

## WELCOME TO STONEY COVE

Over the last 50 years, Stoney Cove has been transformed from a flooded quarry into a state-of-the-art dive centre. Above the water, the Underwaterworld Centre and The Dive School now lead the World in scubadiving, while beneath the water it's home to the largest inland shipwreck, **The Stanegarth**, and the oldest, **The Gresham**.

From entry-level to expert diver, Stoney Cove provides a good, safe diving environment for all, at any time of the year and in almost any weather.

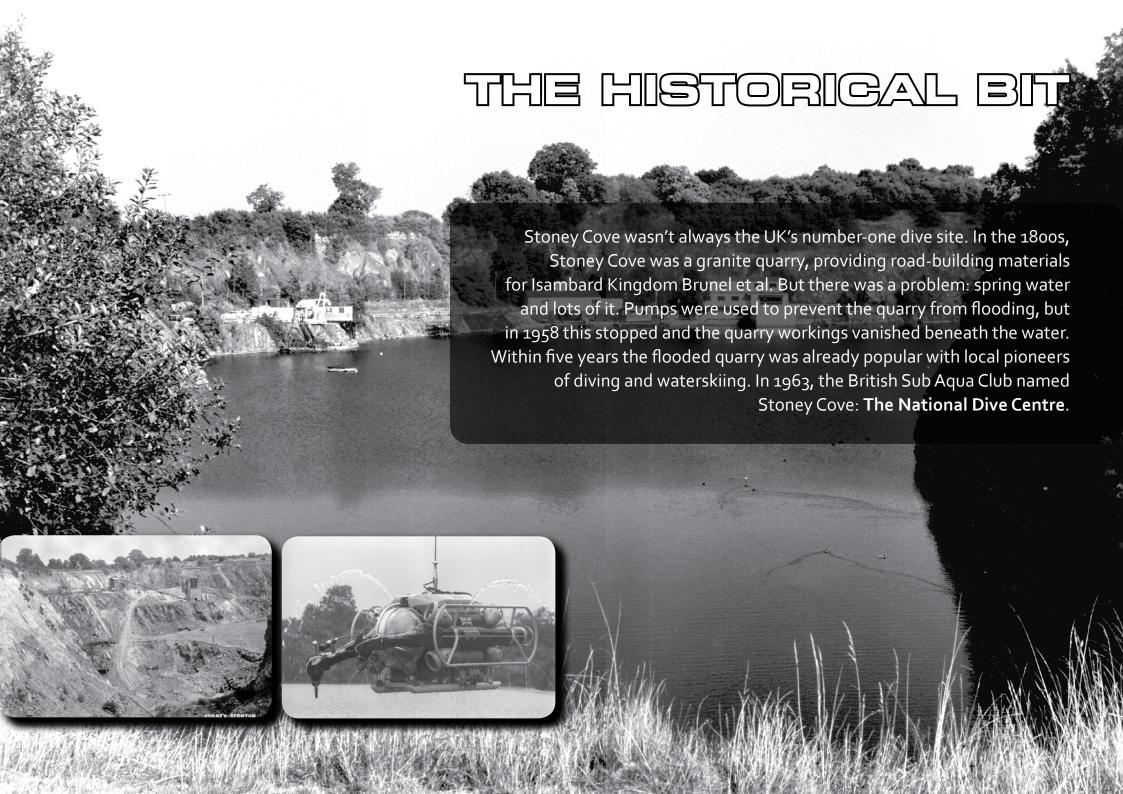
The Stoney Cove Online Divers' Guide is here to answer all your questions about the National Dive Centre, from advice on water visibility and wreck location to dive gear and probably the best bacon butty in Leicestershire.

