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# FATHOMS



## VICTORIAN SUB-AQUA GROUP

F A T H O M S

(Official Journal of the Victorian Sub-Aqua Group)  
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CLUB MEETING -

The next meeting of the Victorian Sub-Aqua Group will be held on TUESDAY, 20th MARCH, 1973, at the Victorian Association of Youth Clubs Hall, Gisborne Street, East Melbourne (opposite St. Patrick's Cathedral). The meeting will begin at 8 P.M. and will terminate with general business and refreshments.

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FUTURE OUTINGS -

- MARCH 25th - Flinders area boat dive. Followed by barbecue at Tony's shack, Somers, after dive. Contact Tony Tipping for details, 24-7133 (A.H.)
- APRIL 3th - Victoria Towers - wreck dive at Torquay. Details to be arranged at coming meeting.
- APRIL 20-25th - (Easter Holiday) Camping at Wilson's Prom. Two club boats will be on hand and space may still be available on the campsites booked. Get in now or not at all! For details, ring Tony Tipping, 24-7133.
- May 6th - Cheviot Beach, on Mornington Peninsula. London Bridge Wreck. Boats leaving from Sorrento Ramp at 10 a.m.
- MAY 20th - Canterbury Jetty Road, Rye back beach area.
- JUNE 2, 3, 4 - (Queen's Birthday) - Mount Gambier.
- JUNE 17th - The Time, wreck in Port Phillip Heads. Boats leave from Sorrento Ramp at 10 a.m.

NOTICE - TEE SHIRTS

A quantity of V.S.A.G. Tee shirts are still available. These come in a range of colors and sizes, carry a distinctive diving motif and the V.S.A.G. initials. They are going fast so speak up at the meeting to secure yours. Cost is a reasonable \$2.80 each.

PAST OUTINGS

The latest barbecue at Bill's turned out to be a superb day for all who attended. In spite of short notice in the newsletter between 20 and 30 bods turned up and nearly everyone managed to have a dip in the pool. The weather was extremely kind, a change from some of the recent drought-breaking deluges. Our thanks to hosts Bill and Patsy for their hospitality and to "the man upstairs" for the sunshine.

DIVE REPORT - St. John's Wood Road back beach, March 4th.

Attendance: Justin Liddy, Tom Armstrong, Rob Adamson, Brian Lynch, Murray Richardson, Keith and Di Stewart, Mick Ryan's mob, Les and Mrs. Walkling, Pat Reynolds and family, Barry Truscott and family, Marg. Phillips, Bill Gray, John Goulding, Dave Carroll, Phil Partridge, Don McBean, the two "dish-lickers" Misty and Fred, and Tony Tipping.

This could be described as "the fantastic dive that never was" - great weather forecast, excellent attendance, but conditions?? Bad news!! St. John's Wood Road was a write-off so it was off to London Bridge, a much more sheltered spot a mile west of Portsea surf beach. Not everyone could be bothered to dive because they couldn't all fit in the narrow opening off the rocks. Barry became the first known diver in Victoria to take home a feed of 'prawns'.

After lunch at Tom Armstrong's place, the team headed off to Koonya beach where a few spartans snorkelled about 400 yards to a reef only to find poor visibility and choppy seas. Body surfing was the theme for the afternoon from then on - four to six foot waves which could be ridden 30 yards and then zapped head first into the sand.

The nearby cliffs gave the kids and several of the guys quite a thrill; with the exception of Brian Lynch who finished his downwards plunge with a grazed chest.

Another keenly contested event was the long jumps with several entrants showing unexpected talent. Keith clinched the title with a nineteen foot leap - not bad on sand, perhaps Montreal 1976? Pat and Tony took the honours in the final

competition, that of somersaulting from the beach into the crashing shorebreakers, before the group of weary athletes and their families headed back to town after a super outing.

TONY TIPPINGTUBE TRIP -

The weather was fine but the current slow for the tube trip on the Goulburn, held on 4th March. The group of 27 including families assembled at the Pondage below Eildon Weir for the big start. Of the dozen or so starters only four finished the course about 4 1/2 hours later. The slow current and chilly water took their toll of the rest who dropped out at various points along the way. Phil Patridge and Tony Tipping were first and second over the finish point. After all the stragglers drifted in, the usual enjoyable barbecue was held, with sizzling chops and hot drinks for the chilled and weary navigators.

A MONSTROUS LONG WEEKEND AT PORT CAMPBELL -

Present: Justin Liddy, David Carroll, Barry Truscott and his family, Phil Patridge, Keith and Dianne Stewart, John Carson, Rob Adamson, Paul Sier (Monday), John Goulding and Tony Tipping.

The Liddy brigade arrived after the usual pub crawl at the Port Campbell camping area by about 11.00 p.m. Friday and to their dismay could not attract the attention of the ranger. However, our "Little Hitler" did have a few snide remarks for our team's behaviour early next morning - typical of any "Lone Ranger".

Before mid-day John & Tony had arrived so it was off to the local for the usual baptism owing to R.S. diving conditions. Later, after an intellectual afternoon the guys decided to check out Peterborough for a snorkel - poor visibility, strong current and a crummy bottom; all in all a lousy dive. The evening was spent firstly at the camp for a feed, then back to the hotel for one or two quiet beers, where they met Keith Gray, an enthusiastic diver and also proprietor of the local motel and a groovy couple from Queensland, Dave and Anne.

