for transporting any chemicals or expensive-looking kit in and out of the country.

There are several bodies who can give you further advice; some of these are listed at the end of the chapter. Also use your own research institutions or universities – those with active marine science departments include Heriot-Watt, Liverpool, Newcastle, St Andrews, Stirling, Southampton, Portsmouth, Plymouth, University of Wales (Bangor and Swansea) and York.

Finally, take seriously your responsibility to thank those who helped you and to

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report back to your host nations and sponsors on your return. Who knows when you, or others, will need their help again!

FURTHER INFORMATION

Further reading

- Anon (1990) *Cave Diving: The cave diving group manual*. Castle Cary, Somerset: Mendip Press.
- British Sub-Aqua Club (1988) *BS-AC Sport Divers Manual*. London: Stanley Paul.
- English, S., Wilkinson, C. and Baker, V. (eds) (1997). *Survey Manual for Tropical Marine Resources*. Townsville, Australia: Australian Institute of Marine Sciences. www.aims.gov.au.
- Farley, M. and Royer, C. (1980) *SCUBA Equipment: Care and Maintenance*. Port Hueneme, CA: Marcor Publishing.
- Flemming, N.C. and Max, M. (eds) (1996) *Scientific Diving: A general code of practice*. Paris: UNESCO.
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- SPC/UNEP (1984) *Coral Reef Monitoring Handbook. Reference methods for marine pollution studies 25*, UNEP.
- Veron, J.E.N. (2000) *Corals of the World*, 3 vols. Townsville, Australia: Australian Institute of Marine Science.
- Wells, S. (ed.) (1988) *Coral Reefs of the World*, 3 vols. Cambridge: UNEP/IUCN.
- White, P. (1996) *Outboard Troubleshooter*. Arundel, W. Sussex: Fernhurst Books.

Useful addresses and websites

Note that most of these sites have links to others, and some good web searching will help you find out more specific information for your expedition.

- Australian Institute of Marine Sciences. www.aims.gov.au
- British Society of Underwater Photographers, 12 Coningsby Road, South Croydon, Surrey CR2 6QP.
Tel/fax: +44 20 8688 8168, email: b.pitkin@nhm.ac.uk, website: www.bsoup.org
- British Sub-Aqua Club, Telford's Quay, Ellesmere Port CH65 4FL. Tel: +44 151 350 6200, fax: +44 151 350 6215, email: postmaster@bsac.com, website: www.bsac.com
- Confederation Mondiale des Activites Sub-Aquatique (CMAS), The World Underwater Federation HQ (Rome). Tel: +396 3751 7478, website: www.cmas2000.org
- Coral Cay Conservation Ltd, The Tower, 125 High Street, Colliers Wood, London SW19 2JG. Tel: +44 870 750 0688, email: info@coralcay.org, website: www.coralcay.org
- Coral Reef Alliance, 2014 Shattuck Avenue, Berkeley, CA 94704 1117, USA. Email: info@coral.org, website: www.coral.org
- Cousteau Society Inc, 870 Greenbrier Circle, Suite 402, Chesapeake, Virginia 23320, USA. Email: cousteau@cousteausociety.org, website: www.cousteau.org/en
- Dive Rescue International, 201 North Link Lane, Fort Collins, CO 80524-2712, USA. Tel: +1 970 482 0887, fax: +1 970 482 0893, email: Training@DiveRescueIntl.com, website: www.diverescueintl.com/
- Divers Alert Network (DAN Europe) PO Box DAN, 64026 Roseto (Te), Italy. Tel: +39 085 893 0333, fax:

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- +39 085 893 0050, email: mail@daneurope.org, website: www.diversalertnetwork.org
 Diving Diseases Research Centre, The Hyperbaric Medical Centre, Tamar Science Park, Research Way, Plymouth, Devon PL6 8BU. Tel: +44 1752 209999, fax: +44 1752 209115, email: enquiries@ddrc.org, website www.ddrc.org
- Global Coral Reef Monitoring Network, c/o Australian Institute of Marine, Science, PMB No 3, Townsville, MC 4810, Australia. Website: www.coral.aoml.noaa.gov/gcrmn
- HSA (Handicapped Scuba Association) International, 1104 El Prado, San Clemente, CA 92672-4637. Tel: +1 949 498 4540, fax: +1 949 498 6128, website: www.hsascuba.com/
- International Association for Handicapped Divers (IAHD). Website: www.iahdeurope.org/iahdmain.html
- International Association of Nitrox and Technical Divers (IANTD United Kingdom, Ltd), 11 Telford Road, Ferdown Industrial Estates, Wimborne, Dorset BH21 7QP. Tel. +44 1202 632211, fax: + 44 1202 632319, email:iantduk@cs.com, website: http://www.iantd.com
- International Coral Reef Action Network (ICRAN), c/o UNEP World Conservation Monitoring Centre, 219 Huntingdon Road, Cambridge CB3 0DL. Tel: +44 1223 277314, email: icran@icran.org, website: www.icran.org
- Irish Underwater Council, 78a Patrick Street, Dun Laoghaire, Co Dublin, Eire. Website: www.scubaireland.com
- Marine Conservation Society, 9 Gloucester Road, Ross-on-Wye, Herefordshire HR9 5BU. Tel: +44 1989 566017, fax: +44 1989 567815, email info@mcsuk.org, website www.mcsuk.org
- National Maritime Museum, Romney Road, Greenwich, London SE10 9NF. Tel: +44 20 8858 4422, website: www.nmm.ac.uk
- Nautical Archaeological Society, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth, Hampshire PO4 9LD. Tel: +44 123 9281 8419, email: NAS@nasportsmouth.org.uk website: www.nasportsmouth.org.uk
- NOAA Coral Health and Monitoring Program (CHAMP). Website: www.coral.noaa.gov/
- PADI International Ltd, Unit 7, St Philips Central, Albert Road, Bristol BS2 0PD. Tel: +44 117 300 7234, fax: +44 117 971 0400, email: general@padi.co.uk, website: www.padi.com
- Reef Check Foundation, 1362 Hershey Hall 149607, University of California at Los Angeles, Los Angeles, CA 90095-1496, USA. Tel: +1 310 794 4985, fax: +1 310 825 0758, email: Rcheck@UCLA.edu, website: www.reefcheck.org
- Reef Conservation UK. Website: www.rcuk.org.uk
- RYA – Royal Yachting Association. Tel: +44 845 345 0400, website: www.rya.org.uk
- Scottish Sub-Aqua Club, Cockburn Centre, 40 Bogmoor Place, Glasgow, Lanarkshire G51 4TQ. Tel: +44 141 425 1021, fax: +44 141 425 1021, email: ab@hqssac.demon.co.uk, website: www.scotsac.com
- Society for Underwater Technology, 80 Coleman Street, London EC2R 5BJ. Tel: +44 20 7 382 2601, fax: +44 20 7 382 2684, website www.sut.org.uk
- Southampton Oceanography Centre, Waterfront Campus, University of Southampton, European Way, Southampton SO14 3ZH. Tel: +44 23 8059 6666, fax: +44 23 8059 6667 email: external-affairs@soc.soton.ac.uk, website: www.soc.soton.ac.uk
- Sub-Aqua Association, 26 Breckfield Road North, Liverpool, Merseyside L5 4NH. Tel: +44 151 287 1001, fax: +44 151 287 1026, email: admin@saa.org.uk, website: www.saa.org.uk
- UK Diving: the UK Divers Internet resource. Website: www.ukdiving.co.uk/ukdiving.htm
- UK Sports Diving Medical Committee. Website: www.uksdmc.co.uk
- UNEP World Conservation Monitoring, Centre, 219 Huntingdon Road, Cambridge CB3 0DL. Tel: +44 1223 277314/info tel: +44 1223 277722, email: infor@unep-wcmc.org, website: www.unep-wcmc.org
- US National Association for Cave Diving. Email: gm@safecavediving.org, website: www.safecavediving.com
- US National Association of Underwater Instructors (NAUI). Website: www.nauai.org