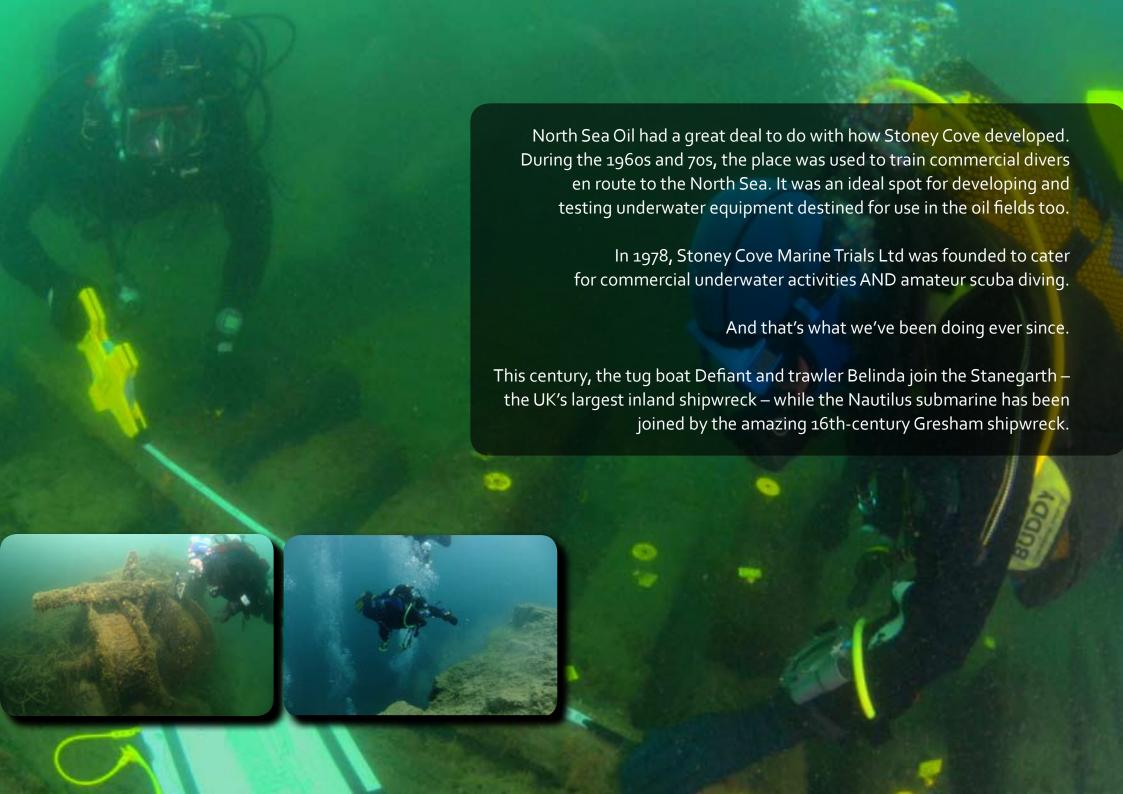
Dive safely!



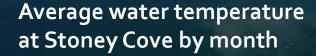


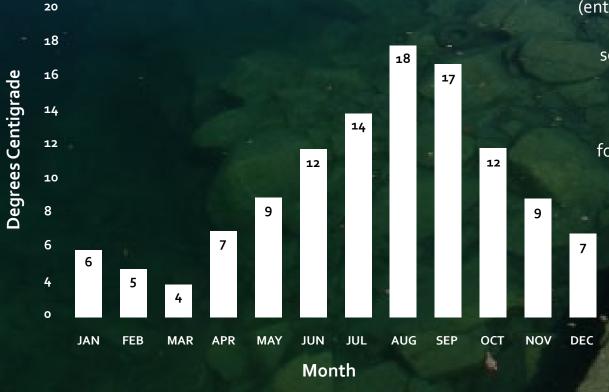
Stoney Cove • December 2012 • Fourth Edition





## DIVING FOR ALL SEASONS





There's an underwater world waiting to be discovered in Stoney Cove. The terraced dive areas are graded to reflect ability, with depths of 7 metres (entry level), 22 metres (intermediate) and 36 metres (expert). Don't be tempted to dive too deep too soon. There's plenty to see at all depths. It's vitally important to remember that the climate has a dramatic effect on diving conditions throughout the year. Before taking the plunge, consider the following useful information... and plan your dive.

In WINTER, the water in Stoney Cove is often very clear with up to 20 metres of visibility. Dives after an early-morning frost on a cloudless day can be stunning. But with clarity of vision comes chill. When the water temperature – displayed on the main notice board and on the Stoney Cove website (include hyperlink) – drops to 10°C or less, extra care needs to be taken to ensure that your regulators and other equipment are prepared for the cold-water environment. (Hyperlink cold water diving) To avoid the freeflow problems associated with freezing, do not store regulators in a cold garage or your car boot.

#### Please take care of your equipment. Your survival depends on it.

Beware – in extreme winter conditions, the water temperature can fall to a bone-chilling 3°C. It is essential that you keep warm with adequate underwater clothing, bringing plenty of warm, dry clothes to change into afterwards.

Land and air temperatures may rise in **SPRING**, but the water in Stoney Cove can take much longer to warm up. The water can remain as cold as 5°C – at all depths – until March or April. Take care – this isn't the Maldives.

Many divers haul their equipment out of hibernation in early spring, ready for their first dive of the year. We advise beginning with relatively shallow dives, building up diving fitness over consecutive visits rather than diving straight in at the deep end.

Beware of March winds. These can create waves, which can be tiring to swim through. For anyone planning a dive to the far side of the water, we suggest a surface swim to the furthest point, followed by a dive back to an exit point. We prefer not to use the rescue boat as a taxi.