Weather conditions were on the mend by Sunday morning but the Loch Ard area was still a little dicey for a boat dive. Nevertheless Bazza's boat was launched and those who cared managed to crack it for some sort of a dive - Bazza and Tony a deepy and Phil and David a reef crawl whilst John Carson and Keith were quite happy to snorkel up above. On return, after one wet suited victim who shall remain anonymous, had chundered all the way back, the lads plunged over the side and swam back to the beach from the entrance to the harbour. What a job

they had getting that boat back on dry land, too.

A dusk dive was later enjoyed by Rob, Phil, Bazza, Keith and Tony and a few crays were gathered. This was followed by a sing-a-long with "Cat" Carroll on huitar and a few ex-members of Western Divers Association. Once again the jokes began to flow as the chilled article began to diminish.

Soon after breakfast on Monday the majority packed their gear and headed off to Loch Ard Gorge. As usual it was too rough to get out to the wreck but John, Bazza, Paul, David, Keith and Tony had a ball looking for crays or bits of wreckage. By this time "everyone was rootin' for Bazza" who took the cray honours and David for the most junk supposedly from the Loch Art.

Apart from poor old Justin who had a severe cold which restricted him from diving and maybe the "Lone Ranger", everyone had a gas time at Port Campbell, so why not go back and try for that elusive wreck again?

#### TONY TIPPING

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#### KEEPING UP TO DATE

In last month's issue of 'Fathoms', some of the improved aids to breathing were described. These are the functional devices and do not include one of the most sensational lines of research being undertaken in this field. It is common knowledge that Oxygen is present in water and that fish, which require oxygen just as we do, derive theirs from this source through gills. Just as with our lungs, gills contain a semi-permeous membrane which allows the passage of oxygen out of solution into the bloodstream while preventing the reverse flow of blood.

Research has been carried out with a semi-permeous plastic material contacting a large area of water to extract sufficient oxygen from it for breathing. The basic apparatus worked successfully and sustained a diver for well over an hour with no other air source. However, this rig was spread over many square feet of contact area. When compacted into a manageable back-pack size, it failed to allow sufficient free passage of water for breathing. Research is still being carried out along these lines and we may one day see Captain Costeau's prediction come true, that "man will swim underwater like a fish."

In the search for various objects underwater several conditions must be met to attain success. These are mobility, duration of diving time, communication, location of the object and some form of underwater excavation. We have already described several means of extending a diver's stay underwater. Another development which dramatically extends this is the underwater habitat. These have been pioneered by the U.S. Navy, Costeau's research group and several other scientific bodies. They consist of a chamber fixed on the sea floor containing adequate supplies of breathing air at prevailing pressure and the basic requirements for eating, sleeping and body functions. Divers remain in the habitat for several weeks, entering and leaving for work assignments through a hole in the floor. Though breathing a helium mixture, they reach a stage of nitrogen saturation. After this no further absorption takes place and decompression is standard whether the stay is one day or several.

While habitats require expensive preparation and equipment, some private diving clubs have undertaken ventures in this field. One involved a club dive to the Andrea Doria, using a habitat constructed mainly of plywood measuring approximately 8' x 10' and containing large tanks of breathing mixture. This was not completely successful due to buoyancy and ballasting problems.

Mobility involves covering the greatest area of sea floor in the minimum time with least exertion. To this end, numerous designs of wet and dry submarines have been evolved, as well as a host of designs for towing devices. These are only limited by the extent of imagination, construction skill and finance available. The wet sub is less costly and allows the easy passage of occupants out of the sub. They are limited in depth to that of the breathing apparatus and the comfort of the diver. The dry sub is usually pressure resistant. Air is breathed at surface pressure therefore requiring no decompression. A warm comfortable atmosphere can be maintained. Duration and depths are greater. They require high strength construction, sophisticated controls and are therefore far more costly. They also prevent the diver leaving the sub unless an air lock is fitted. They are often fitted with grappling arms worked by remote control.

For a well organized underwater search, some forms of communication and locating devices are desirable. The 'Yak-Yak'

and 'Scuba-com' transmitters use a sonar principle to transmit speech from diver to diver. These require a full face mask and have a useable range of about 100 yards.

Magnetometers have provided one of the most dramatic improvements in the art of locating wrecks and valuables. From the early unreliable models derived from war-time mine detectors, highly effective units are now available ranging in price from about \$200 to over \$3,000. These can pinpoint wrecks from the surface or locate small metallic objects on the bottom when held close by a diver.

Once located, underwater objects often prove to be unreachable due to the heavy covering of sand or sediment. Previously, the best method of overcoming this was the air-lift. This used compressed air injected near the mouth of a large tube which induced a suction, pulling sand and artifacts up the tube. This could not penetrate the relatively harder deposits. Then a group of treasure hunters in the U.S., the 'Real Eight' divers, accidentally found a much better way. Seeking a way of pushing clear surface water down to the working area, the group devised a large, aluminium elbowed tube which was fitted to the propellor of their work boat. With the boat securely anchored, the prop-wash was thus directed downwards to the work site. To their surprise, this not only provided clear water but excavated the sand and harder deposits as well! This 'prop-wash', in addition to being the most important tool available to underwater treasure hunters, is also the simplest to construct and operate. In 20 feet of water it will excavate a hole 20 ft. in diameter to a depth of 15 ft. in minutes. The deeper the water the wider the hole. The secret in using it is to regulate its speed. To remove the heavy overburden the prop is run at high speed for a few minutes, then it is slowed down so divers can lie in the hole and pick up objects as they are slowly uncovered.

These and other scientific devices such as sonar locating units and stereophotogrammetric mapping systems are revolutionizing underwater search. Some of the romantic appeal of underwater adventure may be gone, but so is much of the back-breaking work and frustration that was part of any serious effort.

BILL JANSEN.