As **SUMMER** approaches, the water temperature slowly rises. Fish emerge from their winter hideouts and start to spawn. Shoals of young roach appear and pike patrol the perimeter, taking advantage of an easy lunch. From late April until early May, water visibility can often extend to 15 metres vertically and 10 metres horizontally in less-dived areas of the lake.

In June, increased light and water temperature leads to an algal bloom – an important part of the Stoney Cove eco system. The algae give the water a green tinge, reducing visibility. Good buddy diving skills are very important in these conditions.

In **AUTUMN**, days become shorter and the air temperature drops at night, but the water retains much of the heat it has gained over the summer. In late September, surface temperatures as high as 18°C have been recorded, while 10°C as deep as 20 metres is not unusual. The algae die off and sink to the bottom of the lake, taking other sediments with them. This can result in crystal-clear water from the end of October until Christmas. It's a fabulous time of year to dive. At a depth of 20 metres, a diver may even be able to see the surface.

Beware of rockfalls at any time of year, but particularly in winter. Avoid diving at the base of any cliffs.

#### Diving at Stoney Cove

Stoney Cove is open for diving every day except Christmas Day, Boxing Day and New Year's Day. Details of opening times, entry fees and any special events are available at stoneycove.com or in the online Stoney Cove Newsletter. All diving projects other than instruction and general sports diving must be declared and agreed with the duty site manager.

## BENEATH THE SURFACE

Stoney Cove is the perfect venue for all divers. Each area is graded according to depth and difficulty, with enough fascinating objects (a bus, shipwrecks, tank, helicopter, sub, aircraft...) to keep the cast of The Abyss happy.



#### **ENTRY-LEVEL AREAS**

#### Maximum depth: 7 metres

Who: All divers (including trainee divers accompanied by an instructor or other suitably qualified diver Where: Adjacent to the car park, on the north side of Stoney Cove. Getting there: Accessible directly from the bus stop, Eddy's Quay. What's there: This 7-metre deep shelf provides excellent shallow-water diving in the warmest thermocline with bright light conditions. Look out for the following: (Numbers relate to the appropriated picture) (numbers in brackets refer to the map)

#### 1. Viscount aircraft cockpit Map ref 1

Interested in wreck exploration? This is the perfect place to start. The cockpit rests on the top of the roadway that leads down to deeper water. Submerged in Stoney Cove as part of a joint rescue services training exercise, it is now crewed by some of the larger fish – pike and perch can often be seen keeping watch on the flight deck.

#### 2. The Nautilus Map ref 2

Jules Verne's vision of an underwater realm is now a reality. The Nautilus – Captain Nemo's sub – rests patiently on the 7-metre shelf. Ten metres in length, with a menacing bow and a massive propeller at the stern, this unique piece of diver art – entirely constructed of steel – is well worth a dive.

#### 3. Archways beneath the pub Map ref 3

The archway and windows beneath the pub were originally built by Italian POWs, as part of the quarry stone-crushing plant. On a sunny day, light streams into the dark interior. Freshwater crayfish are often found here.

But please don't touch – handling may kill them.

#### 4. The Gresham Ship Map ref 26

The ship was an armed Elizabethan merchantman that sank to the bottom of the River Thames over 400 years ago. Its new home is Stoney Cove, where it has now become part of a unique underwater museum for visiting divers as well as a practical survey site for students of underwater archaeology.





#### INTERMEDIATE AREAS

#### Maximum depth: 22 metres

Who: Advanced trainees accompanied by instructors; newly qualified divers with experienced dive leaders; advanced divers. Where: There are two areas. The first and larger area is next to the 7-metre shelf (south of the pub), directly down the cliff face, while the second is at the western end – often called the Bowl or Top Basin. Getting there: The first area is accessible directly from the bus stop or Eddy's Quay. To reach the second area, go to the right from the bus stop. What's there: More than 60% of Stoney Cove is about 22 metres deep. These areas provide good intermediate-level diving with varied terrain and spectacular cliffs, with light levels ranging from good to dark. Here are a few of the many features you may see:

#### 4. The Wessex Map ref 4

The wreck of a Wessex helicopter sits close to the northern cliff face. Flown for just 650 hours, it was in immaculate condition before the rotor blades were detached and it was plunged in Stoney Cove. Souvenir hunters have plundered the helicopter, but it remains an excellent wreck to visit, particularly as an introduction to deeper diving.

#### 5. The Bus Map ref 5

The bus sits in a flat, silty area, 25 metres away from the edge of the cliff that drops down to the 36-metre area. Its large open window and skylights make the bus an excellent swim-through. (Look out for Rodney and Rodette!) Swim above the silt to prevent stirring it up and reducing visibility... Finding the bus is a navigational challenge. We've even been accused of moving it.

#### 6. The Monster Map ref unknown

Its exact whereabouts are unknown, but Stoney Cove's resident beast, Nessie, can be easily identified by its green skin, yellow spots and Mona Lisa grin.

#### 7. The Galleon Map ref 7

The remains of the Galleon lay in 5 metres of water on a ledge in the far south-east corner of Stoney Cove. This reproduction of an ancient wreck, constructed by the Midland Underwater Archaeological Group from 17th-century timbers was convincing, but time has worn it down. Look out for the canon.











#### 8. Aircraft Wreck and Wooden Boat Map ref 8 & 14

These are superb wreck dives in the area known as The Bowl – a 20-metre-deep shelf in the south-west corner of Stoney Cove. The first sign you'll see of the small Partenavia aircraft (8) is its tail, which touches the cliff face at a depth of 18 metres. Nearby, the wreck of a wooden boat (14) rests on a steep slope 20 metres south.

#### 15. Stanegarth Map ref 15

The Stanegarth arrived at Stoney Cove in June 2000. It's a steam-powered tug, built in 1910, which makes it older than the Titanic. Lying roughly east-west, with her anchor and chains played out towards the shore and perfectly upright, Stanegarth is one of Stoney Cove's most popular diving features and the UK's most dived wreck. To dive her is a joy, with access to the chart room, wheelhouse, engine room and aft cabin. A buoy attached towards her stern marks her position.

#### 16. FV432 APC Tracked Armoured Personnel Carrier Map ref 16

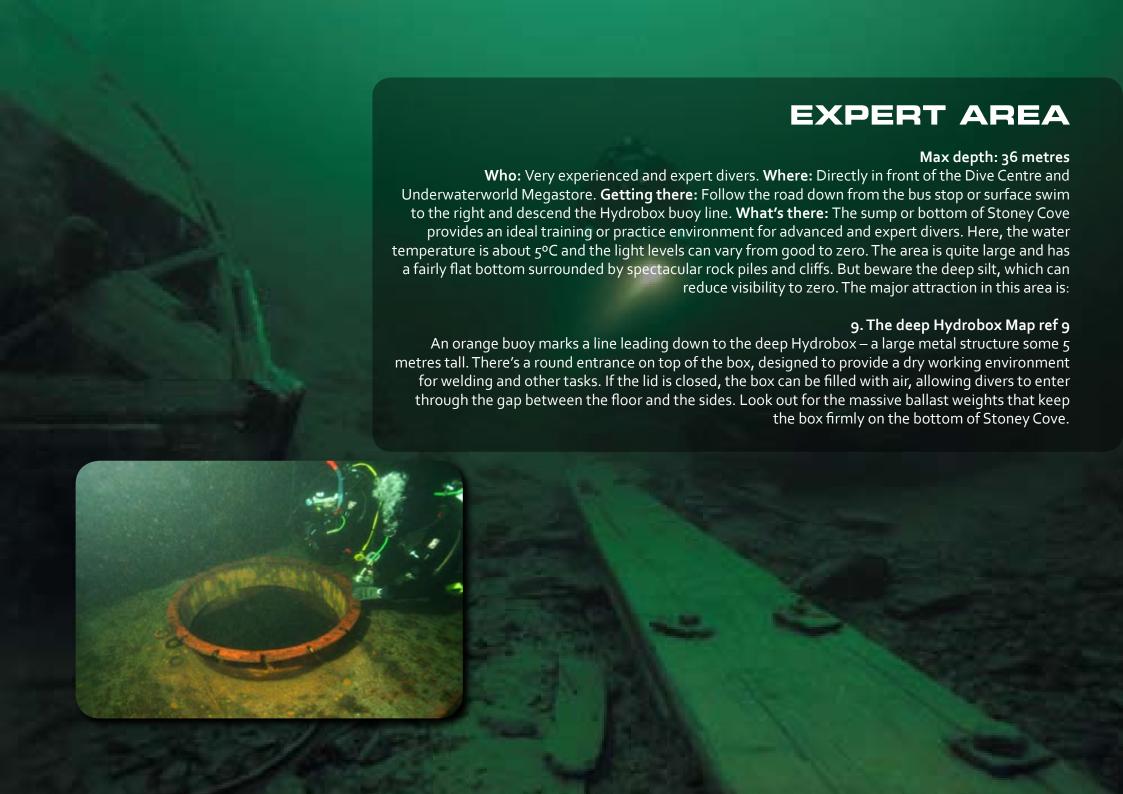
Designed to carry a driver and ten infantrymen, the APC, or the Tank as it is now known, was built in 1964 and was based at Ludgershall. It was withdrawn from active service in 1971 and then went on to be used in vehicle trials. Its vital statistics are 5.11m x 2.82m x 1.88m, it weighs 8 tons, was equipped with a Rolls Royce engine and was once used for transportation, river crossings and winching tasks.

#### 17. Defiant Map ref 24

The tugboat Defiant is a pretty Dutch tug with an interesting war history. Rumour has it that she was the escape vessel for two men escaping to England during World War Two. At 14m (46ft) long and 20 tons she is smaller than the Stanegarth, but she is superb. Discovered ashore at a farm in Warkworth on the north-east coast, she was brought to Stoney Cove in 2009 and sank along with our usual fanfare on 17 September. It is possible to swim into the wheelhouse and engine room, but be aware that the space is very confined.

#### 18. MV Belinda Map ref 25

Belinda is a small steel-hulled trawler that was abandoned after a round-the-world trip fizzled out. She once earned her living netting fish in the North Sea. Belinda has a sturdy wheelhouse and still carries her net winches and trawl gear. She slid beneath calm waters of Stoney Cove on 4 June 2010.





#### Key

- A Entry point the bus stop
- **B** The slipway
- **C** Eddies quay
- Viscount aircraft cockpit
- 2 Nautilus
- 3 Archways underneath the pub
- 4 The Wessex
- 5 The bus
- 6 The monster
- 7 The galleon
- 8 Aircraft wreck
- 9 Deep Hydrobox
- Submerged trees
- 11 Tower (pole)
- 12 Blow-off preventer (BOP)
- 4-metre block house
- 14 Wooden boat
- 15 Stanegarth
- **16** APC
- 17 Landrover
- **18** Block House
- 19 Winch
- 20 Work Frame
- 21 Small Hydrobox
- 22 MG Cars
- 23 Anchor and chain to Stanegarth
- 24 Tug boat Defiant
- 25 Trawler MV Belinda
- 26 The Gresham Ship

#### Bearings from Bus stop A

DIVESCHOOL

То	1	Viscount	165
То	4	The Wessex	170
То	5	The Bus	210
То	7	The Galleon	185
То	8	Aircraft Wreck	270
То	9	Deep Hydrobox	275
То	12	BOP	280
То	15	The Stanegarth	190

#### To 1 Viscount

10	1	VISCOUNT	29
То	4	The Wessex	21
То	5	The Bus	25!
	,	The Galleon	20
То	8	Aircraft Wreck	275
То	9	Deep Hydrobox	28
То	12	BOP	29
То	15	The Stanegarth	220

Bearings from Slipway B

Altitude 248ft 76mtrs

#### Bearings from Viscount 1

To 4	The Wessex	170
To 5	The Bus	220

#### Bearings from the Wessex 4

To 5	The Bus	290
To 7	The Galleon	195
To 15	The Stanegarth	220
To 24	4 Defiant	180

#### Bearings from the Bus 5

To 7 The Galleon	175
To 4 The Wessex	110
To 15 The Stanega	rth 125

#### Bearings from the Galleon 7

To 13	4 metre block house	040
To 9	Deep Hydrobox	085

#### Bearings from Deep Hydrobox 9

To 7	The Galleon	165
To 12	BOP	080

#### Bearings from BOP 12

To 5	The Bus	155
То 1	The Viscount	105

#### Bearings from Stanegarth 15

To 4 Wessex	040
To 24 Defiant	130
To 25 Belinda	140
To 16 APCTank	150

#### Bearings from 4-metre Blockhouse 13

То	4	The Wessex	230
То	5	The Bus	240
Tο	16	APC Tank	200

The compass bearings are from and to the most popular underwater features.









## UNDERWATER WILDLIFE

You won't just find helicopters and Elizabethan wrecks in Stoney Cove. There's plenty of wildlife too:

#### Crayfish

Often known as freshwater lobsters, crayfish closely resemble their saltwater relatives. These small, shy creatures hide under rocks and are more likely to be seen during night dives. Stoney Cove's crayfish are a protected species. They grow up to 12cm long and are greenish-grey in colour.

#### Perch

This predatory fish — which can grow up to a weighty 1.5kg — lives on small roach and crayfish. The first dorsal fin has 13—15 spines, while large perch can appear quite humpbacked. The perch in Stoney Cove are usually found around the 7-metre terrace, but have been spotted as deep as 36 metres.

#### Pike

A whopper of a fish, this green and yellow creature is the most obvious of the Stoney Cove wildlife. It has a flat and broad snout and an elongated body – its back is parallel to the belly outline. Its dorsal and anal fins are similar in shape and far along the body. Stoney Cove supports a large number of pike with usually one large dominant monster of about 1.2 metres long. To spot them, look around the cockpit (4), galleon (7) and submerged trees (10).

#### Roach

The roach has reddish eyes and pelvic fins. Below the front rays of the dorsal fin there are between 42 and 45 silvery scales along the lateral line. It is quite normal for the roach to develop a heavy grey and white rash during the spawning season. The roach is a shoaling fish and can often be seen in large groups anywhere in Stoney Cove.



## HAZARDS YOU MAY ENCOUNTER

We try to make Stoney Cove as safe as possible, but there are a number of hazards that you may encounter and should be prepared to avoid. These may seem obvious, but they are highlighted here to help you enjoy a safe dive.

#### Slip and trip hazards

Walking in heavy, cumbersome dive gear is hazardous and the approaches to the water entry points are slopes or steps, which can become slippery when wet. The slipway should be avoided, as this slope is always wet and slippery.

#### Water

Breathing water may result in drowning.

#### Falling rocks

Rocks may fall from the cliffs surrounding Stoney Cove, both above and below the water, so keep away from the base of any cliff.

#### **Entanglement**

A number of areas and some of the underwater features have entanglement hazards. Do keep a safe distance from the features and the lake bed.

#### **Entrapment**

Some of the features have accessible interiors. If you venture inside the feature, you may become trapped.

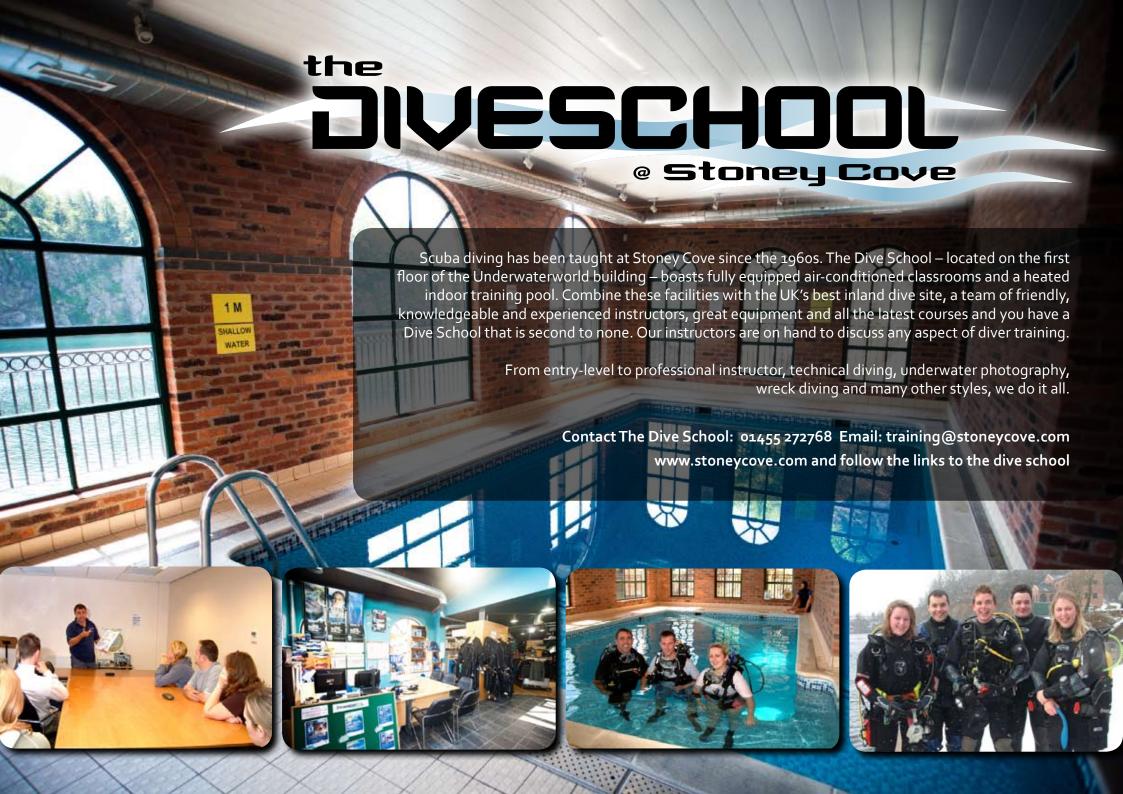
#### Silt

Some areas of the lake bed are covered in a heavy deposit of silt. Disturbing the silt will impair your visibility and you and others may become lost or disorientated. To avoid this, swim at least a metre above the silted lake bed.









### DIVING RESPONSIBILITY & SAFETY



Even though the underwater environment is a fabulous place, it can be dangerous too. It's essential that you follow the rules, train hard to improve your skills and dive within your abilities. Statistically, diving is a very safe sport. Follow these rules to keep it that way.

The following sections explain how Stoney Cove's staff will help if you get into difficulty and are prepared to help divers understand their responsibilities to themselves, their buddies, other people and the environment. The statements may seem to state the obvious, but take the time to read and understand them and you'll get even more enjoyment from your diving.

#### **BE RESPONSIBLE**

#### **Diverlog ID Card**

Stoney Cove maintains an approved system of safety procedures, which are in place to help both staff and customers to enjoy Stoney Cove safely. All visiting divers must complete a visitor form upon arrival. Alternatively you can register with our Diverlog scheme. Link When completed, you will receive a personal ID card that provides information to the rescue team in the event of an incident and speeds up your entry into Stoney Cove each time you visit. Diverlog cardholders also enjoy the benefit of a discounted entry fee.

Always remember to bring your Diverlog card with you and have it available for our staff.

On arrival at Stoney Cove, your card will be checked and you will be logged into the day's visitors' record.

Please carry your personal Diverlog card at all times while at Stoney Cove, even in the water. It could help save your life.

#### DIVE WITHIN THE LIMITS OF YOUR ABILITY AND TRAINING

#### A responsible diver understands:

- that their level of certification qualifies them to take part in diving activities consistent with their training and experience;
- the importance of continuing to gain experience by further training and by diving with those who have greater experience;
- the importance of participating in further training to gain new skills;
- the necessity of remaining proficient in diving skills if necessary taking time to refresh these skills under appropriate conditions and supervision if there has been a gap in diving
- that there are no limits to what can be learned about diving and that increased diving knowledge improves diving safety;
- the need to stay within the maximum depth limit of their training and experience;
- that it is necessary to have training in the proper use of equipment;
- the value of receiving specific training on the proper use and application of specialist equipment such as drysuits, computers and rebreathers.



# EVALUATE CONDITIONS BEFORE EVERY DIVE & MAKE SURE THEY FIT YOUR CAPABILITIES

#### A responsible diver recognises:

- that they must not stretch their own personal capabilities;
- the need to be familiar with their dive site and obtain appropriate information from a reliable source and if necessary obtain a formal orientation to the site;
- the need to seek specialist training before diving in areas with no clear access to the surface e.g. wreck penetration or cave diving;
- that they should postpone a dive or choose an alternative site if the conditions are too difficult for their level of training and experience;
- when it is appropriate to use a surface marker buoy.

# BE FAMILIAR WITH YOUR EQUIPMENT AND CHECK BEFORE AND DURING EVERY DIVE

#### A responsible diver understands:

- how important it is to check equipment before and during every dive;
- that they must have training in the use of their equipment and that simply owning equipment does not give them the knowledge and ability to dive safely;
- that the equipment they use must be appropriate for the type of diving they are undertaking;

- that regular use of their equipment will help familiarity;
- that equipment must be treated with respect, must be checked before every dive, must be properly maintained and must be serviced regularly;
- that servicing and maintenance of equipment must be in accordance with manufacturers' specifications, it must be carried out by a qualified technician, and it must not be modified in any way not specified by the manufacturer;
- the need to be properly trained before using enriched air (Nitrox) or other gas mixes, and that the equipment must be entirely compatible with the gas mixes being used and clearly labelled with the appropriate markings;
- that before they use a rebreather system, they must have received the appropriate training and be competent to use the equipment;
- that while diving with a rebreather system, they must make sure that other divers and related parties know their dive plan and their location, particularly during ascent;
- the importance of a quick release weight system at all times;
- the value of an alternative air source;
- how to adjust their weights for neutral buoyancy at the surface without air in their buoyancy-control device.



#### RESPECT THE BUDDY SYSTEM AND ITS ADVANTAGES

#### A responsible diver recognises:

- the importance of planning dives with their buddy, including necessary action in the event of separation or emergency;
- the need to keep diving emergency and rescue skills sharp through practice and mental role-playing;
- that following the dive plan helps provide a safe dive;
- that they should never let someone who is not qualified to dive use their equipment.

#### ACCEPT RESPONSIBILITY FOR YOUR OWN SAFETY ON EVERY DIVE

#### A responsible diver knows:

- the importance of maintaining good mental and physical fitness;
- not to dive under the influence of alcohol or drugs;
- to postpone a dive if suffering from a cold, a hangover, flu or other health situation which may cause problems;
- to avoid over-exertion;
- that diving will be safer if they listen to

dive briefings and respect the advice of those overseeing the diving activities;

- that the operators of charter boats, dive centres and other organisations are not responsible for divers' decisions and actions;
- that they must be proficient in the use of dive tables and allow a safety margin;
- that they must ascend at the correct rate and recognise the advantage of a safety stop at the end of each dive;
- that continuous, steady breathing is required at all times;
- that proper buoyancy should be maintained at all times.

#### BE ENVIRONMENTALLY CONSCIOUS ON EVERY DIVE

#### A responsible diver:

- is careful about what they touch underwater;
- does not damage any plants, coral or any other underwater creatures or features;
- respects the law as regards the size and limits of creatures they can remove from the water;
- promotes environmental responsibility in other divers;
- always dives in a manner to protect the environment.

## RESCUE & FIRST AID

#### **IMPORTANT NOTICE**

Scuba diving can be dangerous and incidents can occur, sometimes with fatal consequences. All divers have a responsibility for their own safety. Instructors, dive guides and diving buddies have a duty of care for those who are diving with them. Divers are reminded that they have the responsibility for first actions to effect a successful rescue. Stoney Cove staff will respond at once to provide first aid in any emergency, either in or out of the water. In the event of an accident, alert staff immediately.

### WHAT TO DO IF YOUR BUDDY GETS INTO DIFFICULTY

#### UNDERWATER

Wherever possible, help them to the surface by releasing their weight belt.

#### ON THE SURFACE

Raise the alarm at once by blowing a whistle, shouting and waving.

#### AT THE WATER'S EDGE

If you see someone in trouble, raise the alarm immediately. While someone else alerts staff in the shop, stay where you are, monitoring the position of those in the water.

#### STONEY COVE'S RESCUE PLAN

- During diving hours, the rescue boat is stationed at the rescue jetty, ready for immediate use. The boat contains a shot line and reel with line ready to be used in a search for a lost diver. Three members of staff will board the boat: the boat handler, a lead first aider/oxygen provider and an observer/first aider.
- Oxygen resuscitation equipment is kept in the rescue boat and at strategic points around Stoney Cove, ready for staff to use.
- In the event of an incident, other staff will immediately move to their designated rescue positions, for example, waiting on the rescue jetty with additional oxygen, defibrillator and a stretcher. They are ready to call the emergency services whenever necessary.
- Substantial oxygen supplies are kept on site at all times for use in the resuscitation sets.
- If a diver is missing in distress, Stoney Cove staff will organise and manage a search. They may ask for volunteer divers, who will be asked about their level of competence and their ability to take part in the search without endangering themselves. If a diver is ill, staff will administer first aid until the emergency services arrive.
- Any diver with decompression sickness will be transferred to the nearest available recompression chamber, usually by air ambulance.
- All accidents at Stoney Cove are recorded and full reports given to the appropriate associations and authorities e.g. BSAC, PADI, HSE.

The Stoney Cove rescue team is not part of the emergency services. However, they will respond and assist to the best of their competence and ability.





# STONEY COVE RULES

- All visiting divers must sign in to the day log as they arrive at Stoney Cove. If you have a Stoney Cove Diverlog registration card, carry it with you at all times, even in the water.
- Always follow the Stoney Cove recommendations for responsible diving and the safe diving practices of your diving association, eg BSAC, PADI, SAA, SSI etc.
- Do not dive solo and, if you become separated from your buddy or group, ascend and rejoin at the surface.
- You must meet the minimum age requirements of your training association and be no younger than 12 years old. Junior participants must be closely supervised by adults.
- All diving schools, instructors and other divers who use Stoney Cove in an 'at work' situation i.e. receive payment or some other form of favour or reward must operate within the requirements of the Diving at Work Regulations 1997 and notify us of any diving project conducted at Stoney Cove.
- The use of images, still or moving, of any part of Stoney Cove for commercial purposes requires specific permission.
- Wear a buoyancy aid at all times.
- Plan your dives with consideration to our regulations, recommendations and information provided.
- Diver Propulsion Vehicles can only be used with extreme caution, and never in poor visibility.

- Do not dive outside the displayed opening times.
- When using a rebreather, use a Surface Marker Buoy throughout your dive or use a delayed SMB to mark your ascent.
- Used Sodalime from rebreathers must be disposed of away from Stoney Cove.
- Do not run, shout, wave or blow whistles unless there is an emergency.
- Do not damage or remove pieces from the objects of interest in the water, or cause any harm to the wildlife above or below the water.
- Keep the volume of car radios down.
- Do not leave children unsupervised.
- All dogs must be kept on a lead please clean up after them.
- Do not use any naked flame device, including BBQs.
- Please drive vehicles slowly and with care, do not obstruct any roadway or access and have respect for each other and our neighbours.
- The decanting of oxygen or the use of portable compressors is not permitted anywhere on the site.
- Please follow all directions given by Stoney Cove staff.

Stick to the rules. We reserve the right to refuse entry, suspend or cancel the Diverlog registration of any diver or contractor who contravenes the Stoney Cove Regulations. Vr. 6/13

